National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No. NEPRA/R/ADG(Trf)/TRF-574/TESCO-2022/8715-8717
June 2, 2022

Subject: **<u>DETERMINATION OF THE AUTHORITY IN THE MATTER OF PETITION FILED BY TRIBAL AREAS ELECTRICITY SUPPLY COMPANY LTD. (TESCO) FOR DETERMINATION OF ITS SUPPLY OF POWER TARIFF UNDER MYT FOR THE FY 2020-21 TO FY 2024-25</u>**
<u>[Case # NEPRA/TRF-574/TESCO (Supply) -2022]</u>

Dear Sir,

Please find enclosed herewith subject Determination of the Authority along with Annex-I, I-A, II, III, IV, V & A and additional note of Engr. Rafique Ahmed Shaikh, Member NEPRA (64 Pages) in Case # NEPRA/TRF-574/TESCO (Supply) -2022.

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 within 30 days from the intimation of this Decision. In the event the Federal Government fails to notify the subject tariff Decision or refer the matter to the Authority for reconsideration, within the time period specified in Section 31(7), then the Authority shall notify the same in the official Gazette pursuant to Section 31(7) of NEPRA Act.

Enclosure: As above

020622

(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-574/TESCO (Supply) - 2022

DETERMINATION OF SUPPLY OF POWER TARIFF PETITION

FOR

TRIBAL AREAS ELECTRICITY SUPPLY COMPANY LIMITED (TESCO)

FOR THE FY 2020-21 – FY 2024-25

UNDER

NEPRA TARIFF (STANDARDS AND PROCEDURE) RULES - 1998

Islamabad

2-6-, 2022

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Abbreviations

CpGenCap	The summation of the capacity cost in respect of all CpGencos for a billing period minus the amount of liquidated damages received during the months
ADB	Asian Development Bank
AMI	Advance Metering Infrastructure
AMR	Automatic Meter Reading
BoD	Board of Director
BTS	Base Transceiver Station
CAPM	Capital Asset Pricing Model
CDP	Common Delivery Point
COSS	Cost of Service Study
CPPA (G)	Central Power Purchasing Agency Guarantee Limited
CTBCM	Competitive Trading Bilateral Contracts Market
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
GIS	Geographical Information System
GOP	Government of Pakistan
GWh	Giga Watt Hours
HHU	Hand Held Unit
HT/LT	High Tension/Low Tension
HSD	High Speed Diesel
IGTDP	Integrated Generation Transmission and Distribution Plan
IESCO	Islamabad Electric Supply Company Limited
KIBOR	Karachi Inter Bank Offer Rates
KSE	Karachi Stock Exchange
KV	Kilo Volt
kW	Kilo Watt
kWh	Kilo Watt Hour
LPC	Late Payment Charges
MDI	Maximum Demand Indicator
MMBTU	One million British Thermal Units
MoWP	Ministry of Water and Power
MVA	Mega Volt Amp

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MW	Mega Watt
NEPRA	National Electric Power Regulatory Authority
NOC	Network Operation Centre
NTDC	National Transmission & Despatch Company
O&M	Operation and Maintenance
OGRA	Oil and Gas Regulatory Authority
PEPCO	Pakistan Electric Power Company
TESCO	Tribal Areas Electricity Supply Company Limited
PDEIP	Power Distribution Enhancement Investment Program
PDP	Power Distribution Program
PPA	Power Purchase Agreement
PPAA	Power Procurement Agency Agreement
PPP	Power Purchase Price
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
SBP	State Bank of Pakistan
SOT	Schedule of Tariff
STG	Secondary Transmission Grid
SYT	Single Year Tariff
T&D	Transmission and Distribution
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
XWDISCO	Ex-WAPDA Distribution Company

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DETERMINATION OF THE AUTHORITY IN THE MATTER OF PETITION FILED BY TRIBAL AREAS ELECTRICITY SUPPLY COMPANY LIMITED (TESCO) FOR DETERMINATION OF ITS SUPPLY OF POWER TARIFF FOR THE FY 2020-21 TO FY 2024-25

CASE NO. NEPRA/TRF-574/TESCO (Supply) - 2022

PETITIONER

Tribal Areas Electricity Supply Company Limited (TESCO), 213-WAPDA House Shami Road, Sakhi Chashma Peshawar

INTERVENER
M/s PTCL
M/S Telenor
M/S Pak Telecom Mobile Ltd.
M/s PMCL (Jazz)

COMMENTATOR
NIL

REPRESENTATION

Chief Executive Officer and along-with its Technical and Financial team

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1. Background

1.1. The amendments in the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 was passed by the National Assembly on 15th March, 2018, which was published in the official Gazette on 30th April 2018 (the "**Amendment Act**"), resulting in restructuring of the energy sector. One of the fundamental changes as per the amendment Act is the introduction of a competitive retail energy sector, wherein, supply function has been segregated from the distribution license.

1.2. As per the amended Act, function of sale of electric power traditionally being performed by the Distribution Licensees has been amended under Section 21(2)(a), whereby 'sale' of electric power has been removed from the scope of 'Distribution Licensee' and transferred to 'Supply Licensee'.

1.3. The newly introduced Section 23E of the Act, provides NEPRA with the powers to grant Electric Power Supply License for the supply of electric power. Section 23E(1), however, provides that the holder of a distribution license on the date of coming into effect of the Amendment Act, shall be deemed to hold a license for supply of electric power under this section for a period of five years from such date. Thus, all existing Distribution Licensees have been deemed to have Power Supplier Licenses, to ensure distribution licensees earlier performing both the sale and wire functions, can continue to do so. Section 23E, further states that the eligibility criteria for grant of license to supply electric power to be prescribed by the Federal Government, and shall include, provision with respect to a supplier of the last resort, as the case may be.

1.4. As per Section 23F (2)(b), the Supplier possess the right to make sales of electric power to consumers within their specified territories on a non-discriminatory basis to all the consumers who meet the eligibility criteria laid down by the Authority.

1.5. In view thereof, Tribal Areas Electricity Supply Company Limited (TESCO), hereinafter called "the Petitioner", being a Distribution as well as deemed Supplier filed separate tariff petitions for the determination of its Distribution and Supply of Electric Power Tariff under the MYT Regime for a period of five years i.e. from FY 2020-21 to FY 2024-25, in terms of Rule 3 (1) of Tariff Standards & Procedure Rules-1998 (hereinafter referred as "Rules").

1.6. The Petitioner, inter alia, has requested the following for a supply of power for the five years period (including the cost of Distribution Business) as detailed below;

Description	Unit	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Unit Purchased	MkWh	2,236	2,504	2,817	3,198	3,677
Units to be Sold	MkWh	2,023	2,264	2,547	2,891	3,324
Investment	Mln Rs.	24.30	15.30	5.18	10.11	0.12
Power Purchase Cost	**Mln Rs.**	**21,920**	**25,024**	**28,748**	**32,871**	**38,253**
O&M	Mln Rs.	282	373	419	469	528
Wheeling Charges	Mln Rs.	3,017	3,406	3,832	4,349	5,001
Depreciation	Mln Rs.	6	8	7	8	8
Return on Asset Base (RoRB)	Mln Rs.	5	7	7	7	7
Provision for Bad Debts	Mln Rs.	1,513	1,584	1,668	1,752	1,836
Financial Charges	Mln Rs.	0.28	0.30	0.31	0.31	0.32
Total Supply Margin		4,823	5,378	5,933	6,585	7,380
Distribution Business Cost		1,261	1,896	2,242	2,662	3,001
Total Revenue Requirement	**Mln Rs.**	**28,004**	**32,298**	**36,923**	**42,118**	**48,634**
Avergae Tariff	**Rs./kWh**	**13.217**	**13.429**	**13.617**	**13.649**	**13.727**

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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. Since the impact of any such adjustments has to be made part of the consumer end tariff, therefore, the Authority, in order to provide an opportunity of hearing to all the concerned and meet the ends of natural justice, decided to conduct a hearing in the matter.

2.2. Hearing in the matter was initially scheduled on November 11, 2021, for which notice of admission / hearing along-with the title and brief description of the petition was published in newspapers on October 27, 2021 and also uploaded on NEPRA website; Individual notices were also issued to stakeholders/ interested parties. However the hearing was rescheduled and was held on November 16, 2021.

3. **Issues of Hearing**

3.1. For the purpose of hearing, and based on the 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 request of Petitioner to allow MYT for a period of five years is justified?

(ii) Whether the Petitioner has complied with the direction of the Authority given in earlier determination?

(iii) Whether the projected energy (GWh) and projected power purchase cost is reasonable?

(iv) Whether the requested O&M cost are justified?

(v) Whether the projected Return on Regulatory Asset base (RORB), Depreciation & Other Income is justified?

(vi) Whether the requested Financial Charges are justified?

(vii) Whether the requested wheeling charges are justified?

(viii) Whether the requested provision for bad debt is justified?

(ix) What should be the adjustment mechanisms during the MYT? Whether there should any efficiency factor (X Factor)?

(x) Whether the requested investment plan is justified?

(xi) What are the basis used by the Petitioner for bifurcation of its costs into supply and distribution segments?

(xii) Whether the existing Tariff Terms and Conditions needs to be modified, especially with reference to the request of Telecom companies to charge "B Industrial Supply" Category tariff instead of "A-2 Commercial" category tariff?

(xiii) Whether the existing fixed charges applicable to different consumer categories needs to be revised and requires any changes in mechanism for charging of such charges based on Actual MDI or Sanction Load or otherwise?

(xiv) Whether there should be any amendment in Terms and Conditions of Tariff (For Supply of Electric Power to Consumers by Supply Licensees) keeping in view the

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changes in Consumer Service Manual?

(xv) Whether there should any Fixed Charges on consumer having net metering facility on which currently no fixed charges are applicable?

(xvi) Whether the concerns raised by the intervener/ commentator if any are justified?

(xvii) Any other issue that may come up during or after the hearing?

4. <u>Filing Of Objections/ Comments</u>

4.1. Comments/replies and filing of Intervention Request (IR), if any, were desired from the interested person/ party within 7 days of the publication of notice of admission in terms of Rule 6, 7 & 8 of the Rules. In response thereof, IR has been filed by M/s PTCL, M/S Telenor, M/S Pak Telecom Mobile Ltd. & M/s PMCL (Jazz) A brief of the concerns raised in the IR/ comments is as under;

Telecom Sector including Cellular Operators (CMOs) has been declared as an Industry vide Ministry of Industries notification dated 20.04.2004, therefore, for the purpose of charging of electricity, industrial tariff may be applied to CMOs instead of currently applicable Commercial tariffs.

4.2. The Authority during the tariff determinations of GEPCO for the FY 2019-20, on the request of Telenor regarding charging of Industrial tariff from Telecom Operators decided as under;

"The Authority observed that the issue highlighted by the commentator M/s Telenor Pakistan regarding applicability of Industrial tariff to Cellular Mobile Operator (CMOs) pertains to all the DISCOs including K-Electric as CMOs are operating all over Pakistan, therefore, the issue requires deliberations involving all stakeholders i.e. DISCOs, CMOs, Ministry of Energy, MoIT etc. The Authority noted that proceedings regarding Tariff petitions filed by all XWDISCOs for the FY 2018-19 and FY 2019-20, except GEPCO, have already been completed, therefore, the Authority has decided to consider the request of M/s Telenor as a separate issue during the proceedings for the upcoming tariff Petitions of DISCOs for the FY 2020-21 & onward".

4.3. In view thereof, in the instant tariff Petition, the subject matter has been discussed as a separate issue.

5. During the hearing, the Petitioner was represented by its Chief Executive Officer along with its technical and financial teams; On the basis of pleadings, evidence/record produced and arguments raised during the hearing, issue-wise findings are given as under;

6. <u>Whether the request of Petitioner to allow MYT for a period of five years is justified?</u>

6.1. The Authority noted that the Petitioner has filed its MYT Petition for a period of five years i.e. FY 2020-21 to FY 2024-25, however, the Distribution license of the Petitioner is valid only till 30.04.2022. In view thereof, the Authority decided to deliberate the matter during the hearing.

6.2. The Authority, considering the fact MYT encourages competition, efficiency, economical use of resources, recovery of cost of electricity in a reasonable manner, rewarding efficiency in performance, etc. and at the same time provides certainty to all stakeholders. In view of the above, the Authority has decided to allow TESCO a MYT for a period of 5 years starting from FY 2020-21.

6.3. However, the Authority is also aware of the fact that under Section 21 (2) (a) of the NEPRA Act, the word "exclusive" has been omitted, meaning thereby that the Petitioner does not possess the exclusive right for provision of distribution services in its specified territory. Thus, the grant of distribution tariff under the MYT regime shall in no way be construed as a basis for claiming any exclusivity in the licensed territory of the Petitioner. The terms & conditions, given by the Authority, in the new Distribution license of the Petitioner would be applicable during the MYT control period and the MYT would be governed by the terms & conditions of the new license.

6.4. Allowing of the tariff under the MYT shall not have any bearing on the Petitioner request for license after the expiry of the current term, it shall be treated based on its own merits.

7. <u>Whether the petitioner has complied with the directions of the Authority given in the tariff determination of FY 2019-20?</u>

7.1. The Authority gave certain directions to the Petitioner in its tariff determination for the FY 2019-20. The same have been discussed in detail in the MYT Distribution of Power Tariff Determination of the Petitioner, therefore, need not to be discussed here again. The Authority also understands that periodic monitoring of the directions given by the Authority is absolutely necessary in order to analyze the Petitioner's performance, therefore, the Authority has decided to have a half yearly review of the given directions, instead of discussing the same only during the tariff proceedings. Further, the directions given by the Authority in the MYT Distribution tariff determination of the Petitioner, have been reproduced in the instant decision for compliance by the Petitioner.

8. <u>Whether the request of Petitioner to allow MYT for a period of five years is justified?</u>

8.1. The Authority noted that the Petitioner has filed its MYT Petition for a period of five years i.e. FY 2020-21 to FY 2024-25. It has also been noted that the Distribution license of the Petitioner is valid till 2031, however, its supply license is valid till April 2023. In view thereof, the Authority decided to deliberate the matter during the hearing.

8.2. The Authority also noted that Section 23E (1) of the Amended Act, provides that holder of a distribution license on the date of coming into effect of the Amendment Act, shall be deemed to hold a license for supply of electric power under this section for a period of five years from such date i.e. April 2023. Thus, all existing Distribution Licensees have been deemed to have Power Supplier Licenses, to ensure distribution licensees earlier performing both the sale and wire functions, can continue to do so including the Petitioner.

8.3. The Authority is also aware of the fact that under Section 21 (2) (a) of the NEPRA Act, the word "exclusive" has been omitted, meaning thereby that the Petitioner does not possess the exclusive right for provision of distribution services in its specified territory. Thus, the grant of tariff under the MYT regime shall in no way be construed as a basis for claiming any exclusivity in the licensed territory of the Petitioner. The terms & conditions, given by the Authority, in the new license of the Petitioner would be applicable during the MYT control period and the MYT would be governed by the terms & conditions of the new license.

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9. **Whether the projected energy (GWh) and projected power purchase cost is reasonable?**

9.1. The Petitioner regarding Power purchases submitted that its Units sold has been projected as 2023 Million, 2,264 Million, 2,547Million 2,891 Million, 3,324 Million from FY 2021-21 to 2024-25.

Statement of Revenue Requirement of Supply of Power						
Description	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Power Purchase Price	Rs. Mln	21,920	25,024	28,748	32,871	38,253
Units Sold	kWh	2,023	2,264	2,547	2,891	3,324

Statement of Revenue Requirement of Supply of Power						
Description	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Power Purchase Price	Rs. Mln	21,920	25,024	28,748	32,871	38,253
Margin Supply Business	Rs. Mln	4,823	5,378	5,933	6,585	7,380
Financial Charges	Rs. Mln	0.28	0.30	0.31	0.31	0.32
Total	Rs. Mln	26,743	30,401	34,682	39,456	45,633
Units Sold	kWh	2,023	2,264	2,547	2,891	3,324
Average Tariff	Rs./kWh	13.217	13.429	13.617	13.649	13.727

9.2. The Petitioner during the hearing provided the following breakup of the requested amount;

Description	2019-20 Actual	2020-21 Unaudited	2021-22 Proj	2022-23 Proj	2023-24 Proj	2024-25 Proj
Energy Charges	12,073	13,165	15,787	19,004	22,432	27,087
Capacity Charges	9,181	8,122	8,557	9,010	9,576	10,217
Transmission Charges	487	627	674	728	857	943
Supplementary Charges	855	5	6	6	6	6
MOF	5					
Total Power Purchase	**22,601**	**21,920**	**25,024**	**28,748**	**32,871**	**38,253**

9.3. The Petitioner in its petitioner has submitted that it will pay a Power Purchase Price (in Rs/kWh) for the electricity it procures from CPPA / NTDC or other sources, which would include the generation and transmission charges. The Petitioner further submitted that power purchase price, adjusted for its distribution losses, would then be simply added to its overall distribution margin to yield the retail tariffs. In addition to the above the cost of the purchased electricity would be "passed through" to consumers through the retail tariff, without affecting its distribution margin.

