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The background of the cover features a large, detailed image of a high-voltage power transmission tower (pylon) against a sunset sky. The sky transitions from a deep blue at the top to a bright orange and yellow near the horizon. In the distance, a city skyline with illuminated buildings is visible. The tower is a complex lattice structure with multiple cross-arms supporting several power lines. The overall composition is dynamic, with diagonal lines from the tower and the background colors creating a sense of movement and energy.

# UNDERSTANDING **ELECTRIC POWER SYSTEM & TARIFF STRUCTURE** IN PAKISTAN

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BASIC GUIDE

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**BOOKLET**

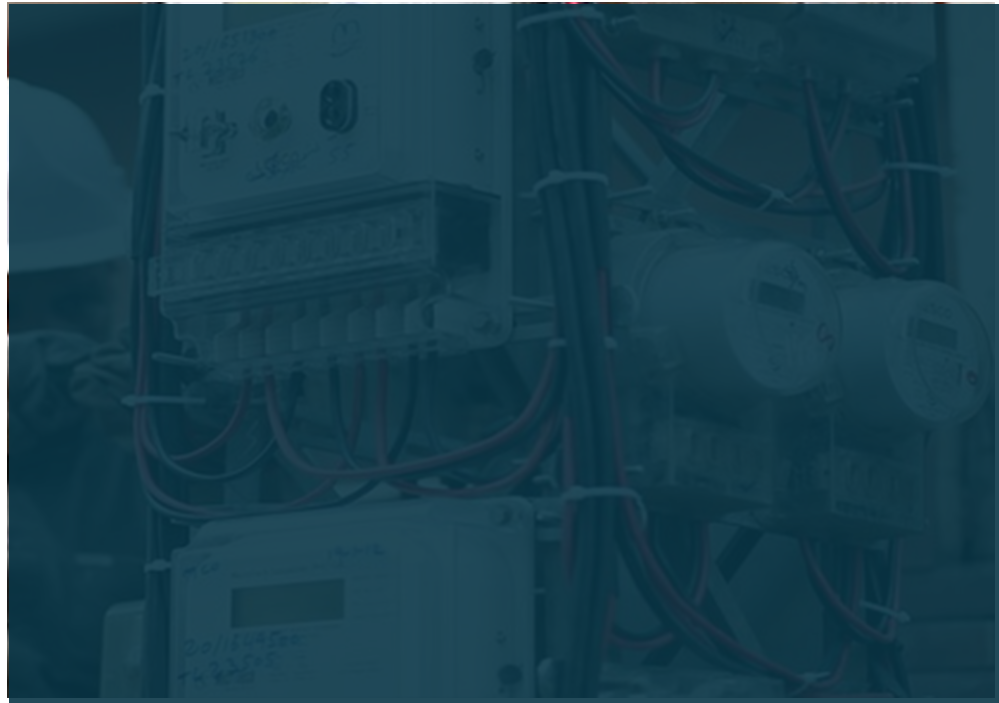
# UNDERSTANDING ELECTRIC POWER SYSTEM & TARIFF STRUCTURE IN PAKISTAN

September 2024



**SDPI**

Sustainable Development Policy Institute



# An Expository Guide to Understanding, **Tariff-Setting** in Pakistan's Power Sector.

The power sector in Pakistan, especially the process of tariff-setting, is a complex phenomenon that often leaves consumers puzzled. The technical details, coupled with repeated and sometimes inconsistent news coverage, can lead to misunderstandings and confusion among the masses.

In response to this, we have endeavored to develop this booklet as a simple and accessible guide for end-consumers. In this document, consumers will find key concepts pertaining power system, tariff-setting and its components in simpler language. Our goal is to break down the complexities of the power sector and the tariff-setting process, offering simple explanations to help consumers better understand these important issues.

For additional clarity, we encourage consumers to reach out directly to SDPI with any questions or concerns. This document will be continuously updated to reflect the most frequently asked questions, ensuring that it remains a helpful resource as the sector evolves.

## **FOREWORD**

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CHAPTER 01

# Basic Understanding of Pakistan's Power Sector

## Chapter 01

# Basic Understanding of Pakistan's Power Sector

## 1.1 Electric Power System of Pakistan:

The power sector of Pakistan can be divided into three main sectors i.e., Generation, Transmission, and Distribution.

### a. GENERATION

Power generation is the process of producing electricity from various energy sources. The electricity is produced by either Generation Company (GENCOs) or Independent Power Producers (IPPs). As of the end of March 2024, the country's total installed electricity capacity stood at 42,131 MW. The percentage shares of hydel, nuclear, renewable, and thermal are 25.4 percent, 8.4 percent, 6.8 percent, and 59.4 percent, respectively [\[1\]](#).

