



National Electric Power Regulatory Authority Islamic Republic of Pakistan

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Vice Chairman

NEPRA/TRF-29/IESCO-2003/10711-13
28 - 6 - 2004

Subject: **Determination of Tariff in respect of M/s. Islamabad Electric Supply Co. Ltd. (IESCO) (Case No. NEPRA/TRF-29/IESCO-2003)**
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)

My dear Secretary,

Please find enclosed the determination of the Authority (27 pages) along with 10 Annexes thereto (27 pages) in Case No. NEPRA/TRF-29/IESCO-2003.


2. 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.

3. Please note that only Order of the Authority at para 67 of the determination needs to be notified in the official gazette. The Order along with the Schedule of tariff, Annex:A and the terms and conditions thereof, Annex:B are reproduced for the purpose of clarity and are attached herewith.

4. The new schedule will be applicable to the consumers within the territorial jurisdiction of IESCO.

DA/As above.

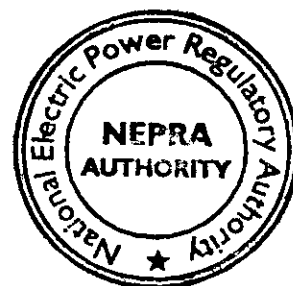
Yours sincerely,


(Abdul Rahim Khan)

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

CC:

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



ORDER OF THE AUTHORITY
IN CASE NO. NEPRA/TRF-29/IESCO-2003
TO BE NOTIFIED IN THE OFFICIAL GAZETTE

(I) Islamabad Electric Supply Company (IESCO) is allowed to charge its consumers such tariff as set out in the schedule of tariff for IESCO as per Annex-A.

(II) The indexation factors to vary the consumer end tariff on account of variation in Power Purchase Price shall be:

$$\Delta PP1 = \frac{(PP_{a1} - PP_{e1})}{(1 - L_1)(1 - G1)}$$

Where:

PPe1 is the estimated average PPP for year 1

PPa1 is the actual average PPP for year 1

L1 is the target of average annual losses during year 1

G1 is the targeted load growth for the year 1

$\Delta PP1$ is the difference in Power Purchase Cost to be through in

Rt1 is the average annual sale

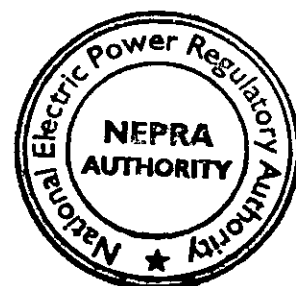
(III) The break-up of Average Sales Rate attributable to various elements of the assessed revenue requirement during FY 05 is as under:-

#	Description	Paisa / kWh
1.	Power Purchase Price (PPP)/(1-L)*	328.8931
2.	Distribution Margin	57.1269
	Average Sales Rate	386.0200

* L = % Losses

IV. The annual adjustment on account of II above shall normally be made in the month of July. IESCO will submit its calculation for adjustment in average sale rate due to variation in PPP by 10th of July each year along with the proposed adjustment in

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consumer class rate. The Authority will determine the revised tariff within one week of receipt of information from IESCO. The variation in average sale rate will be distributed between the various consumer classes such that cross subsidization is minimized as far as possible. Any tariff adjustment so determined by the Authority shall be deemed to have been notified by the Federal Government through the notification of this order.

V. The terms and conditions related to the schedule of tariff shall be those attached as Annex-B.

VI. IESCO is allowed to charge the users of its system a use of system charge (UOSC) equal to:

i) Where only 132kVsystem is involved

$$UOSC = \frac{DM * (1 - L)}{(1 - 0.04)} \text{ paisa/kWh}$$

Where only 11 kV distribution System is involved considering 5% distribution technical losses

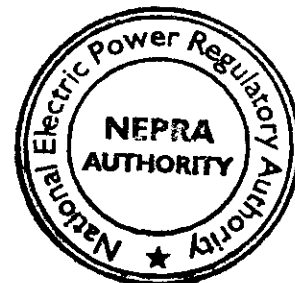
$$UOSC = \frac{DM * (1 - L)}{(1 - 0.05)} \text{ paisa/kWh}$$

ii) Where both 132 kV system and 11 kW distribution system is involved

$$UOSC = \frac{DM * (1 - L)}{(1 - 0.09)} \text{ paisa/kWh}$$

The use of system charges will be reset each year by the Authority in the first week of July (starting July 2005) on the basis of revised targets for technical losses and overall losses.

VII. IESCO may file a tariff petition under the TS&P Rules at any time if it desires to readjust its base tariff in addition to the yearly adjustment on account of PPP mentioned in para II above.



**SCHEDULE OF ELECTRICITY TARIFFS
FOR ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)**

A-1 GENERAL SUPPLY TARIFF - RESIDENTIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
a)	For Peak load requirement up to 20 kW			
i	Up to 50 Units	-		1.40
	For Consumption exceeding 50 Units			
ii	For first 100 Units	-		2.57
iii	For next 200 Units	-		3.47
iv	Above 300 Units	-		4.50
b)	For peak load requirement exceeding 20 kW			
	i) Two-part Regular	240.00		3.00
			Peak	Off-Peak
	ii) Time Of Day (Optional)	240.00	4.50	2.50

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

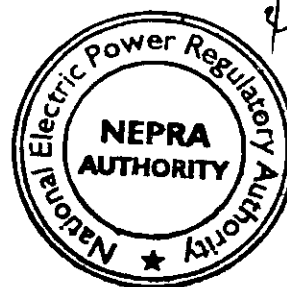
- a) Single Phase Connections: Rs. 45/-
b) Three Phase Connections: Rs. 100/-

A-2 GENERAL SUPPLY TARIFF - COMMERCIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
a)	For peak load requirement of up to 20 kW			4.50
b)	For peak load requirement exceeding 20 kW			
	i) Regular	240.00		3.00
			Peak	Off-Peak
	ii) Time Of Day (Optional)	240.00	4.50	2.50

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

- a) Single Phase Connections; Rs. 150/-
b) Three Phase Connections: Rs. 300/-



**SCHEDULE OF ELECTRICITY TARIFFS
FOR ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)**

B - INDUSTRIAL SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
B1	UP TO 20 kW (at 400 Volts)	-	4.10	
B2	21-500 kW (at 400 Volts)	330.00	3.00	
B3	UP TO 5000 kW (at 11,33 kV) *	320.00	2.75	
B4	For all Loads (at 66,132 kV) *	310.00	2.50	
	Time Of Day		Peak	Off-Peak
B2	21-500 kW (at 400 Volts) (Optional)	330.00	4.50	2.75
B3	UP TO 5000 kW (at 11,33 kV)	320.00	4.00	2.50
B4	For all Loads (at 66,132 kV)	310.00	3.50	2.00

Note: * Must be converted to Time of Day Tariff.

For the B1 consumers there shall be minimum monthly charges of Rs. 70/kW of sanctioned load.

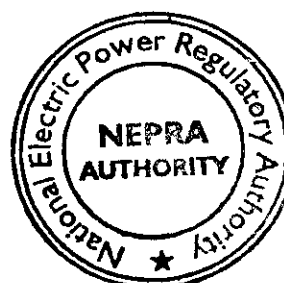
C - SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
C -1	For supply at 400/230 Volts			
a)	Peak load requirement of up to 20 kW	-	4.25	
b)	Peak load requirement above 20 kW	240.00	3.25	
C -2	For supply at 11,33 kV	235.00	3.00	
C -3	For supply at 66,132 kV (For all loads)	230.00	2.75	
	Time-Of-Day (Optional)		Peak	Off-Peak
C -1(b)	For supply at 400/230 Volts	240.00	4.50	2.50
C -2	Peak load requirement of up to 20 kW	235.00	4.00	2.25
C -3	Peak load requirement above 20 kW	230.00	3.50	1.75

D - AGRICULTURE TARIFF

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
D-1	SCARP	-	4.35	
D-2	Agricultural Tube Wells	70.00	2.75	

The fixed charges under this tariff shall be recovered on the basis of sanctioned load in kilowatt.



**SCHEDULE OF ELECTRICITY TARIFFS
FOR ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)**

E - TEMPORARY SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
E-1(i)	Residential Supply	-	5.50
E-1(ii)	Commercial Supply	-	5.50
E-2	Industrial Supply	-	5.00

For the categories of E-1(i&ii) above, the minimum bill of the consumers shall be Rs. 50/- per day subject to a minimum of Rs.500/- for the entire period of supply, even if no energy is consumed.

F - SEASONAL INDUSTRIAL SUPPLY TARIFF

125% of relevant industrial 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 remains in force for at least one year.

G - PUBLIC LIGHTING

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
	Street Lighting		4.50

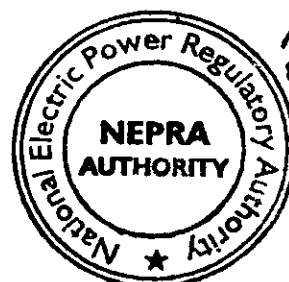
There shall be a minimum monthly charge of Rs.500/- per month per kW of lamp capacity installed.

H - RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
	Residential Colonies attached to industrial premises	-	4.50

I - SPECIAL CONTRACTS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
1	Azad Jammu & Kashmir (AJK)	230.00	2.00
2	Rawat Lab		3.50



TERMS AND CONDITIONS

(FOR SUPPLY OF POWER TO CONSUMERS)

PART - I

GENERAL DEFINITIONS

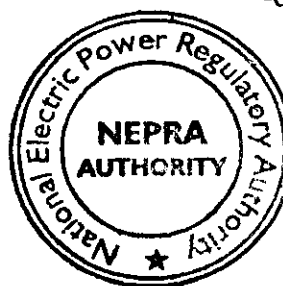
1. The Company, for the purposes of these terms and conditions means Islamabad Electric Supply Company (IESCO) engaged in the business of distribution of electricity within the territory mentioned in the licence granted to it for this purpose.
2. "Month", unless otherwise defined for any particular tariff category, means a billing month of 30 days or less reckoned from the date of last meter reading.
3. "Minimum Charge", means a charge to recover the costs for providing service to consumers even if no energy is consumed during the month.
4. "Fixed Charge" means the part of sale rate in a two part tariff to be recovered on the basis of "Maximum Demand" in kilowatt on monthly basis except in the case of Agriculture tariff D where Fixed Charge shall be recovered on the basis of sanctioned load.
5. "Variable Charge" means the sale rate per kilowatt-hour as a single rate or part of a two-part tariff applicable to the actual units consumed by the consumer during a billing period.
6. "Maximum Demand" where applicable, means the maximum of the demand recorded in any month measured over successive periods each of 30 minutes duration except in the case of consumption related to Arc Furnaces where "Maximum Demand" shall mean the maximum of the demand recorded in any month measured over successive periods each of 15 minutes duration.
7. "Sanctioned Load" where applicable means the installed load in kilowatt as applied for by the consumer and allowed/authorized by the Company for usage by the consumer.
8. "Power Factor" where applicable means the ratio expressed as a percentage of the kilowatt-hours to the kilovolt ampere-hours consumed during the month. Power Factor shall be the ratio of kWh to kVAh recorded during the month or the ratio of kWh to the square root of sum of square of kWh and kVARh, i.e

$$P.F = \frac{kWh}{kVAh} = \frac{kWh}{\sqrt{(kWh)^2 + (kVARh)^2}}$$

9. Peak and Off Peak hours for the application of Time Of Day (TOD) Tariff shall be the following timings:

<u>DURATION</u>	<u>PEAK TIMING</u>	<u>OFF-PEAK TIMING</u>
Dec. to Feb (inclusive)	5 PM to 9 PM	Remaining 20 hours of the day
March to May (inclusive)	6 PM to 10 PM	-do-
June to Aug. (inclusive)	7 PM to 11 PM	-do-
Sept. to Nov. (inclusive)	6 PM to 10 PM	-do-

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10. NTDC means the National Transmission and Dispatch Company.
11. The Authority means National Electric Power Regulatory Authority (NEPRA) constituted under the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

GENERAL CONDITIONS

Surcharge For Part Payment Or Late Payment Of Electricity Bills

“The Company shall, ordinarily, render bills to the consumers on a monthly basis for payment by the due date. The company shall ensure that bills are delivered to consumers at least seven days before the due date. If any bill is not paid by the consumer in full within the due date, a Late Payment Surcharge of 10% (ten percent) shall be levied on the amount billed excluding Govt. tax and duties etc.

PART – II

(Definitions and Conditions for supply of power specific to each consumer category)

A. GENERAL SUPPLY

Definitions and General Conditions

“General Supply”, for the application of this Tariff, means a supply for single-phase/three-phase appliances inclusive of both general and motive loads subject to the following:

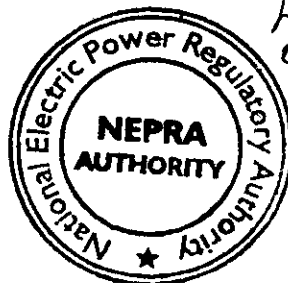
1. Single-Phase supply shall be given for loads up to 4 kW of sanctioned load.
2. In premises having a connected or sanctioned load exceeding 4 kilowatts supply shall be given at 3-phase 400 volts and above to allow a balanced distribution of load on the three phases.
3. In the event of a bill being rendered for consumption accumulated over a number of months, the average monthly consumption of the consumer, for the purpose of application of the notified rates shall be determined, by dividing the total consumption by the number of months to which the accumulated consumption relates.
4. The supply under this Tariff shall not be available for resale.

A-1 RESIDENTIAL

Special Conditions Of Supply

1. This Tariff is applicable for supply to residences, places of worship, approved religious and charitable institutions; and Government-sponsored educational institutions, educational institutions set up under public/private partnership, hospitals and dispensaries, etc., where,

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“Charitable Institution” for the purpose of application of this Tariff, is an institution, which works for the general welfare of the public on no profit basis and is registered with the Federal or Financial Government as such.

2. The General Supply consumers governed by tariff A-1 having peak load requirement exceeding 20 kW shall have the option to convert to a two-part Time Of Day (T.O.D) Tariff of A-1(b).

A-2 COMMERCIAL

Special Conditions Of Supply

1. This tariff is applicable, for supply to all government and semi government offices and institutions, commercial offices and commercial establishments such as Shops, Hotels, Restaurants, Petrol Pumps, Service Stations, compressed natural gas filling stations, Private Hospitals, Clinics, Dispensaries, places of Entertainment like Cinemas, Theaters and Clubs; Rest Houses and Government Lodges, Private Educational Institutions, office of Lawyers, Solicitors, Law Associates and Consultants etc.
2. For consumers having peak load requirement of up to 20 kW and below, supply to three phase, 400 volts compressor and pump motors of the air conditioning equipment installed in centrally air conditioned premises and other three-phase, 400 volts apparatus of general utility in the premises mentioned above under this Tariff, shall be governed by the Industrial Tariff B-1. This condition shall not apply to consumers having a peak load requirement in excess of 20 kW.
3. Supply to motors operating projectors and sound apparatus in cinemas shall be charged at the Industrial Tariff B-1.
4. The General Supply consumers governed by tariff A-2 having peak load requirement exceeding 20 kW shall have the option to convert to a two-part Time Of Day (T.O.D) Tariff of A-2(b).

B INDUSTRIAL SUPPLY

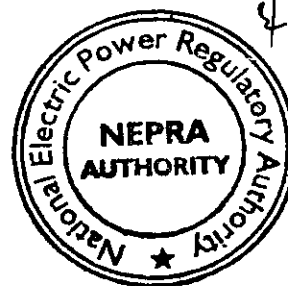
General Definitions

1. “Industrial Supply”, means a supply for bona fide industrial purposes in factories including the supply required for the offices and for normal working of the industry and also for water pumps and tube-wells operating on three phase 400 volts, other than those meant for the irrigation or reclamation of agricultural land.
2. For the purposes of application of this tariff an “Industry” means a bona fide undertaking or establishment engaged in manufacturing and/or processing of goods.

