

Use of System Charges (UoSC) FY 2023-24 of All XW-DISCOs



November 28, 2023 - Islamabad

Petition for Determination of Use of System Charges

Background

- XWDISCOs are existing licensees for Distribution of Electric Power and deemed licensee for supply of electric power.
- Approval of CTBCM design, promulgation of multiple regulations, approval of Market Commercial code and issuance of license for the Market Operator have set the stage for effective role out of electric power market.

Grounds for Petition

- In compliance with the Clause 4.4, Clause 5.5.2(f), Clause 5.5.2(g), Clause 5.5.4 and Clause 5.6.5 of National Electricity Policy, 2021; and
- In compliance with the regulation 7 of NEPRA Open Access (Interconnection and Wheeling of Electric Power) Regulations, 2022 (“Open Access Regulations”).

Entitlement on Each Element of Use of System Charges

Sr. No.	Use of System Charge Element	Entitled Entity
1.	Transmission Use of System Charge	NTDC and other TSPs through NTDC/NGC.
2.	System Operator Charge / Fee	System Operator through NTDC.
3.	MSP Charge / Fee	MSP through NTDC
4.	Distribution Use of System Charge	XW-DISCO as Distribution Licensee
5.	Cross Subsidy	XW-DISCO as SOLR (Supply Licensee)
6.	Stranded Capacity Costs	XW-DISCO as SOLR (Supply Licensee)

Methods for Recovery of Use of System Charges

Fixed Charge (Rs./kW/Month)

Use of system charges recovery in term of Rs./kW/Month metered shall provide guaranteed stream of revenue to cover for costs which are fixed in nature. This may, however, over burden the relevant consumers thus undermining the very purpose of CTBCM and open access regime.

Variable Charge (Rs./kWh)

Use of system charges recovery in term of Rs./kWh will render the service providers and the SOLR to face the revenue loss arising from low load factor of the eligible BPCs. On the other hand the open access users shall be benefitted for any favorable Energy or Capacity Imbalance at the Market this option may not provide a balanced approach to promised sharing of risks and rewards under CTBCM regime.

Hybrid Approach Rs./kW/Month & Rs./kWh)

Use of system charges recovery through a hybrid approach, i.e. partly through fixed charge in terms of Rs./kW/Month (subject to minimum MDI compared to the contracted load) and partly in terms of Rs./kWh may provide a balanced plausible approach for all the involved parties. It is submitted that, in order to ensure level playing field for consumers of SOLR and Competitive Supplier, the recovery of use of system charges may have same charging mechanism.

Use of System Charges (UoSC) FY 2023-24 of All XW-DISCOs

ISSUES FRAMED FOR HEARING

Issues of Public Hearing (# 1)

1. Whether the application of Use of System Charges (UoSC) including Stranded Cost and Cross Subsidy on consumers having bilateral contracts with competitive Suppliers is in line with NEPRA Act, NE Policy & applicable documents.

Issue # 1

Referring to the provisions of NEPRA Act, NE-Policy 2021, NE-Plan 2023-27, Rules and Regulations, the framework clearly mandates the UoS Charges, including imposition and recovery of Cross Subsidy and Stranded Costs through the UoSC of the Distribution Company.

References

- **Sections 7(2)(ac), 7(3)(a), 31(2), 31(1), 7(2)(ai) and 14A of the NEPRA Act,**
- **National Electricity Policy 2021 clause 5.5.2(f)**
- **Regulations 2(m)(i), 2(n), 3(b)(iii) of the Performance Standards (Electric Power Suppliers) Regulations, 2022**
- **Regulations 2(r), 7 and 9(2) of the Open Access (Interconnection and Wheeling of Electric Power) Regulations, 2022**
- **Strategic Directives 87 – 90 of the National Electricity Plan 2023-27**
- **Rule 5 of Eligibility Criteria (Electric Power Supplier) Rules, 2023.**

Issues of Public Hearing (# 2)

2. What are the basis and methodology adopted by DISCOs for calculation of UoSC including Stranded Cost and Cross Subsidy?

Issue # 2

- The UoSC proposed, has been developed on the detailed cost of service (COS) study carried out by the XW-DISCOs using the Fully Allocated Cost of Service (FACOS) Model. (**Determinations of 2014-15 Tariffs** referred)
- In addition to systematically ascertaining the functional cost of service for each category of consumers, the FACOS model help is determining following two Costs:
 - The **Stranded Costs** are the capacity charges of generation costs on account of advent of Open Access, and are arrived at on the basis of allocating single system peak demand (MW) to various categories of consumers.
 - The **Cross-Subsidy** based upon the tariff for that category and the allocated cost of service for the same category.

Issues of Public Hearing (# 3)

3. Whether the requested UoSC are justified and the same should be charged uniformly across DISCOs or otherwise? And what methodology be adopted in case of multiple DISCOs involved in terms of T&D Losses as well UOSC?

