



National Electric Power Regulatory Authority
Islamic Republic of Pakistan

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad.
Ph: +92-51-9206500, Fax: +92-51-2600026
Web: www.nepa.org.pk, E-mail: registrar@nepa.org.pk

No. NEPRA/TRF-415/HESCO-2017/10298-10300
July 6, 2018

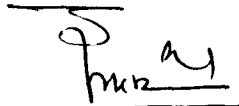
Subject: Determination of the Authority in the matter of Petition filed by Hyderabad Electric Supply Company Ltd. (HESCO) for the Determination of its Consumer end Tariff for the FY 2016-17 & 2017-18 [Case # NEPRA/TRF-415/HESCO-2017]

Dear Sir,

Please find enclosed herewith the subject Determination of the Authority along with Annexure-I, II, III, IV & V (88 pages) in Case No. NEPRA/TRF-415/HESCO-2017.

2. The Determination is being intimated to the Federal Government for the purpose of notification in the official gazette pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.
3. The Order part along with Annexure-I, II, III, IV, & V of the Authority's Determination needs to be notified in the official Gazette.

Enclosure: As above


06 07 18
(Syed Safeer Hussain)

Secretary
Ministry of Energy (Power Division)
'A' Block, Pak Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.



**National Electric Power Regulatory Authority
(NEPRA)**

PETITION NO: NEPRA/TRF-415/HESCO-2017

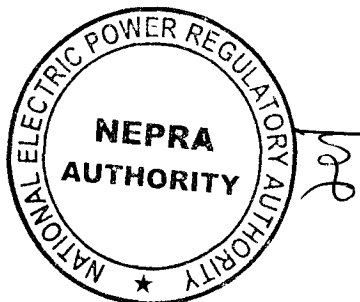
**TARIFF DETERMINATION
FOR
HYDERABAD ELECTRIC SUPPLY COMPANY LIMITED (HESCO)
FOR THE FY 2016-17 AND FY 2017-18
DETERMINED UNDER
NEPRA TARIFF (STANDARDS AND PROCEDURE) RULES - 1998**

Islamabad
6th July
~~June~~, 2018



Abbreviations

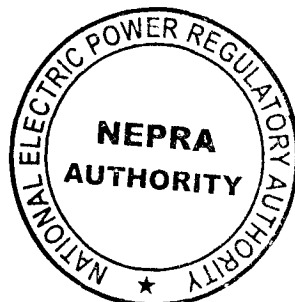
ADB	Asian Development Bank
AJK	Azad Jammu and Kashmir
AMI	Advance Metering Infrastructure
AMR	Automatic Meter Reading
BoD	Board of Director
BTS	Base Transceiver Station
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
CCI	Council of Common Interest
CDP	Common Delivery Point
COSS	Cost of Service Study
CPI	Consumer Price Index
CPPA (G)	Central Power Purchasing Agency Guarantee Limited
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
CTC	Capacity Transfer Charges
CWIP	Closing Work in Progress
DIIP	Distribution Company Integrated Investment Plan
DISCO	Distribution Company
DM	Distribution Margin
DOP	Distribution of Power
ELR	Energy Loss Reduction
ERC	Energy Regulatory Commission
ERP	Enterprise resource planning
FCA	Fuel Charges Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
GoAJK	Government of Azad Jammu and Kashmir
GOP	Government of Pakistan
GWh	Giga Watt Hours
HHU	Hand Held Unit
HT/LT	High Tension/Low Tension
HSD	High Speed Diesel
IFRS/IAS	International Financial Reporting Standards/International Accounting Standards
IGTDP	Integrated Generation Transmission and Distribution Plan



Handwritten signature/initials



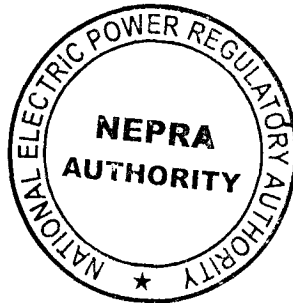
IESCO	Islamabad Electric Supply Company Limited
IPP	Independent Power Producer
KIBOR	Karachi Inter Bank Offer Rates
KSE	Karachi Stock Exchange
KV	Kilo Volt
Kw	Kilo Watt
kWh	Kilo Watt Hour
LPC	Late Payment Charges
LESCO	Lahore Electric Supply Company Limited
MDI	Maximum Demand Indicator
MEPCO	Multan Electric Power Company Limited
MMBTU	One million British Thermal Units
MW	Mega Watt
MoWP	Ministry of Water and Power
MVA	Mega Volt Amp
MYT	Multi Year Tariff
NEPRA	National Electric Power Regulatory Authority
NPCC	National Power Construction Corporation
NPV	Net Present Value
NTDC	National Transmission & Despatch Company
O&M	Operation and Maintenance
OGRA	Oil and Gas Regulatory Authority
PEPCO	Pakistan Electric Power Company
PESCO	Peshawar Electric Supply Company Limited
PPA	Power Purchase Agreement
PPAA	Power Procurement Agency Agreement
PPP	Power Purchase Price
PPRA	Public Procurement Regulatory Authority
PYA	Prior Year Adjustment
R&M	Repair and Maintenance
RAB	Regulatory Asset Base
RE	Rural Electrification
RFO	Residual Fuel Oil
RLNG	Re-gasified Liquefied Natural Gas
RoE	Return on Equity
RORB	Return on Rate Base
ROR	Rate of Return



Handwritten signature



SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SBP	State Bank of Pakistan
SOT	Schedule of Tariff
STG	Secondary Transmission Grid
T&D	Transmission and Distribution
T&T	Transmission and Transformation
TDS	Tariff Differential Subsidy
TFC	Term Finance Certificate
TOU	Time of Use
TOR	Term of Reference
TPM	Transfer Price Mechanism
USCF	The fixed charge part of the Use of System Charges in Rs./Kw/Month
UOSC	Use of System Charges
WACC	Weighted average cost of capital
WAPDA	Water and Power Development Authority
X-Factor	Efficiency Factor
HESCO	Hyderabad Electric Supply Company
XWDISCO	Ex-WAPDA Distribution Company



[Handwritten signature]



**DETERMINATION OF THE AUTHORITY IN THE MATTER OF PETITION FILED BY
HYDERABAD ELECTRIC SUPPLY COMPANY LIMITED (HESCO) FOR THE
DETERMINATION OF ITS CONSUMER END TARIFF FOR FY 2016-17 & 2017-18**

CASE NO. NEPRA/TRF-415/HESCO-2018

PETITIONER

Hyderabad Electric Supply Company Limited (HESCO), WAPDA offices complex,
Hussainabad Hyderabad.

INTERVENER

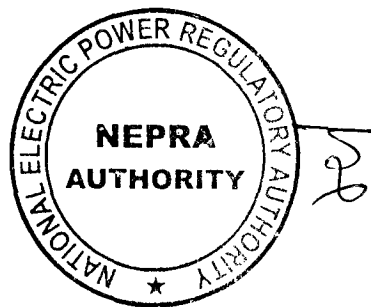
Nil

COMMENTATOR

Nil

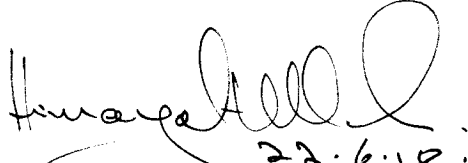
REPRESENTATION

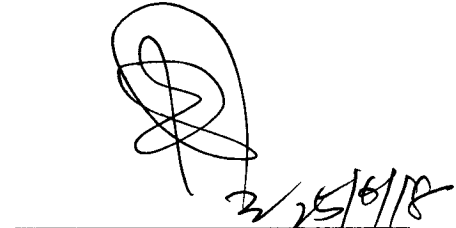
- | | |
|-------------------------|----------------------------|
| • Raham Ali Otho | Chief Executive Officer |
| • Saeed Ahmad Dawach | G.M Technical |
| • Mahmood Ali Kaimkhani | Customer Services director |
| • Deen Muhammad | Manager Finance and CP&C |



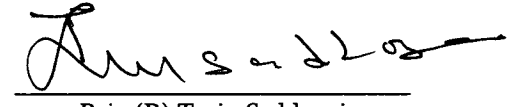


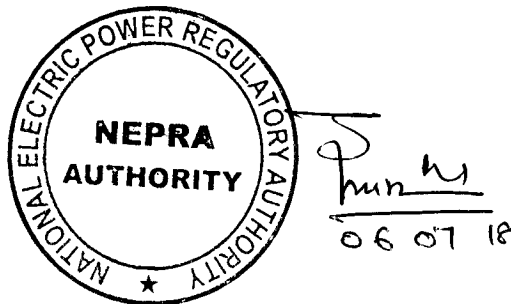
The Authority, in exercise of the powers conferred on it under Section 7(3) (a) read with Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, Tariff Standards and Procedure Rules, 1998 and all other powers enabling it in this behalf, and after taking 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.


22.6.18
Himayat Ullah Khan
Member


22/6/18
Rehmatullah
Member


4.7.2018
Saif Ullah Chattha
Member


Brig (R) Tariq Sadozai
Chairman



1. BACKGROUND

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 FY 2016-17 & 2017-18 in terms of Rule 3 (1) of Tariff Standards & Procedure Rules-1998 (hereinafter referred as "Rules"). The Petitioner has sought the following relief:

- For the FY 2016-17 revenue requirement of Rs. 95,907 million at an average tariff rate of Rs. 25.24/Kwh and for the FY 2017-18 revenue requirement of Rs. 71,465 million at an average tariff rate of Rs. 17.31/Kwh, may be allowed.
- T&D Losses @ 30.62% for FY 2016-17 and 26.63% for FY 2017-18 may be allowed.
- Investment of Rs. 3,759 million for FY 2016-17 and Rs.7,439 (M) for FY 2017-18 may be allowed.
- Any other benefit the Authority may deemed right may be allowed.

2. PROCEEDINGS

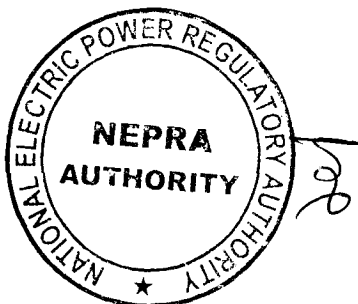
2.1 In terms of rule 4 of the Tariff standard and Procedure Rules, 1998 (hereinafter referred to as "Rules"), the petition was admitted by the Authority on 22th November 2017. In compliance with the provisions of rules 6 & 7 of the Rules, notice of admission / hearing along-with the title and brief description of the petition was published in newspapers on December 17, 2017 and separate notices were also sent to the parties which were considered to be affected or interested. Comments /replies and filing of intervention request was desired from any interested person within 7 days of the publication.

3. FILING OF OBJECTIONS/ COMMENTS:

3.1 Despite issuing separate notices to the key stakeholders and publication of notices in the national newspapers, neither any Comments were filed nor any Intervention Request (IR) was received.

4. FRAMING OF ISSUES

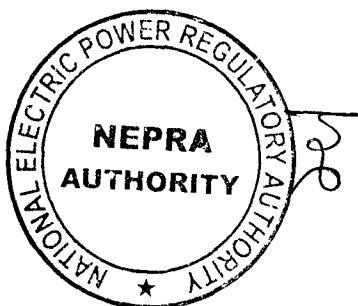
4.1 The pleadings so available on record were examined by the Authority in terms of rule 9 of the Tariff Rules and it was decided to conduct a hearing in order to arrive at a just and informed decision. On the basis of pleadings, following issues were framed to be considered during the hearing and for presenting written as well as oral evidence and arguments.



- i. Whether the Petitioner has complied with the directions of the Authority given in the tariff determination for the FY 2015-16.
- ii. Whether the Petitioner's projected energy purchases and power purchase cost for the FY 2016-17 & FY 2017-18 is justified?
- iii. Whether the requested T & D losses target of 30.62% & 26.63% for the FY 2016-17 & FY 2017-18 respectively is reasonable?
- iv. Whether the projected Distribution Margin (excluding Return on Regulatory Asset base) for the FY 2016-17 and FY 2017-18 is justified?
- v. Whether the proposed RoRB based on WACC of 11.83% is justified?
- vi. Whether the Petitioner's proposed Investment Plan of Rs.3,759 Million and Rs.7,439 Million for the FY 2016-17 & FY 2017-18 respectively, is justified?
- vii. Whether prior year adjustment of Rs.19,771 million requested in FY 2016-17 is accurate?
- viii. Whether the Petitioner has any concerns regarding TOU metering of cellular company connections?
- ix. Whether the terms and conditions of tariff under category "H" to the extent of Special Conditions of Supply i.e. non availability to persons who meet a part of their requirements from a separate source of supply at their premises, needs to be revised or otherwise?
- x. Whether the Petitioner has any concerns regarding issuance of Distribution Licenses NOC's in its area of jurisdiction in terms of NEPRA (Supply of Electric Power) Regulation, 2015, and has it any financial implication on the allowed revenue requirement of the Petitioner, if so, the same shall be substantiated through numbers?
- xi. Whether the terms and conditions with respect to Net Metering arrangements shall be included in the terms and conditions of tariff?
- xii. Whether the tariff petition substantially complies with NEPRA Determination of Consumer-end Tariff (Methodology and Process) Guidelines, 2015?
- xiii. Any other issue that may come up during or after the hearing?

5. HEARING

- 5.1 In order to arrive at a just and informed decision, it was decided to conduct a hearing in the matter on January 04, 2018. Notice of hearing was published in the leading



[Handwritten signature]
[Handwritten signature]

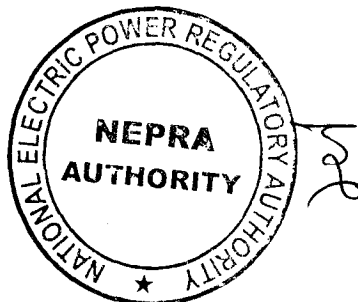
newspapers on December 17, 2017. Accordingly hearing was held on the due date at NEPRA Tower, Islamabad; individual letters were also sent to all the relevant stakeholders.

- 5.2 During hearing, the Petitioner was represented by its Chief Executive Officer, along with his Financial and Technical team.
- 5.3 On the basis of pleadings, evidence/record produced and arguments raised during the hearing, issue-wise findings are given as under:

6. **Issue # 1. Whether the Petitioner has complied with the directions of the Authority given in the tariff determination for the FY 2015-16?**

- 6.1 The Authority issued several directions in the tariff determination for the FY 2015-16. The compliance of which are discussed under relevant heads. However, few directions are discussed below;

- To ensure printing of snap shots on the bills not later than June 30, 2016.
- To ensure the visibility of the snap shot on the bills and also to maintain its record in soft form for at least a period of twelve (12) months.
- To complete the pending installation of ToU meters at the earliest
- To submit its investment needs regarding HHU not later than 30th June, 2016.
- To complete installation of AMR/AMI by 30th June, 2016.
- To provide information regarding trade debt in the provided format as on 30th June, 2104 and 30th June 2015 after addressing the Authority's concerns, not later than 30th June, 2016.
- To provide project wise complete detail of investments made in FY 2014-15 duly reconciled with its financial statements, along-with its cost benefit analysis, and also explain the reasons for variation in numbers reported in the presentation and its financial statements.
- To complete study of its Transmission and Distribution losses on 132 KV, 11KV and below by 30th June, 2016.
- To spend at least 20% of the village electrification funds for improvement / up-gradation of the grid and not to undertake any village electrification which would result in overloading of its system. The village electrification would only be undertaken without augmentation of the grid, if it already has spare MVAs.



- To again take up the matter to the relevant foras to the extent of written off amount, if it consider it genuine billing. In addition, the Authority directs the Petitioner to reconcile its billing with the GoS on regular / monthly basis to avoid any such errors / events in future.
 - To ensure that in future consumer's deposits are not utilized for any other purpose. The Petitioner is also being directed to restrain from unlawful utilization of receipts against deposit works and security deposits, failing which, the proceedings under the relevant law shall be initiated against the Petitioner. The Petitioner is also directed to give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance.
 - To create the separate post-retirement benefits Fund before 30th June 2016.
 - To fulfil all the requirements as provided in the Methodology while filing the next tariff petition failing which the Petitioner's petition will not be entertained.
 - To share the details of late payment charges recovered from consumers and any invoice raised by CPPA (G) under the head of mark up on delayed payments for the FY 2014-15 and FY 2015-16.
 - To maintain a proper record of its assets by way of tagging each asset for its proper tracking and to provide explanation on the concerns raised by the Authority in terms of its R&M cost not later than 30th June, 2016 for consideration of the Authority.
- 6.2 **To ensure printing of snap shots on the bills not later than June 30, 2016.**
- 6.3 **To ensure the visibility of the snap shot on the bills and also to maintain its record in soft form for at least a period of twelve (12) months.**
- 6.3.1 The Petitioner on the issue submitted that snap shot of meter reading on the electricity bills is being printed and compliance is being made. The accuracy (visibility of snaps and matching) is more than 99% and the record of snap is also being maintained by the MIS Department in soft copy.
- 6.3.2 The Authority appreciates the efforts of the Petitioner in the matter, however, at the same time directs the Petitioner to ensure compliance of the same in future as well.
- 6.4 **To complete the pending installation of ToU meters at the earliest.**
- 6.4.1 The Authority in its Tariff determination for the FY 2015-16, directed the Petitioner to complete pending installation of its ToU Meters at the earliest;
- 6.4.2 The Petitioner in this regard has submitted the following status;

TARIFF Category	Connections having load 5 KW & above	Total ToU meters Installed up-to Nov.17	Yet to be installed
Domestic	5,310	4,366	944
Commercial	4,579	4,255	324
Industrial	8,669	8,299	370
Bulk Supply	234	124	110
Agriculture	9,962	8,292	1,670
Residential Colonies	-	-	-
TOTAL	28,754	25,336	3,418

6.4.3 The Authority observed that as per the earlier status submitted till December 2014, the Petitioner had installed around 78% of its ToU meters as mentioned below;

Customer Category	Total No. of TOU Connections	Connections with TOU meters installed up to December, 2014	% installed	Connections pending installation of TOU meters
Residential	4,788	3,070	64%	1,718
Commercial	4,094	3,445	84%	649
Industrial	7,860	6,833	87%	1,027
Bulk Supply	220	104	47%	116
Agricultural	10,311	7,865	76%	2,446
Total	27,273	21,317	78%	5,956

6.4.4 The Authority observed that although Petitioner has shown some improvements in installation of ToU Meters as compared to its previous status, which as per the latest data provided by the Petitioner i.e. November 2017 is around 88%. However, still room for improvement is available. In view thereof, the Petitioner is again directed to complete pending installation of its ToU meters without further delay.

6.5 To submit its investment needs regarding HHU not later than 30th June, 2016.

6.5.1 While passing the direction regarding printing of snap shots of meter reading on the electricity bills, the Authority also considered the proposal of IESCO & MEPCO for allowing the cost of hand held meter reading units and principally decided to allow the cost of the hand held units and directed it to submit its investment needs regarding HHU not later than June 30, 2016.

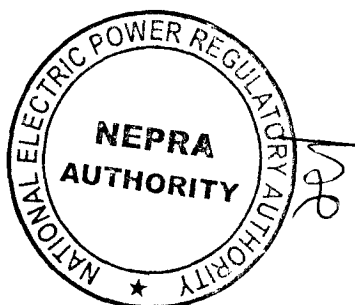
- 6.5.2 The Petitioner during hearing of its Tariff Petition for the FY 2015-16 submitted that out of its total 67 sub-divisions, mobile reading has been started in 52 sub-divisions by using the mobile phones. The Petitioner further stated that it has procured 400 Mobile Phones and purchase of 125 mobile sets was in process. Thus, the total investment involved for procurement of mobile sets was Rs.10.50 million.
- 6.5.3 The Authority during the tariff determination process for the FY 2015-16, observed that although, the Petitioner started printing snap shots through mobile phones in its various sub-divisions, yet, the importance of HHUs could not be denied which was more sustainable solution and would eventually replace the mobile phones. Accordingly, the Petitioner was directed to submit its investment needs with regard to HHUs not later than 30th June, 2016.
- 6.5.4 However, the Authority noted with great concern that the Petitioner neither provided any updated status regarding procurement of Mobile sets nor mentioned anything with respect to its investment needs of HHU, either in the Petition or even afterwards.
- 6.5.5 In view thereof, the Authority again directs the Petitioner to provide the updated status regarding procurement of Mobile sets and also submit its investment needs of HHU not later than September 30, 2018.

6.6 To complete installation of AMR/AMI by 30th June, 2016.

- 6.6.1 The Authority considering the fact that one of the key reasons for high transmission and distribution losses in XWDISCOs is the lack of any tracking mechanism for electricity flow from the point of purchases (CDP) down to the final consumers. A reliable metering and recording system at every voltage level starting with the 132 kV grid, at the 11 kV and to 440 and 220 volts is therefore critical for the elimination of theft, unaccounted electricity and diagnosing technical problems. In view thereof, the Authority directed all XWDISCOs to install AMR and AMI Systems.
- 6.6.2 In response, the Petitioner during hearing of tariff petition for the FY 2015-16, submitted the following status of installation of AMR / AMIs;

AT CDPs

CPPA		IPPs (Wind Power)			NCPPs/SPPs				Total			
Nos	Meter Installed	Nos	Metering Points	Meter Installed	Nos.	Metering Point	Meters Installed	Meters to be installed	Nos.	Metering Point	Meters Installed	Meters to be installed
20	20	6	12	12	13	15	9	6	39	47	41	6




Mali

At 11kV feeders

Description	Total (Nos.)	Installed (Nos.)	Pending (Nos.)	Remarks
11 KV I/C	109	106	3	132kv G.Shahbaz, Umerkot & K.Ahmed G/Stations.
11 KV O/G	439	436	3	11kv Boulevard at Ghangramori Al-Raheem at Nooriabad & Pak Navy at T.B. Khan
11 KV AUX	51	46	5	Hala road, T.Jam, Talhar, Mir Wah, Kunri
B-4 Connr	6	6	0	Lucky, Al-Abass, Zeal Pak & Thatta Cement factories, United Silicate & PARCO.
NCPPs & SPPs (Power House End)	15	8	7	M/S TPPL & T.A.Yar, Sanghar, Mehran, Habib, Chamber, Bandi Sugar Mills.
NCPPs & SPPs (G/Station End)	10	9	1	M/S Lucky C/F

6.6.3 On the point of installation of AMR/ AMI at high loss making subdivisions, the Petitioner during hearing of tariff petition for the FY 2015-16 informed that Qasimabad Subdivision was selected for the purpose, being high loss having high quantum and percentage losses, however, consumers in that particular subdivision damaged the installed meters and the very purpose of installing AMR/AMI meters was defeated. The Authority while rejecting the Petitioner's stance of poor law & order situation, directed it in the tariff determination for the FY 2015-16 to complete the remaining installation of AMR / AMIs by June 30, 2016.

