



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad

Ph : 9206500, 9207200, Fax : 9210215

E-mail: registrar@nepra.org.pk

Registrar

No. NEPRA/TRF-14/KESC-2002/590-593

November 6, 2009

Subject:- **Determination of the Authority on Tariff Adjustment of Karachi Electric Supply Co. Ltd. for Variation in Fuel Price and Cost of Power Purchased for the Quarter April to June, 2009**

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 (09 pages) applying the Tariff Adjustment Mechanism specified in Case No. NEPRA/TRF-14/KESC-2002 notified vide SRO 716(I)/2002, dated 12th 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, 2009.

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, No. 9418-21 dated 07.08.2008, No. 334-337 dated 20.01.2009, No. 1429-1432 dated 10.04.2009 and No. 6601-6604 dated 30.06.2009 need to be notified prior to the notification of Annexure-III to the attached determination containing the schedule of tariff.

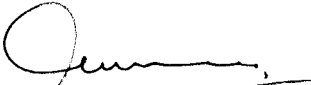
5. The approval of the tariff is subject to the terms and conditions of schedule of tariff as notified vide SRO 819(I)/2001 dated November 29, 2001 and SRO 325(I)/2002 dated June 11, 2002.

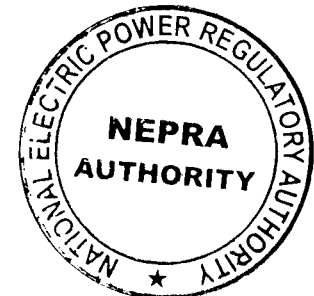
Enclosure: As above

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.


(Arshad Mehmood)



DETERMINATION OF THE AUTHORITY ON TARIFF ADJUSTMENT OF KARACHI ELECTRIC SUPPLY COMPANY LTD. (KESCL) FOR VARIATION IN FUEL PRICE AND COST OF POWER PURCHASE FOR THE QUARTER APRIL TO JUNE 2009

Pursuant to the NEPRA's Determination No. NEPRA/TRF-14/KESC-2002, dated 10th September, 2002 as notified by the Federal Government vide SRO 716(I)/2002 dated 12th October 2002 (hereinafter the "Determination"), the tariff (hereinafter "Tariff") of Karachi Electric Supply Company limited (hereinafter "KESCL") 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 the light of aforesaid, KESCL vide its communication No. CMF/NEPRA/071/09/463 dated July 31, 2009 (received on September 09, 2009) has sought tariff adjustment for the quarter April-June 2009. KESCL has claimed that the variation in fuel cost due to fuel price variation and generation mix works out to be Rs. 672 million or paisa 5.84/kWh, while variation in cost of purchase of power is calculated to be Rs. 1166 million or paisa 10.14/kWh. The cumulative effect, has thus been worked out Rs 1838 million or paisa 15.98/kWh. KESCL has also requested for annual indexation of its O&M components as per the relevant provision of the determination to be effective from July 01 2009.

3. Adjustment of Fuel Price Variation for KESCL's Owned Power Plants.

3.1 Adjustment Due To Gas Price Variation

KESCL operates its power plants on two fuels i.e Gas and Furnace Oil. KESCL has claimed a total reduction of Rs.1,005 Million in its fuel cost due to decrease in the price of Gas from Rs 350/MMBTU to Rs.334/MMBTU, whereas for the same, NEPRA has worked out the decrease as Rs. 979 Million which is less by Rs 26 million from what has been claimed by KESCL. The reason for this variation was due to the fact, that KESCL in its previous quarterly fuel price adjustment requests had worked out the total fuel cost variation on gas while taking a net efficiency of 34.1% (on open cycle) for one of its newly commissioned gas operated power plant (i.e. 220 MW Korangi gas operated Combined Cycle Power plant) whereas, for the same power plant, fuel cost variation was determined by the Authority on the basis of 39.9% (on open cycle) efficiency. KESCL in its current quarterly adjustment request has also based its calculations for the aforementioned power plant on 34.1% against the approved efficiency of 39.9%. Since, there is a decrease in the applicable gas price for current quarter, therefore, decrease in the fuel cost over the past quarter as worked out by NEPRA on the basis of 39.9% efficiency (which being higher than KESCL's requested efficiency of 34.1%) in respect of KESCL's 220 MW Combined Cycle Power Plant works out to be less than KESCL claim. The Authority has, therefore, decided to allow KESCL Rs 979 million as decrease in its cost of generation on gas due to decrease in the price of gas.

