



## **COMMISSION'S ORDER**

**ON**

### **ANNUAL REVENUE REPORT FOR BULK SUPPLY BUSINESS FOR FY 2008- 009, TRADING MARGIN & BULK SUPPLY TARIFF**

**April 21, 2008**

**HARYANA ELECTRICITY REGULATORY COMMISSION**  
**Bay No. 33-36, SECTOR - 4, PANCHKULA - 134 112, HARYANA**  
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**ORDER ON**

**ANNUAL REVENUE REPORT FOR BULK SUPPLY BUSINESS  
FOR FY 2008- 09, TRADING MARGIN & BULK SUPPLY  
TARIFF**

**CASE NO**

**HERC/PRO - 6 OF 2008**

**March 31, 2008**

**PANCHKULA**



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## **1 PROCEDURAL ASPECTS OF THE FILING**

### **1.1 Procedural Aspects**

Haryana Power Generation Corporation Ltd. (HPGCL), a deemed trading licensee under 5<sup>th</sup> proviso of section 14 of the Electricity Act, 2003 (the Act), vide memo no. HPGC / FIN / Reg-260 / 1373 dated 29/11/2007 submitted their application in respect of determination of trading margin for supply of power to the distribution licensees during FY 2008-09.

HPGCL, in compliance to the statutory requirement of Section 64(2) of the Act i.e. “every applicant shall publish the application, in such abridged form and manner as may be specified by the appropriate Commission”, published public notice on 8/12/2007 & 10/12/2007 containing the salient features of its determination of trading margin application in ‘Dainik Bhaskar’ and The Tribune’ respectively inviting written comments and objections from interested persons / organisations by 7/1/2008.

### **1.2 Salient Features of the ARR & Tariff**

HPGCL has projected total power purchase from different sources of 27,701.07 million units at a cost of Rs.66, 817 million. The net units available for sale after deducting 5% transmission losses, is projected at 26,316.02 million units, translating into bulk supply cost of Rs. 2.54 per unit. HPGCL has also proposed a trading margin @ 4.0 Paise / kWh. After taking into account the trading margin the net sale rate is proposed at Rs. 2.58/kWh for FY 2008-09.

The Commission issued public notice on 28/01/2008 in two newspapers with wide circulation in the state of Haryana i.e. Times of India (English-Chandigarh edition), and Dainik Bhaskar (Hindi). The public was informed through the aforesaid notice about the salient features of the filing, availability

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of the petition and related documents. The last date for filing of objections / comments by the public was 10/02/2008 and the public hearing was scheduled for 25/02/2008 at 3 P.M. in the court room of the Commission. The public hearing in respect of determination of bulk supply rate and trading margin was held as per schedule.

### **1.3 Intervenors / Objectors**

In response to the public notice issued by HPGCL and subsequently by the Commission, DHBVNL vide memo no Ch – 47/SE/RA – 311 dated 4/01/2008 and UHBVNL vide memo no Ch – 107/GM/RAN/F – 25 Vol XV dated 7/01/2008 filed their objections. The main issues raised by the Distribution companies and the Commission's view thereto are presented below:-

UHBVNL and DHBVNL have submitted that the revenue earned through trading margin is higher than the actual expenditure of trading business. They further submitted that any over / under recovery should be adjusted in next ARR.

The Commission has considered the above submissions of the Discoms and is of the view that the trading margin determined by the Commission in FY 2007-08 was to recover expenditures other than the power purchase cost. As expenditures are approved on a projected basis there could be instances of over / under recovery that may require truing – up. This shall be examined by the Commission as and when audited accounts of FY 2007-08 are available. However, in the light of the Haryana Government, Power Department notification, dated 11<sup>th</sup> April 2008 vide which all rights relating to procurement of electricity/ UI draws/dispatches or trading of electricity has been transferred from HPGCL to UHBVNL & DHBVNL w.e.f. 1<sup>st</sup> April 2008, the Commission has not considered any trading margin in FY 2008-09.

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On the issue of interest cost on trading business the Discoms have submitted that ARR claimed by HPGCL for bulk supply tariff and trading margin also comprises of the cost of power purchased from own plants. However, the same is again a part of the working capital requirement in the generation tariff. This inflates the overall working capital requirement of HPGCL.

The Commission agrees with the contention of the Discoms. However, as the Commission has not considered any trading margin in FY 2008-09 HPGCL shall not get the benefit of any working capital and interest thereto for trading/bulk supply business.

