



# National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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Registrar

No. NEPRA/R/TRF-162/HESCO-2010/4825-4827

December 29, 2010

**Subject: Determination of the Authority in the matter of Petition filed by Hyderabad Electric Supply Company Ltd. for Determination of its Consumer end Tariff Pertaining to the 1<sup>st</sup> Quarter (July-September) of FY 2010-11 [Case # NEPRA/TRF-162/HESCO-2010 1st Quarter]**

Intimation of Determination of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)

Dear Sir,

Please find enclosed herewith the subject Determination of the Authority along with Annexure-I, II, III, IV & V (53 pages) in Case No. NEPRA/TRF-162/HESCO-2010 1<sup>st</sup> Quarter.

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.

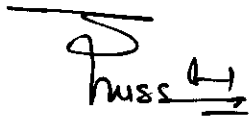
3. Please note that only the Order of the Authority at para 19 of the Determination along with Annexure-I (Fuel Price Adjustment Mechanism), Annex-III (Schedule of Electricity Tariff), Annex-IV (CpGenE, CpGenCap & USCF) and Annex-V (Terms and Conditions) needs to be notified in the official Gazette.

Enclosure: As above

Secretary  
Ministry of Water & Power  
'A' Block, Pak Secretariat  
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, Islamabad.

  
( Syed Safeer Hussain )



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National Electric Power Regulatory Authority  
(NEPRA)

PETITION NO: NEPRA/TRF-162/HESCO-2010

1<sup>st</sup> QUARTER (JULY-SEPTEMBER 2010)

TARIFF DETERMINATION

FOR

HYDERABAD ELECTRIC SUPPLY COMPANY

(HESCO)

DETERMINED UNDER

NEPRA TARIFF (STANDARDS AND PROCEDURE) RULES - 1998

Islamabad

December , 2010

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#### Abbreviations

CpGenCap	The summation of the capacity cost in respect of all CpGencos for a billing period minus the amount of liquidated damages received during the months
CPPA	Central Power Purchasing Agency
CWIP	Capital Work in Progress
DISCO	Distribution Company
DM	Distribution Margin
FY	Financial Year
GOP	Government of Pakistan
GWh	Giga Watt Hours
KV	Kilo Volt
kW	Kilo Watt
kWh	Kilo Watt Hour
MW	Mega Watt
NEPRA	National Electric Power Regulatory Authority
O&M	Operation and Maintenance
PPP	Power Purchase Price
PYA	Prior Year Adjustment
RAB	Regulatory Asset Base
RORB	Return on Rate Base
SRO	Statutory Regulatory Order
T&D	Transmission and Distribution
TOU	Time of Use
USCF	The fixed charge part of the Use of System Charges in Rs./kW/Month





DETERMINATION OF THE AUTHORITY IN THE MATTER OF PETITION FILED BY  
HYDERABAD ELECTRIC SUPPLY COMPANY (HESCO) FOR DETERMINATION OF ITS  
CONSUMER END TARIFF PERTAINING TO THE 1<sup>st</sup> QUARTER (JULY-SEPTEMBER) OF  
FY 2010-11

CASE NO. NEPRA/TRF/162/HESCO-2010

PETITIONER

Hyderabad Electric Supply Company, WAPDA Offices Complex , Hussainabad ,  
Hyderabad.

INTERVENERS

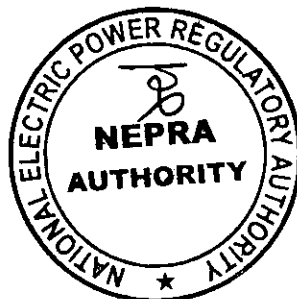
1. Finance Department, Government of Sindh.
2. Pakistan Cotton Ginner's Association.

COMMENTATOR

1. Nil.

REPRESENTATION

1. Mr. Shaikh Nazeer Ahmed, Chief Exective Officer, HESCO
2. Mr. Muhammed Aftab Alam Khan, Finance Director, HESCO
3. Mr. Deep Chand, Chief Engineer / Technical Director.
4. Mr. Khurshed Ahmend Shah , Customer Service Director.
5. Mr. Muhammed Moosa, Operation Director.
6. Mr. Shumail Ahmed Butt , Counsel for intervener, Finance Department,  
Government of Sindh.



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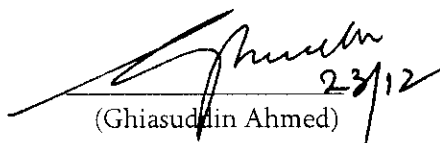
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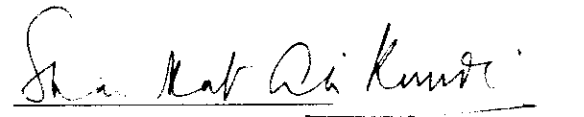


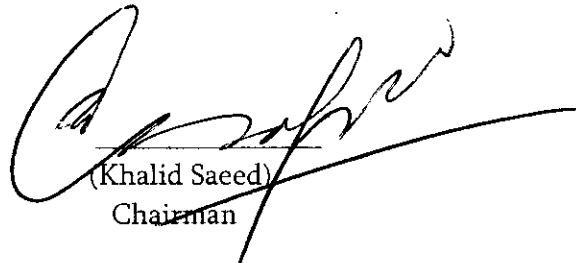
The Authority, in exercise of the powers conferred on it under Section 7(3) (a) read with Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, Tariff Standards and Procedure Rules, 1998 and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by the parties, issues raised, evidence/record produced during hearings, and all other relevant material, hereby issues this determination.


  
(Ghiasuddin Ahmed)  
Member

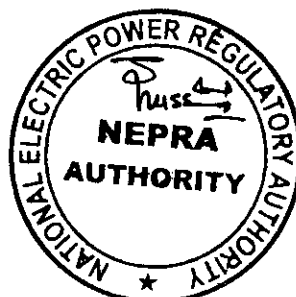
  
(Maqbool Ahmad Khawaja)  
Member

  
(Zafar Ali Khan)  
Member

  
(Shaukat Ali Kundi)  
Vice Chairman

  
(Khalid Saeed)  
Chairman

① Para 14.8 on "Doubtful debts Provision"  
I am of opinion Hec some percentage of  
bad debt. should be allowed in heavy loss making  
Companies "bad debts" cannot be totally ignored.  
  
27/12  
MAQBOOL AHMAD KHAWAJA  
Member (J)

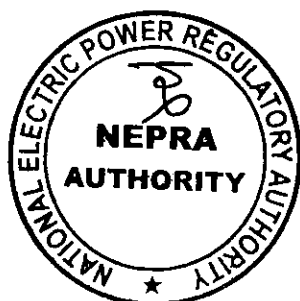


## 1. Background and Brief History

- 1.1 Hyderabad Electric Supply Company Limited (HESCO), hereinafter called "the Petitioner", being a Distribution Licensee of NEPRA filed a petition for the determination of its consumer-end tariff pertaining to the 1<sup>st</sup> quarter (July - September 2010) of the FY 2010-11.
- 1.2 In its petition, the Petitioner requested to adjust the Consumer –End Tariff as per the proposed Schedule of Tariff on account of the following;
- Quarterly adjustment with respect to PPP on the basis of actual variation against corresponding reference values.
  - Quarterly impact of T&D losses on the fuel component of energy charge on the basis of target set by the Authority for the corresponding quarter;
  - Quarterly impact on the distribution margin due to increase/decrease in sales from the reference sales;
  - Overall consumer end tariff keeping in view of GOP policy with respect to Life line and agriculture consumers.
- 1.3 In terms of rule 4 of the Tariff Standards and Procedure Rules 1998 (hereinafter referred as "Rules"), the Petition was admitted by the Authority on 14<sup>th</sup> May 2010 and in compliance of the provisions of sub rules (5) & (6) of rule 4 of the Rules, notices of admission were sent to the parties which were considered to be affected or interested. The advertisement by publication of the title and brief description of the petition was also printed in the leading national newspapers on 28<sup>th</sup> May, 2010 inviting filing of reply, comments and intervention requests by any interested person/party within 15 days of the publication.

## 2 Filing of reply/intervention request/comments

- 2.1 In response to the notice of admission and advertisement thereof Government of Sindh, Finance Department and Pakistan Cotton Ginners Association, filed petitions for leave to intervene which were allowed by the Authority. In addition to above, M/s Shah Jahan RCC and others also filed an intervention request pursuant to Sindh High Court decision according to which they were advised to approach NEPRA for the resolution of their issue. Since the matter pertained to the Authority's previous determination, hence the Authority decided to consider it separately and did not accept it as an intervention request. However, considering the fact that the representatives of the Petitioner, M/s Shah Jhan RCC and other stakeholders were present on the 1<sup>st</sup>



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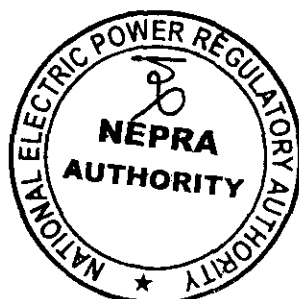
hearing, both were given an opportunity of being heard.

### **3. Interveners**

#### **3.1 Finance Department, Government of Sindh**

3.1.1 Government of Sindh, in its Intervention Request contended inter-alia that:-

- NEPRA lacks jurisdiction to determine electricity distribution tariff for a Province in terms of Article 157(2)(d) of the Constitution of Islamic Republic of Pakistan.
- Section 31(1) speaks of a determination of overall electricity tariff and it does not provide a tool in the hands of DISCOs to seek upward revision in tariff after every three months.
- That the tariff petition is seeking annual tariff which after the amendments to the Act of 1997 is legally not correct as the Authority can only determine quarterly tariff thus making the Petition not maintainable on this score alone.
- The petition is incompetently filed because the CEO of HESCO filed the petition without appending any Resolution of the Board of Directors.
- There is incorrect working of PPP, as it includes T&D losses of 33.49%. In addition to this, it includes KESC deferential margin and delayed markup to IPPs.
- That the amount shown to be spent on PPP are against the spirit of Distribution License Rules that require a distribution company to acquire power on reasonable prices. DISCO shall strive to arrange power purchase from dedicated generation companies offering cheaper rates as being allowed to KESC.
- The projected O&M cost is not justified as it lacks the element of prudence.
- The Tariff petition seeks legitimacy of excessive amounts of moneys into new hiring, unacceptable spending into raises of pay and allowances etc.
- The amount earmarked for a non-fund based "Provision for bad debts" at staggering sum of Rs. 2,188 million for the FY 2009-10 ( 3% of the receivables ) , when no real writing off of the bad debt is in place and only a paltry sum was written off in almost last decade.
- The Depreciation is calculated wrongly as it has included assets never with in the ownership of the Petitioner and are primarily purchased from the investments of consumers or belonging to other entities.



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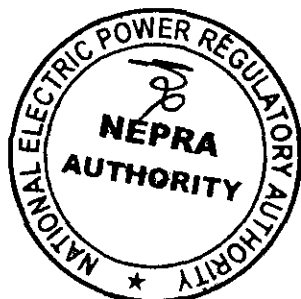
- Regulatory Asset Base has been worked out wrongly.
- WACC / ROR should be rationalized.
- HESCO is trying to book extra ordinary (prior year adjustment) but the poor consumers cannot be burdened with an upward revision in tariff for acts and omissions of others.
- The official transmission and distribution losses ( T&D losses ) in Pakistan are reported to be 22.7 % ( as reported in ADB Technical Assistance Report ) , which includes 15.3% as distribution losses. The Petitioner's request for 33.49% losses is without any justification and is because of the Petitioner's own inefficiencies.
- Because the investment figures are also on very high side keeping in view the past trends of the DISCO in question and its inability to utilize the budgeted amounts of investments.
- The current rates of electricity are making it impossible for the poor people of Sindh to purchase electricity legally and the intervener would try to remind the honorable Authority its role as a true savior and protector of the interest of consumers.
- Figures of commission and profits on electricity duties from the intervener provincial government do not reflect anywhere in the financial information of the Petitioner.
- The Petitioner has not so far come up with a plan of material steps for installing TOD/TOU meters by 30<sup>th</sup> June, 2010 , thus, making it difficult for intending consumers to enjoy the benefits of the same.