General Conditions

This Tariff shall be applicable subject to the following conditions:

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- i) Where applicable, the average Power Factor of a consumer at the point of supply shall not be less than 90 percent. In the event of the said Power factor falling below 90 percent, the consumer shall pay a penalty of two percent increase in the fixed charges corresponding to one percent decrease in the power factor below 90 percent. The fixed charges for the purpose of calculating the penalty for low power factor shall, however, be determined with reference to maximum demand during the month.
- ii) An industrial consumer shall have the option, to switch over to seasonal tariff-F, provided his connection is seasonal in nature as defined under tariff-F, and he undertakes to abide by the terms and conditions of tariff-F and pays the difference of security deposit rates previously deposited and those applicable to tariff-F at the time of acceptance of option for seasonal tariff. Seasonal tariff will be applicable from the date of commencement of the season, as specified by the customers at the time of submitting the option for Tariff-F. Tariff-F consumers will have the option to convert to corresponding Regular industrial Tariff category and vice versa. This option can be exercised at the time of obtaining a new connection or at the beginning of the season. Once exercised, the option will remain in force for at least one year.
- iii) The supply under this Tariff shall not be available for resale.

B – 1 SUPPLY AT 400 VOLTS THREE-PHASE AND/OR 230 VOLTS SINGLE PHASE

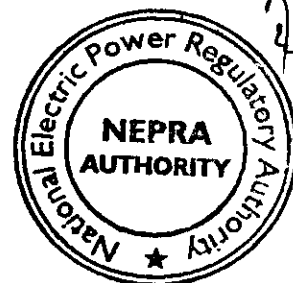
Special Conditions

1. This tariff is applicable for supply to Industries having sanctioned load up to and including 20 kilowatts.
2. The supply at one point under this Tariff shall also be available to Poultry Farms, Hatcheries and Breeding Farms.

B – 2 SUPPLY AT 400 VOLTS

Special Conditions

1. This tariff is applicable for supply to Industries having sanctioned load from 21 to 500 kW.
2. The supply under this tariff shall also be available to Poultry Farms, Hatcheries and Breeding Farms.



3. The Industrial consumers governed by tariff B-2 shall have the option to convert to a two-part Time Of Day (T.O.D) Tariff.

B-3 SUPPLY AT 11 kV AND 33 kV

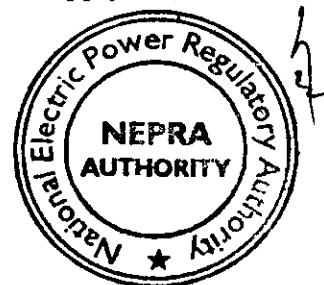
Special Conditions Of Supply

1. This tariff is applicable for supply to Industries having sanctioned load up to 5000 kW.
2. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice shall be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days, the fixed charges shall be assessed on proportionate basis for the actual number of days between the date of the old reading and the new reading.
3. The supply under this Tariff shall not be available to a prospective consumer unless he provides, to the satisfaction and approval of the Company, his own Transformer, Circuit Breakers and other necessary equipment for receiving and controlling the supply, or, alternatively pays to the Company for all apparatus and equipment if so provided and installed by the Company. The recovery of the remaining cost of service connection shall be regulated by the NEPRA eligibility criteria. In case of supply through an independent feeder drawn directly from the Grid Station, the cost of outgoing 11 kV Circuit Breakers in the Grid Station as a dedicated system under the eligibility criteria shall also have to be paid for by the prospective consumer.
4. All industrial supply consumers governed by Tariff B-3 shall be converted to two-part Time Of Day (T.O.D) tariff.

B-4 SUPPLY AT 66 kV and Above

Special Conditions Of Supply

1. This tariff is applicable for supply to Industries for all loads.
2. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice shall be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days, the fixed charges shall be assessed on proportionate basis for the actual number of days between the date of the old reading and the new reading.
3. In case the Grid Station required for provision of supply falls within the purview of the dedicated system under the NEPRA Eligibility Criteria, the supply under this Tariff shall not be available to such a prospective consumer unless he provides, to the satisfaction and approval of the Company, an independent grid station of his own including Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus for receiving and controlling the supply, or, alternatively,



pays to the Company for all such Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus if so provided and installed by the Company. The recovery of remaining cost of service connection shall be regulated by NEPRA Eligibility Criteria.

4. All industrial supply consumers governed by Tariff B-4 shall be converted to two-part Time Of Day (T.O.D) tariff.

C SINGLE-POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE

“Single-Point Supply” for the purpose of this Tariff, means a supply given at one point to a licensee for the purpose of further distribution within its respective exclusive territory and jurisdiction.

General Conditions

1. Average Power Factor of the consumer governed by this tariff, at the point of supply shall not be less than 90 percent. In the event of the said power factor falling below 90 percent, the consumer shall pay a penalty of two percent increase in the fixed charges corresponding to one percent decrease in the power factor below 90 percent.
2. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice will be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days the fixed charges shall be assessed on proportionate basis for actual number of days between the date of old reading and the new reading.

Single-Point Supply consumers governed by Tariff C having peak load requirement exceeding 20 kW shall have the option to convert to Time-of-Day (TOD) Tariff under the respective category till 30th June 2007, thereafter conversion to T.O.D metering would become mandatory.

C-1 SUPPLY AT 400 VOLTS

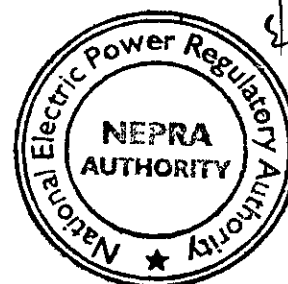
Special Conditions

1. This Tariff is applicable to purchase of bulk supply at 400 volts.
2. Single-point supply consumers governed by Tariff C-1 shall be converted to two-part Time Of Day (T.O.D) tariff by June 30th 2007.

C-2 SUPPLY AT 11 kV AND 33 kV

Special Conditions Of Supply

1. This tariff is applicable to purchase of bulk supply at 11kV and 33kV.



2. The supply under this Tariff shall not be available to a consumer unless he, provides, to the satisfaction and approval of the Company, his own Transformer, 11/33 kV Circuit Breakers and other necessary equipment for receiving and controlling the supply, or, alternatively pays to the Company for all apparatus and equipment if so provided and installed by the Company. The recovery of the remaining cost of service connection shall be regulated by the Company's Abridged Conditions of Supply in force from time to time.
3. Single-point supply consumers governed by Tariff C-2 shall be converted to two-part Time Of Day (T.O.D) tariff by June 30th 2007.

C-3 SUPPLY AT 66 kV, 132 kV

Special Conditions Of Supply

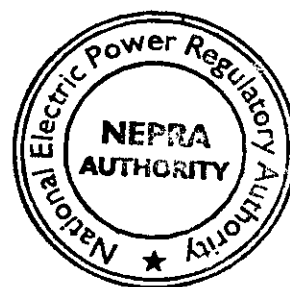
1. This Tariff is applicable to purchase of bulk supply at 66kV and 132kV.
2. In case the Grid Station required for provision of supply falls within the purview of the dedicated system under the NEPRA Eligibility Criteria, the supply under this Tariff shall not be available to such a prospective consumer unless he provides, to the satisfaction and approval of the Company, an independent grid station of his own including Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus for receiving and controlling the supply, or, alternatively, pays to the Company for all such Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus if so provided and installed by the Company. The recovery of remaining cost of service connection shall be regulated by NEPRA Eligibility Criteria.
3. Single-point supply consumers governed by Tariff C-3 shall be converted to two-part Time Of Day (T.O.D) tariff by June 30th 2007.

D AGRICULTURAL SUPPLY

"Agricultural Supply" means a supply for Lift Irrigation Pumps and/or Tube-wells intended solely for irrigation or reclamation of agricultural land or forests, and include supply for lighting of the tube-well chamber.

Special Conditions Of Supply

1. This tariff shall apply to:
 - i) Reclamation and Drainage Scheme Tube-wells under Salinity Control and Reclamation Projects (SCARP),
 - ii) bonafide forests, agricultural tube-wells and lift irrigation pumps for the irrigation of agricultural land.
 - iii) Tube-wells meant for aqua-culture, viz. fish farms, fish hatcheries and fish nurseries.
 - iv) Tube-wells installed in a dairy farm meant for cultivating crops as fodder and for upkeep of cattle.



3. The fixed charges under this Tariff shall be recovered on the basis of sanctioned load in kilowatt.
4. The fixed charge will represent the minimum monthly charge under this Tariff even if no energy is consumed during a month.
5. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice shall be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days, the fixed charges shall be assessed on proportionate basis for the actual number of days between the date of the old reading and the new reading.
6. The lamps and fans consumption in the residential quarters if any attached to the tube-wells shall be charged entirely under General Supply at Tariff A-1.
7. The supply under this Tariff shall not be available to consumer using pumps for the irrigation of parks, meadows, gardens, orchards, attached to and forming part of the residential, commercial or industrial premises in which case the corresponding General Supply Tariff A-1, A-2 or Industrial Tariff B-1, B-2 shall be respectively applicable.
8. The supply under this tariff shall not be available for resale.

E – 1 TEMPORARY GENERAL SUPPLY

Temporary General Supply means a supply given to persons temporarily on special occasions such as ceremonial, religious gatherings, festivals, fairs, marriages and other civil or military functions. This also includes supply to touring cinemas and persons engaged in construction works for all kinds of single phase loads. For connected load exceeding 4 kW, supply may be given at 400 volts (3 phase) to allow a balanced distribution of load on the 3 phases. Normally, temporary connections shall be allowed for a period of 3 months however this can be extended on three months basis subject to clearance of outstanding dues.

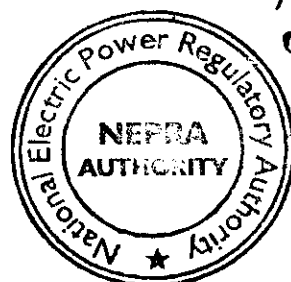
Special Conditions Of Supply

1. This tariff shall apply to Residential and Commercial consumers for temporary supply.
2. Ordinarily the supply under this Tariff shall not be given by the Company without first obtaining security equal to the anticipated supply charges and other miscellaneous charges for the period of temporary supply.
3. The supply under this Tariff shall not be available for resale.

E 2 TEMPORARY INDUSTRIAL SUPPLY

“Temporary Industrial Supply” means a supply given to an Industry for the bonafide purposes mentioned under the respective definitions of “Industrial Supply”.

Special Conditions Of Supply



1. This Tariff is applicable to consumers who have been granted distribution licence for the purpose of further distribution within their respective jurisdiction.
2. Ordinarily the supply under this Tariff shall not be given by the Company without first obtaining security equal to the anticipated supply charges and other miscellaneous charges for the period of temporary supply.
3. Normally, temporary connections shall be allowed for a period of 3 months, however this may be extended on three months basis subject to clearance of outstanding dues.
4. The supply under this Tariff shall not be available for sale.

F SEASONAL INDUSTRIAL SUPPLY

“Seasonal Industry” for the purpose of application of this Tariff, means an industry which works only for part of the year to meet demand for goods or services arising during a particular season of the year. However, any seasonal industry running in combination with one or more seasonal industries, against one connection, in a manner that the former works in one season while the latter works in the other season, thus running throughout the year, will not be classified as a seasonal industry for the purpose of the application of this Tariff.

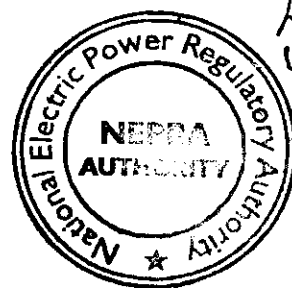
Definitions

1. “Year” means any period comprising twelve consecutive months.
2. All “Definitions” and “Special Conditions of Supply” as laid down under the corresponding Industrial Tariffs shall also form part of this Tariff so far as they may be relevant.

Special Conditions Of Supply

1. This tariff is applicable to seasonal industry.
2. Fixed Charges per kilowatt per month under this tariff shall be levied at the rate of 125% of the corresponding regular Industrial Supply Tariff Rates and shall be recovered only for the period seasonal industry actually runs subject to minimum period of six consecutive months during any twelve consecutive months. The condition for recovery of Fixed Charges for a minimum period of six months shall not, however, apply to the seasonal industries, which are connected to the Company’s Supply System for the first time during the course of a season.
3. The consumers falling within the purview of this Tariff shall have the option to change over to the corresponding Industrial Supply Tariff, provided they undertake to abide by all the conditions and restrictions, which may, from time to time, be prescribed as an integral part of those Tariffs. The consumers under this Tariff will have the option to convert to Regular Tariff and vice versa. This option can be exercised at the time of obtaining a new connection or at the beginning of the season. Once exercised, the option will remain in force for at least one year.

9/11



4. All seasonal loads shall be disconnected from the Company's Supply System at the end of the season, specified by the consumer at the time of getting connection, for which the supply is given. In case, however, a consumer requires running the non-seasonal part of his load (e.g., lights, fans, tube-wells, etc.) throughout the year, he shall have to bring out separate circuits for such load so as to enable installation of separate meters for each type of load and charging the same at the relevant Tariff.
5. Where a "Seasonal Supply" consumer does not come forward to have his seasonal industry re-connected with the Company's Supply System in any ensuing season, the service line and equipment belonging to the Company and installed at his premises shall be removed after expiry of 60 days of the date of commencement of the season previously specified by the consumer at the time of his obtaining new connection/re-connection. However, at least ten clear days notice in writing under registered post shall be necessary to be given to the consumer before removal of service line and equipment from his premises as aforesaid, to enable him to decide about the retention of connection or otherwise. No Supply Charges shall be recovered from a disconnected seasonal consumer for any season during which he does not come forward to have his seasonal industry re-connected with the Company's Supply System.

G PUBLIC LIGHTING SUPPLY

"Public Lighting Supply", means a supply for the purpose of illuminating public lamps.

Definitions

"Month" means a calendar month or a part thereof in excess of 15 days.

Special Conditions Of Supply

The supply under this Tariff shall be used exclusively for public lighting.

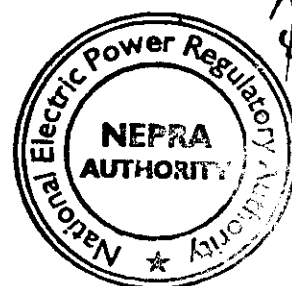
H RESIDENTIAL COLONIES ATTACHED TO INDUSTRIES

This tariff is applicable for one point supply to residential colonies attached to the industrial supply consumers having their own distribution facilities.

Definitions

1. "One Point Supply", for the purpose of this Tariff, means the supply given at one point to Industrial Supply Consumers for general and domestic consumption in the residential colonies attached to their factory premises, for a load of 5 kilowatts and above, for the purpose of further distribution to various persons residing in the attached residential colonies and also for the purpose of perimeter lighting in the attached residential colonies.

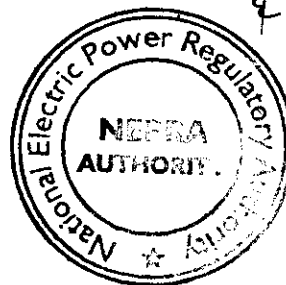
10/11



2. "General and Domestic Consumption", for the purpose of this Tariff, means consumption for lamps, fans, domestic applications, including heaters, cookers, radiators, air-conditioners, refrigerators and domestic tube-wells.
3. "Residential Colony" attached to the Industrial Supply Consumer, means a group of houses annexed with the factory premises constructed solely for residential purpose of the bonafide employees of the factory, the establishment or the factory owners or partners, etc.