9.4. The Authority, observed that for the FY 2021-22, variations in the Power Purchase Price (PPP) for the 1st quarter of the FY 2021-22 i.e. Jul. to Sep. 2020 have already been allowed to the Petitioner vide the Authority's decision dated 09.05.2022 and for the 2nd quarter of FY 2021-22, the Petitioner has already filed its PPP adjustment requests with the Authority, which are at an advance stage of the proceedings and would be processed as per the prescribed mechanism. Therefore, for the purpose of instant Petition, the PPP of the Petitioner for the FY 2021-22 shall be the PPP that remained notified during the FY 2021-22, and on which the Petitioner has been / would be allowed quarterly adjustments, thus any reassessment of PPP for the FY 2021-22 is not required.

9.5. Although, variations in the PPP of the Petitioner are being actualized through quarterly adjustment mechanism, however, the existing PPP references, against which the variations are being allowed, were determined by the Authority keeping in view the FY 2020-21. The

Authority understands that these references now require up-dation / revision as large amount of new capacities e.g. Coal, Nuclear, Hydel etc. along-with HVDC transmission line have since been added in the system, and also to cater for the impact of PKR vs US$ devaluation, hike in fuel prices and CPI indexations. This revision of PPP references would minimize the impact of future monthly fuel charges adjustments & quarterly variations and will provide a more predictable tariff to the consumers.

9.6. Here it is pertinent to mention that the NEPRA Guidelines for determination of consumer end tariff (Methodology and Process) notified vide SRO dated 16.01.2015, prescribes submission of Procurement Plan by CPPA-G and approval of Power Purchase Cost by the Authority. Accordingly, CPPA-G, submitted its Power Purchase Price forecast report for the FY 2021-30, which outlines end consumer tariff outlook up-to FY 2030, and electricity price projections based on IGCEP.

9.7. As per the Report, CPPA-G has projected total generation of 136,867 GWh for the FY 2021-22, with the certain assumptions of fuel prices and other parameters i.e. exchange rate, CPI, USCPI, LIBOR and KIBOR etc. However, considering the fact that adjustments in PPP pertaining to the FY 2021-22 are already being processed as per the notified tariff, therefore, the projections by CPPA-G for FY 2021-22 are not relevant and by the time the instant tariff determination would be notified, the PPP reference for the FY 2022-23 will be relevant.

9.8. The Authority is cognizant of the fact that major component of the consumer-end tariff is the Power Purchase Price, which accounts for around 90% of total consumer-end tariff. Therefore, projection of PPP is of utmost importance, as all future monthly fuel charges adjustments as well as quarterly adjustments are worked out based on the projected notified PPP references.

9.9. In view thereof, the Authority by adopting a forward looking approach, has projected the revised PPP references keeping in view the ground realities for the FY 2022-23. For the purpose of determining the new PPP references, the Authority has made its own projections of PPP references for the FY 2022-23 by first projecting the total amount of generation that would be required and then estimating the plant wise generation along-with fuel prices and other assumptions etc., as discussed in detail in the ensuing paras.

9.10. The Authority observed that as per the IGCEP approved vide decision dated 24.09.2021, the total generation has been projected as 142,563 GWh for the FY 2020-23, with peak demand of 25,779 MW. The Projected Generation as per the IGCEP for the FY 2022-23 is around 9% higher as compared to the actual generation of FY 2020-21 i.e. 130,652 GWh, meaning thereby that there would be around 4.5% growth in generation during each of the FY 2021-22 and FY 2022-23.

9.11. However, it is pertinent to mention here that K-Electric during the FY 2020-21 withdrew energy of 6,118 GWhs from the National Grid, however, for the FY 2022-23, the share of energy to with obtained by K-Electric from National Grid has been assumed as 1100 MW i.e. 9,636 GWhs. The same in terms of generation, after grossing up for the allowed level of NTDC and HVDC losses works out as 9,989 GWhs. Thus, out of total projected generation of 142,563 GWhs as per the IGCEP, share of K-Electric would be 9,968 GWhs and the remaining generation of 132,385 would be for the XWDISCOs, after accounting for sale to IPPs.

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9.12. The aforementioned projected generation has been allocated to each of the XWDISCO in proportion to its actual units purchased for the period from July 2020 to July 2021. However, for K-Electric as explained above, the energy to be drawn from National Grid has been assumed as 1100 MW flat for each month, keeping in view the current scenario, whereby KE is allowed to draw 1100 MW from the National Grid. For the purpose of energy delivered to DISCOs, actual NTDC losses with maximum cap of 2.5% (energy delivered through NTDC network) and HVDC losses as approved by the Authority have been considered.

9.13. Accordingly, the generation as per the approved IGCEP, for the FY 2022-23 i.e. 142,563 GWh, which after adjustment of allowed T&T losses of NTDC/ HVDC and sale to IPPs (as per previous trend), results in projected energy of 137,609 GWh, delivered to DISCOs including K-Electric and would be available with DISCOs for sale to consumers, as detailed below;

	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Total
Energy Gwh	16,107	16,018	14,326	11,208	8,185	8,657	8,928	7,966	9,803	11,455	14,221	15,687	142,563
NTDC Losses	490.06	505.01	461.88	383.63	316.93	334.75	352.97	293.81	354.90	372.49	425.67	459.25	4,751
Sale to IPPs	22.91	22.78	20.37	15.94	11.64	12.31	12.70	11.33	13.94	16.29	20.22	22.31	203
Energy Delivered to DISCOs	15,594	15,491	13,844	10,809	7,856	8,310	8,563	7,661	9,434	11,066	13,775	15,206	137,609

9.14. The energy delivered to DISCOs has been allocated to each XWDISCO on monthly basis in proportion to their actual units purchased for the period from July 2020 to July 2021. For K-Electric, actual units purchased have been considered at 1100 MW flat for the FY 2022-23. Thus, resulting in following DISCO wise projected allocation of energy;

Projected Units to be Sold to DISCOs GWh

DISCOs	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Total
IESCO	1,536	1,482	1,267	959	711	815	844	690	779	889	1,241	1,526	12,739
LESCO	3,010	2,983	2,888	2,190	1,485	1,600	1,698	1,482	1,861	2,125	2,580	3,125	27,027
GEPCO	1,621	1,507	1,454	1,017	669	696	678	619	825	967	1,254	1,512	12,820
FESCO	1,942	1,961	1,787	1,359	908	937	970	924	1,181	1,385	1,736	1,933	17,023
MEPCO	2,644	2,835	2,335	1,687	1,034	1,015	1,084	1,052	1,486	1,857	2,428	2,440	21,897
PESCO	1,861	1,886	1,471	1,167	994	1,158	1,222	1,014	1,060	1,265	1,619	1,815	16,532
HESCO	701	619	577	505	324	306	304	290	425	564	676	666	5,957
QESCO	712	657	585	553	516	535	512	475	534	616	664	680	7,041
SEPCO	562	551	501	350	227	224	223	192	264	403	561	520	4,577
TESCO	185	191	187	205	196	206	209	183	201	204	197	197	2,361
K-Electric	818	818	792	818	792	818	818	739	818	792	818	792	9,636
Total	**15,594**	**15,491**	**13,844**	**10,809**	**7,856**	**8,310**	**8,563**	**7,661**	**9,434**	**11,066**	**13,775**	**15,206**	**137,609**

9.15. Since the power generated from different sources is procured by the Central Power Purchasing Agency (CPPA (G)) on behalf of XWDISCOs as per the rates so determined by the Authority and subsequently reflected in the respective Power Purchase Agreements (PPAs). The overall power purchase cost constitutes a pool price which is transferred to the DISCOs according to the prescribed mechanism and notified by the Federal Government in the Official Gazette. The Power Purchase Price so projected, in turn formulates the reference values for the monthly fuel adjustments & biannual PPP adjustment with respect to T&D losses, Capacity and Transmission Charges.

9.16. From all the available sources of generation of electricity, i.e. Hydel, Gas, Nuclear, Local and imported Coal, Solar, Wind, and Bagasse etc., a total of 142,563 GWh power is expected to be generated during the FY 2022-23. Here it is also important to mention that while projecting generation, the plants have been projected to be operated as per Merit order, keeping in view the projected prices of different fuels. The average prices for different fuels have been assumed as Rs.3,183/mmbtu for RLNG, Rs.2,078/mmbtu for imported coal, Rs.1,466 /mmbtu for local coal, and Rs.1,000 /mmbtu for local gas. All prices have been considered exclusive of GST. Assumptions and criteria for projection of fuel prices for each of the fuel has been discussed in detail in the ensuing paragraphs.

9.17. Accordingly, the estimated/projected source-wise generation and the estimated cost of electricity generation is given in the following table;

Source	Generation MkWh	Share	EPP Rs. Mln	CPP Rs. Mln	EPP + CPP Rs. Mln	EPP Rs./kWh	CPP Rs./kWh	EPP + CPP Rs./kWh
Hydel	44,859	31.47%	5,566	232,775	238,341	0.12	5.19	5.31
RFO	-	0.00%	-	70,300	70,300	-	-	-
Coal	39,202	27.50%	754,465	361,638	1,116,103	19.25	9.22	28.47
Gas	12,685	8.90%	107,105	57,377	164,482	8.44	4.52	12.97
RLNG	15,036	10.55%	336,262	122,730	458,991	22.36	8.16	30.53
Bagasse	1,012	0.71%	7,225	8,794	16,019	7.14	8.69	15.84
Wind	5,611	3.94%	-	116,087	116,087	-	20.69	20.69
Solar	1,163	0.82%	-	24,671	24,671	-	21.22	21.22
Nuclear	22,281	15.63%	21,065	304,219	325,284	0.95	13.65	14.60
Import	498	0.35%	9,269	3,144	12,413	18.60	6.31	24.91
SPPs	217	0.15%	1,428	-	1,428	6.59	-	6.59
Total	142,563	100.00%	1,242,385	1,301,735	2,544,120	8.71	9.13	17.85

9.18. Here it is pertinent to mention that the aforementioned energy charge includes variable O&M charges, however, variable O&M charges are not made part of monthly fuel charges adjustment and are adjusted as part of quarterly / biannual adjustments.

9.19. As per the above table, around 31.47% of total generation is expected from Hydel sources, 27.50% from Coal (both local & imported), and 15.63% from Nuclear. RLNG would contribute around 10.55% of the total generation, with around 8.9% by indigenous gas. Other Renewables i.e. Wind, Solar & Bagasse and Imports/SPPs share would be around 6%. Meaning thereby that variation in generation mix and prices of Coal, and RLNG/ Gas would have greater impact on the generation cost, thus, ultimately affecting the consumer-end tariff.

9.20. Regarding projection of fuel prices i.e. RLNG, Local & Imported Coal, Local Gas etc., various reports from different sources as given hereunder have been analyzed;

- ✓ US Energy Information Administration, Short-Term Energy Outlook October 2021
- ✓ World Bank Commodities Price Forecast
- ✓ IMF, World Economic Outlook Database
- ✓ Bloomberg (Various Analyst Firms forecast)
- ✓ Standard Chartered Bank Report
- ✓ Argus Media

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9.21. Based on the information available in the aforementioned reports, the Authority has projected the following fuel prices in terms of RLNG, Local & Imported Coal, and Gas, for the purpose of Power Purchase Price;

9.22. The Authority noted that as per the RLNG price notification issued by OGRA, RLNG prices in Pakistan are benchmarked with Brent Crude Oil Prices and are determined as a slope (%) of price of crude oil. In addition to this price, Port charges, PSO import related actual costs, PSO/ PLL Margin and Terminal Charges etc. are added to the price. The said prices are also adjusted with the Transmission Losses and other miscellaneous costs. Thus, the RLNG prices in Pakistan are not only affected by the international prices, being linked with crude oil, but also by the exchange rate parity.

9.23. Therefore, to have a fair projection of RLNG prices, the Authority considered the projections of Brent Crude oil prices by various reliable sources i.e. Short Term Energy Outlook published by US Energy Information Administration, World Bank Commodities Price Forecast report, IMF-World Economic Outlook Database and various analyst firm forecasts.

9.24. The 2nd factor for determination of price of RLNG is the slope that is applied on the price of Crude oil. To have a fair assessment of the applicable slope, the actual slope on which RLNG has been procured by PSO and PLL including spot purchases, during the last 12 months period has been analyzed. Accordingly, by applying the % slope on the projected prices of Crude Oil, the Delivered Ex-Ship (DES) prices of RLNG have been worked out. Here it is pertinent to mention that beside slope, certain additional charges like PSO/PLL Margin, other import related costs, terminal charges etc. are also applicable on CIF price of RLNG. Accordingly, the Authority keeping in view the projected prices of crude oil, % slope, and impact of rupee devaluation, has projected RLNG prices as Rs.3,183/mmbtu.

9.25. For indigenous gas, the Authority considering the existing price, has projected the same as Rs.1,000/mmbtu for the power purchase price projections.

9.26. Regarding price of imported coal, the Authority observed that majority of coal used by coal power plants operating in Pakistan, is imported from South Africa and to some extent from Indonesia, therefore, for the purpose of projection of coal prices, the price forecasts given by World Bank Commodities Price Forecast, Argus-McCloskey etc. have been considered. Accordingly, based on these reports and keeping in view the impact of devaluation of Pak Rupee, and by incorporating therein the Marine Insurance, Handling Loss, Other Charges (Port Handling Charges, Customs Duties & Cess, L/C Charges), Inland Freight etc., the price for imported coal works out as average Rs.2,078/mmbtu.

9.27. For projection of local coal prices for Thar coal, the Authority has considered the coal price determination made by Thar Coal Energy Board (TCEB) for Block-II. As per the TCEB determination, reference tariff determined for the 4th year includes variable cost of US$ 15.10 /Ton and fixed cost of US$ 50.58/Ton. The said total reference total cost determined by TCEB has been indexed with US CPI and US$ /PKR exchange rate to work out the projected coal price for the FY 2022-23, which works out as Rs.1,466 mmbtu. The same has been considered while projecting the PPP references.

9.28. Based on the above discussion, the source wise estimated/projected generation and the estimated cost of electricity generation is given in the following table;

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Source	Generation MkWh	Share	EPP Rs. Mln	CPP Rs. Mln	EPP + CPP Rs. Mln	EPP Rs./kWh	CPP Rs./kWh	EPP + CPP Rs./kWh
Hydel	44,859	31.47%	5,566	232,775	238,341	0.12	5.19	5.31
RFO	-	0.00%	-	70,300	70,300	-	-	-
Coal	39,202	27.50%	754,465	361,638	1,116,103	19.25	9.22	28.47
Gas	12,685	8.90%	107,105	57,377	164,482	8.44	4.52	12.97
RLNG	15,036	10.55%	336,262	122,730	458,991	22.36	8.16	30.53
Bagasse	1,012	0.71%	7,225	8,794	16,019	7.14	8.69	15.84
Wind	5,611	3.94%	-	116,087	116,087	-	20.69	20.69
Solar	1,163	0.82%	-	24,671	24,671	-	21.22	21.22
Nuclear	22,281	15.63%	21,065	304,219	325,284	0.95	13.65	14.60
Import	498	0.35%	9,269	3,144	12,413	18.60	6.31	24.91
SPPs	217	0.15%	1,428	-	1,428	6.59	-	6.59
Total	142,563	100.00%	1,242,385	1,301,735	2,544,120	8.71	9.13	17.85
Add; NTDC/ HVDC & CPPA-G Cost				119,212				
Less; NTDC/ HVDC Losses	(4,751)							
Less; Sale to IPPs	(203)		(4,055)					
PPP Adjusted	137,609		1,238,330	1,420,946	2,659,277	9.00	10.33	19.32

9.29. The generation cost is transferred to the DISCOs according to the Transfer Price Mechanism (TPM) as prescribed by the Authority.

9.30. According to the above mechanism, Rs.34,287 million and Rs.3,118 million is the share of the Petitioner on account of CpGenCap and UoSC (NTDC/ HVDC) & Market Operator Fee respectively for the FY 2022-23. The overall fixed charges comprising of CpGenCap and UoSC (NTDC/HVDC) & Market Operator Fee in the instant case works out as Rs.37,404 million, which translate into Rs.4,410/kW/month based on projected average monthly MDI of the Petitioner i.e. 707 MW or Rs.15.84/kWh on units purchased basis.

9.31. The total annual PPP of the Petitioner for the FY 2022-23 in the instant case works out as Rs.58,444 million. With the projected purchase of 2,361 GWh for the same period, the average PPP of the Petitioner turns out to be as Rs.24.75/kWh (Annex-IV), whereas, the national average determined PPP works out as Rs.19.32/kWh after accounting for the allowed level of NTDC/ HVDC losses and sale to IPPs. Similarly, the National Average Energy Purchase Price (EPP) works out as Rs.9.00/kWh. On the basis of allowed level of T&D losses of 9.21% for the Petitioner for the 3rd Year of the MYT, the adjusted PPP of the Petitioner is assessed as Rs.27.27/kWh.

10. <u>Whether the requested O&M cost is justified?</u>

10.1. The Petitioner has submitted that O&M cost includes Salaries & Wages, Repair & Maintenance, Travelling, Vehicle Running, management fee, computer services, damages and injuries, rent & rates and other miscellaneous expenses, wheeling charges and bad debts. While considering the O& M Expenses in respect of Supply of Power component all the Revenue offices expenses are fully charged to Supply of Power component and Salaries and other expenses of head quarter expenses are allocated on the basis of services provided and 80% expenses of computer center are also charged to Supply of Power, considering No. of employees as cost driver.