**Table 14.1: Installed Capacity of Electricity**

Source	FY2023		July-March FY2023		July-March FY2024	
	MW	Share (%)	MW	Share (%)	MW	Share (%)
Hydel	10,681	25.44	10,681	25.44	10,681	25.35
Thermal	25,046	59.66	25,046	59.66	25,046	59.45
Nuclear	3,545	8.44	3,545	8.44	3,545	8.41
Renewable	2,709	6.45	2,709	6.45	2,859	6.79
<b>Total</b>	<b>41,981</b>		<b>41,981</b>		<b>42,131</b>	

Source: National Electric Power Regulatory Authority

### b. TRANSMISSION

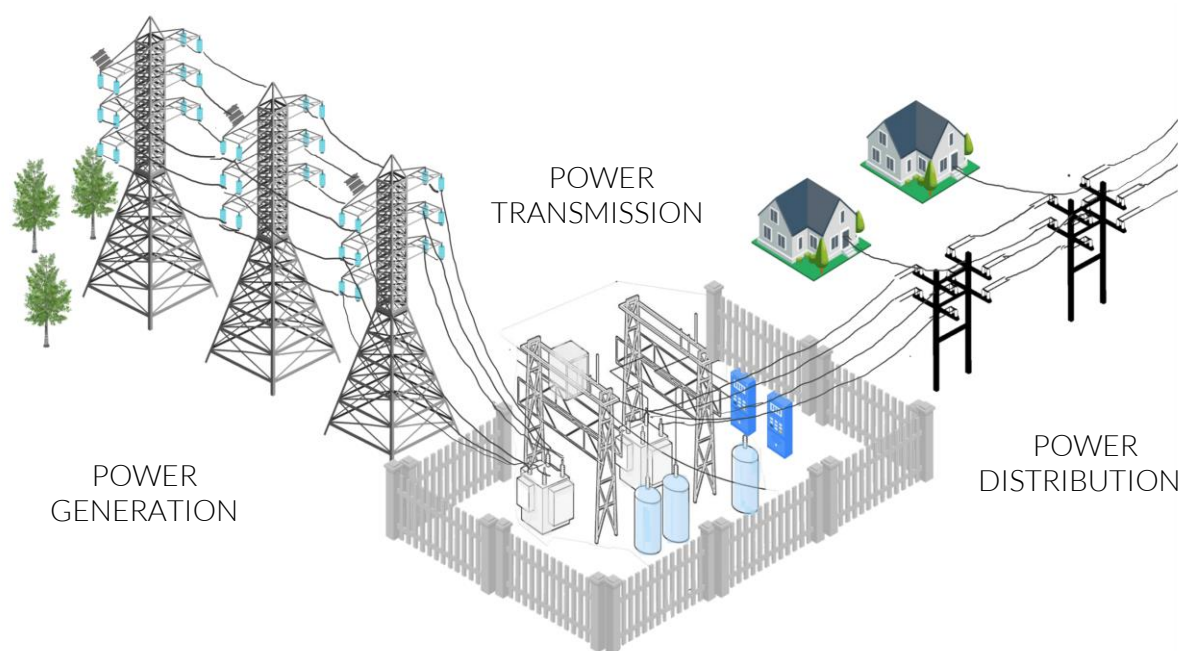
The step after generation is the transmission, this system is divided between two entities, K-Electric and National Transmission & Dispatch Company (NTDC). K-Electric transmits power to Karachi and its adjoining areas such as Gharo, Dhabeji, Uthal, Bela, Vinder, and Hub, whereas the rest of the country relies on NTDC which is the national grid of the country. The transmission network serves as the crucial link for transferring power from generation plants to various load centers nationwide. A robust and efficient transmission system is not only vital for ensuring a continuous supply of electricity but also for dispatching power from the most efficient plants situated in different regions, aligning with the Economic Merit Order (EMO).

### c. DISTRIBUTION

Electric power distribution is the final stage of delivery of electricity. Electricity is carried from the distribution system to individual consumers. Again, for Karachi and adjoining areas K-Electric possesses the license to maintain distribution operations for Karachi and its adjoining areas meanwhile for rest of the country, there are 10 different distribution companies whose names are below:

1. Faisalabad Electric Supply Company (FESCO)
2. Gujranwala Electric Power Company (GEPCO)

1. Hyderabad Electric Supply Company (HESCO)
2. Islamabad Electric Supply Company (IESCO)
3. Lahore Electric Supply Company (LESCO)
4. Multan Electric Power Company (MEPCO)
5. Peshawar Electric Power Company (PESCO)
6. Quetta Electric Supply Company (QESCO)
7. Sukkur Electric Power Company (SEPCO)
8. Tribal Electric Supply Company (TESCO)



## 1.2 Governance System of Pakistan's Power Sector:

### Regulator – National Electric Power Regulatory Authority (NEPRA)

Power Sector is a highly regulated sector. Regulatory authority for this purpose is NEPRA, which is an autonomous body mandated by law to regulate the power sector to ensure that the interests of investor and customer are protected, and the sector moves towards a competitive environment. Following is some of its prominent role as a regulatory authority:

- 1) Grant of Generation, Transmission, and distribution licenses to entities for power sector.
- 2) Specify procedures and standards for investment programmes of organizations involving Generation, Transmission, and distribution/supply of electric power.
- 3) Issue guidelines and standard operating procedures.
- 4) Determine power tariff, rates, charges and other terms and conditions for supply of electric power services by the generation, transmission and distribution companies and recommend to the Federal Government for notification.

