



RENEWABLES FIRST

Pakistan's Power Market Insights

Feb 2025

Introduction

Our power market insights highlight important trends shaping Pakistan's power sector. This document focuses on long-term changes, such as the effects of fuel cost variations and shifts in the energy mix. The goal is to help businesses and consumers understand how the power sector is evolving.

Key Highlights



In Feb 25, cumulative electricity generation stood at 6.9 TWh, marking a decrease of 2% year-on-year (YoY) basis.



Wind power generation surged by 61% YoY, with 174 GWh generated in Feb 25.

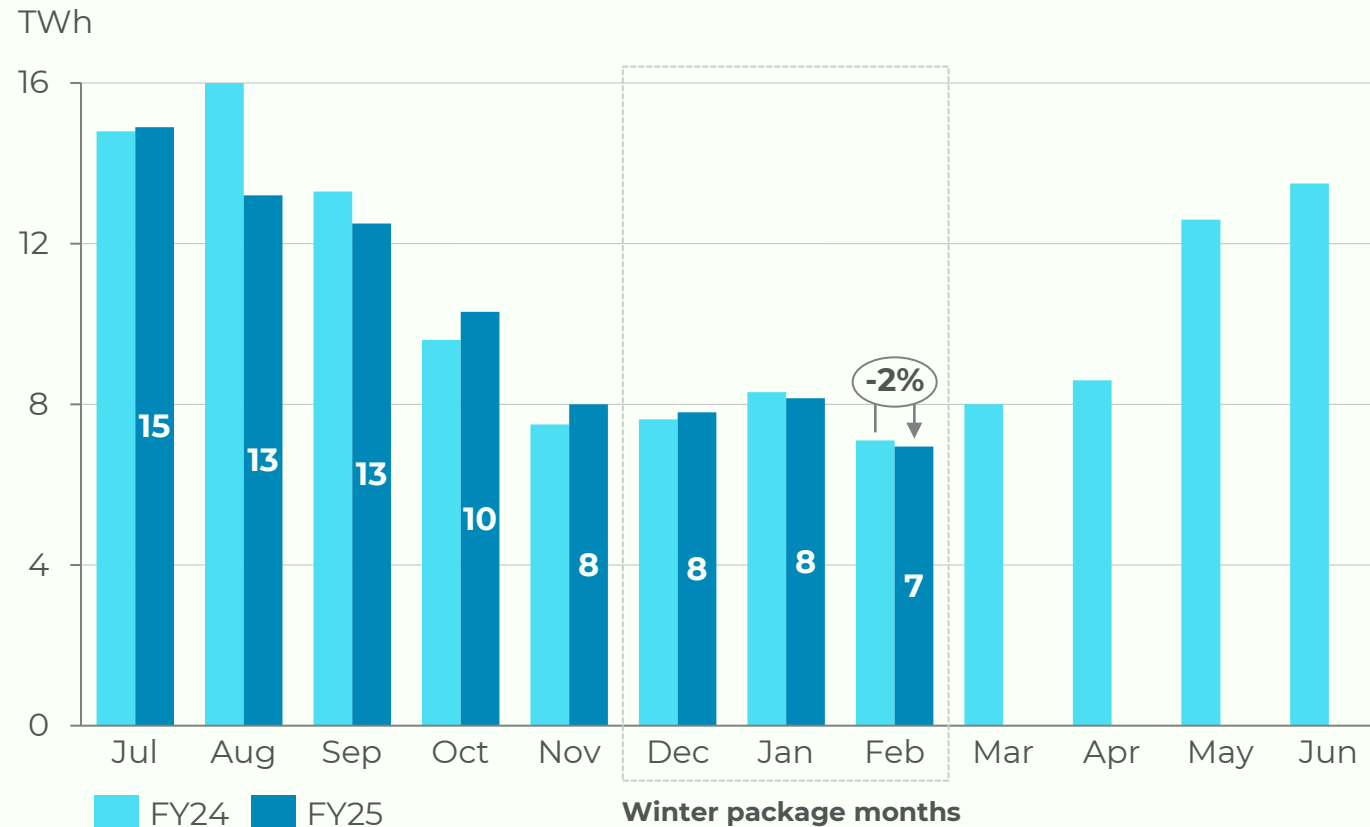


In Jan 25, distributed generation capacity across different DISCOs reached 3.8 GW.

