

C BLOCK, SHIVALIK, MALVIYA NAGAR, NEW DELHI

PETITION NO:

**IN THE MATTER OF:-**

Petition seeking approval and implementation of Power Purchase Price Adjustment (PPPA) formula as envisaged under section 62 (4) of the Electricity Act 2003, which provide a mechanism to pass on the adjustments due to changes in the cost of power generation and power procured arising from the variation in the fuel cost or fuel-mix or source of procurement or market price or any such other factor; where the variations are measured from the average power purchase cost approved at the time of tariff determination.

**IN THE MATTER OF:-**

**BSES Rajdhani Power Limited ("BRPL")**

BSES Bhawan, Nehru Place

New Delhi - 110019

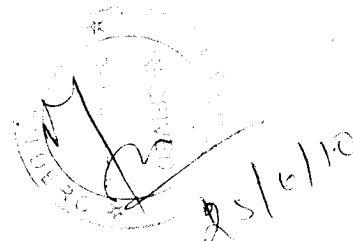
...PETITIONER

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New Delhi

Dated: 24.06.2010

  
25/6/10

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Filing No. \_\_\_\_\_

Case No. \_\_\_\_\_

**IN THE MATTER OF:-**

Petition seeking approval and implementation of Power Purchase Price Adjustment (PPPA) formula as envisaged under section 62 (4) of the Electricity Act 2003, which provide a mechanism to pass on the adjustments due to changes in the cost of power generation and power procured arising from the variation in the fuel cost or fuel-mix or source of procurement or market price or any such other factor; where the variations are measured from the average power purchase cost approved at the time of tariff determination.

**IN THE MATTER OF:-**

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...PETITIONER

The Petitioner most respectfully sheweth:

1. That **BSES Rajdhani Power Limited** (hereinafter referred to as "**Petitioner**"), a company incorporated under the Companies Act, 1956, and having its registered office at BSES Bhawan, Nehru Place – 110019, is a license holder for carrying on the business of Distribution and Retail Supply of electrical energy within the Area of Supply as specified in the "License for Distribution and Retail Supply of Electricity" issued by the Hon'ble Commission which came into force on 12th day of March 2004. The said license is valid till 11th day of March 2029.
2. The prevailing regulatory framework across various states in the country highlights a scenario wherein the utilities engaged in the distribution of power recover their power purchase costs (including any quarterly variations on account of fluctuations at the end of the generating companies) through the retail tariffs.
3. Such provisions have been adopted by various states on account of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 mandating upfront payment by the distribution utilities for the incremental power purchase costs, due to any variations in fuel prices of the Generators.

4. Furthermore, Section 61 of the Electricity Act 2003 requires the State Electricity Regulatory Commission inter-alia to be guided by the following principles:
- a. principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees; and
  - b. the National Tariff Policy
5. With a view to further the principles enshrined in the Electricity Act and the National Tariff Policy, many State Electricity Regulatory Commissions in the country have adopted suitable mechanisms to speedily recover the variations in power purchase costs through retail tariffs. This ensures that future consumers are not burdened with costs of the past and also allows the utilities to economically and efficiently recover the power purchase costs. The power purchase Adjustment Formulae adopted by other states is enclosed as "Annexure – 1".
6. The Fuel Cost Adjustment Factor or Fuel Surcharge is a mechanism designed to recover the cost of fossil fuels, primarily fuel oils, used in the generation of electricity. The effect of fuel cost is directly or indirectly felt on the power procurement expenses of the distribution utilities. Hence, it becomes unavoidable for the distribution utility to share this burden with the consumers as well.
7. To evolve a more realistic retail pricing system that is market reflective, most of the State have introduced a Fuel Cost Adjustment Factor in the retail tariffs, which is also in line with provisions laid down in the Electricity Act 2003, Tariff Policy, etc. The frequency of exercise to adjust the power purchase costs within a financial year carried out by different states is tabulated below:

State	Frequency of exercise to adjust power purchase cost
Assam	Quarterly
Bihar	Half yearly
Chhattisgarh	Half yearly
Gujarat	Quarterly
Haryana	Quarterly
Jharkhand	Quarterly
Maharashtra	Quarterly
Orissa	Quarterly
Uttar Pradesh	Quarterly

