



# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

Registrar

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E-mail: office@nepra.org.pk

No. NEPRA/TRF-14/KESC-2002/9418-21  
August 7, 2008

Subject:- **Determination of the Authority on Tariff Adjustment of Karachi Electric Supply Co. Ltd. (formerly Karachi Electric Supply Corporation Ltd.) for Variation in Fuel Price and Cost of Power Purchased for the Quarter April to June, 2008**  
Intimation of Determination of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)

Dear Sir,

Please find enclosed the determination of the Authority along with Annexure-I, II & III (08 pages) applying the Tariff Adjustment Mechanism specified in Case No. NEPRA/TRF-14/KESC-2002 notified vide SRO 716(I)/2002, dated 12<sup>th</sup> October 2002.

2. Summary of decision is:

- Adjustment on account of variation in fuel price and cost of power purchased during the quarter April to June, 2008.

3. The determination is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) and Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.

4. In view of above, the tariff adjustment intimated vide letter No. NEPRA/TRF-14/KESC-2002/7408-11 dated 07.05.2008 needs to be notified prior to the notification of Annexure-III to the attached determination containing the schedule of tariff.

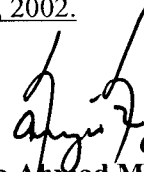
5. The approval of the tariff is subject to the terms and conditions of schedule of tariff as notified vide SRO 819(I)/2001 dated November 29, 2001 and SRO 325(I)/2002 dated June 11, 2002.

Enclosure: As above

The Secretary,  
Cabinet Division,  
Government of Pakistan,  
Cabinet Secretariat,  
Islamabad

CC:

1. Secretary, Ministry of Water & Power, Islamabad.
2. Secretary, Ministry of Finance, Islamabad.
3. Secretary, Privatization Commission, Islamabad.

  
07-08-08  
(Mahjoob Ahmad Mirza)



**DETERMINATION OF THE AUTHORITY ON TARIFF ADJUSTMENT OF  
KESC FOR VARIATION IN FUEL PRICE AND COST OF POWER PURCHASE  
FOR THE QUARTER APRIL TO JUNE 2008**

Pursuant to the NEPRA's Determination No. NEPRA/TRF-14/KESC-2002, dated 10<sup>th</sup> September, 2002 as notified by the Federal Government vide SRO 716(I)/2002 dated 12<sup>th</sup> October 2002 (hereinafter the "Determination"), the tariff (hereinafter "Tariff") of Karachi Electric Supply Corporation (hereinafter "KESC") is subject to adjustments: (a) every three (3) months to compensate for variation in the fuel price and cost of power purchased and (b) every year (in July) for indexation due to CPI (inflation).

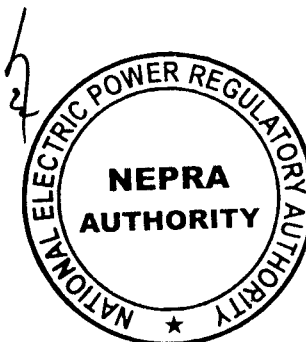
2. In light of the aforesaid, KESC vide letter No.DDRA & SP/NEPRA/071/08 dated 15<sup>th</sup> July, 2008 has sought adjustment in its tariff. KESC has claimed that the variation in fuel cost due to fuel price variation and generation mix works out to be Rs. 9212 million or Ps. 84.13/kWh, while variation in cost of purchase of power is calculated to be Rs. 2727 million or paisa 24.90/kWh. The cumulative effect after incorporating leftover of previous quarter Rs 850 million for the fuel price and Rs. 178 million for the power purchase cost, has thus been worked out Rs 12967 million or paisa 118.42/kWh.

3. In respect of the aforesaid variation in the cost of purchase of power from National Transmission and Despatch Company (hereinafter "NTDC"), KESC has applied a previous fixed rate of Ps. 369 per kWh.