### **3.2 Pakistan Cotton Ginners' Association ( PCGA )**

3.2.1 Pakistan Cotton Ginner's Association filed an intervention request without any written comments. Here it is pertinent to mention that its representative attended the first hearing, however, due to the arguments of the Legal Counsel of the Government of Sindh, the Authority adjourned the hearing and the next date of hearing was communicated to PCGA's representative, but no one participated from PCGA. PCGA however, submitted its contentions directly to the Petitioner and the same were forwarded to the Authority.

3.2.2 PCGA in its submission stated that ;

- the Petitioner had admitted that industrial and commercial consumers were cross-subsidizing domestic and agricultural consumers since last



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many years but while giving proposed increase in Tariff, again the burden is put on commercial and industrial consumers which is against the contents and spirit of the petition. NEPRA should reduce the difference in their determination by reducing Industrial Tariff rates.

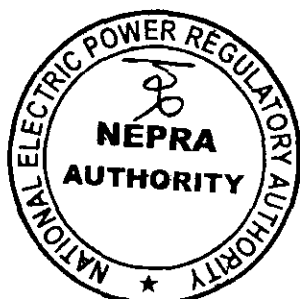
- The Petitioner is neither social nor charitable organization rather it is pure commercial company; therefore, if Government wants to give electricity on rebated price to agriculture and life line consumers or to any other consumer, the difference of cost of supply and applicable rates should be paid by the Govt, not by the commercial consumers and industrial consumers who are already in a very bad condition due to economic crisis in the world.
- The power factor penalty be reduced to 80% until the Petitioner system is up graded.
- Only 6 % losses should be added while calculating B-2 and B-3 industrial tariff.
- Only 50% O&M cost should be added while calculating the industrial Tariff B-2, B-3 because the O&M cost for industrial consumers was very less.
- The seasonal charges should be decreased to 10% and these should be applied only to Variable charges.

#### 4. Hearing/Framing of Issues

4.1 The pleadings so available on record were examined by the Authority in terms of rule 9(1) of the Rules for the purpose of arriving at a decision as to conduct of the hearing or otherwise and the Authority did consider it appropriate to conduct a hearing to arrive at a just and informed decision. The Authority decided to hold the hearing in the matter on 30<sup>th</sup> June, 2010 and a fourteen days notice as required under rule 9(4) of the Rules was published on 13th June, 2010 inviting participation of the stakeholders. Individual notices were also sent to the stakeholders.

4.2 The Authority framed the following issues to be considered during the hearing and for presenting written as well as oral evidence and arguments:-

- Whether the issues raised by the interveners are justified?
- Whether the Petitioner has complied with the directions of the Authority passed in the 1st & 2nd quarterly determination of FY 2009-10 i.e. installation of TOU meters etc?



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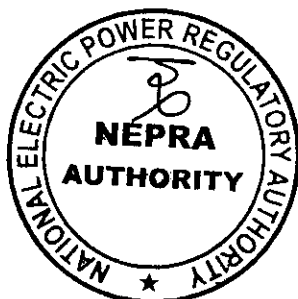
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- Whether the sales target for the 1st quarter of FY 2010-11 and for the whole year are realistic?
  - Whether the line losses claimed in the petition are justified?
  - How the proposed investment for FY 2010-11 is justified and what are the corresponding prospective benefits?
  - Whether the figure of Prior Period Adjustment requested in the Petition has been properly worked out?
  - Whether each component of O&M (e.g. Salaries & wages, repair & maintenance, traveling expenses, vehicle maintenance & miscellaneous expenses) claimed in the Petition is justified?
  - Whether the other income projected in the Tariff Petition is justified?
  - Whether the claim of the petitioner for revenue requirement is justified?
  - Whether Petitioner's claim with respect to Consumer Discipline is justified?
- 4.3 In addition to above, the Authority had also framed three additional issues i.e. future tariff methodology in respect of Annual Assessment and Quarterly determinations of the Average Sale Rate for the Petitioner, re-consideration of existing threshold of less than 5 kW for the B-1 consumer's category and re-fixation of the slab benefit for the Residential Consumers.
- 4.4 On the basis of pleadings, evidence/record produced and arguments raised during the hearing, issue-wise findings of the Authority are given as under:
5. Future Tariff Methodology with respect to the Annual assessment and Quarterly determinations of the Average Sale Rate of the DISCOs for the FY 2010-11.
- 5.1 *Need for Annual Assessment under quarterly determination regime;*
- DISCOs current operational and financial cycle emanates over a complete year, whereby;
- lesser revenue generated in winter is compensated by higher revenue generated in the summer of the same financial year;
  - changes in generation mix resulting in lower PPP in wet seasons (with greater hydel generation) compensating high PPP in winter (with greater generation reliance on RFO);
  - Variation in T&D Losses due to seasonal fluctuation.



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5.2 Due to the above mentioned reasons the consumer-end tariff would fluctuate drastically if all components of tariff are assessed on quarterly basis. As per the guidelines under Rule 16 of the Tariff Standards and Procedure Rule 1998 the tariff should be predictable. In order to minimize the volatility in consumer-end tariff due to aforementioned reasons, as per previous year's practice, the Authority would determine revenue requirement annually. However, certain adjustments/determinations like impact of losses, variation in capacity transfer price and UoSC, impact of extra or lesser purchases of units, under/ over recovery of assessed fixed costs ( DM & Prior period adjustments) would be made on quarterly basis. Thus, following components of tariff are subject to annual assessment;

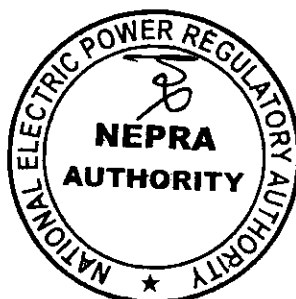
- Assessment of T&D losses target.
- Assessment of Sales target.
- Impact of Consumer mix variance.
- Month wise assessment of reference values with respect to PPP (including energy, capacity & transmission charges) for the whole control period.
- Assessment of Distribution Margin, and ;
- Assessment of Prior period adjustment, if any.

5.3 The aggrieved companies may file Motion for Leave for Review against the Authority's determination on the aforementioned issues. These issues could not be made part of quarterly petitions/requests. The scope of quarterly petitions/adjustment requests would be restricted and limited as discussed below.

***Limited Scope of Quarterly Determinations/Adjustments;***

5.4 On the basis of annual assessment, the Average Sale Rate of the DISCOs for the FY 2010-11 would be worked out subject to the quarterly adjustments/determinations. Thus the scope of quarterly determinations/adjustments would be limited to;

1. The adjustments pertaining to the capacity and transmission charges.
2. The impact of T&D losses on the components of PPP.
3. The impact of extra or lesser purchases of units on account of PPP.

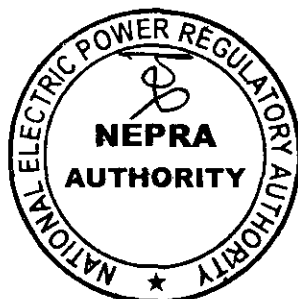


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4. The impact of over / under recovery on account of Distribution Margin and Prior Period Adjustment due to increase/decrease in sales (from the reference sales units).
5. The impact of delayed notification of tariff.
6. The overall consumer-end tariff will be adjusted keeping in view the GOP policy with respect to Life line and Agricultural consumers categories.

***Monthly Fuel Adjustments;***

- 5.5 The existing practice with respect to the adjustments on account of variation in CPGenE (energy cost component of PPP) on monthly basis would continue. This adjustment would reflect in the consumers' monthly bill as Fuel Adjustment Charge. This adjustment will be made in accordance with the mechanism provided in Annex - I.
6. **Issue # 1. Whether the issues raised by the Interveners are justified?**
  - 6.1 Article 157(2)(d) of the Constitution of Pakistan, in reference whereof, the NEPRA's jurisdiction to determine electricity distribution tariff in a Province is questioned stood already interpreted by the Honorable Supreme Court of Pakistan vide judgment reported as 1997-SCMR-641 (M/s GADOON Textile Mills and 814 others Vs WAPDA and others) whereby it was held that sub-clause (b) of clause 2 of Article 157 is independent and can be pressed into service without invoking other sub-clauses. However, sub-clause (d) of clause (2) is not independent. The Government of a Province can determine the tariff for distribution of electricity within a Province under sub-clause (d) only when it purchases electricity in bulk from the national grid under sub-clause (a) for distribution within the Province or when it constructs power houses and grid stations and lay transmission lines for use within the Province under sub-clause (c).
  - 6.2 The issue of NEPRA's jurisdiction to determine electricity distribution tariff for any Province was also raised by the Govt. of Khyber Pakhtunkhwa before Peshawar High Court vide Writ Petition No. 3243 of 2009 and said petition has also been dismissed as withdrawn vide order of the Honorable Peshawar High Court dated 7<sup>th</sup> of September, 2010.



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- 6.3 In view of the above quoted judgments of the Honorable Supreme Court of Pakistan as well as Honorable Peshawar High Court on the subject, the Authority considers that the objection of Government of Sindh regarding NEPRA jurisdiction to determine tariff for HESCO is without any substance.
- 6.4 The Intervener objected to the interpretation of amended Proviso to Section 31(1) which speaks of determination of overall tariff and does not provide a tool in the hands of DISCOs to seek upward revision in tariff after every three months. The Authority considers that the Intervener's objection is not valid. The Authority however is cognizant of this fact that going through the whole tariff setting process would be a cumbersome exercise; therefore it has decided initially to assess annual revenue requirement of the Company with certain adjustments on quarterly basis. The future tariff methodology discussed in this determination, identifies the tariff components which would be assessed annually and the components which would be adjusted/determined monthly and quarterly.
- 6.5 During the hearing, the Legal Counsel of the Government of Sindh objected that the Petitioner has filed Tariff Petition for the whole FY 2010-11, whereby the prevailing law requires the Petitioner to file quarterly petition. On this observation, the Authority rechecked the petition and noted that although the basic data with respect to the 1st quarter of the FY 2010-11 was available in the petition, which could be used for the relevant quarterly calculations, yet the explicit data for the same quarter was not available. Considering the intervener's observation valid, the Authority decided to adjourn the hearing and directed the Petitioner to resubmit its tariff petition. The Petitioner complied with the directions of the Authority and resubmitted the petition with quarterly data within ten days. Thus, the intervener's contention with respect to quarterly data has been addressed.
- 6.6 Non-filing of Board Resolution along with the tariff petition is considered as irregularity and not as illegality. However, the petitioner Company has placed on record the revised Resolution of Board of Directors. Considering the fact that filing of the petition through the Chief Executive Officer of petitioner Company was not disputed by its Board of Directors rather it substantiated the same and it is also a well

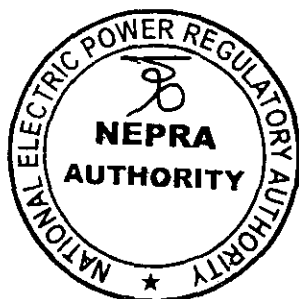


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settled principle of law that the cases should be decided on merits and technicalities are to be avoided, the Authority is of the view that the petition is filed competently.

- 6.7 As far as markup on delayed payments to IPPs is concerned, the Authority has been disallowing this during the course of monthly fuel adjustments hearings. On the issue of KESC differential margin, the intervener did not provide any evidence in support of its claim that the KESC differential margin was included in the PPP.
- 6.8 So far as the intervener's contention with respect to acquiring power from dedicated generation companies offering cheaper rates is concerned, the intervener must understand the existing single buyer mode under which DISCOs acquire power (KESC also procures 700 MW to 800 MW under the same mode in addition to its own generation). Another pertinent point here is the current demand and supply gap. In order to fill this gap, the CPPA is procuring power from all available sources; even then we are faced with load shedding in certain periods of the year. Thus, the question of acquiring power on cheaper rates is not valid as the priority is to make power available for all consumers. Further, provincial governments are working on setting up dedicated generating units which would sell power to DISCO's directly.
- 6.9 The issues of PPP, T&D losses, Investments, O&M Costs, Salaries, Wages, Provision for doubtful debts, Depreciation, Regulatory Asset Base, WACC and Prior Period Adjustments are discussed under separate heads in this determination.
- 6.10 The intervener's contention on TOU meters is discussed under issue # 2.
- 6.11 The Authority is gradually minimizing the inherent cross-subsidies within its determined consumer – end tariff. But the intervener's contention in this regard is not valid as it is still paying the subsidized rates as per Schedule – II of SRO. 1131 (I)/2010 dated 12th November, 2010. The comparison of applicable industrial rates with the determined Average sale rate of the Petitioner reveals that all the industrial consumers are paying substantially less than its determined Average Sale Rate. Thus, intervener's contention in this regard is not maintainable.



