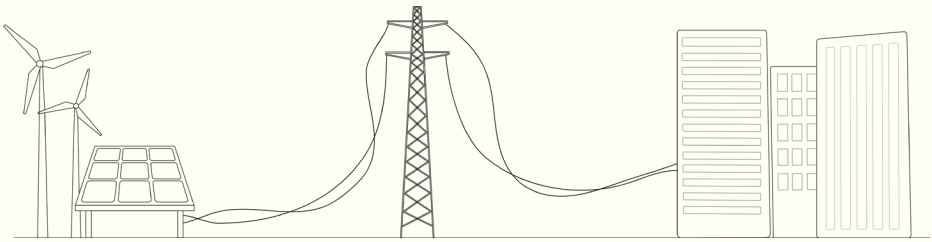
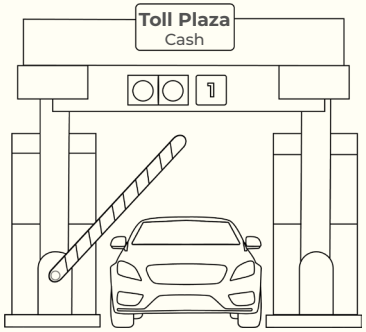
UoSC



Use of System Charge

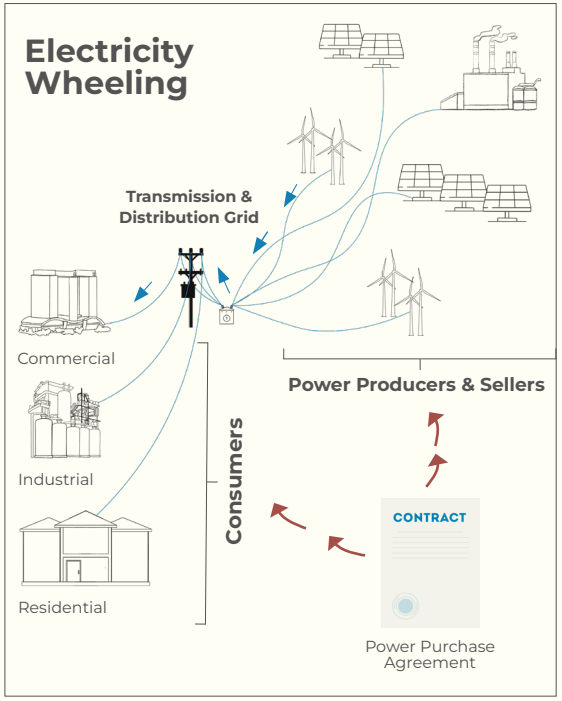
What is the Use of System Charge?



Consider you are driving on a motorway, where you come across toll booths along the route. To use the motorway and benefit from its convenience, safety, and efficiency, you are required to pay a toll fee set by the motorway authority. This fee helps cover the costs of maintaining, repairing, and expanding the motorway infrastructure, ensuring it remains operational and safe for all users.

Similarly, in electricity markets, the **Use of System Charges (UoSC)** refers to the fees or charges imposed on market participants for utilizing the transmission system to transport electricity. Similar to the toll fee on the motorway, these charges are levied to cover the costs associated with operating, maintaining, and expanding the transmission infrastructure. UoSC can vary based on factors such as the distance of transmission, the level of congestion on the grid, and the time of day, among others.

Alternatively, this charge is also referred to as the **wheeling charge** or **open access charge.**



The importance of 'Open Access'