3.2 Adjustment Due to Furnace Oil Price Variation

KESCL, for its generation on Furnace Oil, has claimed an increase of Rs. 1677 Million over the previous quarter due to increase in the price of Furnace Oil during the current quarter. Based on the information provided by KESCL, the increase in the fuel cost of

KESCL due to increase in Furnace Oil price for the current quarter has been worked out as Rs 1677 million which is the same as claimed by KESCL, hence approved as such.

4 **Adjustments Due To Power Purchase Cost Variation:**

KESCL's total variation on account of power purchase from external sources i.e. IPPs, NTDC, works out to be Rs. 1166 Million or Ps.10.14 per kWh. Based on the information provided by KESCL, the increase in the power purchase from external sources has been worked out to be Rs 1166 million which is the same as claimed by KESCL, hence approved as such.

5. The allowable adjustment in sale rate on account of variation in fuel price has been approved as paisa 6.00/kWh and on account of variation in power purchase cost as paisa 10.00/kWh. The overall allowable adjustment, both on account of fuel price variation and power purchase cost variation thus works out to be paisa 16.00/kWh. The details of the above variations have been attached as **(Annex-I&II)**. In view of the above, total variation in KESCL's fuel cost and power purchase cost over the previous quarter as detailed below, is approved for adjustment in KESCL's tariff.

Description	Requested by KESCL	Approved by the Authority
<u>Fuel Price Variation</u>		
Due to Gas price Variation (Rs in Mln)	-1005	-979
Due to Furnace oil price Variation (Rs in Mln)	1677	1677
Total Fuel Price variation (Rs in Mln)	672	699
Estimated Units to be Sold for the Year (GWh)	11,501	11,667
Total Ps./kWh	5.84	6.00
<u>Power Purchase Cost Variation</u>		
Total Power Purchase cost variation (Rs in Mln)	1166	1166
Total Ps./kWh	10.14	10.0
G.Total Ps/kWh	16.0	16.0

6. **O&M Indexation**

- 6.1 In addition to the above, KESCL has also requested for adjustment in its tariff by Paisa 13.68/kWh on account of yearly indexation of O&M cost component effective from July 2009 in accordance with the adjustment mechanism already notified by GoP.

- 6.2 KESCL's O&M component is subject to reduction by the Authority's approved X-factor after three years of KESCL privatization, till the expiry of the Multi Year Tariff period. KESCL privatization took place in November 2005 and three years have been passed since then, therefore, the approved X factor is required to be applied to each component of its O&M. The Authority's approved X-factor in its Determination of September 2002, for each component is indicated hereunder:

Portion of Tariff to which CPI is applicable	X Factor
Generation O&M	2
Transmission O&M	2
Distribution O&M	3

- 6.3 The CPI for the month of March 2008, was 163.38, whereas, CPI for the month of March 2009 was 194.53. Accordingly, the following O&M cost component is adjusted as per detail given hereunder after the application of X-Factor in the Authority approved formula for O&M indexation:

Reference CPI March 2008	163.38
Revised CPI March 2009	194.53

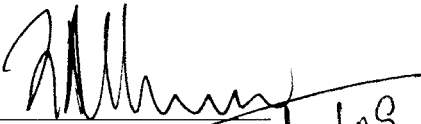
Variable O&M	Existing Ps/kWh	Requested By KESCL Ps/kWh	Approved Ps./kWh
Generation	15.58	18.55	18.24
Transmission	6.24	7.43	7.30
Distribution	49.91	59.43	57.93
Total	71.73	85.41	83.47