Among others...<sup>[2]</sup>

### Governance – Ministry of Energy (Power Division)

The Ministry of Energy is an executive ministry of the Federal Government of Pakistan that is charged with implementation of the national energy policy and energy production and electricity transmission throughout the country.

The MoE functions are split into two divisions: Petroleum and Power – each independent of its tasks and objectives.

The Ministry of Energy (Power Division) is responsible for policy formulation, oversight, and administrative management of the country’s electricity sector. It sets national energy policies, manages the operations of public sector power companies, and collaborates with other ministries and international bodies on energy projects. Some of its primary responsibilities include:

- 1) Formulating energy policies, plans, and legislation.
- 2) Monitoring the implementation of government projects related to power generation, transmission, and distribution.
- 3) Managing international agreements related to energy, such as foreign investments and power trade.
- 4) The Ministry of Energy (Power Division) also oversees matter related to subsidies in the power sector.

Among others...<sup>[3]</sup>

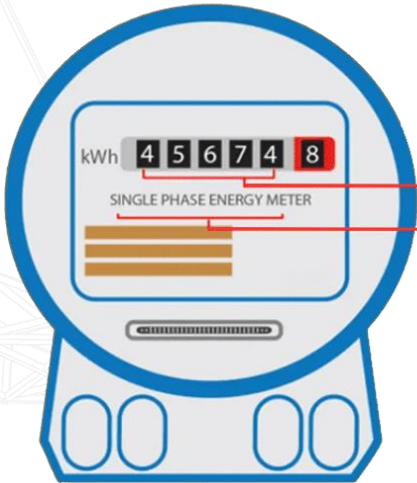
## 1.3 Categories of Consumers

While there are various categories of consumers in Pakistan’s power system, for the ease of understanding, below are mentioned the most frequently used categories namely residential, commercial and industrial, they too have sub-categories as mentioned below:

<b>A-1 General Supply Tariff - Residential</b>	
<b>S. No</b>	<b>Tariff Category / Particulars</b>
<b>For peak load requirement less than 5kW</b>	
<b>Protected</b>	i. Up to 50 Units - Life Line
	ii. 01 - 100 Units - Life Line
	iii. 001 - 100 Units
	iv. 101 - 200 Units
<b>Unprotected</b>	v. 1-100 Units
	vi. 101-200 Units
	vii. 201-300 Units
	viii. 301-400 Units
	ix. 401-500 Units
	x. 501-600 Units
	xi. 601- 700 Units
	xii. Above 700 Units
	xii. Above 700 Units
	<b>For peak load requirement exceeding 5kW</b>
xiii.	Time-of-Use (ToU) Customers - Peak
xiv.	Time-of-Use (ToU) Customers – Off-Peak

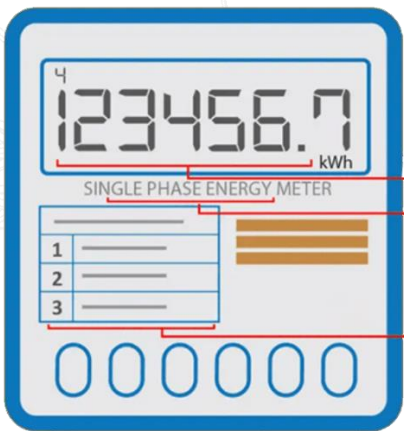
A-2 General Supply Tariff - Commercial	
i.	Sanctioned load less than 5kW
ii.	Sanctioned load 5kW & Above
ii (a).	Regular
ii (b).	Time of Use (ToU) - Peak
ii (c).	Time of Use (ToU) - Off-Peak
B – General Supply Tariff - Industrial	
i.	B1
ii.	B2(a)
iii.	B1 (b)
iv.	B2 (b) Exceeding 25-500 kW (at 400 Volts)
v.	B3 For All Loads up to 5000 kW (at 11,33 kV)

Calculating meter reading



This shows your meter reading\*

The meter type will be mentioned here  
Single Phase or Three-Phase



This shows your meter reading\*  
The reading to be noted will be written with kWh

The meter type will be mentioned here  
Single Phase or Three-Phase

The display sequence is given on the meter which  
will help you see the order of the digits displayed

## 1.4 Frequently Asked Questions (FAQs)

### a) What is the difference between generation capacity and peak demand?

Installed generation capacity is the total amount of electricity that power plants can produce if they are all working at their maximum potential. It's like the maximum power supply available at national level. Peak demand, on the other hand, is the actual amount of electricity that people, businesses, and industries are using at a given time. It's how much electricity is needed. To put simply, while capacity is the supply potential, peak demand represents the actual consumption need during high-usage times. As stated earlier, Pakistan's installed capacity 42,131 MW as of March 2024 however, Pakistan's peak power demand stood at 30,189 MW in June 2023.