6.6.4 However, the Authority has noted with great concern that the Petitioner did not provide any updated status in the matter and has repeated the same numbers again during hearing of the instant petition.

6.6.5 In view thereof, the Authority again directs the Petitioner to provide the updated status in the matter and complete pending installation of AMR/AMI by 30th September, 2018.

6.7 **To provide information regarding trade debt in the provided format as on 30th June, 2104 and 30th June 2015 after addressing the Authority's concerns, not later than 30th June, 2016.**

6.7.1 During the tariff determination process for the FY 2014-15, the Authority while evaluating the provided figures of receivables, recorded some observations on the quality of compliance and directed the Petitioner to resubmit the reconciled amounts of receivables with the financial statement (as on 30th June 2014) clearly bifurcated into government and private receivables duly reconciled by taking into account the impact of provision and any writing off of debtors. The information was required to be submitted by June 30, 2015.

Math



6.7.2 Accordingly, the Petitioner during hearing of its tariff petition for the FY 2015-16, presented the following details of Trade Debtors as on June 30, 2014;

CATEGORY	Pvt.	Prov.	Govt.	Prov.	Disconnect	Prov.	Others	Total Debtors	Total Prov.
Over 3 years	7,704	3,467	23,563	4,713	2,109	2,109	-	33,376	10,288
Over 1-3 years	3,745	936	2,652	265	195	97	-	6,592	1,299
Sub-total	11,449	4,403	26,215	4,978	2,304	2,207	-	39,968	11,587
Over 6 months to 1 year	959	48	358	-	25	13	-	1,342	61
Over 3-6 months	501	-	81	-	5	1	-	587	1
Over 2-3 months	196	-	55	-	2	-	-	253	-
Over 1-2 months	259	-	45	-	3	-	-	307	-
Sub-total	1,915	48	539	-	35	13	-	2,490	61
Spill Over	1,215	-	730	-	11	-	-	1,956	-
Un-paid Debt	945	-	2	-	22	-	-	970	-
Deferred Amount	288	-	1,364	-	116	-	-	1,768	-
New Added	642	-	210	-	7	-	-	859	-
Un-identified Cash	-	-	-	-	-	-	101	101	-
Received Govt. Subsidy	457	-	82	-	34	-	-	572	-
Credit balances of Consumers	238	-	545	-	112	-	895	1,790	-
Sub-total	3,784	-	2,933	-	302	-	996	8,016	-
Grand Total	17,148	4,451	29,688	4,978	2,643	2,220	996	50,474	11,648

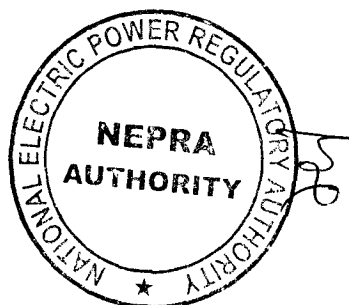
6.7.3 However, the provided information was not in reconciliation with the financial statements, which raised serious question marks regarding reliability of the provided data. In view thereof, the Petitioner was directed to resubmit the said information as on 30th June, 2014 and 30th June 2015, after addressing the Authority's concerns, not later than 30th June, 2016.

6.7.4 The Authority has noted with great concern that the Petitioner did not provide any details in this regard either in the Petition or even afterwards.

6.7.5 In view thereof, the Petitioner is again directed to provide details of its trade debts as on June 30, 2014, 2015 and 2016, clearly bifurcated into government and private receivables duly reconciled with its Audited financial statements, by taking into account the impact of provision and write offs if any.

6.8 **To provide project wise complete detail of investments made in FY 2014-15 duly reconciled with its financial statements, along-with its cost benefit analysis, and also explain the reasons for variation in numbers reported in the presentation and financial statements.**

6.8.1 The Authority while assessing the T&D losses of the Petitioner for the FY 2014-15 noted that the reduction in losses proposed by the Petitioner was marginal i.e. 0.83% from the last year's actual level, despite the fact that the proposed investment projects, *inter alia*, included installation of ABC and AMR meters, which are very effective in reduction of technical and administrative losses. The Authority also observed that more or less same projects were referred by the Petitioner during the hearing of its tariff determination for the FY 2013-14. In view thereof the Petitioner was directed to share final report of its projects to be completed by June, 2015 with the actual amounts invested and the actual reduction in T&D losses achieved against the claimed benefits.



[Handwritten Signature]

[Handwritten Signature]

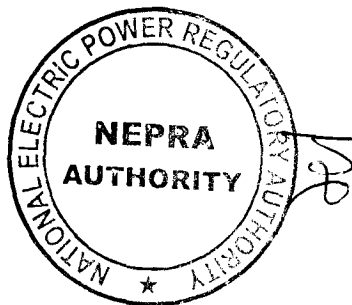


The Petitioner, during hearing of its tariff petition for the FY 2015-16 provided the details, whereby, an expenditure of Rs.1,071 million was incurred during the FY 2014-15, however, the same was not in reconciliation with the Financial Statements of the Petitioner wherein a CAPEX of Rs.2,556 million was reported. The Authority also noted that despite making these investments, the Petitioner's actual losses increased from 26.47% in FY 2013-14 to 27.10% in FY 2014-15. The Authority, therefore directed the Petitioner to provide project wise detail of investments made in FY 2014-15 duly reconciled with its financial statements, along-with its cost benefit analysis, and also explain reasons for variation in the numbers.

- 6.8.2 The Petitioner has provide the following information with respect to the investments works completed during the FY 2014-15 along-with the benefits/ results achieved thereof;

A. Grid Station							
SR. NO.	DESCRIPTION	PSDP	Cost (MRS)	ADB	Cost (MRS)	TOTAL	Cost (MRS)
1	New	--		--		--	--
2	Augmentation	3	96.631	--		3	96.631
3	Conversion	--		1	177.3	1	177.3
4	Extension with Transformer Bay	3	127.85	--	--	3	127.85
5	Extension with L/Bay	4	57.84	--	--	4	57.84
	Total	10	282.32	1	177.3	11	459.62

B. Transmission Lines							
SR. NO.	DESCRIPTION	PSDP	Cost (MRS)	ADB	Cost (MRS)	TOTAL	Cost (MRS)
1	New (KM)	--	--	--	--	--	--
2	2 nd Circuit Stringing KM	95	187.19	--	--	95	187.19
3	Rehabilitation / Re-Conductoring (KM)	30	48.67	--	--	30	48.67
	Total	125	235.86			125	235.86



Mark

Completed Works		Budget Utilized (Completed)	Saving MKWH in one year	Saving in Rs. M
DOP HT	8	48.47	0.33	3.46
DOP LT	35	17.18	0.042	0.44
Sub-total	43	65.65	0.37	3.88
ELR HT	9	60.28	2.406	25.2
ELR LT	47	36.07	0.35	3.67
Sub-total	56	96.35	2.76	28.98
G.Total	99	162	3.13	32.86

Sr. No.	Name of Project	Scope of Work	Total Cost Rs. in Millions	Intended Relief	Date of Completion	Impact	Achieved Result	Remarks
1	132KV Nooriabad - Jhampir T/Line 2 nd circuit stringing along-with Line Bays (WPP Work)	28.0 KM	48.76	Safe evacuation of electrical power from WPPs in Jhampir & Ghara area.	10/27/2014	§ Reducing the Technical losses. § Enhance the capacity of the circuit.	Power is being evacuated through these circuits to HESCO network, as local injection of wind power	After completion of transmission line work mentioned at Sr. No.1 2xWPPs have been connected with HESCO's network
2	132 KV Thatta - Pir Patho T/Line (Rehabilitation & Re-conductoring)	30.0 KM	48.67	Stability and Reliability of Distribution Network	24.12.14	§ Enhanced the reliability of the line by removing the grey area of the line.	Stability and Reliability of Distribution Network	
3	2 nd Circuit Stringing at 132KV Hala Road - M.P Khas T/Line	67.00 KM	138.43	To give relief to 02 Nos. overloaded circuits, feeding to Mirpur Khas.	6/13/2015	Reduce the Technical losses. § Improve the voltage profile to the Mirpurkhas. § Reliability of system. § Multiple circuits available to Mirpurkhas as it is hub for 15 No Grid Stations.	§ Loading position of existing circuits have been reduced, which causes low voltage & forced load shedding in the areas. § Improved the voltage profile. § Reduce Technical losses.	Stable & reliable power supply is provided to Mirpur Khas, Sanghar, Samaro, Noukot, Umar kot and other adjoining areas

6.8.3 From the aforementioned details it can be concluded that although specific investments, were made whereby individual benefits were also achieved. However, these investment were not enough for HESCO as a whole, as the overall inefficiency of the operations increased.

6.8.4 The Authority considers that the Petitioner has complied with the direction of the Authority.

6.9 To complete study of its Transmission and Distribution losses on 132 KV, 11KV and below by 30th June, 2016.

6.9.1 The Authority had been directing the Petitioner in its previous tariff determinations to complete the study of its entire system including 132 KV, 11 KV and below and to communicate the exact deadline for the completion of study.

Mati



- 6.9.2 The Petitioner in compliance to the Authority's direction submitted the final report of its T&D losses dated February 16, 2015 carried out by PPI, independent consultants, along-with its tariff petition for the FY 2015-16 and provided the following break-up of its T&D losses based on the study;

DESCRIPTION		% LOSSES
Annual Energy Loss in the HT Network including lines and Distribution Transformers	A	9.75%
Average Energy Loss in the LT Network	B	4.45%
Average Energy Loss in Cables	C	0.84%
Average Annual Energy Loss of HESCO Distribution Network	D=A+B+C	15.04%
Analytically Evaluated T&T Losses (Report submitted on T&T Losses)	E	3.42%
Total Analytically Evaluated Technical T&D Losses	F=D+E	18.46%
Total Recorded T&D Losses of HESCO for 2012-13	G	27.30%
Total Analytically Evaluated Technical T&D for 2012-13 Losses	F	18.46%
Administrative / Commercial Losses at company level for 2012-13	H=G-F	8.84%

- 6.9.3 The matters has been further deliberated under the relevant issue.

- 6.10 To spend at least 20% of the village electrification funds for improvement / up-gradation of the grid and not to undertake any village electrification which would result in overloading of its system. The village electrification would only be undertaken without augmentation of the grid, if it already has spare MVAs.

- 6.10.1 The Petitioner in the past had been attributing its increasing trend in the level of T&D losses to imprudent village electrification, which was carried out without proper cost benefit analysis. The Authority accordingly directed the Petitioner to monetize all the incremental costs which cause additional losses and incorporate the same as a part of project cost while calculating the Internal Rate of Return (IRR) or Net Present Value (NPV) for any village electrification project, in future.
- 6.10.2 The Petitioner during the hearing of tariff petition for the FY 2015-16, stated that Sponsors of village electrification schemes are MNA/MPA/Senators and they are very much reluctant on various components of cost estimates. However, the instructions of the Authority will be implemented with mutual agreement.
- 6.10.3 The Authority understands that village electrification although is carried out through GOPs funding, however imprudent village electrification results in overloading and consequently increased T&D losses, which is not desirable. Further, it may dilute the impact of all the investments being made by the Petitioner.
- 6.10.4 The Authority has observed that majority of the ongoing village electrification was restricted to poles, lines and distribution transformers and its impact on the existing grid or strengthening of the grid due to the additional load in the form of village electrification was totally ignored.

Mali

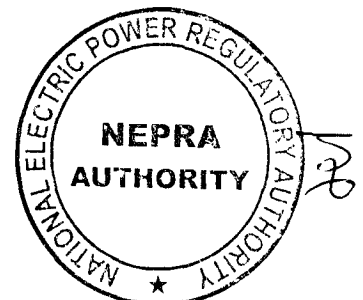




- 6.10.5 In view thereof, the Petitioner was directed to spend at least 20% of the village electrification funds for improvement / up-gradation of the grid and not to undertake any village electrification which would result in overloading of its system. The village electrification would only be undertaken without augmentation of the grid, if it already has spare MVAs.
- 6.10.6 The Petitioner during hearing submitted that compliance is being made as per the Authority's direction.
- 6.11 **To again take up the matter to the relevant foras to the extent of written off amount, if it consider it genuine billing. In addition, the Authority directs the Petitioner to reconcile its billing with the GoS on regular / monthly basis to avoid any such errors / events in future.**
- 6.11.1 The Authority in the tariff determination for the FY 2013-14, directed the Petitioner to submit details of the written off amount of Rs.7,796.6 million from its outstanding receivables. Subsequently, the Petitioner filed a motion for leave for review on the tariff determination for the FY 2013-14, wherein it submitted that the write-off amounts pertain to multiple electricity connections of Departments of Government of Sindh (GoS), using electricity through both sanctioned and unsanctioned connections. The Petitioner further submitted that in light of the decision of Sub Committee of CCI dated 28th January, 2013, the Board of Directors (BOD) of HESCO approved write off of Rs.8.45 billion on 31st May, 2013 to settle the long outstanding dispute with GoS. As per the Petitioner, the BOD of HESCO was empowered to approve the write offs as per Companies Ordinance 1984, which was also confirmed by Ministry of Law & Justice, GOP in memo No. 645/2012law-1 dated 4th December, 2012 and the same was endorsed by Ministry of Water & Power vide memo NO. 5(48)2011-WU dated 10th December, 2012. The Petitioner further submitted that the Chief Auditor PEPCO in letter No. DPS/503- Policy/PAC/7444 dated 17th December, 2012 clarified that the BOD of DISCO's were empowered to write-off.
- 6.11.2 The Authority in its tariff determination for FY 2014-15, after considering the explanation given by the Petitioner, decided that it cannot pass on the burden of inefficiency and wrong billing of the Petitioner to the consumers, and consequently decided in principle to disallow the GoS write off to the Petitioner. At the same time the Petitioner was directed to take up the matter of written off amount to the relevant foras, if it considers it genuine billing. In addition, the Petitioner was directed to reconcile its billing with the GoS on regular / monthly basis to avoid any such errors / events in future.

12/11/17

12/11/17



- 6.11.3 The Petitioner during the hearing of tariff petition for the FY 2015-16, reiterated its earlier stance that the matter has already been decided at higher forum i.e. subcommittee of CCI. However, the Petitioner neither answered concerns of the Authority regarding writing off receivables from the GoS nor provided any response on the issue of monthly reconciliation with GoS, therefore, the Authority in the tariff determination for the FY 2015-16 maintained its earlier decision in the matter and also directed the Petitioner to carryout reconciliation of billing with GoS on monthly basis.
- 6.11.4 Now again during hearing of the instant petition, the Petitioner has reiterated that billing issue for the period July 2010 to July 2016 decided by Economic Coordination Committee (ECC) through decision No. EC-135/23/2016 dated 25.11.2016 and that monthly billing @Rs.513.73 million per month is being made to GoS from 8/2016 and onward till installation of AMI system on all GoS connections. The GoS has made payment of agreed amount of billing for the period 07/2010 to 07/2016 in six equal installments. The Petitioner further mentioned that monthly agreed billing @Rs.513.73 million has also been paid up-to November 2017 and M/s Accurate Pvt. Ltd. has been awarded contract for installation of AMI system on all GoS connections, which will be completed by March 2018.
- 6.11.5 The Authority considers, that monthly billing assessment of the Petitioner would again result in disputes and is very much vulnerable to errors. The Petitioner should be sending bills to the GoS on metered energy rather than fixed billing. As the petitioner has already started installation of AMR meters, hence the Authority directs the Petitioner to complete it as soon as possible and start billing on the metered energy.
- 6.12 To ensure that in future consumer's deposits are not utilized for any other purpose. The Petitioner is also being directed to restrain from unlawful utilization of receipts against deposit works and security deposits, failing which, the proceedings under the relevant law shall be initiated against the Petitioner. The Petitioner is also directed to give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance.
- 6.12.1 The Authority during the tariff determination of the Petitioner for the FY 2015-16, noted that the Petitioner has insufficient cash balance as on 30th June 2015 against its pending liability of receipt against deposit works and consumer security deposits, which indicated that the amount received against the aforementioned heads has been utilized somewhere else and the Petitioner failed to provide details in this regard. The Authority is of the view that the amount collected as security deposit cannot be utilized for any other reason and any profit earned thereon has to be distributed to the consumers. Also, the amount collected under the head of receipt against deposit works has to be spent for the purpose for which it has been collected. The utilization of the money collected against deposit works and security deposits other than the works for

which it has been received is illegal and unlawful. In view thereof, the Petitioner in the tariff determination for the FY 2015-16 was directed to provide rational / justification for improper utilization of the money because the consumers have to suffer unnecessary delay on this account.

6.12.2 The Petitioner during hearing of the instant petition has stated that compliance is being made in respect of the Authority's above mentioned directions. The Authority from the Audited Financial statements of the Petitioner for the FY 2015-16 observed that although the Petitioner's cash/ bank balances as on June 30, 2016 are still insufficient against its pending liability of receipt against deposit works and consumer security deposits, however, by including therein the balance of store & spares as on June 30, 2016, the Petitioner is able to meet its pending liability of receipt against deposit works and consumer security deposits.

6.13 To create the separate post-retirement benefits Fund before 30th June 2016.

6.13.1 The Authority considering the overall liquidity position in the power sector and in order to ensure that the Petitioner fulfils its legal liability with respect to the post-retirement benefits, directed the Petitioner to create a separate fund in this regard before 30th June 2012. Subsequently, this deadline was extended by the Authority. The rationale was that the creation of funds would ensure that the Petitioner records its liability more prudently since the funds would be transferred into a separate legal entity. In addition to that these independent funds would generate their own profits, if kept separate from the company's routine operations and in the longer run reducing the Distribution Margin and eventually consumer-end tariff.

6.13.2 The Petitioner has submitted during hearing of the instant petition that a separate bank account has been opened in December 2016 at NBP and Rs. 100 million has been deposited into bank account. More funds will be deposited in said account in order to meet the responsibility of retirement benefits.

6.13.3 The Authority noted that although the Petitioner has complied with the direction of the Authority to the extent of creation of the separate Post Retirement Fund and has transferred an amount of Rs. 100 million into the fund. However, it is pertinent to mention here that the Authority had been allowing the provision for post-retirement benefits to the Petitioner as a part of its O&M cost till FY 2011-12. It was only from FY 2012-13 that the Authority decided to allow the actual amount on account of pension benefits, due to non-compliance of the Authority's directions. Thus, any post retirement liability pre FY 2012-13, is with the Petitioner. In view thereof, the Authority directs the Petitioner to also transfer the already collected provision into the fund.

6.14 To fulfil all the requirements as provided in the Methodology while filing the next tariff petition failing which the Petitioner's petition will not be entertained.

6.14.1 The Petitioner submitted that the petition for FY 2016-17 & 2017-18, has been filed as per NEPRA's methodology.

6.14.2 The issue has been discussed under the relevant head.

6.15 To share the details of late payment charges recovered from consumers and any invoice raised by CPPA (G) under the head of mark up on delayed payments for the FY 2014-15 and FY 2015-16.

6.15.1 As per the clause 9.3(d) of the Electricity supply agreement dated 29th June, 1998 between DISCOs & NTDC, the XWDISCOs are obliged to pay CPPA (G) late payment charge on delay payments of invoice. The clause 9.3 (d) of the agreement deals with Late Payment charge as below;

"Late Payments by WAPDA or the Company, as the case may be, shall bear mark-up at a rate per annum equal to the Base Rate plus four percent (4%) per annum compounded semi-annually, and shall be computed for the actual number of Days on the basis of three hundred sixty-five (365) Day Year."

6.15.2 In view thereof, the Authority in the tariff determination for FY 2014-15, decided that the late payment charge recovered from the consumers on utility bills shall be offset against the late payment invoices raised by CPPA (G) against respective DISCO only i.e. CPPA (G) cannot book late charge over and above what is calculated as per the relevant clause of the agreement to a respective DISCO only. The Petitioner was, therefore, directed to share the details of late payment charges recovered from consumers and any invoice raised by CPPA (G) under the head of mark up on delayed payments for the FY 2014-15, before filing of the next tariff petition. Any remaining LPC (i.e. after the offset) shall be adjusted from the revenue requirement of FY 2015-16 and in the event of non-submission of evidence of payment to CPPA (G), the entire amount of LPC recovered from consumers shall be made part of other income (*and deducted from revenue requirement*) in the FY 2015-16.

6.15.3 In compliance to the Authority direction the Petitioner during proceedings of tariff petition for the FY 2015-16, mentioned that it recovered Rs.348.37 million on account of LPC during the FY 2014-15, however, nothing was stated regarding invoice raised by CPPA (G) to the Petitioner on account of mark up for the FY 2014-15.

6.15.4 In view thereof, the Authority directed the Petitioner to share details of late payment charges recovered from consumers and invoices raised by CPPA (G) under the head of mark up on delayed payments for the FY 2014-15 and FY 2015-16.

6.15.5 The Petitioner has provided the following details in this regard;

Year	LPS Billed	LPS Recoved	% Recovery
2014-15	1,186.26	348.38	29.37%
2015-16	1,172.51	397.32	33.89%
2016-17	- 720.96	434.28	-60.24%
2017-18 (upto Nov)	654.48	172.90	26.42%

6.15.6 The issue has been discussed under the relevant head.

6.16 **To maintain a proper record of its assets by way of tagging each asset for its proper tracking and to provide explanation on the concerns raised by the Authority in terms of its R&M cost not later than 30th June, 2016 for consideration of the Authority.**

6.16.1 The Authority observed that in the tariff determination of HESCO, for the FY 2015-16, it had directed the Petitioner to maintain a proper record of its assets by way of tagging each asset for its proper tracking. In addition, the Petitioner was also directed to provide an explanation on the concerns raised by the Authority in terms of its R&M cost not later than 30th June, 2016. However, no such explanation has been received from the Petitioner. The Petitioner has provided the following response;

- Physical Verification has done by HESCO's technical field staff in 2016.
- TOR for Tagging & Coding prepared by M/s Sadaruddin Associates in November 2016.
- TOR booklet sent to all Departmental Heads of HESCO for technical vetting.
- TOR booklet presented to Risk Management Committee of BOD, who directed to get comments from field offices being stake holders of Assets.
- Comments have been received from all stake holders in December 2017.
- Review meeting of stake holders will be held in January, 2018.
- The TOR will be finalized in the meeting of Risk Management Committee of BOD.
- After TOR is approved by the BOD, tender will be floated accordingly.

6.16.2 The Authority appreciates the actions taken by the Petitioner, however, the Petitioner

is directed to complete the tagging process of assets not later than September 30, 2018. The Petitioner is also directed to provide an explanation on the concerns raised by the Authority in terms of its R&M cost in the tariff determination for the FY 2015-16 not later than 30th September, 2018.

7. Issue # 2. Whether the Petitioner's projected energy purchases and power purchase cost for the FY 2016-17 & FY 2017-18 is justified?

7.1 The Petitioner has requested energy purchases of 5,359 GWh for the FY 2016-17, based on actual units received during the year, and 5,627 GWh for the FY 2017-18 by assuming a growth of 5% on actual received during the FY 2016-17.