10.2. The Petitioner further submitted that the projection for operating and maintenance expenses for the FY 2020-21 is made on the basis of actual expenses incurred for four quarters from July to June 2020-21. In order to project O&M cost for the next four years from 2021-22 to 2024-25 all figures have been adjusted to incorporate the anticipated rise of wages/salaries by Govt. of Pakistan and other expenses due to current inflationary pressures and Dollar hike.

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10.3. In addition the petitioner submitted that O&M expenses will rise because of few other reasons i.e. BoD of TESCO has been reconstituted since after it's dissolution in 2010 and TESCO has also established Market Implementation and Regulatory Affairs Department (MIRAD) to implement CTBCM for which budget has been prepared and included in Tariff petition.

10.4. The Petitioner provided the following breakup of O&M expenses as under;

Rs. Million

Description	2019-20 Actual	2020-21 Proj.	2021-22 Proj.	2022-23 Proj.	2023-24 Proj.	2021-25 Proj.
Salaries, Wages & Benefits	144	168	235	270	310	357
Retirement Benefits	44	50	56	63	70	78
Total Employee Cost	187	218	291	333	380	435
Bad Debts	1340	1513	1584	1668	1752	1836
Repair & Maintenance	2	2	3	3	3	4
Travelling	5	6	6	7	7	7
Transportation	7	8	8	8	8	9
Mang. fee & other charges PEPCO	180	18	24	27	29	33
Consultancy, audit & legal fee	3	3	4	4	4	4
Computer Services	12	14	21	20	20	18
Damages & Injuries	0	2	5	5	6	6
Rent, Rates & Postages	3	3	3	4	4	4
Miscellaneous Expenses	6	8	8	9	9	9
Wheeling Charges	2363	3016	2800	2950	3050	3150

10.5. In view thereof, the head wise assessment of the Petitioner under each of the requested costs is as discussed hereunder;

<u>Salaries, Wages & Other Benefits:</u>

10.6. The Petitioner during the hearing submitted that employment cost including salaries, wages and employee's retirement benefits is the major component of O&M expenses. Regarding projection of cost the Petitioner submitted that disparity reduction allowance of 25% on running basic pay with effect from 1st March 2021, adhoc relief allowance @ 10% of Basic Pay w.e.f. 1/7/2021, annual Increment 5%, increase in the house rent ceiling, increase in orderly allowance w.e.f. 1/7/2021, up gradation of dead cadre employees, drivers, meter reading section supervisor, meter supervisor grade-II, store system supervisor, meter mechanic etc., increase in maternity charges etc. and hiring of line staff initially 200 ALM`s, 28 officers to meet the shortage of staff in TESCO has been considered.

10.7. Further, the Petitioner has submitted that its employment cost will also rise because of creation of Market Implementation and Regulatory Affairs Department (MIRAD) to implement CTBCM for which budget has been prepared and included in Tariff petition.

<u>Repair & Maintenance</u>

10.8. For Repair & Maintenance expenses the Petitioner has submitted that the increase in this cost has occurred because it has to maintain its old and overloaded system in order to ensure un-interrupted power supply to the consumers, moreover cost of material has also increased

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due to inflationary pressure. Similarly, repair & maintenance of grid station equipment has also increased as most of these have already consumed their useful life.

10.9. Other factors include repair & maintenance of high voltage transmission lines, 249 Nos of 11kV feeders, 10,368 km HT lines, 6341 km LT lines and 18,538 Nos. of distribution transformers.

<u>Transportation Expenses</u>

10.10. For Transportation expenses the Petitioner submitted that the Government of Pakistan has enhanced the rates of daily allowances on official duty within the country.

10.11. Further the Petitioner submitted that there are many new department which have been properly established like Surveillance & intelligence (S&I) etc. GSC and Construction staff also have to travel all over the Tribal belt in order to complete development works which contributed towards the increase in the transportation expense.

<u>Vehicle Running Expenses</u>

10.12. Regarding Vehicle Running Expenses the Petitioner has submitted that it has a fleet of more than 98 vehicles, most of them have completed useful life of 10 years and need major over hauling. Further, the Petitioner submitted that the financial position of the company doesn't allow to replace most of the old vehicles and the distribution system of the company is spread over 27,034 Sq.km. Moreover, the cost of POL and spare parts are increasing due to inflation.

10.13. The Authority observed that the Amended NEPRA Act under Section 31(3), inter alia, has prescribed that the following general guidelines shall be applicable to the Authority in the determination, modification or revision of rates, charges and terms and conditions for provision of electric power services;

- ✓ *"(a) tariffs should allow licensees the recovery of any and all cost prudently incurred to meet the demonstrated needs of their customers Tariff."*
- ✓ *(b) tariffs should generally be calculated by including a depreciation charge and a rate of return on the capital investment of each licensee commensurate to that earned by other investments of comparable risk;*
- ✓ *(c) tariffs should allow licensees a rate of return which promotes continued reasonable investment in equipment and facilities for improved and efficient service;*
- ✓ *(d) tariffs should include a mechanism to allow licensees a benefit from and penalties for failure to achieve the efficiencies in the cost of providing the service and the quality of service;"*

10.14. Further, as per NEPRA determination of Consumer-end-Tariff (Methodology & Process) Guidelines, 2015, the Authority shall choose a base year for the purpose of determining the affected company's revenue requirement under multi-year tariff regime or annual tariff regime. "Base Year" has been defined as the year on which the annual or multiyear tariff projection is being made, which may be a historical financial year, for which the actual results/audited accounts are available. It may be a combination of actual results and projected results for the same financial year or it may be a pure projection of a future financial year.

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10.15. Considering the fact that the MYT has been filed for the period pertaining to the FY 2020-21 to FY 2024-25, and the cost for the FY 2020-21 i.e. test year, is being assessed as reference cost during the MYT control period, the Authority has decided to consider the costs as per the Audited accounts of the Petitioner for the FY 2019-20 as base year.

10.16. The Authority considers that for projections or assessment of OPEX costs, the two commonly used approaches are the Ex-Ante approach and the Ex-Post approach. In a regime where the allowed OPEX is determined Ex-Ante, there will inevitably be deviations between the allowed and actual OPEX in the form of efficiency savings or losses. Thus resulting in two broad options, one that the utility bears all savings or losses, i.e. no action is taken by the Regulator. The 2nd that the utility shares the savings or losses with consumers. The former provides the utility with a profit incentive to cut costs, but at the same time places the utility at greater financial risk in the face of losses. The latter somewhat dilutes efficiency incentives, but also limits the losses/gains for the utility and its customers. However, the widely used approach is that no adjustments to allowed Revenues or OPEX allowances are made in the next period to compensate for a deviation from allowed OPEX in the current period except for certain allowed adjustments in terms of CPI etc.

10.17. In view thereof, the head wise assessment of the Petitioner under each of the requested costs is as discussed hereunder.

Salaries, Wages and Other benefits (excluding post-retirement benefits)

10.18. The Authority noted that head of Salaries, Wages and Other Benefits include employees Pay & Allowances and Post-retirement benefits and accounts for major part of the Petitioner's total O&M costs. The Authority understands that employees of XWDISCOs are hired on Government pay scales, thus, any salary increase announced by the Federal Government in Fiscal Budget is also considered for the employees of XWDISCOs. Therefore, salaries & wages cost of employees can be considered as un-controllable cost for XWDISCOs as long as they remain in public sector.

10.19. Considering the fact that the cost for the FY 2020-21 is being assessed, which would be used as reference during the MYT control period, the Authority has decided to consider the costs as per the Audited accounts of the Petitioner for the FY 2019-20 as base year as explained in the preceding paras. It is also pertinent to mention that being a public sector company, the Petitioner is required to pay, its employees, increases in salaries & wages announced by the Federal Government through budget.

10.20. The actual total cost reflected in the audited accounts of the Petitioner for the FY 2019-20, under Salaries & Wages *(excluding postretirement benefits, discussed separately)* is Rs.702 million. Accordingly, the said amount has been considered as base cost and by applying thereon the increases as approved by the Federal Government on Salaries and Wages in the Federal Budget for the FY 2020-21, the cost of Salaries & Wages *(excluding postretirement benefits, discussed separately)*, for both the Distribution and Supply Functions works out as Rs.775 million. The same is hereby allowed to the Petitioner for the FY 2020-21 for both its distribution and supply functions as reference cost, to be adjusted in the remaining control period as per the adjustment mechanism prescribed in the instant determination.

10.21. Since the audited accounts of the Petitioner, do not provide bifurcation of the Salaries, Wages and other benefits costs in terms of distribution and supply functions, therefore, for the purpose of allocation of total cost of Salaries, Wages and other benefits in terms of distribution and supply functions, the criteria as adopted by the Petitioner has been used. Accordingly, the cost of Salaries, Wages and other benefits *(excluding postretirement benefits)* for the FY 2020-21 pertaining to the supply function works out as Rs.153 million.

10.22. The assessed Salaries & Wages costs for the FY 2020-21 i.e. Rs.153 million, shall be considered as the reference cost for working out future Salaries & Wages expenses, in the remaining control period as per the adjustment mechanism prescribed in the instant determination.

<u>Additional Recruitment</u>

10.23. The Authority observed that Salaries & Wages cost for the FY 2019-20, as per the audited accounts of the Petitioner, have been considered as base cost, therefore, impact of any new recruitment already made till FY 2019-20 has been accounted for. For the any future recruitment to be carried out in FY 2020-21 and onward, the Authority understands that allowing cost of additional hiring, upfront would be unfair with the consumers, without considering/ analyzing the benefits of such recruitment. The Authority understands that it will be in a better 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 accrued. In view thereof, the Authority has decided to consider the financial impact of any additional hiring during the midterm review, which will be carried out after expiry of 3rd year of the MYT control period, whereby the Petitioner would provide complete detail/ justification of the recruitment made along-with benefits achieved. The mid-term review would be carried out, in case the Petitioner remains in the public sector.

<u>Hiring for MIRAD</u>

10.24. The Authority observed that detailed design and implementation plan of the Competitive Trading Bilateral Contract Market (CTBCM) has been approved on November 12, 2020 to make a competitive wholesale electricity market functional in near future. Pursuant thereto, DISCOs have created a Market Implementation & Regulatory Affairs Department (MIRAD). The department would be a dedicated central interface between DISCOs and the competitive electricity market equipped with staff having specialized knowledge and competency and supported by necessary infrastructure, inter-alia, to administer the market operations including bilateral contracts portfolio management, short and medium-term demand forecasting, transmission planning, and overseeing legal and regulatory affairs.

10.25. Regarding recruitment for MIRAD, the Authority has decided to allow hiring for MIRAD in principal and allow the incremental financial impact of the same as part of PYA in the subsequent adjustment requests and would also be made part of reference cost for future indexations, once the Petitioner completes its recruitment process and submits complete details in this regard. Here it is pertinent to mention that impact of employees internally transferred to MIRAD has already been largely accounted for while assessing the salaries & wages cost.

<u>Post-Retirement Benefits</u>

10.26. Since the Petitioner was incorporated as company in compliance with power sector reform policy of Government of Pakistan and the WAPDA employees working in Area Electricity Board gradually become employees of the company in terms of the Man Power Transition

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Plan, therefore it had to maintain the GOP pay scales and the terms of employment for the employees which were prevalent in WAPDA.

10.27. The Authority noted that the head of Post-retirement benefit includes employees' pension, free electricity and medical facility. The Authority also understands that employees of XWDSICSOs are hired on Government pay scales, thus thus, any pension increase announced by the Federal Government in the Budget is also considered by the Petitioner for its retired employees.

10.28. The amount for the first year is Rs.207 million for the FY 2020-21, based on the amount requested by the Petitioner.

10.29. Since the Audited accounts of the Petitioner, do not provide bifurcation of post-retirement benefits in terms of Distribution and Supply Functions, therefore, for the purpose of allocation of total cost of post-retirement benefits in terms of Distribution and Supply Functions, the criteria as adopted by the Petitioner has been used. Accordingly, the cost of post-retirement benefits for the FY 2020-21 pertaining to the Supply Function works out as Rs.50 million, to be adjusted in the MYT Control period as per the adjustment mechanism provided in the instant determination.

<u>Repair & Maintenance Costs</u>

10.30. The Petitioner has requested the following regarding repair and maintenance cost during the control period;

Rs. Mln.

Description	2019-20 Actual	2020-21 Projected	2021-22 Projected	2022-23 Projected	2023-24 Projected	2024-25 Projected
Repair & Maintenance	2	2	3	3	3	4

10.31. For Repair & Maintenance expenses the Petitioner has submitted that the increase in this cost has occurred because it has to maintain its old and over loaded system in order to ensure un-interrupted power supply to the consumers, moreover cost of material has also increased due to inflationary pressure. Similarly, repair & maintenance of grid station equipment has also increased as most of these have already consumed their useful life.

10.32. Other factors include repair & maintenance of high voltage transmission lines, 249 Nos of 11kV feeders, 10,368 km HT lines, 6341 km LT lines and 18,538 Nos. of distribution transformers.

10.33. In view of the foregoing and keeping in view the current approved tariff methodology, the Authority has decided to allow an amount of Rs.18.74 million under R&M head, for the FY 2020-21, after incorporating the inflationary impact on the R&M cost as per the accounts of the Petitioner for the FY 2019-20 for both the Distribution and Supply Functions. The same is hereby allowed to the Petitioner for the FY 2020-21 for both its distribution and Supply Functions.

10.34. Since the Audited accounts of the Petitioner, do not provide bifurcation of the R&M costs in terms of Distribution and Supply Functions, therefore, for the purpose of allocation of total cost of R&M costs in terms of Distribution and Supply Functions, the criteria as adopted by the Petitioner has been used. Accordingly, the cost of R&M for the FY 2020-21 pertaining to the supply function works out as Rs.1.97 million.

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10.35. The assessed repair and maintenance cost for the FY 2020-21 i.e. Rs.1.97 million, shall be considered as the reference cost for working out future repair and maintenance expenses, in the remaining control period as per the adjustment mechanism prescribed in the instant determination.

<u>Other O&M Expenses</u>

10.36. The Authority noted that as per the approved tariff methodology, all other operating expenses are part of O&M costs which are to be assessed through CPI-X formulae for the whole tariff control period. Accordingly, for the assessment pertaining to the FY 2020-21 (reference cost), the Authority has decided to accept the actual figures of the FY 2019-20 as such and allowed an inflationary increase of 9.49 % over the same and accordingly has assessed the other O&M expenses as Rs.83 million for both the Distribution and Supply of Power Function.

10.37. Since the Audited accounts of the Petitioner, do not provide bifurcation of the Other O&M costs in terms of Distribution and Supply of Power Functions, therefore, for the purpose of allocation of total cost of Other O&M costs in terms of Distribution and Supply Functions, the criteria as adopted by the Petitioner has been used. Accordingly, the cost of Other O&M costs for the FY 2020-21 pertaining to the Supply function works out as Rs.43 million.

10.38. By considering the figures as per actual financial statement, the Authority has incorporated all the costs including bill collection, building rent, NEPRA fee, insurance cost, rent, rates & taxes, and travelling etc. However, Management Fees of PEPCO, has not been considered as each DISCO is an independent entity having its own board of Directors, thus, allowing any cost on the pretext of PEPCO Management fee is not logical. Further, the Ministry of Energy (MoE), itself in the Peshawar High Court submitted that PEPCO shall be dissolved after June 2011. Accordingly, the cost of PEPCO fee, if any, has not been allowed to the Petitioner.

10.39. The aforementioned assessment for the FY 2020-21 shall be considered as reference for working out future Other Operating Expenses for remaining tariff control period to be adjusted as per the adjustment mechanism provided in the instant determination.

11. <u>Whether the requested Depreciation and RoRB based on requested WACC is justified?</u>

<u>Depreciation</u>

11.1. Regarding RoRB the Petitioner has submitted the following Calculation for FY 2020-21 to 2024-25;

Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Gross Fixed Assets In Operation-O/B	59.59	59.91	84.221	99.51	104.68	114.79
Addition in Fixed Assets	0.32	24.30	15.30	5.18	10.11	0.12
Gross Fixed Assets In Operation-C/B	59.91	84.21	99.51	104.68	114.79	114..91
Less Accumulated Depreciation	35.33	41.39	48.97	56.63	64.34	72.36
Net Fixed Assets in Operation	24.57	42.81	50.33	48.35	50.45	42.54
Add: Capital Work in Progress-C/B	0.00	0.00	0.00	0.00	0.00	0.00
Investment in Fixed Assets	24.57	42.81	50.33	48.35	50.45	42.54
Less Deferred Credits	0.00	0.00	0.00	0.00	0.00	0.00
Regulatory Assets Base	24.57	42.81	50.33	48.35	50.45	42.54

Average Regulatory Assets Base	25.22	33.69	46.67	49.44	49.40	46.50
Rate of Return	15.02%	13.50%	14.00%	14.5%	15.00%	15.00%
Return on Rate Base	3.03	4.55	6.53	7.17	7.41	6.97

11.2. Regarding projection of WACC the Petitioner has submitted the following;

- NEPRA allowed WACC to TESCO 15.02% in its tariff determination for FY 2019-20. It comprise cost of debt and cost of equity.
- For assessment of Return of Equity (RoE) component for FY 2020-21, TESCO has estimated 16.92% RoE by using the Capital Asset Pricing Model (CAPM), being the most widely accepted model, applied by Regulatory agencies all over the world to estimate the cost of capital for regulated utilities.
- In order to calculate Cost of debt TESCO considered cost of debt as 3 month's KIBOR + 5.00% spread as reasonable. Consequently, the cost of debt has been worked out as 12.03% i.e. 3 Months KIBOR of 7.03% as of July 2021 plus a spread of 5.00%
- As per the methodology, in case of negative equity the NEPRA considers a minimum of 20% equity and any equity in excess of 30% is considered as debt.
- Accordingly, the WACC has been worked out as under;

$$\text{WACC} = ((Ke \times (E/V) + (Kd \times (D/V))$$

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

$$\textbf{WACC} = [16.92\%*30\%] + [12.03\%*70\%] = \textbf{13.50\%}$$

- TESCO has projected 14.00%, 14.50%, 15.00%, 15.00% WACC for FY 2021-22 to 2024-25 respectively while incorporating same methodology.