8. Unlike other states, in Delhi although power purchase costs is treated as an Uncontrollable factor, in terms of Section 4.2 (f) , 4.16 and 5.42 of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 (hereinafter referred to as "MYT Regulations"). The MYT Regulations provide for an annual truing up mechanism to

address the variations in the uncontrollable items like energy sales and power purchase cost. Though the Power purchase expense and other expenses are incurred on a real time basis, the recovery of the same through suitable retail tariff materializes after two years based on audited accounts. Sometimes even such recovery gets deferred beyond two years due to variation in estimation in the Tariff Order. This time lag in adjustment of such significant expenses leads to substantial financial strain to the Discom and to the sector as a whole. Further, the carrying cost provided by the Hon'ble Commission also acts as an additional burden to the consumers while adjusting such legitimate expense on a later date.

9. The need for speedy recovery of the variation in uncontrollable expenses is also being stressed upon in the National Tariff Policy. The provision 5.3 (4) of the Tariff Policy stated below, concurs with the same:

*Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of hydro-thermal mix in case of adverse natural events.*

10. Since 1<sup>st</sup> April 2007, there has been a wide variation between the Power purchase cost, including Transmission Charges, as approved by the Hon'ble Commission in various Tariff Orders vis-à-vis actual incurrence by the Petitioner as per audited accounts. The same are tabulated below:

Power Purchase	UoM	FY 07-08	FY 08-09	FY 09-10
Approved in the Tariff Order of that year (A)	MU	8515	8849	9725
	Amount (Rs Cr.)	2298	2390	2476
	Rate (Rs/kWh)	2.70	2.70	2.55
Actual as per audited accounts (B)	MU	9272	8965	9661
	Amount (Rs Cr.)	2592	2616	3,558
	Rate (Rs/kWh)	2.80	2.92	3.68
Difference (C=B-A) (Actual - Approved in the Tariff Order)	MU	757	116	-64
	Amount (Rs Cr.)	294	226	1,082
	Rate (Rs/kWh)	0.10	0.22	1.13

11. One of the objectives of Reforms of the electricity sector in India was to introduce market pricing so that the Retail prices for electricity reflect true costs. The need for actual and accurate determination while drafting the Tariff Order has also been stressed by the Hon'ble ATE in its Order passed in the case of BRPL vs. DERC in Appeal No. 36/2008 wherein the Hon'ble ATE has held that accurate estimations and assessments should be made in a tariff fixation process so as to ensure that there is no under estimating of the cost paid as the same would burden the consumer with not only the cost aspect which remains uncovered on account of under estimation but also carrying costs on the same. Thus, the ATE observed that such approach neither benefits the licensee nor the consumers and should be avoided. In FY 2009-10, the observations of Hon'ble ATE had come true, since there is a large variation between the projections in the Tariff Order and the audited accounts, thereby burdening the future consumers.

12. In a scenario where distribution utilities are not allowed to recover power purchase costs (including quarterly variations) in a speedy and economic manner, the financial burden of such a deferral devolves on the future consumers. In this backdrop, the consumers remain saddled with previous revenue gaps of the DISCOMs and are not in a position to appreciate the benefits of reforms initiated by GoNCTD, since their tariffs do not reflect the true price.

13. In view of the aforesaid, the Petitioner is filing the present Petition ("**Present Petition**") to:

- (a) Suggest a suitable Power Purchase Price Adjustment Formula to allow the Petitioner to pass through the uncontrollable increase in the power procurement cost from the power procurement cost as approved in the Tariff Order. The suggested formula is in line with Fuel Surcharge formula as envisaged in the Electricity Act 2003 and guidelines for speedy recovery of the uncontrollable variations in the power procurement cost as provided in the para 5.3(4) of the the Tariff Policy.
- (b) Seek approval for the suggested Power Purchase Price Adjustment Formula and implementation of the same from 1<sup>st</sup> July 2010 for the Petitioner, with adjustments provided on Quaterly basis.