#RFPowerMarketInsights

Winter incentive package concludes in Feb 25, failing to boost electricity demand

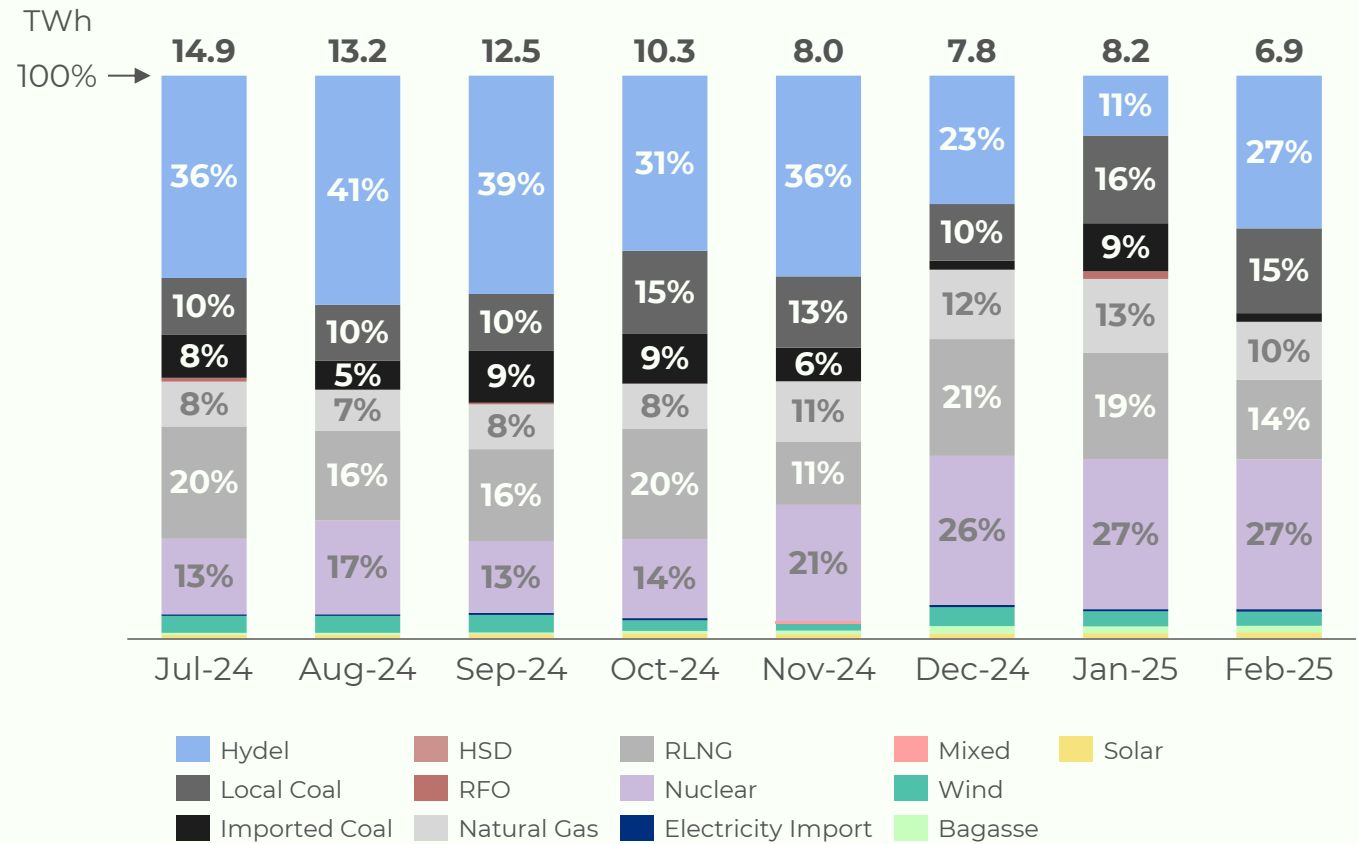
Month-wise electricity generation in FY24 vs FY25