Special Conditions Of Supply

1. The supply under this Tariff shall not be available to persons who meet a part of their requirements from a separate source of supply at their premises.
2. The supply under this Tariff shall not be available for resale to any other person.



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

June 24, 2004

Case No. NEPRA/TRF-29/IESCO-2003

Petitioner

Islamabad Electric Supply Company, Street 40, Sector G-7/4,
Islamabad

Intervenors

1. Consumer Rights Commission of Pakistan, # 10, Street # 1,
G-9/3, Islamabad
2. All Pakistan Textile Mills Association, APTMA House, 44-A,
Lalazar, Moulvi Tamizuddin Khan Road, Karachi.
3. Islamabad Steel Mills Association
4. All Pakistan CNG Association

Authority

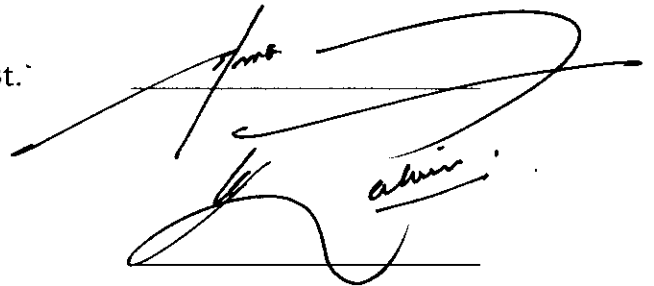
Fazlullah Qureshi
Member



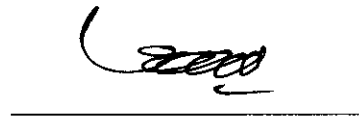
Mansoor Elahi
Member



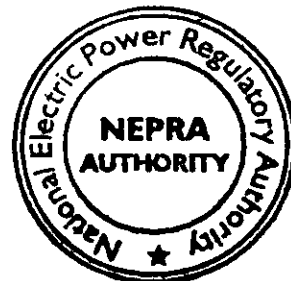
Sardar Muhammad Sharif Khan, 'T.St.'
Member



Abdul Rahim Khan
Member / Vice Chairman



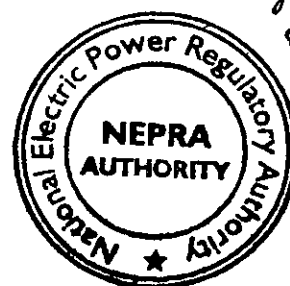
Lt. General (R) Saeed uz Zafar
Chairman



BACKGROUND

Islamabad Electric Supply Company Limited (IESCO) a public limited company was granted Distribution Licence No. 01/DL/2001 on November 02, 2001 by the National Electric Power Regulatory Authority (the "Authority") to engage in distribution of electric power in its service territory as set out in the Distribution Licence for a term of 25 years. IESCO has been organised to take over all the properties, rights, assets, obligations and liabilities within the area of its operation as set out in the Distribution Licence under the terms and conditions stipulated therein. In accordance with the terms of its licence, IESCO filed a tariff petition with NEPRA under Tariff Standards and Procedure Rules 1998 for the determination of its tariff as an independent distribution company consequent to the unbundling of WAPDA.

2. The Authority admitted the petition on August 18, 2003. Salient features of the petition were advertised in the newspapers to seek the views and comments of all interested persons and stakeholders in the tariff-setting process. Persons desirous of seeking a more active participation were invited to become parties to the proceedings as intervenors. In addition individual invitations were sent to the Federal and Provincial Government functionaries, Chambers of Commerce, Industries and Agriculture, Representatives of Professional bodies and Experts in the fields for soliciting their views on the petition. In response thereof, one communication and four requests for leave to intervene were received which were accepted by the Authority. A public hearing was conducted on December 04, 2003 at Islamabad in which an opportunity was given to all the parties and interested persons to be heard in person.



SUBMISSIONS OF IESCO

3. IESCO in its tariff petition sets out the tariff methodology and requests for a level of required revenues and timetable for readjustment of consumer-end tariffs to achieve a cost reflective design.

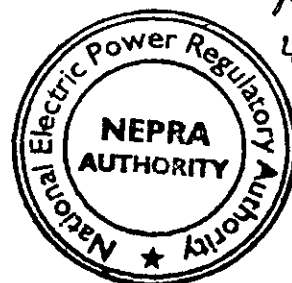
4. IESCO submitted that since WAPDA, IPPs and ex- WAPDA entities have not been paying income tax to the government, IESCO has (after privatization) assumed *tax exemption status* in its submission. IESCO however, clarified that if the government decides to impose taxes in future then this assumption would need to be revisited.

5. IESCO sought an *average increase of 16 Paisa* per kWh in average sale rate based on a number of assumptions, the most significant among those is related to the power purchase price. The inflation rate has been assumed as 4%. It was further submitted that the tariff Petition is based on recovery of IESCO's revenue requirement that essentially comprises of:

- i). Prudently incurred Operations and Maintenance cost;
- ii). Depreciation; and
- iii). A reasonable Return on Assets (ROA).

Note:- IESCO has assumed a *3.8% pre-tax rate of return* on fixed assets with the assumption that the company will not be paying any income taxes.

6. IESCO submitted that *cost reflective tariffs* (both at an aggregate level and by consumer category or class) will benefit both, the consumers and IESCO as it will result in getting the funding for investments required to improve service quality & reliability, network



expansion of IESCO's distribution network and promote the financial sustainability of IESCO to the ultimate benefit of consumers.

7. IESCO has requested that the average distribution margin for first year and the subsequent years within the control period be *based on a formula*. The suggested formula is reproduced as Annex-1.

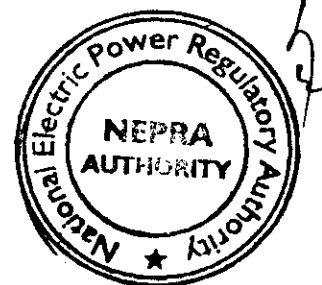
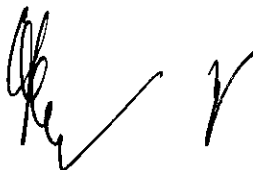
8. IESCO has further requested that to make the tariff structure simple and transparent, there should be a transparent and predictable formula for setting and revising tariffs. It has also requested that IESCO be allowed to readjust consumer-end tariff to *eliminate cross-subsidies* between various consumers' categories for the provision of incentives for IESCO to bring in the operating efficiencies, reduce commercial losses and to procure electricity efficiently from generators within the constraints of the Single Buyer Plus Model as approved by the Authority.

SUBMISSIONS OF INTERVENORS

Consumer Rights Commission of Pakistan (CRCP)

9. CRCP was of the view that the determination of distribution margin and consumer end tariff for distribution companies has a direct impact on its consumers. CRCP stated that tariff formula proposed for determination of distribution margin and consumer end tariff includes Power Purchase Price (PPP) i.e., the cost of WAPDA generation companies and NTDC. It was therefore suggested that the Authority should not determine tariff of IESCO without determining the tariff of GENCOs and NTDC.

10. CRCP further observed that IESCO's tariff petition sets out a formula based methodology for determination of tariff, however,



it is silent regarding the inclusion or exclusion of cost of inefficiencies in the tariff leaving an impression that cost reflective tariff may include cost of inefficiency in the tariff as well. CRPC also inquired about the cost reflective nature of Petition and requested the Authority to make sure that costs of inefficiencies of IESCO are not passed on to the consumers under the cover of cost reflective tariff.

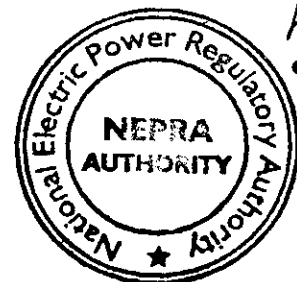
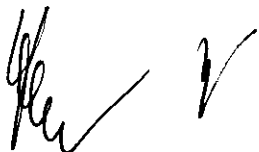
11. CRCP submitted that the quality of service is also an important parameter, which should be kept in view while determining the tariff of the Distribution companies. CRCP also pointed out that the determination of distribution margin is a regulatory decision which should be decided in such a manner that the consumers' interest is protected.

All Pakistan Textile Mills Association (APTMA)

12. APTMA questioned the increase in rate in the presence of line losses as high as 21.97% that shows high degree of inefficiency in operations and suggested to make effective arrangements to minimize these losses. APTMA also showed its concern over the high Distribution Margin. APTMA requested the Authority that while deciding the case the post quota regime under World Trade Organization should also be kept in view.

Islamabad Steel Mills Association

13. Islamabad Steel Mills Association submitted that Islamabad's industrial area is a remote market; the hub of steel mills is Lahore and Gujranwala; additional transportation cost is borne by industrial units in Islamabad. If the line losses in Islamabad are compared with Lahore and Gujranwala these are much lower i.e. 10% against 26%. This indicates that the local industrialists are honest but they too have to compete with the areas having 26% line losses



(mostly on account of pilferage). Islamabad Steel Mills Association has requested that the tariff for steel industries units operating in IESCO's jurisdiction be given concession in tariff. Furthermore at least 50% concession in power rates is given to steel industry if it operates during night hours from 10 p.m. to 6 a.m. when IESCO has minimum load utilization".

All Pakistan CNG Association

14. All Pakistan CNG Association submitted that the association represented CNG stations throughout Pakistan in the four provinces and approximately 95% of the CNG stations which were in operation belonged to members of this organization. The Association raised the issue pertaining to the charge that was made by the DISCOs with respect to the load that was utilized by association members. The issue raised was not relevant to the hearing proceedings and therefore is not being considered in this determination.

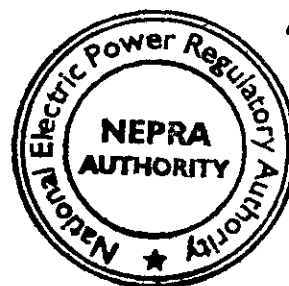
SUBMISSIONS OF COMMENTATORS:

Ministry of Water and Power

15. Ministry of Water and Power showed its concerns over high distribution losses. It also suggested for the revision of distribution margin and stated that although it has a very close relation with the capital investment cost but the same may not be more than 7% to 8% in the near future.

Liberal Forum

16. Liberal Forum in its observations submitted that up till now there has been uniformity in tariff among all the eight DISCOs and different kinds of subsidies were available in the tariff. Liberal



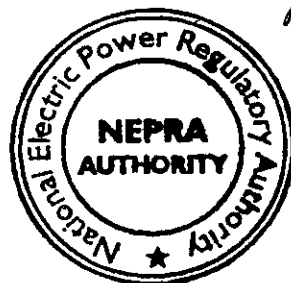
Forum suggested that these subsidies should be very clearly shown as a part of the tariff which may create a difference in the way people use electricity and an appreciation of what is being done for everybody. Liberal Forum further stated that after determination of separate tariff petitions, there may be serious repercussions of different tariffs for people living in different areas of the country. It is therefore suggested that the Government needs to have some sort of a policy to address this issue.

Energy Wing

17. Energy Wing Planning and Development Division has referred to the tariff petition of 8 distribution companies and pointed out that there was disparity among the DISCOs with regard to sale price/tariff of electricity that ranged between Rs. 4.21/kWh to Rs. 5.93/kWh. Although each of the DISCO purchased power from NTDC at uniform rate but the level of losses made different sale rates for different companies.

18. According to Energy Wing in the absence of appropriate metering at 132 kV and 11 kV systems it was difficult to identify the quantum of losses at 132 kV and 11 kV systems with respect to technical and non-technical losses. In order to give a meaningful target for loss reduction to various discos there was need to determine the losses at various levels, which would meet a massive metering system to be introduced at every Pole Mounted Transformers (PMT) and at every grid station.

19. In Energy Wing's opinion the different tariff for different regions would create socio-economic and political problems, therefore, the uniform tariff is needed to remain at least for a transition period of 7-10 years.



20. The Energy Wing has proposed that the capability in capacity to utilize the proposed quantum of investment by the DISCOs needs to be looked into before NEPRA approves it. Furthermore, NEPRA should take a principal decision regarding Rate of Return on investment/assets in consultation with various stakeholders.

Federation Chamber of Commerce and Industry Islamabad

21. The Federation of Pakistan Chamber of Commerce and Industry has stated that they fully support the recommendation/proposals for the fixation of a moderate, reasonable and tolerable electricity tariff.

ISSUES ARISING OUT OF THE PROCEEDINGS

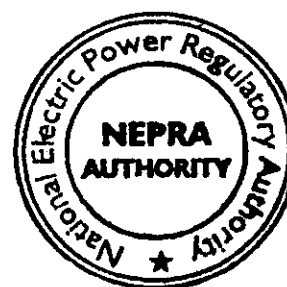
22. The following main issues arising out of the proceedings as well as those considered relevant to the determination of IESCO are discussed in the succeeding paragraphs:

- I. Distribution Charge
 - a) Sales Growth
 - b) Distribution Losses
 - c) Distribution Margin
- II. Power Purchase Price (PPP)
- III. Revenue Accrual and Average Sale Rate
- IV. The use of system charges/wheeling charges.
- V. Tariff Structure

I. Distribution Charge

a) Sales Growth

23. IESCO has forecasted its annual sales growth as 5.4% and 6% during FY 04 and FY 05 respectively. The growth rate assumed by the IESCO is inline with the past trend. The expected sales for FY 05 are being estimated on the requested growth factors.



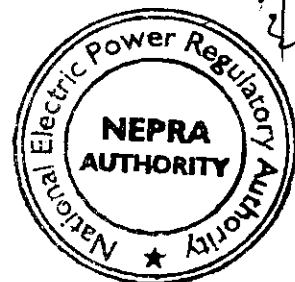
b) Distribution Losses

24. IESCO had proposed distribution losses target of 10.37% for the year (FY 04). This target was based on the actual of previous year FY 03 as 10.9%. However, we have been informed that based on the information of the last 10 months the annual losses level for the FY 04 is not expected to be less than 10.9%. Lack of improvement over the year FY 03 has been attributed to inadequate investment in capacity expansion of the distribution system infrastructure and significant expansion on the low tension side particularly in rural area. An improvement of at least 0.3% over FY 04 is expected to be achieved in FY 05. The Authority therefore considers that a 10.6% target for the FY 05 would be realistic and achievable. IESCO has not included the losses of 132 kV system. Presently detailed information regarding losses at 132 kV system has not been provided, therefore, an accurate assessment of losses in the split up 132 kV system is not possible. Considering the comparative configuration of 132 kV IESCO system the losses for this part of the distribution system are estimated as 4%. As such an overall loss level of 14.6% is set as target for FY 05.

c) Distribution Margin

25. IESCO has claimed Distribution Margin (DM) to be calculated on the basis of forecasted sales for the year to cover its O&M costs, Depreciation, and Return on Rate Base as per the following formula:

$$\text{Avg. Margin (Rs per kWh)} = \frac{\text{O \& M} + \text{Depreciation} + \text{ROA}}{\text{Total Unit Sales}}$$

26. The cost components and return comprising of the revenue requirement relating to distribution margin are analyzed in the following paragraphs to assess the DM for FY 05.