Issue # 3

- The UoSC are justified under law and should be charged uniformly across DISCOs to consumers of all suppliers.
- Our response to Issue No. 1 and basis & methodology provided in Issue No. 2, are reiterated here.
- *Reference*
 - **National Electricity Policy 2021 clauses 5.6.3, 5.5.1(a) and 5.5.2(f)**
 - **Strategic Directives 79 – 81 (uniform tariffs & methodology) and 87 – 90 (Recovery of Open Access Charges) of the National Electricity Plan.**

Issues of Public Hearing (# 4)

4. Whether the following type of generation projects should be considered for calculation of stranded cost: (a) projects whose PPAs with CPPA-G have expired and are being extended, and (b) projects whose PPAs are on a take-and-pay basis?

Issue # 4

- The Stranded Costs is all Capacity Costs that becomes unrecoverable from BPCs with open access. (SD 87(b) of NE-Plan 2023-27 referred)
- For Project falling in category (a) whose PPAs with CPPA-G have expired but are being extended, the major component of the Capacity Cost i.e. the debt has already been paid off but there is minimal capacity left to be paid, should be included.
- For projects falling in category (b), PPAs on take and pay basis (no guaranteed capacity payment), Capacity Costs associated with such project shall be dealt with according to the methodology adopted by the Authority while determining Power Purchase Price, particularly the Capacity Cost of such Take-and-Pay based PPAs.

Issues of Public Hearing (# 5)

5. What should be the prudent period during which the stranded cost component of UoSC should remain applicable?

Issue # 5

- In furtherance of our response to Issue No. 1 & 4, Stranded Costs is cost of an investment which becomes unrecoverable on account of multiple factors.
- These costs persist until the market achieves equilibrium between meeting capacity obligations, demand, and associated supply arrangements.
- In light of the above and responses furnished to Issue No. 1 & 4, Stranded Cost component of the UoSC should continue to apply till such time that the Stranded Costs remain in the system.

Issue # 5

- Without committing to the viability of this proposal and subject to our reconsideration in the light of Policies and/or Plans of the Government:
 - The Authority may consider imposing total Stranded Cost for an initial period of five (05) years as major capacity is being added to the System through legacy contracts during this period.
 - After five years, the Authority may study and decide to determine the period for which the said recovery mechanism of Stranded Costs should be continued.
- *Reference*
 - **SD 81 of NE-Plan 2023-27** provides review after every five (5) years.
 - **Strategic Directive 87 of NE-Plan 2023-27** state that “**Open access charge shall be recovered from all consumers, opting for open access, through competitive suppliers till the currency of this NE-Plan or as amended by the Government**”

Issues of Public Hearing (# 6)

6. Whether the potential revenue earned by the XW-DISCOs through the Balancing Mechanism for Energy (BME) and Balancing Mechanism for Capacity (BMC) should be accounted for and adjusted in the calculation of UoSC?

Issue # 6

- All legacy contracts signed or managed by the CPPA-G are being allocated to all DISCOs pursuant to the mechanism provided for in the market commercial code.
- The BME and BMC are market transactions while the Stranded Costs and Cross Subsidies are policy costs, therefore, both should be dealt with independently and must not be mixed together.
- Even otherwise, the impact of BMC and BME may be evaluated at the appropriate time through the study that the Authority may conduct, as per our response to Issue No. 5.

Issues of Public Hearing (# 7)

7. Whether there is any duplication of charges pertaining to distribution and transmission losses when recovered through UoSC, keeping in view the fact that the same shall be compensated by the bulk power consumers through injection of additional units in the grid?

Issue # 7

- The Cost of Losses should not be made part of the UoSC, since the Commercial Code already provides a mechanism for adjustment of the transmission and distribution losses.
- Once the Market Participants have already procured the transmission and distribution losses through the mechanism of the Commercial Code, it is not justified that the cost of the same should be included in the UoSC again.
- The Cost of Losses is an integral part of the Grid Charges, however, these are recovered through a mechanism as approved by the Authority in the Commercial Code.
- Therefore, the addition of a separate component in monetary terms in the UoSC will create duplication which should not be applied.

Issues of Public Hearing (# 8)

8. Whether it is prudent to charge the stranded cost to those BPCs, which are currently being supplied electricity under existing wheeling agreements and shall be brought in compliance with the NEPRA Open Access (Interconnection and Wheeling of Electric Power) Regulations, 2022?

Issue # 8

- BPCs who have executed Wheeling Agreements are consumers of suppliers.
- Accordingly, all arrangements have to be dealt with under the Regulations currently in field as treating Suppliers/BPCs differently post UoSC determination or Open Access Regulations violates Policy and legal mandates.
- *Reference*
 - **National Electricity Policy 2021 clause 5.5.2(f)**
 - As per **Regulation 11(2) of Open Access (Interconnection and Wheeling of Electric Power) Regulations, 2022** any wheeling agreement executed under the repealed **Wheeling Regulations, 2016** have to be brought in conformity with the Open Access Regulations, 2022.