- The winter incentive package concluded in Feb 25 but had minimal impact on demand, indicating a possible shift in electricity consumption patterns.
- For Feb 25 electricity generation was projected at 7.4 TWh; however, actual generation stood at 6.9 TWh, reflecting a 6.2% shortfall.
- In the first 8M-FY25, generation fell 7% short of the reference projection, underscoring a persistent decline in electricity demand.

In Feb 25, hydel & nuclear dominated generation mix with 54% collective share as hydel output improved post-winter

Energy source-wise generation share in 8M-FY25

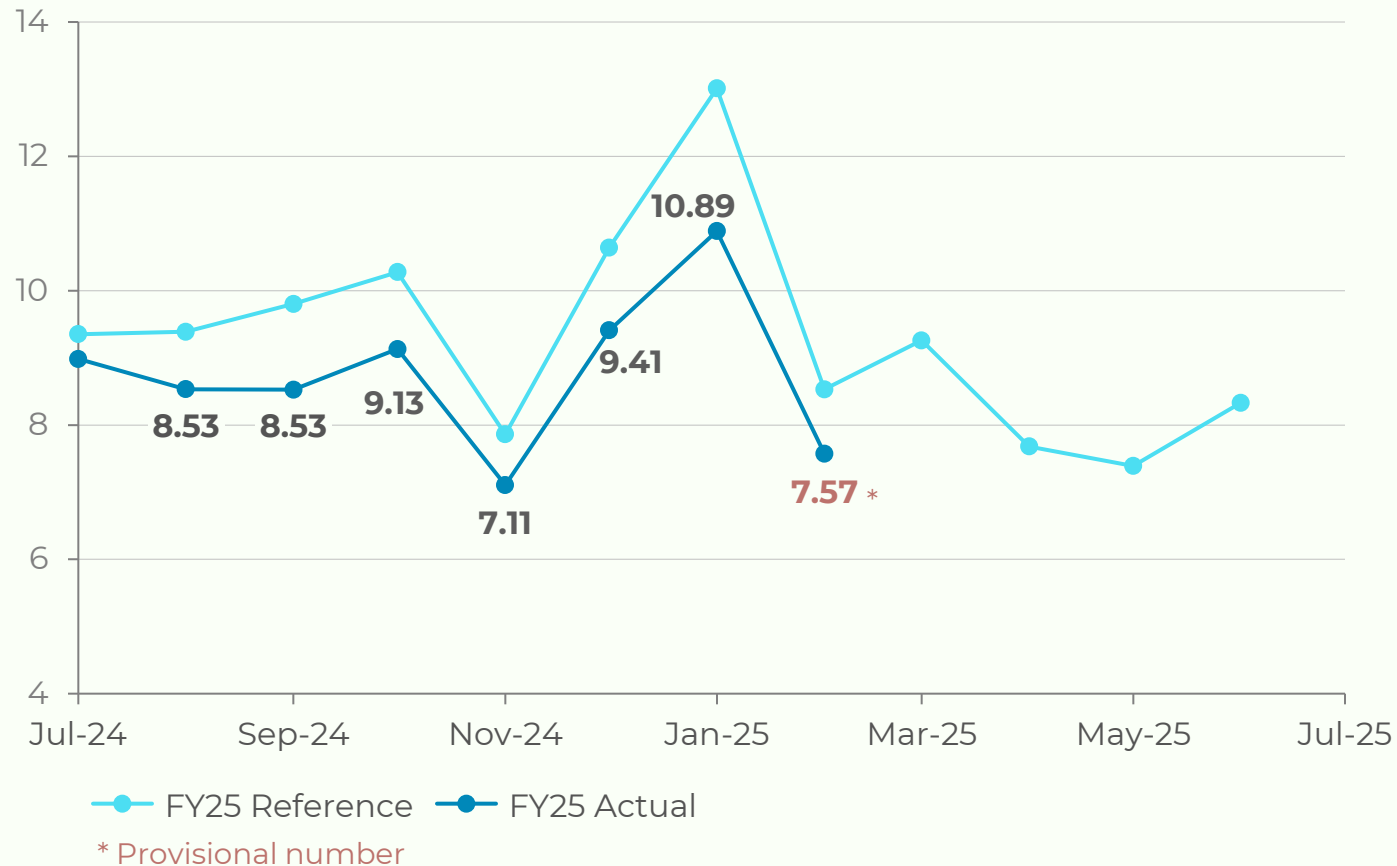


- Compared to Jan 25, which saw 866 GWh generated from hydel sources, Feb 25 recorded a significant improvement, reaching 1,883 GWh in hydel generation, due to increase in Indus river system authority (IRSA) indents.
- On a YoY basis, electricity generation in Feb 25 declined by 2%, with 7.1 TWh generated in Feb 24, highlighting the ongoing trend of declining electricity demand in the country.

FY25 experiences negative fuel cost adjustment (FCA) for the eighth straight month