11.3. Regarding Depreciation projected cost the Petitioner as submitted the following;

- Projected depreciation expense is calculated on the basis of the value of existing assets plus the addition in assets during the year.
- All the assets are depreciated on straight line method as per utility practice i.e.
- Buildings and civil works @ 2%
- Plant and machinery @ 3.5%
- Office equipment and vehicles @ 10%
- Other assets @ 10%

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Description	Unit	2020-21 Proj.	2021-22 Proj.	2022-23 Proj.	2023-24 Proj.	2021-25 Proj.
Depreciation	Rs. Mln	6	8	7	8	8

11.4. The Authority noted that as per the Methodology, depreciation expense for the test year, which in the instant case is FY 2020-21, will be determined by applying depreciation charge on the Gross Fixed Assets in Operation, including new investment and will be considered reference for the tariff control period.

11.5. In order to make fair assessment of the depreciation expense, the Authority accounts for the investments approved for the year. After taking into account the new investments, the Gross Fixed Assets in Operation for the FY 2020-21 have been worked out as Rs.9,386 million. Accordingly, the depreciation charge for the FY 2020-21 has been assessed as Rs.348 million calculated on actual depreciation rates for each category of Assets as per the company policy, which will be considered as reference cost for working out future depreciation expenses for the remaining tariff control period, to be adjusted as per the mechanism provided in the instant determination.

11.6. After carefully examining the relevant details and information pertaining to the deferred credit and amortization as per the accounts for the FY 2019-20, the Authority has projected amortization of deferred credit to the tune of Rs.289 million for the FY 2020- 21. Accordingly, the consumers would bear net depreciation of Rs.59 million.

11.7. The actual depreciation reflected in the audited accounts of the Petitioner for the FY 2019-20, do not provide bifurcation of depreciation cost in terms of Distribution and Supply functions, therefore, for the purpose of allocation of depreciation cost in terms of Distribution and Supply Functions, the criteria as adopted by the Petitioner has been used. Accordingly, the depreciation cost for the FY 2020-21 pertaining to the supply Function works out as Rs.5 million. The same would be adjusted during the MYT control period as per the mechanism provided in the instant determination.

Return on Rate Base (RORB)

11.8. The Petitioner has requested the following RoRB charges in its distribution of power petition;

Rs in Mln

Description	FY 2019-20 Actual	FY 2020-21 Unaudited	FY 2021-22 Projected	FY 2022-23 Projected	FY 2023-24 Projected	FY 2024-25 Projected
Return on Rate Base (Rs. Mln)	820	929	1,206	1,428	1,722	1,849

Average Regulatory Asset Base:

11.9. The Petitioner has submitted that in order to calculate the value of the Regulatory Asset Base for the financial years from 2020-21 to 2024-25, projected Net fixed assets and closing balance of work in progress are added and projected deferred credit is deducted Total of two years Regulatory Asset base is divided by two in order to calculate Average Regulatory Asset Base Rate of return (WACC) is applied on Average Regulatory Asset base to calculate Return on Rate Base (RORB).

Weighted Average Cost of Capital (WACC)

11.10. The Petitioner regarding WACC has submitted that NEPRA allowed it WACC of 15.02% in its tariff determination for FY 2019-20. It comprise cost of debt and cost of equity. Furhter the Petitioner submitted that, for assessment of Return of Equity (RoE) component for FY 2020-21, TESCO has estimated 16.92% RoE by using the Capital Asset Pricing Model (CAPM), being the most widely accepted model, applied by Regulatory agencies all over the world to estimate the cost of capital for regulated utilities. In addition the Petitioner submitted that in order to calculate Cost of debt TESCO considered cost of debt as 3 month's KIBOR + 5.00% spread as reasonable. Consequently, the cost of debt has been worked out as 12.03% i.e. 3 Months KIBOR of 7.03% as of July 2021 plus a spread of 5.00% As per the methodology, in case of negative equity the NEPRA considers a minimum of 20% equity and any equity in excess of 30% is considered as debt. Accordingly, the WACC has been worked out as under;

WACC= ((Ke x (E/V) + (Kd x (Dill))

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

WACC= [16.92%*30%J + [12.03%*70%J = 13.50%

11.11. In view of the above the Petitioner has projected WACC of 14.00%, 14.50%, 15.00%, 15.00% for FY 2021-22 to 2024-25 respectively while incorporating same methodology.

11.12. The Authority observed that as per Section 31(3) of the amended NEPRA Act, the following general guidelines shall be applicable to the Authority in the determination, modification or revision of rates, charges and terms and conditions for provision of electric power services;

(b) tariffs should generally be calculated by including a depreciation charge and a rate of return on the capital investment of each licensee commensurate to that earned by other investments of comparable risk;

(c) tariffs should allow licensees a rate of return which promotes continued reasonable investment in equipment and facilities for improved and efficient service;

11.13. 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. Further, as per the Tariff 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.

11.14. Keeping in view the above, the Authority for the assessment of RoE component for the FY 2020-21, has considered weighted average yield on 05 Years Pakistan Investment Bond (PIB) as of July 22, 2020 as risk free rate, which is 8.2139%.

11.15. The expected return on any investment is the sum of the risk-free rate and an extra return to compensate for the risk. This extra return or 'risk premium' is the difference between market rate of return and risk free rate. Generally, the return on stock market index is taken as a measure of market rate of return. To have an appropriate measure of the market rate of return, analyzed KSE-100 Index return, over a period of 10 years i.e. FY 2011 to FY 2020, which remained at around 13.9%. The Authority also analyzed returns offered by stock exchanges of the neighboring countries, and noted that return of KSE-100 index remained higher than those of neighboring countries.

11.16. Based on the above analysis, the Authority has considered the rate of return on KSE-100 index as expected market return in WACC formula for calculation of Return of equity. The rate of return on KSE-100 index of around 13.9%, translates into risk premium of around 5.68% *(with risk free rate of 8.2139%, Weighted Average Yield of 5-Year PIB as of July 22, 2020).* Therefore, keeping in view the aforementioned, Market Risk Premium of 5.68% is considered as reasonable for calculation of cost of equity component.

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11.17. Regarding assessment of beta, the Authority has considered the earlier studies in the matter, range of betas used by international Regulators, and accordingly decided to use the beta of 1.10, while assessing the RoE component.

11.18. As regard the cost of debt, 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. In order to have a fair evaluation of the cost of debt, the Authority has taken cost of debt as 3 month's KIBOR + 2.00% spread. Consequently, the cost of debt has been worked out as 9.03% i.e. 3 Months KIBOR of 7.03% as of 3rd July 2020 plus a spread of 2.00% *(200 basis points).*

11.19. In view thereof, the WACC for the FY 2020-21 has been worked out as under;

Cost of Equity;

$Ke = R_F + (R_M - R_F) \times \beta$

$= 8.2139\% + (13.9\% - 8.2139\% = 5.686\% \times 1.1) = 14.47\%$

The cost of debt is;

$Kd = 9.03\%$

WACC= ((Ke x (E / V) + (Kd x (D / V))

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

WACC = ((14.47% x 30%) + (9.03% x 70%)) = 10.66%

Treatment of Capital Work in Progress (CWIP) while calculating the RoRB

11.20. The Authority noted that as per the existing practice of XWDISCOs, CWIP in made part of RAB, while calculating RoRB. Considering the fact that CWIP also includes Interest during Construction (IDC), which once capitalized becomes part of total fixed assets, the Authority, regarding treatment of CWIP as part of RAB, has considered the best practices adopted by different Regulators across the world and observed the following;

Energy Regulators Regional Association (ERRA) Practices for RAB

11.21. As per the Energy Regulators Regional Association (ERRA) tariff data base, regarding CWIP, most of the regulators think that new CAPEX should be introduced in the RAB on the basis of actual costs incurred up to the point at which the assets become operational. Some regulators include construction work in progress in the RAB when construction is to be completed within a relatively short period of time, e.g. in one year. Accordingly RAB is calculated as per the following formula;

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RAB calculation: net approach

The regulatory asset base for the year t is calculated according to the following formula:

$$CB = OB + Inv - D - AD - DC + DWC$$

where:

OB - opening value of regulatory assets for year t of the regulatory period;
Inv - investment (capital expenditures) for year t of the regulatory period;
D - depreciation for year t of regulatory period;
AD - assets disposal for year t of regulatory period;
DC - annual change over year t in the value of assets funded by capital contributions;
DWC - annual change over year t in working capital;
CB - closing value of regulatory assets for year t of the regulatory period

11.22. Similarly, in India, the Maharashtra Electricity Regulatory Commission, while calculating return only considers assets that have been capitalized and any amount beyond 30% of equity portion is treated as part of debt.

11.23. In view of the above international practices and the fact that CWIP includes IDC, which once capitalized becomes part of total fixed assets, the Authority has decided to allow Return on Equity only up-to 30% of the CWIP separately and make the same as part of total RoRB.

11.24. Based on above WACC of 10.66% on RAB by including allowed investment for the year and excluding therefrom the amount of CWIP, and allowing RoE at 30% of the closing value of CWIP, is hereby allowed as basis for calculating of RORB for the future control period during the MYT.

11.25. The Authority during the tariff determination of the Petitioner for the FY 2015-16 and onward, 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 observed 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 was directed to provide rational / justification for improper utilization of the money because the consumers have to face unnecessary delay for their applied connections.

11.26. Similarly for the FY 2018-19, the Authority again observed that the Petitioner as per its provisional accounts had insufficient cash balance, against its pending liability of receipt against deposit works and consumer security deposits, thus, indicating that the amount received against the aforementioned heads has been utilized somewhere else for which no details have been provided.

11.27. Accordingly, the Authority decided, to include the amount of receipts against deposit works as a part of Deferred Credits for RAB for FY 2018-19, after excluding therefrom cash/ bank balances and amount of stores & Spares available with the Petitioner as on 30-06-2019 and also directed the Petitioner to restrain from unlawful utilization of receipts against deposit works & security deposits, and to give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance.

11.28. The Authority for the FY 2019-20, has again observed that the Petitioner has insufficient cash balance as on 30th June 2020, against their pending liability of receipt against deposit works and consumer security deposits, thus, indicating that the amount received against the aforementioned heads has been utilized somewhere else. Thus, it would be unfair and unjust with the consumers to suffer due to the unlawful act of the Petitioner. Accordingly, the amount of receipts against deposit works has been considered as a part of Deferred Credits for the assessment of RAB for FY 2020-21, after excluding therefrom the cash/ bank balances and the amount of stores & Spares available with DISCOs. The Petitioner is directed to restrain from unlawful utilization of receipts against deposit works & security deposits, and to give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance.

11.29. For the FY 2020-21 till FY 2022-23, the Authority noted that the RAB of the Petitioner have been financed through consumer finance /grant etc. (after accounting for the above in deferred credit) In view thereof, the Petitioner is not being allowed any amount under the head of RoRB for the FY 2020-21 till FY 2022-23. However, based on the allowed investment, the adjustment mechanism given in the instant MYT determination and the above WACC/RAB mechanism, the Authority will workout the Petitioner's RAB and RoRB if any, on annual basis.

<u>Prior Year Adjustment (PYA)</u>

11.30. The Petitioner has not requested any amount on account of Prior Year Adjustments (PYA).

11.31. The Authority, however, understands that the Prior Year Adjustment includes the impact of variation in the following;

- ✓ Difference between the actual PPP billed and the amount recovered by the DISCO.
- ✓ Difference between the assessed DM and the amount actually recovered.
- ✓ Difference between the previously assessed PYA/ quarterly adjustment and the amount actually recovered.
- ✓ Difference between actual other income and the amount allowed
- ✓ Variation due to Sales Mix

11.32. It is important to highlight that variation between the PPP billed to DISCOs by CPPA-G and the amount recovered by the DISCOs are being accounted for separately through Quarterly/Bi-Annual Adjustment mechanism, therefore, the PYA only includes only the remaining components.

11.33. The Authority is also cognizant of the fact that for the FY 2020-21, for which the assessment is being made has already lapsed, therefore, while calculating the PYA of the Petitioner, the Authority has also included therein the impact of under/ over recovery of the assessed DM for the FY 2020-21.

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11.34. Based on the discussion made in the preceding paras, the PYA of the Petitioner has been worked out as under;

Description	Rs. Mln TESCO
1st & 2nd Qtr. FY 2018-19	
Allowed Amount	1,453
Qtr. Rs./kWh	0.6759
Recovered	1,496
Under/(Over) Recovery	(43)
3rd & 4th Qtr. FY 2018-19	
Allowed Amount	2,313
Qtr. Rs./kWh	1.3449
Recovered	2,409
Under/(Over) Recovery	96
Interim D.M FY 2018-19	
Allowed Amount	1,604
Qtr. Rs./kWh	0.9323
Recovered	1,670
Under/(Over) Recovery	66
1st Qtr. FY 2019-20	
Allowed Amount	(650)
Qtr. Rs./kWh	(0.378)
Recovered	(698)
Under/(Over) Recovery	48
Distribution Margin FY 2019-20	
Allowed	3,371
Recovered	2,881
Under/(Over) Recovery	490
Other Income FY 2019-20	
Allowed	(887)
Actual	(967)
Under/(Over) Recovery	(80)
Distribution Margin FY 2020-21	
Allowed	3,371
Recovered	3,458
Under/(Over) Recovery	(86)
Total Prior Period Adjustment	528

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11.35. The Authority in line with its earlier decision in the matter of negative FCA, has calculated the impact of negative FCA pertaining to the FY 2019-20 in the matter of lifeline consumers, domestic consumers (consuming up-to 300 units) and Agriculture Consumers which has been retained by the Petitioner. The Authority has also worked out the impact of positive FCAs not recovered by the Petitioner from life line consumers. The Authority also considered the relevant clauses of the S.R.O. 189 (1)/2015 dated March 05, 2015 issued by GoP and the amount of subsidy claims filed by the Petitioner for the FY 2019-20.

11.36. After considering all the aforementioned factors, the Authority observed that the Petitioner has retained a net amount of Rs.131 million on account of negative FCA for the FY 2019-20, pertaining to the lifeline consumers, domestic consumers (consuming up-to 300 units) and Agriculture Consumers, which is still lying with the Petitioner. The Authority also considered the amount of subsidy claims filed by the Petitioner for the FY 2019-20, which shows a net subsidy claim filed by the Petitioner.

11.37. The Authority in view of the above and in line with its earlier decisions, has decided not to adjust the impact of negative FCA across different consumer categories. Thus, the net negative FCA amount pertaining to the lifeline consumers, domestic consumers (consuming up-to 300 units) and Agriculture Consumers for the FY 2019-20 i.e. Rs.131 million, which is still lying with the Petitioner, must be adjusted by the Federal Government, against the overall Tariff Differential Subsidy claim in the matter of the Petitioner eventually reducing GOP's overall Tariff Differential Subsidy burden. The above working has been carried out based on the data/ information provided by PITC, as DISCOs have not submitted the required information. In case DISCOs own calculations are different from the aforementioned numbers, keeping in view the last slab benefits etc., the same may be shared with the Authority in its subsequent adjustment request. This decision of the Authority is only applicable under a subsidy regime, whereby aforementioned classes of consumers are receiving subsidy directly in their base tariff.

11.38. Here it is pertinent to mention that the impact of under/ over recovery of quarterly adjustments for the FY 2018-19 and 1st quarter of the FY 2019-20 has been worked out based on total units i.e. without adjusting the impact of life line units as DISCOs have neither submitted their workings in this regard nor provided break-up of category wise units sold for the period. In view thereof, the Petitioner is directed to provide its working in the matter along-with break-up of units sold for each category for the period from FY 2019-20 till FY 2021-22, for consideration of the Authority. Any adjustment in this regard would be adjusted subsequently as PYA.

12. <u>Whether the requested Financial Charges are justified?</u>

12.1. Regarding requested Financial charges the Petitioner has submitted that Financial charges are calculated in the light of supplementary business transfer agreement (SBTA) between WAPDA and TESCO. The Petitioner has requested the following financial charges for supply of power function;

Description	FY 2019-20	FY 2020-21 Unaudited	FY 2021-22 Proj	FY 2022-23 Proj	FY 2023-24 Proj	FY 2024-25 Proj
Financial Charges (Supply of Power)	0.26	0.28	0.3	0.31	0.31	0.32

12.2. The Authority observed that the Petitioner has not provided any detail in terms of nature of these charges nor has provided any workings / calculations of the amount requested. In view thereof, the Authority does not see any justification to consider the request of the Petitioner.