7.2 After incorporation of the requested level of T&D losses i.e. 30.62% for the FY 2015-16 and 26.63% for the FY 2017-18, the sales have been projected as 3,718 GWh and 4,128 GWh for the FY 2016-17 and FY 2017-18 respectively.

7.3 Regarding the Power Purchase (PP) cost, the Petitioner submitted that working of PP cost would be projected and approved by NEPRA based on the information provided by CPPA-G, NTDC & DISCOs with regards to generation plan, T&D losses target and assumptions based on fuel prices, dollar devaluation and local & international CPI etc. The Petitioner further submitted that cost of purchased electricity would be "passed through" to consumers through retail tariff, without affecting HESCO's distribution margin, thus, any subsequent increase / decrease in the PPP determined by NEPRA is adjustable on monthly or quarterly basis as proposed in the petition.

7.4 The Petitioner provided the following detail in this regard;

Description	Unit	FY 2015-16	FY 2016-17	FY 2017-18
Units Purchased	[GWh]	5,046	5,359	5,627
Energy Charges	Rs. in [M]	23,735	28,196	28,842
Capacity Charges	Rs. in [M]	15,192	22,356	23,884
UOSC	Rs. in [M]	1,551	2,022	2,243
Market Operation Fee	Rs. in [M]	-	-	25
Total	Rs. in [M]	40,478	52,574	54,995
PPP	[Rs./Kwh]	8.02	9.80	9.77

- 7.5 The NEPRA determination of Consumer-end-Tariff (Methodology & Process) Guidelines, 2015, (herein referred to as "The Methodology") prescribes the submission of generation plan by NTDC and procurement plan by CPPA (G) and its approval by the Authority prior to the filing of the tariff petition by the XWDISCOs. Since both NTDC and CPPA (G) did not submit the generation and the procurement plans, the Authority in order to avoid any delays in the determination of XWDISCOs tariff petitions for FY 2016-17 and onward, considered the power purchases and their corresponding cost as projected by the Petitioner, along with the instant tariff petitions.
- 7.6 Although, there is an inbuilt mechanism for adjusting actual variation in sales against the estimated sales, yet in order to avoid unnecessary fluctuations in the consumer-end tariff it is appropriate to make realistic assessment of the purchases and sales. Moreover, it is also important to have a realistic assessment of the monthly references of fuel cost for making monthly fuel cost adjustment pursuant to Section 31(7) of Regulation of Generation, Transmission and Distribution Act (XL 1997).
- 7.7 Since, the instant tariff determination is being issued for the FY 2016-17 and FY 2017-18, therefore, for the purpose of determining revenue requirement actual generation cost has been considered for the FY 2016-17. As regard FY 2017-18, adjustment for variation in fuel cost up to May 2018 has already been provided through monthly FCA decisions and other adjustments up to December 2017 have been included in the instant determination. For the remaining period of FY 2017-18 i.e. January to June 2018, the variations on the basis of actual PPP against the reference PPP that remain notified during this period, XWDISCOs would file their adjustment requests which will be decided by the Authority, in accordance with the notified mechanism.

For the purpose of adjustments for variation in PPP in the FY 2018-19, the Authority decided to revise the PPP references in order to ensure minimum variation between the actual vis a vis projected costs. In view thereof, the Authority has carried out a detailed exercise for estimating station wise generation pertaining to the FY 2018-19. As per the analysis, an increase of around 22.77% has been projected in the generation for FY 2018-19, over the actual generation made during the FY 2016-17. Here it is pertinent to mention that the actual generation for the FY 2016-17 was 5.87% more than actual generation for the FY 2015-16. However, keeping in view the GoP initiatives to eliminate load shedding from the Country, whereby, number of generation projects have been started, the Authority is of the view that projected growth of 22.77% in generation is achievable during the FY 2018-19. Accordingly, after incorporating all the expected upcoming additional generation, it is estimated that the overall system generation will be around 131,436 GWh, and after adjusting for the NTDC's permissible transmission losses, about 128,397 GWh is expected to be delivered to the distribution companies; the estimated share for the Petitioner from the pool for the FY 2017-18, is accordingly assessed as 5,958 GWh for the FY 2017-18, as against 5,627 GWh projected by it. After incorporating the T&D losses target for the FY 2017-18 i.e. 22.59% (discussed below), the sales target in the instant case for the same period works out as 4,612 GWhs.

[Handwritten signature]

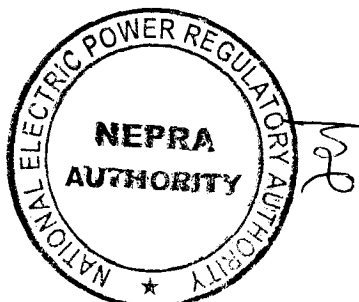
7.8 Similarly, to make a fair assessment of the Power Purchase Price (PPP), the Authority also carried out an in-house evaluation. As per the existing mechanism all the power generated from different sources is procured by the Central Power Purchasing Agency (CPPA-G) on behalf of DISCOs at the rates as per their Power Purchase Agreements (PPAs) and as per the Authority's determination. 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 the Official Gazette. Accordingly, the Power Purchase Price has been projected, which in turn formulates the reference values for the monthly fuel adjustments & quarterly/ biannual PPP adjustment with respect to T&D losses, Capacity and Transmission Charges. Here it is pertinent to mention that while making the quarterly/ biannual adjustments of the PPP, the Authority may rationalize the SoT accordingly.

7.9 From the available sources i.e. Hydel, Gas, RLNG, RFO, Nuclear, Coal, Solar, Wind, Bagasse and Imports etc. a gross generation of 131,436 GWh power has been projected during the FY 2018-19. The estimated/projected source-wise generation and cost of electricity is given in the following table:

Fuel Type	Gen.	Share	Cost	Share	Rate
	MkWh	%	Mln. Rs.	%	Rs./kWh
Hydel	43,314	32.95%	4,214	1%	0.10
Coal	18,589	14.14%	103,562	21%	5.57
HSD	161	0.12%	2,400	0%	14.90
F.O.	2,721	2.07%	40,853	8%	15.01
Gas	22,088	16.80%	93,647	19%	4.24
Nuclear	8,913	6.78%	8,950	2%	1.00
Mixed	271	0.21%	2,763	1%	10.18
Import from Iran	496	0.38%	5,237	1%	10.55
Wind Power	3,234	2.46%	641	0%	0.20
Bagasse	3,517	2.68%	23,465	5%	6.67
Solar	701	0.53%	-	0%	-
RLNG	27,430	20.87%	198,491	41%	7.24
Total	131,436	100%	484,224	100%	3.68
Energy Charges [Net of NTDC Losses]	128,397		484,224		3.77
Cap. Charge [Rs. /kWh]			664,374		5.17
UOSC/MoF [Rs. /kWh]			41,282		0.32
Total Cost [Rs. /kWh]			1,189,880		9.27

7.10 Here it is pertinent to mention that the aforementioned energy charge includes variable O&M charges, however, as per the tariff methodology, variable O&M charges

- are not made part of monthly fuel charges adjustment and are adjusted as part of quarterly / biannual adjustments. As per the above table, around 21% of total generation is expected from RLNG, with around 41% share in the overall energy cost. Similarly, Generation from indigenous gas is expected around 17% with a cost share of around 19%. Coal is expected to generate around 14.14% of total energy, however, its share in the overall energy cost is expected to be around 21%. Meaning thereby that variation in generation mix and prices of RLNG/ Gas & Coal would have greater impact on the generation cost, thus, ultimately affecting the consumer-end tariff. Here it is pertinent to mention that with this increased generation from RLNG, Coal and Nuclear, the share of RFO in total generation and consequently in the overall cost has been limited to only 2% and 8% respectively.
- 7.11 Regarding projection of fuel prices, the Authority noted that RLNG prices in Pakistan are not only affected by the international market being linked with prices of crude but also by the exchange rate parity. Accordingly, keeping in view the prevailing prices of RLNG as notified by OGRA, crude oil prices projections and the rupee devaluation, RLNG prices have been projected as Rs.1,367/mmbtu. For indigenous gas, the existing price of Rs.500/mmbtu (including GIDC of Rs.100/mmbtu) as notified by OGRA have been considered.
- 7.12 Regarding price of coal, the Authority analysed the projections made by Argus consulting, World Bank and IMF reports, whereby a downward trend in coal prices has been projected for future periods. However, owing to the devaluation of Pak rupee, the Authority considers coal price of Rs.13,884/MT, on delivered basis, as reasonable.
- 7.13 The actual prices of RFO during the FY 2015-16 remained at around 39,462 per metric ton [excluding Sales Tax and including freight] as against the Authority's projections of around Rs.47,981 [excluding Sales Tax and including freight] for the same period. Similarly for the FY 2017-18, till March 2018, the actual RFO prices remained at around Rs.46,431 per ton [excluding Sales Tax and including freight]. However, due to non-notification of the Authority's determined tariff for the FY 2015-16, the fuel references of RFO determined for the FY 2014-15 i.e. 65,769 per metric ton [excluding Sales Tax and including freight] remained applicable during the FY 2015-16, FY 2016-17 and FY 2017-18 (till March 2018) resulting in higher monthly fuel charges adjustments during these period.
- 7.14 The RFO prices in Pakistan are not only affected by the international market but also by the exchange rate parity. Based on the international market condition/ projections



Handwritten signature and initials

and keeping in view the increasing trend of RFO prices, it can be presumed that RFO prices would increase in future. Consequently, RFO prices have been assumed on an average of Rs. 64,892 per metric ton [excluding Sales Tax and including freight] after incorporating the possible determinants of RFO prices. The HSD prices are being assumed on an average of Rs. 68.23 per litre [excluding Sales Tax], keeping in view the increasing trend of HSD price and recent devaluation of Pak Rupee.

- 7.15 The generation cost is transferred to the DISCOs according to the Transfer Price Mechanism (TPM) as prescribed by the Authority. Energy transfer charge shall be calculated on the basis of units delivered after adjusting target transmission losses up to a maximum of 2.60% based on 500kV and 220 KV level only. NTDC shall, for the purpose of clarity intimate to all DISCOs the generation part of the Transfer Charge during a billing period by deducting from the Transfer Charge the Transmission Charge or Use of System Charges.
- 7.16 According to the above mechanism Rs.38,702 million and Rs.2,408 million is the share of the Petitioner on account of CpGenCap and USCF & Market Operator Fee respectively for the FY 2017-18. The overall fixed charges comprising of CpGenCap and USCF & MoF in the instant case works out as Rs.41,110 million, which translate into Rs.2,323/kW/month on projected average monthly MDI of the Petitioner i.e. 1,475 MW or Rs.6.90/kWh on Units Purchased basis.
- 7.17 The annual PPP for the FY 2017-18 in the instant case works out as Rs.63,500 million. With the projected purchase of 5,958 GWh for the same period, the average PPP of the Petitioner turns out to be as Rs.10.66/ kWh (Annex – IV), whereas, the national average determined PPP works out as Rs.9.27/kWh after accounting for the allowed level of NTDC losses. On the basis of allowed level of T&D losses of 22.59% for the FY 2017-18, the adjusted PPP of the Petitioner is assessed as Rs. 13.77/kWh.
8. **Issue # 3. Whether the requested T & D losses target of 30.62% & 26.63% for the FY 2016-17 & FY 2017-18 respectively is reasonable?**
- 8.1 The Petitioner has requested a T&D losses target of 30.62% for the FY 2016-17 and 26.63% for the FY 2017-18 with the following break-up / comparison;

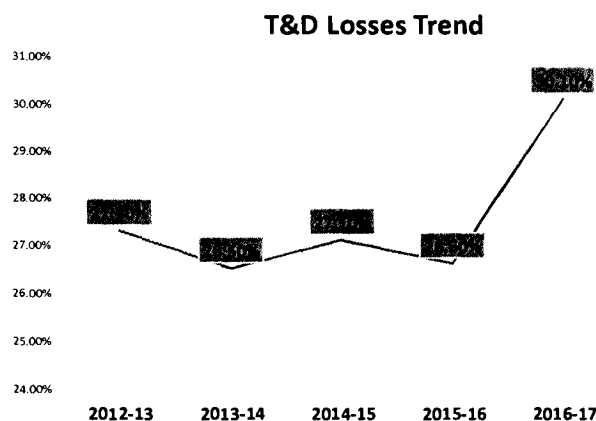
Year	Transmission Loss %	Distribution Loss%	T&D Losses %
Actual 2015-16	3.16	23.13	26.29
Provisional 2016-17	3.80	26.82	30.62

Target 2017-18	3.50	23.13	26.63
----------------	------	-------	-------

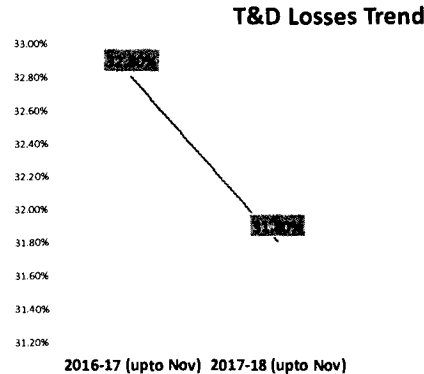
8.2 The Petitioner in support of high T&D losses target submitted the following justification;

- i) Worst law & order situation does not permit frequent movement of HESCO staff in their jurisdiction and attacks on employees / offices are common.
- ii) Massive theft of electricity & non-payment culture are the main problems of HESCO. Law enforcing agencies are not extending cooperation for providing security to staff and lodging of FIRs against stealers of electricity. Out of 3,386 referred cases of electricity theft only 120 no. FIRs have so far been lodged from Jul-2012 to June-2016.
- iii) Majority of Villages / Town / Colonies are the defaulters of HESCO, and in case of disconnection of electricity, the defaulters block highways/roads to create hurdles.
- iv) Out of total 3,350.41 km Transmission line, 898.62 km is of 66 KV i.e. 27%. The transmission system is old and deteriorated, which causes high losses.
- v) Out of 475 feeders, 268 (56%) supplying electricity to Rural areas.
- vi) Due to worst Law & Order situation customers stealing electricity through Kundas / Hooking in negated LT lines.
- vii) Even ABC (Aerial Bundled Conductor) installed in Hyderabad City has been damaged by stealers for direct hooking / Kundas.

8.3 The Petitioner during hearing presented the following historical trend of its actual T&D losses from the FY 2012-13 to FY 2016-17;



- 8.4 Further during hearing, the Petitioner presented a graph on the basis of progressive losses for the first five month of the FY 2017-18 vis-a-vis FY 2016-17, showing an improvement of 1%;



- 8.5 The Petitioner while justifying increase in losses in FY 2016-17 as compared to FY 2015-16 submitted that due to reduction in Government billing by 145.2 GWh (from 713.6 GWh to 568.9 GWh) and if this difference is added in the total units billed, the T&D loss would be around 28.1%, which is 1.5% higher than the FY 2015-16. The Petitioner attributed this increase of 1.5% to the accuracy of private billing due to mobile meter reading.
- 8.6 The Petitioner also highlighted actions taken for reduction of administrative losses as under;
- Improved accuracy of mobile meter reading from 34.5% of June-2016 to 99.2% upto Dec-2017 (Batch 01-12) which ensured correct billing to consumers.
 - Rs.1,326.6 million have been recovered from stealers of electricity during Anti-theft campaign launched by Operation Staff, M&T & S&I during Jul-Nov 2017.
 - 2.41 million pending units have been detected during testing of replaced meters in M&T Lab (Retrieval) during Jul-Nov 2017.
 - Requested Chief Secretary Sindh for allowing dedicated Police Station for HESCO and D.G Rangers Sindh for cooperation.
 - Strict disciplinary action taken against the delinquent staff (03 SDOs and 10 officials)
 - Physical checking of 167,443 same to same connections and 221,305 disconnected connections started.
 - 70,986 defective meters replaced during Jul-Nov 2017.

viii) 35,728 meters already installed against unmetered connections.

8.7 The Petitioner further stated during the hearing that it has completed its Third Party T&D loss study and the same has been submitted to NEPRA. In its post hearing submission, the petitioner, provided the third Party Transmission loss study vide letter No.CEO/HESCO/CE(P&E)/DM(T&G)/303-05 dated February 2, 2018. The overview of T&D losses study is given below:

- Study Directions from: NEPRA
- TORs Approved by: NEPRA
- Study Year: 2012-13
- Study Conducted By: Power Planner International
- Scope of Work: 0.4Kv 11Kv, 66Kv, 132Kv, Transformers
- Agreement Signed: 27th May 2013
- Software Used: PSS/E and SynerGEE

T&D losses results by PPI:

DESCRIPTION		% Losses
Annual Energy Loss in the HT Network including lines and Distribution Transformers	A	9.745%
Average Energy Loss in the LT Network	B	4.453%
Average Energy Loss in Cables	C	0.84%
Average Annual Energy Loss of HESCO Distribution Network	D=A+B+C	15.038%
Analytically Evaluated T&T Losses (Report submitted on T&T Losses)	E	3.418%
Total Analytically Evaluated Technical T&D Losses	F=D+E	18.456%
Total Recorded T&D Losses of HESCO for 2012-13	G	27.30%
Total Analytically Evaluated Technical T&D for 2012-13 Losses	F	18.456%
Administrative / Commercial Losses at company level for 2012-13	H=G-F	8.844%

8.8 However, there were few reservations made by the petitioner on Third Party losses study which are mentioned below;

- Degradation of reclaimed transformer efficiency is to be taken as 15% instead of 10%.
- Effect of coastal areas on the conductor did not considered, although, the test results of sample conductors by Mehran University Jamshoro were endorsed by consultant.
- The individual components of the losses evaluated by consultant as per D&S standard specification, whereas ground realities are different from the standards.

8.9 The petitioner in this regard submitted its coastal area profile as under;

Detail	Unit	HESCO Total	Coastal Area	% of Total
Area	Sq.km	77,134	12,714	16
Consumers	Nos.	1,062,191	57,290	5.3
Grid Stations	Nos.	75	9	12
11 KV Feeders	Nos.	480	28	5.8
Length of 11KV Feeders	Km	28,100	3,835	13.6

8.10 The petitioner also during the hearing, shared summary of its line losses as stated below;

Particulars		2015-16	2016-17	2017-18
		Actual	Actual	Projected
Units Received	GWh	5,046.69	5,359.29	5,626.82
Units Sold	GWh	3,720.10	3,718.30	4,128.42
Units Lost	GWh	1,326.59	1,640.99	1,498.40
Units Lost	%	26.29%	30.62%	26.63%
Technical Losses	%	17.75%	19.21%	18.86%
Administrative losses	%	8.54%	11.41%	7.77%

Technical losses at different Voltage levels				
Transmission Losses	[%age]	3.16%	3.80%	3.50%
132kV				
11 kV Losses	[%age]	9.02%	10.19%	10.17%



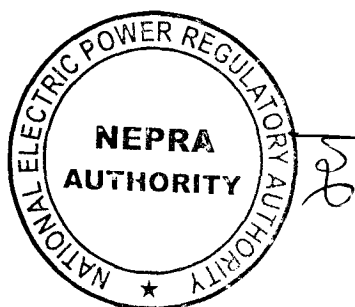
LT Losses	[%age]	5.57%	5.22%	5.19%
Total Technical Losses	[%age]	17.75%	19.21%	18.86%

8.11 The Authority observed that at the time of assessing the T&D losses for the FY 2015-16, no third party transmission losses study was submitted, and only distribution losses study conducted by PPI was provided to the Authority. Accordingly, for the FY 2015-16, the Authority, allowed 2.05% Transmission losses based on its own assessment and for the distribution losses, accepted the third party study on provisional basis and accordingly allowed 15.04% distribution losses on the basis of third party study. Further, a margin of 5.5% on account of Law and Order situation was also allowed to the Petitioner; Consequently the Petitioner was allowed T&D losses of 22.59% for the FY 2015-16 as mentioned hereunder;

a)	T&T Losses	=	2.05% (based on NEPRA's assessment)
b)	11 kV Feeder Losses including Distribution Transformers Losses	=	9.745%
c)	LT Line Losses including Service Cable Losses	=	5.293%
d)	Margin for Law and Order	=	5.50%
	Total	=	22.588%

8.12 The Authority noted that HESCO in its instant tariff petition requested 30.62% T&D Losses (3.80% Transmission Losses and 26.82% Distribution Losses) for FY 2016-17 and 26.63% T&D losses (3.50% Transmission Losses and 23.13% Distribution Losses) for FY 2017-18. During hearing, the Petitioner also provided segregated losses results of Third Party study which comprises of 3.418% Transmission Losses, 9.745% losses of 11 kV Network, 5.293% losses of LT networks and 8.844% Administrative losses.

8.13 The Authority observed that although the Petitioner has submitted its third party assessed transmission network losses of 3.42%, however, the Authority is currently reviewing the T&T losses and Distribution losses study submitted by the Petitioner. Once the Authority completes its review and arrives at a decision, the same would be considered applicable for future assessment of the Authority. Accordingly, for the assessment of T&D losses for the FY 2016-17 and FY 2017-18, the Authority has decided not to change its earlier assessment of the Petitioner's T&D losses made for the FY 2015-16. Thus, for the FY 2016-17 and FY 2017-18, the Petitioner is allowed the same level of T&D losses i.e. 22.59%, on provisional basis for the FY 2016-17 and FY 2017-18, as detailed hereunder, till scrutiny of the third party reports are completed;



Handwritten signature



8.14 The Authority considering T&D losses being of critical importance, directs HESCO to target its high loss feeders to bring the overall losses down. A detailed plan be prepared in this regard and submitted to the Authority for monitoring the progress of the Petitioner in this respect. It is further clarified that the Authority determines overall level of T&D losses, which is based on overall Transmission and Distribution network.

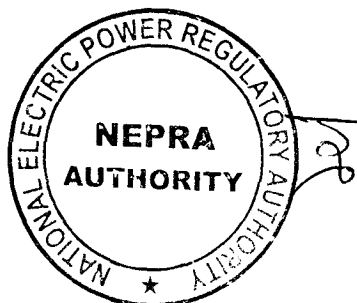
9. **Issue # 4. Whether the projected Distribution Margin (excluding Return on Regulatory Asset base) for the FY 2016-17 and FY 2017-18 is justified?**

9.1 The Petitioner has requested average net distribution margin of Rs.23,572 million i.e. Rs.6.34/kWh for the FY 2016-17 based on its actual/un-audited results for the FY 2016-17 and Rs.16,471 million i.e. Rs. 3.99/kWh for the FY 2017-18 as compared to the Authority's allowed distribution margin of Rs.8,091 million for the FY 2015-16.