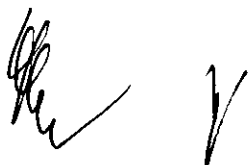
- i) O & M Costs
- ii) Depreciation
- iii) Other Income
- iv) Investment Program
- v) Rate Base
- vi) Return on Return Base

i) O&M Cost

27. The actual O&M costs inclusive of post retirement benefits excluding depreciation during the previous three years FY 01, FY 02 and FY 03 are Rs.1,090 million, Rs.1,462 million and Rs.1,614 million respectively. The post retirement benefits for the employees on the strength of IESCO as an independent company have been based on the actuarial study carried out by the Company. The O&M costs for FY 04 and FY 05 are projected as Rs. 1,759 million and Rs. 1,953 million respectively. The O&M costs estimated by IESCO do not include the increase in salaries & wages recently announced by the Federal Government which will be applicable to the employees of IESCO. The remaining part of the O&M costs estimated for FY 05 is considered reasonable. The provision for salaries wages and other benefits estimated for FY 04 have been increased by 15% in order to incorporate the increase announced in June 2004 with respect to the National Budget 2005. Consequently, the O&M costs for FY 05 have been assessed as Rs.2,284 million as a cost element of the RR.

ii) Depreciation

28. The assets of IESCO have been financed mainly through equity, debt and deferred credit (Consumers' capital contribution/Deposit works). The deferred credit is amortized over the



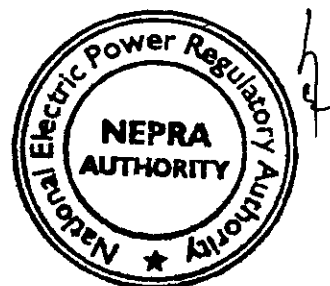
life of the assets and this amortization is recognized as other income. IESCO has not made such a provision in its petition. The depreciation (net off amortization) for the FY 05 is estimated as Rs. 406 million (Rs.626 million minus Rs.220 million).

iii) Other Income

29. Other income includes: i) Other Income from operations including income from meter rentals and late payment surcharge (LPS); ii) Other income from non-operating activities that includes profit on bank deposit, sale of scrap, and any income, which is not covered under aforementioned heads.

30. During the last three years FY 01, FY 02 and FY 03 the income from non-operating activities recorded in the financial statements is Rs.161 million, Rs.170 million and Rs.352 million respectively. IESCO has however not accounted for such income in the calculation of its distribution margin. Based on the analysis of each item of income, the Authority considers Rs. 180 million as a reasonable estimate of income from non-operating activities for FY 05.

31. The analysis based upon the information in the annual accounts revealed that there was no clear trend regarding late payment surcharge (LPS). The LPS in FY 01, FY 02 and FY 03 was Rs.561 million, Rs.107 million and Rs.54 million (negative) respectively. The negative value may have occurred due to the adjustment of LPS in respect of Government consumers. The LPS should normally correlate to the amount billed, however, in the instant case a direct relationship cannot be established. The Authority considers Rs.120 million as a reasonable estimate of income from late payment surcharge For FY 05. As regards the income from meter rentals and services it remained more or less at the same level during past three years i.e. in the range of Rs.35 million to Rs.37 million



respectively. The Authority considers Rs.40 million a reasonable assessment of other income from meter rental and services.

iv) Investment Program

32. IESCO has proposed an investment program of Rs. 4,121 million (for system expansion), Rs.1,737 million (for distribution rehabilitation) and Rs. 5,098 million (for secondary transmission and grid) over the next five years. IESCO intends to finance its investment programme to the extent of Rs. 2,867 million through consumer contribution and remaining Rs. 8089 million through loans. Thus only Rs 8089 million financing is relevant for the assessment of Revenue Requirement. IESCO intended to initiate its proposed investment programme from the beginning of FY 04 but was not able to do so due to delay in independent funds availability (funds still being allocated centrally by WAPDA) and its pending tariff petition. Consequently the envisaged investment programme is expected to commence from FY 05. Year wise investment program proposed by IESCO is accordingly shifted as under:

Description	FY 05	FY 06	FY 07	FY 08	FY 09
Expansion	686	751	820	893	971
Distribution Rehabilitation	337	342	343	351	364
Secondary Transmission Line and Grid Station	2248	1512	405	663	271
Total Investment	3271	2605	1568	1907	1606

33. As per audited accounts of IESCO the actual capital expenditure inclusive of deposit works for FY 01, FY 02 and FY 03 is Rs. 480 million, Rs. 854 million and Rs. 967 million respectively. The major portion of actual capital expenditure was met through Consumer's Capital Contribution to the tune of Rs.248 million, Rs. 525 million and Rs. 531 million for FY 01, FY 02 and FY 03 respectively. In other words the investment through IESCO's own

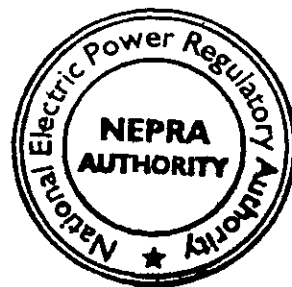


sources was only Rs. 232 million, Rs. 329 million and Rs. 436 million during FY 01, FY 02 and FY 03 respectively.

34. The Authority is however aware that IESCO under the control of integrated WAPDA was not able to carry out the extension or augmentation of its system capacity commensurate with its load growth. Therefore the estimation of investment requirement for the 5-years period based on past performance or achievement may not be realistic. Moreover in order to upgrade its distribution system for the purpose of achieving the performance standards prescribed by NEPRA, IESCO will have to carry out an extensive program of refurbishment, expansion and augmentation of its 132 kV sub-transmission and 11 kV/400 volts distribution system.

35. The Authority has examined the investment program details (Annex-2) as provided by IESCO in its petition. IESCO in its petition has submitted that the total investment inclusive of consumers' contribution credits is expected to be Rs. 10,956 million over the next 5 years. Out of this amount the portion that IESCO would have to finance (and therefore relevant to tariff-setting) is Rs. 8089 million which would be funded through borrowing and new connections amounting to Rs. 2,867 million through consumers' deposits.

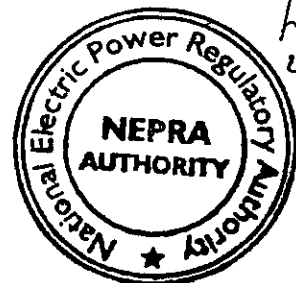
36. However due to the prescription of the "eligibility criteria" for consumers of distribution companies notified vide SRO 743(I)/2003 dated July 26, 2003, prospective consumers will be required to pay the initial cost relating to installation and connection charges of the dedicated distribution system only. Development of the Common Distribution System (CDS), or reinforcement of the existing CDS is required to accommodate the prospective consumers into the Distribution system. Therefore investment in such extension or



reinforcement of Distribution system would have to be financed either by the concerned Distribution Company or in the case of initial cost deposit by the consumer will have to be returned to the consumer treating it as an agreed financial arrangement. The Authority is of the opinion that the company would have to incur a comparatively larger amount in the initial years. The Authority is also aware of the fact that the envisaged investment program for FY 05 is over ambitious and beyond the company's capacity to spend. On an overall basis for the 5 years the expansion programme has to be spread over the five years in a realistic manner based on the IESCO's capability to carry out such a programme. Therefore, the proposed investment program of Rs.3271 million for FY 05 is being revised to Rs. 2000 million and is being allowed. In case IESCO demonstrates its capability to use more funds the expansion programme will be adjusted accordingly. The tariff being allowed to the company can be adjusted accordingly during the next review.

v) Rate Base (RB)

37. The assets of IESCO have been financed mainly from Equity, Long terms Loans, Deferred Credits (Consumer's Capital Contribution), security deposits by consumers and provision of employees' retirement benefits. IESCO is not entitled to a return on the portion of assets which were previously financed by the consumers' contribution, consumers' security deposits and provision of employees' retirement benefits. IESCO however, has demanded the return on the total net fixed assets including those contributed by the consumers and the provision of employees' retirement benefits. The Authority determines that the Rate Base for IESCO would be the net average fixed assets in operation (excluding deferred credits) less security deposits and provision for employees' retirement benefit during FY 05.



vi) Return on Rate Base (RORB)

38. IESCO has requested for a 3.8% return on profit rate base to meet its cash flow requirement. The rate base has been proposed to be worked out according to the following formula:

$$RateBase = NFAIO_{(Opening)} + 5\%(NFAIO) + PPP_{(1month)} + NI$$

Where:

$NFAIO_{(Opening)}$ = Net Fixed Assets In Operation at beginning of the year,

$PPP_{(1Month)}$ = Equal to 1 month of Power Purchase Price

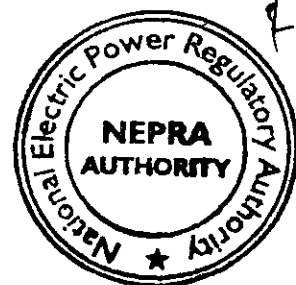
NI = New Investment during the year

39. The Authority has allowed a level of return in the recently determined tariff for FESCO as a distribution utility unbundled from WAPDA. The Authority considers that the operating environment and risks faced by IESCO and FESCO are similar therefore the same methodology is being adopted in the case of IESCO (Annex-3). Using a cost of debt as 8.7%, cost of equity as 14.95% and Debt-Equity ratio of 60:40, in a tax-exempt scenario, the Weighted Average Cost of Capital (WACC) is calculated according to the following formula:

$$WACC = \{k_e \times (E / V)\} + \{k_d \times (1-T_c) (D / V)\}$$

where K_e and K_d are cost of equity and debt, E/V and D/V are equity and debt ratios respectively, and T_c is the tax rate.

Therefore for the purpose of estimation of Revenue Requirement a WACC of 11.06% is being used and taxes if any that IESCO may be required to pay in the future will be considered as a pass-through item.



40 According to the costs and returns allowed in the preceding paragraphs, the Revenue Requirement for calculating Distribution Margin for the test year i.e. FY 05 is estimated as under:

	<u>Million Rs</u>
Establishment Cost	1,644
Repair & Maintenance & other Misc	640
Depreciation	406
Other income	(340)
Return on Net Fixed Assets in operation	712
Distribution Margin Cost	= <u>3,062</u>

The Distribution Revenue Requirement per unit sold or distribution Margin = Paisa 57.1269/kWh for FY 05.

II. Power Purchase Price (PPP)

41. The eight DISCOs unbundled out of WAPDA distribution system (Ex-WAPDA DISCO) will purchase power from the Central Power Purchase Agency (CPPA) established within NTDC. The Power Purchase Price (PPP) will be computed as a transfer price in accordance with the mechanism laid down in the determination of the Authority dated April 13, 2004 with respect to tariff for NTDC reproduced as Annex-4 to this determination. The Power Purchase Price in accordance with the aforesaid mechanism shall include wheeling charges i.e. cost of transportation of power by NTDC to various DISCOs in addition to the weighted average cost of power purchased from the specified generation companies, which are authorized to sell power to NTDC.

42 According to the information provided by IESCO and NTDC in their respective tariff petitions and after adjustment for reasonability of cost, the transfer price is estimated for FY 05 as a two part charge varying for each billing period. Applying the transfer

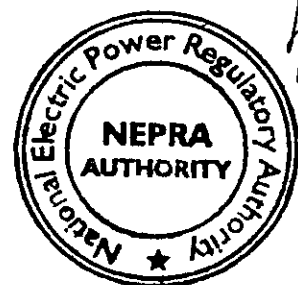


charge price to units consumed and peak load recorded with respect to purchase by IESCO in each month the expected purchase cost is calculated for the year, which divided by the total units expected to be purchased during the year calculates to the estimated annual average power purchase price of IESCO for FY 05 as Rs. 2.809/kWh. This rate is considered for estimating the power purchase price to be incorporated in calculation of Revenue Requirement as well as the base for future annual indexation of PPP. Estimation attached as Annex-5.

Indexation for PPP

43. It is observed that the monthly energy component of the PPP would be lower during the period May to October due to availability of more hydel power and consequent lower requirement of thermal generation. On the other hand the PPP would be comparatively higher during the period November to April, when there is low hydel power generation and lower availability of gas for power generation.

44. Under normal fuel price conditions and past trend of sales mix the variation in monthly PPP due to Generation Source Mix (GSM) variation would result in surplus revenue during the early five months of the financial year July to November and last month i.e. June, whereas during the other months of the financial year i.e. December to May, there would be a deficit. The surplus in the early part of the FY would be adequate to compensate for the later months. As such, IESCO is financially better placed to deal with the power purchase price fluctuation due to variation in GSM during the year. Allowing the consumer end sale price to fluctuate on account of variation in PPP due to GSM changes would create unnecessary volatility in the consumer end rates and at the same time deny the utility the surplus



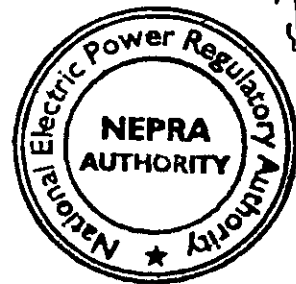
in the early months of the FY to compensate for increased expense during the later months of the year. Such variation would create an unnecessary burden on the consumer without giving any advantage to the utility.

45. Based on the rationale explained in detail in its determination dated June 9, 2004 for tariff of unbundled FESCO, the Authority considers that power purchase variation on account of fuel price variations during the year will not have a significant adverse impact to the extent that would require an immediate corresponding indexation of the consumer-end tariff. However the Authority is convinced that in case of a difference between the power purchase price estimated in the revenue requirement and the actual PPP experienced, the tariff for the next year needs to be adjusted to cater for any variation in Power Purchase cost arising out of variations in PPP during the year. A surplus in revenue on account of lower annual power purchase cost of IESCO needs to be transferred to the consumer in the shape of a reduction in consumer end tariff (CET) for the next year while IESCO has to be compensated for any deficit in revenue on account of higher annual power purchase cost through corresponding increase in CET for the next year. The power purchase price will be indexed annually according to the mechanism discussed in the succeeding paragraphs after taking into consideration any adjustment made during the year in the base tariff consequent to a tariff revision made pursuant to the Tariff Standards and Procedure Rules 1998.

46. The indexation mechanism for variation in power purchase price will be applied as follows:

Variation in cost for year 1 due to PPP variation:

$$\Delta CP_1 = UPe_1 * (PPa_1 - PPe_1)$$



Indexation in sale rate due to PPP, applicable at the beginning of year 2:

$$\Delta PP_1 = \frac{\Delta CP_1}{USe_2} = \frac{UPe_1 (PPa_1 - PPe_1)}{USe_2}$$

Where:

UPe_1 is the estimated annual units to be purchased in year 1

PPe_1 is the estimated weighted average power purchase price for year 1

PPa_1 is the actual weighted average power purchased price for year 1

USe_1 is the estimated annual units sold in year 1

UPe_2 , PPe_2 , PPa_2 , and USe_2 , would denote the same parameters as above for the year 2.

47. On the basis of available information the weighted average price (PPP) inclusive of the wheeling charges and the weighted average charge for generation by all the existing power producers, selling their electricity to CPPA as faced by IESCO is estimated as Rs. 2.809/kWh for the FY 05 and the same has been used for assessing the Revenue Requirement for FY 05 and determining the consumer-end tariff.

48. The aforesaid mechanism is further simplified as under:-
Variation in sale rate due to change in Power Purchase Price

$$\Delta PP_1 = \frac{\Delta CP_1}{USe_2} = \frac{UPe_1 (PPa_1 - PPe_1)}{USe_2}$$

Replacing USe_2 with $USe_1 (1+G)$, where G is the annual growth rate in units sale estimated for year 2 over year 1.