13. <u>Whether the requested wheeling charges are justified?</u>

13.1. The Petitioner has requested following wheeling charges for its MYT control period;

Description	Unit	2020-21 Proj.	2021-22 Proj.	2022-23 Proj.	2023-24 Proj.	2021-25 Proj.
Wheeling Charges	Rs. Mln	3,016	2,800	2,950	3,050	3,150

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13.2. Regarding calculation of above wheeling charges the Petitioner has submitted the following formula;

Where only 132 kV system is involved

UOSC=DM(Gross) x (1-L) / (1-0.0364) x AFI(T) Paisa / kWh

Where only 11 kV distribution system is involved.

UOSC = DM(Gross) x (1-L) / 1-0.13) x AFI(D) Paisa / kWh

Where both 132 kV and 11 kV distribution systems are involved.

UOSC=DM(Gross) x (1-L) / (1-0.1664) x AFI(TD) Paisa / kWh

Where:

'L' is overall percentage loss assessment for respective year.

AFI(T)= Adjustment factor for investment at 132kV level i-e 23%

AFI(D)= Adjustment factor for investment at 11kV level i-e 39%

AFI(TD)= Adjustment factor for investment at both 132kV & 11 kV level i-e 63%

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13.3. In view of the aforementioned, the Authority has decided to conduct a separate meeting involving all the stakeholders before July 31, 2022 and adjudicate the matter in subsequent decision of the Authority. However, in the meantime the Authority has decided not to allow the wheeling charges to the Petitioner on provisional basis.

14. <u>Whether the requested provision for bad debt is justified?</u>

14.1. The Petitioner has requested to allow Bad debts of Rs. 1513 Million, Rs 1548 Million, Rs. 1668 Million, Rs. 1752 Million, Rs. 1835 Million respectively during the MYT period i.e. FY 2021 to FY 2025. The Petitioner further submitted that;

- There is no provision for bad debts is requested as NEPRA has never allowed provision for bad debts in previous determinations.
- Actual provision of Rs. 1340 Million has been made on the basis of aging formula agreed with auditors for FY 2019-20.
- The main reason for provision is the worst law and order situation in Tribal districts and non-payment culture.
- Administration & Political obligations don't allow to take severe action against the defaulters.
- Moreover, disconnections creates law and order situation in the shape of road blockage and attacks on TESCO staff, grid stations & offices.
- TESCO is pursuing the recovery of arrears from its consumers.

14.2. The Petitioner did not make any write offs as per the given criteria. The Authority accordingly adjusted back the amount of write-offs allowed to the Petitioner in its tariff determination for the FY 2019-20 as part of PYA.

14.3. The Authority has also noted that recovery position of the Petitioner has not shown any major improvement over the years. Further, the impact of any under recoveries of the Petitioner owing to its own inefficiencies cannot be passed on to the paying consumers. In view of the above discussion and the fact that the Petitioner has failed to write-offs the provisionally allowed amount as per the specified criteria, the instant request of the Petitioner to allow provision for bad debts, without any actual write-offs as per the criteria, does not merit consideration and hence disallowed.

15. <u>What should be the adjustment mechanisms during the MYT? Whether there should any efficiency factor (X Factor)?</u>

15.1. The Petitioner submitted during hearing that for adjustments with regards to the different components of the Distribution Margin will be reflected as follows:

15.2. The O&M component of the Distribution Margin shall be indexed with CPI subject to adjustment for efficiency gains (X factor). Accordingly the O&M will be indexed every year according to the following formula:

$$O\&M_{Rev} = O\&M_{Ref} * [1 + (\Delta CPI - X)]$$

Where:

O&M (Rev) = Revised O&M Expense for the Current Year.

O&M (Ref) = Reference O&M Expense for the Reference Year

ΔCPI = Change in Consumer Price Index published by Pakistan Bureau of Statistics latest available on 1st July against the CPI as on 1st July of the Reference Year in terms of percentage.

X = Efficiency factor

15.3. The Authority also noted that as per the approved tariff methodology the Power Purchase Price is the only uncontrollable cost which is allowed a pass through item. The other remaining costs are to be treated as controllable costs. Accordingly, the Authority prescribes the following mechanism for adjustment of costs allowed as part of Distribution Margin, during the MYT control period;

<u>Salaries & Wages and Post-retirement Benefits;</u>

15.4. The reference costs shall be adjusted every year with the increase announced by the GoP, being beyond the Petitioner's control, for the respective year till the time the Petitioner remains in the public sector. In addition a 5% increase as requested by the Petitioner would be allowed on the amount of Basic pay to account for the impact of annual increment. In case, the Petitioner is privatized during the MYT period, the allowed cost of Salaries & Wages would be adjusted with CPI-X factor.

<u>Post-retirement benefits</u>

15.5. Similarly, the allowed amount of post-retirement benefits would also be adjusted every year with the Pension increase announced by the GoP for the respective year, till the time the

Petitioner remains in the public sector. In case, the Petitioner is privatized during the MYT period, the allowed cost of Salaries & Wages would be adjusted with CPI-X factor.

O&M Costs

15.6. Regarding O&M costs, the reference costs would be adjusted every Year with CPI-X factor. However, the X factor would be applicable from the 3rd year of the MYT control period. The Adjustment mechanism would be as under;

Adjustment Mechanism -Operation & Maintenance Exp.	
Operation & Maintenance Exp.	= Ref. O&M cost x [1+(CPI -X factor)]

RORB

15.7. The reference RoRB would be adjusted every Year based on the amount of RAB worked out for the respective year after taking into account the amount of investment allowed for that year as per the following mechanism;

Revised RoRB = WACC X Revised RAB

15.8. In addition the allowed RAB for previous year will be trued up downward only, keeping in view the amount of investment allowed for the respective year. In case, the Petitioner ends up making higher investments than the allowed, the same would be the Petitioner's own commercial decision and would not be considered while truing up the RAB, unless due to any regulatory decisions/interventions/approved plans for which the Petitioner obtains prior approval of the Authority. In such case the Authority may also revise the efficiency targets in terms of T&D losses etc.

15.9. The Authority also understands that interest payment is an obligatory cash flow liability unlike discretionary dividend payment and considering the fact that any default may hamper the financial position of the Petitioner, hence the Authority has decided to cover the risk of floating KIBOR. Accordingly, fluctuation in the reference KIBOR would be adjusted biannually. In addition, the Authority has also decided to allow sharing of benefit by introducing a claw back mechanism for any savings resulting from cheaper financing by the Petitioner to the extent of 2.00% spread. If the Petitioner manages to negotiate a loan below 2.00% spread, the savings would be shared equally between the consumers and the Petitioner through PYA mechanism annually. In case of more than one loan, the saving with respect to the spread would be worked out by a weighted average cost of debt. The sharing would be only to the extent of savings only i.e. if the spread is greater than 2.00%, the additional cost would be borne by the Petitioner.

Depreciation Expenses

15.10. The reference Depreciation charges would be adjusted every Year as per the following formula;

$$\text{DEP (Rev)} = \text{DEP (Ref)} \times \frac{\text{GFAIO (Rev)}}{\text{GFAIO (Ref)}}$$

Where: DEP (Rev) = Revised Depreciation Expense for the Current Year

DEP (Ref) = Reference Depreciation Expense for the Reference Year

GFAIO (Rev) = Revised Gross Fixed Assets in Operation for the Current Year

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GFAIO (Ref) = Reference Gross Fixed Assets in Operation for the Reference Year

15.11. In addition the allowed Depreciation for previous year will be trued up downward only, keeping in view the amount of investment allowed for the respective year. In case, the Petitioner ends up making higher investments than the allowed, the same would be the Petitioner's own commercial decision and would not be considered while truing up the depreciation expenses, unless due to any regulatory decisions/interventions/approved plans for which the Petitioner obtains prior approval of the Authority. In such case the Authority may also revise the efficiency targets in terms of T&D losses etc.

16. **Whether the requested investment is justified?**

16.1. The investment requested by the Petitioner has been discussed and addressed in detail in the Multi Year Distribution Function Tariff determination of the Petitioner for the FY 2020-21. Thus, need not to be discussed here again in the instant determination of Supply of Power Tariff.

17. **Whether the basis used by the Petitioner for bifurcation of its costs into supply and distribution segments is justified?**

17.1. The Petitioner has submitted the following bifurcation of its costs into supply and distribution segments:

SUPPLY OF POWER	DISTRIBUTION OF POWER
• Superintending Engineer (Operation) • Deputy Commercial Manager • Revenue Officers • Meter Reading Supervisors, Meter Readers and Bill Distributors. • Expenses of above activities will be charged to Supply of Power. • Salaries and other expenses of head quarter are allocated on the basis of services provided. • 80% expenses of computer center	• Chief Engineer (PMU) • Director (P&E), Director (CM&O) • 5 Operation Divisions, 23 Subdivisions • XEN (GSC), XEN (Construction), XEN (SS&TL), XEN (M&T) • Expenses of above activities will be charged to Distribution of Power. • Salaries and other expenses of head quarter expenses are allocated on the basis of services provided • 20% expenses of computer center

17.2. The Authority understands that as per the Amended Act, the Distribution Licensee is responsible to provide distribution service within its territory on a non-discriminatory basis and develop, maintain and publicly make available, with the prior approval of the Authority, an investment program, meaning thereby, that installation/investment, operation, maintenance and controlling of distribution networks, form part of the Distribution License and activities like billing and collection form part of the Supply License.

17.3. The Authority in the determination of the Petitioner for the FY 2019-20 decided the following;

"The Authority believes that after amendments in NEPRA Act, all the Public Sector Distribution companies are required to make organizational restructuring in terms of segregation of responsibilities of the Distribution and Sale functions and in order to ensure appropriate coordination between both functions. Hence, keeping in view the fact that it is operational issue and DISCOs are owned by the Federal Government, it would be more appropriate that a centralized restructuring plan at the level of Federal Government is prepared to be implemented by all the public sector DISCOs in order to have a uniformity and consistency in the structure."

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17.4. It is again desired that a centralized restructuring plan at the level of Federal Government is prepared, so that a uniform & consistent basis/ approach is adopted by all the DISCOs. Till such time, the submissions of the Petitioner are considered.

18. **Whether the existing fixed charges applicable to different consumer categories needs to be revised and requires any changes in mechanism for charging of such charges based on Actual MDI or Sanction Load or otherwise?**

18.1. The Authority also noted that as per the decision dated 01.11.2021 in the matter of Wheeling Costs to be included in the Tariff Determination of DISCOs, it was decided as under;

"Hybrid BPC

12.1. In future tariff determinations of DISCOs, for Hybrid BPCs, fixed charges shall be levied based on their sanctioned load or actual MDI, whichever is higher and will be applicable on such BPCs who retain DISCOs as deemed supplier. In the meanwhile, based on the above formula, NEPRA will determine it on case to case basis."

18.2. The Authority observed that as per the current tariff structure, certain consumer categories like Commercial, Industrial, Bulk and Agriculture are levied fixed charges, which are based on their actual MDI for the month. The Authority considers that the capacity charges of generation companies which are fixed in nature, as it has to be paid based on plant availability, are charged to DISCOs based on the actual MDIs of DISCOs. However, the present consumer end tariff design is of volumetric nature whereby major portion of the cost is charged / recovered from the consumers on units consumed basis i.e. per kWh and only a small amount is recovered on MDIs basis from the consumers.

18.3. In view of the above discussion, decision of the Authority dated 01.11.2021 in the matter of wheeling and to ensure that Hybrid BPCs, who keep DISCOs connection as backup, also share portion of the fixed costs, the Authority has decided to change the mechanism for levying of monthly fixed charges to various categories of consumers. The Fixed charges shall now be charged, based on 50% of the sanctioned load or actual MDI for the month, whichever is higher. However, in such cases, no minimum monthly charges would be billed even if no energy is consumed. The Authority has also decided to increase the rate of fixed charges currently applicable to certain categories i.e. from Rs.400/kW/M, 420/kW/M and 440/kW/M to Rs.440/kW/M, 460/kW/M, and 500/kW/M respectively. At the same time, the Authority not to overburden such consumers who are levied fixed charges, has adjusted their variable rate, to minimize the impact of increase in fixed charges.

18.4. Here it is pertinent to mention that Rs.34,287 million and Rs.3,118 million is the share of the Petitioner on account of CpGenCap and UoSC (NTDC/ HVDC) & Market Operator Fee respectively for the FY 2022-23. The overall fixed charges comprising of CpGenCap and UoSC (NTDC/HVDC) & Market Operator Fee in the instant case works out as Rs.37,404 million, which translate into Rs.4,410/kW/month, based on projected average monthly MDI of the Petitioner. However, Fixed charges being billed to consumers is Rs.440/kW/M, 460/kW/M, and 500/kW/M for different categories based on 50% of the sanctioned load or actual MDI for the month, whichever is higher, which is around 11% of total projected fixed charges to be charged to the Petitioner by CPPA-G.

18.5. Here it is also pertinent to mention that once [the CTBCM be]comes operational, the Hybrid

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BPCs shall be treated in accordance with the prevailing Regulations at that time.

19. <u>Whether there should be any amendment in Terms and Conditions of Tariff (For Supply of Electric Power to Consumers by Supply Licensees) keeping in view the changes in Consumer Service Manual?</u>

19.1. The Authority observed that certain amendments have been approved in the NEPRA CSM, regarding extension of load for B-3 & C-2 from 5MW upto 7.5MW, after following due process of law. The same amendments are also required to be incorporated in the Tariff determination of DISCOs. <u>Accordingly, the following changes are being made in the Terms & Conditions of Tariff;</u>

> *"Considering the fact that the Authority, through CSM, has already allowed extension in load beyond 5MW upto 7.5MW whose connection is at least three (3) years old, therefore, for such consumers the applicable tariff shall remain as B-3 or C-2 as the case may be. However, while allowing extension in load, the DISCOs shall ensure that no additional line losses are incurred and additional loss, if any, shall be borne by the respective consumers."*

<u>Electric Vehicle Charging Stations</u>

19.2. In order to provide an enabling regulatory regime for the Electric Vehicle Charging Stations ("EVCS") that would supplement the introduction and promotion of Electric Vehicles ("EV") in Pakistan, and provide a strong base for the growth of the EV charging infrastructure to support the development of this industry. The charging services for EV is going to involve setting up a dedicated facility that would require a dedicated infrastructure including AC/DC conversion, conductive charging system, charging connectors, plugs, inlets and socket outlets, cables, protection system and dedicated electricity supply system with dedicated connection and transformer.

19.3. Here it is pertinent mention that the National Electric Vehicle Policy 2019 requires the following;

> *"NEPRA shall develop a policy to enact EV tariffs and to ensure compliance with EV standards and specifications. The foremost of which are safety standards for EVs."*

19.4. The Authority in view thereof, in exercise of powers under section 7 read with section 31 of NEPRA Act read with 3(1) of NEPRA Tariffs (Standards & Procedure) Rules, 1998 carried out proceedings to amend the terms and condition of XWDISCOs and KE's tariff for this purpose. During the proceedings the issues regarding tariff to be charged from electric vehicles by EVCS along-with proposed amendments in the tariff Terms & conditions for the purpose was discussed in detail.

19.5. Based on the outcome of the proceedings, the Authority has decided as under;

Amendment in Tariff Terms & Conditions

✓ In A-2 Commercial "1", following is added at the end;

"ix) Electric Vehicle Charging Stations"

✓ In A-2 Commercial "2", following is added;

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"Electric Vehicle Charging Stations shall be billed under A-2(d) tariff i.e. Rs./kWh for peak and off-peak hours. For the time being, the tariff design is with zero fixed charges, however, in future the Authority after considering the ground situation may design its tariff structure on two part basis i.e. fixed charges and variable charges."

✓ In addition in A-2 Commercial, following is added;

"The Electric Vehicle Charging Station shall provide "charging service" to Electric Vehicle with a maximum cap as determined by the Authority from time to time. For the time being the Cap has been determined as ***Rs.50/kWh****. The EVCS shall be billed by DISCOS under A-2(d) tariff. However, monthly FCAs either positive or negative shall not be applicable on EVCS."*

Addition in Schedule of Tariff

✓ In Schedule of Tariffs (SoTs), under A-2 General Supply Tariff - Commercial, a new tariff i.e. A-2(d) – Electric Vehicle Charging Station is added.

20. **Whether the existing Tariff Terms and Conditions needs to be modified, especially with reference to the request of Telecom companies to charge "B Industrial Supply" Category tariff instead of "A-2 Commercial" category tariff?**

20.1. The Authority during the tariff determinations of GEPCO for the FY 2019-20, on the request of Telenor regarding charging of Industrial tariff from Telecom Operators decided as under;

"The Authority observed that the issue highlighted by the commentator M/s Telenor Pakistan regarding applicability of Industrial tariff to Cellular Mobile Operator (CMOs) pertains to all the DISCOs including K-Electric as CMOs are operating all over Pakistan, therefore, the issue requires deliberations involving all stakeholders i.e. DISCOs, CMOs, Ministry of Energy, MoIT etc. The Authority noted that proceedings regarding Tariff petitions filed by all XWDISCOs for the FY 2018-19 and FY 2019-20, except GEPCO, have already been completed, therefore, the Authority has decided to consider the request of M/s Telenor as a separate issue during the proceedings for the upcoming tariff Petitions of DISCOs for the FY 2020-21 & onward".