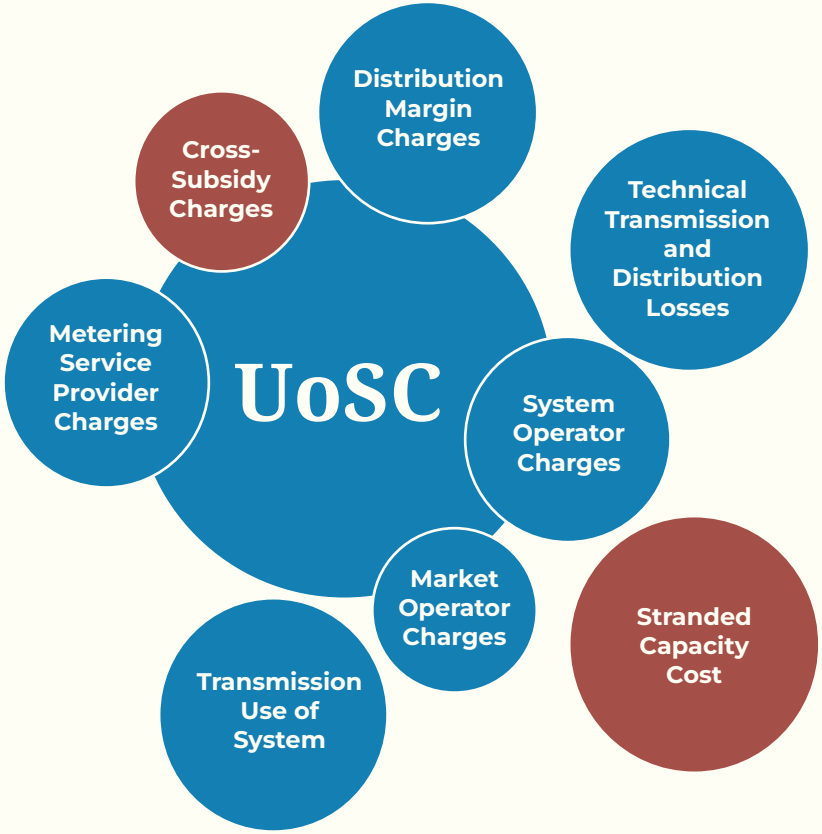
A competitive electricity market enables the market participants (buyers and sellers) to enter into bilateral contracts. However, the success of an open market hinges on the provision of a level playing field for all participants and fairness for both existing market players and future entrants.

◊ Level playing field is a state in which the set of rules or conditions are same (fair) for everyone in a competition or a situation. This, however, does not mean that everyone will have an equal chance to succeed. chosen supplier has failed.

Charging a fair and equitable amount of cost for the usage of transmission and distribution network is an essential element in providing the market participants with a level playing field. For this reason, Use of System Charge is one of the most important elements of the CTBCM design.

What are the different components of the Use of System Charge?

Following are the different components of UoSC (in the context of CTBCM) identified from the petition documents on NEPRA's website:



Why so much concern around the Use of System Charge?

The issue of transporting electricity from one place to another is one of the most important elements of open competitive markets. While defining how much the participants may be charged for this transportation, it is important that the needs of all participants are kept in check. However, participants may have different views regarding what types of cost may or may not be included under this head

Should stranded costs be a part of the Use of System Charge?

Stranded costs are those investments in power generation, transmission, or distribution assets that have become unrecoverable due to various reasons such as changing market conditions, non-availability of fuels, or lack of need in the grid. In Pakistan's context, this primarily amounts to the capacity payments which have to paid regardless of power off-take.

If the stranded asset costs are not considered within the UoSC, they will become a huge burden for the ordinary regulated consumers. On the other hand, the spirit of fair competition requires that market participants must not end up paying costs whose responsibility and onus does not belong to them.

The Market Says No

Market participants argue that they should only be charged for using the grid and not for the imprudent planning decisions of the government related to investments in electricity generation.

The Government Says Yes

The government argues that if the stranded costs are not charged to the market participants under the head of using the transmission network, these costs will become an additional burden on the ordinary users.

A recommended middle approach:

A five-year settlement plan may be set up for participants who opt to leave the regulated electricity grid. For the first five years, these participants may be charged a specific amount towards recovery of the stranded cost. However, after the stated period has elapsed, the participants are not obligated to pay the stranded costs anymore. This would not only provide a way for bulk buyers and sellers to be eventually relieved of the burden of stranded costs and provide them with long-term clarity on costing, it would also put pressure on the government to be more cautious with future planning and investment.

Should 'Cross-Subsidization' be a part of the Use of System Charge?

Cross-subsidization refers to the practice of charging higher electricity prices to certain groups of consumers in order to subsidize the costs for other groups. This is typically done to ensure that electricity remains affordable for vulnerable or low-income segments of the population, while the financial burden is shifted to other consumers who can afford to pay more.

Currently, certain consumer classes, such as domestic (protected) and agricultural, benefit from certain inter-class or government subsidies, while others, like industries and BPCs bear the burden of substantial cross-subsidies. Fostering a robust and successful wholesale (and later retail) power market is crucial for minimizing, if not eliminating, cross-subsidies.

The National Electricity Plan (2023-27) of Pakistan has set a target to limit the exposure of cross-subsidies to reduce strain on country's fiscal resources, and to transition towards cost-of-service tariffs. However, this poses a challenge for the government in terms of tariff rationalization. Under this proposal, the industrial or large consumers will no longer be obligated to bear the additional charges of cross-subsidization once they exit the regulated market.

Targeted subsidies: An alternative

A better alternative to cross-subsidization may be found in targeted subsidy schemes. By directing financial assistance specifically to low-income households and vulnerable populations, targeted subsidies can ensure that essential services remain affordable for those who need them most. This approach prevents the wastage of government resources and reduces the fiscal burden associated with broad, untargeted subsidies. Additionally, targeted subsidies also encourage energy efficiency and responsible consumption, as they often come with measures to promote energy-saving practices.