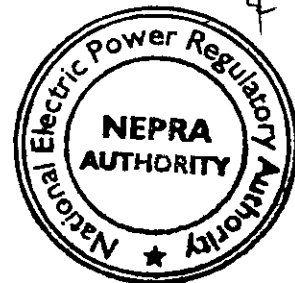
$$\Delta PP_1 = \frac{UPe_1 (PPa_1 - PPe_1)}{USe_1 (1+G)}$$

Replacing USe_1 with $Upe_1 (1 - \% \text{ of losses})$

$$\Delta PP_1 = \frac{UPe_1 (PPa_1 - PPe_1)}{Upe_1 (1-L_1) (1+G)}$$

Where $L_1 = \% \text{ losses for the year 1}$

$$\Delta PP_1 = \frac{PPa_1 - PPe_1}{(1-L_1) (1+G)}$$



49. Average sale rate in year 2, R_{t2} would be equal to average sale rate in year 1, R_{t1} plus ΔPP_1 or $R_{t2} = R_{t1} + \Delta PP_1$

Average sale rate on 1st July 2004 R_{t1} will be considered as Rs 3.8602/kWh based on an overall revenue requirement of Rs. 20,692 million and expected units sold as 5,360 million kWh for FY 05.

Average sale rate on 1st July 2005 will be $R_{t2} = R_{t1} + \Delta PP_1$

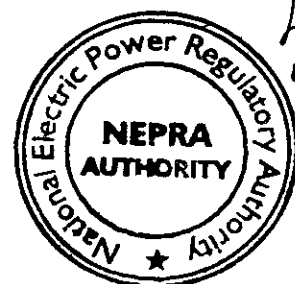
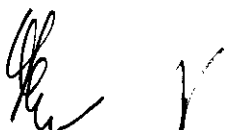
ΔPP_1 can be either positive or negative depending on whether on an annual bases the power purchase price has increased or decreased during the related year.

50. The target of losses for the next year i.e. FY 06 shall be set at the time of review for allowing adjustment on account of variation in Power Purchase Price to vary the consumer end tariff.

III. Revenue Accrual and Average Sale Rate

51. The overall revenue requirement would be equal to the annual power purchase cost expected to be incurred by IESCO and the Distribution Revenue Requirement (DRR). This overall Revenue Requirement is equal to Rs. 20,692 million; comprising of Rs. 17,630 million as power purchase cost inclusive of transmission charge, (Annex 5) plus Rs. 3,062 million as distribution margin cost or DRR.

52. The total revenue accrual is the sum of the individual consumer class revenues arising from the rate of that category multiplied by the units expected to be sold in that category. The revenue accruing in case of consumers billed on a two part tariff is affected by the load factor of the power consumption in that category and is therefore estimated on the basis of average per kWh revenue accruing from that class of consumers during the previous year on actual basis.



53. The revenue accruing to IESCO on the prevailing rates is estimated as Rs. 25,155 million (Annex-6) against the estimated revenue requirement of Rs. 20,692 million for the FY 05. As such the current IESCO tariff has to be reduced to an extent that the revenue accruing from tariff does not exceed the revenue requirement of Rs. 20,692 million. The Authority, in line with the Tariff Standards and Procedures Rules (TS&PR) and keeping in view the requirement to reduce cross subsidies as far as possible, considers that the reduction should be spread amongst the consumer classes that are providing cross subsidy to other classes such that the resulting consumer class rates are as close to their marginal cost as possible.

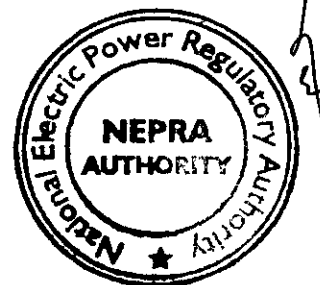
54. The Authority accordingly decides to lower the existing tariff of the following categories of consumers of IESCO to arrive at a revenue accrual of Rs. 20,692 million (Annex-7).

Residential - consuming above 300 Units
Commercial
Industrial
Single Point Supply for Purchase in Bulk
Agricultural
Street Light

A comparison of the revised consumer class wise rates and the existing rates is indicated in Annex-8.

IV **The use of system charges/wheeling charges.**

55. IESCO may be required to transport power to bulk power consumers (BPCs) purchasing power from generating companies, selling outside the CPPA single buyer arrangement or from other distribution companies. In such cases IESCO will be allowed to charge for the cost incurred on transportation of power involved and billing /



retail sale service provided to the BPC or another Distribution company.

56. The distribution charge which IESCO is allowed to charge its own consumers on average, however also includes pilferage losses being caused due to inefficiency of the host DISCO or the DISCO providing the transportation service through its distribution system. This charge can not be imposed on the consumer who is buying power from some other source therefore the distribution charge has to be adjusted to exclude pilferage losses. The revenue requirement leading to distribution charge should therefore be divided on expected units sold based on technical losses only. Correcting for technical losses instead of overall losses the distribution charge is adjusted to arrive at the use of system charge (UOSC).

$$UOSC = DM \times \frac{(1 - \% \text{ overall losses})}{(1 - \% \text{ technical losses})}$$

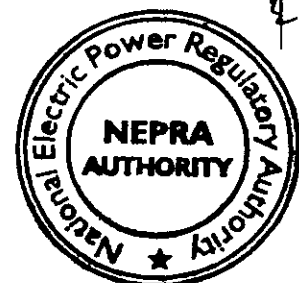
57. The technical losses relating to transportation of bulk power over 132 kV system are estimated as 4%, and within the distribution system as 5% for FY 05. Therefore Distribution charge would be adjusted for each case depending on which part of IESCO system is involved as under:

i) Where only 132kVsystem is involved

$$UOSC = \frac{DM * (1 - L)}{(1 - 0.04)} \text{ paisa/kWh}$$

Where only 11 kV distribution System is involved considering 5% distribution technical losses

$$UOSC = \frac{DM * (1 - L)}{(1 - 0.05)} \text{ paisa/kWh}$$



- ii) Where both 132 kV system and 11 kV distribution system is involved

$$UOSC = \frac{DM * (1 - L)}{(1 - 0.09)} \text{ paisa/kWh}$$

Where Distribution charge for the year FY 05 is set as paisa 57.1269/kWh. 'L' is the overall percentage losses target for the year as 14.6% for FY 05.

V. **Tariff Structure**

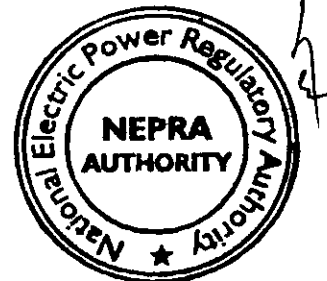
58. The existing tariff structure for various categories of consumers in the IESCO distribution area is as follows:

Fixed Charge	Sales of Power	Fuel Adjustment Surcharge	Hydel Surcharge	Additional Surcharge
Rs. / kW/ Month	Ps. / kWh	Ps. / kWh	Ps. / kWh	Ps. / kWh

59. IESCO has proposed the following consumer-end tariff structure without providing the corresponding terms and conditions of tariff: -

Consumer Category-Specific Tariff = PPP + Category Specific Distribution Margin

60. The Authority considers that a radical revision of the existing tariff pattern without carrying out a detailed study may not be fair to the consumers consuming less units per month. Till such a study is carried out by IESCO and the matter examined in detail, the existing pattern is allowed to continue with respect to the lower consumption class. However for simplicity and reduction of intra class subsidization one consumption slab of residential consumers i.e. above 1000 units is being eliminated. Thus all of the consumption above 300 units per month will be charged at a uniform rate. For the higher consumption residential class i.e. having peak load requirement of above 20 KW, a two part tariff is being introduced. Also for this class of consumer an optional tariff based on time of day



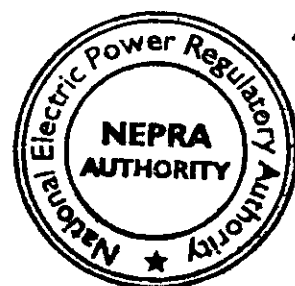
Also for this class of consumer an optional tariff based on time of day metering is being allowed i.e. residential consumers having peak load requirement of above 20 kW is being given the option to shift to time of day tariff.

61. Similarly the commercial consumer class consuming up to and above 100 units per month are being combined into one class and an option for shifting to time of day metering is being allowed to commercial consumers having peak load requirement of above 20 KW.

62. With respect to elimination of all the surcharges viz., fuel adjustment surcharge, hydel surcharge and Additional surcharge, these are being merged into one component of tariff i.e., Variable Charge whereas the Fixed Charge a component is being retained, thus the tariff rates as appearing in the bill of consumers are simplified to contain only fixed charges (where applicable) and variable charges.

63. Moreover in view of the non licensee status being no longer allowed to distribute or sell power under the NEPA Act the definition of Bulk supply tariff needs to be changed. Any person who purchases power from the DISCO in bulk and resells to its consumers (e.g. Housing Colonies and MES installations) will require a Distribution Licence. The definition and categorization has therefore been changed as single point supply for further resale by a Distribution Licensee. The terms and conditions of tariff have also been revised to accommodate the above mentioned changes.

64. IESCO is however directed to undertake a study for the assessment of the cost of service to each consumer category and consumption class separately and to submit a proposal for a revision of the tariff structure and the associated terms and conditions of tariff



on the basis of the study. The revised structure shall be considered by the Authority for approval and applicability.

VIII. **Period of Multi-Year Tariff**

65. IESCO has proposed a Multi-year Tariff (MYT), for five years starting from FY 04 to remain effective till June 2008. The Authority considers that a multi-years price cap incentive tariff (MYT) regime is not appropriate for distribution companies which are expected to remain in Government ownership and management for a considerable period of time. The MYT can be considered for those distribution companies which are expected to be partially divested and handed over to private management in the near future. Therefore the matter of MYT for IESCO will be considered when IESCO becomes a priority for privatization. IESCO's request for a Multi-year Tariff is therefore, not accepted.

Formula for Tariff setting and its revision.

66. Based upon the discussion and analysis in the preceding paras the break-up of Average Sales Rate attributable to various elements of the assessed revenue requirement during FY 05 are as under:-

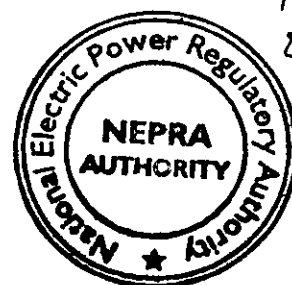
#	Description	Paisa / kWh
1.	Power Purchase Price (PPP)/(1-L)*	328.8931
2.	Distribution Charges	57.1269
	Average Sales Rate	386.0200

* L = % Losses

Order

67.

(I) IESCO is allowed to charge its consumers such tariff as is indicated in the schedule of tariff for IESCO annexed to this determination as Annex-9.

(II) The indexation factors to vary the consumer end tariff on account of variation in Power Purchase Price shall be:

$$\Delta PP1 = \frac{(PP_{a1} - PP_{e1})}{(1 - L_1)(1 - G1)}$$

Where:

PPe1 is the estimated average PPP for year 1

PPa1 is the actual average PPP for year 1

L1 is the target of average annual losses during year 1

G1 is the targeted load growth for the year 1

Δ PP1 is the difference in Power Purchase Cost to be through in

Rt1 is the average annual sale

(III) The break-up of Average Sales Rate attributable to various elements of the assessed revenue requirement during FY 05 is as under:-

#	Description	Paisa / kWh
1.	Power Purchase Price (PPP)/(1-L)*	328.8931
2.	Distribution Margin	57.1269
	Average Sales Rate	386.0200

* L = % Losses

IV. The annual adjustment on account of II above shall normally be made in the month of July. IESCO will submit its calculation for adjustment in average sale rate due to variation in PPP by 10th of July each year along with the proposed adjustment in consumer class rate. The Authority will determine the revised tariff within one week of receipt of information from IESCO. The variation in average sale rate will be distributed between the various consumer classes such that cross subsidization is minimized as far as possible. Any tariff adjustment so determined by the Authority shall be deemed



to have been notified by the Federal Government through the notification of this order.

V. The terms and conditions related to the schedule of tariff shall be those as attached to this determination as Annex-10.

VI. IESCO is allowed to charge the users of its system a use of system charge (UOSC) equal to:

a) Where only 132kV system is involved:

$$UOSC = \frac{DM \times (1 - L) \text{ paisa/kWh}}{(1 - .04)}$$

(b) Where only 11 kV distribution System is involved:

$$UOSC = \frac{DM \times (1 - L) \text{ paisa/kWh}}{(1 - .05)}$$

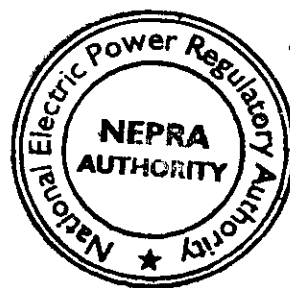
(c) Where both 132 kV system and 11 kW distribution system is involved:

$$UOSC = \frac{DM \times (1 - L) \text{ paisa/kWh}}{(1 - .09)}$$

The use of system charges will be reset each year by the Authority in the first week of July (starting July 2005) on the basis of revised targets for technical losses and overall losses.

VII. IESCO may file a tariff petition under the TS&P Rules at any time if it desires to readjust its base tariff in addition to the yearly adjustment on account of PPP mentioned in para II above.

VIII. The tariff set out as per Annex-9 and terms and conditions thereof (Annex-10) and the mechanisms for adjustment of average sale rate on account of variation in power purchase price and inflation as prescribed in this determination be sent to the Federal Government for notification under Section 31(4) of the Act.

DISTRIBUTION MARGIN FORMULA

(Proposed by the petitioner)

The average distribution margin for each year within the control period would be set in accordance with IESCO's expected revenue requirements, based on the following formula:

$$Avg. Margin_t = O \& M_t + \frac{Depreciation_t + ROA_t}{TotalUnitSales_t}$$

Where:

O&Mt is the expected operating and maintenance cost per kWh (for year t), which includes the estimated cost of technical service and repair, necessary materials for operation, salary, mandatory social insurance payments, administration, management and other operating costs related to IESCO's distribution and supply business. The O&M components for the first year of the control period would be established on the basis of forecast demand and inflation. In subsequent years, the O&M components would be determined in the following manner:

$$O \& M_t = (1 + \frac{CPI_t - X_t}{100}) * O \& M_{t-1}$$

Where:

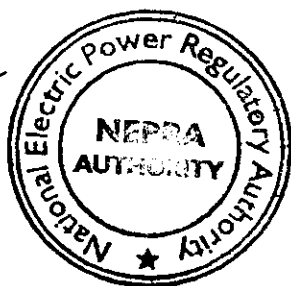
CPIt is the forecasted increase or decrease in Consumer Price Index during year t;

Xt is the efficiency factor for year t;

O&Mt-1 is the O&M component for the previous year (t-1)

Within the rebase period, this component would be automatically adjusted for the inflation expected in the subsequent year.

Depreciation; The depreciation (for year t) will be calculated based on; (i) the value of assets existing prior to the privatization, set at a fixed amount (Old Asset Base); plus (ii) new assets invested by IESCO (New Asset Base, as



specified within an investment programme approved by NEPRA). The assets will be depreciated for a specified number of years based on a straight-line method.

ROA_t; The return on investment (the cost of capital) will be calculated as follows:

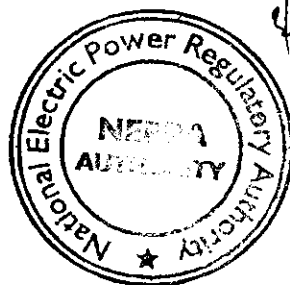
$$ROA_t = ProfitRateBase_t * Rateof Return$$

Where:

Profit Rate Base_t is defined for year t as the sum of (i) the value of Old Asset Base and New Asset Base (net of accumulated depreciation at the beginning of the year; and (ii) the capital expenditures for the year (New Investments), in accordance with the approved investment programme.

Annual Rate of Return is a pre-tax return on the Profit Rate Base. Because the investment is typically financed with a combination of debt and equity, the appropriate rate of return would be a market-based weighted average of the cost of capital.

Total Unit Sales: A schedule of the total unit sales (in kWh) of IESCO across all customer categories is forecast for each year of the price control. This forecast will be used to determine the average distribution margin per unit (Rs/kWh) needed to cover the revenue requirement expected for each year.