On the issue of holding cost claimed by HPGCL in its ARR of FY 2008-09 the Discoms have submitted that they pay FSA amount to HPGCL on regular basis whereas the actual recovery of FSA from the consumers takes a longer time. Consequently, holding cost claimed by HPGCL should be disallowed or the Commission should also grant holding cost to both the Discoms.

The Commission agrees with the above contention of the Discoms. Accordingly, no holding cost as claimed by HPGCL has been considered.

The Discoms also objected to the amendments sought by HPGCL in bulk supply agreement. The Commission is of the view that in the light of the fact that the bulk supply / trading business has been transferred w.e.f. 1<sup>st</sup> April 2008 to the Discoms, the bulk supply agreement applicable between HPGCL and the Discoms has become irrelevant. The terms and conditions of sale of power from HPGCL's own generating stations shall be incorporated in the terms and conditions of determining generation tariff regulation being finalised by the Commission.

The Discoms have also objected to the higher rate of interest i.e. 12.75% claimed by HPGCL on working capital. The Commission is of the view that

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with transfer of bulk supply/trading business from HPGCL to the Discoms w.e.f 1<sup>st</sup> April 2008, the issue has become irrelevant as no trading margin comprising expenditures other than power purchase cost and interest on working capital has been considered by the Commission in FY 2008-09.

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## **2 ANALYSIS OF THE ARR AND COMMISSION'S ORDER**

In this chapter various elements of HPGCL's filing namely power purchase volume, power purchase cost and transmission losses are analysed and Commission's order on each item is presented. HPGCL's proposal refers to the filing dated 29/11/2007, presentation during the public hearing held on 25<sup>th</sup> February 2008 and clarifications / additional information provided from time to time.

### **2.1 EXPENDITURE**

#### **2.1.1 Power purchase cost**

Power purchase cost is determined by two elements viz. volume of energy and the rate per unit of energy inclusive of capacity and other charges, wherever applicable. Each of these elements is discussed separately in the following paragraphs: -

##### **2.1.1.1 Volume of power purchase**

Haryana is an energy deficit state and will continue to be so during FY 2008-09. Thus, HPGCL's power procurement program is not demand - driven but based on estimates of power availability from various generating sources, traders and bilateral arrangements.

In a supply driven market, the Commission believes, that the generators are the most competent authority to project power availability from their respective powerhouses. The issue of forecasting power availability becomes complex in the cases where Haryana shares power from a generating station with other states. Availability of power in such instances does not solely depend on Haryana's own share but also on over or under drawl of power compared to its share, i.e. 1) the distribution of unallocated power to member

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states; 2) utilisation of other member's unused share and 3) non-utilisation of its own share.

The entitled volume of power according to allocation of allocated and unallocated power from CPSUs for FY 2008-09 can be projected on the basis of overall generation schedule drawn up by the Central Electricity Authority (CEA) in consultation with the generators. The generation targets are arrived at by the CEA after discussions with the respective state, the generation programme given by them and considering the performance of the generating stations, planned maintenance requirement and average forced outages during the last few years. The generation schedule for FY 2008-09 has been finalised by the CEA and the same is awaiting approval of the Ministry of Power, Government of India. The proposed generation targets are not at much variance with the final generation targets determined by CEA for FY 2007-08, hence the Commission in order to estimate the share of Haryana from Central Sector power Stations has made use of the FY 2008-09 generation targets under finalisation.

The Commission reiterates its concern about the overdrawal of energy by the licensee during low grid frequency. This not only violates grid discipline but also in the light of the revised UI charges has become prohibitively expensive.

The Commission's approval of the volume of power purchase during FY 2008-09 are based on the following:

1. The Commission has reduced the CEA's gross generation targets by normative auxiliary power consumption and reduced the total availability from NHPC stations to the extent of free power commitment to the respective home state. Haryana's allocated and unallocated shares in the Central projects have been pegged at the allocations of allocated and un-

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allocated power by the Northern Region Power Committee. The volume of energy has been estimated from the net generation so arrived.

2. In the case of availability from IPGCL and sources such as Ch. Devi Lal Sugar Mill, Farakka, Kahalgaon (in lieu of Tala), Kahalgaon 1, Tala HEP and Koldam, the Commission has adopted the licensee's proposal.
3. As the Commission has determined HPGCL's Generation target(s) and tariff(s) for FY 2008-09 including WYC & kakroi hydel the same has been adopted as the volume of power available from HPGCL (generation) sources.
4. In the absence of MOU/agreements with respect to short – term / bilateral sources during FY 2008-09 the Commission has restricted the volume of power drawl to 2000 MUs under short term/ bi-lateral/UI in line with the past trend.