9.2 The Petitioner provided category wise break up of its requested distribution margin as under;

Description	FY 2016-17	FY 2017-18
RoRB @ 11.83%	2,167	2,534
O&M	9,151	10,726
Prime Minister's assistance package to families of employees who died in service	-	758
Depreciation	1,329	1,443
Provision for bad debts	10,955	692
Advance Tax	341	883
Other Income	(381)	(565)
Total (Rs. in Million)	23,562	16,471
Sales Volume (GWh)	3,718	4,128
Distribution Margin (Rs./kWh)	6.34	3.99

9.3 However, later on during hearing, the Petitioner revised its distribution margin to Rs.17,723 million and Rs.15,527 million for the FY 2016-17 and FY 2017-18 respectively as detailed hereunder;



Description	NEPRA Determined FY 2015-16	Proposed FY 2016-17	Proposed FY 2017-18	(Inc)/ Dec.	% Age
1	2	3	4	5=(3-4)	6=(5/3)
O&M Cost	6,417	8,558	10,540	-1,982	23
Depreciation	1,235	1,376	1,443	-67	5
RoRB	1,761	2,167	2,534	-367	17
Provision Bad debts	-	7,051	692	6,359	90
Advance Tax	0	341	883	-542	159
Less Other Income	-1,323	1,771	565	1,206	68
Total	8,091	17,722	15,527	2,196	12

9.4 O&M Cost

9.4.1 The Petitioner requested O&M expenditure of Rs.9,151 million & Rs.11,484 million (including PM assistance package) for FY 2016-17 & FY 2017-18 respectively in the petition, however, during hearing the Petitioner revised the requested figures to Rs.8,558 million & Rs.10,540 million for FY 2016-17 & FY 2017-18 respectively, as per the following break-up;

Description	Rs. In million			
	Requested in Petition		Revised during the hearing	
	FY 2016-17 Expenditure) (Un-audited)	FY 2017-18 Projected	FY 2016-17 Expenditure) (Un-audited)	FY 2017-18 Projected
Salaries & Other benefits	7,726	8,745	7,304	7,802
Maintenance Expenses	690	1,080	693	1,080
T.A Expenses	278	300	232	300
Vehicle Expenses	221	261	110	261
Other Expenses	237	339	220	339
P.M Assistance Package	-	758	-	758
Total	9,151	11,484	8,558	10,540

9.4.2 The amount requested under the O&M head has been discussed in detail as below;

9.5 Pay and Allowances:

9.5.1 The Petitioner has requested Pay & Allowances for the FY 2016-17 based on its actual expenditure for the FY 2016-17 as per the Audited accounts, whereas, for the FY 2017-18, the Petitioner has incorporated GoP's budget announcement regarding revised pay

scales, 10% increase in salary and other benefit, impact of annual increment and financial impact of new recruitment (only in FY 2017-18). Accordingly, the Petitioner requested Rs.7,304 million & Rs.8,560 million for the FY 2016-17 & FY 2017-18 respectively. Following is the break-up of the requested figures;

Description	Expenditure FY 2015-16 (Audited)	Requested in Petition		Requested in Hearing	
		Expenditure FY 2016-17 (Un-Audited)	Proposed FY 2017-18	Expenditure FY 2016-17 (Un-Audited)	Proposed FY 2017-18
Salary & Other Benefits	3,903	4,230	4,900	4,203	4,900
Post-retirement Benefits	2,833	3,496	3,846	3,101	3,203
P.M Assistance Package	-	-	758	-	758
Total	6,736	7,726	9,504	7,304	8,560

9.5.2 The Authority, from the aforementioned break-up discussed that sum of figures proposed by the Petitioner under the head of Pay & Allowances for the FY 2017-18 works out as Rs. 8,861 million instead of Rs.8,560 million mentioned by the Petitioner.

9.5.3 The Petitioner during hearing also provided the following detailed break-up of its projected Salaries & other benefits amount for the FY 2017-18;

	<u>Rs. in Million</u>
Basic Pay of Regular Employees (2016-17)	1,991
Adhoc 2010 @ 50%	306
Annual Increment wef Dec to Jun (7 months)	80
Revised Basic Pay (2017-18)	2,377
10% Adhc. Allow. 2017 Jul to Nov. (5 Months)	96
10% Adhc. Allow. 2017 Dec. to Jun. (7 Months)	142
Other Allowance 2017	878
Total Salaries & Allowances	3,493
Other Benefits (Excluding Post Retirement Benefits)	970
Total Salaries & Other Benefits	4,463

9.5.4 After incorporating therein the remaining heads, the Petitioner presented the following working with respect to Salaries & Other benefits;

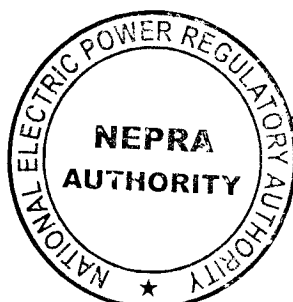
H *Mudti*



	Rs. In million		
	Expenditure FY 2016-17	Proposed FY 2017-18	Variance
Salaries & Other Benefits	4,108	4,464	(356)
Wages of Contract Labour (7.5% of LYE)	24	26	(2)
Daily Wages Labour (5% of LYE)	71	74	(4)
New Recruitment	0	187	(187)
Up-Gradation	0	148	(148)
Total Salaries & Other Benefits (Excluding Post Retirement Benefits)	4,203	4,900	(697)
Post Retirement Benefits			
Pension Fund	2,451	2,598	(680)
Post Retirement Electricity Expenses	239	233	(24)
Post Retirement Medical Expenses	201	160	(20)
Exp. Leave Encashment	210	212	(21)
Total Post Retirement Benefits	3,101	3,203	(102)
Total Salaries & other Benefits	7,304	8,103	(799)

9.5.5 Regarding recruitment cost of Rs.187 million, the Petitioner provided the following details;

Sr.#	Name of Post	BPS #	No. of Post Filled	Initial Basic Pay	House Rent	Med. Allow.	Conv. Allow.	Adhoc-2016 10% of Pay Scale-2016	Adhoc-2017 10% of Pay Scale-2017	Total Estimated (Rs./Month)	Financial Impact (Rs./Month)	7 Months Impact (Rs./Month)
1	Executive Engineer	18	2	38,350	5,810		5,000	3,189	3,835	56,184	112,367	786,569
2	a-Assistant Director (Customer) b-Assistant Manager (Accounts) c-Assistant Manager (Comp.) d-Revenue Officer e-SDO/Junior Engineer	17	25	30,370	4,433		5,000	2,544	3,037	45,384	1,134,588	7,942,113
3	Mukhtarkar	16	5	18,910	2,727		5,000	1,588	1,891	30,116	150,580	1,054,060
4	a-Data Coder b-Data Entry Operator c-Line Superintendents-I d-Meter Supervisor-I e-SSO-I f-Test Inspector g-Accounts Assistant h-Assistant Head Clerk i-Commercial Assistant j-Line Superintendents-II k-SSO-II	15	144	16,120	2,349	1,500	2,856	1,351	1,612	25,788	3,713,472	25,994,304
5	c-Steno Grapher-II d-Sub-Engineer (Civil) e-Test Assistant	14	25	15,180	2,214	1,500	2,856	1,272	1,518	24,540	613,500	4,294,500
6	ADM	12	3	13,320	1,960	1,500	2,856	1,114	1,332	22,082	66,245	463,717
7	UDC/ Sr. Clerk	11	16	12,570	1,852	1,500	2,856	1,051	1,257	21,086	337,372	2,361,604
8	a-Fker-I b-LDC/TCC c-SSA	9	277	11,770	1,719	1,500	1,932	986	1,177	19,084	5,286,268	37,003,876
10	Fker-II Gate Clerk LDC Accounts, Audit & RO, Telephone Operator Tracer Welder ASSA ALM BD	7	659	10,990	1,589	1,500	1,932	922	1,099	18,032	11,882,759	83,179,310
11	Fork Lifter Security Guard Vehicle Driver Carpenter Electric Helper Helper Junior Mechanic Mason Plumber Pump Operator	6	43	10,620	1,544	1,500	1,932	890	1,062	17,548	754,543	5,281,798
12	Cook	4	2	9,900	1,458	1,500	1,785	828	990	16,461	32,922	230,454
14	Store Helper Bearer	3	1	9,610	1,413	1,500	1,785	804	961	16,073	16,073	112,511
15	Dafin Lent Cleaner Chokidar	2	7	9,310	1,366	1,500	1,785	779	931	15,671	109,695	767,867
16	Mali N/O S/W	1	142	9,130	1,337	1,500	1,785	764	913	15,429	2,190,847	15,335,929
			1,372							360,555	26,759,910	187,319,370



[Handwritten Signature]

Kruti

9.6 Prime Minister assistance Package for families of employees who die in service:

9.6.1 The Petitioner regarding Prime Minister assistance Package stated that Government of Pakistan announced the package to the families of employees who died in service vide Cabinet Secretariat O.M No.8/10/2013-E-2(Pt.) dated 4th December 2015 and the same has been approved by PEPCO vide O.M Ref.# GM(HR)/HRD/A-332-4050-75 dated 4-11-2016 with effect from 9th February 2015. The financial implication of this package has been calculated from effective date to October 2017 on actual basis i.e. for 157 employees, which works out as Rs.758.6 million. Further, the Petitioner submitted that requested figure of Rs. 758.6 million does not include accommodation, education, marriage grant, health & welfare fund, which will be calculated as and when claimed by the family of deceased employees. The Petitioner provided the BPS wise breakup of the requested amount as given below;

BPS #	No. of Employees Died	Lump sum grant		Allotment of Plot		TOTAL (Rs.in Million)
		Rate	Total Amount	Rate	Total Amount	
19	2	2.4	4.8	7	14	18.8
18	2	2.4	4.8	7	14	18.8
17	5	1.5	7.5	7	35	42.5
16	7	1.5	10.5	5	35	45.5
15	6	1.2	7.2	5	30	37.2
14	16	1.2	19.2	5	80	99.2
13	4	1.2	4.8	5	20	24.8
12	1	1.2	1.2	5	5	6.2
11	13	1.2	15.6	5	65	80.6
9	32	0.9	28.8	5	160	188.8
8	1	0.9	0.9	2	2	2.9
7	30	0.9	27	2	60	87
6	11	0.9	9.9	2	22	31.9
5	14	0.9	12.6	2	28	40.6
4	1	0.6	0.6	2	2	2.6
3	7	0.6	4.2	2	14	18.2
2	1	0.6	0.6	2	2	2.6
1	4	0.6	2.4	2	8	10.4
Total	157		162.6		596	758.6

9.6.2 Considering the fact FY 2016-17, has already lapsed, the Authority has decided to consider the actual cost incurred by the Petitioner during the FY 2016-17 in this

regard. The Authority observed that as per the Audited financial statements provided by the Petitioner for the FY 2016-17, its actual expenditure under Salaries, Wages and other benefits (excluding postretirement benefits) is around Rs.4,202 million, which is the same as requested by the Petitioner. The actual cost also includes incentives/ award (bonus) of Rs.228.63 million paid to the employees during the FY 2016-17. Accordingly, for the FY 2016-17, the Petitioner is allowed an amount of Rs.3,974 million for Salaries, Wages & other Benefits, excluding the amount of postretirement benefits and the amount of incentives/ award (bonus).

- 9.6.3 Regarding incentives/ award (bonus) paid to employees, it is pertinent to mention that the Authority disallowed the amount of bonus in the tariff determination of the Petitioner for the FY 2015-16, on the grounds that if it is performance bonus, such incentives may be paid by the Petitioner out of its own profits to the employees. However, as regard the annual bonus is considered.
- 9.6.4 Although, the Authority has disallowed the amount paid as bonus to the employees for the FY 2015-16 but now it has decided to consider the payment of annual bonus to employees, being a common practice in the corporate world, as an expense for the FY 2016-17 and FY 2017-18. Here it is pertinent to mention that the Authority has disallowed the bonus on the ground that if it is a performance bonus, not as regular annualized cost than such incentive must be paid through Petitioner's own profit.
- 9.6.5 Accordingly, the Authority has decided to allow the amount of Bonus of Rs.228.63 million, actually paid by the Petitioner during the FY 2016-17, as part of the salaries, wages and other benefits cost for the FY 2016-17. Thus, Petitioner has been allowed an overall amount of Rs.4,202 million under the head of Salaries Wages & Other Benefits (*excluding postretirement benefits, discussed below*) but including amount of incentives/ award for the FY 2016-17.
- 9.6.6 Regarding assessment of Salaries, Wages & other benefits (*excluding post-retirement benefits, discussed below*), for the FY 2017-18, the Authority has taken into account the impact of GOP's recent announcement of 10% increase as ad-hoc allowance, 5% annual increment and merging ad-hoc relief of 2010 in running basic pay as per GOP notification. For the remaining heads, change in CPI-General of 5.02% has been assumed. By incorporating the aforementioned increases on the Petitioner actual expenses for the FY 2016-17 (excluding the impact of replacement hiring), the Pay & Allowances & other benefits of the Petitioner for the FY 2017-18 works out as Rs.4,667 million. The same is hereby allowed under the head of Pay & Allowances & other benefits (*excluding post-retirement benefits*) for the FY 2017-18.

- 9.6.7 On the issue of new hiring cost of Rs.187 million requested for the FY 2017-18, the Petitioner although has provided details in terms of number of employees to be hired and their cadre, however, has not quantified the prospective benefits of these additional recruitments. Therefore, the Authority considers that it would not be in the interest of the consumers to upfront allow the requested amount of Rs.187 million for the new hiring. The Authority understands that it will be in a position to adjudicate on the issue once the Petitioner provides details of the actual cost incurred in this regard and substantiates the same with the quantified benefits achieved.
- 9.6.8 Regarding the Prime Minister's assistance Package for the families of deceased employees, the Authority observed that the Petitioner has provided Scale wise detail of 157 employees which are to be paid and the amount of Rs.758.6 million, as per the Petitioner, has also been approved by its Board of Director vide O.M Ref.# GM(HR)/HRD/A-332-4050-75 dated 4-11-2016. Accordingly, the Authority has decided to allow the aforementioned amount of Rs.758.6 million to the Petitioner for the Prime Minister's assistance Package to the families of deceased employees, subject to its actualization once the Audited account of the Petitioner for the FY 2017-18 is received by the Authority.

9.7 Postretirement Benefits

- 9.7.1 The Petitioner initially requested Rs.3,496 and Rs.3,846 million in its petition under the head postretirement benefits, however, later on during hearing the figures were revised by the Petitioner to Rs.3,101 million and Rs.3,203 million for the FY 2016-17 and FY 2017-18 respectively.
- 9.7.2 The Authority considering the overall liquidity position in the power sector and in order to ensure that the Petitioner fulfils its legal liability with respect to the post-retirement benefits, directed the Petitioner to create a separate fund in this regard before 30th June 2012. Subsequently, this deadline was extended by the Authority. The rationale was that the creation of funds would ensure that the Petitioner records its liability more prudently since the funds would be transferred into a separate legal entity. In addition to that these independent funds would generate their own profits, if kept separate from the company's routine operations and in the longer run reducing the Distribution Margin and eventually consumer-end tariff.
- 9.7.3 The Petitioner submitted that it has created a separate post retirement fund and transferred an amount of Rs.100 million in the fund and more funds will be deposited in the said account in order to meet the responsibility of retirement benefits.
- 9.7.4 The Authority noted that although the Petitioner complied with the direction of the Authority to the extent of creation of the separate Post Retirement Fund and has transferred an amount of Rs. 100 million into the fund. However, it is pertinent to mention here that the Authority had been allowing the provision for post-retirement

benefits to the Petitioner as a part of its O&M cost till FY 2011-12. It was only from FY 2012-13 that the Authority decided to allow the actual amount on account of pension benefits, due to non-compliance of the Authority's directions. Thus, any post retirement liability pre FY 2012-13 period, is with the Petitioner. In view thereof, the Authority directs the Petitioner to transfer the already collected provision into the fund.

- 9.7.5 The Petitioner needs to provide break-up of the said postretirement benefits indicating the provision amount pertaining to the prior period and the current portion.
- 9.7.6 Accordingly, for the purpose of assessment of postretirement benefits pertaining to the FY 2016-17, the Authority has decided to allow only actual payments of post-retirement benefits made during the year, which as per the Petitioner's audited financial statements works out as Rs.1,230 million, including the impact of retired WAPDA employees before 1998. The same is hereby allowed.
- 9.7.7 For assessment of postretirement benefits for the FY 2017-18, the Authority has decided to allow it on the basis of actual payments made by the Petitioner during the FY 2016-17, and by allowing thereon the impact of GoP increases for the FY 2017-18. Accordingly, an amount of Rs.1,353 million has been assessed which is hereby allowed to the Petitioner for the FY 2017-18, on account of postretirement benefits including the impact of payments for the Ex- WAPDA employees retired before 1998.

9.8 Repair and Maintenance:

- 9.8.1 The Petitioner initially in the petition requested an amount of Rs. 690 million & Rs. 1,080 million for the FY 2016-17 & for the FY 2017-18 respectively, against the Authority's allowed amount of Rs. 950 million for the FY 2015-16. The Petitioner, however, during hearing of the instant petition, revised the requested figure for the FY 2016-17 from Rs. 690 million to Rs. 693 million as mentioned hereunder;

		Rs. In million			
		Requested in Petition		Requested in Hearing	
FY 2015-16 Expenditure Audited	Allowed FY 2015-16	FY 2016-17 (Un-Audited)	FY 2017-18 Projected	FY 2016-17	FY 2017-18
680	950	690	1,080	693	1,080

- 9.8.2 The Petitioner submitted following justification regarding the repair & maintenance cost;

- Replacement of Distribution Transformers, on account of over loading
- Replacement of distribution lines due to rust and being old lines

Handwritten signature

- Repair & maintenance of grid stations, offices, building and colonies due to damages occurred during flood & rains
- 9.8.3 For assessment of Repair & Maintenance charges for the FY 2016-17, the Authority, considering the fact that FY 2016-17 has already lapsed, decided to analyze the actual cost incurred by the Petitioner during the FY 2016-17 in this regard. The Authority observed that as per the Audited financial statements of the Petitioner for the FY 2016-17, the actual expenditure under Repair & Maintenance is around Rs.693 million as against the cost of Rs.892 million and Rs.680 million incurred by the Petitioner during the FY 2014-15 and 2015-16 respectively.
- 9.8.4 The Petitioner although has not provided any reasons for reduction of expenditure from Rs.892 million in FY 2014-15 to Rs.690 million and Rs.693 million during FY 2015-16 and FY 2016-17 respectively, however, one of the possible reasons in this regard was the observations raised by the Authority in the tariff determination for the FY 2015-16, wherein, it was observed that the Petitioner was charging replacement of obsolete /defective meters and old and fully worn out transformers, under repair and maintenance, instead of capitalizing the same, whereas, R&M head is exclusively for routine expenses pertaining to maintenance and repair only. Considering the fact that the Petitioner's actual expenses for the FY 2016-17, have reduced considerably even lower than the amount allowed for the FY 2015-16 i.e. Rs.950 million, the Authority has decided to allow the actual cost of Rs.693 million incurred by the Petitioner under the head Repair & Maintenance for the FY 2016-17.
- 9.8.5 Regarding FY 2017-18, the Petitioner again has requested an amount of Rs.1,080 million which is about 56% higher than the actual cost incurred during the FY 2016-17. The Petitioner while justifying its request submitted that the amount is meant for the replacement of Distribution Transformers, on account of over loading, replacement of distribution lines due to rust and being old lines and Repair & maintenance of grid stations, offices, building and colonies due to damages occurred during flood & rains.
- 9.8.6 The Authority noted that similar justifications were provided by the Petitioner during its tariff determination for the FY 2015-16, whereupon, the Authority directed the Petitioner to capitalize the cost regarding replacement of obsolete /defective meters and old and fully worn out transformers. The Authority also directed it to maintain a proper record of its assets by way of tagging each asset for its proper tracking and provide explanation on the concerns cited by the Authority in terms of its R&M cost. The Petitioner, however, did not provide any explanation to the concerns raised by the Authority either in the petition or afterwards.
- 9.8.7 In view of the foregoing discussion and the fact that the Petitioner has failed to provide any explanation / justification on the concerns raised by the Authority in the matter, the Authority has decided not to accept the Petitioner's requested figure and instead has decided to allow an amount of Rs.832 million on account of repair &

maintenance for the FY 2017-18, keeping in view the past trend and comparison with other XWDISCOs .

9.8.8 The Petitioner is once again directed to maintain a proper record of its assets by way of tagging each asset for its proper tracking and provide an explanation on the concerns raised by the Authority in terms of its R&M cost, not later than 30th September, 2018.

9.9 Travelling Allowance:

9.9.1 The Petitioner in the petition requested an amount of Rs. 278 million & Rs. 300 million for the FY 2016-17 & for the FY 2017-18 respectively, however during the hearing revised the requested figure for FY 2016-17 downwards Rs. 232 million.

Rs. In million				
	Requested in Petition		Requested in Hearing	
FY 2015-16 Expenditure Audited	FY 2016-17 Expenditure [Un-Audited]	FY 2017-18 Projected Expenditure	FY 2016-17 Expenditure	FY 2017-18 Projected Expenditure
213	278	300	232	300

9.9.2 The Petitioner has stated that travelling expenses are related with the operational duties on regular basis as per policy such as regular vigilance, maintenance, meter reading, electricity bills distribution, recovery campaigns, disconnection of defaulters, attending complaints etc. The Petitioner further stated that about 60% technical staff avail the T.A on frequent basis and 40% admin/supervisory staff avail T.A on requirement basis.

9.9.3 Considering the fact that FY 2016-17 has already lapsed, the Authority, has decided to analyze the actual expenditure of Travelling as per the Audited Financial Statements of the Petitioner for the FY 2016-17. The actual expenditure in this regard, as per the Audited Financial Statements for the FY 2016-17, is Rs.232 million, which is even lower than the cost of Rs.288 million allowed for the FY 2015-16. The Authority appreciates the efforts of the Petitioner in terms of reducing its overhead costs and accordingly has decided to allow the actual cost of Rs.232 million incurred by the Petitioner for the FY 2016-17 under the head of Travelling cost.

9.9.4 For the FY 2017-18, the Petitioner has requested an amount of Rs.300 million, however, keeping in view the actual expenditure of the Petitioner for the FY 2016-17, impact of inflation and comparison with other XWDISCOs, the Authority has decided to allow an amount of Rs.244 million.

Handwritten signature

Handwritten signature

9.10 Vehicle expenses charges:

9.10.1 The Petitioner initially under the head of vehicle expenses requested an amount of Rs.221 million and Rs.261 million for the FY 2016-17 and FY 2017-18 respectively. However, during hearing of the instant petition, the Petitioner revised the requested figure for FY 2016-17 to Rs. 110 million as per the actual cost incurred, as detailed hereunder;

		Rs. In million			
Head of Account	Allowed in FY 2015-16	Requested in Petition		Requested in Hearing	
		FY 2016-17 Expenditure [Un-Audited]	FY 2017-18 Expenditure Projected	FY 2016-17 Expenditure [Un-Audited]	FY 2017-18 Expenditure Projected
Repairs		31.87	60		
Fuel and Oil		187.98	200		
License & Ins.		0.81	0.65		
Total	261	220.66	260.65	110	261

9.10.2 The Petitioner submitted that transportation charges include repair and maintenance of vehicles, POL and annual renewal of registration fees. The Petitioner has further submitted that its utility vehicles are very old and have almost utilized their life and due to old and deteriorated distribution network of HESCO which is spread in scattered areas, expenditures in this head are increasing day by day.

