

Utility-scale Renewable Energy: Federal Policy, Provincial Priorities and Implementation Gaps

In collaboration with PRIED

Pakistan's energy transition is at a crossroads. Households and businesses have embraced rooftop solar, making Pakistan the [world's largest solar panel importer in 2024](#) and [one of fewer than 20 countries](#) where solar provided 25% or more of utility-supplied electricity in 2025. This solar surge, driven by communities, has led to significant socioeconomic gains for the country, and shielded various consumers from constantly increasing electricity prices and the fuel crisis due to regional turmoil.

However, while Pakistan's renewable energy (RE) transition is gaining momentum at the off-grid level, utility-scale solar capacity remains at a modest [780 MW in 2026](#). Rooftop solar has delivered relief to residential and commercial consumers across income groups, including lower income communities, and its rapid uptake reflects a strong public appetite for clean and affordable energy. Despite this, millions of consumers remain on the grid and bear a growing share of its fixed costs as others draw less from it. Utility-scale plants feed large volumes of power into the national grid and complement rooftop solar. Moreover, on the policy side, national targets are ambitious, including 60 to 65% clean energy by FY2030 under the [National Electricity Plan 2023-27](#) and a 50% emissions reduction by 2035 under the [Nationally Determined Contribution \(NDC 3.0\)](#). Due to rapid and uncoordinated growth in distributed renewable energy, the conventional grid which has been built around one-way, thermal-based power flows is facing serious misalignment. Bridging that gap through a structured, well-planned transition is central to reducing fossil fuel dependence and strengthening macroeconomic resilience.

In this context, the provinces play a significant role. They control much of what makes large projects possible: land for solar and wind systems, environmental and local approvals, local security and community relations, and the authority to develop their own projects. At the same time, federal institutions, including the regulator and the national grid operator, manage system-wide planning, tariffs and the transmission network that connects provincial projects to consumers across the country. A structured transition, therefore, depends on both tiers working in step.

Since policy is made centrally but delivered locally, progress depends on provinces being fully engaged. The main constraints are interrelated in the form of weak federal-provincial coordination, outdated grid infrastructure, limited provincial capacity, policy uncertainty, and security concerns that raise the cost of investing. Without a shared framework linking rooftop and utility-scale solar, the energy transition also lacks a common direction.

Against this backdrop, this session will convene Parliamentary Members to develop a shared understanding of utility-scale renewable energy, its relevance to affordable and secure power, and the role of the provinces in its progress. The discussion will focus on:

- **Strengthening federal-provincial coordination:** Explore how national energy planning can better reflect provincial resources, priorities and project pipelines, including the role of forums such as the Council of Common Interests (CCI) in aligning the two.
- **Advancing grid modernisation for utility-scale integration:** Discuss what is needed to modernise and expand the grid so that it can carry large volumes of renewable power from resource-rich areas to demand centres, and how responsibility for financing, planning and sequencing transmission can be clarified so that new plants are not stranded.
- **Identifying provincial needs for an equitable, structured transition:** Consider the financing, land preparation and institutional support provinces need to develop utility-scale project sites that are well-prepared and ready for investment, and how rooftop and utility-scale solar can be coordinated so that the benefits reach all consumers.

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