Issues of Public Hearing (# 9)

9. Whether it is prudent to charge the stranded cost to those new BPCs, which are not part of DISCOs demand forecast?

Issue # 9

- The contents of our response to Issue No. 4 is reiterated.
- Medium-term demand (PMS based) forecasts of DISCOs and medium to long-term demand (econometrics based) forecast of NTDC are made on a percentage basis, without identifying which BPC falls within the said projected increase.
- As discussed in our response to Issue No. 8, the Authority is obligated to ensure uniformity in and non-discriminatory treatment of market participants across the market.
- Apportioning Stranded Costs over more BPCs reduces the cost burden on each consumer, facilitating a smoother and cost-effective transition to market liberalization.
- Accordingly, application of stranded costs for all relevant BPCs, existing or new, shall be correct in terms of policy, legal and regulatory framework.

Issues of Public Hearing (# 10)

10. Whether it would be prudent to calculate the stranded cost based on per MW of stranded capacity or on per kWh basis?

Issue # 10

- Currently, the consumers are being charged on a uniform basis across the entire country, on different voltage levels.
- The capacity component of the revenue requirement of the Supplier is charged to DISCOs on kW basis, based on the MDI, whereas its recovery from most of the consumers is effected on kWh basis.
- Industrial consumers are charged on a two-part tariff, i.e. fixed component on a kW basis and variable component on a kWh basis.
- Our recommendation regarding UoSC is that these costs should be calculated in a **hybrid model** where some portion of the UoSC is recovered through kWh basis and the other through per kW on MDI basis. Intent of **SD-74 of NE-Plan 2023-27** seems to be the same.

Issues of Public Hearing (# 11)

11. Whether it is prudent to recover 100% stranded cost from bulk power consumers who have given one-year notice before opting for CTBCM, given that this allows XW-DISCOs ample time to adjust their procurement planning cycle based on their forecasted demand growth?

Issue # 11

- In light of the responses furnished to Issue No. I, Stranded Cost component of the UoSC should continue to apply till such time that the Stranded Costs remain in the System.
- To the extent that total stranded costs are completely satisfied/offset through real-time addition of actual and new demand, Stranded Costs shall incrementally reduce automatically.
- These costs would incrementally reduce at an accelerated rate, if they are apportioned across all consumers and the total demand in the power sector.
- Every BPC who engages in Open Access is required under the NEPRA Act to give one (01) year notice.

Issue # 11

- By this logic, every BPC engaging in Open Access, would be excused from being charged 100% Stranded Costs.
- Without prejudice to the duration of one (01) year (prior to a BPC's departure as a regulated consumer), will be insufficient to offset the impact of a BPC's departure, in terms of Capacity Cost. In this respect, the following may be noted: -
 - (i) An accelerating departure rate could harm forecasted growth, leaving limited space for declining demand and growing capacity.
 - (ii) Especially since there would be a greater delay in the actual demand growth catching up with the available capacity.

Issue # 11

- (iii) The Authority will basically be rewarding early departures, imposing stranded costs on those who join later due to the departing BPCs.
- iv. Current capacity from legacy contracts exceeds forecasted demand with no room for adjustments in the planning cycle. The question of adjustment therefore, will arise in a distant future.
- Additionally, the contents of our response to Issue No. 4 and 5, are reiterated and the Authority may consider reviewing this matter as discussed in the said response.

Issues of Public Hearing (# 12)

12. Whether UoSC should be made applicable on captive consumers wheeling electric power from their captive generation plant for their own use, i.e. same company, which are using DISCO's network?

Issue # 12

- As per Policy, Legal and Regulatory Framework, the UoSC is recoverable from Open Access User. (**Regulation 2(1)(m) & 6(6) of Open Access Regulations, 2022** referred)
- The imposition of UoSC has a direct and positive correlation with consumption.
- A BPC shall be charged and have to pay UoSC, by virtue of being a consumer availing Open Access through the Distribution Company's system.
- No favorable treatment can be extended to such consumers under the NEPRA Act, particularly on account of the nature of the generating entity supplying them electric power.

Issue # 12

- Establishing, maintaining and operating the transmission / distribution system to ensure non-discriminatory open access (**5(1) of Open Access Regulations, 2022 referred**) necessitates non-discriminatory UoSC as well.
- However, no network of the DISCO is used, then there would be no incidence of costs/charges that the DISCO can charge the BPC.
- Where however, a Distribution network is used, then the BPC would qualify as a consumer, and is required under law to be treated in the exact same way, as other BPCs.