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TERMS AND CONDITIONS

(FOR SUPPLY OF POWER TO CONSUMERS)

PART - I

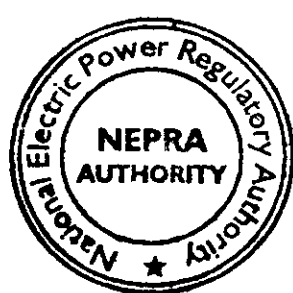
GENERAL DEFINITIONS

1. The Company, for the purposes of these terms and conditions means Islamabad Electric Supply Company (IESCO) engaged in the business of distribution of electricity within the territory mentioned in the licence granted to it for this purpose.
2. "Month", unless otherwise defined for any particular tariff category, means a billing month of 30 days or less reckoned from the date of last meter reading.
3. "Minimum Charge", means a charge to recover the costs for providing service to consumers even if no energy is consumed during the month.
4. "Fixed Charge" means the part of sale rate in a two part tariff to be recovered on the basis of "Maximum Demand" in kilowatt on monthly basis except in the case of Agriculture tariff D where Fixed Charge shall be recovered on the basis of sanctioned load.
5. "Variable Charge" means the sale rate per kilowatt-hour as a single rate or part of a two-part tariff applicable to the actual units consumed by the consumer during a billing period.
6. "Maximum Demand" where applicable, means the maximum of the demand recorded in any month measured over successive periods each of 30 minutes duration except in the case of consumption related to Arc Furnaces where "Maximum Demand" shall mean the maximum of the demand recorded in any month measured over successive periods each of 15 minutes duration.
7. "Sanctioned Load" where applicable means the installed load in kilowatt as applied for by the consumer and allowed/authorized by the Company for usage by the consumer.
8. "Power Factor" where applicable means the ratio expressed as a percentage of the kilowatt-hours to the kilovolt ampere-hours consumed during the month. Power Factor shall be the ratio of kWh to kVAh recorded during the month or the ratio of kWh to the square root of sum of square of kWh and kVARh, i.e

$$P.F = \frac{kWh}{kVAh} = \frac{kWh}{\sqrt{(kWh)^2 + (kVARh)^2}}$$

9. Peak and Off Peak hours for the application of Time Of Day (TOD) Tariff shall be the following timings:

<u>DURATION</u>	<u>PEAK TIMING</u>	<u>OFF-PEAK TIMING</u>
Dec. to Feb (inclusive)	5 PM to 9 PM	Remaining 20 hours of the day
March to May (inclusive)	6 PM to 10 PM	-do-
June to Aug. (inclusive)	7 PM to 11 PM	-do-
Sept. to Nov. (inclusive)	6 PM to 10 PM	-do-



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10. NTDC means the National Transmission and Dispatch Company.
11. The Authority means National Electric Power Regulatory Authority (NEPRA) constituted under the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

GENERAL CONDITIONS

Surcharge For Part Payment Or Late Payment Of Electricity Bills

"The Company shall, ordinarily, render bills to the consumers on a monthly basis for payment by the due date. The company shall ensure that bills are delivered to consumers at least seven days before the due date. If any bill is not paid by the consumer in full within the due date, a Late Payment Surcharge of 10% (ten percent) shall be levied on the amount billed excluding Govt. tax and duties etc.

PART – II

(Definitions and Conditions for supply of power specific to each consumer category)

A. GENERAL SUPPLY

Definitions and General Conditions

"General Supply", for the application of this Tariff, means a supply for single-phase/three-phase appliances inclusive of both general and motive loads subject to the following:

1. Single-Phase supply shall be given for loads up to 4 kW of sanctioned load.
2. In premises having a connected or sanctioned load exceeding 4 kilowatts supply shall be given at 3-phase 400 volts and above to allow a balanced distribution of load on the three phases.
3. In the event of a bill being rendered for consumption accumulated over a number of months, the average monthly consumption of the consumer, for the purpose of application of the notified rates shall be determined, by dividing the total consumption by the number of months to which the accumulated consumption relates.
4. The supply under this Tariff shall not be available for resale.

A-1 RESIDENTIAL

Special Conditions Of Supply

1. This Tariff is applicable for supply to residences, places of worship, approved religious and charitable institutions; and Government-sponsored educational institutions, educational institutions set up under public/private partnership, hospitals and dispensaries, etc., where,



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“Charitable Institution” for the purpose of application of this Tariff, is an institution, which works for the general welfare of the public on no profit basis and is registered with the Federal or Financial Government as such.

2. The General Supply consumers governed by tariff A-1 having peak load requirement exceeding 20 kW shall have the option to convert to a two-part Time Of Day (T.O.D) Tariff of A-1(b).

A-2 COMMERCIAL

Special Conditions Of Supply

1. This tariff is applicable, for supply to all government and semi government offices and institutions, commercial offices and commercial establishments such as Shops, Hotels, Restaurants, Petrol Pumps, Service Stations, compressed natural gas filling stations, Private Hospitals, Clinics, Dispensaries, places of Entertainment like Cinemas, Theaters and Clubs; Rest Houses and Government Lodges, Private Educational Institutions, office of Lawyers, Solicitors, Law Associates and Consultants etc.
2. For consumers having peak load requirement of up to 20 kW and below, supply to three phase, 400 volts compressor and pump motors of the air conditioning equipment installed in centrally air conditioned premises and other three-phase, 400 volts apparatus of general utility in the premises mentioned above under this Tariff, shall be governed by the Industrial Tariff B-1. This condition shall not apply to consumers having a peak load requirement in excess of 20 kW.
3. Supply to motors operating projectors and sound apparatus in cinemas shall be charged at the Industrial Tariff B-1.
4. The General Supply consumers governed by tariff A-2 having peak load requirement exceeding 20 kW shall have the option to convert to a two-part Time Of Day (T.O.D) Tariff of A-2(b).

B INDUSTRIAL SUPPLY

General Definitions

1. “Industrial Supply”, means a supply for bona fide industrial purposes in factories including the supply required for the offices and for normal working of the industry and also for water pumps and tube-wells operating on three phase 400 volts, other than those meant for the irrigation or reclamation of agricultural land.
2. For the purposes of application of this tariff an “Industry” means a bona fide undertaking or establishment engaged in manufacturing and/or processing of goods.

General Conditions

This Tariff shall be applicable subject to the following conditions:



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- i) Where applicable, the average Power Factor of a consumer at the point of supply shall not be less than 90 percent. In the event of the said Power factor falling below 90 percent, the consumer shall pay a penalty of two percent increase in the fixed charges corresponding to one percent decrease in the power factor below 90 percent. The fixed charges for the purpose of calculating the penalty for low power factor shall, however, be determined with reference to maximum demand during the month.
- ii) An industrial consumer shall have the option, to switch over to seasonal tariff-F, provided his connection is seasonal in nature as defined under tariff-F, and he undertakes to abide by the terms and conditions of tariff-F and pays the difference of security deposit rates previously deposited and those applicable to tariff-F at the time of acceptance of option for seasonal tariff. Seasonal tariff will be applicable from the date of commencement of the season, as specified by the customers at the time of submitting the option for Tariff-F. Tariff-F consumers will have the option to convert to corresponding Regular industrial Tariff category and vice versa. This option can be exercised at the time of obtaining a new connection or at the beginning of the season. Once exercised, the option will remain in force for at least one year.
- iii) The supply under this Tariff shall not be available for resale.

B – 1 SUPPLY AT 400 VOLTS THREE-PHASE AND/OR 230 VOLTS SINGLE PHASE

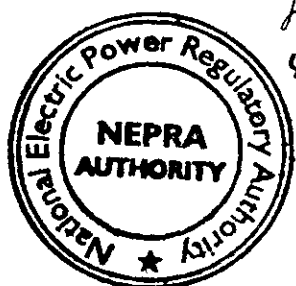
Special Conditions

1. This tariff is applicable for supply to Industries having sanctioned load up to and including 20 kilowatts.
2. The supply at one point under this Tariff shall also be available to Poultry Farms, Hatcheries and Breeding Farms.

B – 2 SUPPLY AT 400 VOLTS

Special Conditions

1. This tariff is applicable for supply to Industries having sanctioned load from 21 to 500 kW.
2. The supply under this tariff shall also be available to Poultry Farms, Hatcheries and Breeding Farms.



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3. The Industrial consumers governed by tariff B-2 shall have the option to convert to a two-part Time Of Day (T.O.D) Tariff.

B-3 SUPPLY AT 11 kV AND 33 kV

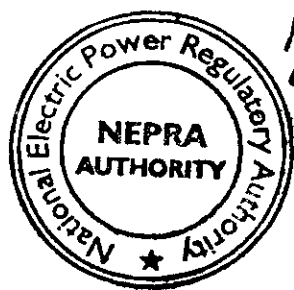
Special Conditions Of Supply

1. This tariff is applicable for supply to Industries having sanctioned load up to 5000 kW.
2. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice shall be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days, the fixed charges shall be assessed on proportionate basis for the actual number of days between the date of the old reading and the new reading.
3. The supply under this Tariff shall not be available to a prospective consumer unless he provides, to the satisfaction and approval of the Company, his own Transformer, Circuit Breakers and other necessary equipment for receiving and controlling the supply, or, alternatively pays to the Company for all apparatus and equipment if so provided and installed by the Company. The recovery of the remaining cost of service connection shall be regulated by the NEPRA eligibility criteria. In case of supply through an independent feeder drawn directly from the Grid Station, the cost of outgoing 11 kV Circuit Breakers in the Grid Station as a dedicated system under the eligibility criteria shall also have to be paid for by the prospective consumer.
4. All industrial supply consumers governed by Tariff B-3 shall be converted to two-part Time Of Day (T.O.D) tariff.

B-4 SUPPLY AT 66 kV and Above

Special Conditions Of Supply

1. This tariff is applicable for supply to Industries for all loads.
2. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice shall be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days, the fixed charges shall be assessed on proportionate basis for the actual number of days between the date of the old reading and the new reading.
3. In case the Grid Station required for provision of supply falls within the purview of the dedicated system under the NEPRA Eligibility Criteria, the supply under this Tariff shall not be available to such a prospective consumer unless he provides, to the satisfaction and approval of the Company, an independent grid station of his own including Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus for receiving and controlling the supply, or, alternatively,



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pays to the Company for all such Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus if so provided and installed by the Company. The recovery of remaining cost of service connection shall be regulated by NEPRA Eligibility Criteria.

4. All industrial supply consumers governed by Tariff B-4 shall be converted to two-part Time Of Day (T.O.D) tariff.

C SINGLE-POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE

“Single-Point Supply” for the purpose of this Tariff, means a supply given at one point to a licensee for the purpose of further distribution within its respective exclusive territory and jurisdiction.

General Conditions

1. Average Power Factor of the consumer governed by this tariff, at the point of supply shall not be less than 90 percent. In the event of the said power factor falling below 90 percent, the consumer shall pay a penalty of two percent increase in the fixed charges corresponding to one percent decrease in the power factor below 90 percent.
2. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice will be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days the fixed charges shall be assessed on proportionate basis for actual number of days between the date of old reading and the new reading.

Single-Point Supply consumers governed by Tariff C having peak load requirement exceeding 20 kW shall have the option to convert to Time-of-Day (TOD) Tariff under the respective category till 30th June 2007, thereafter conversion to T.O.D metering would become mandatory.

C-1 SUPPLY AT 400 VOLTS

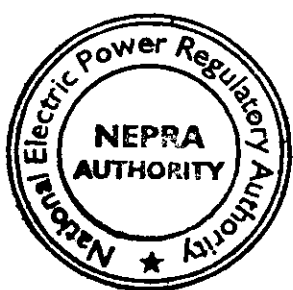
Special Conditions

1. This Tariff is applicable to purchase of bulk supply at 400 volts.
2. Single-point supply consumers governed by Tariff C-1 shall be converted to two-part Time Of Day (T.O.D) tariff by June 30th 2007.

C-2 SUPPLY AT 11 kV AND 33 kV

Special Conditions Of Supply

1. This tariff is applicable to purchase of bulk supply at 11kV and 33kV.



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2. The supply under this Tariff shall not be available to a consumer unless he, provides, to the satisfaction and approval of the Company, his own Transformer, 11/33 kV Circuit Breakers and other necessary equipment for receiving and controlling the supply, or, alternatively pays to the Company for all apparatus and equipment if so provided and installed by the Company. The recovery of the remaining cost of service connection shall be regulated by the Company's Abridged Conditions of Supply in force from time to time.
3. Single-point supply consumers governed by Tariff C-2 shall be converted to two-part Time Of Day (T.O.D) tariff by June 30th 2007.

C-3 SUPPLY AT 66 kV, 132 kV

Special Conditions Of Supply

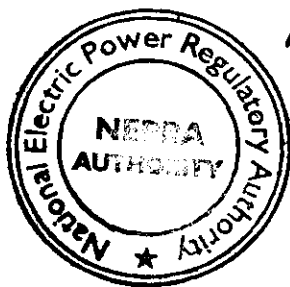
1. This Tariff is applicable to purchase of bulk supply at 66kV and 132kV.
2. In case the Grid Station required for provision of supply falls within the purview of the dedicated system under the NEPRA Eligibility Criteria, the supply under this Tariff shall not be available to such a prospective consumer unless he provides, to the satisfaction and approval of the Company, an independent grid station of his own including Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus for receiving and controlling the supply, or, alternatively, pays to the Company for all such Land, Building, Transformers, Circuit Breakers and other necessary equipment and apparatus if so provided and installed by the Company. The recovery of remaining cost of service connection shall be regulated by NEPRA Eligibility Criteria.
3. Single-point supply consumers governed by Tariff C-3 shall be converted to two-part Time Of Day (T.O.D) tariff by June 30th 2007.

D AGRICULTURAL SUPPLY

"Agricultural Supply" means a supply for Lift Irrigation Pumps and/or Tube-wells intended solely for irrigation or reclamation of agricultural land or forests, and include supply for lighting of the tube-well chamber.

Special Conditions Of Supply

1. This tariff shall apply to:
 - i) Reclamation and Drainage Scheme Tube-wells under Salinity Control and Reclamation Projects (SCARP),
 - ii) bonafide forests, agricultural tube-wells and lift irrigation pumps for the irrigation of agricultural land.
 - iii) Tube-wells meant for aqua-culture, viz. fish farms, fish hatcheries and fish nurseries.



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- iv) Tube-wells installed in a dairy farm meant for cultivating crops as fodder and for upkeep of cattle.
3. The fixed charges under this Tariff shall be recovered on the basis of sanctioned load in kilowatt.
 4. The fixed charge will represent the minimum monthly charge under this Tariff even if no energy is consumed during a month.
 5. If for any reason, the meter reading date of a consumer is altered and the acceleration/retardation in the date is up to 4 days, no notice shall be taken of this acceleration or retardation. But if the date is accelerated or retarded by more than 4 days, the fixed charges shall be assessed on proportionate basis for the actual number of days between the date of the old reading and the new reading.
 6. The lamps and fans consumption in the residential quarters if any attached to the tube-wells shall be charged entirely under General Supply at Tariff A-1.
 7. The supply under this Tariff shall not be available to consumer using pumps for the irrigation of parks, meadows, gardens, orchards, attached to and forming part of the residential, commercial or industrial premises in which case the corresponding General Supply Tariff A-1, A-2 or Industrial Tariff B-1, B-2 shall be respectively applicable.
 8. The supply under this tariff shall not be available for resale.