Fuel price adjustments in 8M-FY25

PKR / kWh

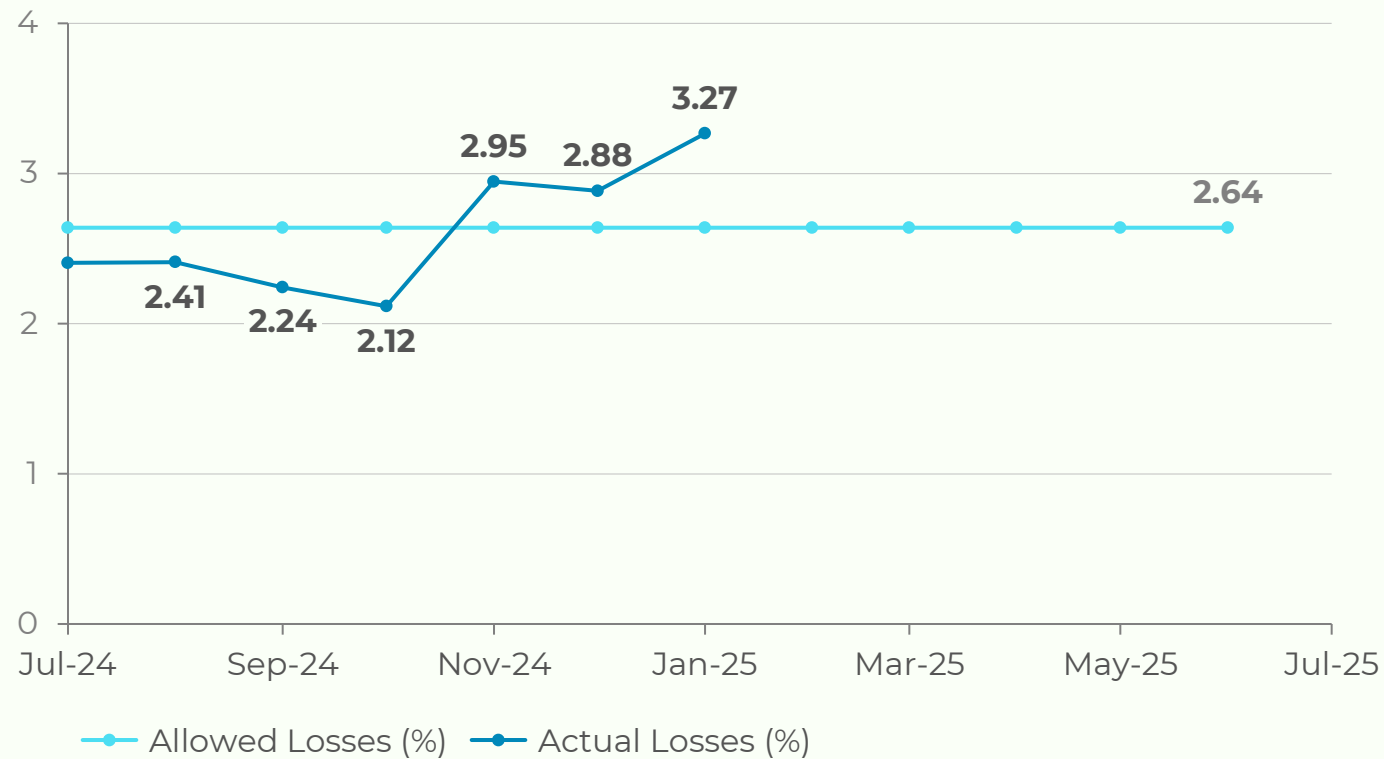


- In Feb 25, nuclear fuel cost stood at PKR 1.82 per kWh, slightly below the projected PKR 1.85 per kWh.
- RLNG, projected at PKR 26.34 per kWh, stood at PKR 22.34 per kWh. With nuclear and RLNG making up 41% of the generation mix, fuel price variations lowered overall generation costs.