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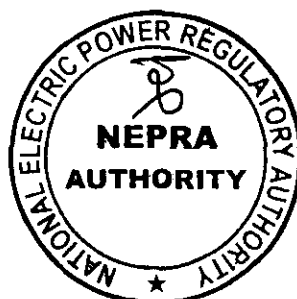
- 6.12 The Authority observed that the argument by the intervener regarding the up gradation of DISCO's system is not relevant in the context of low power factor imposed on the system by the consumer's equipment. The power factor penalty is imposed on those consumers who use inferior quality equipments. Since the requirement of more reactive energy at the lowest end (consumer – end) travels to the higher levels, the consumer's responsibility therefore is critical. In view thereof, the request of the intervener being without any basis is not accepted.
- 6.13 The Authority has carefully examined the Intervener's( PCGA) request to base tariff on 6% T&D losses while calculating B-2 and B-3 industrial tariff. The Authority is of the opinion that the figure of aforesaid T&D losses has not been established. In order to establish realistic figure of T&D losses a detailed and comprehensive study is required for which reasonable time is required.
- 6.14 The Authority has considered the Intervener's contention that the differential in industrial consumers' tariffs between B2 category and B3 category was not maintained according to the T&D Losses at the relevant voltage levels. The Authority feels that the Interveners did not consider the consumption pattern of both the consumers' categories. In the case of B2 industrial consumers (single shift) the costs are allocated on the basis of 8 hours operation while in the case of B3 consumers (double shift) these are allocated on 16 hours basis. In view of the aforementioned reasons the Authority considers that the B3 consumers are already compensated for low losses.
- 6.15 The Intervener's request to determine tariff on the basis of 50% O&M cost while calculating the industrial Tariff B-2, B-3, is without any rationale or working. The Petitioner while opposing the Intervener's contention stated that it has to incur more time and O&M cost because senior level officers are deputed for maintaining the system and taking the meter readings The Authority considers that Intervener's request in this regard is without any basis; therefore cannot be considered.
- 6.16 The intervener's request for reducing seasonal charges from 25%to 10% being without any rationale and basis is not considered valid; therefore is not accepted.



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7. Issue # 2: Whether the Petitioner has complied with the directions of the Authority passed in the 1st & 2nd quarterly determination of FY 2009-10 i.e. installation of TOU meters etc?
- 7.1 The Authority, while determining the Consumer – End Tariff of the Petitioner for FY 2008-09, gave clear directions to convert all consumer categories, including residential consumers having load requirement of 5 kW and above to be provided TOU metering. All new consumers having load exceeding 5 kW were required to be provided TOU metering arrangement with effect from 1st January 2009. During the 2nd quarter of the FY 2009-10, it was stated on behalf of the Petitioner that it might not be possible for it to arrange TOU meters for all consumers having load requirement of 5 kW and above by June 30, 2010. The Authority decided not to extend target date of June 30, 2010 and directed the Petitioner to make serious efforts to complete the task by the target date i.e. June 30, 2010.
- 7.2 During the hearing for the 1<sup>st</sup> quarter of the FY 2010-11, the Petitioner stated that for installation of TOU meters, the target given by NEPRA could not be achieved due to the following reasons:
- Shortage of the TOU meters in the market. Therefore, less TOU meters were purchased. However HESCO has already issued the purchase order for the 29,500 TOU meters.
  - Resistance from the consumers for the installation of TOU meters.
  - Less expertise for the programming of the meters as some of the manufacturers have not provided the software.
  - A number of meters have been returned to the manufacturer for data feeding, as per software.
- 7.3 In view of aforementioned and the practical problems faced by the Petitioner, the Authority has decided to extend the deadline for the installation of TOU meters till June 2011.
8. Issue # 3 ; Whether the sales target for the 1st quarter of FY 2010-11 and for the whole year are realistic?
- 8.1 The petitioner in its petition based all projections for the FY 2010-11 on a sales target of 6,488.70 GWh based on expected purchase of 9,756 GWhs. As per the Petitioner its actual sales during the FY 2009-10 remained

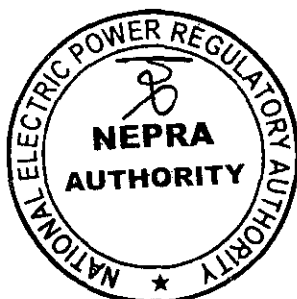


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- around 5,396 GWh with actual purchase of 8,275 GWhs. The Petitioner vide its letter # CEO/FD/HESCO/CPC/5902-03 dated 20<sup>th</sup> October, 2010 revised its sales target for the FY 2010-11 to 5,945 GWhs based on the expected purchase of 8,942 GWhs.
- 8.2 The Authority is cognizant of the fact that during the last year about 1700 MW generation capacity has been added in the system, which is about 10% of existing generating capacity excluding KESC's capacity and during the FY 2010-11 the expected addition in the generation is about 700 MW.
- 8.3 Keeping in view the generation capacity already added to the system and expected to be added during current year and the historic load factor trend of the Petitioner, its purchase estimates for the FY 2010-11 are slightly on the lower side. Although there is an inbuilt mechanism for adjusting any variation in resultant actual sales as against the estimated sales, yet in order to avoid unnecessary fluctuations in the consumer-end tariff due to any variation, the proposed estimates should be as realistic as possible. The Authority based on the available information considers that in the instant case 6,338 GWh of sales target would be a fair assessment for the FY 2010-11. The assessment is based on expected purchase of 8,802 GWhs and incorporating target T&D losses for the FY 2010-11 as discussed below under Issue # 4.
9. **Issue # 4 . Whether the line losses claimed in the petition are justified?**
- 9.1 The Authority assessed T&D losses of 28.00% for the FY 2009-10, against the requested target of 34.00 % for the FY 2009-10 by disallowing the impact of pilferage to the extent of 6%. The Petitioner's claimed actual T&D losses for the FY 2008-09 and FY 2009-10 remained around 35.13% and 34.79% respectively. Now the Petitioner has requested to set a target of 33.49%.
- 9.2 The Authority's decision with respect to the assessment of T & D losses for the FY 2009-10 was based on the following;
- That the interveners objected to the Petitioner's request for allowing 34% line losses as compared to other DISCOs. The intervenor was of the view that inefficiency of the company should not be passed on to the consumers.
  - that when compared with the overall target losses of 28% set in the case of PESCO; the Authority considers that PESCO's situation is



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different due to war against terrorism. The Authority considers that the law and order situation of the Petitioner's territory is much better than the situation prevailing in the PESCO's area.

- on the basis of findings of the Authority's Regulatory Audit Team, the Petitioner's Administrative losses (pilferage) were 2.59% more than what was claimed by the Petitioner (19.43% against 16.43%). The following is the breakup of T&D losses:

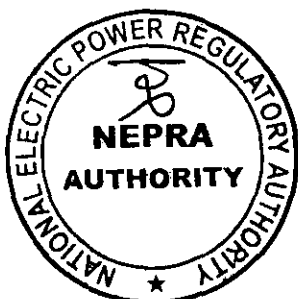
• Transmission loss	4.67%
• Technical loss	11.0%
• Administrative loss (mainly pilferage)	19.43%

9.3 During the hearing for the 1<sup>st</sup> quarter of the FY 2010-11, the Petitioner emphasized its efforts in achieving efficiency of 34% in terms of T&D losses in the FY 2009-10. The Petitioner further informed that it would only be able to reduce T&D losses to the extent of 1.3% in the FY 2010-11. This argument was strongly agitated by the Legal Counsel of Government of Sindh and reiterated the basis of the assessed 28% T&D losses which were mainly because of disallowing a portion of theft losses. The Legal Counsel further explained the financial impact of these T&D losses.

9.4 Considering the views of interveners and in view of the aforementioned reasons and rationale which formed the basis of the assessment of T&D losses for the FY 2009-10, the Authority held that it would be unfair to give a blank cheque to the Petitioner to keep penalizing its paying consumers for its own inefficiencies. The Authority noted that the Petitioner has showed only marginal improvement in this context. The Petitioner's request for setting 33.50% as T&D losses target for the FY 2010-11, is not justifiable, because the Authority disallowed part of these losses of the pilferage. In view of the earlier decision, the Authority finds no justification for allowing higher T&D losses. Accordingly the Authority has decided to maintain the same level of assessment i.e. 28% for the FY 2010-11.

10. **Issue # 5. How the proposed investment for FY 2010-11 is justified and what are the corresponding prospective benefits?**

10.1 The Petitioner has requested for a sum of Rs. 7,365 million to execute its development/ investment plan for the FY 2010-11 for Distribution of Power (DOP), Energy Loss-Reduction (ELR), Secondary Transmission Grid





(STG) and others, which will be funded by Capital Contribution from the consumers, World Bank and Asian Development Bank. The break-up of proposed investment provided by the Petitioner is as under:

Rs. Millions		
S.#	Description	FY 2010-11
1.	Distribution of Power (DOP)	428
2.	Energy Loss Reduction (ELR)	2,317
3.	STG	2,977
4.	Village Electrification	1,467
5.	Others	176
6.	Total	7,365

10.2 The Petitioner plans to fund these investments through following resources;

- Loans Rs. 3,553 million.
- PSDP/Own Resources Rs. 2,345 million.
- Consumer Contribution Rs. 1,467 million.
- Total Rs. 7,365 million.

10.3 According to the Petitioner, the investments are made to maintain sustainable supply quality and reliable power to the consumers. It enhances & improves the capacity of grid stations and HT/LT lines and forced load shedding is reduced. The major investment in ELR is related to installation of Aerial Bundle Cables for reduction of losses on 38 urban feeders, which are highly loaded and high loss feeders. It is expected that the investment in this project will result in reduction of losses to the extent of 15% on these feeders.

10.4 The Authority notes that in order to improve the system and to meet the T&D losses target of 28.00% set by the Authority for the FY 2010-11, the Petitioner has to made investments which, in the long run, are also in the interest of the consumers. But in the short run, as the allowed investments indirectly affects the annual Return on Rate Base (RORB) for a DISCO, hence while allowing investments for any control period the Authority keeps in view the past trend of investment made by the petitioner along with its funding arrangements and its previous trend



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of CWIP at year end and transferring of assets from CWIP to operating assets. In view of the aforementioned, the Authority considers that the petitioner would be able to undertake the projected investment of Rs. 4,121 million during the FY 2010-11. However, if the Petitioner manages to carry out investments more than what has been approved the existing mechanism of calculating RAB has provision for the adjustment of the return on actual investments carried out in any control period.

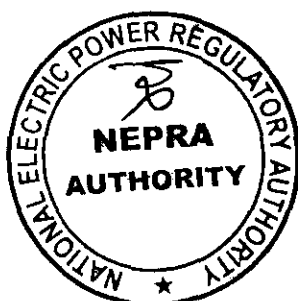
**11. Issue # 6. Whether the figure of Prior Period Adjustment requested in the Petition has been properly worked out?**

11.1 The Petitioner submitted that due to the delayed notification of tariff pertaining to the FY 2009-10, the Petitioner has suffered a loss of Rs. 11,065 million. The Petitioner has requested to allow the same as Prior Period Adjustment.

11.2 The Petitioner's request with respect to un-recovered cost pertaining to the FY 2009-10 has been carefully examined keeping in view the recoveries based on assessed losses, monthly and quarterly adjustments, actual other income and impact of consumer mix. The Authority in its determination pertaining to 4th quarter of the FY 2009-10 has deliberated the basis of the Authority's assessment with respect to the un-recovered costs for the FY 2009-10. In the opinion of the Authority, the amount of Rs. 11,065 million claimed by the petitioners is not correct. According to working based on the information provided with respect to units sold, adjustment already made and the impact of consumer-mix the prior year un-recovered cost workout as Rs. 1,116 million which is being allowed.

