

**CENTRAL ELECTRICITY AUTHORITY**  
**Grid Management Division**

No. 1/NR/COR/GM-05/

Dated : 3<sup>rd</sup> February 2005

**Subject:** Meeting Notice

A meeting will be taken by Chairperson, CEA on Wednesday, the 9<sup>th</sup> February 2005 at 15:00 hours at **Board Room, BBMB Office, Madhya Marg, 19-B, Chandigarh** to discuss the following issues with NR Constituents.

- (i) **Under-utilization/non-utilization of gas based generation capacity – Use of RLNG in place of Naptha/HSD in the NCR Gas Power Stations.**
- (ii) **Procurement of additional two spare ABB make Converter transformers by PowerGrid for Rihand-Dadri HVDC line.**

A background note for the meeting is enclosed (also available on NREB's website at **<http://www.nreb.nic.in>**)

In the forenoon, Chairperson, CEA will be taking a meeting to review the status of thermal power projects under construction in the Northern Region at the same venue.

Kindly make it convenient to attend the meeting.

Encl.: As above.

**(B.K. Misra)**  
Chief Engineer

To,

**All the Constituents of Northern Region**  
(As per list attached)

**Copy for favour of kind information to:**

1. **Chairperson, CEA, Sewa Bhawan, R.K. Puram, New Delhi-66.**
2. **Member (GO&D), CEA, Sewa Bhawan, R.K. Puram, New Delhi-66.**
3. **CMD, BBMB, Chandigarh**

**A BACKGROUND NOTE  
FOR THE MEETING TO BE TAKEN BY CHAIRPERSON, CEA  
AT 1500 HRS ON 9.2.05 AT CHANDIGARH**

**ITEM-1: Under-utilization/non-utilization of gas based generation capacity – Use of RLNG in place of Naptha/HSD in the NCR Gas Power Stations.**

The issue of under utilization of gas based generation capacity at NTPC stations is long pending one and had been discussed at various forums in the past. Recently, the subject had been discussed in 132<sup>nd</sup> TCC meeting held on 29.10.04, Special meeting taken by Chairperson, CEA on 29.11.04 and in the meeting taken by Joint Secretary (OM), MoP on 2.12.04.

TCC in its 132<sup>nd</sup> meeting held on 29.10.04 had deliberated that

*“...GAIL had agreed with them (HVPN) to supply RLNG for the Faridabad GPS over and above the linked gas at 20% premium. Haryana was agreeable for the condition. However, NTPC is not availing the facilities. As the variable charges are being paid by the sole beneficiary i.e. HVPN the logic of NTPC’s objection is not understood by them.*”

*NTPC opined that they were aware of the high cost of the Naptha generation and they were taking action for tendering process of gas linkage, which in their opinion would be advantageous to the beneficiaries in long run. NTPC requested the beneficiary to bear with them for long-term advantage of having assured linkages instead of day-to-day uncertainty. **After brief discussion on the subject, the Constituents opine that as the matter was of paramount importance to them, NTPC might call a customer meet at Delhi within one month so that the matter could be discussed threadbare.**”*

In the meeting taken by Chairperson, CEA on 29.11.04, it was deliberated that

*“States expressed their concern over the use of liquid fuel/HSD in gas-fired stations of NTPC when cheaper alternative of RLNG was available. It was observed that during the period of July-October’04 NTPC gas stations in NR had achieved PLF of 67.2% and 10.4% on gas and liquid firing respectively with overall PLF of 77.6% and the balance capacity had remained unutilised. In this context, Haryana representative referred to the ongoing correspondence with NTPC to operate the unutilised capacity of Faridabad GPS with RLNG. The cost of RLNG shall be directly paid by HVPNL to GAIL. Other constituents while supporting the above proposal requested Haryana to have similar arrangements with GAIL for remaining gas stations of NTPC in NR on behalf of them.....”.*

In the meeting taken by Joint Secretary (OM), MoP on 2.12.04, it was deliberated that

*“Regarding the inadequacy of availability and general reluctance of the stations to give liquid fuel generation schedule in the gas fed stations, JS (OM) stated that as NTPC was in the process of procuring gas on its own and as it is assured of its fixed charges as pass-through, the initiative would have to be taken by the States in getting RLNG directly from GAIL for the gas fired stations of NR. Endorsing the views of JS (MOP, Shri R.K. Jain, ED, NTPC explained that due to constant endeavour of NTPC, additional gas allocation are obtained, and the matter is being seriously taken by NTPC corporate level for a long term sustainable pricing of RLNG for power generation.*”

*Member Secretary, NREB informed that during the meeting of Chairperson, CEA on 29.11.04, Haryana had offered to negotiate and pay directly to M/s GAIL for RLNG supply to the gas fired stations of NTPC. This initiative required to be pursued to its logical conclusion.”*

The beneficiary states are of the opinion that by using RLNG instead of Naptha/HSD at the present offered price of GAIL, the variable cost works out to be Rs.1.70 per kWh against naptha/HSD rate of Rs.3.63/4.83 per kWh i.e. a saving of over Rs. 2-3 per kWh. In terms of daily liquid fuel scheduling being given by Haryana alone, the net saving would be nearly Rs. 1 crore per day and about Rs.5 crores/day for all beneficiaries. It is also mentioned that the PPA clause on Tariff for Faridabad GPS provides that NTPC will make reasonable efforts to use the cheapest fuel available and HSEB (now HVPN) will assist in this endeavour.