- Local coal, projected at PKR 18.35 per kWh, was recorded at PKR 13.77 per kWh, further reducing generation costs.
- Meanwhile, natural gas exceeded its projected PKR 9.54 per kWh, reaching PKR 13.35 per kWh.

From Nov 24 to Jan 25, transmission & transformation (T&T) losses exceeded allowed limits, driven by seasonal power shifts

T&T losses in 7M-FY25

Losses %



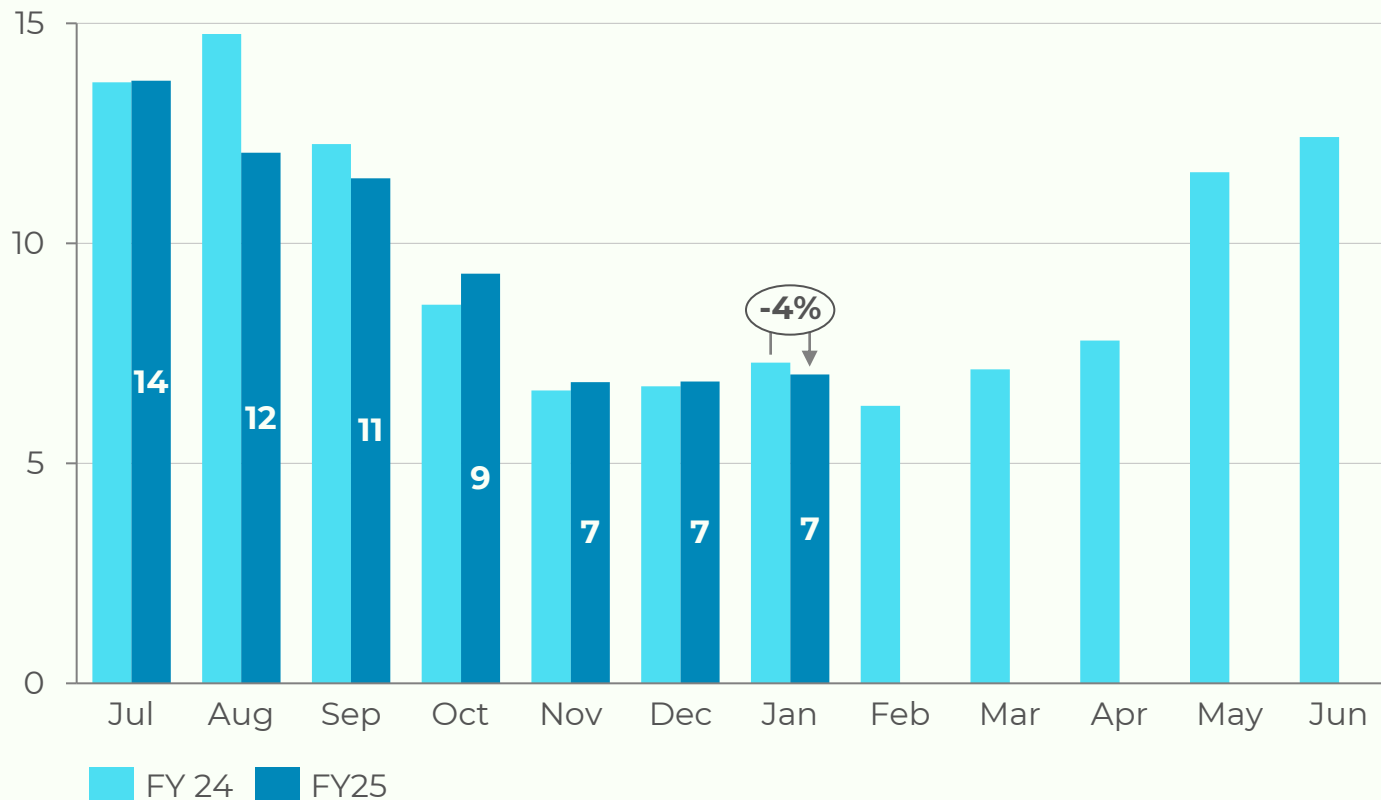
Note: For Feb 25, NEPRA has yet to report the T&T losses

