



# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

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Registrar

No. NEPRA/TRF-14/KESC-2002/7408-11  
May 7, 2008

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 January to March, 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 January to March, 2008.

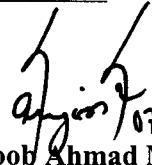
3. The determination is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) and Rule 16(11) of the National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

4. Please note that only Annexure-III to the attached determination containing the schedule of tariff needs to be notified in the official gazette.

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.

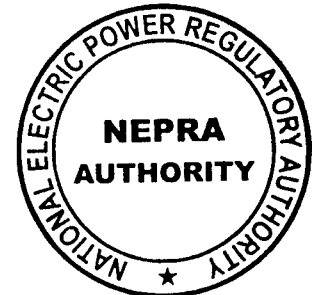
Enclosure: As above

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

  
(Mahjood Ahmad Mirza)

CC:

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



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

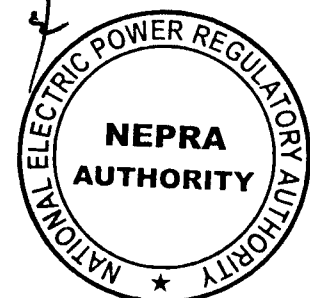
Pursuant to the NEPRA's Determination No. NEPRA/TRF-14/KESC-2002, dated 10<sup>th</sup> September, 2002 as notified by the Federal Government vide SRO 716(I)/2002 dated 12<sup>th</sup> October 2002 (hereinafter the "Determination"), the tariff (hereinafter "Tariff") of Karachi Electric Supply Corporation (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. CMF/NEPRA/071/414 dated 10<sup>th</sup> April, 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. 498 million or Ps. 4.54/kWh, while variation in cost of purchase of power is calculated to be Rs. 924 million or paisa 8.41/kWh. The cumulative effect after incorporating leftover of previous quarter Rs 2253 million for the fuel price and Rs. 394 million for the power purchase cost, has thus been worked out Rs 4069/kWh or paisa 37.08/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. 37.08/kWh without application of 4% price cap and change in gas price mechanism, may be allowed.
- ii) The rate for purchase of power from NTDC is under consideration by a high-level committee constituted by the GoP. It is expected that KESC will be allowed average rate of power purchase as applicable to other DISCOS. Therefore, working of ATA on marginal cost basis may be kept pending till the decision of GoP.



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

- i) KESC's request for increase in tariff by 37.08/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").



With respect to purchase of power from NTDC by KESC at the 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.

6. Reference Paragraph-5 here above, relying upon the information/data provided by KESC, the variation in cost for the quarter January-March 2008, due to fuel price is worked out to be Rs. 497.13 million or Paisa 4.53/kWh and Rs. 1080 million or paisa 9.84/kWh due to variation in power purchase cost. Thus the required adjustment in KESC's tariff after previous quarter's leftover amount of Rs. 2253.08 million in the fuel price and Rs. 17305.13 million in the power purchase cost, works out to be Rs. 2750.40 million or Paisa 25.06/kWh and Rs. 18385.39 million or Paisa 167.54/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 17.33/kWh and on account of power purchase cost Paisa 10.40/kWh. The overall adjustment both on account of fuel price and power purchase cost, thus works out to be Paisa 27.73/kWh (Annex-I & II).

8. The leftover (balance) after this current adjustment in respect of fuel price variation Rs. 848.30 million and Rs. 17244.13 million on account of power purchase cost will be adjusted in the next quarterly adjustment.

9. In order to compensate KESC, on account of variation in fuel price and cost of purchase of power, the Authority has decided to allow a uniform increase in consumer end tariff for all consumer categories by Paisa 28.00 per kWh, except for the life-line consumers consuming up to 50 units per month.

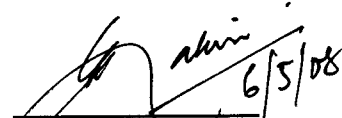
10. In light of the aforesaid, the Authority recommends to the Federal Government that the KESC Tariff be modified in accordance with Paragraph-9 hereabove for the variation in cost of fuel and power purchase for the quarter January-08 to March-08. For this purpose a new


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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.


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**Authority**

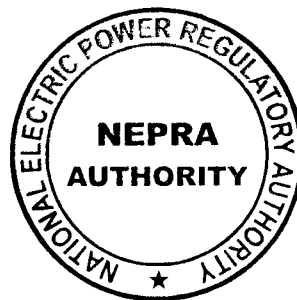
  
Abdul Rahim Khan  
Member

  
Nasiruddin Ahmed  
Member

  
Maqbool Ahmad Khawaja  
Member

  
Zafar Ali Khan  
Vice Chairman

  
Khalid Saeed  
Chairman

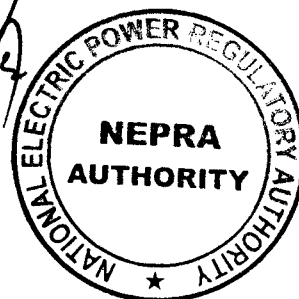




**Karachi Electric Supply Corporation Ltd.**  
**Adjustment in tariff due to variation in fuel price**  
**Quarter ending March 2008**