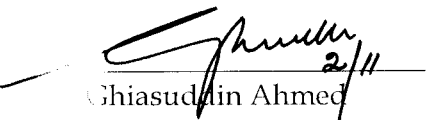
7. The overall increase to be allowed to KESCL on account of fuel price, power purchase cost and O&M cost indexation, all together, therefore, works out to be Paise 27.73 per kWh (6.00+10.00+11.74).
8. Furthermore, KESCL also requested for a detailed presentation to the Authority on the issue of adjustment of un-recovered cost/ Loss in revenue of Rs 6,754 million due to 4 % cap. In this regard, the Authority considers that the matter has already been deliberated comprehensively in the last three quarterly tariff adjustments of KESCL wherein, it was decided by the Authority not to allow adjustment in KESCL's tariff on this account as the existing mechanism for adjustment of fuel price and power purchase cost does not provide for such adjustment. Therefore, KESCL's request for presentation to the Authority is not required.
9. In order to compensate KESCL for variation in the fuel cost of its own generation, the power purchase cost and O&M cost indexation for the current quarter i.e. April-June 2009, the Authority has decided to allow a uniform increase of paise 28 per kWh, w.e.f July 01, 2009 in the consumer-end tariff for all consumer categories, except for the life-line consumers consuming up to 50 units per month.
10. In light of the aforesaid, the Authority recommends to the Federal Government that the KESCL's tariff be modified in accordance with Paragraph-9 hereabove for the variation in cost of fuel and power purchase for the quarter April-09 to June-09. For

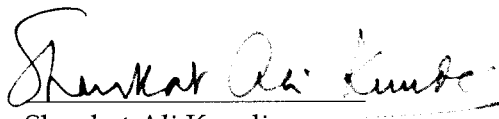


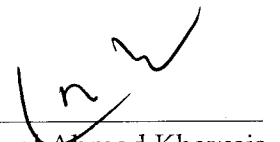
this purpose a new schedule of tariff appended herewith as (**Annex-III**), is intimated for Notification in the Official Gazette in accordance with the provisions of section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of)1997, read with Rule-6 of the NEPRA Tariff Standards and Procedure Rules, 1998.

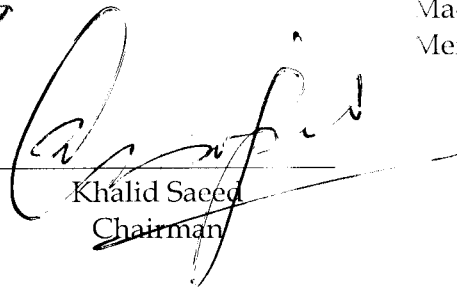
Authority

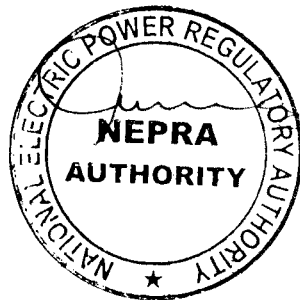

Zafar Ali Khan
Member
30/10/09


Ghiasuddin Ahmed
Member
2/11


Shaukat Ali Kundi
Member
03.11.09


Maqbool Ahmad Khawaja
Member/Vice Chairman


Khalid Saeed
Chairman



Karachi Electric Supply Company Ltd.
Adjustment in tariff due to variation in fuel price
Quarter ending June 2009