*Rajani*

## SUGGESTED FORMULA

14. The Petitioner submits that with effect from 1<sup>st</sup> July 2010, the Distribution Licensee should be allowed to pass on the quarterly adjustments, due to changes in the power purchase cost (including transmission and SLDC charges) vis-à-vis the average power purchase cost approved in the Tariff Order, through a Power Purchase Price Adjustment formula, as specified below:

$$PPPA = C + A$$

The PPPA may be capped at 15% of the Average Billing Rate (ABR) approved for the year in the Tariff Order. Any variation both positive/negative, if not absorbed within the cap of 15% may be passed onto the subsequent quarter(s).

Where

PPPA = Total Power Purchase Price Adjustment in Rs. Crore

C = Change in power purchase cost (including Transmission and SLDC charges) due to variation in power purchase rate during the previous quarter vis-à-vis rate approved in Tariff Order for the year.  $[C=Q*(\text{Actual PPcost} - \text{Ppcost approved})] / 10$

A = Adjustment Factor for over-recovery / under-recovery i.e. difference between the amount actually recovered through PPAC and amount recoverable (subject to the cap as mentioned above)

The calculation of PPPA to be charged for the quarter (July-September'10) will be

$$PPPA_{j-2} = C_{j-2} + A_{j-2}$$

The subscript 'j-2' shows that the PPPA would be applicable from the quarter after the quarter in which the additional costs are calculated. Thus, increase in costs during Qj-2 (Jan'10-March'10) would be calculated by the mid of Qj-1 (April'10 – June'10) and would be included in the PPPA applicable for the quarter, Qj (July'10 – September'10).

$$C_{j-2} = Q_{j-2} * (PPC_{j-2} - PPC \text{ approved})$$

The Adjustment for over-recovery / under-recovery 'A', should be calculated as:

$$A_{j-2} = [(B_{j-4} - R_{j-2})]$$

Where

B<sub>j-4</sub> = Incremental cost in Q<sub>j-4</sub>

R<sub>j-2</sub> = Incremental cost in Q<sub>j-4</sub> actually recovered in Q<sub>j-2</sub>

## Calculation of PPPA per unit

The total PPPA recoverable, as per the allowed expenses discussed earlier should be recovered from all the metered consumers on the basis of the actual consumption in that period, on the basis of Rs./unit.

$$\text{PPPA / kWh} = \frac{\text{(Total PPPA in Rs. Crore)}}{\text{[(Energy Sales)*10]}}$$

PPPA kwh = PPPA in Rs./kWh

Energy Sales = Actual energy sold in MU

The PPPA shall be allowed to be applicable on the entire sale of Distribution Licensee at the consumer end, without exemption to any consumer.

*Signature*

## IMPLEMENTATION OF THE FORMULA

15. The Hon'ble Commission may be pleased to direct the Distribution Licensee to submit the detailed computations of PPPA to be charged for each quarter (for instance July - Sept'10) to the Hon'ble Commission by the end of 1<sup>st</sup> month of the previous quarter (say by 30<sup>th</sup> April 2010)

16. The Distribution Licensee may be directed to submit the detailed computations along with the following documentary supports:

a) Cost of Power Procured from all the Sources for the quarter (say Jan - March'10).

The Power purchase cost will be duly certified by the auditors and submitted alongwith supporting bills.

b) Transmission charges and SLDC charges.

The transmission charges will be duly certified by the auditors and submitted alongwith supporting bills.

c) Energy Input to the Distribution System.

Energy Input to the Distribution system will be duly certified by SLDC/NRLDC.

The Hon'ble Commission may be pleased to approve the PPPA for any quarter by the 2<sup>nd</sup> month of the previous quarter (say by 31<sup>st</sup> May 2010). In case the Hon'ble Commission's approval is not received by 15<sup>th</sup> day of the last week of the previous quarter (say by 15<sup>th</sup> June 2010), the PPPA submissions will be considered to be approved. The Distribution licensee should be allowed to implement the PPPA thus approved from the first day of the next quarter (say 1<sup>st</sup> July 2010) and same to be chargeable on the consumer sales till the time the PPPA for the successive quarter has been computed and approved.

17. The Hon'ble Commission may direct the Distribution Licensee to prominently display the PPPA applicable prominently at the cash collection centres. Further, the Distribution Licensee may be directed to put up on his internet website such details of the PPPA charged to all consumers for the quarter along with the detailed computations.