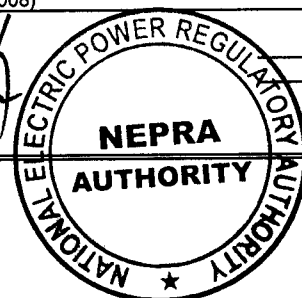
Description	Generation GWh				
	3rd Quarter			Next 3 Quarters	Total Jan 08 Dec 08
	Jan-08	Feb-08	Mar-08		
<b>Generation on Furnace Oil at Bus Bar</b>					
Korangi Thermal Power Station	-	-	-	356	356
Bin Qasim	133	132	128	1,471	1,864
<b>Total Generation on F.O.</b>	<b>133</b>	<b>132</b>	<b>128</b>	<b>1,827</b>	<b>2,220</b>
<b>Generation on Gas at Bus Bar</b>					
Korangi Thermal Power Station	43	38	38	281	399
Korangi/SITE Gas Turbine Power Station	26	23	64	703	817
Bin Qasim Power Station	278	280	364	4,276	5,197
<b>Total Generation on Gas</b>	<b>347</b>	<b>341</b>	<b>466</b>	<b>5,260</b>	<b>6,414</b>
<b>Generation on LD/HSD Oil</b>	-	-	-	-	-
<b>Total Generation</b>	<b>480</b>	<b>473</b>	<b>594</b>	<b>7,087</b>	<b>8,634</b>
<b>Fuel Prices</b>					
Furnace Oil (Without GST) Rs./M.Ton					
Previous Price	32,133	32,133	32,133	32,133	
Revised Price	30,291	30,622	31,512	31,512	
Gas Rs./MMBTU					
Previous Price	238	238	238	238	
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	-	-	-	(71)	(71)
Bin Qasim	(61)	(50)	(20)	(226)	(356)
<b>Sub-total</b>	<b>(61)</b>	<b>(50)</b>	<b>(20)</b>	<b>(297)</b>	<b>(427)</b>
<b>Variation in Fuel Cost - Gas Rs. Million</b>					
Korangi Thermal Power Station	7	6	6	48	68
Korangi/SITE Gas Turbine Power Station	6	5	14	148	172
Bin Qasim	37	37	48	563	684
<b>Sub-total</b>	<b>49</b>	<b>48</b>	<b>68</b>	<b>759</b>	<b>924</b>
<b>Total Variation in Fuel Cost Rs. Million</b>	<b>(11)</b>	<b>(1)</b>	<b>48</b>	<b>462</b>	<b>497</b>
<b>Units expected to be sold GWh</b>	(Jan 2008 - Dec 2008)				<b>10,974</b>
Variation in cost due to fuel price for the quarter (Million Rupees)					497
Balance (Leftover) at the end of last quarter (Oct-Dec 07) (Mln. Rs.)					2,253
Total Variation in cost due to fuel price variation (Million Rupees)					2,750
Required Adjustment in average sale rate Ps./kWh					25.06
Maximum adjustment to be allowed in a quarter as percent of average sale rate					2.5%
Allowable adjustment in average sale rate Ps./kWh					17.33