20.2. In view thereof, in the instant tariff adjustment requests of the Petitioner, the subject matter is being discussed as a separate issue.

20.3. The Petitioner during the hearing submitted that Telecom sector is only providing the services to consumers not value addition, therefore A-2 commercial is accurate

20.4. Telecom companies in their comments/ Intervention Requests have submitted that Telecom Sector including Cellular Operators (CMOs) has been declared as an Industry vide Ministry of Industries notification dated 20.04.2004, therefore, for the purpose of charging of electricity, industrial tariff may be applied to CMOs instead of currently applicable Commercial tariffs.

20.5. M/s NAYAtel and M/S PTCL both submitted that in line with the Telecom Policy of 2004, the Federal Government was pleased to declare Telecom sector including Cellular Operators

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as an "Industry" with immediate effect vide Gazette Notification dated 20.04.2004, issued by the Ministry of Industries and Production, Government of Pakistan.

20.6. The Ministry of Information Technology vide UO dated 16.06.2014 also endorsed the request of the Telecom Sector including CMOs to be classified as Industrial Undertaking under clause (b) of Section 2(29C) of the Income Tax Ordinance 2001.

20.7. In view of the above, it has been submitted that telecom companies along with other CMO's as an "Industrial Undertaking", so that "Industrial Tariff is applied across the board to the Telecom Sector companies in Pakistan instead of "Commercial Tariff. Accordingly, it has been requested that issue of applicability of "Industrial Tariff on Telecom Sector may be addressed and determined by the Authority, while determining the Uniform Tariff for DISCOs throughout Pakistan, including the current MYT indexation request of TESCO.

20.8. Ministry of IT &T vide its letter dated 18.06.2014 addressed to FBR, submitted the following;

- *"…. MoIT endorses the request of Telecom Industry, including Mobile Cellular Operators (CMOs) to be classified as "Industrial Undertaking" under clause (b) of section 2 (29C) of the Income Tax Ordinance 2001.*
- *We will appreciate if the issue is examined and finalized in light of the aforementioned Cabinet decision and the subsequent notification issued in this regard by the Ministry of Industries & Production."*

20.9. The Ministry of Information Technology and Telecommunication, vide letter dated 29.04.2020, while referring to the meeting of the Committee on issues of CMOs constituted by the Prime Minister, held on 13.04.2020 stated that like any high tech industry, Telecom Operators use electricity for their infrastructure i.e. Data Centers, exchanges, points of presence (POPs), BTSs, Mobile Switching centers, Base Station Controllers (BSCs) etc. MoIT&T accordingly requested NEPRA to implement the Government orders.

20.10. DISCOs during the hearing submitted that as per tariff terms and conditions industrial connections required motive load and Telecom companies does not fall under this category of tariff.

20.11. The Ministry of Energy (MoE) vide comments dated 02.08.2021, submitted that the government has extended various reforms, packages & incentives, inter alia; Circular Debt Management Plan (CDMP), facilitative Ease of Doing Business architecture, strategizing increase in sales to high value consumer classes, Industrial Support package (ISP), flat peak & off-peak tariff scheme for industrial units and Zero-Rated Industrial (ZRI) package. Industrial tariff is applicable to the industries production facilities and the warehouses, which are used to transmit the products to the retailer/ distribution network, are considered as commercial value addition. Telecom companies being engaged in provision of telecom services through retail/ distribution network infrastructure, may be treated as commercial value-added activity for which consumer has to pay and, therefore, the same may be continued to be served electricity under commercial tariff category. In view of above, it has been submitted that any consideration of the Authority for the relocation of telecom companies from commercial category to industrial category may not be aligned with the economic objectives underlying the various incentive packages/concessions in field.

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Moreover, this relocation will result in the revenue gap and put extra burden on other consumers or fiscal space.

20.12. The Ministry of Finance (MoF) vide comments dated 30.07.2021, submitted that Telecom Companies/Cellular Mobile Companies Operators are basically involved in commercial activities and electricity cost is a pass through item. Further, Telecom Companies/Cellular Mobile Companies Operators fix their consumer end tariff without consulting the Regulator. Therefore, Finance Division is further of view that electricity supply to these companies for their infrastructure units under the category "A-2 Commercial" may be continued and they may not be considered for supply of electricity under the tariff category "B-2 Industrial Supply".

20.13. Here it is pertinent to mention that subsequent to the aforementioned Intervention Requests and Comments from the Telecom companies, separate tariff petitions have also been filed by M/s PTCL, M/s Telenor and M/s Pak Telecom Mobile Company (Ufone) Limited for change in tariff category of Telecom Operators from Commercial to Industrial.

20.14. Since the said Petitions are under consideration of the Authority, therefore, the Authority has decided to issue a separate additional decision on the issue once the proceedings on the aforementioned petitions are completed.

21. <u>Whether there should any Fixed Charges on Residential & General Services Consumers, having net metering facility?</u>

21.1. The Petitioner during the hearing submitted that at present no Fixed Charges are charged from all category of consumers (Residential, General Services, Commercial, Tube well & Industrial) having net metering facility. Accordingly, the Petitioner proposed that a certain amount of fixed charges per month on installed DG Facility for Net metering connections for use of system may be charged from all categories of consumers.

21.2. The Authority observed that the net metering regime is presently at a nascent stage as current installations are a negligible portion of total generation capacity of the power system, therefore, decided not to levy any fixed charges on Residential and General services net metering consumers.

21.3. However, considering the steep rise in the Power Purchase cost of electricity coupled with stability in the prices of installing DG facilities, the Authority has decided to initiate proceedings for amendment in NEPRA (Alternative and Renewable Energy) Distributed Generation and Net Metering Regulations, 2015, for change in tariff payable by DISCOs to net metering consumers for excess energy delivered in the system.

22. <u>Upfront Indexation/adjustment for the FY 2021-22 and FY 2022-23</u>

22.1. The Authority also understands that by the time the instant decision is notified, the FY 2021-22 would have elapsed and the FY 2022-23 would have started. Meaning thereby that tariff indexation/adjustment for the FY 2021-22, which ideally should have been allowed in in July 2021 would have become overdue, and the indexation/adjustment for the FY 2022-23 would also have become due. In view thereof, and in order to ensure timely recovery of the allowed cost to the Petitioner, the Authority has decided to allow the indexation/adjustment for the FY 2021-22 and the FY 2022-23, upfront in the instant decision as per the adjustment /indexation mechanism provided in this determination.

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However, the impact of under/ over recovery due to indexation/ adjustment for the FY 2021-22 would be allowed / adjusted subsequently as part of future PYA.

22.2. Here it is pertinent to mention that indexation/adjustment for the FY 2021-22 and FY 2022-23 has been worked out based on the NCPI for the month of December 2020 and December 2021 respectively, for which the reference NCPI for the month of December 2019 has been used. Thus, for the purpose of filing future indexation/ adjustment requests, the Petitioner shall use the NCPI for the month of December for the respective year. The Petitioner is directed to submit its annual adjustment / indexation requests by February every year, so that adjustment / indexation for the next year is determined in timely manner.

23. The Authority considers that, after taking into account all the adjustments and assessments, as discussed in the instant determination, if the Petitioner still earns extra profits the same will be shared with the consumers and the Petitioner equally.

<u>Order</u>

24. In view of the discussion made in preceding paragraphs and accounting for the adjustments discussed above, the revenue requirement of the Petitioner, for the FY 2020-21, FY 2021-22 and FY 2022-23, to the extent of its distribution function is summarized as under;

Description	Unit	FY 2020-21 SOP	FY 2021-22 SOP	FY 2022-23 SOP
Units Received	[MkWh]	1,943	1,943	2,361
Units Sold	[MkWh]	1,757	1,762	2,143
Units Lost	[MkWh]	187	181	217
Units Lost	[%]	**9.60%**	**9.31%**	**9.21%**
Investment	[Mln. Rs.]			
Energy Charge		11,266	11,266	21,040
Capacity Charge		8,961	8,961	34,287
Transmission Charge/ Market Operator Fee		476	476	3,118
Distribution Business Cost		212	580	729
Power Purchase Price	[Mln. Rs.]	20,915	21,284	59,173
Distribution Business Cost	[Mln. Rs.]			
Pay & Allowances		153	187	207
Post Retirement Benefits		50	55	61
Repair & Maintainance		2	2	2
Traveling allowance		6	6	7
Vehicle maintenance		8	9	10
Other expenses		30	33	36
O&M Cost	[Mln. Rs.]	**248**	**293**	**323**
Depriciation		5	6	6
Margin	[Mln. Rs.]	253	299	330
Prior Year Adjustment (PYA)		528	528	528
Revenue Requirement	[Mln. Rs.]	**21,697**	**22,111**	**60,031**
Power Purchase Price-Unadj.		[illegible]	10.95	[illegible]
Power Purchase Price-Adjusted		11.91	12.08	27.61
Margin		0.14	0.17	0.15
PYA Adjustments		0.30	0.30	0.25
Wheeling charges of PESCO		-	-	-
Average Tariff	[Rs./kWh]	**12.35**	**12.55**	**28.01**

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24.1. The Petitioner is directed to follow the following time lines for submission of its future indexation/adjustment during the MYT control period;

Description	ADJUSTMENTS/ INDEXATION	TIME LINES
Power Purchase Price	The Authority, keeping in view of any abnormal changes may review Power Purchase Price references along with any Quarterly adjustment	
Fuel Cost	Monthly, as per the approved mechanism. Impact of FCA on T&D losses would be adjusted on Quarterly basis.	Data to be provided by CPPA (G) by close of the month
Variable O&M	Quarterly, as per the approved Quarterly adjustment mechanism.	Request to be furnished by the Petitioner not later than a period of 07 Days on Quarterly basis.
Capacity Charges	Quarterly, as per the approved Quarterly adjustment mechanism.	Request to be furnished by the Petitioner not later than a period of 07 Days on Quarterly basis.
Transmission /UOSC & MOF Charges	Quarterly, as per the approved Quarterly adjustment mechanism.	Request to be furnished by the Petitioner not later than a period of 07 Days on Quarterly basis.
Margin		
Salaries, Wages & Benefits	Annually as per the mechanism given in the decision	Request to be submitted by Petitioner in February of every year, so that adjustment / indexation for the next year is determined in timely manner.
Post-retirement Benefit		
Other operating expenses		
Depreciation		
Return on Regulatory Asset Base		
Other Income		
Prior Year Adjustment	Annually as per the mechanism given in the decision	
KIBOR	Bi-Annually, as per the decision	
Return on Equity (ROE)	No adjustment allowed over Reference ROE	
Spread	As per the mechanism in the decision	

Ref. NCPI-General of December 2019 i.e. 9.49%

24.2. Tribal Areas Electricity Supply Company Limited (TESCO), being a distribution licensee, is allowed to charge its consumers, the following "Use of system charge" (UOSC) for the FY 2022-23;

Description	For 132 kV only	For 11 kV only	For both 132kV & 11 kV
Asset Allocation	20.72%	36.21%	56.93%
Level of Losses	1.60%	5.60%	7.11%
UoSC Rs./kWh	0.14	0.25	0.40

24.3. Responsible to provide distribution service within its service territory on a non-discriminatory basis to all the consumers who meet the eligibility criteria laid down by the Authority,

24.4. To make its system available for operation by any other licensee, consistent with applicable instructions established by the system operator.

24.5. To follow the performance standards laid down by the Authority for distribution and transmission of electric power, including safety, health and environmental protection instructions issued by the Authority or any Governmental agency [or Provincial Government;

24.6. To develop, maintain and publicly make available, with the prior approval of the Authority, an investment program for satisfying its service obligations and acquiring and selling its assets

24.7. To disconnect the provision of electric power to a consumer for default in payment of power charges or to a consumer who is involved in theft of electric power on the request of Licensee.

24.8. The Petitioner shall comply with, all the existing or future applicable Rules, Regulations, orders of the Authority and other applicable documents as issued from time to time.

24.9. The Authority may review the tariff applicable to each class of consumers for rationalization or modification along-with their terms & conditions from time to time as deemed appropriate, to ensure the allowed revenue requirement of the Petitioner.

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25. Summary of Direction

25.1. A summary of all directions passed in this determination by the Authority are reproduced hereunder. The Authority hereby directs the Petitioner to;

i. Segment reporting with clear break-up of costs in financial statements for the Distribution and Supply Functions in light of the amended NEPRA Act for the FY 2020-21 & onward.

ii. To immediately provide electricity connections to all the pending applications without further delay and submit a progress report in this regard by the end of each quarter.

iii. To immediately stop the existing practice of deducting 20% of SAP funds for grid augmentation and carry out the augmentation of the grid after coordinating with the Ministry of Energy and report be shared with the Authority by December 31, 2020.

iv. To address problems of visibility of snapshots appearing on bills and to keep the record of snapshots till one year and report be shared with the Authority by 31.03.2021.

v. To ensure that consumer's deposits are not utilized for any other purpose and the same is reflected in the Audited accounts for the FY 2020-21 & onward.

vi. To restrain from unlawful utilization of receipts against deposit works and security deposits immediately, and the same is reflected in the Audited accounts for the FY 2020-21 & onward.

vii. To give clear disclosures in its Financial Statements with respect to the consumer financed spares and stores, work in progress and cash & bank balance for the FY 2020-21 & onward.

viii. Provide the required details of late payment charges recovered from the consumers and invoices raised by CPPA (G) under the head of mark-up on delayed payments for the period from FY 2015-16 to FY 2019-20, in its next tariff petition.

ix. Maintain proper record of its assets by way of tagging each asset for its proper tracking.

x. Provide details of PEPCO Management Fees, if any, claimed previously so that same could be adjusted in the subsequent tariff determinations.

xi. Prepare such schemes to cater for future demand and for removal of system overloading/constraints. A detailed report shall be submitted as part of 5-years IGTDP for approval of the Authority before filing of next tariff petition.

xii. Target high loss feeders to bring the overall losses down and submit a detailed plan for bringing down its technical losses to lower levels in the coming years

xiii. Carry out detailed analysis about the hard and soft areas relative to claims in earlier studies.

xiv. Take remedial measures for achievement of performance standards as laid down in NEPRA Performance Standards (Distribution) Rules, 2005.

xv. To provide the compliance status on the directions issued in the tariff determination of FY 2019-20 by June 30, 2022 and the same would be deliberated upon separately.

xvi. A centralized restructuring plan at the level of Federal Government is prepared, so that a uniform & consistent basis/ approach is adopted by all the DISCOs.

xvii. Completes recruitment process regarding MIRAD and submit complete details in this regard.

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xviii. To prioritize its investments claimed under STG, DOP and ELR etc. In this respect, removal of system constraints for transferring power from NTDC system must be the first priority, followed by reduction in T&D losses and improvement in metering systems through ELR and overloaded grids and 11kV feeders. The main components would include STG, DOP, ELR and Commercial Improvement.

xix. Project-wise detailed report for the investment carried out along with their cost-benefit analysis and technical/financial savings achieved by June 30, 2021.

xx. To provide details on what are the remedial measures taken for the achievement of performance standards (targets of SAIFI & SAIDI given by the Authority during FY 2019-20) as laid down in Performance Standards (Distribution) Rules 2005?

xxi. To provide details on whether the loading position of Power Transformers, Distribution Transformers and 11kV Feeders has been improved. Provide the detail for last three years.

xxii. To coordinate with NTDC for removal of such constraints submit a progress report on quarterly basis to NEPRA

xxiii. To initiate measures on a war footing basis to achieve ZERO number of fatal accidents and submit a concrete plan to NEPRA in this regard.

xxiv. To clear all pendency and install TOU meters within one month and submit a compliance report to NEPRA in this regard.

xxv. To submit specific timelines for the completion of ABC project.

xxvi. To take all the possible preventive measures to ensure no fatal accidents occur in future and improve its HSEQ performance. Detail objectives/targets of HSE are attached as Annex-A for compliance.

xxvii. To take all possible measures to facilitate consumers in terms of complaint handling, connection provision as per CSM and establish one window solutions.

xxviii. The HT and LT rehabilitation proposals shall be evaluated on the basis of GIS mapping through ArcGIS and load flow analysis through SynerGee Electric. The HT & LT Plans will be based on of PMS demand forecast and consistent with the STG Plan. The STG plans should be in line with the Transmission System Expansion Plan (TSEP) approved by the Authority from time to time.

xxix. GIS mapping has to be updated periodically after execution of respective HT and LT rehabilitation proposals and network shall be regularly updated for the optimized future investments and avoid equipment failures through prudent and proactive planning practices.

xxx. DISCOs shall ensure Open Access to all the relevant entities/licensees without discrimination and shall objectively evaluate and make available on the website of DISCO the network available capacity, current allocation of the capacity and the future investment required to be made part of distribution system planning.

xxxi. The DISCO through Market Implementation & Regulatory Affairs Department (MIRAD) shall prepare and develop the medium term demand forecast, transmission plans and business plan for submission of the same to the Authority. All other

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departments of the DISCOs shall be obligated to provide their sub-plans to MIRAD for consolidation.

xxxii. MIRAD shall ensure effective reporting and monitoring of the allowed investment on monthly, quarterly and annual basis. The main components would include STG, DOP, ELR and Commercial Improvement.

xxxiii. MIRAD shall be adequately staffed at all times as per the approved organochart for effective and efficient performance of its functions. MIRAD shall develop the dashboard for effective monitoring and reporting of above plans. The CEO along with the functional in-charge of each department will be responsible for presenting the above mentioned progress to the Authority and also submit the monthly, quarterly and annual progress reports in the matter.

xxxiv. DISCO shall ensure Data Standardization for load forecasting and coordinate with PITC for auto retrieval and analysis of data for demand forecasts and use a software based on a modern language instead of Fox-Pro based software for accurate and reliable demand forecasts.

xxxv. MIRAD shall undertake an exercise to identify and accurately use the data of captive consumers in the demand forecasts and ensure better coordination with local agencies/housing colonies/industrial consumers for potential upcoming demand for better and reliable demand forecasts.

xxxvi. To submit its annual adjustment / indexation requests by February every year, so that adjustment / indexation for the next year is determined in timely manner

26. The determination of the Authority along-with annex-I,I-A,II,III,IV,V and A, 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.