9.10.3 Regarding FY 2016-17, the Authority observed that since FY 2016-17 has already lapsed, therefore, decided to analyze the actual cost incurred by the Petitioner in this regard. As per the Audited Financial Statements of the Petitioner for the FY 2016-17, the actual expenditure incurred for Transportation charges is around Rs.110 million, which is even lower than the cost of Rs.261 million allowed for the FY 2015-16. The Authority appreciates the efforts of the Petitioner in terms of reducing its overhead costs and accordingly has decided to allow the actual cost of Rs.110 million incurred by the Petitioner for the FY 2016-17.

9.10.4 For the FY 2017-18, the Petitioner has requested to allow an amount of Rs.261 million by proposing an increase of around 137% over the actual expenditure of FY 2016-17, however, no proper justification / rationale has been given for the proposed increase.

9.10.5 In view thereof and keeping in view the actual expenditure of the Petitioner for the FY 2016-17, impact of inflation and comparison with other XWDISCOs, the Authority, has decided to allow an amount of Rs.121 million, under the head of Transportation for the FY 2017-18.

Handwritten signature

Handwritten signature



9.11 Other Miscellaneous Expenditures:

- 9.11.1 The Petitioner initially requested Other miscellaneous expenses of Rs. 237 and Rs.339 million for the FY 2016-17 and FY 2017-18 respectively. However during hearing, the Petitioner revised the requested figure for FY 2016-17 from Rs. 237 million to Rs. 220 million based on its actual expenses for the FY 2016-17 as given hereunder;

Head of Account	Rs. In million			
	Requested in Petition		Requested in Hearing	
	FY 2016-17 Expenditure [Un-Audited]	FY 2017-18 Expenditure Projected	FY 2016-17 Expenses	FY 2017-18 Proposed
Other Expenses	237	339	220	339

- 9.11.2 As per the Petitioner, the Other miscellaneous expenses include Postage, telephone, PEPCO Supervisory charges, Software License Fee, NEPRA License & Tariff petition Fee, Insurance charges, Professional fees to lawyers, Photostat charges, cleaning material, office stationery, and others charges.
- 9.11.3 Since the FY 2016-17, has already lapsed, therefore, the Authority decided to analyze the actual expenditure of Other Expenses incurred by the Petitioner during the FY 2016-17. As per the audited financial statements of the Petitioner, the actual Other expenses for the FY 2016-17 are around Rs.220 million. The Authority observed that actual Other expenses for the FY 2016-17 decreased by around 40% as compared to FY 2015-16, mainly owing to reduction in Advertisement, Power & Light and Collection expenses which together decreased by over Rs.130 million in FY 2016-17 vis a vis FY 2015-16. The Authority appreciates the efforts of the Petitioner in terms of reducing its overhead costs and accordingly has decided to allow the actual cost of Rs.220 million incurred by the Petitioner for the FY 2016-17.
- 9.11.4 For the FY 2017-18, the Petitioner has requested for Rs.339 million as Other Expenses, which are around 54% higher than its actual expenses of Rs.220 million incurred during the FY 2016-17. The Petitioner has not provided any detailed working or calculation to substantiate its request. An analyses of the requested amount reveals that Power Light & Water charges have been enhanced by over 370% i.e. from Rs.17 million incurred in FY 2016-17 to Rs.80 million for the FY 2017-18. Similarly, Advertisement charges, Injuries & damages and Building rent have been proposed to increase by 182%, 157% and 73% respectively for which no justification has been provided.
- 9.11.5 Foregoing in view, the Authority has decided not to accept the Petitioner's request and decided to allow Rs. 231 million on account of Other Expenses for the FY 2017-18,

keeping in view the past trend, impact of inflation and comparison with other XWDISCOs.

9.12 Advance Tax

- 9.12.1 The Petitioner for the FY 2016-17 has requested advance income tax of Rs.341 million and has stated that it has paid after the amendment in section 113 of Income Tax Ordinance as per Finance Bill 2016 and that it has projected Rs. 883 million for FY 2017-18. The Petitioner during the hearing presented the quarter wise break-up of the requested figure under the head of Advance Tax as given below for the FY 2016-17;

Amount in Rs.				
1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Total
96,339,919	79,084,099	60,232,276	105,339,440	340,995,734

- 9.12.2 The Authority in line with earlier decision i.e. in case any tax is paid, the same shall be treated as pass through, has decided to allow the actual tax paid by the Petitioner as per its Audited accounts for the FY 2016-17 i.e. Rs.194 million. Regarding tax for the FY 2017-18, the same shall be allowed once it is actually paid by the Petitioner.

9.13 Depreciation;

- 9.13.1 The Petitioner has requested Rs. 1,329 million and Rs. 1,443 million under the head Depreciation for the FY 2016-17 and FY 2017-18 respectively. However, during hearing of the instant Petition, the Petitioner revised its requested figures both the FY 2016-17 and FY 2017-18 to Rs.1,376 & Rs.1,443 respectively. The Petitioner stated that depreciation is calculated on the basis of i) value of existing assets; ii) Provisional/estimated addition in assets.
- 9.13.2 Considering the fact that the period i.e. FY 2016-17, for which the cost is being assessed, has already lapsed, the Authority has decided to consider the actual cost incurred by the Petitioner during the FY 2016-17 in this regard. The Authority observed that as per the Audited financial accounts provided by the Petitioner for the FY 2016-17, its actual expenditure under depreciation is around Rs.1,376 million, calculated on actual depreciation rates for each category of Assets, as per the Company's policy, based on historical costs of the assets.
- 9.13.3 After carefully examining the relevant details and information pertaining to the deferred credit and amortization as per the accounts for the FY 2016-17, the Authority has assessed amortization of deferred credit to the tune of Rs.744 million for the FY 2016-17, thus consumers would bear net depreciation of Rs.632 million.

9.13.4 Regarding FY 2017-18, in order to make fair assessment of the Petitioner's Depreciation charge, the Authority has accounted for the investments to be undertaken by the Petitioner as approved by the Authority for the year. After taking into account new investments, the Gross Fixed Assets in Operation for the FY 2017-18 have been worked out Rs.43,064 million. Accordingly, the depreciation charge for the FY 2017-18 has been assessed as Rs.1,506 million, calculated on actual depreciation rates for each category of Assets as per the Company's policy.

9.13.5 After carefully examining the relevant details and information pertaining to the deferred credit and amortization for the FY 2017-18, the Authority has assessed amortization of deferred credit to the tune of Rs.774 million for the FY 2017-18. Accordingly, consumers would bear net depreciation of Rs.732 million.

9.14 Provision of Bad Debt

9.14.1 The Petitioner initially in the Petition, on account of Provision for Bad Debts, requested an amount of Rs.10,955 million & Rs.692 million for the FY 2016-17 & FY 2017-18 respectively, however, during hearing the amount requested for the FY 2016-17 was revised downward to Rs. 7,051 million.

9.14.2 The Petitioner justifying requested amount of provision for bad debt stated that the socio-economic condition of the consumers of HESCO's area of service is very poor. The overall recovery position of consumer-end tariff of HESCO for the FY 2016-17 is 95.20% i.e. the Govt. recovery is 234.40% and Pvt. is 72.0%. Keeping in view of above and compliance of international accounting standard HESCO has to make provision of trade debts on the basis of its age. The amount on account of provision for bad debts is Rs. 7,051 million for FY 2016-17 based on Audited financial statements figures and Rs. 692 million for FY 2017-18 based on projected figures. However during the hearing the Petitioner revised the requested figure for the FY 2016-17 to Rs. 7,051 million.

9.14.3 During hearing the Petitioner presented the following table for the calculation of bad debt for the FY 2017-18;

Amount in Rs.	
Estimated Trade Debtors and Advances balance as at June 30, 2017	46,183,191,295
Estimated & increase in Trade debtors balance during FY 2017-18	14.61%
Estimated Trade Debtors and advances balance as at June 30, 2018	52,931,351,058
Estimated provision percentage as at June 30, 2018	35.57%
Estimated provision balance as at June 30, 2018	18,825,822,155
Estimated provision balance as at June 30, 2017	18,134,206,148
Estimated provision to be charged to P&L Account for the FY 2017-18	691,616,007

9.14.4 Regarding provision for bad debts, it is pertinent to mention that the Authority never disallowed the actual write offs against the private defaulter given that the due process of law has been followed while writing off the receivables. However, the write off against receivables of any Government cannot be allowed considering the fact the Government is a "going concern". The Authority considers that if the provision for doubtful debts is considered at national level it would provide no incentive to the efficient companies, whose recoveries are already 100%. Further, on the point of socio economic conditions in HESCO, the Authority noted that HESCO has already been allowed a margin of law in its T&D losses.

9.14.5 The decision of the Authority for setting 100% recovery is based on 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 (CSM) and in view of the fact that the risk of credit sales transfers to the third party i.e. Owner of the premises or purchaser of the property as mentioned in Chapter 8 (8.1) of the CSM, reproduced hereunder;

"a premises is liable to be disconnected if the consumer is defaulter in making payment of the energy consumption charges bill(s), or if he is using the electric connection for a purpose other than for which it was sanctioned, or if he has extended his load beyond the sanctioned load even after receipt of a notice in this respect from DISCOs".

9.14.6 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 and as per the referred Chapter of Consumer Service Manual, the risk transfers to the occupant of the premises. Further the distribution company always has the option to recover the outstanding amount through sale of the property after following the due process of law. In addition to this, at the time of connection, DISCOs also collect one month's billing from the consumers in the shape of security deposits, which also serves as a deterrence for a consumer to default.

9.14.7 The Authority in Human Rights case No. 7734-G/2009 & 1003-G/2010 regarding Alleged Corruption in Rental Power Plants and case No.56712/2010 regarding fraud in payment of rental power plants submitted before the Honorable Supreme Court of Pakistan that the Tariff determined by the Authority is free of any inefficiencies and mismanagement on the part of DISCOs and the impact thereof is not passed on to the consumers through tariff.

9.14.8 The Court under para 84 (ii) and (viii) of its aforementioned decision decided that;

84 (ii) "The Federal Government/WAPDA/PEPCO/GENCOs had failed to control pilferage of electricity from the system because of bad governance and failure of the relevant authorities to enforce the writ of the Government. Therefore, the

Government is required to improve the existing system of generation and transmission of electricity by taking all necessary steps, including clearing of circular debt, etc., so that electricity can be generated to the maximum capacity”.

84 (viii) “.....In terms of Constitution and Act, 1997, the NEPRA is mandated to safeguard the interests of the consumers, but the concerned officials of NEPRA failed to perform their duties diligently;

9.14.9 The Honorable Court through its aforementioned order has clarified that it is the Federal Government who needs to improve its affairs rather than asking NEPRA to built-in the inefficiencies of the system in the tariff. The Court in fact adjudged NEPRA’s failure to protect the interest of the consumers, therefore, passing on inefficiencies of the XWDISCOs / Government to the consumers would be contradictory to the Court orders.

9.14.10 The Honorable Supreme Court in other Human right cases No.14392/2013 & 790-G/2009 in the matter of unprecedented load shedding and increase in electricity prices under para 36 (ii) decided as under;

36 (ii). “The competent authority shall take steps to control all kind of losses after supply of the generation like line losses, theft, etc, by using modern devices like introducing smart meters and supplying electricity only to the consumers, if need be, in advance or without any default after submission of the bills. As far as all kind of unauthorized consumers are concerned, efforts should be made to persuade them to make payments of the bills, failing which action as envisaged under the electricity act, 1910, the Electricity Rules, 1937 and NEPRA act, 1997 as well as other enabling laws / rules, should be taken. A policy has to be announced by the NTDC / DISCOs under which this supply of electricity to the consumers to believe in law and make payments in time, if encouraged and supply of unauthorized consumers is discouraged.”

9.14.11 It is evident from the aforementioned decision, that supply of electricity to the paying consumers has been encouraged, meaning thereby that burden of non- paying consumers may not be passed on to the paying consumers rather the unauthorized consumers be discouraged. Therefore, the request of HESCO to allow provision for bad debts does not merit consideration.

9.14.12 Here it is also important to highlight that the Authority in its redetermination of tariff dated September 18, 2017 in the matter of reconsideration request filed by the Federal Government allowed an amount of Rs. 2,059 million to the Petitioner pertaining to permanently disconnected connections of more than 3 years as write offs, strictly on provisional basis, after adjusting for the impact of GST and other Government Charges, subject to fulfillment of the laid down criteria. However, a review of the financial statements of the Petitioner for the FY 2016-17 reveals that it has not written off any

amount in this regard till to date, therefore, again requesting to allow provision for Bad debts instead of writing off the previously allowed amount the in not justified.

10 Issue # 5. Whether the proposed RoRB based on WACC of 11.83% is justified?

10.1 The Petitioner has requested RoRB of Rs.2,167 million and Rs.2,534 million for the FY 2016-17 and FY 2017-18 respectively, based on WACC of 11.83%, as tabulated below;

Description	Unit	FY 2016-17	FY 2017-18
		Un-Audited	Projected
Gross Fixed Assets in Operation - Opening Balance	[Mln Rs]	36,011	38,848
Addition in Fixed Assets	[Mln Rs]	2,837	3,263
Gross Fixed Assets in Operation - Closing Balance	[Mln Rs]	38,848	42,110
Less: Accumulated Depreciation	[Mln Rs]	16,365	17,808
Net Fixed Assets in Operation	[Mln Rs]	22,483	24,303
Add: Capital Work In Progress - Closing Balance	[Mln Rs]	15,027	16,870
Investment in Fixed Assets	[Mln Rs]	37,510	41,173
Less: Deferred Credits	[Mln Rs]	16,835	19,004
Regulatory Assets Base	[Mln Rs]	20,675	22,169
Average Regulatory Assets Base	[Mln Rs]	18,321	21,422
Rate of Return	[%age]	11.83%	11.83%
Return on Rate Base	[Mln Rs]	2,167	2,534

10.2 The Authority uses the Capital Asset Pricing Model (CAPM) for calculation of Return of Equity (RoE) component of the WACC, being the most widely accepted model, which is applied by regulatory agencies all over the world to estimate the cost of capital for regulated utilities. Since the Authority uses Plain Vanilla WACC, hence the impact of tax shield is taken as zero, and in case any tax is paid it is treated as pass through. As per the Methodology, in case of negative equity the Authority would consider a minimum of 20% equity and any equity in excess of 30% would be considered as debt. Accordingly for the purpose of assessment of WACC of the Petitioner for the FY 2016-17, the Authority in accordance with the approved methodology has decided to consider the capital structure of 70:30 (debt : equity) ratio.

10.3 The Authority observed that for the FY 2015-16, the Petitioner was allowed RoE of 16.67%, wherein Market Risk Premium was considered as 7% with a Beta of 1.10 and Risk Free Rate of 8.9652%.

10.4 The Authority considers that there being no major change in the economic indicators of the country in term of Risk Free rate and the Market Risk premium as compared to

FY 2015-16, therefore, the RoE allowed to the Petitioner for the FY 2015-16 still holds good. Accordingly, for the FY 2016-17, the Authority has decided to allow ROE of 16.67%.

10.5 As regard the cost of debt, the Authority understands that it is the interest rate on which a company would get borrowing from the debt market / commercial banks i.e. a rate at which banks lend to their customers. The Authority, for the tariff determination of XWDISCOs for the FY 2015-16, considering the future privatization policy of GoP, used a forward looking approach for estimating the cost of debt and allowed cost of debt of 9.76% for the FY 2015-16, based on 3 month's KIBOR of 7.01% as of 2nd July 2015 + 2.75% spread. In order to have a fair assessment of the cost of debt for the FY 2016-17 onward, the Authority considers that although the KIBOR as of June 30, 2017 has decreased from what the Authority has assessed last year but keeping in view the future CPIs and ongoing pressure on Pak Rupee, which may result in increase in policy rate, the Authority has decided to keep the cost of debt unchanged i.e. 9.76%.

10.6 Consequent to the aforementioned discussion, the Authority has worked the WACC @11.83%, as mentioned below;

$$WACC = [K_e \times (E / V)] + [K_d \times (D / V)]$$

Where E/V and D/V are equity and debt ratios respectively taken as 30% and 70%;

$$WACC = \{16.67\% \times 30\%\} + \{9.76\% \times 70\%\} = 11.83\%$$

10.7 Accordingly by using rate of return of 11.83%, the Authority has assessed Rs 2,217million & for FY 2016-17 respectively as return on rate base as per the following calculations:

Description	Rupees in Million	
	FY 2015-16 Actual	FY 2016-17 Actual
Opening fixed assets in operation	33,423	36,011
Assets Additions during the year	2,588	3,314
Closing Fixed Assets in Operation	36,011	39,325
Less: Accumulated Depreciation	15,036	16,412
Net Fixed Assets in operation	20,975	22,913
+ Capital Work in Progress (Closing)	12,299	13,715
Total Fixed Assets	33,274	36,628
Less: Deferred Credit	15,582	16,837
Total	17,693	19,790
Average Regulatory Assets Base		18,742
Return on Rate Base @ 11.83%		2,217

- 10.8 The Authority during the tariff determination of the Petitioner for the FY 2015-16, noted that the Petitioner had insufficient cash balance as on 30th June 2015 against its pending liability of receipt against deposit works and consumer security deposits, which indicated that the amount received against the aforementioned heads has been utilized somewhere else and the Petitioner failed to provide details in this regard. The Authority was of the view that the amount collected as security deposit cannot be utilized for any other reason and any profit earned thereon has to be distributed to the consumers. Also, the amount collected under the head of receipt against deposit works has to be spent for the purpose for which it has been collected. The utilization of the money collected against deposit works and security deposits other than the works for which it has been received was illegal and unlawful. In view thereof, the Petitioner in the tariff determination for the FY 2015-16 was directed to provide rational / justification for improper utilization of the money because the consumers have to suffer unnecessary delay on this account.
- 10.9 The Petitioner during hearing of the instant petition has stated that compliance is being made in respect of the Authority's above mentioned direction. The Authority from the Audited Financial statements of the Petitioner for the FY 2016-17 observed that although the Petitioner's cash/ bank balances as on June 30, 2017 are still insufficient against its pending liability of receipt against deposit works and consumer security deposits, however, by including therein the balance of store & spares as on June 30, 2017, the Petitioner is able to meet its pending liability of receipt against deposit works and consumer security deposits. Accordingly, for the assessment of RAB for FY 2016-17, the Authority has decided not to include the amount of receipts against deposit works as a part of Deferred Credits. The Authority however directs the Petitioner to ensure that in future also consumers' deposits are not utilized for any other purpose.
- 10.10 Here it is pertinent to mention that the Authority in the tariff determination of the Petitioner for the FY 2015-16 also directed it to give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance. The Authority however observed that no such disclosure is available in the Audited Financial Statements of the Petitioner for the FY 2016-17. In view thereof, the Petitioner is again directed to give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance.
- 10.11 Regarding assessment of WACC for the FY 2017-18, the Authority has decided to maintain the same WACC i.e. 11.83% and accordingly has assessed return on rate base of Rs.2,573 million, as per following calculations;



Description	Rupees in Million	
	FY 2016-17 Actual	FY 2017-18 Assessed
Opening fixed assets in operation	36,011	39,325
Assets Additions during the year	3,314	3,739
Closing Fixed Assets in Operation	39,325	43,064
Less: Accumulated Depreciation	16,412	17,918
Net Fixed Assets in operation	22,913	25,146
+ Capital Work in Progress (Closing)	13,715	15,476
Total Fixed Assets	36,628	40,622
Less: Deferred Credit	16,837	16,912
Total	19,790	23,710
Average Regulatory Assets Base		21,750
Return on Rate Base @ 11.83%		2,573

11 Issue # 6. Whether the petitioner's proposed Investment Plan of Rs.3,759 Million and Rs.7,439 Million for the FY 2016-17 & FY 2017-18 respectively, is justified?