**12. Issue # 7. Whether each component of O&M expense (e.g. Salaries & wages, repair & maintenance, traveling expenses, vehicle maintenance & miscellaneous expenses) claimed in the Petition is justified?**

12.1 The Petitioner requested an amount of Rs. 8,055 million on account of O&M cost. It has been stated that the Petitioner's O&M expenses include salary and other benefits, repair and maintenance, traveling allowance, vehicle maintenance allowance and other operating costs related to its distribution and supply business. The historic trend of O&M expenses of the Petitioner is given in the following table:



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Rs. Million

Description	2008 Audited	2009 Audited	2010 Actual	2011 Requested
Salaries & Other Benefits	2,715	3,584	4,252	5,863
Maintenance Expenses	757	920	1,075	1,122
Traveling Expenses	206	237	256	300
Vehicle Running Expenses	155	262	290	320
Other Expenses	323	359	396	450
<b>Total</b>	<b>4,156</b>	<b>5,362</b>	<b>6,269</b>	<b>8,055</b>

## 12.2 Salaries & Other Benefits

12.2.1 The Petitioner requested an amount of Rs. 5,836 million for the FY 2010-11 on account of Salaries, wages & other benefits. In order to make fair assessment of the salaries & wages, the Petitioner's draft accounts for the FY 2009-10 have been analyzed. The analysis of the accounts revealed that the salaries, wages and other benefits for FY 2009-10 were Rs. 4,252 million. This amount also included an amount of Rs. 1,310 million pertaining to the employee's post retirement benefits.

12.2.2 The Petitioner requested the increase in salaries and other benefits on the following grounds;

- Increase of 50% basic salaries as announced by GOP.
- Increase in Pensions by 20% for retired employees.
- Increase due to annual increment to the extent of 5%.
- Induction of new employees during the FY 2009-10.
- Double the rate of medical allowance for staff.

12.2.3 The analysis of the information indicated that during FY 2009-10 the actual salaries & wages increased by Rs. 668 million, giving an overall increase of about 18.64% from the audited figure of the FY 2008-09. The Authority is cognizant of the fact that one of the reasons for this was the increase in the salaries of Govt. employees announced by GOP. While assessing salaries, wages and other benefits pertaining to the FY 2009-10, the Authority disallowed all new recruitments and asked the Petitioner to justify the need of these posts as most the new recruitments were unskilled. The Learned Counsel for the Government of Sindh also objected the new recruitments by HESCO and emphasized to identify the need of





these recruitments.

12.2.4 While determining the cost pertaining to Salaries, wages & other benefits for the FY 2010-11, the Authority has considered the GOP's recent announcement of 50% increase as adhoc allowance on the running basic salaries of GOP employees. In addition to this a 5% annual increment along with its effect on other benefits and increase of medical allowance on the applicable employees has also been accounted for while assessing salaries, wages and other benefits for the FY 2010-11. Further the Authority again maintains its previous stance on new recruitments. In order to get these approved the Petitioner has to justify these on the basis of efficient utility practices and functions. Keeping in view the annual assessments of salaries & wages for the FY 2010-11 of other DISCOs and the aforementioned reasons, the Authority has decided to allow only Rs. 4,582 million on account of salaries, wages and other benefits for the FY 2010-11.

### **12.3 Maintenance Expenses**

12.3.1 The Petitioner requested Rs. 1,122 million on account of repair and maintenance. The actual cost on this account as per the draft accounts for the FY2009-10 is Rs. 1,075 million. This turned out to be 16.79% higher than the audited figure of the FY 2009-10. The Petitioner states that its system is old and requires considerable amount of repair & maintenance. According to the Petitioner, a major factor of increase in cost is the price of LME material internationally and its effect on the depreciating Rupee value.

12.3.2 The Authority is cognizant of the fact that the repair & maintenance cost is not only affected by the inflation (including inflation due to rupee devaluation/depreciation) but also with the variation in the gross assets in operation due to the addition of new consumers in the system and new investments. Having considered the aforementioned reasons, the Authority considers that the requested amount of Rs. 1,122 million is high and needs to be rationalized. Keeping in view, the maintenance cost assessed by the Authority in FY 2009-10, past trend and comparison with other DISCOs, the Authority has assessed repair and maintenance cost of Rs. 1,017 million for the whole FY 2010-11.

### **12.4 Traveling Expenses**

12.4.1 The Petitioner requested Rs. 300 million under the head of traveling



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allowance for the FY 2010-11. The actual cost on this account as per the draft accounts for the FY2009-10, is Rs. 256 million. The Petitioner attributes the increase in expenditure to;

- Regular visits of operational staff for maintenance.
- Increase in visits due to special VIP' movements.
- Increase in visits of officials with ministries and other agencies.
- Massive village electrification.

12.4.2 The Authority has observed that the reasons for increase cited by the Petitioner are mainly the cost drivers of the said cost rather than the causes of increase. Having said that, the Authority is aware of the fact that the traveling cost is affected by the inflation. The Authority is also cognizant of the GOP's increase with respect to daily allowance. In view of the aforementioned reason, traveling cost determined by the Authority in FY 2009-10, past trend and comparison with other DISCOs, the Authority has assessed traveling cost of Rs. 259 million for the FY 2010-11.

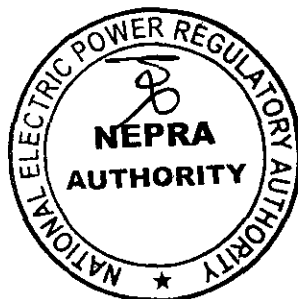
#### **12.5 Vehicle Running Expenses**

12.5.1 The Petitioner requested Rs. 320 million under the head of Vehicle maintenance for the FY 2010-11. The actual cost on this account as per the draft accounts for the FY2009-10 is Rs.290 million, which turns out to be 10.42% higher than the audited figures of the FY 2008-09. The Petitioner contends that its distribution system is spread over far flung areas. The Company has 815 vehicles out of which 550 vehicles are more than 10 years old.

12.5.2 The Authority is aware of the fact that the Vehicle maintenance cost is not only affected by the inflation but also with the age and number of vehicles in possession of the petitioner. The Authority while agreeing to the arguments of the Petitioner with respect to area of its service territory also expect from the Petitioner to adopt measures for efficient utilization of the vehicles. In view of the aforementioned reason and the cost determined by the Authority in FY 2009-10, past trend and comparison with other DISCOs, the Authority has assessed vehicle maintenance cost to the tune of Rs. 281 million for the FY 2010-11.

#### **12.6 Other Expenses**

12.6.1 The Petitioner requested Rs. 450 million for the FY 2010-11, pertaining to



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the expenses like rent, rates & taxes, power, light and water, bills collection charges, postage, telephone, office supplies, insurance expense, overhead expenses, Auditor's remuneration, NEPRA fee and charges, advertisement & publicity, provision of obsolete stores, miscellaneous expenses etc. Considering the past trend and comparison with other DISCOs, the Authority feels that the requested amount under this head is on the higher side and needs to be rationalized. In view thereof, the Authority has assessed Rs. 434 million on account of other expenses.

**13. Issue # 8. Whether the Other Income projected in the Tariff Petition is justified?**

13.1 The Petitioner has projected Rs. 3,084 million as other income. The other income as per the draft accounts for the FY 2009-10 remained around Rs.2,927 million. According to the information provided, the other income includes amortization of deferred credit, meter and rental income, late payment surcharge profit on bank deposit, sale of scrap, income from non-utility operations, income from PTV fees and miscellaneous.

13.2 Keeping in view the past trend, the proposed amount of other income by the Petitioner is considered reasonable; therefore is being accepted as such.

**14. Issue # 9. Whether the claim of the petitioner for revenue requirement is justified?**

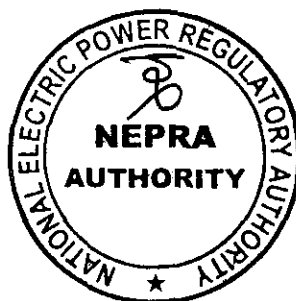
14.1 Annual Revenue Requirement comprises of the following:

1. Power Purchase Price
2. Impact of T&D Losses
3. Distribution Margin
  - i) O&M Expenses
  - ii) Depreciation, RORB and Other Income
4. Prior Year Adjustment

14.2 For the assessment of annual revenue requirement each of the components of average tariff is discussed in detail in the succeeding paragraphs.

**14.3 Power Purchase Price (PPP)**

14.3.1 All the power generated from different sources is procured by the Central Power Purchasing Agency (CPPA) on behalf of DISCOs at the rates as per



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the Power Purchase Agreements (PPAs). The overall power purchase cost constitutes a pool price which is transferred to the DISCOs according to a mechanism prescribed by the Authority and notified by the Federal Government in its Official Gazette. The Power Purchase Price for FY 2010-11 has been projected, which in turn formulates the reference values for the monthly fuel adjustments & quarterly adjustments with respect to Capacity and Transmission Charges.

14.3.2 From all the available sources i.e. hydel, thermal-gas, thermal-oil, nuclear, coal and imports, a total of 91,539 GWh power is expected to be generated during the FY 2010-11. The estimated/projected source wise generation and cost of electricity is given in the following table:

Description	Generation		Energy Charges	
	GWh	Share	Rs. Million	Share
Hydel	28,121	31%	2,896	0.61%
Coal	77	0.08%	208	0.04%
HSD	12	0.01%	184	0.04%
Thermal - RFO	34,285	37%	369,245	78.0%
Thermal - Gas	25,621	28%	91,845	19.4%
Nuclear	2,571	3%	1,310	0.28%
Mixed	605	1%	6,349	1.34%
Import from Iran	248	0.27%	1,236	0.26%
<b>Total</b>	<b>91,539</b>	<b>100%</b>	<b>473,272</b>	<b>100%</b>
<b>Capacity</b>			<b>169,020</b>	
<b>Charge</b>	<b>Total Generation Cost</b>		<b>642,292</b>	

14.3.3 From the above table it is clear that 37% of total generation is expected on oil but its share in overall energy cost is to be 78%, which means that variation in generation mix and oil prices will have great impact on the cost of generation and will ultimately affect the consumer-end tariff. The generation cost is transferred to the DISCOs according to the Transfer Price Mechanism (TPM) as prescribed by the Authority and notified vide



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SRO 1130(I)/2008 dated October 30, 2008 in the Official Gazette:

14.3.4 NTDC shall charge the Ex-WAPDA DISCOS and KESC, a transfer charge for procuring power from approved generating companies (termed as CPGENCOS) and its delivery to XWDISCOs for a billing period as per following mechanism/formula:-

$$XTC = XCTC + XETC$$

Where:

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

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.

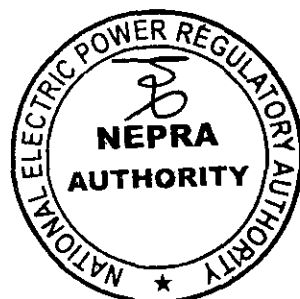
(ii)  $XWD$  = the sum of the maximum demand of the XWDISCOs & KESC in kW recorded during a billing period at all the delivery metering points at which power is received by the XWDISCOs & KESC.

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

$$XETC = \frac{CpGenE (Rs)}{XWUs (kWh)}$$

Where:

(i)  $CPGenE$  = the summation of the variable charge rate (Rs per kWh) approved for each of the



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*CPGenCOs times the energy in kWh procured from the respective CPGENCO during the billing period.*

(ii) *XWUs = the summation of the energy units (kWh) recorded at the delivery metering point of all the XWDISCOs & KESC during a billing period.*

14.3.5 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 Ex-WAPDA DISCOs & KESC the generation part of the Transfer Charge during a billing period, by deducting from the Transfer Charge the Transmission Charge or Use of System Charge.

14.3.6 According to the above mechanism Rs. 15,448 million and Rs. 2,071 million is the share of the petitioner on account of CpGenCap and USCF respectively for the FY 2010-11. The overall fixed charges comprising of CpGenCap and USCF in the instant case work out as Rs. 17,519 million, which translates into Rs. 847.22/kW/month or Rs.1.99/kWh.