Issues of Public Hearing (# 13)

13. Whether UoSC should be made applicable on captive consumers supplying electric power from captive generation facilities for sales of surplus electricity to other companies under second-tier supply authorization or generation licence within the same premises, i.e. BPC is not connected to any DISCO's network?

Issue # 13

- Where no network is used, then there would be no incidence of costs/charges that the DISCO can charge the BPC.
- In such a case, no Stranded Costs would be charged.
- Where however, a Distribution network is used, then the BPC would qualify as a consumer, and is required under law to be treated in the exact same way, as other BPCs .

Issues of Public Hearing (# 14)

14. Whether UoSC should be made applicable on consumers purchasing electric power from a generation facilities installed at its own premises by a third party under second-tier supply authorization/ electric power supplier license without using the distribution network for wheeling of electric power? (Newly added)

Issue # 14

- As per Policy, Legal and Regulatory frameworks, the UoSCs are “open access charges”; which include network charges of NTDC & DISCOs, MO/SO/MSP charges plus applicable cross subsidy and stranded capacity costs (**Ref: SD 87 of NE-Plan 2023-27**).
- Open access charge shall apply on Open Access User as defined in the **Open Access Regulations, 2022**.
- Where no network is being utilized, the open access charges are not applicable.
- Where access to the network, either by relevant generator or by the concerned BPC, is established, the UoSC charges become applicable (on Competitive Supplier) being Open Access User.

Issues of Public Hearing (# 15)

15. Whether there should be uniform UoSC for all DISCOs on different voltages, or different charges should be implemented intra-DISCO, as well as separate charges for inter-DISCO open access for delivery of electric power?

Issue # 15

- The UoSC would be different for each voltage level within the DISCO, since the costs of service for supply to consumers at different voltage levels, is also different.
- Subject to any change in future policies / plans of the Government, the UoSC shall be uniform across all DISCOs on a specific voltage level, in order to provide a level playing field. For example, there shall be the same charge for all the consumers across the country connected at 132 KV.

Issues of Public Hearing (# 16)

16. Whether it is prudent to consider establishing separate UoSC for different consumer categories and types?

Issue # 16

- The UoSC will be different based on the voltage level, however, the consumers of different categories connected at the same voltage level shall pay the same UoSC.
- In this regard, our response to Issue No. 15 is reiterated.

Issues of Public Hearing (# 17)

17. What should be the frequency to periodically review the UoSC?

Issue # 17

- The indexation and adjustments should be made in a manner similar to manner in which the Authority adjusts other components of the consumer end tariff on a regular/periodic basis.
- **Rule 5(2)(d) of Eligibility Criteria (Electric Power Supplier Licenses) Rules, 2023** also endorses the recommendation made above.

Issues of Public Hearing (# 18)

18. Any other issue that may come up during the proceedings. .

Use of System Charges (UoSC) FY 2023-24 of All XW-DISCOs

Thank You

DISCO-WISE PROPOSED UoSC RATES (Rs./kWh)

	Category	IESCO	PESCO	FESCO	LESCO	GEPSCO	MEPCO	HESCO	QESCO	TESCO	SEPCO
1	A-2 C (Above 1 MW)			29.99	31.57						
2	B-3 (Above 1 MW)	18.81	31.50	25.55	26.94	25.41	28.84	32.29	34.99	27.44	33.28
3	B-4	19.90	30.97	26.93	27.25	26.17	28.75	30.15		27.32	32.39
4	C-2 a (Above 1 MW)			27.67	31.48						
5	C-2 b (Above 1 MW)	21.84	34.92	35.47	29.89	28.57	31.54	31.49	38.11	30.13	35.41
6	C-3 a			32.37	33.96			35.64			36.33
7	C-3 b	21.72	34.91	29.94	30.07	29.46	31.46			30.01	
8	A-3 (Above 1 MW)				29.70						

Cross-Subsidy & Stranded Cost (Rs./kWh) Included in the Proposed UoSC Rates

	Category	IESCO	PESCO	FESCO	LESCO	GEPSCO	MEPCO	HESCO	QESCO	TESCO	SEPCO
1	A-2 C (Above 1 MW)			26.69	24.90						
2	B-3 (Above 1 MW)	15.45	22.10	22.63	22.95	20.06	24.43	15.27	29.96	25.88	25.82
3	B-4	16.02	25.12	25.06	24.59	20.82	26.57	20.38		25.83	21.54
4	C-2 a (Above 1 MW)			21.85	28.05						
5	C-2 b (Above 1 MW)	17.99	25.91	31.81	25.55	23.18	26.39	17.29	21.31	29.04	25.92
6	C-3 a			29.40	31.40			24.22			30.81
7	C-3 b	16.28	30.16	27.40	27.53	24.07	29.18			27.97	
8	A-3 (Above 1 MW)				24.42						