- During winter, low hydel generation in the north increases reliance on southern thermal plants, causing higher transmission losses.
- With improved hydel generation in Feb 25, lower T&T losses are expected.

DISCOs procured 67 TWh of electricity in 7M-FY25, recording a 4% drop YoY

Units procured by DISCOs in FY24 vs. FY25

(TWh)

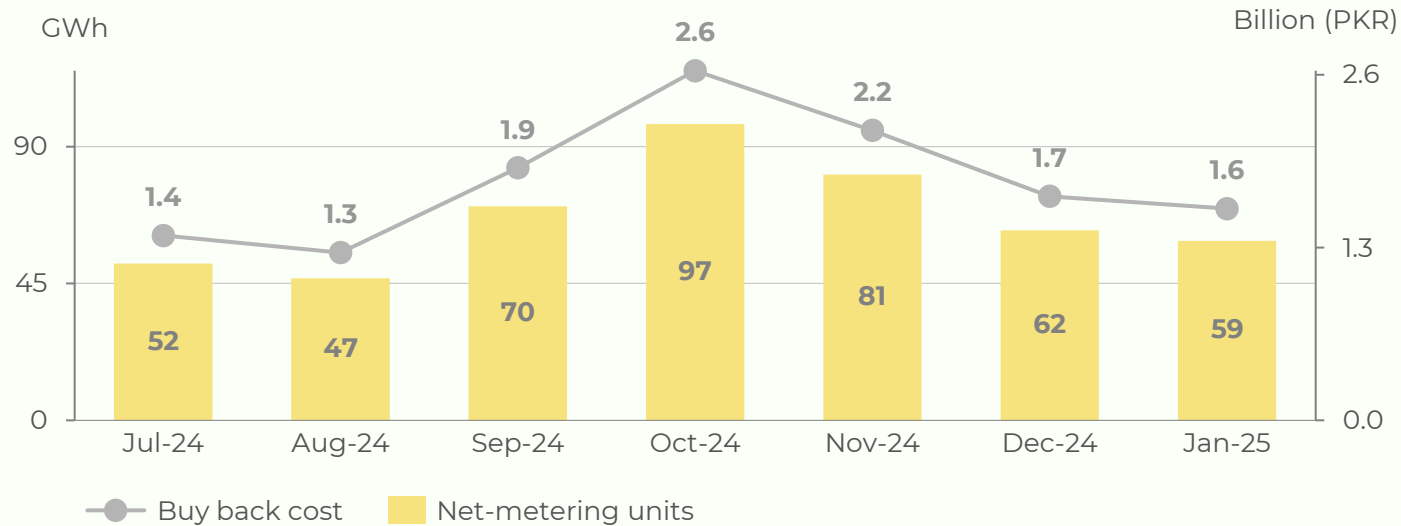


Note: For Feb 25, NEPRA has yet to report the procurement by DISCOs.