The volume of power purchase from each source approved by the Commission for FY 2008-09 is discussed in the next few paragraphs.

#### **A. Availability of power from HPGCL**

The Commission has considered power availability at the bus bar from HPGCL sources as per its order dated 21<sup>st</sup> April, 2008 in Case No. HERC/PRO-4 of 2008 in the matter of HPGCL's Petition on determination of HPGCL's Generation Tariffs for FY 2008-09. The details are presented in table 2.1.

**Table 2.1 - Power purchase volume from HPGCL (MUs)**

Particulars	Power Purchase in FY 2007-08 (Anticipated)	HPGCL Proposal for FY 2008-09	HERC Approval for FY 2008-09
<b>HPGCL</b>	<b>9664.88</b>	<b>13200.07</b>	<b>13,287</b>

**B. Availability from NTPC Faridabad CCGT (FGPP)**

The 430 MW Faridabad gas based power station of NTPC is a dedicated station to Haryana.

The volume from this source has been considered as per CEA Schedule. The generation target determined by CEA for FY 2008-09 is 2798 MUs. The Commission has reduced the generation target by 3% to arrive at net availability. The Commission's approved volume is as per table 2.2.

**Table 2.2 - Power purchase volume from FGPP (MUs)**

Particulars	Power purchase in FY 2007-08 (Anticipated)	HPGCL proposal for FY 2008 - 09	HERC Approval for FY 2008-09
<b>Faridabad Gas</b>	<b>2730</b>	<b>3000</b>	<b>2714</b>

**C. Availability of power from shared utility (BBMB & IPGCL)**

HPGCL (to the extent of shares owned by HVPNL in the shared projects) has share in capacity entitlement to the extent of 39.5% in Bhakra, 32% in Dehar, 16.6% in Pong (all BBMB stations) and 33.33% in IPGCL (units 2,3&4).

The Commission approves the volume of power purchase from BBMB as per CEA generation target(s) for FY 2008-09 after reducing the same by 0.5% on account of auxiliary consumption. However, in the absence of details on direct sales from BBMB in FY 2008-09 which would also include some volume of power from Haryana's share the same could not be accounted for while approving availability from BBMB sources. The availability of power purchase volume from IPGCL is considered as proposed by HPGCL which

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has been estimated on the basis of share entitlements. The details of the volume approved are presented in table 2.3.

**Table 2.3 - Power purchase volume from Shared Utilities (MUs)**

Particulars	Power purchase in FY 2007-08 (Anticipated)	HPGCL proposal for FY 2008-09	HERC Approval for FY 2008-09
BBMB	3000	3200	3483
IPGCL	260	250	250
<b>Total</b>	<b>3260</b>	<b>3450</b>	<b>3733</b>

Consequently, the total volume of power projected to be available to HPGCL from the shared utilities during FY 2008-09 is 3733 million units.

#### **D. Availability of power from NTPC power stations**

HPGCL continues to draw more than its entitlement (including share out of the unallocated power) of power from NTPC stations. The overdrawals are largely because of the under mentioned reasons:

- NTPC stations generating over and above the CEA Schedule as they operate much above the normative level.
- Increase in share out of 15% unallocated central quota due to the needs of the State.
- Drawing unrequisioned shares of other constituents.

The Commission has based its approval on the CEA's generation targets for FY 2008-09. Availability has been adjusted for Haryana's share based on the allocation of allocated and unallocated power from Central Sector Power Stations.

The details of power availability during FY 2007-08, HPGCL proposal for FY 2008-09 and HERC approval of power purchase volume from NTPC sources are presented in Table 2.4.

**Table 2.4 - Power purchase volume from NTPC (MUs)**

Particulars	Power purchase in FY 2007-08 (Anticipated)	HPGCL proposal for FY 2008-09	HERC Approval for FY 2008-09.
Singrauli	1849	1850	1869
Rihand I	699	780	696
Rihand II	664	700	661
Unchahar I #	120	120	135
Unchahar II & III	375	375	341
Anta Gas	264	280	251
Auraiya Gas	376	380	341
Dadri Gas	342	350	346
<b>Total</b>	<b>4689</b>	<b>4835</b>	<b>4640</b>

# CEA generation target of 8062 MUs for FY 2008-09 is for Unchahar TPP as a whole, hence for arriving at availability a gross generation of 2687.33 MUs for each stage of Unchahar has been assumed and Haryana' share has been estimated as per its share entitlements in Unchahar TPP I, II & III.