4. Additionally, for quarterly adjustment in Tariff, KESC requested Authority's consideration on the following facts;

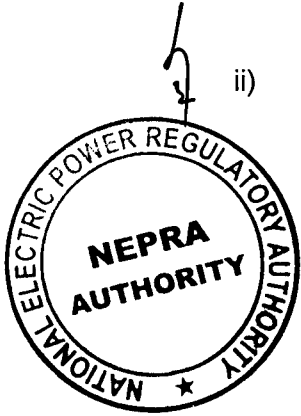
- i) Pursuant to Authority's Determination dated 14<sup>th</sup> September 2006, an increase in Tariff by Ps. 118.42/kWh without application of 4% price cap and change in gas price mechanism, may be allowed.
- ii) KESC has already filed tariff petition for modification/revision in the marginal cost formula, for the purchase of power from NTDC. Therefore, a fixed rate of Paisa 369/kWh has been taken for power purchase from NTDC for the current period. It is expected that KESC will be allowed average rate of power purchase from NTDC as applicable to other DISCOS. Therefore, working of ATA on marginal cost basis may be kept pending till the decision of the Authority.

*h* *h*



5. Having considered the aforesaid issues, the Authority has decided that:

i) KESC's request for increase in tariff by 118.42/kWh on account of removal of 4% price cap as mentioned at paragraph- 4(i) hereabove, can only be considered when the Authority's determination dated 14<sup>th</sup> September 2006 is notified by Government of Pakistan (hereinafter "GoP").



ii) With respect to purchase of power from NTDC by KESC at the fixed rate of Ps 369/kWh, it may be clarified that the Authority has already Determined in case No.NEPRA/TRF-19/NTDC-2003 dated 14.04.2004 also notified by GoP vide S.R.O No. 647(I)/2004 dated 04.06.2004, that NTDC can charge a marginal cost rate in addition to the wheeling charges. KESC's tariff petition whereby it has been requested that for procurement of power from NTDC, KESC should be considered at par with other DISCOs and charged with the same rate as applicable to other DISCOs, has not been decided by the Authority as yet. Therefore KESC's request can not be accepted at his particular point of time.

6. Reference Paragraph-5 here above, relying upon the information/data provided by KESC, the variation in cost for the quarter April-June 2008, due to fuel price is worked out to be Rs. 4317 million or Paisa 39.42/kWh and Rs. 11785 million or paisa 107.63/kWh due to variation in power purchase cost. Thus the required adjustment in KESC's tariff after previous quarter's leftover amount of Rs. 848.30 million in the fuel price and Rs. 17244 million in the power purchase cost, works out to be Rs. 5165.50 million or Paisa 47.17/kWh and Rs. 29028.66 million or Paisa 265.10/kWh respectively.

7. According to the mechanism prescribed by NEPRA, the maximum adjustment that can be allowed in a quarter due to variation in fuel price is 2.5% and due to variation in power purchase price 1.5% of the overall average sale rate. Therefore, the allowable adjustment in KESC's tariff on account of variation in fuel price and generation mix is calculated as Paisa 18.03/kWh and on account of power purchase cost Paisa 10.82/kWh. The overall adjustment both on account of fuel price and power purchase cost, thus works out to be Paisa 28.84/kWh (Annex-I & II).

8. The leftover (balance) after this current adjustment in respect of fuel price variation Rs. 3191.64 million and Rs. 27844.34 million on account of power purchase cost will be adjusted in the next quarterly adjustment.

9. In addition to the above, KESC has requested paisa 8.87/kWh as increase in its tariff on account of annual CPI indexation of the O&M Cost component, to be effective from July 2008.

10. According to the determination of the Authority dated 10.09.2002, KESC's O&M cost component of tariff is to be adjusted every year in July based on Consumer Price Index (CPI) as notified by Federal Bureau of Statistics (FBS) for the month of March. The CPI for the

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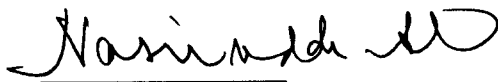
month of March 2007 was 143.17 whereas the same for the month of March 2008 as notified by FBS was 163.38. The Authority has therefore, decided to allow paisa 8.87/kWh on account of indexation of O&M cost component as detailed hereunder:

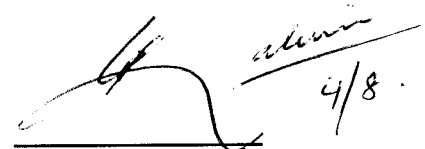
Component	Existing Ps/kWh	Revised Ps/kWh	Increase Ps/kWh
O&M - Generation	13.65	15.58	1.93
O&M - Transmission	5.47	6.24	0.77
O&M - Distribution	43.74	49.91	6.17
Total	62.86	71.73	8.87


11. In order to compensate KESC, on account of variation in fuel price, cost of purchase of power and O&M cost indexation, the Authority has decided to allow a uniform increase in consumer end tariff for all consumer categories by Paisa 38.00 per kWh, except for the life-line consumers consuming up to 50 units per month.