Description	Generation GWh				
	4th Quarter			Next 3 Quarters	Total Apr-09 Mar 10
	Apr-09	May-09	Jun-09		
Generation on Furnace Oil at Bus Bar					
Korangi Thermal Power Station	-	-	-	-	-
Bin Qasim	109	115	161	525	910
Total Generation on F.O.	109	115	161	525	910
Generation on Gas at Bus Bar					
Korangi Thermal Power Station	57	77	84	430	648
Korangi/SITE Gas Turbine Power Station	61	67	55	524	707
Korangi Combined Cycle Power Plant	45	46	55	1,151	1,297
Bin Qasim Power Station	393	471	454	3,904	5,222
Total Generation on Gas	556	661	648	6,009	7,874
Generation on LD/HSD Oil	-	-	-	-	-
Total Generation	665	776	810	6,534	8,784
Fuel Prices					
Furnace Oil (Without GST) Rs./M.Ton					
Previous Price	21,838	21,838	21,838	21,838	
Revised Price	22,657	26,200	30,848	30,848	
Gas Rs./MMBTU					
Previous Price	350	350	350	350	
Revised Price	350	350	350	334	
Coverision Factor					
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	
Korangi Combined Cycle Power Plant	8,554	8,554	8,554	8,554	
Bin Qasim	10,000	10,000	10,000	10,000	
Variation in Fuel Cost - F.O. Rs. Million					
Korangi Thermal Power Station	-	-	-	-	-
Bin Qasim	22	124	359	1,172	1,677
Sub-total	22	124	359	1,172	1,677
Variation in Fuel Cost - Gas Rs. Million					
Korangi Thermal Power Station	-	-	-	(86)	(86)
Korangi/SITE Gas Turbine Power Station	-	-	-	(131)	(131)
Korangi Combined Cycle Power Plant	-	-	-	(153)	(153)
Bin Qasim	-	-	-	(608)	(608)
Sub-total	-	-	-	(979)	(979)
Total Variation in Fuel Cost Rs. Million	22	124	359	194	699
Units expected to be sold in the next 12 Months (GWh)					11,667
Variation in cost due to fuel price for the quarter (Million Rupees)					699
Total Variation in cost due to fuel price variation (Million Rupees)					699
Total allowed Adjustment in average sale rate Ps./kWh					6.00

ATA-KESC-Apr-Jun 2009



Karachi Electric Supply Company Ltd.
Adjustment in tariff on account of purchase of power
 Quarter ending June 2009

Description	Purchase of Power GWh				Total Apr 09-Mar 10
	4th Quarter			Next 3 Quarters	
	Apr-09	May-09	Jun-09		
Source of Purchase					
Tapal	74	73 28	67	566	780
Gul Ahmad	12	48	79	576	715
WAPDA	438	488	470	2,910	4,307
KANUPP	52	57	34	298	441
PASMIC	5	6	8	57	76
Others	47	46	45	599	737
Total Purchase of Power	628	719	703	5,005	7,056
Reference Energy Purchase Price not subject to indexation Ps/kWh					
WAPDA	528.98	528.98	528.98	528.98	
KANUPP	245.58	245.58	245.58	245.58	
PASMIC	242.12	242.12	242.12	242.12	
Revised Energy Purchase Price not subject to indexation Ps/kWh					
WAPDA	565.30	620.74	613.16	613.16	
KANUPP	245.58	245.58	245.58	245.58	
PASMIC	242.12	242.12	242.12	242.12	
Reference Energy Purchase Price subject to fuel price change Ps/kWh					
Tapal	530.57	530.57	530.57	530.57	
Gul Ahmad	1,058.35	1,058.35	1,058.35	1,058.35	
Revised Energy Purchase Price subject to fuel price change (fuel price indexation) Ps/kWh					
Tapal	497.41	584.16	682.46	682.46	
Gul Ahmad	1,058.36	690.54	586.66	586.66	
Fuel Prices					
Reference fuel prices					
Tapal	23,947	23,947	23,947	23,947	
Gul Ahmad	46,370	46,370	46,370	46,370	
Revised fuel prices					
Tapal	22,450	26,363	30,802	30,802	
Gul Ahmad	46,370	30,255	25,703	25,703	
Reference Energy Purchase Price other than fuel subject to indexation (variable O&M)					
Tapal	18.50	18.50	18.50	18.50	
Gul Ahmad	10.00	10.00	10.00	10.00	
Reference Energy Purchase Price					
Tapal	65.65	65.65	65.65	65.65	
Gul Ahmad	35.49	35.49	35.49	35.49	
Revised Energy Purchase Price					
Tapal	65.67	65.67	65.67	65.67	
Gul Ahmad	35.50	35.50	35.50	35.50	
Indexation Factors for Energy Charges					
Reference Indexation Factors					
Tapal	4.14	4.14	4.14	4.14	
Gul Ahmad	4.14	4.14	4.14	4.14	
Revised Indexation Factors					
Tapal	4.14	4.14	4.14	4.14	
Gul Ahmad	4.14	4.14	4.14	4.14	
Reference Capacity Charges Rs./kW/Month					
Capacity Charges - non-escalable					
Tapal	397	397	397	397	
Gul Ahmad	814	814	814	814	
Capacity Charges -escalable					
Tapal	411	411	411	411	
Gul Ahmad	531	531	531	531	
Indexation Factors for Capacity Charges					
Reference Indexation Factors for escalable - US CPI	149.21	149.21	149.21	149.21	
Revised Indexation Factors for escalable - US CPI	149.21	149.21	149.21	149.21	
Reference Indexation Factors for escalable - Exchange Rate	79.70	79.70	79.70	79.70	
Revised Indexation Factors for non-escalable - Exchange Rate	79.73	79.73	79.73	79.73	
Dependable Capacity MW					
Tapal	125	125	125	125	
Gul Ahmad	128	128	128	128	
Variation in Cost of Purchase of Power Rs.Million					
Energy	135	318	124	596	1,165
Capacity	0	0	0	1	1
Total Variation in Cost of Purchase of Power	135	318	124	597	1,166
Overall units expected to be sold in next 12 months GWh					11,667
Variation in cost of power purchase for the quarter (Million Rupees)					1,166
Total Variation in cost of power purchase (Million Rupees)					1,166
Total allowed Adjustment in average sale rate (Ps./kWh)					10.00