#### **E. Availability of power from NHPC sources.**

Considering the fact that the CEA's generation targets for hydel stations take into account the weather factor too, the Commission's approval of availability from NHPC sources for FY 2008-09 is based on the CEA's generation targets. As there is no central unallocated quota in NHPC stations except in Chamera II, SJVNL and Dhauliganga, no additional availability has been considered from NHPC sources. The Commission's approval of volume of power purchase volume from NHPC is presented in table 2.5.

**Table 2.5- Power purchase volume from NHPC sources (MUs)**

Particulars	Power Purchase in FY 2007-08 (Anticipated)	HPGCL proposal for FY 2008-09	HERC Approval for FY 2008-09
Bairasiul	235	220	224
Salal	540	540	405
Tanakpur	23	28	22
Chamera I	385	330	364
Chamera II	142	130	171
Uri	123	136	118
<b>Total</b>	<b>1448</b>	<b>1384</b>	<b>1304</b>

**F. Availability from NPC sources**

The Commission's approval of power purchase volume from Nuclear Power Corporation (NPC) i.e. NAPP and RAPP sources are again based on Haryana's share of the generation target including share out of unallocated quota to the extent of 3.27% in NAPP and 2.5% in RAPP (3-4) net of auxiliary consumption. As generation targets for RAPP (unit 5-6) are not separately available the same has been considered as proposed by HPGCL. The Commission's approval of power purchase volume from NPC source is presented in table 2.6.

**Table 2.6 - Power purchase volume from NPC (MUs)**

Particulars	Power purchase in FY 2007-08(Anticipated)	HPGCL proposal for FY 2008-09	HERC approval for FY 2008-09
NAPP	73	120	120
RAPP	230	360	488
<b>Total</b>	<b>303</b>	<b>480</b>	<b>608</b>

**G. Power purchase through Short term/bilateral/UI mechanism**

HPGCL in its instant petition did not propose any drawl of power under short - term / bilateral & Ui mechanism. However, during the public hearing held on 25<sup>th</sup> February 2008 HPGCL submitted that the total power required in FY 2008-09 to meet the projected demand is 30,733 MU. The volume of power as per tariff filing is 27,701.07 MUs.

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Resultantly, 3000 MU is proposed to be met by way of short term/UI drawl at an average rate of Rs. 7/kWh.

The Commission has been allowing short term purchases based on agreements entered into for the purpose. In the instant case HPGCL has submitted that no such agreement is in place. In the absence of details, we restrict the volume under short term drawl to 2000 MUs based on past trend. The tariff for the purpose has been considered at Rs. 4.70/kWh being the anticipated (by HPGCL) average rate of power from short – term sources in FY 2007-08.

The Commission, in principle, does not discourage purchase of surplus power from time to time at a rate not exceeding the average approved power purchase cost. However, given the steep rise in the cost at which short term / surplus power is available through traders it would be appropriate to contract power purchase on a long-term basis as per the projected demand-supply gap to the extent possible.

The approved power purchase volume from short term/bilateral sources is presented in table 2.7.

**Table 2.7 - Power purchase Short-term bilateral/UI mechanism (MUs)**

Particulars	Power purchase in FY 2007-08 Anticipated	HPGCL proposal for FY 2008-09	HERC Approval for FY 2008-09
Short Term/ Bi-lateral/UI	3600	3000*	2000
<b>Total</b>	<b>3600</b>	<b>3000</b>	<b>2000</b>

#### **H. Power Purchase from Other Sources**

Power Procurement from a few other sources proposed by HPGCL includes SJVNL (Nathpa Jhakri 1-6), Dulhasti HEP, Dhauliganga HEP, Kahalgaon I, Kahalgaon in lieu of Tala, Farakka, Tala Hydro, Tehri HEP and Koldam HEP. The Commission allows availability from these sources as proposed by

HPGCL except SJVNL, Dulhasti HEP, Dhauliganga HEP and Tehri which is based on CEA's generation schedule for FY 2008-09. Power purchase from Sewa II, as proposed by HPGCL, has not been considered by the Commission as the project is not expected to be available for commercial generation during FY 2008-09.