## PRAYER

In the aforesaid facts and circumstances, the Petitioner prays that this Hon'ble Commission may be pleased to:-

- a) Admit the petition seeking approval and implementation of the quarterly Power Purchase Price Adjustment (PPPA) formula, as submitted herewith;
- b) Approve the suggested PPPA formula expeditiously;
- c) Implement the approved formula with effect from 1<sup>st</sup> July 2010
- c) Allow any other relief, which the Hon'ble Commission deems fit;
- d) Condone any inadvertent Omissions / errors/ rounding off difference / shortcomings.

**For and on behalf of the Petitioner**



**BSES Rajdhani Power Ltd.**

New Delhi

Dated: June 24, 2010

# Annexure 1

## Fuel Surcharge / Power Purchase Adjustment formula in Other States

### 1. Fuel Surcharge Adjustment Formula - Haryana

$$A_i = PPC_{i-1} - OF_{i-1} - EP_{i-1} + B_i$$

Where:

$A_i$  is the amount by which the licensee's revenues under the relevant tariff are to be increased or decreased during quarter  $i$  (a negative number representing a reduction and a positive number representing an increase in revenues)

$PPC_{i-1}$  is the licensee's cost of purchased power for the actual level of sales and the allowed level of loss in the post recent quarter ending before quarter  $i$ , calculated as

$$P_{i-1} \times QACT_{i-1} \times (1 + L)$$

Where:

$P_{i-1}$  is the actual average cost of purchased power incurred by the licensee in the most recent quarter ending before quarter  $i$

$QACT_{i-1}$  is the actual level of sales experienced by the licensee in the most recent quarter ending before quarter  $i$

$L$  is the average level of energy losses allowed by the Commission in the cost of service and reflected in the licensee's tariffs,

$OF_{i-1}$  are any purchased power costs actually incurred by the licensee in the most recent quarter ending before quarter  $i$  that are disallowed by the Commission as having been incurred in breach of its economic purchasing obligation.

$EP_{i-1}$  is the aggregate amount of the charges that the licensee is deemed to have recovered from its tariffs in the most recent quarter before quarter  $i$ , which is given by the formula:

$$EP_{i-1} \times Q_{i-1} \times (1 + L)$$

Where as

$EP_{i-1}$  is the average charge for purchased power for the most recent quarter ending before quarter  $i$  as determined by the Commission in the licensee's tariff

$Q_{i-1}$  is the quantity of power deemed to have been sold by the licensee in the most recent quarter ending before quarter  $i$ , as determined by the Commission in the licensee's tariffs

$B_i$  is a balancing factor reflecting the extent to which the licensee has under-adjusted or over-adjusted its tariffs through previous fuel surcharge adjustments and is calculated as follows:

$$B_i = B_{i-1} + A_{i-1} - R_{i-1}$$

Where:

Ri-1 is the total amount of fuel surcharges accruing due to the licensee from its sales to consumers in the quarter immediately preceding quarter i

The licensee shall allocate the FSA to each class of consumers using the energy cost allocation factors for each class contained in the currently approved tariff.

The licensee shall provide the Commission with its calculation of each fuel surcharge adjustment required to be made pursuant to its tariff before it is implemented and shall provide the Commission with such documentation and other information as it may require for the purpose of verifying the correctness of the adjustment.

## 2. Fuel and Power Purchase Adjustment Formula – Andhra Pradesh

### Fuel Surcharge Adjustment Formula

Fuel surcharge for Quarter

$$F \text{ ps/Kwh} = \frac{FA \times EA + FB \times EB + \dots + FN \times EN}{Q}$$

Q

Where

FA,B,...N .. Is the difference in the fuel cost in Paise/ Kwh for the energy purchased from source A,B etc. in a quarter compared to the base values adopted as part of the most recent Tariff order, or the difference in variable charges/ total tariff rates on account of variation in costs of fuels in respect of the sources A,B etc. in quarter compared to the base values adopted as part of the most recent Tariff order

EA,B,...N Is the energy purchased from the sources A,B etc., during the quarter in KWH

Q Is the energy sold to all categories except Agriculture in a quarter subject to the following conditions:

Condition 1: EA,B...N and /or Q can be adjusted by the Commission taking into account merit order operation criteria.