12. In light of the aforesaid, the Authority recommends to the Federal Government that the KESC Tariff be modified in accordance with Paragraph-11 hereabove for the variation in cost of fuel and power purchase for the quarter April-08 to June-08 as well as O&M indexation. For this purpose a new schedule of tariff appended herewith as Annexure-III, is hereby intimated for Notification in the Official Gazette in accordance with the provisions of section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of)1997, read with Rule-6 of the NEPRA Tariff Standards and Procedure Rules, 1998.

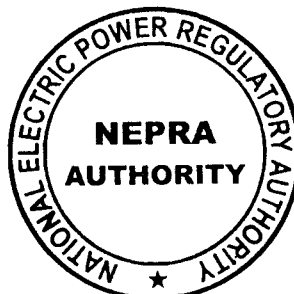
**Authority**

  
 Nasiruddin Ahmed  
 Member

  
 Abdul Rahim Khan  
 Member

  
 Maqbool Ahmad Khawaja  
 Member

  
 Khalid Saeed  
 Chairman

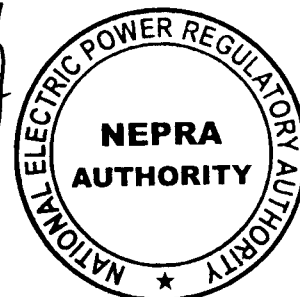




**Karachi Electric Supply Corporation Ltd.**  
**Adjustment in tariff due to variation in fuel price**  
**Quarter ending June 2008**

Description	Generation GWh				
	4th Quarter			Next 3 Quarters	Total Apr 08 - Mar 09
	Apr-08	May-08	Jun-08		
<b>Generation on Furnace Oil at Bus Bar</b>					
Korangi Thermal Power Station	1	0	0	229	231
Bin Qasim	146	153	159	1,151	1,610
<b>Total Generation on F.O.</b>	<b>147</b>	<b>154</b>	<b>160</b>	<b>1,380</b>	<b>1,840</b>
<b>Generation on Gas at Bus Bar</b>					
Korangi Thermal Power Station	56	89	83	359	587
Korangi/SITE Gas Turbine Power Station	54	54	63	634	804
Bin Qasim Power Station	485	494	475	4,260	5,714
<b>Total Generation on Gas</b>	<b>594</b>	<b>637</b>	<b>621</b>	<b>5,253</b>	<b>7,105</b>
<b>Generation on LD/HSD Oil</b>	-	-	-	0.08	0.08
<b>Total Generation</b>	<b>741</b>	<b>791</b>	<b>781</b>	<b>6,633</b>	<b>8,945</b>
<b>Fuel Prices</b>					
Furnace Oil (Without GST) Rs./M.Ton					
Previous Price	31,512	31,512	31,512	31,512	
Revised Price	33,089	37,232	41,666	41,666	
Gas Rs./ MMBTU					
Previous Price	252	252	252	252	
Revised Price	252	252	252	252	
<b>Coverision Factor</b>					
Furnace Oil Kg/kWh					
Korangi Thermal Power Station	0.32	0.32	0.32	0.32	
Bin Qasim	0.25	0.25	0.25	0.25	
Gas BTu/kWh					
Korangi Thermal Power Station	12,900	12,900	12,900	12,900	
Korangi /SITE Gas Turbine Power Station	16,000	16,000	16,000	16,000	
Bin Qasim	10,000	10,000	10,000	10,000	
<b>Variation in Fuel Cost - F.O. Rs. Million</b>					
Korangi Thermal Power Station	1	1	1	743	746
Bin Qasim	57	217	401	2,896	3,571
<b>Sub-total</b>	<b>58</b>	<b>218</b>	<b>402</b>	<b>3,640</b>	<b>4,317</b>
<b>Variation in Fuel Cost - Gas Rs. Million</b>					
Korangi Thermal Power Station	-	-	-	-	-
Korangi/SITE Gas Turbine Power Station	-	-	-	-	-
Bin Qasim	-	-	-	-	-
<b>Sub-total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Variation in Fuel Cost Rs. Million</b>	<b>58</b>	<b>218</b>	<b>402</b>	<b>3,640</b>	<b>4,317</b>
<b>Units expected to be sold GWh</b>	(Apr 2008 - Mar 2009)				<b>10,950</b>
Variation in cost due to fuel price for the quarter (Million Rupees)					4,317
Balance (Leftover) at the end of last quarter (Jan-Mar 08) (Mln. Rs.)					848
Total Variation in cost due to fuel price variation (Million Rupees)					5,165
Required Adjustment in average sale rate Ps./kWh					47.17
Maximum adjustment to be allowed in a quarter as percent of average sale rate					2.5%
Allowable adjustment in average sale rate Ps./kWh					18.03