The Commission is committed to encourage cogeneration and non-conventional fuel based generation in the State. Hence, it allows the proposed volume i.e. 2 MUs from Ch. Devi Lal Sugar Mill. The approved power purchase volume from these sources is presented in the table 2.8:

**Table 2.8 - Power Purchase from Other Sources (MUs)**

Particulars	Power purchase in FY 2007-08 (Anticipated)	HPGCL proposal for FY 2008 - 09	HERC Approval for FY 2008 - 09
SJVNL HEP	380	350	307
Dhauli Ganga	88	75	88
Dhulhasti	175	175	184
Farakka	90	100	100
Kahalgaion (in lieu of Tala)	250	280	280
Kahalgaon 1	25	30	30
Ch.Devi Lal Sugar Mill (Cogen)	2	2	2
Tala HEP	50	60	60
Tehri HEP	130	240	206
Koldam HPE	0	20	20
<b>Total</b>	<b>1190</b>	<b>1332</b>	<b>1277</b>

**I. Total approved power purchase volume.**

Based on the source wise approvals as presented above, we determines gross power availability of 29,563 million units during FY 2008-09 as against 30,701 million units including 3000 million units of short term / UI draws proposed by HPGCL. Table 2.9 provides the comparison of HPGCL's projected volume & Commission's approval thereto.

**Table 2.9 - Power Purchase volume for FY 2008 – 09 (MUs)**

<b>Source of Power</b>	<b>HPGCL Proposal</b>	<b>HERC Approval</b>
<b>NTPC</b>		
Singrauli	1850	1869
Rihand I	780	696
Rihand II	700	661
Unchhahar I	120	135
Unchhahar II	280	218
Unchhahar III	95	123
Anta CCGT	280	251
Auraiya CCGT	380	341
Dadri CCGT	350	346
Faridabad CCGT #	3000	2714
<b>NHPC</b>		
Salal	540	405
Bairasiul	220	224
Tanakpur	28	22
Chamera I	330	364
Chamera II	130	171
Uri	136	118
<b>New Sources</b>		
SJVNL	350	307
Tehri (THDC HPE)	240	206
Kahalgaon I	30	30
Kahalgaon (in lieu of Tala)	280	280
Tala HPE	60	60
Farakka	100	100
Dhauliganga	75	88
Dhulhasti	175	184
Sewa II	20	0
Koldam HPE	20	20
<b>NPC</b>		
NAPP	120	120
RAPP	360	488
<b>HPGCL #</b>	13200.07	13287
<b>Shared Projects</b>		
BBMB	3200	3483
IPGCL	250	250
<b>Others</b>		
Ch.Devilal Sugar Mill #	2	2
Short Term & Bilateral / UI	3000	2000
<b>TOTAL</b>	<b>30701.07</b>	<b>29,563</b>

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N.B. Sources of power marked (#) represents energy generated within the state & volume totals to 16,003 MUs. The balance energy i.e. 13,560 MUs (29,563 – 16,003) is from out of state sources.

#### **2.1.1.2 Power purchase cost**

The cost of purchase of power is largely a known parameter. The amount payable by HPGCL is based on power purchase agreements with various generators that clearly establish the price determination procedure. In case of central power sector units (CPSU's) or other generators supplying power to more than one state, the Central Electricity Regulatory Commission (CERC) determines tariff. Most of the elements constituting the total charges i.e. capacity charges, base energy related charges, adjustment to base energy charges for cost of fuel and other factors, taxes, duties, incentive payments etc. are known or can be estimated with a reasonable degree of accuracy.

HPGCL has projected cost of power from NPC source for FY 2008-09 by escalating the FY 2007-08 anticipated tariff by 4%.

The tariff of power for 3000 MUs through short – term bi-lateral arrangements and purchase under UI mechanism has been projected @ Rs. 7.0/kWh. The rate has been anticipated on the basis of the average rate of short term bilateral purchases / UI trend for FY 2008-09.

HPGCL has projected cost of power purchase generally based on the rates prevailing during FY 2007-08 (anticipated) with 3% increase in the Fixed Charges and variable charges of thermal and gas based stations. While in the case of NHPC powerhouses and SJVNL an enhancement of 2% has been projected for FY 2008-09 over FY 2007-08 (anticipated) rates. The cost of BBMB and IPGCL power i.e. Rs.0.36/kWh and Rs. 3.32 / kWh respectively has been projected by HPGCL on the basis of projected cost of generation from these sources

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The cost of HPGCL power for FY 2008-09 has been projected as per generation tariff application for FY 2008-09 filed for approval of the Commission.