Condition 2: The FSA as worked out will be distributed among all categories of consumers that existed in the quarter. However the consumption by the agricultural sector will be excluded till the Commission is satisfied that metering of agricultural consumption is complete

### 3. Fuel and Power Purchase Adjustment Formula – Maharashtra

The formula for recovery is as follows:

$$\text{FOCA (A)} = C + I + B$$

Where

FOCA (A) = Total fuel and other cost adjustment in Rs. Crore

C = Change in cost

I = Interest on Working Capital

B = Adjustment Factor for over-recovery / under-recovery

The calculation of FOCA to be charged for the month 'j' will be

$$A_{j-2} = C_{j-2} + I_{j-2} + B_{j-2} + Z_{j-2}$$

The subscript 'j-2' shows that the FOCA would be applicable from the month after the month in which the additional costs are calculated. Thus, increase in costs in May (month j-2) would be calculated at the end of the month of June (month j-1) and would be included in the FOCA applicable for the month of July (month j).

The Change in costs 'C' should include change in the following expenses heads:

$$C = Avc, gen + Avc, pp + Afc, pp + Aoth,$$

Where

Avc, pp = Variable cost of power purchase

Afc, pp = Fixed cost of power purchase

Avc, gen = Variable cost of own generation

Aoth = Change in other costs (Lease Rent, Income Tax, Octroi, Local Levies, and Insurance Premium)

'I' is the actual change in Working Capital Interest and should be allowed only if it is within limits, specified by the Commission.

The Adjustment for over-recovery / under-recovery 'B', should be calculated as:

$$B_{j-2} = [(A_{j-4} - R_{j-2})]$$

Where

A<sub>j-4</sub> = Incremental cost in month j-4

R<sub>j-2</sub> = Incremental cost on month j-4 actually recovered in month j-2

#### Calculation of FOCA per unit

The total FOCA recoverable, as per the allowed expenses discussed earlier should be recovered from all the metered consumers on the basis of the actual consumption in that period, on the basis of Rs./unit. For unmetered consumers, the FOCA should be recovered on the basis of the connected load and the norms for number of hours of operation, and charged in Rs./HP/loom, etc. If the T & D loss of the MSEB is higher than the T & D loss level targeted by the Commission, then the amount of FOCA corresponding to the excess T & D loss in units, will be deducted from the total FOCA

recoverable. The balance FOCA amount will be recovered from the metered and unmetered consumers.

$$\text{FOCA kWh} = \frac{(\text{Total FOCA in Rs. Crore})}{[(\text{Energy Sales}_m + \text{Estimated Consumption}_{um} + \text{Excess T \& D loss})/10]}$$

FOCAkwh = FOCA in Rs./kWh

Energy Sales<sub>m</sub> = Actual energy sold to metered categories in MU

Estimated Consumption<sub>um</sub> = Estimated energy supplied to unmetered consumers based on norms approved in the Tariff Order, in MU

Excess T & D loss in MU

$$= \text{Energy Input} - \text{Energy Sales}_m - \text{Estimated Consumption}_{um} - (\text{T \& D}_{app} \times \text{Energy Input})$$

Where

T & D<sub>app</sub> = T & D loss level approved by the Commission in the Tariff Order, in %

Energy Input = Total energy input, i.e. the sum of total net energy generated and energy purchased.

**Note:** The factor of 1/10 appears in the formula, on account of the conversion of units from Million to Crore, to get FOCA per unit (FOCAkWh)

The recovering the FOCA on the basis of either of the following:

(i) Energy consumption by metered and unmetered category,

(ii) Amount of revenue from metered and unmetered category, the Commission is of the view that the cross subsidy level decided during the original tariff order must be maintained and the recovery should be based on a common denominator, i.e., the actual energy consumption. For the unmetered category of consumption, the same will be derived on the basis of the annual operation hours assumed in the prevailing tariff order. Further, the present billing cycle shall be continued by the MSEB for recovery of FOCA charges from the respective category of consumers.