- Slight improvement in electricity demand was observed from Oct 24 to Dec 24 due to unusual high temperatures that resulted in increased procurement by DISCOs compared to the same period last year.
- However, overall, in first 7M-FY25, electricity sales declined by 4% on YoY basis, highlighting the downward trend in electricity sales.
- Against the projected procurement for 7M-FY25, recorded procurement was 67 TWh, 6% below the projected 72 TWh.

In 7M-FY25, DISCOs bought 468 GWh of net-metering units - mere 1% of the total units procured by DISCOs

Net-metering units procured and buy back cost, 7M-FY25



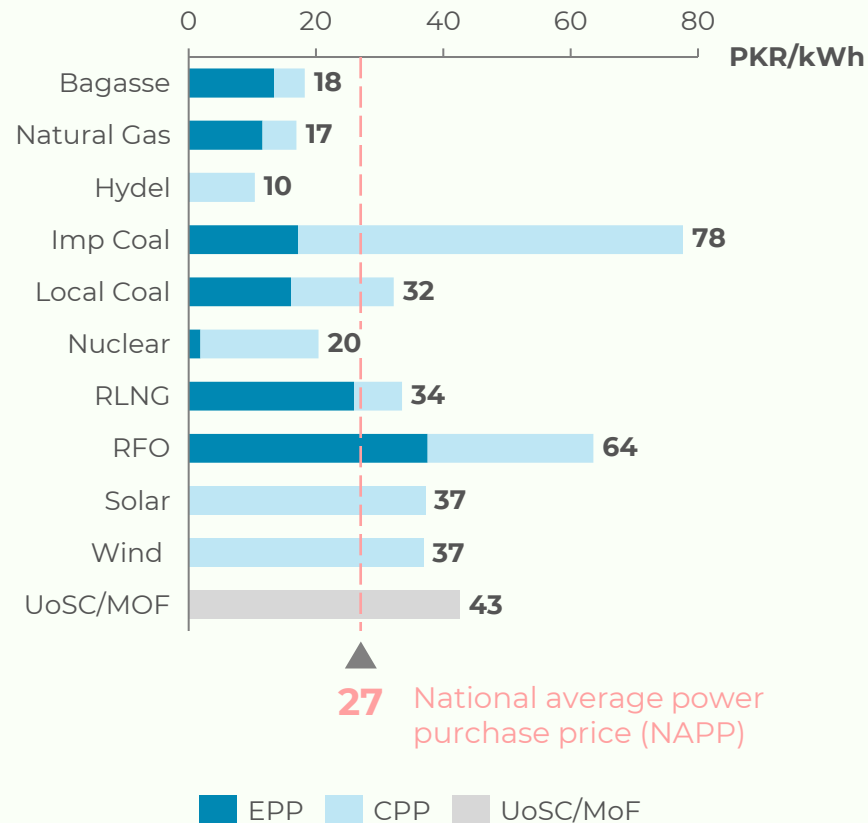
Units procured by DISCOs, 7M-FY25

	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Total	% Share
Net-metering units (GWh)	52	47	70	97	81	62	59	468	1%
CPPA-G Pool (GWh)	13,645	12,014	11,404	9,212	6,767	6,794	6,957	66,792	99%