ATA-Jan-Mar 08



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

Description	Purchase of Power GWh				
	3rd Quarter			Next 3 Quarters Jul	Total Jan 08 -Dec 08
	Jan-08	Feb-08	Mar-08		
<b>Source of Purchase</b>					
Tapal	67	63	75	701	906
Gul Ahmad	69	66	81	696	912
WAPDA	251	242	225	3,276	3,994
KANUPP	15	22	52	224	313
PASMIC	11	11	15	33	70
Others	8	18	31	-	57
<b>Total Purchase of Power</b>	<b>421</b>	<b>422</b>	<b>479</b>	<b>4,930</b>	<b>6,252</b>
<b>Reference Energy Purchase Price not subject to indexation Ps/kWh</b>					
WAPDA	839.31	839.31	839.31	839.31	
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	815.59	821.56	846.68	846.68	
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	645.62	645.62	645.62	645.62	
Gul Ahmad	665.80	665.80	665.80	665.80	
<b>Revised Energy Purchase Price subject to fuel price change Ps/kWh</b>					
Tapal	727.86	709.21	685.23	685.23	
Gul Ahmad	766.11	725.25	711.10	711.10	
<b>Fuel Prices</b>					
<b>Reference fuel prices</b>					
Tapal	29,140	29,140	29,140	29,140	
Gul Ahmad	29,171	22,330	22,330	22,330	
<b>Revised fuel prices</b>					
Tapal	32,852	32,010	30,928	30,928	
Gul Ahmad	33,566	31,776	31,156	31,156	
<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	47.04	47.04	47.04	47.04	
Gul Ahmad	25.43	25.43	25.43	25.43	
<b>Revised Energy Purchase Price</b>					
Tapal	48.12	48.12	48.12	48.12	
Gul Ahmad	26.01	26.01	26.01	26.01	
<b>Indexation Factors for Energy Charges</b>					
<b>Reference Indexation Factors</b>					
Tapal	2.97	2.97	2.97	2.97	
Gul Ahmad	2.97	2.97	2.97	2.97	
<b>Revised Indexation Factors</b>					
Tapal	3.04	3.04	3.04	3.04	
Gul Ahmad	3.04	3.04	3.04	3.04	
<b>Reference Capacity Charges Rs./kW/Month</b>					
<b>Capacity Charges - non-escalable</b>					
Tapal	303	303	303	303	
Gul Ahmad	620	620	620	620	
<b>Capacity Charges -escalable</b>					
Tapal	295	295	295	295	
Gul Ahmad	381	381	381	381	
<b>Indexation Factors for Capacity Charges</b>					
<b>Reference Indexation Factors for escalable - US CPI</b>	140.30	140.30	140.30	140.30	
<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>	60.74	60.74	60.74	60.74	
<b>Revised Indexation Factors for non-escalable - Exchange Rate</b>	60.92	60.92	60.92	60.92	
<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	66	37	84	846	1,034
Capacity	4	4	4	35	47
<b>Total Variation in Cost of Purchase of Power</b>	<b>70</b>	<b>41</b>	<b>88</b>	<b>881</b>	<b>1,080</b>
<b>Overall units expected to be sold in next 12 months GWh</b>	(January 2008 - December 2008)				<b>10,974</b>
Variation in cost of power purchase for the quarter (Million Rupees)					1,080
Balance (Leftover) at the end of last quarter (Oct-Dec 07) (Mln. Rs.)					17,305
Total Variation in cost of power purchase (Million Rupees)					18,385
Required Adjustment in average sale rate (Ps./kWh)					167.54
Maximum adjustment to be allowed in a quarter as percent of average sale rate					1.5%
Allowable adjustment in average sale rate (Ps./kWh)					10.40



## 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	294	174
For next 200 units (101-300) in a month	-	63	294	247
For next 700 units (301-1000) in a month	-	156	294	382
Above 1000 units in a month	-	193	294	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	246	418
Above 100 units in a month	-	315	246	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	261	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	261	250
B-3* Up to 5000 kW (11 kV)	290	134	261	234
B-4* For all loads (at 66, 132 kV).	280	129	261	215
B-5* For all loads (at 220 kV and above)	273	129	261	208

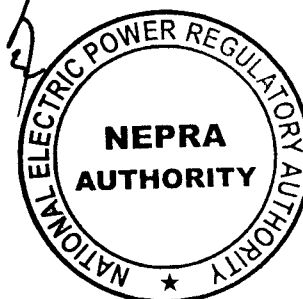
**TIME OF DAY (TOD) TARIFF FOR INDUSTRIAL CONSUMERS**

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	261	234	313
B-3 Upto 5000 kW (11 kV)	290	120	202	261	191	266
B-4 For all loads (at 66, 132 kV).	280	116	192	261	177	256
B-5 For all loads (at 220 kV and above)	273	116	192	261	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

**BULK SUPPLY --- TARIFF - C**

C-1 (a) 400 Volts	-	129	286	353
C-1 (b) 400 Volts	220	114	286	354
C-2 (a) 11 kV	-	115	286	333
C-2 (b) 11 kV	216	111	286	345
C3 (at 66, 132 & 220 kV) --- for all loads	214	106	286	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	274	236
D-2 Sindh and Balochistan	176	80	274	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	294	388
E-1 (ii) Commercial Supply	-	386	246	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.

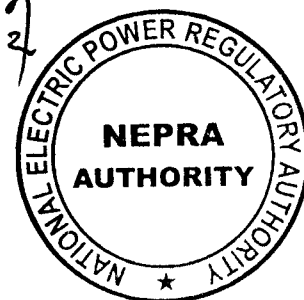
E-2 (i) Industrial supply	-	241	261	382
E-2 (ii) Bulk Supply				
(a) at 400 Volts	-	181	286	409
(b) at 11 kV	-	169	286	391
E-2 (iii) Bulk supply to other consumers	-	190	286	407

**SEASONAL INDUSTRIAL SUPPLY TARIFF-F**

SUPPLY CHARGES  
125% of the "Supply Charges"  
of relevant industrial supply  
tariff

ADDITIONAL SURCHARGE  
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 Surcharge
	Rs/kW/Month	Ps/kWh	Ps/kWh	Ps/kWh

**PUBLIC LIGHTING TARIFF-G**

G-1 Units Charges	-	220	265	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	294	426
Consumers not having their own transformers	151	294	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.**