AUTHORITY

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(x)

Rafique Ahmed Shaikh
Member 2/6/22

Engr. Maqsood Anwar Khan
Member

Tauseef H. Farooqi
Chairman

(x) My additional note is attached herewith.
2/6/22

Additional Note:

At the outset, the multi-year tariff determination which I am signing is for the control period from financial year 2020-21 to 2024-25; the two years of its control period have already been lapsed. Timely tariff determinations depend on submission of the petition by DISCOs within the given time. However, in sheer disregard of timelines given in the NEPRA Guidelines for Consumer End Tariff-2015 as well as the Authority's direction, DISCOs have failed to submit their petitions in timely manner which reflects their indifference to the regulatory discipline which ultimately cause suffering for the power sector as well as the end-consumers.

For the period from July, 2020, beyond the tariff control period of last determined tariff, the Authority has been issuing the quarterly adjustments under the given mechanism. Such adjustments, though covers the cost increase to larger extent but not suffice to cover the entire financial impact. Therefore, I am of the opinion that quarterly adjustments beyond the tariff control period are highly undesirable and should not be allowed.

This is a fact on record that NEPRA has been allowing huge amount to DISCOs under the head of investments for up-gradation of their infrastructure, however, DISCOs could not be able to improve their T&D losses and quality of supply corresponding to the allowed investment. Therefore, comprehensive audit of DISCOs is necessary to check the utilization of funds allowed under the head of investments.

The overall recovery position of DISCOs is also below the desired level. Resultantly, the country is facing circular debt and despite certain bail out packages, the circular debt is on the rise which currently stands at more than Rs. 2.5 trillion. To get rid of the circular debt issue, immediate actions are needed which may include the structural changes in ownership and control of the DISCOs.

This has also been highlighted in the last many years that the performance of DISCOs has been marred with serious governance issues. Load shedding on account of Aggregate Technical and Commercial (AT&C) losses is one of the classic example of poor governance. Instead of improving their distribution network, checking the theft of electricity and improving the recovery, DISCOs have found an easy way of indiscriminate load shed at feeder level. This AT&C base load shedding is a stumbling block in improving the sales growth of Discos. This is a fact that sufficient generation capacity is available in the country, mostly on take or pay basis. The AT&C base load shedding is suffering the consumers in shape of not having the electricity as well as increased electricity cost due to payment of capacity payment of unutilized capacity. I am of the considered view that the burden of capacity payments due to underutilization of power plants caused by DISCO level load shedding should not be passed on to the consumers.

DISCOs are allowed sizeable amount for payments on account of pension and other post-retirement benefits which is being increased year on year basis. Although, under the agreed terms and conditions, these payments are binding but not a direct cost of product, i.e. generated electricity. Had the pension fund been established earlier in a timely manner to meet this obligation, the burden of these payments on consumers could have been avoided.

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The present centralized control of DISCOs has shown its inherent tendency for inefficiency and unless developed as independent corporate entities, autonomous in their business decisions, DISCOs will continue to burden the power sector. Therefore, immediate actions are needed to revamp DISCOs and free them of centralized control. In my view, this is time to either privatize DISCOs or transit to public private partnership to run these entities as independent business in a competitive environment. The involvement of provincial governments may help in improving the governance of DISCOs especially in controlling electricity theft and improving the recovery.

2/6/22

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02.06.22

Annex-I

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

Fuel Price variation = Actual Fuel Cost Component - 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.

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Annex-I-A

QUARTERLY ADJUSTMENT MECHANISM

Quarterly adjustment shall be the Actual variation in Power Purchase Price (PPP), excluding Fuel Cost Component, against the reference Power Purchase Price component and the impact of T&D losses on FCA, for the corresponding months and shall be determined according to the following formula;

Quarterly PPP $_{(Adj)}$= PPP$_{(Actual)}$ (excluding Fuel cost)-PPP$_{(Recovered)}$ (excluding Fuel cost)

Where;

PPP$_{(Actual)}$ is the actual cost, excluding Fuel cost, invoiced by CPPA-G to XWDISCOs, adjusted for any cost disallowed by the Authority.

PPP$_{(Recovered)}$ is the amount recovered based on reference rate in Rs./kWh, excluding fuel cost, as per the Annex-IV of the XWDISCOs determination that remained notified during the period.

Impact of T&D losses on FCA

= Monthly FCA allowed$_{(Rs./kWh)}$ x Actual units Purchase x % T&D losses

Where;

Monthly FCA allowed $_{(Rs./kWh)}$ is the FCA allowed by the Authority for the respective months of the concerned period.

T&D Loss % is percentage of T&D losses that remained notified during the period.

The sum of amounts so worked for each month of the Quarter shall be divided by the Projected units to be sold as determined by the Authority to work out Rs./kWh Quarterly adjustment.

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Triable Areas Electricity Supply Company (TESCO)
Estimated Sales Revenue on the Basis of New Tariff

	Description	Sales		Revenue			Base Tariff		PYA 2021		Total Tariff	
		GWh	% Mix	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Amount	Variable Charge	Fixed Charge	Variable Charge
				Mln. Rs.			Rs./kW/ M	Rs./ kWh	Mln. Rs.	Rs./ kWh	Rs./kW/ M	Rs./ kWh
	Residential											
	For peak load requirement less than 5 kW											
Protected	Up to 50 Units - Life Line	0	0.0%	-	2	2		5.00	-	-		5.00
Protected	51-100 units - Life Line	1	0.1%		26	26		17.94	0	0.20		18.14
Protected	01-100 Units	48	2.2%	-	1,000	1,000		20.94	10	0.20		21.14
Protected	101-200 Units	12	0.5%	-	270	270		22.94	2	0.20		23.14
Un-Protected	01-100 Units	13	0.6%		312	312		23.56	3	0.20		23.76
Un-Protected	101-200 Units	103	4.8%		2,752	2,752		26.75	22	0.21		26.96
Un-Protected	201-300 Units	365	17.0%	-	9,939	9,939		27.26	91	0.25		27.51
Un-Protected	301-400 Units	414	19.3%	-	11,795	11,795		28.50	103	0.25		28.75
Un-Protected	401-500 Units	206	9.6%		5,957	5,957		28.94	51	0.25		29.19
Un-Protected	501-600 Units	96	4.5%		2,878	2,878		29.94	24	0.25		30.19
Un-Protected	601-700Units	69	3.2%		2,135	2,135		30.94	17	0.25		31.19
Un-Protected	Above 700 Units	166	7.7%	-	5,291	5,291		31.95	41	0.25		32.20
	For peak load requirement exceeding 5 kW)	-										
	Time of Use (TOU) - Peak	0	0.0%	-	0	0		30.94	0	0.25		31.19
	Time of Use (TOU) - Off-Peak	0	0.0%	-	4	4		23.56	0	0.25		23.81
	Temporary Supply	-	0.0%	-	-	-		31.94	-	0.25		32.19
	Total Residential	**1,493**	**69.6%**	**-**	**42,361**	**42,361**			**365**			
	Commercial - A2											
	For peak load requirement less than 5 kW	5	0.2%	-	132	132		27.92	1	0.25		28.17
	For peak load requirement exceeding 5 kW											
	Regular	0	0.0%	0	1	1	500	25.94	0	0.27	500	26.21
	Time of Use (TOU) - Peak	0	0.0%	-	3	3		30.94	0	0.28		31.22
	Time of Use (TOU) - Off-Peak	0	0.0%	1	12	13	500	24.84	0	0.25	500	25.09
	Temporary Supply	-	0.0%	-	-	-		27.92	-	0.27		28.19
	Electric Vehicle Charging Station	0	0.0%	-	1	1		25.00	-			25.00
	Total Commercial	**5**	**0.2%**	**1**	**148**	**149**			**1**			
	General Services-A3	**9**	**0.4%**	**-**	**261**	**261**		**28.01**	**3**	**0.27**		**28.28**
	Industrial											
	B1	1	0.1%	-	31	31		27.04	0	0.25		27.29
	B1 Peak	0	0.0%	-	3	3		30.93	0	0.25		31.18
	B1 Off Peak	0	0.0%	-	11	11		24.83	0	0.25		25.08
	B2	1	0.0%	1	16	17	500	26.93	0	0.25	500	27.18
	B2 - TOU (Peak)	9	0.4%	-	289	289		30.93	2	0.25		31.18
	B2 - TOU (Off-peak)	68	3.2%	69	1,643	1,712	500	24.33	17	0.25	500	24.58
	B3 - TOU (Peak)	25	1.2%		763	763		30.93	6	0.25		31.18
	B3 - TOU (Off-peak)	486	22.7%	106	12,506	12,612	460	25.73	122	0.25	460	25.98
	B4 - TOU (Peak)	-	0.0%		-	-		30.93	-	0.25		31.18
	B4 - TOU (Off-peak)	-	0.0%	-	-	-	440	25.53	-	0.25	440	25.78
	Temporary Supply	-	0.0%	-	-	-		29.93	-	0.25		30.18
	Total Industrial	**590**	**27.5%**	**176**	**15,261**	**15,436**			**147**			
	Single Point Supply											
	C1(a) Supply at 400 Volts-less than 5 kW	0	0.0%	-	3	3		27.55	0	0.25		27.80
	C1(b) Supply at 400 Volts-exceeding 5 kW	6	0.3%	12	152	164	500	27.35	1	0.25	500	27.60
	Time of Use (TOU) - Peak	0	0.0%	-	6	6		30.94	0	0.25		31.19
	Time of Use (TOU) - Off-Peak	4	0.2%	1	93	94	500	24.34	1	0.25	500	24.59
	C2 Supply at 11 kV	-	0.0%	-	-	-	460	27.25	-	0.25	500	27.50
	Time of Use (TOU) - Peak	0	0.0%	-	10	10		30.94	0	0.25		31.19
	Time of Use (TOU) - Off-Peak	3	0.2%	16	85	101	460	25.74	1	0.25	460	25.99
	C3 Supply above 11 kV	-	0.0%	-	-	-	440	27.14	-	0.25	440	27.39
	Time of Use (TOU) - Peak	-	0.0%	-	-	-		30.94	-	0.25		31.19
	Time of Use (TOU) - Off-Peak	-	0.0%	-	-	-	440	25.54	-	0.25	440	25.79
	Total Single Point Supply	**13**	**0.6%**	**28**	**349**	**377**			**3**			
	Agricultural Tube-wells - Tariff D											
	Scarp	3	0.1%	-	85	85		27.55	1	0.25		27.80
	Time of Use (TOU) - Peak	-	0.0%	-	-	-		30.94	-	0.25		31.19
	Time of Use (TOU) - Off-Peak	-	0.0%	-	-	-	200	24.34	-	0.25	200	24.59
	Agricultual Tube-wells	30	1.4%	8	824	832	200	27.55	7	0.25	200	27.80
	Time of Use (TOU) - Peak	0	0.0%	-	0	0		30.94	0	0.25		31.19
	Time of Use (TOU) - Off-Peak	0	0.0%	0	0	0	200	24.34	0	0.25	200	24.59
	Total Agricultural	**33**	**1.5%**	**8**	**909**	**917**			**8**			
	Public Lighting - Tariff G	-	0.0%	-	-	-		31.24	-	0.25		31.49
	Residential Colonies	-	0.0%	-	-	-		31.54	-	0.25		31.79
	Grand Total	**2,143**	**100.0%**	**214**	**59,289**	**59,502**			**528**			

Note: The PYA 2021 column shall cease to exist after 1 year of notification of the instant decision.

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SCHEDULE OF ELECTRICITY TARIFFS
FOR TRIABLE AREAS ELECTRICITY SUPPLY COMPANY (TESCO)

A-1 GENERAL SUPPLY TARIFF - RESIDENTIAL

	Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2021 Rs/kWh		Total Variable Charges Rs/kWh	
			A	B		C		D	
	a)	For Sanctioned load less than 5 kW							
Protected	i	Up to 50 Units - Life Line	-	5.00		-		5.00	
Protected	ii	51 - 100 Units - Life Line	-	17.94		0.20		18.14	
Protected	iii	001 - 100 Units	-	20.94		0.20		21.14	
Protected	iv	101 - 200 Units	-	22.94		0.20		23.14	
Un-Protected	v	001 - 100 Units	-	23.56		0.20		23.76	
Un-Protected	vi	101 - 200 Units	-	26.75		0.21		26.96	
Un-Protected	iv	201 - 300 Units	-	27.26		0.25		27.51	
Un-Protected	viii	301 - 400 Units	-	28.50		0.25		28.75	
Un-Protected	ix	401 - 500 Units	-	28.94		0.25		29.19	
Un-Protected	x	501 - 600 Units	-	29.94		0.25		30.19	
Un-Protected	xi	601 - 700 Units	-	30.94		0.25		31.19	
Un-Protected	vi	Above 700 Units	-	31.95		0.25		32.20	
	b)	For Sanctioned load 5 kW & above		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak
		Time Of Use	-	30.94	23.56	0.25	0.25	31.19	23.81

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

As per Authority's decision, residential life line consumer will not be given any slab benefit.

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

a) Single Phase Connections: Rs. 75/- per consumer per month

b) Three Phase Connections: Rs. 150/- per consumer per month

A-2 GENERAL SUPPLY TARIFF - COMMERCIAL

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2021 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C		D	
a)	For Sanctioned load less than 5 kW		27.92		0.25		28.17	
b)	For Sanctioned load 5 kW & above	500.00	25.94		0.27		26.21	
			Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak
c)	Time Of Use	500.00	30.94	24.84	0.28	0.25	31.22	25.09
d)	Electric Vehicle Charging Station		25.00		-		25.00	

Under tariff A-2 (a), 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

Fixed Charges shall be billed based on 50% of sanctioned Load or Actual MDI for the month which ever is higher. In such case there would be no minimum monthly charges even if no energy is consumed.

A-3 GENERAL SERVICES

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	PYA 2021 Rs/kWh	Total Variable Charges Rs/kWh
		A	B	C	D
a)	General Services	-	28.01	0.27	28.28

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

B INDUSTRIAL SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2021 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		F		D	
B1	Upto 25 kW (at 400/230 Volts)	-	27.04		0.25		27.29	
B2(a)	exceeding 25-500 kW (at 400 Volts)	500.00	26.93		0.25		27.18	
	Time Of Use		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak
B1 (b)	Up to 25 KW		30.93	24.83	0.25	0.25	31.18	25.08
B2(b)	exceeding 25-500 kW (at 400 Volts)	500.00	30.93	24.33	0.25	0.25	31.18	24.58
B3	For All Loads up to 5000 kW (at 11,33 kV)	460.00	30.93	25.73	0.25	0.25	31.18	25.98
B4	For All Loads (at 66,132 kV & above)	440.00	30.93	25.53	0.25	0.25	31.18	25.78

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

Fixed Charges shall be billed based on 50% of sanctioned Load or Actual MDI for the month which ever is higher. In such case there would be no minimum monthly charges even if no energy is consumed.

C - SINGLE-POINT SUPPLY

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2021 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C		D	
C -1	For supply at 400/230 Volts							
a)	Sanctioned load less than 5 kW	-	27.55		0.25		27.80	
b)	Sanctioned load 5 kW & up to 500 kW	500.00	27.35		0.25		27.60	
C -2(a)	For supply at 11,33 kV up to and including 5000 kW	460.00	27.25		0.25		27.50	
C -3(a)	For supply at 66 kV & above and sanctioned load above 5000 kW	440.00	27.14		0.25		27.39	
	Time Of Use		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak
C -1(c)	For supply at 400/230 Volts 5 kW & up to 500 kW	500.00	30.94	24.34	0.25	0.25	31.19	24.59
C -2(b)	For supply at 11,33 kV up to and including 5000 kW	460.00	30.94	25.74	0.25	0.25	31.19	25.99
C -3(b)	For supply at 66 kV & above and sanctioned load above 5000 kW	440.00	30.94	25.54	0.25	0.25	31.19	25.79

Fixed Charges shall be billed based on 50% of sanctioned Load or Actual MDI for the month which ever is higher.

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SCHEDULE OF ELECTRICITY TARIFFS
FOR TRIABLE AREAS ELECTRICITY SUPPLY COMPANY (TESCO)
D - AGRICULTURE TARIFF

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh		PYA 2021 Rs/kWh		Total Variable Charges Rs/kWh	
		A	B		C		D	
D-1(a)	SCARP less than 5 kW	-	27.55		0.25		27.80	
D-2 (a)	Agricultural Tube Wells	200.00	27.55		0.25		27.80	
			Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak
D-1(b)	SCARP 5 kW & above	200.00	30.94	24.34	0.25	0.25	31.19	24.59
D-2 (b)	Agricultural 5 kW & above	200.00	30.94	24.34	0.25	0.25	31.19	24.59

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.