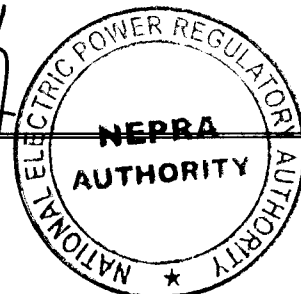
ATA-Apr-Jun 08



**Karachi Electric Supply Corporation Ltd.**  
**Adjustment in tariff on account of purchase of power**  
**Quarter ending June 2008**

Description	Purchase of Power GWh				
	4th Quarter			Next 3 Quarters	Total Apr 08 - Mar 09
	Apr-08	May-08	Jun-08		
<b>Source of Purchase</b>					
Tapal	80	81	83	610	854
Gul Ahmad	78	83	81	606	848
WAPDA	301	350	385	3,006	4,042
KANUPP	33	32	7	223	295
PASMIC	9	4	5	33	51
Others	48	62	52	-	162
<b>Total Purchase of Power</b>	<b>549</b>	<b>612</b>	<b>613</b>	<b>4,478</b>	<b>6,252</b>
<b>Reference Energy Purchase Price not subject to indexation Ps/kWh</b>					
WAPDA	846.68	846.68	846.68	846.68	
KANUPP	245.58	245.58	245.58	245.58	
PASMIC	242.12	242.12	242.12	242.12	
<b>Revised Energy Purchase Price not subject to indexation Ps/kWh</b>					
WAPDA	884.24	960.89	1,098.61	1,098.61	
KANUPP	245.58	245.58	245.58	245.58	
PASMIC	242.12	242.12	242.12	242.12	
<b>Reference Energy Purchase Price subject to fuel price change Ps/kWh</b>					
Tapal	685.23	685.23	685.23	685.23	
Gul Ahmad	711.10	711.10	711.10	711.10	
<b>Revised Energy Purchase Price subject to fuel price change Ps/kWh</b>					
Tapal	723.39	768.83	884.46	884.46	
Gul Ahmad	744.04	785.92	867.22	867.22	
<b>Fuel Prices</b>					
<b>Reference fuel prices</b>					
Tapal	30,928	30,928	30,928	30,928	
Gul Ahmad	31,156	31,156	31,156	31,156	
<b>Revised fuel prices</b>					
Tapal	32,650	34,701	39,920	39,920	
Gul Ahmad	32,599	34,434	37,996	37,996	
<b>Reference Energy Purchase Price other than fuel subject to indexation Ps/kWh</b>					
Tapal	18.50	18.50	18.50	18.50	
Gul Ahmad	10.00	10.00	10.00	10.00	
<b>Reference Energy Purchase Price</b>					
Tapal	48.12	48.12	48.12	48.12	
Gul Ahmad	26.01	26.01	26.01	26.01	
<b>Revised Energy Purchase Price</b>					
Tapal	49.51	49.51	49.51	49.51	
Gul Ahmad	26.76	26.76	26.76	26.76	
<b>Indexation Factors for Energy Charges</b>					
<b>Reference Indexation Factors</b>					
Tapal	3.04	3.04	3.04	3.04	
Gul Ahmad	3.04	3.04	3.04	3.04	
<b>Revised Indexation Factors</b>					
Tapal	3.13	3.13	3.13	3.13	
Gul Ahmad	3.13	3.13	3.13	3.13	
<b>Reference Capacity Charges Rs./kW/Month</b>					
<b>Capacity Charges - non-escalable</b>					
Tapal	303	303	303	303	
Gul Ahmad	622	622	622	622	
<b>Capacity Charges -escalable</b>					
Tapal	304	304	304	304	
Gul Ahmad	392	392	392	392	
<b>Indexation Factors for Capacity Charges</b>					
<b>Reference Indexation Factors for escalable - US CPI</b>	143.09	143.09	143.09	143.09	
<b>Revised Indexation Factors for escalable - US CPI</b>	143.09	143.09	143.09	143.09	
<b>Reference Indexation Factors for escalable - Exchange Rate</b>	60.92	60.92	60.92	60.92	
<b>Revised Indexation Factors for non-escalable - Exchange Rate</b>	62.68	62.68	62.68	62.68	
<b>Dependable Capacity MW</b>					
Tapal	125	125	125	125	
Gul Ahmad	128	128	128	128	
<b>Variation in Cost of Purchase of Power Rs.Million</b>					
Energy	171	531	1,264	9,747	11,713
Capacity	6	6	6	53	71
<b>Total Variation in Cost of Purchase of Power</b>	<b>177</b>	<b>537</b>	<b>1,269</b>	<b>9,801</b>	<b>11,785</b>
<b>Overall units expected to be sold in next 12 months GWh</b>	(April 2008 - March 2009)				<b>10,950</b>
Variation in cost of power purchase for the quarter (Million Rupees)					11,785
Balance (Leftover) at the end of last quarter (Jan-Mar 08) (Mln. Rs.)					17,244
Total Variation in cost of power purchase (Million Rupees)					29,029
Required Adjustment in average sale rate (Ps./kWh)					265.10
Maximum adjustment to be allowed in a quarter as percent of average sale rate					1.5%
Allowable adjustment in average sale rate (Ps./kWh)					10.82