For projecting the cost of purchased power, the Commission has laid down the following approach in its previous orders: -

- "Where a PPA / MOUs exists, costs should be determined accordingly".
- "In case of CPSU or other generators who are supplying power to more than one state, where payments are governed by CERC rulings or by Ministry of Power Notifications, tariffs should be forecast following the methodology adopted there".
- "Where neither PPA nor rulings and Notifications are available for any reason whatsoever, projections can be made based on the latest available rates from invoices".
- "Estimation should be made for various components separately and should use a reasonable level of escalation in costs for those elements that are expected to undergo change".

The Commission observes that the licensee has largely complied with the general principles of projecting power purchase costs set in its previous orders on ARR.

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### **A. Tariff for power from CPSUs (NTPS, NHPC & NPC)**

The tariff for power purchase has been considered at the average rate of power purchase (upto December 2007) during FY 2007-08 as per the invoices submitted by HPGCL.

### **B. Price for HPGCL power**

The Commission under sub - section 1(a) of section 86 and sub section 1(a) of Section 62 of the Electricity Act 2003 has determined HPGCL's generation tariffs for FY 2008-09 vide its order dated April 21, 2008 (Case No HERC/PRO – 4 of 2008). The approved station wise rate in the above-mentioned order of the Commission have been considered for determining the cost of power from HPGCL sources.

### **C. Price of Shared utility power.**

HVPNL, as per the transfer scheme notified by the Government of Haryana, has ownership interest to the extent of equity shares in IPGCL and BBMB projects, while the corresponding share in capacities have been allocated to HPGCL. HVPNL has to bear its share of net O&M cost in respect of BBMB projects, i.e. net of O&M charges billed less credit for HVPNL share of revenue for sale of power to common pool consumers.

In its order for FY 2007-08 the Commission considered the cost of BBMB power based on O&M expenditures to be incurred by BBMB on O&M for FY 2007-08 as per annexure B Page No.33 of HPGCL's filing for FY 2007-08 and reduced the same by expected credit from common pool sales. HPGCL for FY 2008-09 has proposed a tariff of Rs. 0.36 / kWh. In the absence of any power sale agreement between HPGCL and HVPNL and the fact that the Commission is of the considered view that HVPNL as an STU cannot indulge

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in such sale as per the Act and the issue of allowing any other expenses other than O&M for BBMB power is subjudice. Resultantly, the Commission for FY 2008-09 allows a tariff of 12.6 Paisa /kWh for BBMB power i.e 5% increase to account for inflationary increase in the O&M expenses over the rate allowed by the Commission in FY 2007-08.

The cost of power from IPGCL in respect of Unit No. 2,3 & 4 is allowed as FY 2007-08 rates (upto December 2007).

**D. Price of Power Purchased from Other Sources.**

The Commission has relied upon the average power purchase rate as per the FY 2007-08 average rates (upto December 2007) in case of SJVNL, Farakka, Tala HEP, Dhulhasti, Dhauliganga, Tehri and Kahalgaon 1 and Kahalgaon in lieu of Tala. In case of Koldam the Commission approves the tariff proposed by HPGCL for computation of power purchase cost. The Commission has separately allowed wheeling, Open Access and other legitimate charges as proposed by HPGCL for FY 2008-09.

**E. Price of Short term Power purchase/bilateral arrangements.**

We have considered Rs. 4.70/kWh as tariff for power purchase from short term bilateral / UI allowed by it in FY 2008-09. The tariff is based on the average rate in FY 2007-08 as anticipated by HPGCL.

The rates approved by the Commission are exclusive of transmission / wheeling charges, open access charges, central ULDC charges and LC charges. They have been separately provided for.

The approved rates and cost for purchase of power from various sources are presented in table 2.10.