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### b) What is Economic Merit Order (EMO)?

The Economic Merit Order ensures that power generation is dispatched from the least-cost producers first, optimizing system efficiency and minimizing overall costs. By prioritizing cheaper energy sources, it reduces electricity prices and maximizes economic benefit. This approach supports cost-effective and reliable power supply.



### c) Why does K-Electric manage the transmission, distribution, and generation of electricity in Karachi and adjoining areas, whereas in the rest of the country, these functions are managed by separate organizations?

K-Electric manages the generation, transmission, and distribution of electricity in Karachi as a vertically integrated utility, a model that has historical roots and evolved due to the specific needs of the city. The rest of the country operates under a more decentralized model, with organizations like the National Transmission and Dispatch Company (NTDC) handling transmission, while generation companies (GENCOs) and distribution companies (DISCOs) manage their respective sectors. This structure was developed to accommodate the large geographical spread and diverse energy needs across Pakistan. However, in Karachi, K-Electric's integrated approach allows it to have full control over the entire electricity supply chain, improving coordination and response times in managing the city's energy demands.

## d) What are the key differences in responsibilities between NEPRA and Ministry of Energy (Power Division)?

In Pakistan, the Ministry of Energy (Power Division) and NEPRA (National Electric Power Regulatory Authority) play distinct but complementary roles in the energy sector. Here's a breakdown of the key differences between the two:

**Policy vs. Regulation:** The Ministry of Energy (Power Division) is focused on policy-making and administration, while NEPRA is concerned with regulation and ensuring that the rules are followed.

**Government Control vs. Independence:** The Ministry of Power is part of the government with direct control over state-owned power companies among others (mentioned above), whereas NEPRA operates as an independent authority to regulate both public and private sector companies in power sector.

**Tariff Setting:** NEPRA is the one responsible for determining electricity tariffs, while the Ministry of Power focuses on the broader policies that guide the energy sector.

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## e) Do K-Electric and other power distribution companies (DISCOs) have monopoly in Pakistan?

NEPRA renewed licenses of almost all DISCOs including K-Electric on non-exclusive basis in 2023. Meaning that except TESCO and SEPCO, all the distribution companies are now operating under a non-monopolistic environment and any other entity, subject to NEPRA's license, can operate in their territories.

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## f) What are the benefits of being a lifeline or protected consumer?

The benefit of falling under a lifeline or protected category is significantly higher than the rest of the consumer categories as it offers lowest tariffs for consumers. For example, lifeline consumers for up to 01-50 units are being charged PKR 3.95 per unit while lifeline consumers for up to 51-100 units are being charged PKR 7.74 per unit under the current tariff regime.

Similarly protected consumers from 01-100 units are being charged PKR 7.74 per unit while protected consumers falling under 101-200 units are being charged PKR 10.06 per unit under the current tariff regime. On the other hand, unprotected consumers from 01-100 units are charged PKR 16.48 per unit and unprotected consumers with consumption from 101-200 units are charged PKR 22.95 per unit under the current tariff regime.

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## g) Who are Lifeline Consumers? How can I become one?

As per NEPRA's definition, Lifeline Consumers mean those residential consumers who have a single phase electric connection with a sanctioned load up to 1 kW, Lifeline consumer are residential Non-Time of Use (Non-ToU) consumers having maximum of **last twelve months** and **current month's consumption** less than or equal to **100 units**.

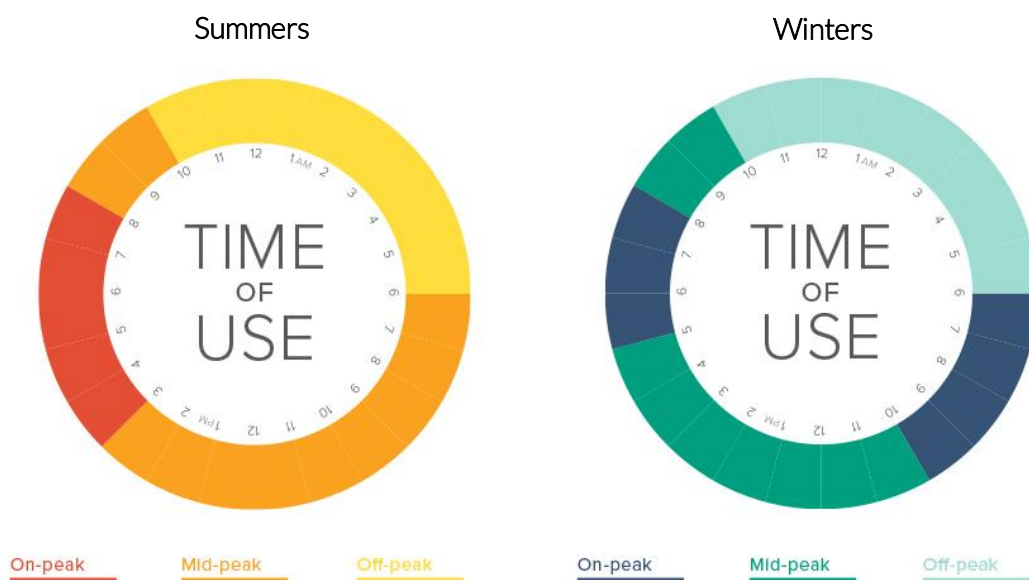
## h) Who are Protected Consumers? How can I become one?