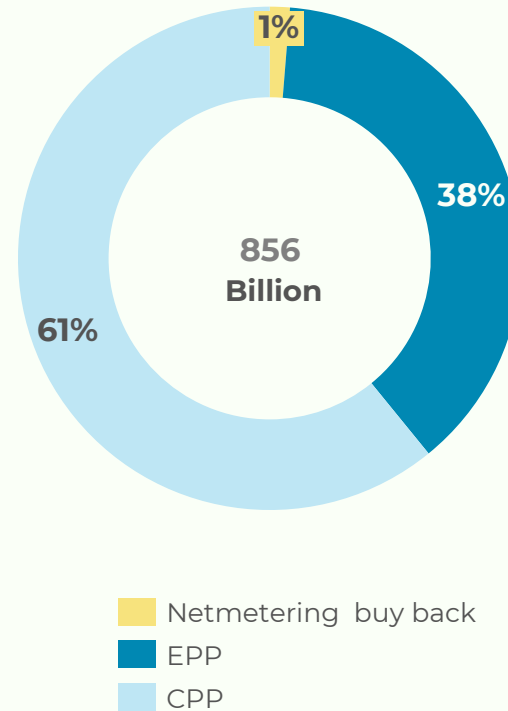
- As of Jan 25, distributed generation capacity across DISCOs reached 3.8 GW, with net-metering users reaching 280K.
- During the first 7M-FY25, DISCOs procured 468 GWh of net-metering units, which accounted for less than 1% of the total units procured from the CPPA-G pool, this highlights the minimal share of net-metering units procured in the energy mix. These net-metered (468 GWh) units had a marginal cost of PKR 12.7B.

In Q1 of FY25, the cost of net-metered unit buyback remained negligible compared to the total cost of CPPAG units

Average power purchase price (PPP), FY25



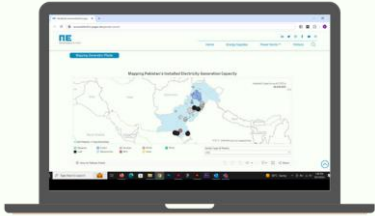
CPPAG and net-metered units' cost, Q1 FY25



- Due to declining grid electricity demand and the rapid growth of distributed energy resources (DERs), the economic coordination committee (ECC), has proposed a revised net metering policy.
- Under the proposal, the buyback rate for exported units will be reduced from PKR 27 to PKR 10 per unit, while imported units will follow peak and off-peak tariffs.
- In Q1 of FY25, net-metered units account for only 1% of the total cost compared to energy purchase price (EPP) and capacity purchase price (CPP) costs from the CPPA-G pool.
- Instead of limiting DER growth as a means of cost reduction, efforts should focus on stimulating electricity demand in the country and reducing the costs associated with stranded capacity, which would essentially allow an oversized reduction in tariff, compared to any net metering revision.

For more power sector-related insights, visit:

[Pakistan Energy and Climate Insights Dashboard](#)



[Pakistan Energy & Climate Insights](#)

PECI, an initiative of Renewables First, is an innovative platform that consolidates fragmented energy data from various agencies, supporting informed decision-making across Pakistan's energy sector. By centralizing critical energy and climate data, PECI improves accessibility and clarifies environmental impacts and emissions for stakeholder RF's collaboration with Herald Analytics led to the development of the PECI Dashboard, which drives insights and offers robust analytics for energy data.

[Pakistan Electricity Review 2024](#)



[#Pakistan Electricity Review 2024](#)

The Pakistan Electricity Review 2024 report aims to improve technical accessibility and awareness of critical aspects of power generation, transmission, and consumption. Focusing on the Fiscal Year 2022-23 (FY23), this thorough analysis also explores key aspects such as K-Electric (KE), Circular Debt, and China-Pakistan Economic Corridor (CPEC) projects. The report utilizes publicly available data for the power sector, with NEPRA's State of Industry Report (SIR) and Energy Yearbook serving as primary data sources.

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.



RENEWABLES FIRST

10 - 11, 3rd Floor, Executive Complex,

G-8 Markaz, Islamabad

+92 51 - 8773676

info@renewablesfirst.org