**Table 2.10 – Approved Power Purchase Rates & Cost (FY 2008 – 09)**

Source of Power	HPGCL Proposal			HERC Approval		
	Volume (MU)	Rate (Rs/kWh)	Cost (Rs. Mln)	Volume (MU)	Rate (Rs/kWh)	Cost (Rs.Mln)
<b>NTPC</b>						
Singrauli STPS	1850	1.23	2267.55	1869	1.19	2224
Rihand I	780	1.70	1325.61	696	1.68	1169
Rihand II	700	1.79	1189.65	661	1.74	1150
Unchhahar I	120	2.06	247.2	135	1.97	266
Unchhahar II	280	2.03	568.148	218	1.87	408
Unchhahar III	95	2.24	212.33	123	2.08	256
Anta CCGT	280	2.30	643.72	251	1.84	462
Auraiya CCGT	380	2.64	1003.2	341	2.17	740
Dadri CCGT	350	2.64	924	346	2.36	817
Faridabad CCGT	3000	2.46	7392	2714	2.30	6242.2
<b>NHPC</b>						
Salal	540	0.80	429.62	405	0.73	296
Bairasiul	220	1.22	269.28	224	1.13	253
Tanakpur	28	1.36	37.98	22	1.22	27
Chamera I	330	1.53	504.9	364	1.47	535
Chamera II	130	3.06	397.8	171	2.90	496
Dhauliganga	75	2.14	160.65	88	1.91	167
Dhulhasti	175	3.26	571.2	184	3.02	556
Uri	136	2.45	332.93	118	1.71	202
<b>NEW SOURCES</b>						
SJVNL	350	3.29	1153.11	307	2.53	777
Tehri (THDC)	240	4.34	1040.4	206	4.38	902
Kahalgaon I	30	2.50	75	30	1.86	56
Kahalgaon (in lieu of Tala)	280	2.01	562.38	280	2.01	563
Tala HEP	60	1.92	115.06	60	1.84	110
Sewa HEP II	20	3.0	60	0	0	0
Koldam	20	2.85	57	20	2.85	57
Farakka	100	1.96	195.7	100	1.79	179
<b>NPC</b>						
NAPP	120	2.52	302.82	120	2.52	302
RAPP (3-4)	240	3.15	756.43	368	2.82	1038
RAPP (5-6)	120	3.50	420	120	3.50	420
<b>HPGCL</b>	13200.07	3.02	39883.70	13287	2.847	37832
<b>SHARED PROJECTS</b>						
BBMB	3200	0.36	1164.48	3483	0.126	438.858
IPGCL	250	3.32	831.15	250	3.12	780
<b>OTHERS</b>						
Ch.Devilal Sugar Mill	2	2.5	5	2	2.5	5
Short Term Bilateral/UI	3000	7.0	21000	2000	4.70	9400
<b>Wheeling &amp; Other Charges</b>						
Wheeling PGCIL			1330			1330
Wheeling HPSEB			2			2
Wheeling PSEB			2			2
Wheeling UPSEB			2			2

Wheeling BBMB			6			6
LC Charges			25			25
ULDC Charges			50			50
Open Access			300			300
<b>TOTAL</b>	<b>30701.07</b>	<b>2.86</b>	<b>87817</b>	<b>29,563</b>	<b>2.3963</b>	<b>70843</b>

### **2.1.1.3 Wheeling charges**

HPGCL pays wheeling charges to the Power Grid Corporation of India (PGCIL) for wheeling power from the generating stations of NTPC, NHPC, NPC & other sources to its boundary. In addition to this, additional wheeling charges are paid to the State Grids through which power from sources like Salal, Bairasiul and Eastern Region (ER) power is wheeled. With the grant of 'Open Access' and 'Trading License' by the CERC and the fact that HPGCL is buying short-term power from the licensed traders, open access charges have become a reality. These are legitimate cost of bulk supply business and are therefore allowed by the Commission as per table 2.10 above.

### **2.1.2 Transmission losses**

The Commission vide its order on Annual Revenue Report for Transmission Business & SLDC for FY 2008-09 & Transmission Tariff and SLDC charges has determined the inter-state transmission losses at 3.85% and intra-state transmission losses of 2.1% in FY 2008-09. Resultantly, the net units available for sale to the Discoms work out to 28,431.08 million units. The details are presented in table 2.11.

**Table 2.11 – Energy available for sale to distribution business  
(FY 2007-08)**

Description		HERC Approval
Gross Energy Procured from out of state sources (MU)	1	13,560
Inter state transmission loss %	2	3.85
Inter state transmission loss (MU)	3= 1*2	522.06
Net Energy available from out of state sources (MU)	4 = 1-3	13,037.94
Add energy generated within the State (MU)	5	16,003.0
Net Energy available for use in Haryana	6=4+5	29,040.94
Intra - state transmission loss (%)	7	2.1%
Intra - state transmission loss (MU)	8=6*7	609.86
Energy available for sale to distribution licensee	9= 6-8	28,431.08

### 2.1.3 Bulk supply tariff (BST)

The bulk supply tariff for sale of power to the Discoms is determined at Rs 2.49/ kWh. The computational details are presented in table 2.12