E – 1 TEMPORARY GENERAL SUPPLY

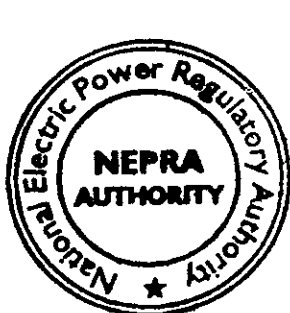
Temporary General Supply means a supply given to persons temporarily on special occasions such as ceremonial, religious gatherings, festivals, fairs, marriages and other civil or military functions. This also includes supply to touring cinemas and persons engaged in construction works for all kinds of single phase loads. For connected load exceeding 4 kW, supply may be given at 400 volts (3 phase) to allow a balanced distribution of load on the 3 phases. Normally, temporary connections shall be allowed for a period of 3 months however this can be extended on three months basis subject to clearance of outstanding dues.

Special Conditions Of Supply

1. This tariff shall apply to Residential and Commercial consumers for temporary supply.
2. Ordinarily the supply under this Tariff shall not be given by the Company without first obtaining security equal to the anticipated supply charges and other miscellaneous charges for the period of temporary supply.
3. The supply under this Tariff shall not be available for resale.

E 2 TEMPORARY INDUSTRIAL SUPPLY

“Temporary Industrial Supply” means a supply given to an Industry for the bonafide purposes mentioned under the respective definitions of “Industrial Supply”.



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Special Conditions Of Supply

1. This Tariff is applicable to consumers who have been granted distribution licence for the purpose of further distribution within their respective jurisdiction.
2. Ordinarily the supply under this Tariff shall not be given by the Company without first obtaining security equal to the anticipated supply charges and other miscellaneous charges for the period of temporary supply.
3. Normally, temporary connections shall be allowed for a period of 3 months, however this may be extended on three months basis subject to clearance of outstanding dues.
4. The supply under this Tariff shall not be available for sale.

F SEASONAL INDUSTRIAL SUPPLY

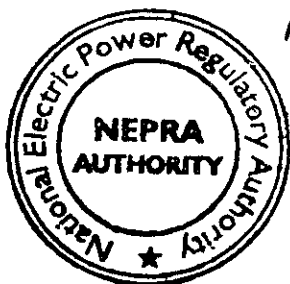
“Seasonal Industry” for the purpose of application of this Tariff, means an industry which works only for part of the year to meet demand for goods or services arising during a particular season of the year. However, any seasonal industry running in combination with one or more seasonal industries, against one connection, in a manner that the former works in one season while the latter works in the other season, thus running throughout the year, will not be classified as a seasonal industry for the purpose of the application of this Tariff.

Definitions

1. “Year” means any period comprising twelve consecutive months.
2. All “Definitions” and “Special Conditions of Supply” as laid down under the corresponding Industrial Tariffs shall also form part of this Tariff so far as they may be relevant.

Special Conditions Of Supply

1. This tariff is applicable to seasonal industry.
2. Fixed Charges per kilowatt per month under this tariff shall be levied at the rate of 125% of the corresponding regular Industrial Supply Tariff Rates and shall be recovered only for the period seasonal industry actually runs subject to minimum period of six consecutive months during any twelve consecutive months. The condition for recovery of Fixed Charges for a minimum period of six months shall not, however, apply to the seasonal industries, which are connected to the Company’s Supply System for the first time during the course of a season.
3. The consumers falling within the purview of this Tariff shall have the option to change over to the corresponding Industrial Supply Tariff, provided they undertake to abide by all the conditions and restrictions, which may, from time to time, be prescribed as an integral part of those Tariffs. The consumers under this Tariff will have the option to convert to Regular Tariff and vice versa. This option can



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be exercised at the time of obtaining a new connection or at the beginning of the season. Once exercised, the option will remain in force for at least one year.

4. All seasonal loads shall be disconnected from the Company's Supply System at the end of the season, specified by the consumer at the time of getting connection, for which the supply is given. In case, however, a consumer requires running the non-seasonal part of his load (e.g., lights, fans, tube-wells, etc.) throughout the year, he shall have to bring out separate circuits for such load so as to enable installation of separate meters for each type of load and charging the same at the relevant Tariff.
5. Where a "Seasonal Supply" consumer does not come forward to have his seasonal industry re-connected with the Company's Supply System in any ensuing season, the service line and equipment belonging to the Company and installed at his premises shall be removed after expiry of 60 days of the date of commencement of the season previously specified by the consumer at the time of his obtaining new connection/re-connection. However, at least ten clear days notice in writing under registered post shall be necessary to be given to the consumer before removal of service line and equipment from his premises as aforesaid, to enable him to decide about the retention of connection or otherwise. No Supply Charges shall be recovered from a disconnected seasonal consumer for any season during which he does not come forward to have his seasonal industry re-connected with the Company's Supply System.

G PUBLIC LIGHTING SUPPLY

"Public Lighting Supply", means a supply for the purpose of illuminating public lamps.

Definitions

"Month" means a calendar month or a part thereof in excess of 15 days.

Special Conditions Of Supply

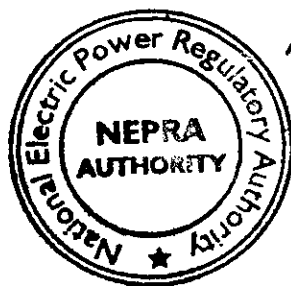
The supply under this Tariff shall be used exclusively for public lighting.

H RESIDENTIAL COLONIES ATTACHED TO INDUSTRIES

This tariff is applicable for one point supply to residential colonies attached to the industrial supply consumers having their own distribution facilities.

Definitions

1. "One Point Supply", for the purpose of this Tariff, means the supply given at one point to Industrial Supply Consumers for general and domestic consumption in the residential colonies attached to their factory premises, for a load of 5 kilowatts and above, for the purpose of further distribution to various persons residing in the attached residential colonies and also for the purpose of perimeter lighting in the attached residential colonies.



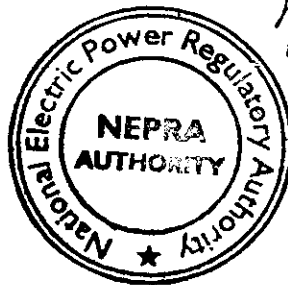
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2. "General and Domestic Consumption", for the purpose of this Tariff, means consumption for lamps, fans, domestic applications, including heaters, cookers, radiators, air-conditioners, refrigerators and domestic tube-wells.
3. "Residential Colony" attached to the Industrial Supply Consumer, means a group of houses annexed with the factory premises constructed solely for residential purpose of the bonafide employees of the factory, the establishment or the factory owners or partners, etc.

Special Conditions Of Supply

1. The supply under this Tariff shall not be available to persons who meet a part of their requirements from a separate source of supply at their premises.
2. The supply under this Tariff shall not be available for resale to any other person.



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ISLAMABAD ELECTRIC SUPPLY COMPANY LIMITED

PROPOSED FINANCING PLAN CORRESPONDING TO THE PROPOSED INVESTMENT

NAME OF THE PROJECT:

DISTRIBUTION EXPENSION

(Rs In Million)

TOTAL COST OF THE PROJECT

SOURCE OF FINANCING:

1) PUBLIC CONTRIBUTION

2) LOCAL BORROWING @ OF 8%
PER ANNUM

Objective of Distribution Expansion:

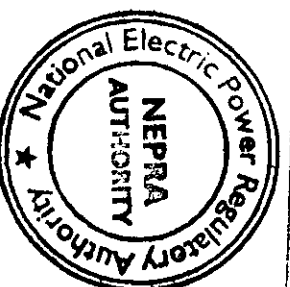
Distribution Expansion to connect new consumer (in domestic, commercial, industrial and agriculture sectors) and to provide adequate and reliable distribution network and services in view of the future power requirements

TECHNICAL ASPECTS

SCOPE OF THE WORK

DETAIL

No of connections	
Addition of 11 KV lines	278,852.00
Addition of LT lines	2947 KM
Additional Transformer	2236 KM
	7458 of Different capacities



ISLAMABAD ELECTRIC SUPPLY COMPANY LIMITED

PROPOSED FINANCING PLAN CORRESPONDING TO THE PROPOSED INVESTMENT

NAME OF THE PROJECT:

SECONDARY TRANSMISSION LINE AND GRID STATION

TOTAL COST OF THE PROJECT

2004	2005	2006	2007	2008	TOTAL
2,247.48	1,512.20	405.04	662.74	271.00	5,098.46

(Rs In Million)

LOCAL BORROWINGS AT THE RATE OF 8% PER ANNUM

2,247.48	1,512.20	405.04	662.74	271.00	5,098.46
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OBJECTIVE OF SECONDARY TRANSMISSION LINE AND GRID PROJECTS.

In order to ensure dispersal of power further to the sub Transmission ends, a reliable secondary system comprising 220, 132 and 66 KV Transmission lines Grid Stations has to be established by setting up new facilities and also the existing secondary system will have to be strengthened/ reinforced through additions, augmentation and up-grading of present facilities according to the load requirements.

The facilities of sub-transmission lines and Grid Stations proposed in the present scheme are designed to cater for the maximum diversified loads anticipated on IESCO power system.

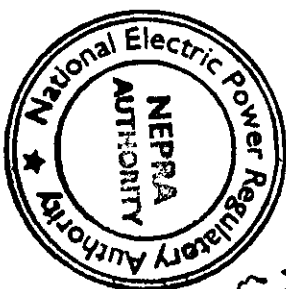
TECHNICAL ASPECTS

SCOPE OF THE WORK

New 132 KV lines
 New 132 KV Grid Station
 Extension of 132 KV Grid Stations
 Augmentation of 132 KV Grid Stations
 Conversion of 33, 66 KV Grid Stations
 Reconductoring of 132 KV lines
 132 KV Capacitors

DETAIL

1076 km
 8 Nos
 37 Nos
 7 Nos
 14 Nos
 80.1 KM
 24 Sets



ISLAMABAD ELECTRIC SUPPLY COMPANY LIMITED

PROPOSED FINANCING PLAN CORRESPONDING TO THE PROPOSED INVESTMENT

NAME OF THE PROJECT:

DISTRIBUTION REHABILITATION

(Rs In Million)

	2004	2005	2006	2007	2008	TOTAL
TOTAL COST OF THE PROJECT	337.02	342.34	342.90	350.85	363.60	1,736.61
SOURCE OF FINANCING:						
LOCAL BORROWINGS @ OF 8% PER ANNUM	337.02	342.34	342.80	350.85	363.60	1,736.61

Distribution Rehabilitation Measures:

Distribution Rehabilitation Measures aim at

- 1) Energy Loss Reduction
- 2) Improvement in quality of supply
- 3) Improvement in reliability
- 4) Improvement in safety
- 5) Release of generation, Transmission and Distribution Capacity
- 6) Improve Customer Services
- 7) Reduce cost of Operation and Maintenance
- 8) Improve length of life of equipment

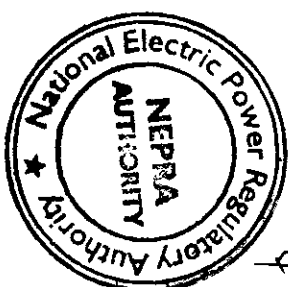
TECHNICAL ASPECTS

SCOPE OF THE WORK

Addition of 11 KV lines
Addition of LT lines
HT line Recon (KAM)
LT line Recon (KAM)
Additional Transformer
Addition of LT capacitors
Addition of HT capacitors
PVC cables

DETAIL

1250 KM
205 KM
500 Nos of Different capacities
2500 Nos of different Capacities
100 Nos of different Capacities
760 KM of different sizes



Methodology for Calculating Return on Assets

For assessing the Cost of Equity, the US market has been used as a developed market, as it is the market whose data is most widely available and considered most reliable. Because of using foreign market data, a country risk premium is added in the Cost of Equity calculations. The Authority considers the following values as reasonable for the different parameters used in the calculation of cost of equity.

- The country risk premium of 6.05% has been used, being the product of US equity market risk premium and relative volatility of Pakistani market to the US market.
- The risk free rate used is 4.5% on the basis of the 45 day current average yield on 10 years' US treasury bonds.
- Market risk premium is taken as 5.5% which is the mean of historic and expected premiums in the US market.
- Using proxy companies approach, the equity beta comes out to be 1.23
- Based on the extent of IESCO's exposure to Country Risk and dependent on sources of revenues, risk management opportunities, the value of Lambda is taken as 0.55.

As the data from developed foreign market has been used which is adjusted to reflect the local investment environment, a country premium is added in the Cost of Equity calculations, modifying the basic CAPM formula as under:

$$R_E = R_F + (R_M - R_F) \times \beta + (\lambda \times \text{country risk premium})$$

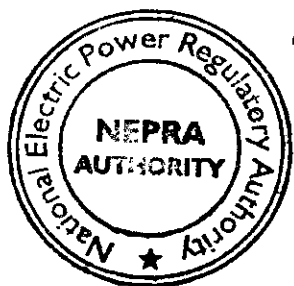
where,

R_E = Return on equity or cost of equity.

R_F = Risk-free rate of return

R_M = Market rate of return, also $(R_M - R_F)$ is called market risk

premium



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β = Beta, the measure of systematic risk

λ = Lambda, sensitivity of IESCO to country risk

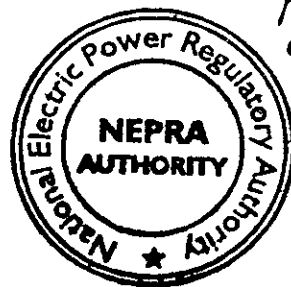
WACC Calculations

Using the figures of cost of debt as 8.7%, cost of equity as 14.59% and Debt-Equity ratio of 60:40, in a tax-exempt scenario, WACC is calculated as under:

$$WACC = \{k_e \times (E / V)\} + \{k_d \times (1-T_c) (D / V)\}$$

where K_e and K_d are cost of equity and debt, E/V and D/V are equity and debt ratios respectively, and T_c is the tax rate.

WACC accordingly calculates to 11.06% which is being used to calculate the returns in the estimation of Revenue Requirement. In case IESCO has to pay taxes, the taxes will be deemed as pass-through.



Transfer Price or Transfer Charge to XWDISCOS

NTDC shall charge the DISCOS formed consequent to the unbundling of WAPDA (termed as XWDISCOS), a transfer charge for procuring power from approved generating companies (termed as CPGENCOS) and its delivery to XWDISCOS for a billing period as under:

$$XTC = XCTC + XETC$$

where:

$$\begin{aligned} XTC &= \text{Transfer charge to XWDISCOS} \\ XCTC &= \text{Capacity Transfer Charge to XWDISCOS} \\ XETC &= \text{Energy Transfer Charge to XWDISCOS} \\ XCTC &= \frac{\text{CpGenCap} + \text{USCF}}{\text{XWD}} \end{aligned}$$

where:

(i) CPGenCap = the summation of the capacity cost in respect of all CPGencos in Rs for a billing period minus the amount of liquidated damages received during the month.

(ii) XWD = the sum of the maximum demand of the XWDISCOS in kW recorded during a billing period at all the delivery metering points at which power is received by the XWDISCOS.

(iii) USCF = the fixed charge part of the use of system charges in Rs per kW per month.

$$XETC = \frac{\text{CpGenE (Rs)} - \text{Us}_{\text{KESC}} \times \text{ERt}_{\text{KESC}}}{\text{XWUs (kWh)}}$$

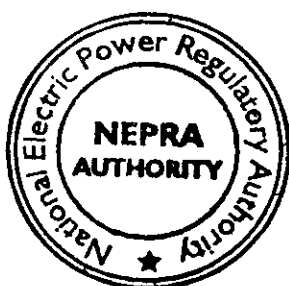
where:

(i) CPGenE = the summation of the variable charge rate (Rs per kWh) approved for each of the CPGenCOs times the energy in kWh procured from the respective CPGENCO during the billing period.