11.1 The Petitioner has provide the following investment program in terms of STG, ELR and DOP;

Project	Rs. In Million	
	Expenditure FY 2016-17	Projected FY 2017-18
DOP	254	615
ELR	592	602
6 th STG	861	2,200
ADB	1,201	2,785
ERP	0	200
CIS Application	0	143
Others (Village Electrification and Deposit Work)	728	764
Total	3,636	7,309

11.2 The petitioner provided the following financing plan in this regard;

Own Resources

Project	Rs. In Million	
	Expenditure FY 2016-17	Projected FY 2017-18
DOP	254	615

ELR	592	602
6th STG	861	2,200
ERP	0	200
Customer Information System (CIS)	0	143
Total	1,707	3,760

Foreign Loans / Consumer contribution

Project	Rs. In Million	
	Expenditure FY 2016-17	Projected FY 2017-18
ADB - Trench-I & II	311	915
ADB - Trench-III	526	1,300
ADB - Trench-IV	364	570
Village Electrification/Deposit Work	728	764
Total	1,929	3,549

- 11.3 The Petitioner, however, during hearing of the petition, revised its requested figures both for the FY 2016-17 and FY 2017-18. For the FY 2016-17, the Petitioner requested Rs. 3,759 million being the actual investment carried out during the FY 2016-17, and for the FY 2017-18, projected Rs.7,439 million instead of earlier requested amount of Rs.7,309, as mentioned hereunder;

FY 2016-17		Rs. In million	
Descriptions		Requested	
Gross Amount		3,759	
Less: Consumer Contribution		851	
Net for Development		2,908	
DOP		254	
ELR		592	
STG		861	
ADB Tranch-I & II		311	
ADB Tranch-III		526	
ADB Tranch-IV		364	
Total		2,908	

FY 2017-18		Rs. In million	
Descriptions		Requested 2017-18	
DOP		615	

ELR	602
STG	2,200
ADB Tranch-I & II	915
ADB Tranch-III	1,300
ADB Tranch-IV	570
ERP & CIS	343
Deposit works & Others	894
Total	7,439

11.4 The Petitioner has submitted the following objectives of its DOP, ELR and STG program along-with scope of work for the FY 2016-17 and FY 2017-18 as detailed hereunder;

Objectives DOP

- Reliability of the system
- Stability of power supply
- Overloaded system
- Quality and safety of the system

Scope of Work for FY 2016-17

- New HT Line
- New Transformers
- 11KV Capacitors
- 11KV Panels
- New LT Lines
- Length of New LT Line
- Overhead
- Escalation
- T&P

Scope of Work for FY 2017-18:

▪ **11 KV Feeders, LT/HT Lines**

- Rehabilitation of 11kv Haji Appan
- Bifurcation of 11KV City-3 Feeder
- Rehabilitation of 11KV Bashirabad Branch 11KV Kachelo feeder emanating from 66KV Digri

G/S

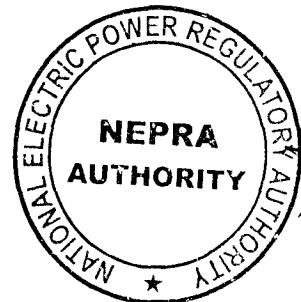
- Rehabilitation of 11KV Jandalkot feeder
- Rehabilitation of 11KV OPH-2 feeder
- Shifting & Area Planning of 11kv Naronkot & 11kv Qasimabad Feeder
- Shifting of 11KV Katchelo, Naukot, Deh-170, Dumbalo and City Feeder to be shifted from 66KV to 132 G/S Digri
- Bifurcation of 11KV City Feeder, Matli & Shifting of 11kv Feeders Omni, Omni-I, Omni-II, Channel & Pirwah 66KV Matli to 132 G/S Matli
- Rehabilitation of 11kv Bannu and Janan Soomro Branch on 11KV Bannu Feeder
- 11kv Seerani along with 11kv Golarchi feeder
- Rehabilitation 11kv Nawazabad
- Total 60 Nos HT/LT proposals will increase 20.78 km HT lines, 40.42 km LT lines and reconductoring 35.53 km LT lines

• **Civil Works Construction**

- Construction of Operation Sub-Divisions
- Construction of Civil Sub-Divisions, N.Shah and Mirpur Khas
- Operation Division Umerkot & Garikhata Hyderabad
- Operation Circle Mirpurkhas including Computer Centre & Operation Circle at Hyderabad
- Construction Division I ,II & elr Division at Hyderabad
- Construction Sub-Division Hyderabad, Kotri , Shahdampur & Mirpurkhas
- Deputy Manager Store Hyderabad & Assistant Manager Store office Sanghar
- HESCO House Hyderabad
- Construction Residential Cat-II Mirpurkhas , Digri, Badin ,Thatta ,Sanghar Sehwan
- Construction Residential Cat-III Umerkot ,N.Shah , Sanghar , Pithoro & T.M Khan
- Construction Residential Cat-IV Umerkot, Digri , Badin, Tando Allahyar, T.M Khan Sanghar & Sehwan
- Construction Residential Cat-V Digri , Golarchi , Nawabshah , T.M Khan , Matli , Sehwan, Thatta & Sanghar
- Construction of warehouse Hyderabad , Sanghar & Nawab shah
- Construction of PCC Platform at Hyderabad Sanghar & Nawabshah
- Construction of 1 No Room for Pesh Imam & Under Ground water Tank for SDO Office as well for Masjid at Sub-Division office Jamshoro
- Construction of Matteled Road Old Power House T.M Khan & Sehwan
- R.C.C Parking Shade for long Vehicle at R/Store Hyd, Operation Division Qasimabad. Phulleli , Kotri & N.Shah

Objectives ELR

- Energy loss Reduction
- Improvement in Quality of Supply





- Reduce Cost of Operation and Maintenance
- Improve Life of Equipment

Scope of Work for FY 2016-17

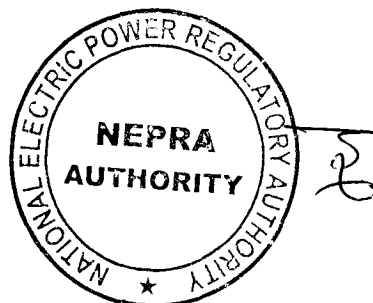
- New HT Line
- Reconductoring HT Line
- Rehabilitation of Coastal Areas Feeders
- Replacement of Over Loaded T/F
- New/Additional T/F
- Energy Meters (Statics)
- Replacement of 11KV Panels
- 11 KV Capacitors
- New LT Lines
- ABC With Allied Material
- ABC Cables (M/S TYCO)
- ABC Cables (M/S GEL)

Scope of Work for FY 2017-18

Scope of 11 KV	33 No
New HT Line	114.50 KM
Reconductoring HT Line	50.85 KM
Total	165.35 KM
Scope of 11 KV Coastal Area	05 No
New LT Line	7.00 KM
Reconductoring LT Line	75.00 KM
Total	82.00 KM
11 KC Capacitors	15 No
11 KV Panels	21 No
Scope of work for LT Line	120 No
New LT Line	125 KM
Reconductoring HT Line	232 KM
Total	357 KM
Scope of Work for ABC	40 No
New LT Line	54 KM

Objectives STG

To give relief to the existing overload system and to meet future expansion in HESCO area.



Scope of Work for FY 2016-17:

- Shaikh Bhirkio 10/13 MVA PT/F
- Matli with feeding Transmission Line 20/26 MVA PT/F 2 KM T/Line
- 132 kV Mirpur Khas Augmentation of 13 MVA P.T.F with 40 MVA
- 66 kV Mithi Aug. with 13 MVA P.T.F in place of 6.3
- 132 kV Nawab Shah-I Augmentation of 26 with 40 MVA Power T/s
- 132 kV Sakrand Augmentation of 13 MVA P.T.F with 26 MVA
- 132 kV Phulleli Augmentation of 20/26 with 40 MVA P.T.F
- 132 kV Shahpur Chakar Augmentation of 13 MVA P.T.F with 26 MVA
- 132 kV NTPS Augmentation of 20/26 with 40 MVA P.T.F
- 132 kV Kohsar Augmentation of 20/26 with 40 MVA P.T.F
- 132 kV Kandhari Extension with 13 MVA P.T.F
- 132 kV Nooriabad Extension with 13 MVA P.T.F
- 132 kV Khipro Extension with 6.3 MVA P.T.F
- 132 kV Mirwah Gorchani Extension with 13 MVA P.T.F
- 132 kV Nawabshah-II Extension with 13 MVA P.T.F
- Tando Ghulam Ali along-with feeding Transmission Line 20/26 MVA PT/F & 31.15KM T/Line
- Digri along-with feeding Transmission Line 20/26 MVA PT/F & 26.1 KM T/Line
- Tando Jaan Muhammad along-with feeding Transmission Line 20/26 MVA PT/F & 15.7KM T/Line
- 2nd circuit stringing from T.M Khan Road – T.M Khan And T. M. Khan - Matli
- Re-modeling of New Jamshoro – Old Jamshoro circuit I&II DC 3.5

Proposed PSDP STG WORKS 2017-18

- **Grid Station**
 - New 132 kV Grid Station River Bund along with Feeding T/Line Hyderabad
 - New 132 kV Grid Station Mirpur Khas-2 along with feeding T/Line
 - New 132 kV Grid Station Bhit Shah along-with Transmission Line
 - 220/132KV Hala Rd. – Hala Transmission Line along-with 02 No. Line Bays
 - 132KV T. Jan Muhammad - 132KV Noukot Transmission Line along-with 02 No. Line Bays
 - New 132 kV Grid Station Kotri Site-2 along with Feeding T/Line Hyderabad
 - New 132KV Grid Station Sabzi Mandi Hyderabad along with Transmission Line
 - New 132 kV Grid Station Jam Nawaz Ali along with feeding T/Line
- **Transmission Lines**
 - 132kV D/C Nooriabad - Jamshoro Old Transmission Line with L/Bays
 - 132kV SDT Sujawal - Golarchi Transmission Line
 - 2nd Circuit Stringing, In / Out arrangement at 132kV Grid Station Chamber
 - 132kv D/C Hyd. By Pass - Qasimabad (existing) grid station

- 132 SDT Sakrand - Nawab Shah-I
- Rehabilitation of 132kV NTPS - T.M Khan Transmission Line
- 132KV Grid Station Daulatpur
- 132KV Shalmani - Sehwan T/Line
- 132KV Jhampir - Thatta T/Line
- 132KV Kotri - Jhampir T/Line
- 132KV Bhulri Shah Karim - Sujawal T/Line
- 132KV Thatta - Sujawal T/Line
- 132KV T.M.Khan Grid Station
- Construction of 6 No.132KV Circuits from New Mirpur Khas Grid Station of NTDC to HESCO network
- Construction of new transmission network in Wind Corridor

11.5 The Petitioner in its petition for FY 2016-17 requested a total investment amounting to Rs. 3,759 million which includes Rs. 2,062 million in STG, Rs. 254 million in DOP, Rs. 592 for ELR projects, Rs. 451 million for village electrification, Rs. 400 million for deposit works. Whereas for FY 2017-18, the Petitioner requested a total investment amounting to Rs. 7,309 million which includes Rs. 2,200 million in STG, Rs. 615 million in DOP, Rs. 402 for ELR projects, Rs. 200 million for ERP systems, Rs. 143 million for CIS application, Rs. 764 million against other investments (village electrification and deposit works) and Rs. 2,785 million funded by ADB for transmission network projects.

11.6 The Authority, for the purpose of instant tariff petition, considered the investment plans provided by the Petitioner along with its tariff petition submitted vide dated 08.11.2017. The Authority, in order to assess the investment requirements of the Petitioner, relied upon the historical pattern of the investments allowed by NEPRA vis a vis actual utilization by Petitioner. The comparison of investment requested, allowed and actual incurred from FY 2012-13 to FY 2017-18 is given hereunder:

Rs. in million

Investment	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Requested	4,144	5,765	6,423	5,935	3,759	7,309
Allowed	3,895	3,895	4,993	3,067	<i>To be Determined</i>	<i>To be Determined</i>
Actual	3,997	3,607	3,413	4,048	4,729	--
Excess / (Less)	102	(288)	(1580)	981	--	--
%age	102.62	92.60	68.35	131.98	--	--

11.7 The Authority observed that the petitioner has made the investments in excess as compared to the investment allowed by NEPRA in FY 2012-13 and FY 2015-16

whereas in FY 2013-14, it made above 90% of the allowed investments and in FY 2014-15 only 68.35% of the allowed investment was spent. It is also noted that HESCO has spent up to a maximum of Rs. 4,729 million in last 5 years. The following statistics about HESCO's network addition is noted over last 5 years:

Description	2013	2014	2015	2016	2017
No. of Grid Stations	48	52	53	54	59
Length of Transmission Lines (KMs)	1939	2067	2133	2158	2445
No. of 11 kV Feeders	442	410	425	435	463
Length of 11 kV Lines (KMs)	26192	26612	26914	27850	28055
No. of Distribution Transformers	--	--	34443	35334	35996

11.8 It is noted from above that the transmission and distribution network of the Petitioner has expanded gradually during last 5 years by making a planned investment. The Authority, being aware of the importance of investments for ensuring reliable, safe and smooth supply of electricity, also observes the following improvements:

- SAIFI has been improved (202.3 in FY 2014-15 and 184.0 in FY 2015-16).
- Provision of new connections within due time frame (3.3% consumers were not connected in FY 2014-15 whereas all the new consumers were connected in FY 2015-16 within due time frame).
- Daily load shedding duration has been improved from 4.0 hours in FY 2014-15 to 3.33 hours in FY 2015-16.
- T&D losses have also slightly improved i.e. 27.1% in FY 2014-15 to 26.5% in FY 2015-16.

11.9 The Authority also noted with great concern that the petitioner's previous investments did not have a tangible impact with respect to SAIDI and fatal accidents as shown in the following table:

Description	2014-15	2015-16
SAIFI (nos.)	202.30	184.00
SAIDI (minutes)	10642.70	12623.00
Fatal Accidents	22	24
Actual T&D Losses (%)	27.10	26.50
New Connection Profile (%)*	3.30	0.00
Average Daily Load Shedding (hours)	4.00	3.33

*Indicates percentage of consumers who were not connected within due time frame.

11.10 The Authority noted that the Petitioner initially requested an amount of Rs. 3,759 million for FY 2016-17, however, the same was revised to Rs. 4,729 million based on

actual investment made as per the audited financial statements. Considering the fact that the FY 2016-17 has already lapsed, therefore, the Authority has decided to allow the actual investment of Rs. 4,729 million made during the FY 2016-17.

11.11 For FY 2017-18, keeping in view the significance of the investments required to cater for future demand, minimize network constraints / overloading, improve performance standard indices and reduce T&D losses, the Authority encourages the petitioner to improve its capability to carry out more investment and decides to allow an investment of Rs. 5,500 million for FY 2017-18. The Authority at the same time also directs the Petitioner to:

- i. Submit the cost/benefit analysis report for the investments made during the last five years and technical / financial savings achieved.
- ii. Provide project wise detailed report against investments for FY 2015-16, FY 2016-17 and FY 2017-18.
- iii. Submit project wise details at the time of filing the next tariff petition.

12 Issue # 7. Whether prior year adjustment of Rs.19,771 million requested in FY 2016-17 is accurate?

12.1 The Petitioner requested an amount of Rs.19,771 million as PYA for the FY 2016-17.

12.2 The Authority in its decision dated October 23, 2017 in the matter Suo Moto proceedings regarding periodical adjustments on account of Power Purchase Price (PPP) including impact of T&D losses on FCA and Prior Year Adjustment (PYA) pertaining to the FY 2016-17, in the consumer end tariff of HESCO has already assessed a positive PYA amounting to Rs.19,770 and the same has been incorporated in the consumer end tariff of the Petitioner for the FY 2015-16. Regarding PYA to the extent of under/ over recovery of the assessed Distribution Margin, Other Income and Sales Mix Variance pertaining to the FY 2016-17, the Authority has worked out the same and the said amount has been included in the aforementioned PYA of Rs.19,771 million, thus, resulting in total positive PYA of Rs. 20,524 million, as detailed hereunder;

Andi

[Signature]



Description		Rs. In Million
	PYA Adjustemnet as Per Bi-Annaual Adjustment	19,770
Add/ (Less)	Under/(Over) Recovery of Distribution Margin - 2016-17	(767)
	Allowed	9,019
	Recovery	9,786
Add/ (Less)	S.Mix Variance	1,521
	Other Income - 2016-17	-
	Allowed	(1,456)
	Actual	(1,456)
	PYA fo the FY 2017-18	20,524

13 Request for Biannual adjustment of Power Purchase Price for the Period from July 2017 to December 2017

13.1 Subsequently, HESCO, vide its letter dated March 26, 2018, submitted its request for Biannual adjustment of Power Purchase Price for the period from July to December 2017 pursuant to the NEPRA guidelines for determination of consumer end tariff (Methodology & Process 2015), Tariff determination of HESCO for the FY 2015-16, and the subsequent re-determination by the Authority, on account of following;

- i. Capacity Charges
- ii. Use of System Charges
- iii. Variable O&M
- iv. T&D losses
- v. Impact of extra/less purchase of units

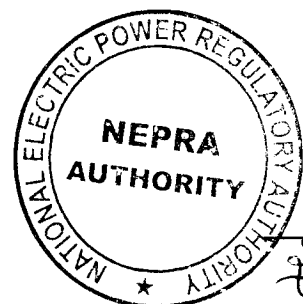
13.2 The Petitioner requested an adjustment of Rs.1,409 million including Rs. 735 million for V. O&M , UoSC and Capacity charges , Negative Rs. 1,425 million on account of impact of T&D losses and Rs. 2,100 million on account of extra/less purchases.

13.3 As per para 48 (7) of the NEPRA guidelines for determination of consumer end tariff (Methodology and Process), 2015 notified vide SRO 34 (I)/2015 dated January 16, 2015 (the Methodology), the Power Purchase Price (PPP) is a pass through item and is subject to periodic adjustments. The scope of quarterly/ biannual adjustments as prescribed in the methodology, at para 49, is as under;

- ✓ The adjustments pertaining to the capacity and transmission charges
- ✓ The impact of T&D losses
- ✓ Adjustment of Variable O&M

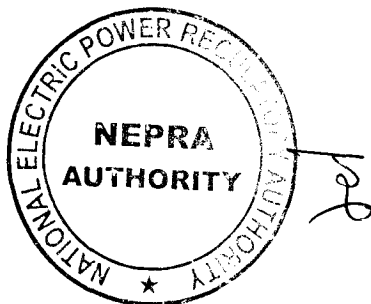
Alkatti

[Signature]





- 13.4 Further, the Authority in its redetermination decision dated September 18, 2009 in the matter of the Petitioner's tariff for the FY 2015-16, also prescribed the formula for calculation of quarterly/ biannual adjustments;
- 13.5 The Authority being cognizant of the fact that the period for which adjustment is being sought by the Petitioner i.e. July to December 2017, has already lapsed and variations on account of PPP (*including impact of T&D losses on FCA*) have not yet been recovered/ passed on to the consumers. The Authority believes that any such variations needs to be passed on to the consumers in order to ensure financial viability of the sector, which otherwise would result in huge prior period adjustments, thus, resulting in consumer end tariff distortions.
- 13.6 In view thereof, the Authority, as per rule 3 (1) of the NEPRA (Tariff Standards and Procedure) Rules, 1998 and in line with para 48 (7) and 49 of the Methodology and relevant paras of Tariff determinations / redeterminations of XWDISCOs for the FY 2015-16, has decided to include the impact of variation in PPP (*including impact of T&D losses on FCA*) pertaining to the period July to December 2017 in the consumer end tariff of the Petitioner in order to ensure recovery of the said costs. Thus, making the tariff more predictable both for the consumers' as well as for the utility as provided in under rule 17(3) of the Tariff Standards and Procedures, Rules 1998.
- 13.7 Accordingly, the Authority, based on the available actual data for the period July to December 2017, as provided by CPPA-G, worked out the following PPP adjustments (*including impact of T&D losses on FCA*) for the first two quarters of the FY 2017-18;



Handwritten signature

Handwritten signature

Rs. in Millions	
Description	HESCO
Actual Purchases	2,907
T&D losses target	20.50%
Allowed Losses	596
Regulated Sales	2,311
FUEL COST	
Actual Fuel Cost	13,553
Fuel Cost Recovered	20,056
FCA that should have been passed on	(6,503)
FCA actually passed on	5,170
FCA still to be passed on	(1,333)
VARIABLE O&M	
Cost billed by CPPA-G	812
Variable O&M recovered	732
Under / (Over) Recovery	81
CAPACITY CHARGES	
Cost billed by CPPA-G	11,294
Capacity Charges recovered	7,580
Under / (Over) Recovery	3,714
USE OF SYSTEM CHARGES	
Cost billed by CPPA-G	1,072
UoSC recovered	712
Under / (Over) Recovery	359
Total Under / (Over) recovered	2,821

- 13.8 In view thereof, the aforementioned adjustment of Rs.2,821 million has been included in the revenue requirement of the Petitioner.
- 13.9 Here it is pertinent to mention that for the FY 2015-16, the Authority while determining the Revenue Requirement of the Petitioner, did not include the amount of LPS while assessing the other income, in line with its earlier decision in this regard. Similarly for the FY 2016-17 and FY 2017-18, the Authority in consistency with its earlier decision, on the issue, has not included the amount of LPS while assessing the other income for FY 2016-17 and FY 2017-18. The Authority noted that CPPA-G has still not raised any invoice to the Petitioner on account of late payment charges pertaining to the FY 2015-16 and FY 2016-17, therefore, the amount of LPS allowed to the Petitioner on account of LPS for the FY 2015-16 and FY 2016-17 are available with

the Petitioner. The same shall be adjusted upon receipt of late payment invoice from CPPA-G to the Petitioner.

- 13.10 It is also pertinent to mention that the amount of monthly FCA retained by the Petitioner pertaining to the lifeline consumers, domestic consumers (consuming up-to 300 units) and Agriculture Consumers, (in accordance with Federal Government's policy guidelines dated May 21, 2015 with regard to fuel charges adjustment and subsidy rationalization of XWDISCOs) shall be adjusted while processing the quarterly adjustment for the Quarter April to June 2018, after accounting for the Net Tariff Differential Subsidy claim of the Petitioner, if any, for the FY 2017-18.

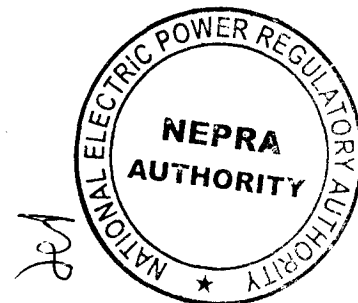
14 Issue # 8. Whether the Petitioner has any concerns regarding TOU metering of cellular company connections?

- 14.1 The Petitioner on the issue submitted that cellular company consume electricity 24 hours, hence, there is no change in their consumption patterns and energy conservation in peak hours by allowing TOU tariff, thus, cellular companies may not be allowed TOU tariff.
- 14.2 The Authority observed that IESCO, in its tariff petition for the FY 2012-13, contended that by installing TOU meters on the connections that operate on a 24 hour basis, an undue benefit of lesser off peak rate is enjoyed by these sort of consumers as their demand remains constant throughout the day, irrespective of the differential tariff being offered in different time spectrum. IESCO presented a negative billing impact of Rs. 9 million per month approx. due to the installation of TOU meters on cellular company connections (who according to IESCO maintains constant load throughout the day). The same concern was noted and addressed in para 6.5 of the tariff determination of IESCO for the FY 2012-13 dated 27th March, 2013.
- 14.3 Consequently, the Authority decided to deal the matter separately and directed all the XWDISCOs for comments on the issue. Subsequently, comments were filed by XWDISCOs and they supported the stance of IESCO in their tariff petitions for the FY 2013-14. The following arguments were presented by the XWDISCOs;

Risks

- Conversion to a TOU meter is only viable for consumers who are aware of the rules and are able to alter their consumption patterns to maximize plan benefits.
- The main objective of TOU tariff was reduced demand on the power system during peak hours by introducing TOU metering.

[Handwritten signatures]



- Cellular companies run their business round the clock during peak hours as well thus do not contribute toward the reduction in power demand during the peak hours.
- A separate tariff may be introduced for cellular companies as they do not deserve TOU tariff due constant load behavior.
- The consumer of cellular companies are enjoying the cross subsidy because they are availing the benefits resulting from application of TOU tariff consequently causing a negative impact on revenue as well as average sale rates.
- GEPCO also submitted a negative billing impact of TOU metering of cellular connections of Rs. 13.88 million affecting the revenues of the company;

Comparison of TOU/ Normal Billing to the Cellular Companies for the Month of June, 2013				
Name of Company	No. Of Connections	TOU Billing	Billing under Normal Tariff	Difference
Cellular Companies	1,955	Rs.38.42 million	Rs. 52.30 million	Rs. 13.88 million

- XWDISCOs suggested discontinuation of TOU metering on all such connections and more specifically on cellular company connections. FESCO also requested for a separate tariff category for these connections.

14.4 Keeping in view the aforementioned arguments / comments submitted by the XW-DISCOs, the Authority decided to hold a separate hearing on the issue by taking all stakeholder onboard. Accordingly, a hearing was held on 8th July, 2014. The hearing was attended by representatives of IESCO and legal representatives of Cellular Companies. The representatives of IESCO reiterated their stance and requested the Authority to discontinue the installation of TOU meters on these connections. Whereas, the legal representatives of Cellular companies objected to the proceedings and demanded that evidence of losses being faced by DISCOs should be produced to review by cellular companies in order to provide further justification / evidence.