14.3.7 The annual PPP for the FY 2010-11 in the instant case works out as Rs. 63,790 million. With the projected unit purchase of 8,802 GWh for the same period the average PPP turns out to be as Rs. 7.2470 / kWh (Annex – IV). On the basis of 28.00 % T&D losses, the PPP per kWh has been assessed as Rs. 10.0653/kWh.

#### **14.4 Impact of First Quarter's Adjustment pertaining to the FY 2010-11.**

14.4.1 According to the existing mechanism, the impact of T&D losses will be taken care of on quarterly basis in addition to variation in PPP on account of CpGenCap and USCF. The Authority has assessed Rs. 601 million quarterly adjustments as per the actual invoices of CPPA on account of the aforementioned reasons on the basis of 28% assessed T&D losses to be recovered in the subsequent quarters. The Adjustment also includes rebasing of CPGenE references as per Annex- IV, since the Authority has been giving CPGenE adjustments for the period starting from (1st July 2010 – 30th September 2010) as per references determined for the FY 2009-10. For future adjustments NEPRA's monthly projections for FY 2010-11 on



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account of CpGenE, CpGenCap and USCF would become reference (as per Annex-IV).

#### 14.5 Distribution Margin (DM)

14.5.1 The Petitioner has requested to allow a Distribution Margin of Rs. 11,776 million for the FY 2010-11 which is inclusive of O&M Cost, Depreciation, RORB, Provision for doubtful debts and Other income. The assessment of O&M Cost and Other Income has been done in the preceding paragraphs. The remaining four items depreciation, RORB, Agriculture Subsidy and Provision for doubtful debts are being discussed in the following paragraphs;

#### 14.6 Depreciation

14.6.1 The Petitioner has requested for approval of Rs. 1,584 million on account of depreciation for the FY 2010-11 based on the estimated figures of the FY 2010-11. In order to make fair assessment the Authority kept in view the investment approved by it. The Authority considers that after taking into account new investments, the Gross Fixed Assets in Operation for the FY 2010-11 will be Rs. 44,903 million. Accordingly the depreciation charge for the FY 2010-11 has been assessed as Rs. 1,508 million.

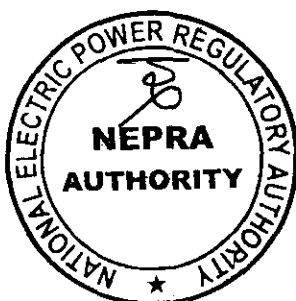
14.6.2 The Authority has also carefully examined the relevant details and information pertaining to the deferred credit and amortization as the accounts for the FY 2009-10 & 2010-11. The Authority on the basis of actual amount of amortization of deferred credit assessed an amount of Rs. 386 million for the FY 2010-11, thus passing on the benefit to this extent to the consumers. Accordingly, the consumers would bear net depreciation of Rs. 1,121 million (1,508-386).

#### 14.7 Return on Rate Base (RORB)

14.7.1 The Petitioner has calculated the Return on Rate Base (RORB) assuming a Weighted Average Cost of Capital (WACC) of 17.00% and average regulatory asset base of Rs. 21,989 million in accordance with the following formula:

$$\text{RORB} = \text{Rate Base} \times \text{WACC}$$

14.7.2 According to Rule 17(3)(iii) of the Tariff Standards and Procedure Rules 1998, tariffs should allow licensee a rate of return which promotes continued reasonable investment in equipment and facilities for improved



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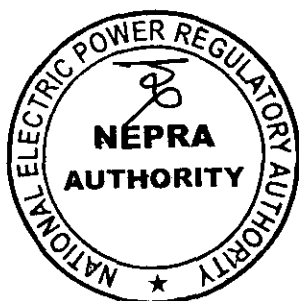


and efficient service. The Authority considers that for reliable supply of electricity the company has to be made viable for which the company should be allowed comparable return of similar business. In the earlier determination the Rate of Return allowed to the investor was the Weighted Average Cost of Capital (WACC) comprising of two components (i) cost of debt & (ii) cost of equity.

14.7.3 Although the Petitioner has used 17% as WACC, but has not justified it with any working or calculations. In the Authority's opinion the Rate of Return should be reasonable enough, sufficient to assure the confidence in the financial soundness of the utility, and should be adequate to maintain and support its credit and enable it to raise money necessary for the proper discharge of its public service. The Authority considers that from the investor or the company point of view it is important that there be enough revenue not only for operating expenses but also for the capital cost of the business. These include service of its debt. The Authority further considers that return to the equity owner should be commensurate with the return on investment of other enterprises having comparable risks. In view of the above, the Authority considers that the previous assessment of 16.91% WACC in the instant case is reasonable as well as comparable with the businesses having similar risks.

14.7.4 Based on the above the Authority has assessed Rs.3,010 million return on rate base as per the following calculations:

Description	Rupees in Million	
	FY 2009-10 Actual	FY 2010-11 Projected
Opening fixed assets in operation	35,156	40,272
Assets Transferred during the year	5,117	4,630
<b>Closing Fixed Assets in Operation</b>	<b>40,272</b>	<b>44,903</b>
Less: Accumulated Depreciation	16,462	17,970
<b>Net Fixed Assets in operation</b>	<b>23,810</b>	<b>26,932</b>
+ Capital Work in Progress (Closing)	5,857	5,348
<b>Total Fixed Assets</b>	<b>29,667</b>	<b>32,281</b>
Less: Deferred Credit ( including share of deposit works in CWIP )	12,634	13,715
<b>Total</b>	<b>17,033</b>	<b>18,566</b>
Average Regulatory Assets Base		17,800





Return on Rate Base @ 16.91%

3,010

**14.8 Provision for doubtful debts**

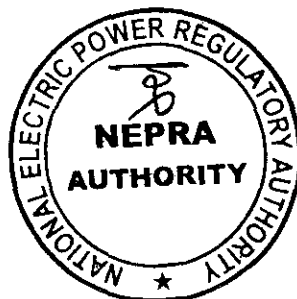
14.8.1 The Petitioner requested Rs. 1,481 million under the head of Provision for doubtful debts for the FY 2009-10. The actual provision on this account as per the draft accounts for the FY2008-09 is Rs. 1,888 million. The actual bad debts during the year were nil.

14.8.2 Keeping in view the peculiar area in which the Petitioner operates, the Authority has been allowing the Petitioner a reasonable level of provision against doubtful debts. But the allowed provision has not been consistent with actual write-offs. The same contention was also raised by the Learned Counsel of the Government of Sind. Considering the documents required for new connection/extension and reduction of load or change of name in terms of Chapter 2.3 (b) & (h) of the Consumer Service Manual, the risk of credit sales transfers to the third party, i.e., Owner of the premises or purchaser of the property. Currently DISCOs are functioning in a monopolized environment and in case of default the connection of the premises, if disconnected, cannot be restored till the outstanding dues are paid. Electricity in today's life is a basic necessity and the consumers cannot afford to live without it and as per referred Chapter of Consumer Service Manual, the risk transfers to the occupant of the premises. In addition to this, at the time of connection, DISCO also collects one months billing from the consumers in the shape of security deposits, which also serves as a deterrence for a consumer to default.

14.8.3 Having said that, the Authority considering the previous trend of actual write-offs, has decided to allow actual write offs of debtors rather than allowing provision for doubtful debts for future assessments. Thus, for the FY 2010-11, as the actual write offs are nil, hence nothing is assessed on this account.

14.8.4 Based on the assessment made in the preceding paragraphs the Revenue Requirement for the FY 2010-11 has been assessed as per the following details;

1.	Power Purchase Price	Rs. 63,790 Million
	CpGenE	Rs.46,272 Million
	CpGenCap	Rs.15,448 Million



USCF	Rs. 2,071 Million	
2. Distribution Margin		Rs. 8,006 Million
O&M Cost	Rs. 6,572 Million	
Depreciation	Rs. 1,508 Million	
RORB	Rs. 3,010 Million	
Gross DM	Rs. 11,090 Million	
Less: Other Income	Rs. 3,084 Million	
<b>Net DM</b>	<b>Rs. 8,006 Million</b>	
Prior Year Adjustment		Rs. 1,116 Million
<b>Total Assessed Revenue Requirement</b>		<b>Rs. 72,912 Million</b>

14.8.5 Based on the targeted sales of 6,338 GWh for the FY 2010-11, the Petitioner's average sale rate works out Rs. 11.5046/kWh, consisting of Rs.10.0653/kWh of adjusted PPP, Rs. 1.2633 /kWh of DM and Rs. Rs.0.1760 of prior year adjustment. The impact of pilferage is Rs. 5.57 billion which has to be picked up by the owners of the company which in the instant case is Government of Pakistan.

#### 14.9 Revenue Requirement for the 1<sup>st</sup> quarter of the FY 2010-11.

14.9.1 Based on the revenue requirement assessed for the whole FY 2010-11 , the revenue requirement for the 1<sup>st</sup> quarter of the FY 2010-11 works out as Rs. 22,199 million ( this amount includes Rs. 601 million of PPP adjustment for the 1<sup>st</sup> quarter of the FY 2010-11). The amount recovered by the Petitioner for the same period on the basis of notified rates is Rs. 21,312 million, giving a revenue short fall of Rs. 887 million. The shortfall is adjusted in the revenue requirement of the next three quarters of the FY 2010-11.

#### 14.10 Net Revenue Requirement after 1<sup>st</sup> Quarter's adjustments

14.10.1	Annual revenue requirement for the FY 2010-11	Rs.	72,912 million
	Add; Assessed quarterly adjustment (PPP)	Rs.	601 million
	Less; Revenue earned by the Petitioner in 1 <sup>st</sup> quarter of FY 2010-11,	Rs.	21,312 million

**Net Revenue requirement to be recovered in the next**

**three quarters of the FY2010-11, Rs. 52,201 million**

This net revenue would be recovered from the consumers in the next three quarters of the FY2010-11, through the projected units for the next three





quarters of the FY 2010-11 i.e. 4,460 GWh, as per Annex – II.

- Average Sale Rate of FY 2010-11 (Nine months) Rs. 11.7034/kWh.
- Assessed Transmission & Distribution Losses target remains at 28.00%

**15. Issue #10. Whether Petitioner's claim with respect to Consumers Discipline is justified?**

15.1 It has been contended on behalf of the Petitioner that there was need to rationalize the fixed charges so that proper consumers discipline could be achieved. In support of its request, the Petitioner has given the following justification:

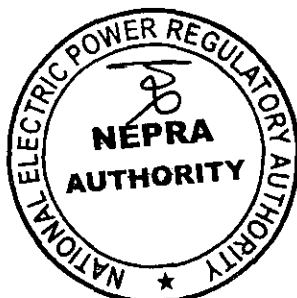
- Two-part tariff is need of the time to provide right price signal to end-consumer to efficient rules of electricity
- It will enable distribution licensees to recover fixed cost equal to fixed cost charged by CPPA for making the capacity payments to the generator
- The Petitioner further requested that old mechanism for fixed charges for industrial consumers may be restored according to which fixed charges i.e. higher of actual MDI or 50% of sanctioned load may be allowed to charge from the consumer.

15.2 It is stated that the request of the Petitioner for restoration of old mechanism for industrial consumers is due to the following reasons:

- Contribution towards the cost of infrastructure to meet the demand without burdening the remaining consumers
- Provision of fixed charges to protect the system from sudden exits and entrances (interruptions)
- Fixed charges contribution in the required revenue was high and DISCOs were in a better position to recover the legitimate cost of service
- Low consumer tariff
- Helpful in maintaining the consumer discipline

15.3 According to the Petitioner the existing mechanism for industries for charging fixed charges is based on actual MDI recorded subject to fixed minimum charges as below:

- |                  |                      |
|------------------|----------------------|
| i) B-2 Category  | Rs. 2,000 per month  |
| ii) B-3 Category | Rs. 50,000 per month |







iii) B-4 Category

Rs. 500,000 per month

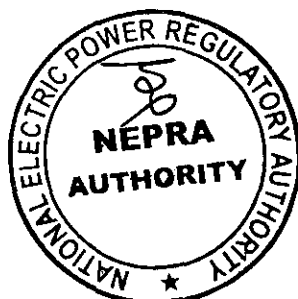
15.4 The Petitioner stated that the existing mechanism has following demerits:

- Freedom to enter or exit the network causes consumer indiscipline
- High network maintenance cost without matching revenue
- Restricting DISCO ability to recover the tariff in the respective period and shifting the burden to the future consumers
- Compromising DISCOs plans for enhancement and augmentation of distribution networks
- Load management issue. Frequent supply interruptions and forced load shedding.