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	528	174
For next 200 units (101-300) in a month	-	63	528	247
For next 700 units (301-1000) in a month	-	156	528	382
Above 1000 units in a month	-	193	528	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	480	418
Above 100 units in a month	-	315	480	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	495	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	495	250
B-3* Up to 5000 kW (11 kV)	290	134	495	234
B-4* For all loads (at 66, 132 kV).	280	129	495	215
B-5* For all loads (at 220 kV and above)	273	129	495	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	Peak		Off-Peak	Peak
		Hours Ps/kWh	Hours Ps/kWh		Hours Ps/kWh	Hours Ps/kWh
B-2 From 41-500 kW (at 400 volts)	300	125	203	495	234	313
B-3 Upto 5000 kW (11 kV)	290	120	202	495	191	266
B-4 For all loads (at 66, 132 kV).	280	116	192	495	177	256
B-5 For all loads (at 220 kV and above)	273	116	192	495	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
	Rs/kW/Month	Ps/kWh	Ps/kWh	Surcharge Ps/kWh
<u>BULK SUPPLY --- TARIFF - C</u>				
C-1 (a) 400 Volts	-	129	520	353
C-1 (b) 400 Volts	220	114	520	354
C-2 (a) 11 kV	-	115	520	333
C-2 (b) 11 kV	216	111	520	345
C3 (at 66, 132 & 220 kV) --- for all loads	214	106	520	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	525	236
D-2 Sindh and Balochistan	176	80	525	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	528	388
E-1 (ii) Commercial Supply	-	386	480	528

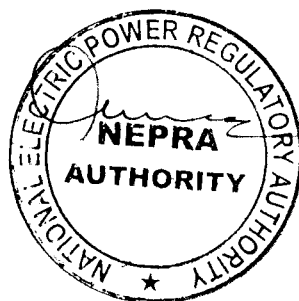
For the above two categories, the minimum bill of the consumer shall be Rs 46/- per day subject to minimum of Rs.200/- for the entire period of supply, even if no energy is consumed.

E-2 (i) Industrial supply	-	241	495	382
E-2 (ii) Bulk Supply				
(a) at 400 Volts	-	181	520	409
(b) at 11 kV	-	169	520	391
E-2 (iii) Bulk supply to other consumers	-	190	520	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	499	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 MileRs

(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	528	426
Consumers not having their own transformers	151	528	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.