14.5 The legal representatives further objected to the suo-moto proceedings and named it as a brain storming session which needs to be followed by examination of evidence by cellular companies and a further hearing opportunity. The legal representatives of IESCO objected to the concerns of cellular companies' representatives and offered to present all the facts to the Authority. The Authority, during the hearing, required both DISCOs and cellular companies to provide their evidences in this regard to the Authority for consideration. As per directions of the Authority during the hearing,

IESCO submitted data vide letter No. 7617-20/CE/IESCO/CD(S) dated 21st July, 2014. In the meantime some initial information was provided by Warid Telecom Company.

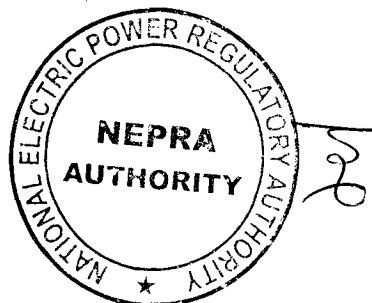
- 14.6 A number of cellular companies instead of providing data, went to the higher court against the suo-motto proceedings initiated by the Authority. The Honorable Islamabad High Court, dismissed their petition and the same was challenged by cellular companies before the Supreme Court of Pakistan. The decision of the Honorable Supreme Court is reproduced here as under;

"This petition is, therefore, converted into appeal and is allowed. Consequently the impugned judgment dated 22.07.2014 is set aside. This however shall not prevent NEPRA from furnishing the information relevant to the notice issued in the press and to proceed with the hearing after adhering to the National Electric Power Regulatory Authority (Tariff Standards and Procedure) Rule, 1998."

- 14.7 The representatives of Cellular companies Telecom, Mobilink and Ufone, M/s Aqlal Advocates later on submitted Motion for leave for review vide letter dated 25th July, 2014 and made the following submissions;

- The respondent is unable to file proper evidence without the pleadings and summary of evidence of IESCO being shared with them;
- Contrary to Authority's understanding, there is no technical capability in the network operations centre (NOC) of the respondents to measure and record the peak vs off-peak consumption of the BTS sites;
- The consumption data as submitted with the motion shows lower consumption in peak hours and is available with IESCO. Consequently, Authority is requested to seek such data from IESCO and share the same with the Respondents for them to be able to file counter-comments thereon before the Authority proceeds to accept and act upon such IESCO data.
- Rule 9(9) and 9(15) of the Tariff Standards and Procedure Rules, 1998 provides for establishing a detailed schedule for the orderly disposition of the proceeding, entailing, inter alia, for filing of interrogatories, discovery motions, objections and responses to objections and other procedural matters. Thus the instant proceedings have been conducted without summaries of evidence, any discovery, interrogatories or pleadings of the parties which precludes the Respondents from meaningful participation in the proceedings by presenting their case properly and effectively.

- 14.8 On the afore stated submissions, the Cellular companies made following pleas;



- A detailed schedule for the orderly disposition of the proceeding, inter alia, for filing of interrogatories, discovery motions, objections and responses to objections and other procedural matters be established before further proceedings;
 - After collection of all requisite evidence and giving adequate opportunities to the parties to consider and, if required, object to such evidence, declare close of evidence before the next hearing.
- 14.9 As per decision of Supreme Court of Pakistan the Authority again started proceedings, the Authority vide letter No. 1085-91 dated 23-01-2015 shared the information provided by IESCO with cellular companies for their comments. In response only M/s Mobilink provided their comments vide letter dated 9th March, 2015.
- 14.10 Consequently a letter was issued to the concerned stakeholders dated July 06, 2015 for their comments on the data provided by IESCO. However, no comments were received.
- 14.11 In view of aforementioned and as per the statutory requirements, the Authority framed the same issue in the tariff petitions for the FY 2015-16 and the relevant data was sought from the DISCOs for the onwards comments from the cellular companies. Accordingly, the data was provided by XWDISCOs during the hearings of their consumer end tariff petitions for FY 2015-16 and onward and the same was forwarded to the concerned stakeholders vide letter dated December 22, 2015 for provision of their comments. The Authority reviewed the comments from technical and financial prospective.
- 14.12 Further, in order to resolve the matter, the Authority framed an issue on the subject matter in the instant petition. The Authority observed that installation of ToU meters has been successful in achieving the desired results in terms of Demand Side Management. Further, XWDISCOs have a revenue caped tariff, meaning thereby that any under or over recovery due to sales mix is adjusted in the subsequent tariff. Therefore, the plea of XWDISCOs of any revenue/ financial loss is not justified. Therefore, the plea of XWDISCOs of any revenue/ financial loss is not valid.
- 15 Issue # 9. Whether the terms and conditions of tariff under category "H" to the extent of Special Conditions of Supply i.e. non availability to persons who meet a part of their requirements from a separate source of supply at their premises, needs to be revised or otherwise?
- 15.1 The petitioner on the issue submitted that only a bonafide Industrial consumer of company may allow to obtain connection under this tariff and not allow to those who are using Industrial supply connections from any other source.

15.2 In view of the Petitioner's response the Authority does not see any reason to change the terms and conditions of tariff under category "H".

16 Issue # 10. Whether the petitioner has any concerns regarding issuance of Distribution Licenses NOC's in its area of jurisdiction in terms of NEPRA (Supply of Electric Power) Regulation, 2015, and has it any financial implication on the allowed revenue requirement of the Petitioner, if so, the same shall be substantiated through numbers?

16.1 Issuance of Distribution Licenses in the area of HESCO will reduce the revenue of the company and adversely effects on the revenue requirement. The defaulter consumer of the company will not make payments & obtain electricity connections from other company which will increase burden of receivables of company.

16.2 The Authority understands that XWDISCOs revenue is only to the extent of distribution margin and is determined on the basis of revenue capped tariff, meaning thereby that any under or over recovery is adjusted in the subsequent tariff. Therefore, the concerns of XWDISCOs in this regard are not valid.

17 Issue # 11. Whether the terms and conditions with respect to Net Metering arrangements shall be included in the terms and conditions of tariff?

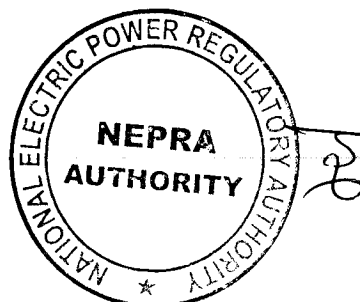
17.1 The Petitioner has agreed that terms and conditions with respect to Net Metering arrangements may be included in terms & conditions of tariff.

17.2 Here it is pertinent to mention that the Authority is in the process of modification of the NEPRA (Alternative & Renewable Energy) Distributed Generation and Net Metering Regulations, 2015, therefore, the same shall be notified separately once the process of modification is complete.

18 Issue # 12. Whether the tariff petition substantially complies with NEPRA Determination of Consumer-end Tariff (Methodology and Process) Guidelines, 2015?

18.1 Compliance has been made as per NEPRA directions and Tariff Petition has been sent according to NEPRA determination of Consumer-end tariff (Methodology and Process) Guidelines, 2015.

18.2 The Authority has observed several deviations from the minimum filing requirements indicated in the Methodology particularly with respect to CoSS, Investments and



Matti

Generation plan etc. The Petitioner is required to fulfil all the requirements as provided in the Methodology while filing the next tariff petition.

19 REVENUE REQUIREMENT

19.1 Based on the assessments made in the preceding paragraphs the Revenue Requirement of the Petitioner for the FY 2017-18 is assessed as per the following details;

1.	Power Purchase Price	Rs. 63,500 Million
	CpGenE	Rs. 22,391 Million
	CpGenCap	Rs. 38,702 Million
	USCF/Market Fee	Rs. 2,408 Million
2.	Distribution Margin (Net)	Rs. 10,639 Million
	O&M Cost	Rs. 8,206 Million
	Depreciation	Rs. 1,506 Million
	RORB	Rs. 2,573 Million
	Gross DM	Rs. 12,285 Million
	Less: Other Income	Rs. 1,647 Million
	Prior Year Adjustment	Rs. 20,524 Million
	1 st and 2 nd Quarter PPP Adj. FY-18	Rs. 2,821 Million
	Total Assessed Revenue Requirement	Rs. 97,484 Million

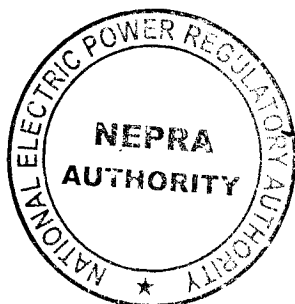
19.2 Based on the projected sales of 4,612 GWh for the FY 2017-18, the Petitioner's average sale rate works out as Rs.21.14/kWh, consisting of Rs.13.77 /kWh of adjusted PPP, Rs. 2.31 /kWh of DM, Rs. 0.61/kWh of 1st and 2nd Quarter PPP adjustments of FY 2017-18 and Rs.4.45 /kWh of Prior Year Adjustment.

19.3 This revenue would be recovered from the consumers during the FY2017-18, through the projected sales of 4,612 GWhs, as per Annex – II.

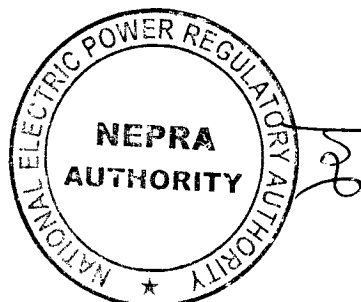
20 ORDER

20.1 From what has been discussed above, the Authority hereby determines the tariff of the Petitioner Company for the Financial Year 2017-18 as under :-

- I. Since FY 2016-17 has already lapsed, therefore, the Authority has incorporated the impact of difference in the distribution margin determined for the FY 2016-17 and the distribution margin recovered by the Petitioner during this period, in the assessed revenue requirement for the FY 2017-18 as part of Prior Year Adjustment (PYA).

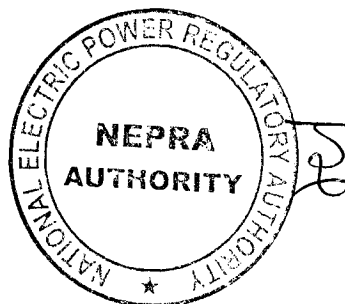


- II. Hyderabad Electric Supply Company Limited (HESCO) is allowed to charge its consumers such tariff as set out in the schedule of tariff for HESCO annexed to the determination.
- III. The actual variation in fuel cost component of power purchase price against the reference fuel cost component shall be adjusted on monthly basis without taking into account the T&D losses. The monthly fuel price adjustment shall be based on the actual information submitted by CPPA (G), adjustment of remaining components of PPP will be adjusted quarterly/ biannually. Here it is pertinent to mention that while making quarterly/ biannual adjustments of the PPP, the Authority may rationalize the SoT accordingly.
- IV. HESCO is allowed to charge the users of its system a "Use of system charge" (UOSC) equal to:
- i) Where only 132 kV system is involved
- $$UOSC = DM(Gross) \times \frac{(1-L)}{(1-0.0205)} \times AFI(T) \quad \text{Paisa/kWh}$$
- ii) Where only 11 kV distribution systems is involved.
- $$UOSC = DM(Gross) \times \frac{(1-L)}{(1-0.09745)} \times AFI(D) \quad \text{Paisa/kWh}$$
- iii) Where both 132 kV and 11 kV distribution systems are involved.
- $$UOSC = DM(Gross) \times \frac{(1-L)}{(1-0.11795)} \times AFI(TD) \quad \text{Paisa/kWh}$$
- Where:
- Gross Distribution Margin for FY 2017-18 is set at Rs.2.66/kWh (without excluding impact of other income)
- 'L' is the overall percentage loss assessment for the respective year.
- AFI (T) = Adjustment factor for investment at 132 kV level i.e.16%
- AFI (D) = Adjustment factor for investment at 11 kV level i.e. 59%.
- AFI (TD) = Adjustment factor for investment at both 132 kV & 11 kV level i.e. 75%.
- V. The residential consumers will be given the benefit of only one previous slab.
- VI. T&D losses target of 22.59% has been assessed for HESCO for the FY 2016-17 and FY 2017-18.
- VII. Total investment of Rs. 4,729 million & Rs. 5,500 million has been approved for the FY 2016-17 and FY 2017-18 respectively.



- VIII. The Order part, Annex-I, II, III, IV and V annexed with determination is hereby intimated to the Federal Government for notification in the official gazette in terms of section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.
- IX. The Authority hereby determines and approves the following component wise cost and their adjustments mechanism in the matter of HESCO's tariff petition for the FY 2017-18.

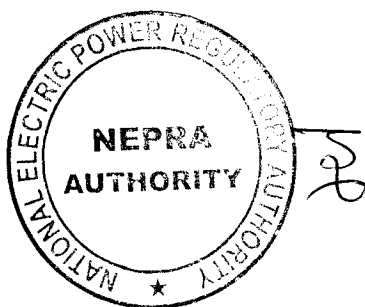
TARIFF COMPONENT	Assessed Cost FY 2017-18	ADJUSTMENTS/ ASSESSMENT
POWER PURCHASE PRICE		
Energy Purchase Price		
Fuel Cost	20,811	Monthly, as per the approved mechanism.
Variable O&M	1,580	Quarterly/ Biannually, as per the approved mechanism.
Capacity Charges	38,702	Quarterly/ Biannually, as per the approved mechanism.
Use of System Charges/ Market Operator fee	2,408	Quarterly/ Biannually, as per the approved mechanism.
T&D Losses	22.59%	Quarterly/ Biannually, as per the approved mechanism.
NET DISTRIBUTION MARGIN	10,639	
O&M Cost	8,206	
Salaries, wages & other benefits	4,667	Annually
Post-Retirement benefits	1,353	---do---
Repair and Maintenance	832	---do---
Other operating expanses	596	---do---
P.M assistance Package	759	---do---
Depreciation	1,506	---do---
Return on Rate Base	2,573	---do---
Other Income	(1,647)	---do---
1 st & 2 nd Qtr. Adj. FY 2017-18	2,821	---do---
Prior Year Adjustment	20,524	---do---



20.2 Summary of Directions

21.1 The summary of all directions passed in this determination are reproduce hereunder;

- To complete pending installation of its ToU meters without further delay.
- To provide the updated status regarding procurement of Mobile sets and also submit its investment needs of HHU not later than September 30, 2018.
- To provide the updated status in the matter and complete pending installation of AMR/AMI by 30th September, 2018.
- To provide details of its trade debts as on June 30, 2014, 2015 and 2016, clearly bifurcated into government and private receivables duly reconciled with its Audited financial statements, by taking into account the impact of provision and write offs if any.
- To complete the installation of AMR meters on GoS connections as soon as possible and start billing on the metered energy.
- To transfer the already collected provision of postretirement benefits into the fund.
- To target high loss feeders to bring the overall level of T&D losses down. A detailed plan be prepared in this regard and submitted to the Authority for monitoring the progress of the Petitioner.
- To maintain a proper record of its assets by way of tagging each asset for its proper tracking and provide an explanation on the concerns raised by the Authority in terms of its R&M cost, not later than 30th September, 2018
- To submit the cost/benefit analysis report for the investments made during the last five years and technical / financial savings achieved thereof and provide project wise detailed report against investments for FY 2015-16, FY 2016-17 and FY 2017-18.



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

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

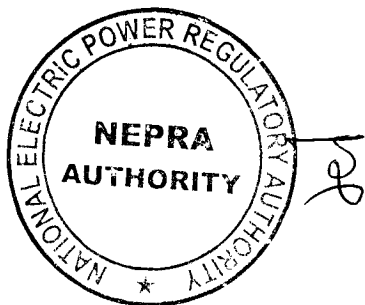
Where:

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 (G) 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;

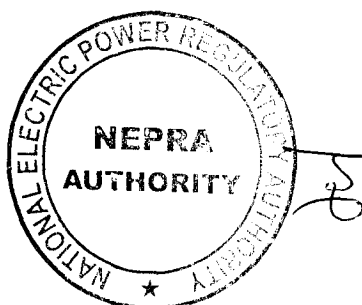
The fuel price adjustment determined by the Authority shall be shown separately in the bill of the consumer and the billing impact shall be worked out on the basis of consumption by the consumer in the respective month.



HYDERABAD ELECTRIC SUPPLY COMPANY LIMITED (HESCO)
Estimated Sales Revenue on the Basis of New Tariff

Description	Sales		Revenue			Base Tariff		1st & 2nd Qrt. Adj-18		PYA 2017		Total Tariff	
	GWh	% Mix	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Amount	Variable Charge	Amount	Variable Charge	Fixed Charge	Variable Charge
			Min. Rs.	Min. Rs.	Min. Rs.	Rs./kW/M	Rs./kWh	Min. Rs.	Rs./kWh	Min. Rs.	Rs./kWh	Rs./kW/M	Rs./kWh
Residential													
Up to 50 Units	87	1.45%	-	268	268	-	4.00	-	-	-	-	-	4.00
For peak load requirement less than 5 kW													
01-100 Units	676	14.65%	-	9,458	9,458	-	14.00	419	0.82	3,041	4.50	-	19.12
101-200 Units	633	13.73%	-	9,943	9,943	-	15.70	393	0.82	2,856	4.51	-	20.83
201-300 Units	495	10.73%	-	8,511	8,511	-	17.20	307	0.62	2,237	4.52	-	22.34
301-700 Units	368	7.98%	-	8,551	8,551	-	17.80	228	0.82	1,864	4.52	-	22.94
Above 700 Units	201	4.35%	-	3,911	3,911	-	19.50	124	0.62	906	4.52	-	24.64
For peak load requirement exceeding 5 kW													
Time of Use (TOU) - Peak	18	0.40%	-	361	361	-	19.50	11	0.62	84	4.52	-	24.64
Time of Use (TOU) - Off-Peak	74	1.60%	-	1,031	1,031	-	14.00	46	0.82	333	4.52	-	19.14
Temporary Supply	0	0.00%	-	-	-	-	19.40	-	0.82	-	4.52	-	24.54
Total Residential	2,532	54.89%	-	40,035	40,035	-	-	1,528	-	11,121	-	-	-
Commercial - A2													
For peak load requirement less than 5 kW	164	3.56%	-	3,025	3,025	-	18.40	104	0.63	743	4.52	-	23.55
For peak load requirement exceeding 5 kW													
Regular	6	0.14%	11	103	114	400	16.40	4	0.63	28	4.52	400	21.55
Time of Use (TOU) - Peak	43	0.94%	-	846	846	-	19.50	27	0.63	196	4.52	-	24.85
Time of Use (TOU) - Off-Peak	188	3.64%	322	2,346	2,668	400	13.99	104	0.62	758	4.52	400	19.13
Temporary Supply	1	0.02%	-	18	16	-	18.40	1	0.62	4	4.52	-	23.54
Total Commercial	383	8.29%	333	6,335	6,668	-	-	239	-	1,729	-	-	-
General Services-A3													
Industrial	138	3.00%	-	2,345	2,345	-	16.95	88	0.62	825	4.52	-	22.09
Industrial													
B1	54	1.17%	-	858	858	-	15.90	33	0.82	244	4.52	-	21.04
B1 Peak	15	0.33%	-	294	294	-	19.50	9	0.62	68	4.52	-	24.64
B1 Off Peak	72	1.57%	-	1,013	1,013	-	13.99	45	0.82	327	4.52	-	19.13
B2	15	0.32%	24	225	250	400	15.40	9	0.62	66	4.52	400	20.54
B2 - TOU (Peak)	57	1.23%	-	1,103	1,103	-	19.50	35	0.82	256	4.52	-	24.64
B2 - TOU (Off-peak)	306	6.63%	788	4,219	5,007	400	13.79	190	0.62	1,383	4.52	400	18.93
B3 - TOU (Peak)	39	0.84%	-	754	754	-	19.50	24	0.82	175	4.52	-	24.64
B3 - TOU (Off-peak)	205	4.44%	441	2,780	3,222	380	13.59	127	0.62	925	4.52	380	18.73
B4 - TOU (Peak)	19	0.41%	-	371	371	-	19.50	12	0.62	86	4.52	-	24.64
B4 - TOU (Off-peak)	115	2.50%	129	1,553	1,682	360	13.49	71	0.62	520	4.52	360	18.63
Temporary Supply	0	0.00%	-	-	-	-	15.90	0	0.62	0	4.52	-	21.04
Total Industrial	898	19.43%	1,383	13,172	14,555	-	-	556	-	4,050	-	-	-
Single Point Supply for further distribution													
C1(a) Supply at 400 Volts-less than 5 kW	31	0.07%	-	53	53	-	16.40	2	0.82	15	4.52	-	21.54
C1(b) Supply at 400 Volts-exceeding 5 kW	31	0.67%	38	492	530	400	15.90	19	0.82	140	4.52	400	21.04
Time of Use (TOU) - Peak	5	0.11%	-	99	99	-	19.50	3	0.62	23	4.52	-	24.64
Time of Use (TOU) - Off-Peak	22	0.47%	32	305	337	400	13.99	14	0.62	99	4.52	400	19.13
C2 Supply at 11 kV	22	0.48%	20	348	368	380	15.70	14	0.62	100	4.52	380	20.84
Time of Use (TOU) - Peak	5	0.11%	-	99	99	-	19.50	3	0.62	23	4.52	-	24.64
Time of Use (TOU) - Off-Peak	23	0.50%	31	316	347	380	13.79	14	0.62	104	4.52	380	18.93
C3 Supply above 11 kV	8	0.13%	7	95	103	360	15.60	4	0.62	28	4.52	360	20.74
Time of Use (TOU) - Peak	0	0.00%	-	-	-	-	19.50	-	0.82	-	4.52	-	24.64
Time of Use (TOU) - Off-Peak	0	0.00%	-	-	-	360	13.59	-	0.62	-	4.52	360	18.73
Total Single Point Supply	117	2.54%	127	1,808	1,935	-	-	73	-	530	-	-	-
Agricultural Tube-wells - Tariff D													
Scarp	219	4.75%	-	3,482	3,482	-	15.90	136	0.82	990	4.52	-	21.04
Time of Use (TOU) - Peak	9	0.19%	-	172	172	-	19.50	5	0.82	40	4.52	-	24.64
Time of Use (TOU) - Off-Peak	48	1.04%	31	653	684	200	13.59	30	0.62	217	4.52	200	18.73
Agricultural Tube-wells	33	0.72%	18	509	527	200	15.40	20	0.82	149	4.52	200	20.54
Time of Use (TOU) - Peak	38	0.83%	-	749	749	-	19.50	24	0.62	174	4.52	-	24.64
Time of Use (TOU) - Off-Peak	150	3.26%	103	2,041	2,144	200	13.59	93	0.62	679	4.52	200	18.73
Total Agricultural	497	18.79%	153	7,605	7,758	-	-	308	-	2,248	-	-	-
Public Lighting - Tariff G													
Residential Colonies	44	0.95%	-	761	761	-	17.35	27	0.62	198	4.52	-	22.49
Sub-Total	5	0.10%	-	82	82	-	17.35	3	0.62	21	4.52	-	22.49
Sub-Total	49	1.05%	-	843	843	-	-	30	-	220	-	-	-
Special Contract - Tariff-J													
J-1 For Supply at 66 kV & above	-	0.00%	-	-	-	360	15.80	-	0.62	-	4.52	360	20.74
Time of Use (TOU) - Peak	-	0.00%	-	-	-	-	19.50	-	0.62	-	4.52	-	24.64
Time of Use (TOU) - Off-Peak	-	0.00%	-	-	-	360	13.59	-	0.62	-	4.52	360	18.73
J-2 (a) For Supply at 11, 33 kV	-	0.00%	-	-	-	360	15.70	-	0.62	-	4.52	360	20.84
Time of Use (TOU) - Peak	-	0.00%	-	-	-	-	19.50	-	0.62	-	4.52	-	24.64
Time of Use (TOU) - Off-Peak	-	0.00%	-	-	-	360	13.79	-	0.62	-	4.52	360	18.93
J-2 (b) For Supply at 66 kV & above	-	0.00%	-	-	-	360	15.60	-	0.62	-	4.52	360	20.74
Time of Use (TOU) - Peak	-	0.00%	-	-	-	-	19.50	-	0.62	-	4.52	-	24.64
Time of Use (TOU) - Off-Peak	-	0.00%	-	-	-	360	13.59	-	0.62	-	4.52	360	18.73
J-3 (a) For Supply at 11, 33 kV	-	0.00%	-	-	-	360	15.70	-	0.62	-	4.52	360	20.84
Time of Use (TOU) - Peak	-	0.00%	-	-	-	-	19.50	-	0.62	-	4.52	-	24.64
Time of Use (TOU) - Off-Peak	-	0.00%	-	-	-	360	13.79	-	0.62	-	4.52	360	18.93
J-3 (b) For Supply at 66 kV & above	-	0.00%	-	-	-	360	15.80	-	0.62	-	4.52	360	20.74
Time of Use (TOU) - Peak	-	0.00%	-	-	-	-	19.50	-	0.62	-	4.52	-	24.64
Time of Use (TOU) - Off-Peak	-	0.00%	-	-	-	360	13.59	-	0.62	-	4.52	360	18.73
Total Revenue	4,812	100.00%	1,995	72,144	74,139	-	-	2,820	-	20,524	-	-	-

Tariff mentioned under Column "Total Tariff" shall remain applicable for a period of one year from the date of notification. After one year PYA 2017, 1st & 2nd Qrt. Adjustment FY 2017-18 shall cease to exist and only tariff mentioned under Column "Base Tariff" shall remain applicable till the same is superseded by next notification.