15.5 The Authority has considered the arguments of the Petitioner and justification for restoration of previous mechanism of charging 50% of sanctioned load or MDI whichever is higher. The Authority has also considered the different suggestions given by the Petitioner. The Authority feels that the Petitioner's proposal for developing some mechanism to ensure consumer discipline for those who have erratic consumption pattern is not comprehensive as it did not give clear mechanism or specific proposal rather has given general suggestions. The Authority desires that in future the Petitioner should come up with complete practical proposals.

15.6 The Authority feels that DISCO's proposal for maintaining consumer discipline for those who have erratic consumption pattern becomes highly debatable when the other side of the story is also considered whereby the industrial consumers strongly contend that if DISCOs cannot ensure/guarantee 100% supply of electricity, then they are forced to keep standby arrangements in order to run their businesses. During the hearing of MEPCO, the interveners appreciated NEPRA's existing mechanism with respect to the minimum fixed charges.

15.7 In view of aforementioned and in order to arrive at an informed decision, the Authority has decided to take all the stakeholders on board, by conducting workshops on the issue, which would be participated by representatives of different DISCOs and industrial consumers. Authority would communicate the date and venue of the workshop in due course of time.



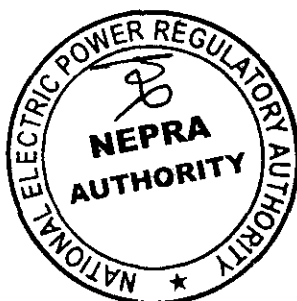


16. **Decision of the Authority with respect to enhancing threshold load limit from less than 5 KW to up to 25 KW for B-1 industrial consumer category.**

16.1 In some of the DISCOs certain consumers objected to the change of threshold of B-1 consumers on the ground that their bills have increased by more than double due to this change. The Authority in its decision dated 16th August 2010 with respect to B-1 & B-2 consumers in compliance of Orders of the High Court of Sindh Sukkur Bench held that

*"In the given situation, notwithstanding the finality of the earlier determinations on the subject, the Authority feels that there may be a case for re-considering the minimum load level of the subject categories. However, as explained earlier, any variation in the load would tantamount to review of earlier tariff determinations of the Authority which are relevant not only for the present complainants but also for the other industrial consumers of electricity across the country. For any such review not only the requisite data is required from all the concerned Distribution Companies but also an opportunity of hearing is also to be given to the stakeholders."*

16.2 During GEPCO's hearing with respect to 1st Quarter of the FY 2010-11, the commentator Daska Engineering Industrial Association also raised similar concerns. In view of Intervener's concerns raised during the hearing all the DISCOs were directed to provide relevant data/analysis indicating the financial impact as a result of change of category from B-1 to B-2. In response GEPCO, FESCO and IESCO submitted the details. The information provided by the aforementioned DISCOs were analyzed and it was observed that the consumers which were affected due to change in threshold were grinding machine, Atta Chakie, Molding Press, Metal Works, Dana Press, Silver Works, Copper Works, Sanitary Works, Melting Industry & Khrad Machine. It was also observed that in most of the cases the MDI recorded was 3-4 times higher than the sanctioned load which indicates that the sanctioned load of these consumers does not reflect the actual load of these small industrial consumers and has adverse affects on the distribution network. Another factor that resulted in increase in tariff was the application of low power factor penalty which is applicable in the case of two-part tariff. The information provided by the DISCOs indicated that in most of the cases the power factor was not up to the required standard which indicates that the consumers have not installed the equipment of required standard to minimize the disturbances in the network and safeguard the system from damage due to frequency variation.



16.3 On the issue of enhancing threshold load for B-1 industrial consumers from less than 5 KW to up to 25 KW, the Authority is of the view that the Commentator's pleading in this regard does merit consideration. Although by transferring these consumers to B-2 category resulted in revealing their actual maximum loads along with the substandard quality of their installed equipment which resulted in higher consumer bills. The Authority is also aware of the importance of the cottage industries as they play key role in employment creation. In view of aforementioned, the Authority has decided that;

- the existing threshold of less than 5 kW for the B-1 consumers category be increased to up to 25 kW , considering the fact that the smallest transformer available is of 25 KVA;
- TOU meters shall be installed for all the industrial consumers including B-1 consumers;
- The TOU tariff for B-1 consumers shall be determined with peak and off-peak rates but without fixed charges as has been determined in the case of Residential (TOU);
- Low Power Factor Penalty should not be imposed on B-1.
- MDI should be recorded to maintain the record of actual load of these consumers but fixed charges should not be applied.

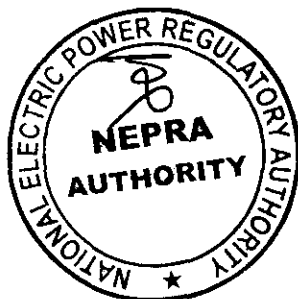
17. **Decision of the Authority with respect to the restricting slab benefit to the previous one slab only in case of Residential Consumers.**

17.1 The Authority considers that the residential consumers having consumption more than 300 units represents mostly from affording class of society. These consumers take the benefit of the subsidized first two consumer slabs which are mainly meant for low income group of people. The Authority is of the view that the benefit of subsidized residential rates should be restricted to low income groups only. In view thereof, the Authority has decided that the residential consumers will be given the benefits of only one previous slab.

18. **Guidelines:**

18.1 While determining the tariff for petitioner Company for the first quarter of FY 2010-11, following guidelines are hereby issued for strict compliance by the petitioner:-

18.1.1 T&D Losses





- 100% TOU meters shall be installed for all the industrial consumers including B-1 consumers before 30th June 2011;
- The Petitioner has already been directed to submit report on illegal tube wells no later than 31st December, 2010.
- In addition to above, the Petitioner is required to submit comprehensive study regarding T&D losses of its system before 30th April 2011, which should covers:
  - Feeder wise losses along with the breakup of dedicated and mixed feeders;
  - Breakup of urban and rural mixed feeders along with units fed, lost and billed;
  - Feeder wise units fed, lost and billed;
  - No. of feeders with loading of more than 70% along with impact on losses;
  - No. of transformers operating with load more than 70% and impact on losses;
  - Measures/plan to curtail the losses of high losses feeders;
  - Study of Industrial consumers not governed by two-part tariff indicating the impact of low power factor on system stability quantifying the financial burden attributed to other consumers;

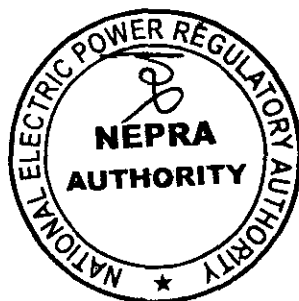
#### **18.1.2 Investment**

The Petitioner is required to submit detailed cost/benefit analysis with respect to investment program before 30th April 2011 which should covers:

- Complete investment programme along with complete backup working, cost/benefit analysis;
- Details of undergoing investment programmes along with the status and expected completion dates and corresponding expected improvement in the system;
- Evidences of corresponding committed financing arrangements;
- Investment breakup with respect to the investment for system rehabilitation to meet the performance standards and system expansion;

#### **18.1.3 Recruitment Plan**

The Authority, while maintaining its strict stance on new recruitments, encourages the Petitioner to hire good professionals which should add value to



2

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its Company. But the Petitioner has to provide a detailed recruitment plan along with justification ( emphasizing on the improvements that they would bring in ) and its additional financial impact based on prudent utility practices.

## 19. ORDER

From what has been discussed above, the Authority hereby determines the tariff of the Petitioner Company for the 1<sup>st</sup> Quarter of the Financial Year 2010-11 as under:-

- I. Hyderabad Electric Supply Company (HESCO) is allowed to charge its consumers such tariff as set out in the schedule of tariff for HESCO annexed to the determination.
- II. The actual variation in fuel cost component of power purchase price against the reference fuel cost component shall be adjusted on monthly basis without taking into account the T&D losses. Adjustment on account of T&D losses, variation in capacity and transmission charges will be considered in the subsequent tariff determinations for the petitioner Company.
- III. The Petitioner is allowed to charge the users of its system a use of system charge (UOSC) equal to:

- i) Where only 132kV system is involved


$$UOSC = DM \times \frac{(1-L)}{(1-0.0368)} \text{ Paisa / kWh}$$

- ii) Where only 11 kV distribution system is involved





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

- iii) Where both 132 kV and 11 kV distribution systems are involved

$$UOSC = DM \times \frac{(1-L)}{(1-0.0868)} \text{ Paisa / kWh}$$

Where: 



    
36 



Distribution Margin for the FY 2009-10 is set at Rs. 1.2633 /kWh. 'L' will be the overall percentage loss of 28% set for the FY 2010-11.

- V. The Fuel Price Adjustment Mechanism Annex-I, Schedule of Tariff at Annex-III, CpGenE, CpGenCap and USCF Annex-IV and Terms and Conditions at Annex-V related to the tariff be sent to the Federal Government for notification in the official gazette under Section 31(4) of the Act.



**FUEL PRICE ADJUSTMENT MECHANISM**

Actual variation in fuel cost component against the reference fuel cost component for the corresponding months will be determined according to the following formula

$$\text{Fuel Price variation} = \text{Actual Fuel Cost Component} - \text{Reference Fuel Cost Component}$$

Where:

Fuel Price variation is the difference between actual and reference fuel cost component

Actual fuel cost component is the fuel cost component in the pool price on which the DISCOs will be charged by CPPA in a particular month; and

Reference fuel cost component is the fuel cost component for the corresponding month projected for the purpose of tariff determination as per Annex-IV of the determination;

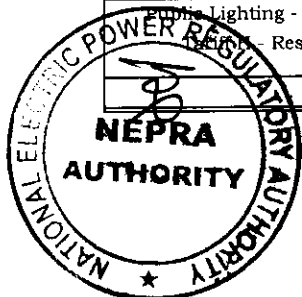
The fuel price adjustment determined by the Authority shall be shown separately in the bill of the consumer on the basis of units billed to the consumer in the respective month.



**Hyderabad Electric Supply Company (HESCO)**  
**Estimated Sales Revenue on the Basis of New Tariff**

(0)