How much should the Use of System Charge be?

The latest proposed use of system charge of over **9 US¢/kWh** has been deemed highly unrealistic and counterproductive by the industrial participants. Notably, it surpasses the power tariffs for export-oriented consumers in neighboring economies such as Bangladesh (8.6 US¢/kWh), India (6 US¢/kWh), and Vietnam (7.2 US¢/kWh)

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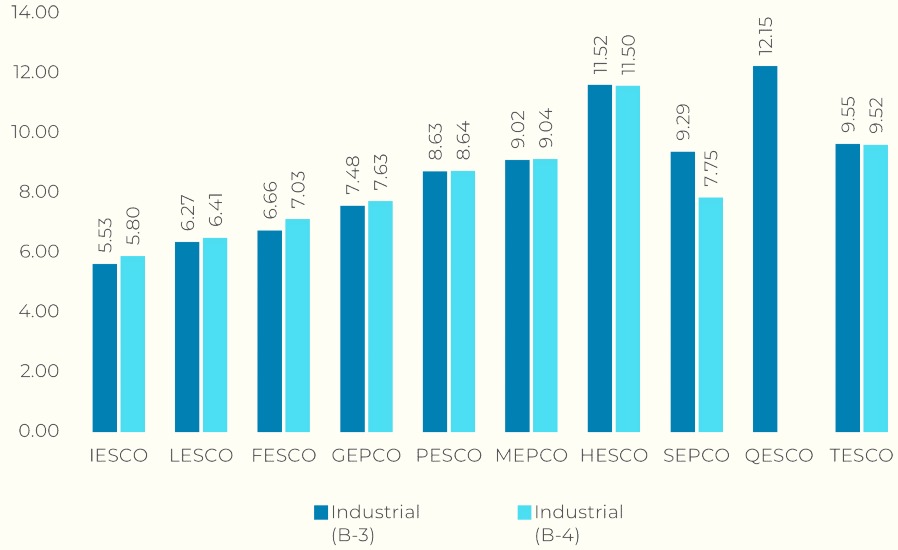
The industrial sector, especially the export industry, has persistently advocated for a fair and equitable use of system charge for business-to-business (B2B) power contracts. As per an analysis by All Pakistan Textile Mills Association (APTMA), Pakistan's textile and apparel exports surged by 54% in two years during 2020-2022, with the provision of regionally competitive power tariff of 9 US¢/kWh. However, discontinuation of this competitive tariff had detrimental effect on export volumes as well as profitability of export industry, citing a significant decline in power consumption and de-industrialization across the economy.

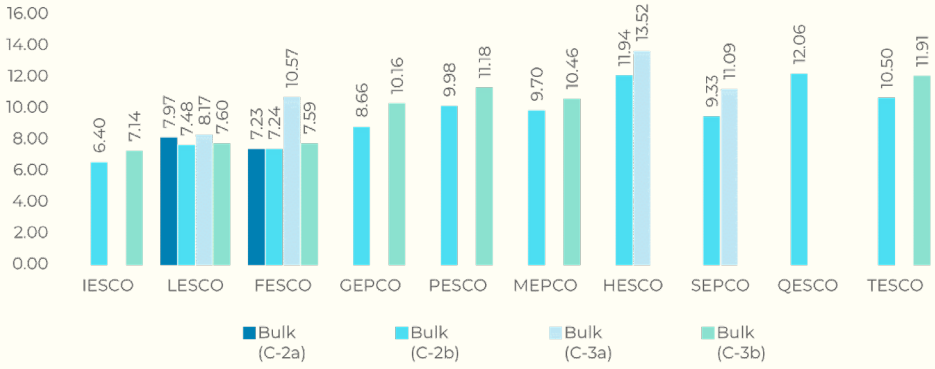
An equitable use of system charge that reflects the true costs of utilizing the transmission system is crucial for providing a level playing field for all market participants and promoting transparency, efficiency, and competition in the electricity market.

Use of System Charge Proposed by the DISCOs for Industrial Consumers - US¢/kWh



For industrial consumers of B-3 and B-4 categories, the proposed UoSC ranges from 5.53-12.15 US¢/kWh with an average of 8.39 US¢/kWh.

Use of System Charge Proposed by the DISCOs for Bulk Power Consumers - US¢/kWh



For the bulk power consumers of various categories, the proposed UoSC ranges from 6.40-13.52 US¢/kWh with an average of 9.47 US¢/kWh.

Renewables First (RF) is a think tank for energy and environment. Our work addresses critical energy and natural resource issues with the aim to make energy and climate transitions just and inclusive.

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