E - TEMPORARY SUPPLY TARIFFS

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	PYA 2021 Rs/kWh	Total Variable Charges Rs/kWh
		A	B	C	D
E-1(i)	Residential Supply	-	31.94	0.25	32.19
E-1(ii)	Commercial Supply	-	27.92	0.27	28.19
E-2	Industrial Supply	-	29.93	0.25	30.18

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

F - SEASONAL INDUSTRIAL SUPPLY TARIFF

125% of relevant industrial tariff

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

G- PUBLIC LIGHTING

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	PYA 2021 Rs/kWh	Total Variable Charges Rs/kWh
		A	B	C	D
	Street Lighting	-	31.24	0.25	31.49

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

H - RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	TARIFF CATEGORY / PARTICULARS	FIXED CHARGES Rs/kW/M	VARIABLE CHARGES Rs/kWh	PYA 2021 Rs/kWh	Total Variable Charges Rs/kWh
		A	B	C	D
	Residential Colonies attached to industrial premises	-	31.54	0.25	31.79

Note: The PYA 2021 column shall cease to exist after 1 year of notification of the instant decision.

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Description	July	August	September	October	November	December	January	February	March	April	May	June	Total
Units Purchased by DISCOs (GWh)	185	191	187	205	196	206	209	183	201	204	197	197	2,361

Rs./kWh

Fuel Cost Component	9.7441	9.8934	9.9114	9.1705	6.0762	9.3193	10.5541	7.2120	8.7122	8.3875	7.8281	7.5084	8.7029
Variable O&M	0.2198	0.2179	0.2288	0.2350	0.1599	0.2032	0.2433	0.1906	0.1935	0.2069	0.2031	0.2013	0.2088
Capacity	11.4507	11.6073	11.1325	14.0766	15.4007	16.6385	16.8821	17.2921	14.4201	15.7704	14.9812	14.1103	14.5225
UoSC	1.2364	1.2443	1.1587	1.3679	1.3480	1.4568	1.5110	1.4449	1.3417	1.2455	1.2600	1.2071	1.3205
Total PPP in Rs./kWh	22.6510	22.9628	22.4314	24.8500	22.9847	27.6178	29.1906	26.1397	24.6675	25.6104	24.2724	23.0271	24.7547

Rs. in million

Fuel Cost Component	1,806	1,888	1,852	1,883	1,188	1,916	2,210	1,319	1,753	1,715	1,538	1,480	20,547
Variable O&M	41	42	43	48	31	42	51	35	39	42	40	40	493
Capacity	2,123	2,215	2,080	2,890	3,012	3,420	3,535	3,162	2,902	3,224	2,944	2,781	34,287
UoSC	229	237	216	281	264	299	316	264	270	255	248	238	3,118
Total PPP in Rs./kWh	4,199	4,382	4,191	5,101	4,496	5,677	6,112	4,779	4,965	5,235	4,770	4,538	58,444

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

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Annex-V

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 Triable Areas Electricity Supply Company (TESCO) engaged in the business of distribution/supply 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 50% of the sanction load or Actual maximum demand recorded in a month, whichever is higher, 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:

	* PEAK TIMING	OFF-PEAK TIMING
Dec to Feb (inclusive)	5 PM to 9 PM	Remaining 20 hours of the day
Mar to May (inclusive)	6 PM to 10 PM	-do-
June to Aug (inclusive)	7 PM to 11 PM	-do-
Sept to Nov (inclusive)	6 PM to 10 PM	-do-

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

11. "Supply", means the supply for single-phase/three-phase appliances inclusive of both general and motive loads subject to the conditions that in case of connected or sanctioned load 5 kW and above supply shall be given at three-phase.
12. "Consumer" as defined in NEPRA Act.

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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 Despatch 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.

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 7^{th} 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%.

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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.

The lifeline consumers to include residential Non-Time of Use (Non-ToU) consumers having maximum of last twelve months and current month's consumption ≤100 units; two rates for ≤ 50 and ≤100 units will continue.

"Protected consumers" mean Non-ToU residential consumers consuming ≤ 200 kWh per month consistently for the past 6 months.

Residential Non-ToU consumers not falling under the protected category would be categorized under "Un-protected consumer category".

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-l(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/Flower Nurseries/Cold Storage
   ii) Hotels, Hostels 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.
   ix) Electric Vehicle Charging Stations (EVCS)
2. Electric Vehicle Charging Stations shall be billed under A-2(d) tariff i.e. Rs./kWh for peak and off-peak hours. For the time being, the tariff design is with zero fixed charges, however, in future the Authority after considering the ground situation may design its tariff structure on two part basis i.e. fixed charges and variable charges.

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3. The Electric Vehicle Charging Station shall provide "charging service" to Electric Vehicle with a maximum cap as determined by the Authority from time to time. For the time being the Cap has been determined as Rs.50/kWh. The EVCS shall be billed by DISCOS under A-2(d) tariff. However, monthly FCAs either positive or negative shall not be applicable on EVCS.
4. 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)
5. 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).
6. The existing and prospective consumers having load of 5 kW and above shall be provided T.O.U metering arrangement 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 other than those meant for the irrigation or reclamation of Agriculture land.

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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 inside the premises 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, fish farms, fish nurseries & 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 25 kW.
2. Consumers having sanctioned load upto 25 kW shall be billed on single-part kWh rate.
3. Consumers under tariff B-1 having sanctioned load of less than 5 kW shall be billed under a Single-Part kWh rate. However, B-1 consumers having sanctioned load of less than 5 kW may opt for ToU meter
4. The existing and prospective consumers having load of 5 kW and above shall be provided T.O.U metering arrangement and shall be billed under tariff B1(b).

B-2 SUPPLY AT 400 VOLTS

1. This tariff is applicable for supply to Industries having sanctioned load of more than 25 kW up to and including 500 kW.
2. All existing consumers under tariff B-2 shall be provided T.O.U metering arrangement by the Company and converted to B-2(b) Tariff.
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 5 MW and also for Industries having sanctioned load of 500 kW or below who opt for receiving supply at 11 kV or 33 kV.
2. The consumers may be allowed extension of load beyond 5MW upto 7.5MW from the DISCO's owned grid station subject to availability of load in the grid and capacity in the 11kV existing dedicated feeder. In such a case the consumer will bear 100% grid sharing charges including transmission line charges and 100% cost of land proportionate to load. However, only such consumers be allowed extension of load beyond 5MW upto 7.5MW whose connection is at least three (3) years old. While allowing extension in load, the DISCOs shall ensure that no additional line losses are incurred and additional loss, if any, shall be borne by the respective consumers.
3. 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.
4. 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 Eligibility Criteria laid down by the Authority read with Consumer Service Manual (CSM).
5. 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 5MW receiving supply at 66 kV, 132 kV and above and also for Industries having load of 5MW 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 Eligibility Criteria laid down by the Authority read with CSM, 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 Eligibility Criteria laid down by the Authority read with CSM.

4. All B-4 Industrial Consumers shall be billed on the basis of two-part T.O.U tariff.

C BULK SUPPLY

"Bulk Supply" for the purpose of this Tariff, means the supply given at one point for self-consumption to mix-load consumer 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-I 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-I(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.

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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 more than 500 kW up to and including 5 MW.

2. The consumers may be allowed extension of load beyond 5MW upto 7.5MW from the DISCO's owned grid station subject to availability of load in the grid and capacity in the 11kV existing dedicated feeder. In such a case the consumer will bear 100% grid sharing charges including transmission line charges and 100% cost of land proportionate to load. However, only such consumers be allowed extension of load beyond 5MW upto 7.5MW whose connection is at least three (3) years old. While allowing extension in load, the

DISCOs shall ensure that no additional line losses are incurred and additional loss, if any, shall be borne by the respective consumers.

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 Eligibility Criteria laid down by the Authority read with CSM.
4. 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.
5. 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 Eligibility Criteria laid down by the Authority read with CSM, 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 Eligibility Criteria laid down by the Authority read with CSM.
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.

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.
   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

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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.

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 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, exhibitions, political gathering, marriages and other civil or military functions. This also includes supply to touring cinemas and persons engaged in construction of house/buildings/plazas of single phase loads. A temporary electric power supply connection for the construction shall be provided by Distribution company initially for a period of six months which is further extendable on three month basis up to completion of the specific job/project for which the temporary connection was obtained. However, there is no minimum time period for provision of temporary connection. The temporary connection for illumination, lighting, weddings, festivals, functions, exhibitions, political gatherings or national and religious ceremonies, civil or military functions etc., testing of industrial equipment or any other emergent requirement of temporary nature, can be provided for specific time period not exceeding two weeks. The sanctioning officer shall ensure that the temporary connection will be utilized for temporary purpose only.

Special Conditions of Supply

1. This tariff shall apply to Residential and Commercial consumers for temporary supply.

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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

"Year" means any period comprising twelve consecutive months.

1. All "Definitions" and "Special Conditions of Supply" as laid down under the corresponding Industrial Tariffs shall also form part of this Tariff so far as they may be relevant.

Special Conditions of Supply

1. This tariff is applicable to seasonal industry.
2. Fixed Charges per kilowatt per month under this tariff shall be levied at the rate of 125% of the corresponding regular Industrial Supply Tariff Rates and shall be recovered only for the period that the seasonal industry actually runs subject to minimum period of six consecutive months during any twelve consecutive months. The condition for recovery of Fixed Charges for a minimum period of six months shall not, however, apply to the seasonal industries, which are connected to the Company's Supply System for the first time during the course of a season.
3. The consumers falling within the purview of this Tariff shall have the option to change over to the corresponding industrial Supply Tariff, provided they undertake to abide by all the conditions and restrictions, which may, from time to time, be prescribed as an integral part of those Tariffs. The consumers under this Tariff will have the option to convert to Regular Tariff and vice versa. This option can be exercised at the time of obtaining a new connection or at the beginning of the season. Once exercised, the option will remain in force for at least one year.
4. All seasonal loads shall be disconnected from the Company's Supply System at the end of the season, specified by the consumer at the time of getting connection, for which the supply is given. In case, however, a consumer requires running the non-seasonal part of his load (e.g., lights, fans, tube-wells, etc.) throughout the year, he shall have to bring out

separate circuits for such load so as to enable installation of separate meters for each type of load and charging the same at the relevant Tariff.

5. Where a "Seasonal Supply" consumer does not come forward to have his seasonal industry re-connected with the Company's Supply System in any ensuing season, the service line and equipment belonging to the Company and installed at his premises shall be removed after expiry of 60 days of the date of commencement of season previously specified by the consumer at the time of his obtaining new connection/re-connection. However, at least ten clear days notice in writing under registered post shall be necessary to be given to the consumer before removal of service line and equipment from his premises as aforesaid, to enable him to decide about the retention of connection or otherwise. No Supply Charges shall be recovered from a disconnected seasonal consumer for any season during which he does not come forward to have his seasonal industry re-connected with the Company's Supply System.

G PUBLIC LIGHTING SUPPLY

"Public Lighting Supply" means the supply for the purpose of illuminating public lamps. The supply under this tariff shall also be applicable for lamps used in public playgrounds and public parks.

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.

"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.

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Annex-A

HSE Objectives/Targets

Definition

1. **Goal:** Goals are general guidelines that explain what needs to be achieved by the Licensee with management intervention, providing resources and support. Goals should be specific, measurable, attainable, realistic, and time-sensitive (SMART).

2. **Objective/Target:** Objectives/Targets define strategies or implementation steps to attain the identified goals. They are more specific and outline the "who, what, when, where, and how" of reaching the goals.

3. **KPI:** A Key Performance Indicator is a measurable value that demonstrates how effectively Licensee is achieving goals and objectives. Key Performance Indicators (KPIs) in numbers for the goals and objectives to review and monitor its status for effective implementation.

HSE Objectives/Targets

DISCO's HSE Goal: Improve public and employee safety to achieve zero fatality incidents.

No.	Objective/Target	Key Performance Indicator
1.	Provide and maintain earthing/grounding to all HT/LT infrastructures, apparatus, and poles, along with stay wire. Earthing/grounding resistance shall be as per Distribution Design Code or manufacturer's instruction. In the absence of grounding instruction, the earthing resistance for HT/LT structures/ poles shall be not more than 5 Ohms and Distribution transformer shall be not more than 2.5 Ohms to determine the integrity of the grounding path to ensure protection from shock hazards. The earthing resistance for Grid Station/ Substation/ Switchyard equipment shall not be more than 2 Ohms. Verify integrity of fixed earthing/grounding by continuity and resistance measurement tests. In general, this cycle can range from 6 months to 3 years, depending on conditions and criticality. Wet locations testing should be 12 months and critical care shall be 6 months. Provide name	Earthing/grounding of infrastructures, apparatus, and poles, along with stay wire until June 30, 2022. Periodic verification of integrity of earthing/ grounding. On the basis of periodic continuity and resistance measurement tests, continually repair/rectify deteriorated earthing/grounding system within one month.

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No.	Objective/Target	Key Performance Indicator
	plate/ tag to all structures/ poles/ equipment's with numbers for tracking of earthing/ grounding testing record, etc. Original record of testing with structures/ poles/ equipment's numbers shall be retained and preserved by licensee for three (03) years.	
2.	Replace all substandard RORA fuses in each subdivision with standard fuses in accordance with approved design such as a high rupturing capacity fuse of standard size and rating. Install only standard fuses every time.	Installation of standard fuses until June 30, 2022.
3.	Conduct annual survey in each subdivision to identify hazardous points, deteriorated systems, hardware and conductors. Implement rehabilitation program to rectify/replace hazardous points, deteriorated systems, hardware and conductors.	Survey report of each subdivision until the end of each fiscal year.
		On the basis of survey report, rectify/replace hazardous points, deteriorated systems, hardware and conductors within three months.
4.	Conduct survey in each subdivision to identify conductors in narrower/ congested areas having less clearance from houses/ buildings. Re-organize/re-position or Install insulated conductors (aerial bundled cables/conductors) to achieve minimum horizontal and vertical safe clearance.	Survey report of each subdivision until the end of each fiscal year.
		On the basis of survey report, re-organize/re-position or install insulated conductors within three months.
5.	Conduct survey to identify substandard/obsolete electromechanical relays/protections for abnormal conditions (short-circuits, overloading, ground fault, broken conductor features, etc.) whose failure can result in serious injuries. Replace substandard/obsolete electromechanical relays/protections with high speed digital/programmable relays/protections.	Survey report until the end of each fiscal year.
		On the basis of survey report, replace relays/ protections within three months.
6.	Conduct a need assessment for authorized workshops. Establish authorized workshops with repair facilities having	Workshop Need Assessment Report until June 30, 2022.

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No.	Objective/Target	Key Performance Indicator
	testing facilities for transformer reliability and integrity to ensure fitness.	Established authorized workshops as per report until Dec 31, 2022.
7.	Arrange and maintain stock of following special PPE at each subdivision and Grid station for authorized employees/ contractors while working or handling energized systems against approved "Permit to Work" under the continuous direction and supervision of the job in-charge. 1. Full Face Shield (polycarbonate or similar non-melting type) 2. Insulated gloves with sleeves rated for the voltage involved. 3. Arc Flash Kit for Arc Flash Protection such as Category 4 Arc Flash Resistant Suite, Arc Flash Hood Arc-rated Gloves and Arc-rated Fall Protection while working at high voltages (more than 420 V). Arrange training at each subdivision and Grid station for these special PPE for authorized employees/ contractors. Ensure use of these special PPE in each subdivisions.	Maintain stock of full face shield, insulated gloves with sleeves and arc flash kit until June 30, 2022. Training by supplier until June 30, 2022. Use of full face shield, insulated gloves with sleeves and arc flash kit at each subdivision and Grid station until June 30, 2022.
8.	Arrange and maintain stock of Full Body Harness with front work positioning belt (positioning lanyard) along with double lanyard for 100% tie at each subdivision and Grid station for authorized employees/ contractors while working on height more than 6 feet/1.8 meter above the ground or impact level. Full Body Harness with front work positioning belt (positioning lanyard) along with double lanyard for 100% tie shall be used at heights more than 6 feet/1.8 meter above the ground when climbing poles, towers and structures including working through mobile elevated aerial platform, man-baskets,	Maintain stock of Full Body Harness with front work positioning belt (positioning lanyard) along with double lanyard until June 30, 2022. Training by supplier until June 30, 2022. Use of Full Body Harness at each subdivision and Grid station until June 30, 2022.

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No.	Objective/Target	Key Performance Indicator
	man-lift or bucket mounted vehicles. Full Body Harness with front work positioning belt is to allow an employee to be supported on an elevated vertical surface such as a wall or pole and to work with both hands free. Use of a body belt alone for fall arrest is prohibited. Full Body Harness with PVC coated hardware should be used when working in an explosive or electrically conductive environment. Anchor the safety harness lanyard on a rigged anchorage point at height, having a fall clearance safety factor of three (03) feet from impact level or ground level. Arrange training at each subdivision and Grid station for these special PPE for authorized employees/ contractors. Ensure use of these special PPE in each subdivision and Grid station.	

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