Protected consumers mean Non-ToU Residential customers consuming less than or equal to **200**.

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## i) What is Time of Use (ToU) Billing?

This is the application of tariff according to the time in which energy is consumed. These rates vary by time of day: more expensive during peak demand hours and less expensive during low demand periods. ToU has been implemented across all Distribution Companies (DISCOs) as per the Uniform Tariff Policy applicable across Pakistan to encourage responsible consumer consumption and ease the strain of energy usage during maximum demand periods. Billing for eligible customers will be based on their consumption during peak/off-peak hours.



## j) If my meter reading / consumption for a month is beyond the limit mentioned for Lifeline and Protected consumers, then what would happen?

As per NEPRA, if any lifeline resident consumer goes above its limit of 100 units for a month, that consumer would be moved out from lifeline category and charged as per protected or unprotected tariff whichever is applicable, whereas unprotected consumer would not get any slab benefit.

To provide a simple explanation, if a protected consumer has a reading/consumption of 101 unit for a particular month, his 100 units will be calculated as per 01 – 100 Units protected slab and 1 unit would be charged as per 101 – 200 Units protected slab

However, for the rest of the coming months, his bill will be computed under the protected consumer category until he falls under lifeline consumer category or unprotected category.

However, for a protected consumer, once the consumer has a meter reading/ consumption beyond the set limit of 200 units, the consumer would be charged under non-protected category without provided any previous slab benefit until the consumer falls under protected category again.

CHAPTER 02

# Tariff Setting in Power Sector



# Tariff Setting in Power Sector

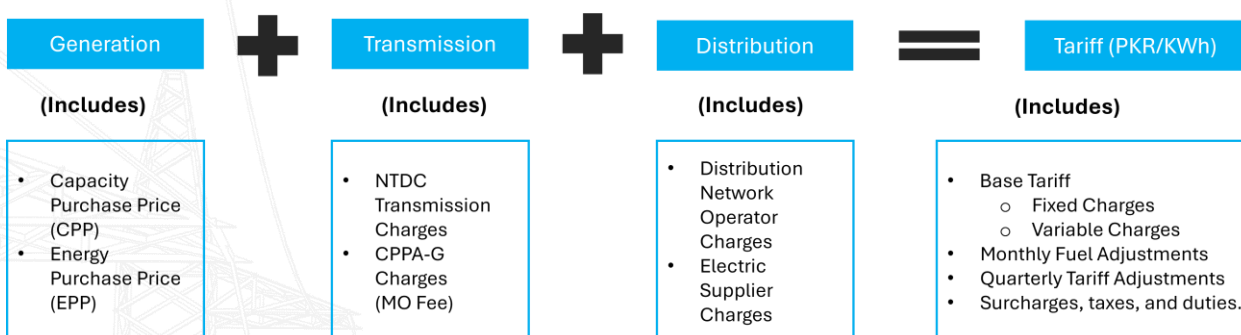
## 2.1 Electricity Tariff

An electricity tariff is the rate at which electrical power is sold to consumers. It includes various components that reflect the costs incurred in generating, transmitting, distributing, and supplying electricity. The tariff structure is designed to ensure the recovery of these costs while maintaining fairness and affordability for consumers. Here are the key components typically included in an electricity tariff:

- **Energy Purchase Price:** Reflects the cost of fuel and variable operations and maintenance of power plants.
- **Capacity Purchase Price:** Covers the fixed costs of generating capacity, including return on investment, fixed operations and maintenance, debt servicing, and insurance.
- **Fuel Charge Adjustment (FCA):** Accounts for fluctuations in fuel prices and generation mix.
- **Quarterly Adjustment (QTA):** This reflects adjustments pertaining to the capacity and transmission charges, the impact of Transmission & Distribution (T&D) losses, and the adjustment of variable Operations & Maintenance (O&M).
- **Transmission Charge:** Includes the costs of transporting electricity from power plants to distribution networks, covering infrastructure and operational costs.
- **Distribution Charge:** Encompasses the costs of distributing electricity to end-users, including maintenance of distribution lines and administrative expenses.
- **Supply Charge:** Covers the costs associated with customer service, billing, and metering.