#### 4. Fuel Surcharge adjustment formula - Uttar Pradesh

$$A_i = PPC_{i-1} - OF_{i-1} - EPR_{i-1} + B_i$$

Where,

$A_i$  is the amount by which the licensee's revenues under the relevant tariff are to be increased or decreased during adjustment period  $i$  (a negative number representing a reduction and a positive number representing an increase in revenues).

$PPC_{i-1}$  is the licensee's purchased power cost for the actual level of sales and the allowed level of loss in the most recent adjustment period ending before adjustment period  $i$ , calculated as,

$$P_{i-1} * QACT_{i-1} * (1 + L)$$

Where,

$P_{i-1}$  is the actual average cost of purchased power incurred by the licensee in the most recent adjustment period ending before adjustment period  $i$ ,  $QACT_{i-1}$

is the actual quantity of sales experienced by the licensee in the most recent adjustment period ending before adjustment period  $i$ ,

$L$  is the average level of energy losses allowed by the Commission in the cost of service and reflected in the licensee's tariffs,

$OF_{i-1}$  are any purchased power costs actually incurred by the licensee in the most recent adjustment period ending before adjustment period  $i$  that are disallowed by the Commission as having been incurred in breach of its economic purchasing obligation.

$EPR_{i-1}$  is the aggregate amount of the charges that the licensee is deemed to have recovered from its tariffs in the adjustment period before adjustment period  $i$ , which is given by the formula

$$EP_{i-1} * Q_{i-1} * (1 + L)$$

Where,

$EP_{i-1}$  is the average charge for purchased power as determined by the Commission in the licensee's tariffs for the most recent adjustment period ending before adjustment period  $i$ ,

$Q_{i-1}$  is the quantity of power deemed to have been sold by the licensee in the most recent adjustment period ending before adjustment period  $i$ , as determined by the Commission in the licensee's tariffs,

$B_i$  is a balancing factor reflecting the extent, to which the licensee has under-adjusted or over-adjusted its tariffs through previous fuel surcharge adjustments and is calculated as follows,

$$B_i = B_{i-1} + A_{i-1} - R_{i-1}$$

Where,

Ri-1 is the total amount of fuel surcharges accruing due to the licensee from its sales to consumers in the adjustment period immediately preceding adjustment period i

The licensee shall allocate the Fuel Surcharge Adjustment Formula to each class of customers or consumers using the energy cost allocation factors for each class contained in the currently approved tariff or as may be otherwise directed by the Commission.

The licensee shall provide the Commission with its calculation of each fuel surcharge adjustment required to be made pursuant to its tariff before it is implemented and shall provide the Commission with such documentation and other information as it may require for the purpose of verifying the correctness of the adjustment.

**5. Fuel and Power Purchase Adjustment Formula – Madhya Pradesh**

The amount of variable (Fuel & other) cost adjustment shall be computed as under

$$V = V_F + V_{PP} + V_Z$$

Where,

V = Amount of variable charge in a specified period in Rs.

VF = Amount of differential cost on account of fuels on own generation (Rs)

VPP = Amount of differential cost on account of Power purchase (Rs.)

VZ = Amount of variable charges on a account of unknown & Unpredictable factors.

**(II) The VCA rate shall be calculated as,**

$$\text{VCA Recovery Rate (Paise/kWh)} = \frac{V \text{ (Rs)}}{\text{Energy sales (KWH)}} \times 100$$

Where Energy sales consist of,

- (a) Metered sale of Energy.... (ES<sub>1</sub>)
- (b) Assessment of unmetered sale .... (ES<sub>2</sub>)
- (c) Deemed sale of Energy on account of excess T&D losses ... (ES<sub>3</sub>)

Less (d) Energy sale to the Exempted categories of consumers..(ES<sub>4</sub>)

The deemed sale of energy is equal to actual T&D losses minus losses allowed by the Commission. In-case the figure is negative, the same may be ignored.

The recovery formula shall be as under:

$$\text{VCA Recovery Rate} = \frac{QC (RC2-RC1) + Q0 (R02-R01) + (\text{Paise/k WH}) QPP (RPP2-RPP1) + VZ}{ES_1 + ES_2 + ES_3 - ES_4} \times 100$$

Quantity of coal consumed during the period in MT.