NTPC is of the view that once the RLNG price at present offered rate of M/s GAIL (US \$ 4.02 MBTU) for power generation is agreed to by states of Northern Region then this would reduce their chances of bargaining with GAIL on fixing of price for future procurement of RLNG on long-term basis.

Apart from the above views, the apprehension has also been raised by States in OCC & commercial fora of NREB that the present ABT mechanism is helping NTPC in recovering its full fixed charges, based on DC, as well as higher variable charges on the basis liquid fuel scheduling without carrying out actual liquid fuel generation due to liberal normative parameters as well as ‘UI’ mechanism. As the commercial interests of NTPC are fully protected there appears to be lack of initiative on parts of NTPC for either procurement of RLNG by itself or allowing Haryana to pay RLNG price directly to GAIL.

In this regard, details of Declared Capacity (DC), scheduled and actual generation carried out at NTPC gas stations namely Anta, Auraiya and Dadri along with UI amount received during last three months (October-January’05 [up to 16/1/05]) has been compiled and enclosed at Annex-I. Following can be inferred from these.

- Compared to DC on liquid fuel, states had been giving lesser schedules due to constraint of high cost of generation particularly in Dadri GPS where HSD is a secondary fuel.
- NTPC had been maintaining total actual generation less than total scheduled generation in last two months and such incidents are quite glaring in case of Dadri GPS.
- NTPC had been consistently getting commercial advantage under ABT mechanism due to liquid fuel scheduling.

**Constituents may deliberate the relative merits and demerits of endeavour of NTPC management of long term sustainable pricing of RLNG for power generation vis-a-vis proposal of Haryana of its direct negotiation with GAIL on behalf of all the constituents for using RLNG in gas power stations of NTPC at the present offered price of M/s GAIL. Also, decide the time frame for arriving at logical conclusion in regard to long-term and short-term strategies for enhancement of natural gas allocation and procurement of RLNG to augment the shortfall in gas allocation.**

**ITEM-2: Procurement of 2 nos. additional spare Converter Transformers for Rihand-Dadri HVDC line**

As on day there exist 15 converter transformers (12 for online and 3 as spare). Out of 12 online converter transformers, 3 transformers of ABB make (procured for Pole-I) and 3 transformers of BHEL make (Procured for Pole-II) are installed at each end of Rihand & Dadri HVDC stations. Along with 6 nos. ABB make converter transformers, 2 spare converter transformers of ABB make, each for Dadri and Rihand ends respectively, were also procured. The 3<sup>rd</sup> spare converter transformer of BHEL make was procured in 1998 and its cost was capitalised in the transmission tariff.

It has been noted from the records that performance of indigenous transformers was not very satisfactory (the updated failure report of indigenous converter transformers compared with ABB make transformers may be supplied by PowerGrid). The instances of repeated failure of BHEL make transformers had been taken up by PowerGrid with BHEL management and referred to CEA/MoP to use their good offices. M/s BHEL has agreed to supply one converter transformer free of cost, to be used as 4<sup>th</sup> spare converter transformer and the same is expected to reach the site by end of Feb.'05.

Considering the importance of HVDC line, PowerGrid, in the year 2001, proposed to procure 4 nos. spare converter transformers from M/s ABB and required concurrence of the constituents for capitalisation of cost. The matter was discussed in 125<sup>th</sup> NRE Board meeting held on 7.7.2001 and the Board had decided the following.

- 1 As per the agreement between the SEBs/ Utilities and PowerGrid, PowerGrid has to transmit power to SEBs/ Utilities. As such losses caused to SEBs due to non-availability of power due to damage of equipments of PowerGrid has to be born by PowerGrid who in turn may recover these charges from the supplier of the equipments.*
- 2. Having known the causes of failure there was no reason to believe that the repaired transformers of BHEL would not be reliable in future.*
- 3. Regarding the procurement of four additional spare converter transformers from ABB, Board opined that the constituents will not bear the cost of these additional spare transformers. PowerGrid will have to bear the entire cost on this account. Therefore it is for PowerGrid to decide the number of additional units to be procured and also to identify the supplier. Regarding recovery of charges through tariff, it was for CERC to decide.*

Thereafter, this issue on the request of PowerGrid was discussed number of times in various TCC & NREB meetings and every time Constituents had upheld the decision taken in 125<sup>th</sup> NRE Board meeting.