In addition to electricity tariff, consumers are also charged with:

- **Surcharges:** Consumer bills are also typically included in addition to electricity tariff such as Power Holding Limited (PHL).
- **Taxes and duties:** Taxes and duties imposed by the government on electricity bills.



## 2.2 Factors Affecting these Components & their Indexation

**Exchange Rates:** Fluctuations in the value of the Pakistani Rupee (PKR) against the US Dollar (USD) can significantly impact costs, particularly those indexed to foreign currencies. For example, if a power plant

loans or fuel contracts denominated in USD, any depreciation in the PKR increases the cost in local currency terms.

**Inflation Rates:** Domestic inflation rates, often measured by the National Consumer Price Index (N-CPI), affect local costs such as labor, materials, and maintenance. Higher inflation rates increase the cost of these local components.

**Interest Rates:** Changes in interest rates, such as KIBOR and SOFR, affect the cost of working capital and debt servicing. An increase in these rates raises the cost of borrowing, impacting the overall cost structure of power plants and transmission companies.

**Fuel Prices:** Variations in global fuel prices directly impact on the energy produced by utilizing imported fuel for power production.

**Government Policies:** Subsidies, taxes, and duties imposed by the government can affect overall costs.

**Operational Efficiency:** Improvements or declines in the efficiency of generation, transmission, and distribution can impact costs

## 2.3 Determined Tariff vs. Consumer end Tariff

Determined Tariff is the rate set by the National Electric Power Regulatory Authority (NEPRA). This rate is calculated based on the costs incurred and return required by power generation, transmission, and distribution companies. The determination process involves a detailed review and consideration of various cost components mentioned above.

On the other hand, applicable consumer tariff is the rate that consumers pay for their electricity usage which is uniform across the country as per the Uniform Tariff policy. This rate is often different from the determined tariff due to various adjustments and subsidies provided by the government.

## 2.4 Uniform Tariff Policy

Despite these costs and charges, the base price of electricity of all consumers across Pakistan remains the same within their respective categories due to the uniform tariff policy. This policy refers to the government's approach of setting a single, consistent electricity tariff rate for all consumers and regions across Pakistan, regardless of the differences in the costs or operations of various power distribution companies. This policy aims to meet socio-economic objectives and manage budgetary targets by ensuring that all consumers, irrespective of their location, pay the same base price for electricity.

## 2.5 Fuel Charge Adjustments (FCAs)

Over the years, Fuel Charge Adjustments (FCAs) have significantly risen leaving different categories of consumers facing increased electricity costs. It is pertinent to mention however, that Pakistan's energy mix for power production heavily relies on imported fuel and thus, any fluctuation in global prices have a direct impact on the fuel price adjustments. As per NEPRA, the cost of fuel adjustment is passed-through, meaning that any increase or decrease in fuel cost would be passed on to consumers.

### 2.5.1 Procedure of Determining Fuel Charge Adjustments (FCAs)

At the end of each month, K-Electric and the Central Power Purchasing Agency (CPPA-G) on behalf of other Distribution Companies (DISCOs), apply for Fuel Cost Adjustment (FCA) to the National Electric Power Regulatory Authority (NEPRA) against a reference price. Upon receiving these applications, a team of NEPRA experts verifies the submitted data before scheduling a public hearing. NEPRA's team of experts also verify if the economic merit order (EMO) is followed. After the verification, NEPRA calls a public hearing which is conducted at NEPRA's premises, where the applicants present their cases before NEPRA officials and the public. Following the conclusion of the hearings, NEPRA announces its decision, specifying the amount and the month when the FCA will be applied to consumers' bills.

As an example\*, consider that the price of Furnace Oil was PKR 3,122 (MMBTU) however, during the month for which FCA was applied, the Furnace Oil price jumps to 3,878 (% change against reference was recorded at 24%), the positive adjustment of PKR 756 per MMBTU will be distributed among the consumers.

## 2.6 Quarterly Adjustments (QTAs)

The scope of Quarterly Adjustments (QTAs) adjustments include:

- a) Adjustments pertaining to the capacity and transmission charges
- b) Adjustments of variable O&M as per actual
- c) Adjustments of variable O&M as per actual
- d) Impact of T&D losses on the components of Power Purchase Price
- e) Impact of extra or lesser purchases of units on account of Power Purchase Price

### 2.6.1 Procedure of Determining Quarterly Adjustments (QTAs)

Similar to FCAs, K-Electric and other Distribution companies apply for Quarterly Adjustments (QAs). These adjustments take into account a period of a quarter. Upon receiving these applications, a team of NEPRA experts verifies the submitted data before scheduling a public hearing. NEPRA calls a public hearing which is conducted at NEPRA's premises, where the applicants present their cases before NEPRA officials and the public. Following the conclusion of the hearings, NEPRA announces its decision, specifying the timeframe when the QTA will be applied to consumers' bills.

It is pertinent to note however, that in case of QTAs, the adjustments determined for other discos also apply on K-Electric consumers due to uniform tariff policy applicable across the country, while QTAs determined for K-Electric are usually picked up by Government under Tariff Differential Subsidies (TDS).