SHRO

$$= \frac{\text{NCVO}}{\text{Generation (in MU)} \times (1 + \text{LO}) \times 10^3}$$

QO = Quantity of oil consumed during the period in KL

$$= \text{Generation (in MU)} \times \text{specific oil consumption (ml/kWh) as approved by the Commission}$$

[QC and QO will have to be calculated station wise & totaled.]

QPP = Quantity of power purchased during the period in kWh (Justifying

the quantity purchased and mix of supply from various source other than fixed by the Commission). Quantity purchased due to reduction in self-generation will not be allowed. QPP will have to be worked out for each source of supply.

SHRO = Station heat rate as approved by the Commission in kcal./kWh.

NCVO = Approved calorific value of coal fired in kcal/kg.

LO = Transit & storage losses of coal as approved by the Commission.

RC1 = Average rate of coal Ex. Power station coal yard as approved by the Commission for the period in Rs. / MT.

RC2\* = Average rate of coal Supplied Ex. Power station coal yard as per actual for the period in Rs. / MT.

RO1 = Average rate of oil Ex. Power Station approved by the Commission for that period in Rs./K.L.

RO2 = Average rate of oil actually supplied Ex. Power station during the period in Rs./ K.L.

RPP1 = Average rate of power purchase as approved by the Commission in Rs./kWh.

RPP2 = Average rate of power purchase during the period in Rs./kWh.

\* If the grade of coal supplied is inferior or superior to the grade considered in the last tariff order, then average rate of coal supplied (RC2) will be corresponding to the grade of coal considered by the Commission in the last tariff order.

## 6. Fuel and Power Purchase Adjustment Formula – Punjab

To reflect change in fuel cost for PSEB Thermal Stations and Central Generating Stations that are due to reasons beyond the control of the Board, the following is approved :-

### 1. Adjustment Amount:

$$A = C_{fc\text{-gen}} + C_{fc\text{-PP}}$$

$$A = \text{Adjustment Amount (during the quarter)}$$

$$C_{fc} = \text{Change in fuel cost of PSEB thermal stations.}$$

$$C_{fc\text{-PP}} = \text{Change in power purchase cost due to change in fuel cost alone for Central Generating Stations.}$$

### 2. Chargeable FCA from the consumers :

Metered Category

$$FCA_M = A_m / U_m$$

Un-metered Category

$$FCA_{HP} = A_{HP} / L_{HP}$$

where

$A_m$  and  $A_{HP}$  are to be arrived at by apportioning  $A$  on the basis of consumption of metered and un-metered category.

$U_m$  is the number of units billed to metered consumers during the quarter under consideration.

$L_{HP}$  is the sum of the connected load of un-metered consumers at the end of each month for the quarter under consideration.

### 3. The approved formula is subject to the followings:

- i) Commission can review the formula at any stage.
- ii) FCA surcharge shall not be charged, if the energy bill including FCA surcharge remains within MMC.

- iii) For levy of FCA surcharge, showing basis of calculations / authenticated data shall be supplied by the Board to the Commission by August, November, February and May end each year for the FCA increases of the 1<sup>st</sup> , 2<sup>nd</sup> , 3<sup>rd</sup> and 4<sup>th</sup> quarter respectively of each year.
- iv) The FCA amount shall be calculated on the basis of norms fixed by the Commission for various parameters including total Generation, Power, Purchase. SHR, Transit Loss of Coal, Auxilliary consumption at thermal plants and T&D losses.
- v) The FCA for the first quarter of a financial year i.e. from April to June shall be worked out by the Board and approved by the Commission by the end of September of the same year so that the FCA is charged from October onwards. Similarly FCA for the 2<sup>nd</sup> quarter of a financial year i.e. from July to September shall be worked out by the Board and approved by the Commission by December of the same year so that Fuel Cost Adjustment is charged from January onwards. Similar schedule shall be followed for charging FCA for the third and fourth quarters.