Now, PowerGrid has proposed for procurement of 2 nos. additional spare converter transformers (copy of PowerGrid's letter is enclosed at Annex-II for ready reference).

**Members may deliberate.**

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड  
(भारत सरकार का उद्यम)  
POWER GRID CORPORATION OF INDIA LIMITED  
(A Government of India Enterprise)



केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सेक्टर-29, गुडगाँव-122 001, हरियाणा  
फोन : 2571700 - 719, फैक्स : 2571760, 2571761 तार : 'नेटग्रिड'  
Corporate Office : "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, Haryana  
Tel. : 2571700 - 719, Fax : 2571760, 2571761 Gram : 'NATGRID'

संदर्भ संख्या/Ref. Number

Ref.: C/OS/HVDC/  
Date: 29.12.2004

**Member Secretary**  
Northern Region Electricity Board  
18/A, Shaheed Jeet Singh Sansanwal Marg,  
Katwaria Sarai, New Delhi - 110016

Dear Sir,

Sub.: **Procurement of 2 nos. additional spare Converter Transformers for Rihand-Dadri HVDC**

Kindly recall the discussions held on 29.11.2004 during the review of winter preparedness of Northern Grid by the Chairperson, CEA. During the meeting POWERGRID had explained the position of Rihand-Dadri Converter Transformer and requested that POWERGRID may be allowed to procure two additional spare Converter Transformers.

During the discussions there was general agreement for allowing POWERGRID to procure 02 nos. spare Converter Transformers keeping in view the experience of repeated failures during past several years and for increasing reliability & security of Northern region grid. It was suggested that matter could be referred to a select committee for holding further discussions on the matter by all NR constituents. This issue was subsequently discussed with the Chairperson, CEA by Director (Operations), POWERGRID. It was desired by the Chairperson, CEA that a special meeting could be called by NREB inviting all constituents to discuss the issue. It is, therefore, requested that a meeting may please be convened by NREB inviting all the heads of the NR constituents on a date convenient to the Chairperson, CEA in the week commencing 10<sup>th</sup> January'2005.

Thanking you,

Yours faithfully,

(Umesh Chandra)  
Executive Director(OS)



*Urgent*  
SE(O)  
Pl. For NA Pl.  
- Pl. contact CEA  
COP-CEA for time schedule  
date 11/1

**DETAILS OF DC, SCHEDULED AND ACTUAL GENERATION ALONG WITH UI PAYMENTS  
AT NTPC GAS STATIONS DURING OCTOBER-04 to JANUARY-05 (UPTO 16th)**

ALL FIGURES IN LU's

	DECLARED CAPACITY		SCHEDULED GENERATION		TOTAL SCHEDULE	ACTUAL GENERATION	EXCESSGENERATION (+) /UNDER GENERATION(-)	UI RECIEVED (-)/ UI PAID (+) (in Rs Lakhs)
	GAS	LIQUID	GAS	LIQUID				
<b>JAN-05 (Upto 16th)</b>								
DADRI	1846.41	1260.1775	1810.31089	1020.9175	2831.22839	2847.97228	16.74389	-147.41862
ANTA	891.8075	312.325	874.70577	248.86	1123.56577	1123.29888	-0.26689	-46.05598
AURAIYA	1354.9775	582.2175	1329.17024	481.3661	1810.53634	1796.46024	-14.0761	37.912
<b>4-Dec</b>								
DADRI	3639.6225	2121.455	3586.28478	1278.9525	4865.23728	4895.36216	30.12488	-275.31883
ANTA	1959.685	485.6075	1932.38696	314.58356	2246.97052	2240.89452	-6.076	-72.68301
AURAIYA	2778.81	995.7975	2740.37214	660.31817	3400.69031	3401.76672	1.07641	-111.8457
<b>4-Nov</b>								
DADRI	3749.665	1349.555	3661.19342	684.0325	4345.22592	4187.92016	-157.30576	209.06291
ANTA	2110.4225	663.4975	2072.66045	351.09785	2423.7583	2432.35416	8.59586	-169.9075
AURAIYA	2630.865	739.9425	2589.14728	423.56439	3012.71167	2938.34868	-74.36299	100.33482
<b>4-Oct</b>								
DADRI	3446.7375	1294.955	3318.41997	604.84	3923.25997	3744.14818	-179.11179	260.33847
ANTA	1885.6325	430.79	1833.67377	252.74447	2086.41824	2049.88596	-36.53228	-4.10642
AURAIYA	2862.93	873.505	2785.20006	451.83841	3237.03847	3191.26224	-45.77623	-0.56853

**EXPLANATION**

IN THE MONTH OF NOVEMBER, 04, THOUGH DADRI GPS HAD PAID UI AMOUNT OF AROUND RS 2 CRORES , BUT IT HAD EARNED AROUND RS 7.5 CRORE (Rs 4.83 X 157 LUs ) BY NOT GENERATING 157 LU.