Description	Sales GWh	Sales Mix	New Tariff (NEPRA)		Revenue (as per NEPRA)		Total
			Fixed Charge Rs./kW/ Month	Variable Charge Rs./ kWh	Fixed Charge Rs.Mins.	Variable Charge Rs.Mins.	
<b>Residential</b>							
Up to 50 Units	156	3.49%		2.00	-	312	312
For peak load requirement less than 5 kW							
01-100 Units	186	4.16%		9.00	-	1,670	1,670
101-300 Units	1,115	25.00%		12.75	-	14,217	14,217
301-700 Units	514	11.51%		14.00	-	7,190	7,190
Above 700 Units	252	5.64%		15.00	-	3,774	3,774
For peak load requirement exceeding 5 kW)	-						
Time of Use (TOU) - Peak	-			14.00	-	-	-
Time of Use (TOU) - Off-Peak	43	0.97%		7.50	-	326	326
<b>Total Residential</b>	<b>2,265</b>	<b>50.78%</b>			-	<b>27,162</b>	<b>27,488</b>
<b>Commercial - A2</b>							
For peak load requirement less than 5 kW	217	4.87%		15.00	-	3,258	3,258
For peak load requirement exceeding 5 kW							
Regular	66	1.47%	400.00	14.00	253	920	1,173
Time of Use (TOU) - Peak	3	0.07%	400.00	14.00	12	42	54
Time of Use (TOU) - Off-Peak	14	0.32%	400.00	7.50	54	106	160
<b>Total Commercial</b>	<b>300</b>	<b>6.73%</b>			<b>319</b>	<b>4,326</b>	<b>4,645</b>
<b>Industrial</b>							
B1	333	7.47%		10.00	-	3,333	3,333
B2	303	6.78%	400.00	9.50	592	2,875	3,467
B2 - TOU (Peak)	4	0.10%		14.00	-	62	62
B2 - TOU (Off-peak)	31	0.70%	400.00	7.50	56	235	291
B3 - TOU (Peak)	23	0.51%		13.90	-	314	314
B3 - TOU (Off-peak)	145	3.25%	380.00	7.00	153	1,016	1,169
B4 - TOU (Peak)	18	0.41%		13.80	-	254	254
B4 - TOU (Off-peak)	125	2.81%	360.00	6.50	105	815	920
<b>Total Industrial</b>	<b>983</b>	<b>22.04%</b>			<b>906</b>	<b>8,904</b>	<b>9,811</b>
<b>Single Point Supply for further distribution</b>							
C1(a) Supply at 400 Volts-less than 5 kW	6	0.14%		10.75	-	69	69
C1(b) Supply at 400 Volts-exceeding 5 kW	90	2.01%	400.00	10.25	123	920	1,043
Time of Use (TOU) - Peak	-		400.00	14.00	-	-	-
Time of Use (TOU) - Off-Peak	1	0.02%	400.00	7.50	1	5	6
C2 Supply at 11 kV	75	1.68%	380.00	10.15	53	760	814
Time of Use (TOU) - Peak	1	0.02%	380.00	13.90	1	15	16
Time of Use (TOU) - Off-Peak	5	0.12%	380.00	7.40	4	38	42
C3 Supply above 11 kV	-		360.00	10.05	-	-	-
Time of Use (TOU) - Peak	-		360.00	13.80	-	-	-
Time of Use (TOU) - Off-Peak	-		360.00	7.30	-	-	-
<b>Total Single Point Supply</b>	<b>178</b>	<b>3.99%</b>			<b>182</b>	<b>1,808</b>	<b>1,990</b>
<b>Agricultural Tube-wells - Tariff D</b>							
Scarp	350	7.84%		12.00		4,198	4,198
Agricultural Tube-wells	157	3.53%	200.00	7.50	108	1,180	1,288
Time of Use (TOU) - Peak	86	1.92%	200.00	14.00	59	1,201	1,260
Time of Use (TOU) - Off-Peak	43	0.96%	200.00	5.00	29	214	243
<b>Total Agricultural</b>	<b>636</b>	<b>14.25%</b>			<b>196</b>	<b>6,793</b>	<b>6,989</b>
Public Lighting - Tariff G	94	2.10%		13.00	-	1,217	1,217
Residential Colonies attached to industries	5	0.11%		13.00	-	61	61
<b>Total</b>	<b>4,460</b>	<b>100.000%</b>			<b>1,603</b>	<b>50,271</b>	<b>52,201</b>





## SCHEDULE OF ELECTRICITY TARIFFS FOR HYDERABAD ELECTRIC SUPPLY COMPANY (HESCO)

### A-1 GENERAL SUPPLY TARIFF - RESIDENTIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED	VARIABLE CHARGES	
		CHARGES Rs/kW/M	Rs/kWh	
a)	For Sanctioned load less than 5 kW			
i	Up to 50 Units	-		2.00
	For Consumption exceeding 50 Units			
ii	01-100 Units	-		9.00
iii	101-300 Units	-		12.75
iv	301-700 Units	-		14.00
v	Above 700 Units	-		15.00
b)	For Sanctioned load 5 kW & above			
			Peak	Off-Peak
	Time Of Use	-	14.00	7.50

Under tariff A-1, there shall be minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single Phase Connections:

Rs. 75/- per consumer per month

b) Three Phase Connections:

Rs. 150/- per consumer per month

### A-2 GENERAL SUPPLY TARIFF - COMMERCIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED	VARIABLE CHARGES	
		CHARGES Rs/kW/M	Rs/kWh	
a)	For Sanctioned load less than 5 kW			15.00
b)	For Sanctioned load 5 kW & above	400.00		14.00
			Peak	Off-Peak
c)	Time Of Use	400.00	14.00	7.50

Under tariff A-2, there shall be minimum monthly charges at the following rates even if no energy is consumed.

a) Single Phase Connections;

Rs. 175/- per consumer per month

b) Three Phase Connections:

Rs. 350/- per consumer per month



## SCHEDULE OF ELECTRICITY TARIFFS FOR HYDERABAD ELECTRIC SUPPLY COMPANY (HESCO)

### B INDUSTRIAL SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES	
		Rs/kW/M	Rs/kWh	
B1	Upto 25 kW (at 400/230 Volts)	-	10.00	
B2(a)	exceeding 25-500 kW (at 400 Volts)	400.00	9.50	
	Time Of Use		Peak	Off-Peak
B1 ( b)	Up to 25 KW		14.25	7.60
B2(b)	exceeding 25-500 kW (at 400 Volts)	400.00	14.00	7.50
B3	For All Loads up to 5000 kW (at 11,33 kV)	380.00	13.90	7.00
B4	For All Loads (at 66,132 kV & above)	360.00	13.80	6.50

For B1 consumers there shall be a fixed minimum charge of Rs. 350 per month.

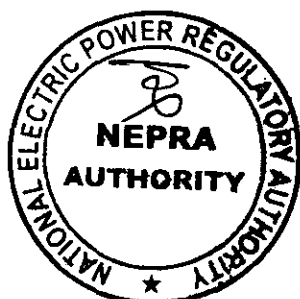
For B2 consumers there shall be a fixed minimum charge of Rs. 2,000 per month.

For B3 consumers there shall be a fixed minimum charge of Rs. 50,000 per month.

For B4 consumers there shall be a fixed minimum charge of Rs. 500,000 per month.

### C - SINGLE-POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLING IN ANY OTHER CONSUMER CLASS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES	
		Rs/kW/M	Rs/kWh	
C -1	For supply at 400/230 Volts			
a)	Sanctioned load less than 5 kW	-	10.75	
b)	Sanctioned load 5 kW & up to 500 kW	400.00	10.25	
C -2(a)	For supply at 11,33 kV up to and including 5000 kW	380.00	10.15	
C -3(a)	For supply at 66 kV & above and sanctioned load above 5000 kW	360.00	10.05	
	Time Of Use		Peak	Off-Peak
C -1(c)	For supply at 400/230 Volts 5 kW & up to 500 kW	400.00	14.00	7.50
C -2(b)	For supply at 11,33 kV up to and including 5000 kW	380.00	13.90	7.40
C -3(b)	For supply at 66 kV & above and sanctioned load above 5000 kW	360.00	13.80	7.30



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## SCHEDULE OF ELECTRICITY TARIFFS FOR HYDERABAD ELECTRIC SUPPLY COMPANY (HESCO)

### D - AGRICULTURE TARIFF

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES	
		Rs/kW/M	Rs/kWh	
D-1(a)	SCARP less than 5 kW	-	12.00	
D-2	Agricultural Tube Wells	200.00	7.50	
			Peak	Off-Peak
D-1(b)	SCARP and Agricultural 5 kW & above	200.00	14.00	5.00

Note:- The consumers having sanctioned load less than 5 kW can opt for TOU metering.

### E - TEMPORARY SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES
		Rs/kW/M	Rs/kWh
E-1(i)	Residential Supply	-	15.00
E-1(ii)	Commercial Supply	-	15.00
E-2	Industrial Supply	-	10.00

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

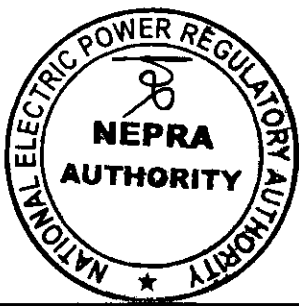
Note:

*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	VARIABLE CHARGES
		Rs/kW/M	Rs/kWh
	Street Lighting		13.00

Under Tariff G, there shall be a minimum monthly charge of Rs.500/- per month per kW of lamp capacity installed.

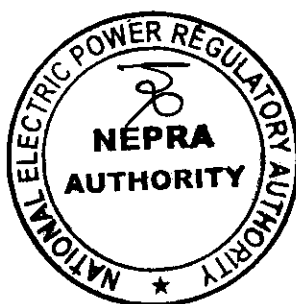


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**SCHEDULE OF ELECTRICITY TARIFFS  
FOR HYDERABAD ELECTRIC SUPPLY COMPANY (HESCO)**

**H - RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES**

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES
		Rs/kW/M	Rs/kWh
	Residential Colonies attached to industrial premises	-	13.00

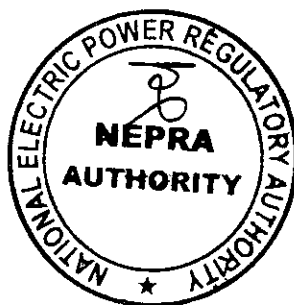


## HESCO Power Purchase Price

FY 2010-11

Name	July	August	September	October	November	December	January	February	March	April	May	June	Total
Units Purchased by DISCOs (GWh)	892	895	821	742	669	591	505	550	674	725	873	866	8,802
kWh													
CpGenE	4.3508	3.6013	3.8668	4.7146	5.0245	6.2818	7.3201	6.4931	6.1167	6.3624	5.6094	5.2246	5.2568
CpGenCap	1.3348	1.3372	1.5495	1.5389	1.8997	1.8774	2.4863	2.5203	2.1095	2.0372	1.5593	1.5770	1.7550
USCF	0.2036	0.2136	0.2154	0.2071	0.2373	0.2263	0.3011	0.3138	0.2637	0.2729	0.2193	0.2120	0.2353
Total PPP in Rs./kWh	5.8893	5.1521	5.6317	6.4606	7.1615	8.3855	10.1074	9.3272	8.4899	8.6725	7.3880	7.0136	7.2470

Rs. in Million													
CpGenE	3,880	3,222	3,175	3,498	3,363	3,712	3,694	3,568	4,125	4,611	4,897	4,527	46,272
CpGenCap	1,190	1,196	1,272	1,142	1,271	1,109	1,255	1,385	1,423	1,476	1,361	1,366	15,448
USCF	182	191	177	154	159	134	152	172	178	198	191	184	2,071
PPP	5,252	4,609	4,623	4,794	4,793	4,955	5,101	5,126	5,725	6,285	6,450	6,077	63,790



**TERMS AND CONDITIONS OF TARIFF  
(FOR SUPPLY OF ELECTRIC POWER TO CONSUMERS BY DISTRIBUTION  
LICENSEES)**

**PART-I**

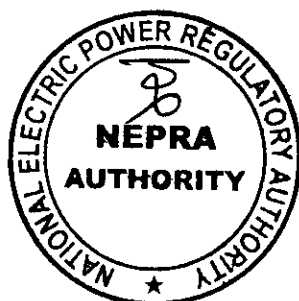
**GENERAL DEFINITIONS**

The Company, for the purposes of these terms and conditions means Hyderabad Electric Supply Company (HESCO) engaged in the business of distribution of electricity within the territory mentioned in the licence granted to it for this purpose.

1. "Month or Billing Period", 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.
2. "Minimum Charge", means a charge to recover the costs for providing customer service to consumers even if no energy is consumed during the month.
3. "Fixed Charge" means the part of sale rate in a two-part tariff to be recovered on the basis of "Billing Demand" in kilowatt on monthly basis.
4. "Billing Demand" means the highest of maximum demand recorded in a month except in the case of agriculture tariff D2 where "Billing Demand" shall mean the sanctioned load.
5. "Variable Charge" means the sale rate per kilowatt-hour (kWh) as a single rate or part of a two-part tariff applicable to the actual kWh consumed by the consumer during a billing period.
6. "Maximum Demand" where applicable, means the maximum of the demand obtained 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 obtained in any month measured over successive periods each of 15 minutes duration.
7. "Sanctioned Load" where applicable means the load in kilowatt as applied for by the consumer and allowed/authorized by the Company for usage by the consumer.
8. "Power Factor" means 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,.
9. Point of supply means metering point where electricity is delivered to the consumer.
10. Peak and Off Peak hours for the application of Time Of Use (TOU) Tariff shall be the following time periods in a day:

	<b>* <u>PEAK TIMING</u></b>	<b><u>OFF-PEAK TIMING</u></b>
Dec to Feb (inclusive)	5 PM to 9 PM	Remaining 20 hours of the day
Mar 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-

\* To be duly adjusted in case of day light time saving



11. "Supply", means the supply for single-phase/three-phase appliances inclusive of both general and motive loads subject to the conditions that in case of connected or sanctioned load exceeding 4 kW supply shall be given at three-phase.
12. "Consumer" means a person or his successor-in-interest as defined under Section 2(iv) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).
13. "Charitable Institution" means an institution, which works for the general welfare of the public on no profit basis and is registered with the Federal or Provincial Government as such and has been issued tax exemption certificate by Federal Board of Revenue (FBR).
14. NTDC means the National Transmission and Dispatch Company.
15. CPPA means Central Power Purchasing Agency (CPPA).
16. The "Authority" means "The National Electric Power Regulatory Authority (NEPRA)" constituted under the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

## GENERAL CONDITIONS

1. "The Company shall render bills to the consumers on a monthly basis or less on the specific request of a consumer for payment by the due date.
2. 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. In case bill is not served at least seven days before the due date then late payment surcharge will be levied after 7<sup>th</sup> day from the date of delivery of bill.
3. The supply provided to the consumers shall not be available for resale.
4. In the case of two-part tariff average Power Factor of a consumer at the point of supply shall not be less than 90%. In the event of the said Power factor falling below 90%, the consumer shall pay a penalty of two percent increase in the fixed charges determined with reference to maximum demand during the month corresponding to one percent decrease in the power factor below 90%.