ATA-Apr-Jun 08



## KESC

### SCHEDULE OF ELECTRICITY TARIFFS

TARIFF CATEGORY/PARTICULARS	Fixed Charges	Energy Charges	F.A.S	Additional Surcharge
	Rs/kW/Month	Ps/kWh	Ps/kWh	Ps/kWh

**RESIDENTIAL --- TARIFF A-1**

Up to 50 units consumption in a month	-	61	-	79
<u>For consumption above 50 units</u>				
For first 100 units (1-100) in a month	-	46	332	174
For next 200 units (101-300) in a month	-	63	332	247
For next 700 units (301-1000) in a month	-	156	332	382
Above 1000 units in a month	-	193	332	469

Under this Tariff, there shall be minimum monthly charges at the following rates, even if no energy is consumed during the month.

- a. Single phase connections Rs.45/-  
 b. Three phase connections Rs.100/- plus Rs.25/- per kW for load in excess of 5 kW

**COMMERCIAL --- TARIFF A-2**

For first 100 units in a month	-	291	284	418
Above 100 units in a month	-	315	284	430

Under this Tariff, there shall be minimum monthly charges at the following rates, even if no energy is consumed during the month.

- a. Single phase connections Rs 150/-  
 b. Three phase connections Rs 300/- plus Rs 30/- per kW for load in excess of 10 kW

**INDUSTRIAL --- TARIFF - B**

B-1 Up to 40 kW (At 400 Volts)	-	186	299	337
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There shall be minimum monthly charges of Rs. 70 per kW for first 20 kilowatt of load and Rs. 90 per kW for loads between 20-40 kW even if no energy is consumed.

B-2 From 41-500 kW (at 400 volts)	300	135	299	250
B-3* Up to 5000 kW (11 kV)	290	134	299	234
B-4* For all loads (at 66, 132 kV).	280	129	299	215
B-5* For all loads (at 220 kV and above)	273	129	299	208

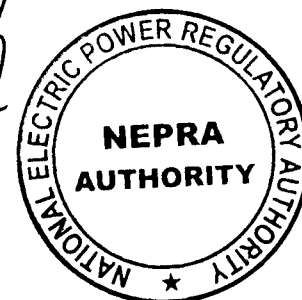
**TIME OF DAY (TOD) TARIFF FOR INDUSTRIAL CONSUMERS**

PARTICULARS	Fixed Charges Rs/kW/Month	Energy Charges		F A S Ps/kWh	Additional Surcharge	
		Off-Peak Hours	Peak Hours		Off-Peak Hours	Peak Hours
		Ps/kWh	Ps/kWh		Ps/kWh	Ps/kWh
B-2 From 41-500 kW (at 400 volts)	300	125	203	299	234	313
B-3 Upto 5000 kW (11 kV)	290	120	202	299	191	266
B-4 For all loads (at 66, 132 kV).	280	116	192	299	177	256
B-5 For all loads (at 220 kV and above)	273	116	192	299	170	251

**Note:** B-2 consumers can opt for TOD Tariff

All B-3 & B-4 consumers were to be converted to TOD Tariff by 30-06-2000, after installation of electronic meters with TOD provisions. Normal Tariff (\*) will be only applicable to B-3, B-4 and B-5 consumers who have not been provided with TOD meters, till such time TOD meters are provided.