**Table 2.12 – Bulk Supply Tariff (Rs./kWh)**

Sn	Description	HERC approval FY 2008-09
1	Power Purchase Cost (Rs. million)	70843
2	Net Energy Available for Sale to Discoms	28,431.08
3	Bulk Supply Tariff (Rs / kWh) (1/2)	2.49

### 2.1.4 Trading margin

HPGCL has proposed a trading margin of 4 paisa per unit. The Commission is not considering any trading margin as it is an avoidable burden on the electricity consumers of Haryana. More so, the Government of Haryana, Power Department, vide its notification dated 11<sup>th</sup> April 2008 has transferred the rights relating to procurement of electricity / UI draws / dispatches or Trading of electricity from HPGCL to UHBVNL & DHBVNL w.e.f. 1<sup>st</sup> April 2008. Resultantly, in line with the National Tariff Policy, the Distribution companies will procure power by way of long term as well as short term

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arrangements based on the existing PPAs/agreements or competitive bidding consequently, obviating the need for allowing trading margin so far allowed by the Commission.

The Commission approves power purchase cost / bulk supply cost of Rs. 2.49/kWh for the Distribution companies. The rate approved shall be subject to Fuel Surcharge Adjustment (FSA) as per the terms and conditions of tariff regulations of the Commission worked out on the basis of the FSA formula prescribed therein.

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### 3 CONCLUSION

We, under Section 62 read with Section 64 (3) (a) & Section 64 (6) and 86 ( j ) of the Electricity Act 2003, issues this tariff order with modification of the calculation of volume and cost of power purchase, bulk supply tariff and trading margin proposal of HPGCL and hereby determine the same for FY 2008-09 as under:

1. Gross Purchase of 29,563 million units of energy.
2. Inter–State Transmission losses pegged at 3.85% & intra-state transmission losses pegged at 2.1%.
3. Net availability of 28,431.08 million units of energy to the Discoms.
4. Power Purchase Cost is determined at Rs. 70,843 million.
5. Other Expenditures is determined at nil.
6. Net power purchase rate is determined at Rs.2.49/kWh.

**We direct that the power purchase cost / bulk supply tariff approved by it for FY 2008-09 be implemented from 1<sup>th</sup> April 2008.**

T.S. Tewtia  
(Member)

Bhaskar Chatterjee  
(Chairman)

In regard to para 2.1.1.1(G) for purchase of 2000 MUs under short term bilateral / UI mechanism, I express difference of opinion as under:-

In the Commission's order dated 21.4.2008 on generation tariff for FY 2008-09, it has been envisaged that DCRTTPP, Yamunanagar will inject 3825.64 MUs in the State power system which represents a sizeable augmentation of availability of electrical energy from intra-state generating sources. In view of

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the above, it was expected that HPGCL will scale down the purchase of costly short term power / drawl from the inter-state system under UI mechanism in FY 2008-09 when compared to approved volume of such power for FY 2007-08 i.e. 2000 MUs. However, HPGCL in the public hearing on its ARR filing for bulk supply business for FY 2008-09 projected to purchase 3000 MUs (same as last year) at a rate of Rs.7/- per Kwh (as against Rs. 4.40 last year) under short term bilateral / UI mechanism whose financial implication is Rs. 2100 crores and which alone accounts for about 24% of the projected power purchase cost of Rs. 8781.7 crores from all sources. Keeping in view the prevailing retail supply tariff in the State and highly limited scope for its upward revision (as it is already higher in comparison to other states in the Northern Region), such procurement of power will either drive the Discoms deeper in the financial mess or lead to a hike in the retail tariff with its consequent public backlash in the present supply – shortage scenario in the State. The cost of short term power after accounting for transmission and distribution loss will be higher than even the existing highest retail tariff by about Rs. 1.75 per unit. It is, therefore, prudent to either arrange low cost power from long term power sources or enforce the necessary power regulatory measures so as to live within the resources available to the State.

(T.R. Dhaka)  
Member

**ORDER**

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In terms of Section 92 (3 & 4) of the Electricity Act 2003 (Act 36 of 2003), the majority view of Sh. Bhaskar Chatterjee, Chairman and Sh. T.S. Tewatia, Member, will be the order of the Commission.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 21<sup>st</sup> April 2008.

Date: 21.04.2008

Place: Panchkula

T.S.Tewatia  
(Member)

T.R. Dhaka  
(Member)

Bhaskar Chatterjee  
(Chairman)