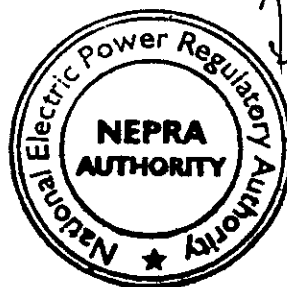
(ii) ERt_{KESC} = The marginal generation energy charge established during the billing period.

(iii) Us_{KESC} = Units (kWh) delivered to KESC by NTDC.

(iv) XWUs = the summation of the energy units (kWh) recorded at the delivery metering point of all the XWDISCOS during a billing period.



The transfer charge is inclusive of the transmission loss charge as the same is rolled in on account of the costs divided on units delivered basis to arrive at the Transfer Charge, therefore NTDC shall, for the purpose of clarity intimate to all DISCOs the generation part of the Transfer Charge during a billing period by deducting from the Transfer Charge the Transmission Charge or Use of System Charges.

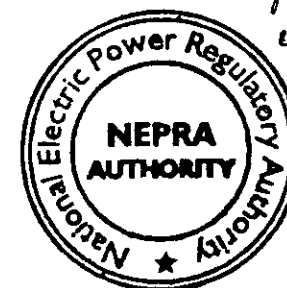


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Islamabad Electric Supply Company (IESCO)
Estimated Monthly Power Purchase Cost - FY 05

Description	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	Total
Units Purchased GWh	602	605	577	517	503	451	451	422	433	450	613	652	6276
Energy Power Purchase Cost Rs./kWh	1.0489	0.9093	0.8955	1.2386	1.2640	1.7143	2.0448	1.6187	1.6583	1.6827	1.3226	1.2084	1.3444
Capacity Power Purchase Cost Rs.Million	785	789	753	675	656	588	588	551	565	587	800	851	8,188
Energy Power Purchase Cost Rs.Million	631	550	517	640	636	773	922	683	718	757	811	788	8,427
Transmission Charge Rs. Million	97	98	93	84	81	73	73	68	70	73	99	105	1,015
Total Power Purchase Cost - Rs. Million	1,514	1,437	1,363	1,398	1,373	1,434	1,584	1,302	1,353	1,417	1,710	1,744	17,630

Estimated Average Power Purchase Price Applied to Disco Rs./kWh Purchased 2.809

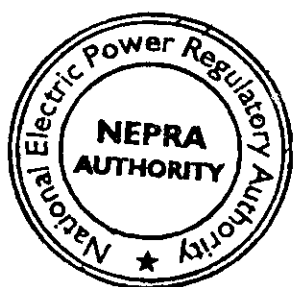


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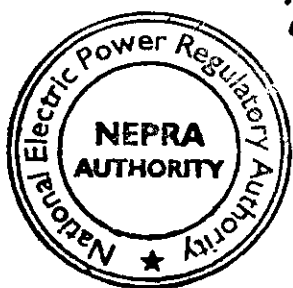
Islamabad Electric Supply Company (IESCO)
Estimated sales revenue on the basis of existing tariff for FY 05

Description	Sales GWh	Sales Mix	Existing Tariff		Revenue		
			Fixed Charge	Variable	Fixed Charge	Variable	Total
			Rs. per kW per Month	Charge Rs. per kWh	Rs. Million	Charge Rs. Million	Rs. Million
Residential - A1							
Up to 50 Units	101	1.88%		1.40	-	142	142
Consumption Exceeding 50 Units							
01-100 Units	1,168	21.80%		2.57	-	3,007	3,007
101-300 Units	785	14.64%		3.47	-	2,724	2,724
301 - 1000 Units	160	2.99%		5.76	-	922	922
Above 1000 Units	41	0.77%		6.90	-	285	285
Total Residential	2,256	42.08%			-	7,080	7,080
Commercial - A2							
For peak load requirement up to 20 kW	67	1.25%		6.80	-	456	456
	329	6.14%		7.17	-	2,358	2,358
For peak load requirement exceeding 20 kW	109	2.03%	242.88	4.17	242	454	696
Total Commercial	505	9.42%			242	3,267	3,509
Industrial							
B1	99	1.85%		5.21	-	516	516
B2	273	5.09%	331.20	3.67	1,032	1,002	2,034
B2 - TOD (Peak)	3	0.06%	331.20	5.11	7	15	22
B2 - TOD (Off-peak)	57	1.06%	331.20	3.54	129	202	331
B3	90	1.68%	320.16	3.58	329	322	651
B3 - TOD (Peak)	43	0.80%	320.16	4.58	48	197	245
B3 - TOD (Off-peak)	350	6.53%	320.16	3.01	394	1,055	1,448
B4	37	0.69%	309.12	3.37	313	125	438
B4 - TOD (Peak)	24	0.45%	309.12	4.41	51	106	157
B4 - TOD (Off-peak)	199	3.71%	309.12	2.86	421	569	990
Total Industrial	1,175	21.92%			2,725	4,107	6,832
Single Point Supply for further distribution							
C1(a) Supply at 400 Volts - Peak load requirement up to 20 kW	2	0.04%		5.16	-	10	10
C1(b) Supply at 400 Volts - Peak load requirement exceeding 20 kW	117	2.18%	242.88	4.79	260	560	820
C2 Supply at 11 kV	362	6.75%	238.46	4.51	984	1,631	2,615
C3 Supply above 11 kV	87	1.62%	236.26	4.42	122	385	507
Total Single Point Supply	568	10.60%			1,366	2,586	3,952
Agricultural Tube-wells - Tariff D							
Scarp	48	0.90%		5.06	-	243	243
Agricultural Tube-wells	28	0.52%	90.53	3.12	69	87	157
Total Agricultural	76	1.42%			69	330	400
Public Lighting - Tariff G	39	0.73%		6.58	-	257	257
Tariff H - Residential Colonies attached to industries	7	0.13%		6.19	-	43	43
Special Contracts - Tariff K (AJK)	734	13.69%		4.20	-	3,081	3,081
Special Contracts - Tariff K (Rawat)	0	0.00%		4.49	-	1	1
Total	5,360	100%			4,402	20,753	25,155



Islamabad Electric Supply Company (IESCO)
Estimated sales revenue on the basis of new tariff for FY 05

Description	Sales GWh	Sales Mix	New Tariff		Revenue		
			Fixed Charge	Variable	Fixed Charge	Variable	Total
			Rs. per kW per Month	Charge Rs./ kWh	Rs.Million	Charge Rs.Million	Rs.Million
Residential - A1							
Up to 50 Units	101	1.88%		1.40	-	142	142
Consumption Exceeding 50 Units							
01-100 Units	1,168	21.80%		2.57	-	3,003	3,003
101-300 Units	785	14.64%		3.47	-	2,723	2,723
301 - 1000 Units	160	2.99%		4.50	-	720	720
Above 1000 Units	41	0.77%		4.50	-	186	186
Total Residential	2,256	42.08%			-	6,774	6,774
Commercial - A2							
For peak load requirement up to 20 kW	67	1.25%		4.50	-	302	302
	329	6.14%		4.50	-	1,481	1,481
For peak load requirement exceeding 20 kW	109	2.03%	240.00	2.50	239	273	511
Total Commercial	505	9.42%			239	2,055	2,293
Industrial							
B1	99	1.85%		4.10	-	406	406
B2	273	5.09%	330.00	3.00	1,028	819	1,847
B2 - TOD (Peak)	3	0.06%	330.00	4.50	7	14	20
B2 - TOD (Off-peak)	57	1.06%	330.00	2.75	129	157	286
B3	90	1.68%	320.00	2.75	329	248	576
B3 - TOD (Peak)	43	0.80%	320.00	4.00	48	172	220
B3 - TOD (Off-peak)	350	6.53%	320.00	2.50	393	875	1,268
B4	37	0.69%	310.00	2.50	314	93	407
B4 - TOD (Peak)	24	0.45%	310.00	3.50	51	84	135
B4 - TOD (Off-peak)	199	3.71%	310.00	2.00	423	398	821
Total Industrial	1,175	21.92%			2,722	3,264	5,986
Single Point Supply for further distribution							
C1(a) Supply at 400 Volts - Peak load requirement up to 20 kW	2	0.04%		4.25	-	9	9
C1(b) Supply at 400 Volts - Peak load requirement exceeding 20 kW	117	2.18%	240.00	3.25	256	380	637
C2 Supply at 11 kV	362	6.75%	235.00	3.00	970	1,086	2,056
C3 Supply above 11 kV	87	1.62%	230.00	2.75	119	239	358
Total Single Point Supply	568	10.60%			1,345	1,714	3,059
Agricultural Tube-wells - Tariff D							
Scarp	48	0.90%		4.35	-	209	209
Agricultural Tube-wells	28	0.52%	70.00	2.75	54	77	131
Total Agricultural	76	1.42%			54	286	339
Public Lighting - Tariff G	39	0.73%		4.50	-	176	176
Tariff H - Residential Colonies attached to Industries	7	0.13%		4.50	-	32	32
Special Contracts - Tariff K (AJK)	734	13.69%	230.00	2.00	564	1,468	2,032
Special Contracts - Tariff K (Rawat)	0	0.00%		3.50	-	1	1
Total	5,360	100%			4,924	15,768	20,692



Islamabad Electric Supply Company (IESCO)

Comparison of new and existing tariff for FY 05

Description	New Tariff		Existing Tariff	
	Fixed Charge Rs. per kW per Month	Variable Charge Rs./ kWh	Fixed Charge Rs. per kW per Month	Variable Charge Rs. per kWh
Residential - A1				
Up to 50 Units		1.40		1.40
Consumption Exceeding 50 Units				
01-100 Units		2.57		2.57
101-300 Units		3.47		3.47
301 - 1000 Units		4.50		5.76
Above 1000 Units		4.50		6.90
Commercial - A2				
For peak load requirement up to 20 kW		4.50		6.80
		4.50		7.17
For peak load requirement exceeding 20 kW	240.00	2.50	242.88	4.17
Industrial				
B1		4.10		5.21
B2	330.00	3.00	331.20	3.67
B2 - TOD (Peak)	330.00	4.50	331.20	5.11
B2 - TOD (Off-peak)	330.00	2.75	331.20	3.54
B3	320.00	2.75	320.16	3.58
B3 - TOD (Peak)	320.00	4.00	320.16	4.58
B3 - TOD (Off-peak)	320.00	2.50	320.16	3.01
B4	310.00	2.50	309.12	3.37
B4 - TOD (Peak)	310.00	3.50	309.12	4.41
B4 - TOD (Off-peak)	310.00	2.00	309.12	2.86
Single Point Supply for further distribution				
C1(a) Supply at 400 Volts - Peak load requirement up to 20 kW		4.25		5.16
C1(b) Supply at 400 Volts - Peak load requirement exceeding 20 kW	240.00	3.25	242.88	4.79
C2 Supply at 11 kV	235.00	3.00	238.46	4.51
C3 Supply above 11 kV	230.00	2.75	236.26	4.42
Agricultural Tube-wells - Tariff D				
Scarp		4.35		5.06
Agricultural Tube-wells	70.00	2.75	90.53	3.12
Public Lighting - Tariff G		4.50		6.58
Tariff H - Residential Colonies attached to industries		4.50		6.19
Special Contracts - Tariff K (AJK)	230.00	2.00		4.20
Special Contracts - Tariff K (Rawat)		3.50		4.49



**SCHEDULE OF ELECTRICITY TARIFFS
FOR ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)**

A-1 GENERAL SUPPLY TARIFF - RESIDENTIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
a)	For Peak load requirement up to 20 kW			
i	Up to 50 Units	-		1.40
	For Consumption exceeding 50 Units			
ii	For first 100 Units	-		2.57
iii	For next 200 Units	-		3.47
iv	Above 300 Units	-		4.50
b)	For peak load requirement exceeding 20 kW			
	i) Two-part Regular	240.00		3.00
			Peak	Off-Peak
	ii) Time Of Day (Optional)	240.00	4.50	2.50

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

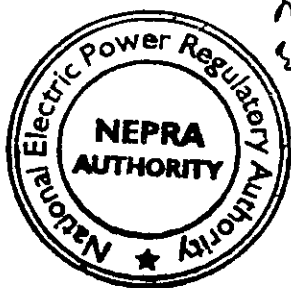
- a) Single Phase Connections: Rs. 45/-
b) Three Phase Connections: Rs. 100/-

A-2 GENERAL SUPPLY TARIFF - COMMERCIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
a)	For peak load requirement of up to 20 kW			4.50
b)	For peak load requirement exceeding 20 kW			
	i) Regular	240.00		3.00
			Peak	Off-Peak
	ii) Time Of Day (Optional)	240.00	4.50	2.50

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

- a) Single Phase Connections; Rs. 150/-
b) Three Phase Connections: Rs. 300/-



**SCHEDULE OF ELECTRICITY TARIFFS
FOR ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)**

B. INDUSTRIAL SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
			Peak	Off-Peak
B1	UP TO 20 kW (at 400 Volts)	-		4.10
B2	21-500 kW (at 400 Volts)	330.00		3.00
B3	UP TO 5000 kW (at 11,33 kV) *	320.00		2.75
B4	For all Loads (at 66,132 kV) *	310.00		2.50
	Time Of Day			
B2	21-500 kW (at 400 Volts) (Optional)	330.00	4.50	2.75
B3	UP TO 5000 kW (at 11,33 kV)	320.00	4.00	2.50
B4	For all Loads (at 66,132 kV)	310.00	3.50	2.00

Note: * Must be converted to Time of Day Tariff.

For the B1 consumers there shall be minimum monthly charges of Rs. 70/kW of sanctioned load.

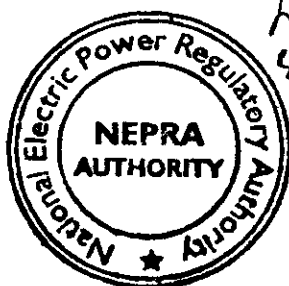
C. SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
			Peak	Off-Peak
C -1	For supply at 400/230 Volts			
a)	Peak load requirement of up to 20 kW	-		4.25
b)	Peak load requirement above 20 kW	240.00		3.25
C -2	For supply at 11,33 kV	235.00		3.00
C -3	For supply at 66,132 kV (For all loads)	230.00		2.75
	Time-Of-Day (Optional)			
C -1(b)	For supply at 400/230 Volts	240.00	4.50	2.50
C -2	Peak load requirement of up to 20 kW	235.00	4.00	2.25
C -3	Peak load requirement above 20 kW	230.00	3.50	1.75

D. AGRICULTURE TARIFF

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	
			Peak	Off-Peak
D-1	SCARP	-		4.35
D-2	Agricultural Tube Wells	70.00		2.75

The fixed charges under this tariff shall be recovered on the basis of sanctioned load in kilowatt.



**SCHEDULE OF ELECTRICITY TARIFFS
FOR ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)**

E - TEMPORARY SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
E-1(i)	Residential Supply	-	5.50
E-1(ii)	Commercial Supply	-	5.50
E-2	Industrial Supply	-	5.00

For the categories of E-1(i&ii) above, the minimum bill of the consumers shall be Rs. 50/- per day subject to a minimum of Rs.500/- for the entire period of supply, even if no energy is consumed.

F - SEASONAL INDUSTRIAL SUPPLY TARIFF

125% of relevant industrial 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 remains in force for at least one year.

G - PUBLIC LIGHTING

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
	Street Lighting		4.50

There shall be a minimum monthly charge of Rs.500/- per month per kW of lamp capacity installed.

H - RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
	Residential Colonies attached to industrial premises	-	4.50

I - SPECIAL CONTRACTS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh
1	Azad Jammu & Kashmir (AJK)	230.00	2.00
2	Rawat Lab		3.50