The time period for measuring the maximum demand of B-2, B-3, B-4 and B-5 industrial and TOD meters has been changed from 15 minutes to 30 minutes. Change to take effect on installation of meters capable of measuring the maximum demand in 30 minutes period.



TARIFF CATEGORY/PARTICULARS	Fixed Charges	Energy Charges	F.A.S	Additional Surcharge
	Rs/kW/Month	Ps/kWh	Ps/kWh	Ps/kWh
<b><u>BULK SUPPLY --- TARIFF - C</u></b>				
C-1 (a) 400 Volts	-	129	324	353
C-1 (b) 400 Volts	220	114	324	354
C-2 (a) 11 kV	-	115	324	333
C-2 (b) 11 kV	216	111	324	345
C3 (at 66, 132 & 220 kV) --- for all loads	214	106	324	315

**Note:** The time period for measuring the maximum demand of C-1, C-2, and C-3 meters has been changed from 15 minutes to 30 minutes. Change to take effect on installation of meters capable of measuring maximum demand in 30 minutes period.

**AGRICULTURE --- TARIFF - D**

D-1 Sindh and Balochistan	72	80	312	236
D-2 Sindh and Balochistan	176	80	312	172

**Note:** Consumer falling in category D shall have the option to choose between Tariff D-1 and D-2.

**TEMPORARY SUPPLY --- TARIFF - E**

E-1 (i) Domestic Supply	-	216	332	388
E-1 (ii) Commercial Supply	-	386	284	528

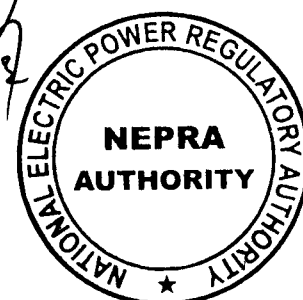
For the above two categories, the minimum bill of the consumer shall be Rs 46/- per day subject to minimum of Rs.200/- for the entire period of supply, even if no energy is consumed.

E-2 (i) Industrial supply	-	241	299	382
E-2 (ii) Bulk Supply				
(a) at 400 Volts	-	181	324	409
(b) at 11 kV	-	169	324	391
E-2 (iii) Bulk supply to other consumers	-	190	324	407

**SEASONAL INDUSTRIAL SUPPLY TARIFF-F**

SUPPLY CHARGES	ADDITIONAL SURCHARGE
125% of the "Supply Charges" of relevant industrial supply tariff	125% of the Additional Surcharge of the relevant industrial supply tariff

**Note:** Tariff-F Consumers will have the option to convert to Regular Tariff and vice versa. This option can be exercised at the time of a new connection or at the beginning of the season. Once exercised, the option will remain in force at least for one year





TARIFF CATEGORY/PARTICULARS	Fixed Charges	Energy Charges	F.A.S	Additional
	Rs/kW/Month	Ps/kWh	Ps/kWh	Surcharge Ps/kWh

**PUBLIC LIGHTING TARIFF-G**

G-1 Units Charges	-	220	303	488
G-2 (a) for 60 watts		Rs 495/per year per lamp		470
(b) for 100 watts		Rs 908/per year per lamp		470

**Note:** Consumer falling in category G shall have the option to choose between Tariff G-1 and G-2.

**Fixed Line Charges Per Month Per Mile****Rs**

(i) Where the entire capital cost in laying street lighting supply line which is exclusively meant for street lighting is borne by the Corporation.				253
(ii) Where the entire capital cost in laying street lighting supply line, which is exclusively meant for street lighting is borne by the Consumer.				23
(iii) Where the entire capital cost in laying street lighting supply line, over the existing distribution system is borne by the Corporation.				158
(iv) Where the entire capital cost in laying street lighting supply line, over the existing distribution system is borne by the consumer.				33
(v) For street lighting supply through underground cables.				Rates to be negotiated

**RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES (TARIFF-H)**

Consumers having their own transformers		150	332	426
Consumers not having their own transformers		151	332	428

**Note:**

**Terms and conditions of the Schedule of Tariff as notified vide SRO 819(1)/2001 dated November 29, 2001 shall continue to remain in force.**