The approved fuel & power purchase cost adjustment (FPPCA) formula is given below:

$$\text{FPPCA (Per / kWh)} = \frac{Q_c(\text{RC2}-\text{RC1})+Q_o(\text{RO2}-\text{RO1})+Q_{pp}(\text{Rpp}^2-\text{Rpp1}) + V_z + A}{X100}$$

$$(\text{QPg} + \text{QPP}) \times (1-\text{L}) - \text{PSE}$$

Where,

$Q_c$  = Quantity of coal consumed during the adjustment period (in M.T)

$$(\text{SHR} \times \text{QPg}) (1+\text{TSL}) \times 1000 / \text{GCV}$$

$\text{RC1}$  = Weighted average rate of coal supplied ex-power station coal yard as per actual for the adjustment period (in Rs. / M.T)

$\text{RC2}$  = Weighted average rate of the coal supplied ex-power station coal yard as per actual for the adjustment period (in Rs. / M.T)

$Q_o$  = Quantity of oil (in KL) consumed during the adjustment period Generation (in MU)

$X$  Specific oil consumption approved by the Commission (ml. / kWh)

$\text{RO1}$  = Weighted average rate of oil ex-power station approved by the Commission for the adjustment period (in Rs. / KL)

$\text{RO2}$  = Weighted average actual rate of oil ex-power station supplied during the adjustment period (in Rs. / KL)

$\text{QPg}$  = Board's own power generation at generator terminal – approved auxiliary consumption (in MUs)

BEFORE THE DELHI ELECTRICITY REGULATORY COMMISSION,  
C BLOCK, SHIVALIK, MALVIYA NAGAR, NEW DELHI

PETITION NO:

IN THE MATTER OF:-

Petition seeking approval and implementation of Power Purchase Price Adjustment (PPPA) formula as envisaged under section 62 (4) of the Electricity Act 2003, which provide a mechanism to pass on the adjustments due to changes in the cost of power generation and power procured arising from the variation in the fuel cost or fuel-mix or source of procurement or market price or any such other factor; where the variations are measured from the average power purchase cost approved at the time of tariff determination.

AND

IN THE MATTER OF:-

BSES Rajdhani Power Limited ("BRPL")

BSES Bhawan, Nehru Place

New Delhi-110 019

PETITIONER

AFFIDAVIT VERIFYING THE PETITION

I, Rajeev Chowdhury S/o Shri Sunil K. Chowdhury, aged 39 years, having my office at BSES Bhawan, Nehru Place, New Delhi-110019, do hereby solemnly affirm and state as follows:

1. I am the authorized signatory of BSES Rajdhani Power Limited. That I am conversant with the facts and circumstances of this petition and I am duly authorized to file the petition accompanying documents/information duly paginated (Page No. 1 to 21).
2. That the statements made above in the accompanying application/petition are based on the records of the company and believed by me to be true.



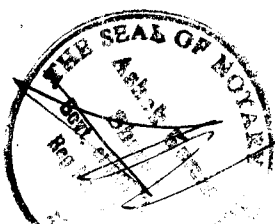
DEPONENT

**RAJEEV CHOWDHURY**

Head (Regulatory Affairs)

Authorized Signatory

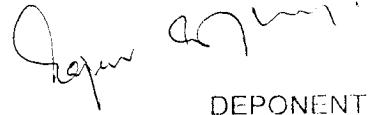
BSES Rajdhani Power Limited: Respondent



**VERIFICATION:-**

I, Rajeev Chowdhury the respondent hereby solemnly affirms that the contents of above affidavit are true to the best of my knowledge, no part of it is false and nothing material has been concealed there from.

Verified by me on this the 24<sup>th</sup> June'2010 at New Delhi.



DEPONENT

**RAJEEV CHOWDHURY**

Head (Regulatory Affairs)

Authorized Signatory

BSES Rajdhani Power Limited: Respondent

**WITNESS:-**



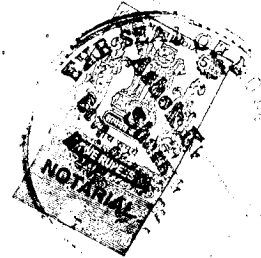
Prachi Jain

Assistant Manager (Regulatory Affairs)

BSES Rajdhani Power Ltd.

BSES Bhawan, Nehru Place.

New Delhi-110019



23 JUN 2010