## PART-II

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

### A-1 RESIDENTIAL AND GENERAL SERVICES

1. This Tariff is applicable for supply to;
  - i) Residences,
  - ii) Places of worship,
  - iii) Approved religious and charitable institutions,
  - iv) Government and Semi-Government Offices and institutions,
  - v) Government Hospitals and Dispensaries,
  - vi) Educational institutions.
2. Consumers having sanctioned load less than 5 kW shall be billed on single-part kWh rate i.e. A-1 (a) tariff.



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3. All new consumers having sanctioned load 5 kW and above shall be provided T.O.U metering arrangement and shall be billed on the basis of tariff A-1(b) as set out in the Schedule of Tariff.
4. All existing consumers having sanctioned load 5 kW and above shall be provided T.O.U metering arrangement and converted to A- 1(b) Tariff by the Company no later than June 30, 2011.

## **A-2 COMMERCIAL**

1. This tariff is applicable for supply to commercial offices and commercial establishments such as:

- i) Shops,
  - ii) Hotels and Restaurants,
  - iii) Petrol Pumps and Service Stations,
  - iv) Compressed Natural Gas filling stations,
  - v) Private Hospitals/Clinics/Dispensaries,
  - vi) Places of Entertainment, Cinemas, Theaters, Clubs;
  - vii) Guest Houses/Rest Houses,
  - viii) Office of Lawyers, Solicitors, Law Associates and Consultants etc.
2. Consumers under tariff A-2 having sanctioned load of less than 5 kW shall be billed under a Single-Part kWh rate A-2(a)
  3. All existing consumers under tariff A-2 having sanctioned load 5 kW and above shall be billed on A-2(b) tariff till such time that they are provided T.O.U metering arrangement; thereafter such consumers shall be billed on T.O.U tariff A-2(c).
  4. The existing and prospective consumers having load of 5 kW and above can opt for T.O.U metering arrangement and A-2(c) tariff.
  5. All existing consumers under tariff A-2 shall be provided T.O.U metering arrangement by the Company-and converted to-A-2 (c) Tariff no later than June 30, 2011.
  6. All new connections having load requirement 5 kW and above shall be provided T.O.U meters and shall be billed under tariff A-2(c).

## **B INDUSTRIAL SUPPLY**

### **Definitions**

1. "Industrial Supply" means the 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, value addition and/or processing of goods.
3. This Tariff shall also be available for consumers having single-metering arrangement such as;
  - i) Poultry Farms
  - ii) Fish Hatcheries and Breeding Farms and
  - iii) Software houses

### **Conditions**

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.

**B-1 SUPPLY AT 400 VOLTS THREEPHASE AND/OR 230 VOLTS SINGLE PHASE**

1. This tariff is applicable for supply to Industries having sanctioned load upto a 25 kW.
2. Consumers having sanctioned load less than 25 kW shall be billed on single-part kWh rate.

**B-2 SUPPLY AT 400 VOLTS**

1. This tariff is applicable for supply to Industries having sanctioned load of more than 25 kW up to and including 500 kW.
2. All existing consumers under tariff B-2 shall be provided T.O.U metering arrangement by the Company and converted to B-2(b) Tariff no later than June 30, 2011.
3. All new applicants i.e. prospective consumers applying for service to the Company shall be provided T.O.U metering arrangement and charged according to the applicable T.O.U tariff.

**B-3 SUPPLY AT 11 kV AND 33 kV**

1. This tariff is applicable for supply to Industries having sanctioned load of more than 500 kW up to and including 5000 kW and also for Industries having sanctioned load of 500 kW or below who opt for receiving supply at 11 kV or 33 kV.
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 as part of the dedicated distribution system 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 cost of service connection shall be regulated by the NEPRA eligibility criteria.
4. All B-3 Industrial Consumers shall be billed on the basis of T.O.U tariff given in the Schedule of Tariff.

**B-4 SUPPLY AT 66 kV, 132 kV AND ABOVE**

1. This tariff is applicable for supply to Industries for all loads of more than 5000 kW receiving supply at 66 kV, 132 kV and above and also for Industries having load of 5000 kW or below who opt to receive supply at 66 kV or 132 kV and above.
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. If 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 as part of the dedicated distribution system 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 cost of service connection shall be regulated by NEPRA Eligibility Criteria.
4. All B-4 Industrial Consumers shall be billed on the basis of two-part T.O.U tariff.

**C SINGLE POINT (SINGLE-METERING) SUPPLY**

“Single-Point Supply” for the purpose of this Tariff, means the supply given at one point:

- i) To a licensee converted from a bulk supply status (who was procuring power from HESCO as a consumer prior to grant of license to HESCO) for the purpose of further distribution within its respective exclusive territory and jurisdiction.
- ii) To a mix-load consumer not reselling to any other consumer such as residential, commercial, tube-well and others.

**General Conditions**

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.

**C-1 SUPPLY AT 400/230 VOLTS**

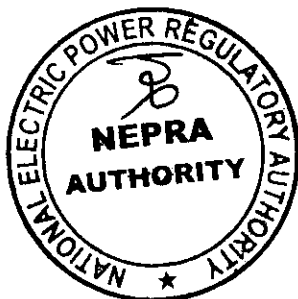
1. This Tariff is applicable to a consumer having mix-load at a single metering arrangement at 400 volts, having sanctioned load of up to and including 500 kW.
2. Consumers having sanctioned load less than 5 kW shall be billed on single-part kWh rate i.e. C-1(a) tariff.
3. All new consumers having sanctioned load 5 kW and above shall be provided T.O.U metering arrangement and shall be billed on the basis of Time-of-Use (T.O.U) tariff C-1(c) given in the Schedule of Tariff.
4. All the existing consumers governed by this tariff having sanctioned load 5 kW and above shall be provided T.O.U metering arrangements by June 30<sup>th</sup> 2011.

**C-2 SUPPLY AT 11 kV AND 33 kV**

1. This tariff is applicable to consumers receiving supply at 11 kV or 33 kV at one-point metering arrangement and having sanctioned load of up to and including 5000 kW.
2. 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 as part of the dedicated distribution system 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 cost of service connection shall be regulated by the NEPRA eligibility criteria.
3. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff C-2(b) as set out in the Schedule of Tariff.
4. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to C-2(b) by June 30<sup>th</sup> 2011.

**C-3 SUPPLY AT 66 kV AND ABOVE**

1. This tariff is applicable to consumers having sanctioned load of more than 5000 kW receiving supply at 66 kV and above.
2. If 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



1. 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 as part of the dedicated distribution system 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 cost of service connection shall be regulated by NEPRA Eligibility Criteria.
3. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to C-3(b) by June 30, 2011.
  4. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff C-3(b) as set out in the Schedule of Tariff.

## **D AGRICULTURAL SUPPLY**

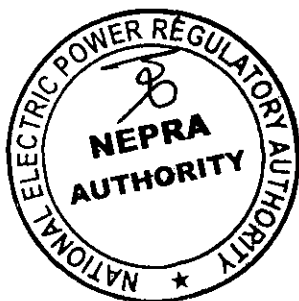
“Agricultural Supply” means the supply for Lift Irrigation Pumps and/or pumps installed on Tube-wells intended solely for irrigation or reclamation of agricultural land or forests, and include supply for lighting of the tube-well chamber.

### **Special Conditions of Supply**

1. This tariff shall apply to:
  - i) Reclamation and Drainage Operation under Salinity Control and Reclamation Projects (SCARP):
  - ii) Bona fide 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.
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 lamps and fans consumption in the residential quarters, if any, attached to the tube-wells shall be charged entirely under Tariff A-1 for which separate metering arrangements should be installed.
4. 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 Tariff A-1, A-2 or Industrial Tariff B-1, B-2 shall be respectively applicable.

### **D-1 (a)**

1. This tariff is applicable to all Reclamation and Drainage Operation pumping under SCARP related installation having sanctioned load of less than 5 kW.
2. Consumers having sanctioned load less than 5 kW shall be billed on single-part kWh rate i.e. D-1(a) tariff given in the Schedule of Tariff.



#### **D-1 (b)**

1. This tariff is applicable to all Reclamation and Drainage Operation pumping under SCARP related installation and other consumers falling under Agriculture Supply having sanctioned load of 5 kW and above.
2. All new consumers having sanctioned load 5 kW and above shall be provided TOU metering arrangement and shall be charged on the basis of Time-of- Use (T.O.U) tariff D- 1(b) given in the Schedule of Tariff.
3. All the existing consumers having sanctioned load 5 kW and above shall be provided T.O.U metering arrangements by June 30, 2011 and shall be governed by D-1(a) till that time.

#### **D-2**

1. This tariff is applicable to consumers falling under Agriculture Supply having sanctioned load less than 5 kW excluding SCARP related installations.
2. The fixed charges under this Tariff shall be recovered on the basis of sanctioned load in kilowatt as the billing demand and such charges will be applicable even if no energy is consumed during a month.

#### **E -1 TEMPORARY RESIDENTIAL/COMMERCIAL SUPPLY**

Temporary Residential/Commercial 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 which 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.

#### **E -2 TEMPORARY INDUSTRIAL SUPPLY**

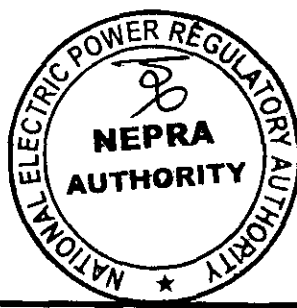
"Temporary Industrial Supply" means the supply given to an Industry for the bonafide purposes mentioned under the respective definitions of "Industrial Supply", during the construction phase prior to the commercial operation of the Industrial concern.

##### **SPECIAL CONDITIONS OF SUPPLY**

1. 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.
2. Normally, temporary connections shall be allowed for a period of 3 months, which may be extended on three months basis subject to clearance of outstanding dues.

#### **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

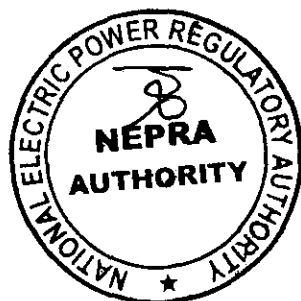
1. This tariff is applicable to seasonal industry.
2. Fixed Charges per kilowatt per month under this tariff shall be levied at the rate of 125% of the corresponding regular Industrial Supply Tariff Rates and shall be recovered only for the period that the seasonal industry actually runs subject to minimum 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.
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 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 the supply for the purpose of illuminating public lamps.

### Definitions

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



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### **Special Conditions of Supply**

The supply under this Tariff shall be used exclusively for public lighting installed on roads or premises used by General Public.

### **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**

“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. The purpose is further distribution to various persons residing in the attached residential colonies and also for perimeter lighting in the attached residential colonies.

“General and Domestic Consumption”, for the purpose of this Tariff, means consumption for lamps, fans, domestic applications, including heated, cookers, radiators, air-conditioners, refrigerators and domestic tube-wells.

“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**

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.