## 2.7 Additional Duties & Taxes

Below is the comprehensive breakdown of additional duties and taxes levied on electricity bills:

**Electricity Duty:** A provincial levy ranging from 1% to 1.5% of variable charges, applicable to all consumers.

**General Sales Tax (GST):** Levied under the Sale Tax Act 1990, imposing a 18% tax rate on the entire electricity bill for all consumers.

**PTV License Fee:** An additional charge of Rs35/for domestic consumers and Rs60/for commercial consumers, is directly added to the electricity bills.

**Extra Tax:** Industrial and commercial consumers, not registered in the active taxpayer list of the Federal Board of Revenue (FBR), are subject to a tax rate of 5% to 17%, depending on different bill amount slabs.

**Further Tax:** This additional tax of 3% is levied on all consumers without a Sales Tax Return Number (STRN), excluding domestic, agricultural, bulk consumers, and streetlight connections.

**Advance Income Tax:** Charged at varying rates based on applicable tariffs and the amount of the electricity bill. Advance Income tax @ 7.5% is also charged for residential consumers having a total bill above 25,000 if the consumer is non-filer. For industrial and commercial consumers advance income tax is chargeable if the bill amount is more than Rs. 500 and the rate varies based on the amount of bill.

**Sales Tax:** Commercial consumers are taxed at a rate of 5% on bills up to Rs20,000/and 7.5% on bills exceeding Rs20,000/-.

**Power Holding Limited (PHL) Surcharge:** The PHL surcharge is applied to electricity bills to help cover the interest on loans taken by Power Holding Limited (PHL), which were used to manage circular debt in Pakistan's power sector. This surcharge is passed on to consumers and applicable across the country. Even though K-Electric does not make any contribution to the country's circular debt, it is still being recovered from consumers in its territory.

## 2.8 Peak & Off-Peak Timings

This is the application of tariff according to the time in which energy is consumed. These rates vary with respect to the time of the day: it is more expensive during peak demand hours and less expensive during low demand periods.

a) Peak Hours for K-Electric

April – October	06:30 pm – 10:30 pm
November – March	06:00 pm – 10:00 pm

b) Peak Hours for other DISCOs

June – August	07:00 pm – 11:00 pm
September – November	06:00 pm – 10:00 pm
December – February	05:00 pm – 09:00 pm
March – May	06:00 pm – 10:00 pm

## 2.9 NEPRA’s Determines Consumer-End Tariff

It is pertinent to mention that the consumer end-tariff is determined by NEPRA. Moreover, since the tariff structure is uniform throughout the country, individual licensees of NEPRA such as GENCOs / IPPs or DISCOs cannot unilaterally alter the tariff structure.

## 2.10 Applicable Base Tariff for Residential, Commercial and Industrial Consumers

a) Residential

Residential Tariff	Old Tariff (Rs/Unit)	New Tariff (Rs/Unit) Jul-Sep 24	New Tariff (Rs/Unit) Oct 24 & onwards	Fixed Charges (PKR)
<b>PROTECTED</b>				
0-50 Units (Lifeline)	3.95	3.95	3.95	-
51-100 Units (Lifeline)	7.74	7.74	7.74	-
001-100 Units	7.74	7.74	11.69	-
101-200 Units	10.06	10.06	14.16	-
<b>UNPROTECTED</b>				
001-100 Units	16.48	16.48	23.59	-
101-200 Units	22.95	22.95	30.07	-
201-300 Units	27.14	34.26	34.26	-
301-400 Units	32.03	39.15	39.15	200
401-500 Units	35.24	41.36	41.36	400
501-600 Units	36.66	42.78	42.78	600
601-700 Units	37.8	43.92	43.92	800
Above 700 Units	42.72	48.84	48.84	1000
<b>TOU (PEAK)</b>	41.89	48	48	1000
<b>TOU (OFF - PEAK)</b>	35.57	41.68	41.68	

b) Commercial

Commercial Tariff	Old Tariff (Rs/Unit)	New Tariff (Rs/Unit) Jul -Sep 24	New Tariff (Rs/Unit) Oct 24 & onwards	Fixed Charges (PKR)
For sanctioned load less than 5 kW	37.75	38.59	38.59	PKR 1,000 (Per Consumer)
For peak load requirement exceeding 5kW	39.43	40.91	40.91	PKR 1,250 (Per kWh)
Time of Use (ToU) - Peak	41.35	44.97	44.97	PKR 1,250 (Per kWh)
Time of Use (ToU) - Off-Peak	35.38	36.30	36.30	PKR 1,250 (Per kWh)