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

A-1 GENERAL SUPPLY TARIFF - RESIDENTIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES		FYA 2017		1st & 2nd Qrt.Adj-18		Total Variable Charges
		Rs/kW/M	Rs/kWh		Rs/kWh		Rs/kWh		Rs/kWh
		A	B		C		D		E
a)	For Sanctioned load less than 5 kW	-	4.00		-		-		4.00
i	Up to 50 Units	-	-		-		-		-
	For Consumption exceeding 50 Units	-	-		-		-		-
ii	001 - 100 Units	-	14.00		4.50		0.62		19.12
iii	101 - 200 Units	-	18.70		4.51		0.62		20.83
iv	201 - 300 Units	-	17.20		4.52		0.62		22.34
v	301 - 700 Units	-	17.80		4.52		0.62		22.94
vi	Above 700 Units	-	19.50		4.52		0.62		24.64
b)	For Sanctioned load 5 kW & above	-	-		-		-		-
	Time Of Use	-	Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	Peak
		-	19.50	14.00	4.52	4.52	0.62	0.62	24.64

As per Authority's decision residential consumers will be given the benefits of only one previous slab.

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

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

A-2 GENERAL SUPPLY TARIFF - COMMERCIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES		FYA 2017		1st & 2nd Qrt.Adj-18		Total Variable Charges
		Rs/kW/M	Rs/kWh		Rs/kWh		Rs/kWh		Rs/kWh
		A	B		C		D		E
a)	For Sanctioned load less than 5 kW	-	18.40		4.52		0.63		23.55
b)	For Sanctioned load 5 kW & above	400.00	16.40		4.52		0.63		21.55
	Time Of Use	400.00	Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	Peak
		400.00	19.50	13.99	4.52	4.52	0.63	0.62	24.65

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

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

A-3 GENERAL SERVICES

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES		FYA 2017		1st & 2nd Qrt.Adj-18		Total Variable Charges
		Rs/kW/M	Rs/kWh		Rs/kWh		Rs/kWh		Rs/kWh
		A	B		C		D		E
a)	General Services	-	16.99		4.52		0.62		22.09

Under tariff A-3, 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

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

B INDUSTRIAL SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES	VARIABLE CHARGES		FYA 2017		1st & 2nd Qrt.Adj-18		Total Variable Charges
		Rs/kW/M	Rs/kWh		Rs/kWh		Rs/kWh		Rs/kWh
		A	B		C		D		E
B1	Up to 25 kW (at 400/230 Volts)	-	15.90		4.52		0.62		21.04
B2(a)	exceeding 25-500 kW (at 400 Volts)	400.00	15.40		4.52		0.62		20.54
	Time Of Use	-	Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	Peak
B1 (b)	Up to 25 kW	-	19.50	13.99	4.52	4.52	0.62	0.62	24.64
B2(b)	exceeding 25-500 kW (at 400 Volts)	400.00	19.50	13.79	4.52	4.52	0.62	0.62	24.64
B3	For All Loads up to 5000 kW (at 11.33 kV)	350.00	19.50	13.59	4.52	4.52	0.62	0.62	24.64
B4	For All Loads (at 66,132 kV & above)	350.00	19.50	13.49	4.52	4.52	0.62	0.62	24.64

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.

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

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		FYA 2017		1st & 2nd Qrt.Adj-18		Total Variable Charges
		Rs/kW/M	Rs/kWh		Rs/kWh		Rs/kWh		Rs/kWh
		A	B		C		D		E
C-1	For supply at 400/230 Volts	-	16.40		4.52		0.52		21.54
a)	Sanctioned load less than 5 kW	-	15.90		4.52		0.52		21.04
b)	Sanctioned load 5 kW & up to 500 kW	400.00	15.70		4.52		0.52		20.84
C-2(a)	For supply at 11.33 kV up to and including 5000 kW	350.00	15.70		4.52		0.52		20.84
C-3(a)	For supply at 66 kV & above and sanctioned load above 5000 kW	350.00	15.50		4.52		0.52		20.74
	Time Of Use	-	Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	Peak
C-1(c)	For supply at 400/230 Volts 5 kW & up to 500 kW	400.00	19.50	13.99	4.52	4.52	0.62	0.62	24.54
C-2(b)	For supply at 11.33 kV up to and including 5000 kW	350.00	19.50	13.79	4.52	4.52	0.62	0.62	24.64
C-3(b)	For supply at 66 kV & above and sanctioned load above 5000 kW	350.00	19.50	13.59	4.52	4.52	0.62	0.62	24.64

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.



SCHEDULE OF ELECTRICITY TARIFFS
FOR HYDERABAD ELECTRIC SUPPLY COMPANY LIMITED (HESCO)
D - AGRICULTURE TARIFF

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2017 Rs/kWh	1st & 2nd Qrt.Adj-18 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C	D		E	
D-1(a)	SCARP less than 5 kW	-	15.90		4.52	0.62		21.04	
D-2(a)	Agricultural Tube Wells	200.00	15.40		4.52	0.62		20.54	
			Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	
D-1(b)	SCARP 5 kW & above	200.00	19.80	13.59	4.52	4.52	0.62	0.62	24.64
D-2(b)	Agricultural 5 kW & above	200.00	19.80	13.59	4.52	4.52	0.62	0.62	24.64

Under this tariff, there shall be minimum monthly charges Rs.2000/- per consumer per month, even if no energy is consumed.
 Note:- The consumers having sanctioned load less than 5 kW can opt for TOU metering.

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

E - TEMPORARY SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2017 Rs/kWh	1st & 2nd Qrt.Adj-18 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C	D		E	
E-1(i)	Residential Supply	-	19.40		4.52	0.62		24.54	
E-1(ii)	Commercial Supply	-	18.40		4.52	0.62		23.54	
E-2	Industrial Supply	-	18.90		4.52	0.62		21.04	

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.

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

F - SEASONAL INDUSTRIAL SUPPLY TARIFF

125% of relevant industrial tariff

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

G - PUBLIC LIGHTING

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2017 Rs/kWh	1st & 2nd Qrt.Adj-18 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C	D		E	
	Street Lighting	-	17.35		4.52	0.62		22.49	

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

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

H - RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

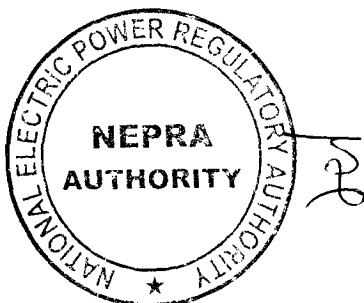
Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2017 Rs/kWh	1st & 2nd Qrt.Adj-18 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C	D		E	
	Residential Colonies attached to industrial premises	-	17.35		4.52	0.62		22.49	

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

J - SPECIAL CONTRACTS UNDER NEPRA (SUPPLY OF POWER) REGULATIONS 2015

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2017 Rs/kWh	1st & 2nd Qrt.Adj-18 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C	D		E	
J-1	For supply at 66 kV & above and having sanctioned load of 20MW & above	360.00	15.60		4.52	0.62		20.74	
J-2	(a) For supply at 11.33 kV	350.00	15.70		4.52	0.62		20.84	
	(b) For supply at 66 kV & above	360.00	15.80		4.52	0.62		20.74	
J-3	(a) For supply at 11.33 kV	380.00	15.70		4.52	0.62		20.84	
	(b) For supply at 66 kV & above	360.00	15.60		4.52	0.62		20.74	
	Time Of Use		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	
J-1(b)	For supply at 66 kV & above and having sanctioned load of 20MW & above	360.00	19.80	13.59	4.52	4.52	0.62	0.62	24.64
J-2 (c)	For supply at 11.33 kV	380.00	19.80	13.79	4.52	4.52	0.62	0.62	24.64
J-2 (d)	For supply at 66 kV & above	360.00	19.80	13.59	4.52	4.52	0.62	0.62	24.64
J-3 (c)	For supply at 11.33 kV	380.00	19.80	13.79	4.52	4.52	0.62	0.62	24.64
J-3 (d)	For supply at 66 kV & above	360.00	19.80	13.59	4.52	4.52	0.62	0.62	24.64

Note: Tariff under Column A and E of Annex-III shall remain applicable for one year from the date of notification. Column C, D and E of Annex-III shall cease to exist after one year and only Column A and B of Annex-III shall remain applicable, till the same is superseded by a next notification.

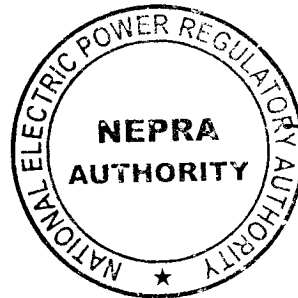


HESCO Power Purchase Price

Name	July	August	September	October	November	December	January	February	March	April	May	June	Total
Units Purchased by DISCOs (GWh)	650	578	587	544	387	358	309	307	414	503	627	695	5,958
kWh													
Fuel Cost Component	3.2708	2.5111	2.4588	2.9120	2.3306	3.4328	4.6523	3.6723	3.9777	4.3148	4.2633	4.3499	3.493
Variable O & M	0.2393	0.2332	0.2218	0.2402	0.2269	0.2838	0.3350	0.2726	0.2979	0.3218	0.2876	0.2685	0.265
CpGenCap	5.3276	5.0858	5.6211	6.6436	7.9205	7.7550	9.3149	8.8133	8.0644	6.8484	5.3950	5.4683	6.50
USCF & MoF	0.3194	0.3185	0.3553	0.4190	0.4651	0.4767	0.5300	0.5369	0.4730	0.4450	0.3536	0.3729	0.40
Total PPP in Rs. /kWh	9.1571	8.1486	8.6569	10.2147	10.9431	11.9484	14.8320	13.2951	12.8130	11.9300	10.2994	10.4596	10.6577

Rs in Million													
Fuel Cost Component	2,125	1,451	1,444	1,583	902	1,230	1,438	1,126	1,645	2,170	2,673	3,025	20,811
Variable O & M	155	135	130	131	88	102	104	84	123	162	180	187	1,580
CpGenCap	3,461	2,938	3,302	3,611	3,066	2,779	2,879	2,702	3,335	3,443	3,382	3,802	38,702
USCF & MoF	208	184	209	228	180	171	164	165	196	224	222	259	2,408
PPP	5,949	4,708	5,086	5,552	4,236	4,281	4,585	4,076	5,299	5,999	6,457	7,273	63,500

It is clarified that PPP is pass through for all the DISCOs and its monthly references would continue to exist irrespective of the financial year, unless the new SOT is revised and notified by the GOP



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

PART-I

GENERAL DEFINITIONS

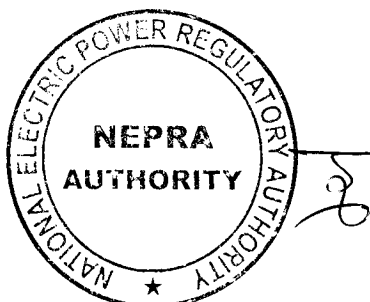
The Company, for the purposes of these terms and conditions means Hyderabad Electric Supply Company Limited (HESCO) engaged in the business of distribution of electricity within the territory mentioned in the licence granted to it for this purpose.

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:

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



[Handwritten signature]

[Handwritten signature]

12. "Consumer" means a person of 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(G) means Central Power Purchasing Agency Guarantee Limited (CPPA)(G).
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 Charge 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 7th 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%.

[Handwritten signature]

[Handwritten signature]



PART-II

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

A-1 RESIDENTIAL

Definition

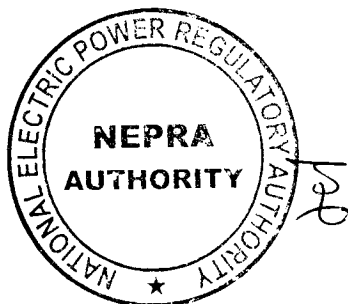
“Life Line Consumer” means those residential consumers having single phase electric connection with a sanctioned load up to 1 kW.

At any point of time, if the floating average of last six months’ consumption exceed 50 units, then the said consumer would not be classified as life line for the billing month even if its consumption is less than 50 units. For the purpose of calculating floating average, the consumption charged as detection billing would also be included.

1. This Tariff is applicable for supply to;
 - i) Residences,
 - ii) Places of worship,
2. Consumers having sanctioned load less than 5 kW shall be billed on single-part kWh rate i.e. A-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 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.

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 convert it to-A-2 (c) Tariff.
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).



A-3 GENERAL SERVICES

1. This tariff is applicable to;
 - i. Approved religious and charitable institutions
 - ii. Government and Semi-Government offices and Institutions
 - iii. Government Hospitals and dispensaries
 - iv. Educational institutions
 - v. Water Supply schemes including water pumps and tube wells operating on three phase 400 volts other than those meant for the irrigation or reclamation of Agriculture land.
1. Consumers under General Services (A-3) shall be billed on single-part kWh rate i.e. A-3(a) tariff.

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.
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

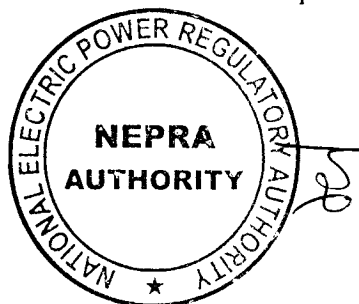
An industrial consumer shall have the option, to switch over to seasonal Tariff-F, provided his connection is seasonal in nature as defined under Tariff-F, and he undertakes to abide by the terms and conditions of Tariff-F and pays the difference of security deposit rates previously deposited and those 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.
3. All existing consumers under tariff B-1 shall be provided T.O.U metering arrangement by the Company and convert it to-B1 (b) Tariff.

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.



[Handwritten signature]

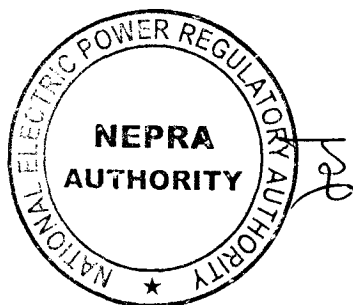
2. All existing consumers under tariff B-2 shall be provided T.O.U metering arrangement by the Company and converted to B-2(b) Tariff.
3. All new applicants i.e. prospective consumers applying for service to the Company shall be provided T.O.U metering arrangement and charged according to the applicable 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.



Do not

C BULK SUPPLY

“Bulk Supply” for the purpose of this Tariff, means the supply given at one point for self-consumption not selling 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

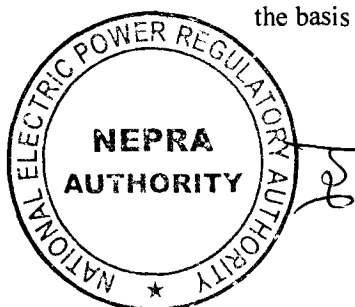
1. This Tariff is applicable to a consumer having a metering arrangement at 400 volts, having sanctioned load of up to and including 500 kW.
2. Consumers having sanctioned load less than 5 kW shall be billed on single-part kWh rate i.e. C-1(a) tariff.
3. All new consumers having sanctioned load 5 kW 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.

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).

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 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).
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.



[Handwritten signature]

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

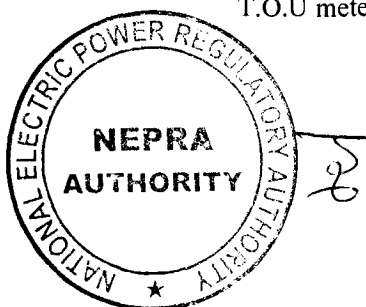
1. This tariff shall apply to:
 - i) Reclamation and Drainage Operation under Salinity Control and Reclamation Projects (SCARP):
 - ii) Bona fide forests, agricultural tube-wells and lift irrigation pumps for the irrigation of agricultural land.
 - iii) Tube-wells meant for aqua-culture, viz. fish farms,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

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.
3. 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.
4. All the existing consumers having sanctioned load 5 kW and above shall be provided T.O.U metering arrangements 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. Consumers having sanctioned load less than 5 kW shall be billed on single-part kWh rate i.e. D-2(a) tariff given in the Schedule of Tariff.
3. 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- 2(b) given in the Schedule of Tariff.
4. All the existing consumers having sanctioned load 5 kW and above shall be provided T.O.U metering arrangements and shall be governed by D-2(a) till that time.



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

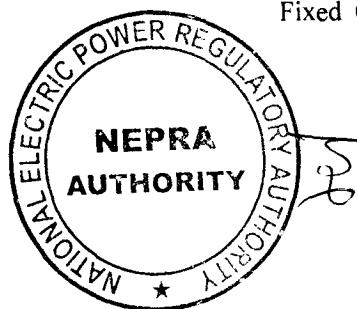
“Seasonal Industry” for the purpose of application of this Tariff, means an industry which works only for part of the year to meet demand for goods or services arising during a particular season of the year. However, any seasonal industry running in combination with one or more seasonal industries, against 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



[Handwritten signature]
Page 8 of 11

- 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.

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.

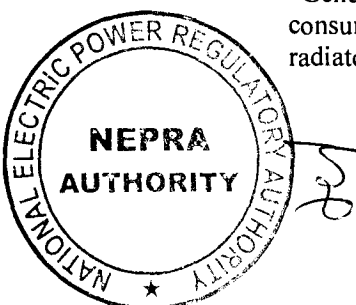
H RESIDENTIAL COLONIES ATTACHED TO INDUSTRIES

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 by 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.



Handwritten signature/initials

“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.

J. SPECIAL CONTRACTS UNDER NEPRA (SUPPLY OF POWER) REGULATIONS 2015

Supply for the purpose of this tariff means the supply given at one or more common delivery points;

- i. To a licensee procuring power from HESCO for the purpose of further supply within its respective service territory and jurisdiction.
- ii. To an O&M operator under the O&M Agreement within the meaning of NEPRA (Supply of Power) Regulations 2015 duly approved by the Authority for the purpose of further supply within the service territory and jurisdiction of the HESCO
- iii. To an Authorized agent within the meaning of NEPRA (Supply of Power) Regulations 2015, procuring power from the HESCO for further supply within the service territory and jurisdiction of the HESCO

J-1 SUPPLY TO LICENSEE

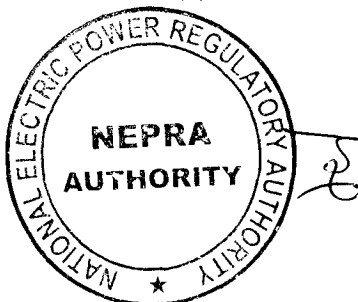
1. This tariff is applicable to a Licensee having sanctioned load of 20 MW and above receiving supply at 66 kV and above.
2. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to J-1(b).
3. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff J-1(b) as set out in the Schedule of Tariff.

SUPPLY UNDER O&M AGREEMENT

J-2 (a) SUPPLY AT 11 KV AND 33 KV

1. This tariff is applicable to an O&M operator receiving supply at 11 kV or 33 kV under the O&M Agreement duly approved by the Authority.
2. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to J-2(c).
3. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff J-2(c) as set out in the Schedule of Tariff.

J-2 (b) SUPPLY AT 66 KV AND ABOVE



[Handwritten signature]

1. This tariff is applicable to an O&M operator receiving supply at 66 kV & above under the O&M Agreement duly approved by the Authority.
2. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to J-2(d).
3. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff J-2(d) as set out in the Schedule of Tariff.

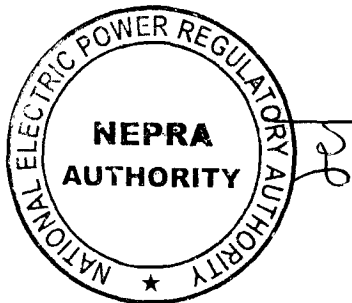
SUPPLY TO AUTHORIZED AGENT

J-3 (a) SUPPLY AT 11 KV AND 33 KV

1. This tariff is applicable to an authorized agent receiving supply at 11 kV or 33 kV.
2. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to J-3(c).
3. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff J-3(c) as set out in the Schedule of Tariff.

J-3 (b) SUPPLY AT 66 KV AND ABOVE

1. This tariff is applicable to an authorized agent receiving supply at 66 kV & above.
2. Existing consumers governed by this tariff shall be provided with T.O.U metering arrangement and converted to J-3(d).
3. All new consumers shall be provided TOU metering arrangement and shall be billed on the basis of tariff J-3(d) as set out in the Schedule of Tariff.



Handwritten signature/initials