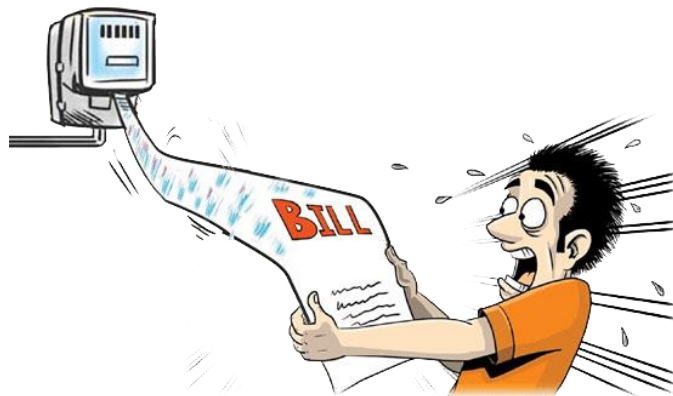
c) Industrial

Commercial Tariff	Old Tariff (Rs/Unit)		New Tariff (Rs/Unit) Jul -Sep 24		New Tariff (Rs/Unit) Oct 24 & onwards		Fixed Charges (PKR)
B1 - Upto 25 kW (at 400/230 Volts)	34.33		31.95		31.95		PKR 1,000 (Per Consumer)
B2(a) - Exceeding 25-500 kW (at 400 Volts)	33.83		31.88		31.88		PKR 1,250 (Per kWh)
<b>Time of Use</b>	<b>Peak</b>	<b>Off-Peak</b>	<b>Peak</b>	<b>Off-Peak</b>	<b>Peak</b>	<b>Off-Peak</b>	
B1 (b) Upto 25 kW	37.89	32.33	37.89	31.20	37.89	31.20	PKR 1,000 (Per Consumer)
B2 (b) Exceeding 25-500 kW (at 400 Volts)	37.83	32.12	37.83	28.56	37.83	28.56	PKR 1,250 (Per kWh)
B3 - For All Loads up to 5,000 kW (at 11,33 kV)	37.83	32.03	37.83	29.39	37.83	29.39	PKR 1,250 (Per kWh)
B4- For All Loads (at 66,132 kV & Above)	37.83	31.93	37.83	29.11	37.83	29.11	PKR 1,250 (Per kWh)

## 2.10 Frequently Asked Questions (FAQs)

### a) Why are my electricity bills constantly rising?

There are various components that take into effect while computing a consumer's bill and there are several factors affecting it such as exchange rates, inflation rates, interest rates, fuel price at global level, government policies, increase or decrease in subsidies, surcharges, duties, and taxes among various others. When these factors change, this also brings an effect to a consumer's bill. It is also pertinent to mention that Pakistan's energy mix heavily relies on imported fuel and after Ukraine-Russia war, fuel price has risen significantly which also impacts per unit cost.



### b) I did not use electricity during this entire month, but I have received a considerable amount of bill this month. Why?

While you may not have used electricity for a specific month, chances are that your current electricity bill would be carrying FCA, QTA, and other taxes applicable on your type of connection that would be getting recovered in your current bill which may give the impression that you are getting high bills despite low or no usage. It is highly recommended to check the front or back page of your utility bill that provides the cost breakup.



### **c) Why am I receiving FCAs and QTAs after months while I already paid for the electricity used for those months?**

The Fuel Charge Adjustments (FCAs) and Quarterly Tariff Adjustments (QTAs) are charged after several months because initially, a consumer is charged a unit price based on a reference price for electricity during a given month. Later, the utilities compare the actual costs of fuel and other components against the reference price. They then submit a request to NEPRA based on these actual costs. After NEPRA's verification, any cost differences are passed on to consumers as a pass-through cost, ensuring consumers pay the true cost of electricity consumed.

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### **d) Do power utilities such as IESCO, LESCO, K-Electric and others decide electricity charges and taxes in the utility bills?**

As mentioned earlier, the tariff, taxes, and duties incurred on electricity bills are determined by NEPRA, no organization unilaterally alter the charges and tariff as Pakistan's power sector is highly regulated.

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### **e) Are my electricity rates higher than in other parts of the country?**

Due to implementation of uniform tariff policy, all consumers across the country pay the same rate of electricity within their respective categories. While some charges such as FCAs may vary due to difference in fuel mix, the base cost of electricity is same.



## f) I am already a taxpayer, why am I being charged income tax on my electricity bill?

Per Government of Pakistan Finance Act 2021 applicable across Pakistan, residential customers whose names do not appear on the FBR's active taxpayer list are being charged 7.5% Advanced Income Tax on monthly electricity bills of Rs. 25,000 and above from 1st July 2021. If a consumer is already a tax-filer and his name is present on FBR's Active Taxpayer list, he needs to update its CNIC against his current consumer account number to be eligible for income tax exemption.



## g) What benefit does Peak/Off-Peak timings give to a customer?

Shifting use of electrical appliances from Peak hours to Off-Peak hours has the potential to reduce electricity costs for customers.

Winter Peak Hours (November - March)



6-10 AM Weekdays

Summer Peak Hours (April - October)



3-7 PM Weekdays



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# Booklet on Electric Power System & Tariff Structure in Pakistan

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