IPC–MERCATOR POLICY BRIEF

September 2026

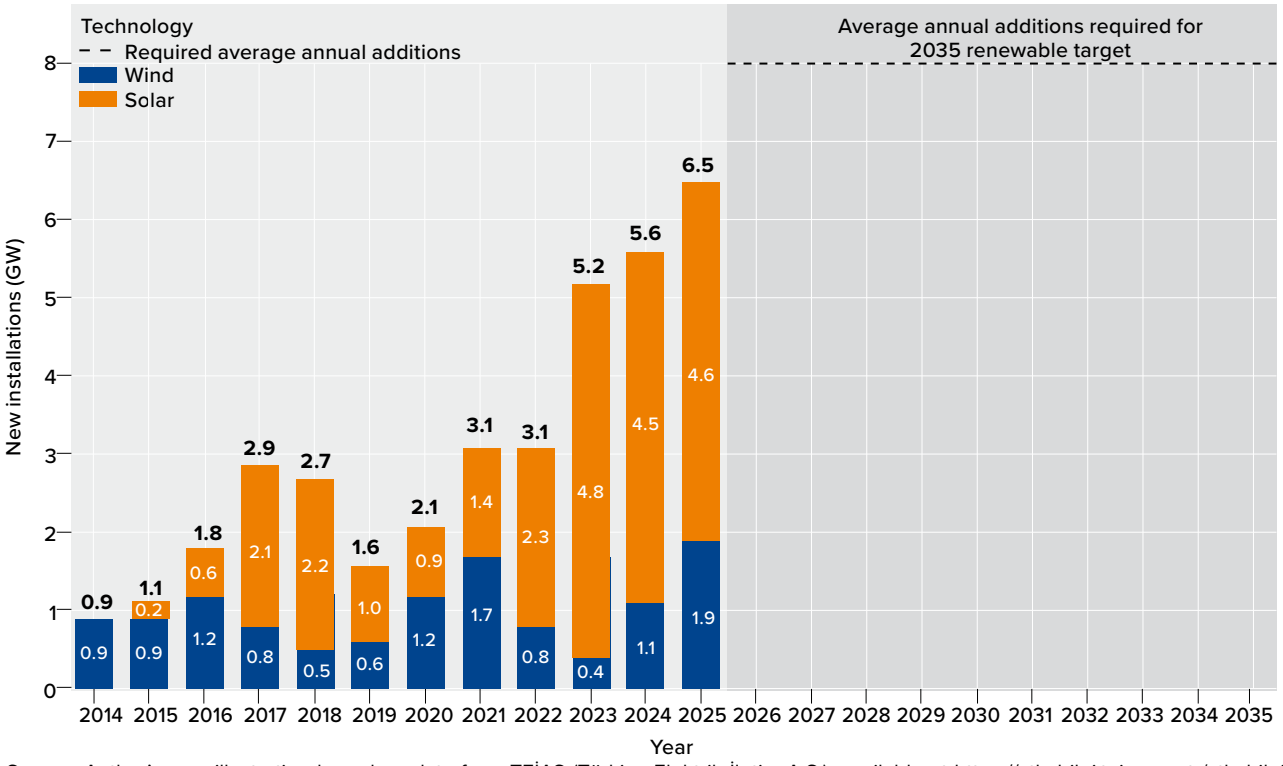
BEYOND TARGETS: ASSESSING THE STRATEGIC EVOLUTION AND IMPLEMENTATION BARRIERS OF TÜRKIYE'S YEKA AUCTION FRAMEWORK

Moritz Zackariat



IPC | ISTANBUL POLICY CENTER
SABANCI UNIVERSITY
STIFTUNG MERCATOR INITIATIVE

Figure 1: New wind and solar installations in Türkiye



Source: Author's own illustration based on data from TEİAŞ (Türkiye Elektrik İletim A.Ş.), available at https://ytbsbilgi.teias.gov.tr/ytbsbilgi/frm_istatistikler.jsf.

Introduction

In its efforts to advance the decarbonization of its energy system and enhance national energy security, Türkiye has set ambitious targets for its renewable energy sector. According to the country's official *Roadmap for Renewable Energy to 2035*, the national target expands the combined capacity of wind and solar installations to 120 gigawatts (GW) by 2035.[1] This ambitious trajectory requires a significant and sustained acceleration of yearly capacity additions. In 2025, Türkiye made notable progress by deploying 6.5 GW of new wind and solar capacity.[2] However, while this expansion represents a substantial step forward, it remains insufficient to meet long-term objectives. To achieve the 120-GW target by 2035, average annual additions must increase to approximately 8 GW for the remainder of the decade, according to the author's calculations.[3]

To facilitate this rapid scaling of capacity, the Turkish government utilizes several deployment mechanisms. These include storage-integrated wind and solar projects, unlicensed solar installations aimed at self-consumption, hybrid solar additions to existing power plants, and large-scale renewable energy auctions.[4] While each of these avenues contributes to the broader transition, the Renewable Energy Resource Areas (*Yenilenebilir Enerji Kaynak Alanları*, YEKA) auction framework stands out as the primary policy instrument for

deploying utility-scale projects. While small-scale, unlicensed solar previously had dominated the expansion, recent net-metering reforms shifting to hourly settlements have dampened the growth of this segment, leaving utility-scale YEKA projects to drive future growth until 2035.[5] Specifically, no new capacity has been allocated for storage-integrated projects since applications were halted in 2023, and available capacity for unlicensed projects has been entirely depleted across all provinces since July 2025.[6] Against this backdrop, and with the strategic aim of anticipating potential implementation challenges in future tender rounds, this policy brief focuses on the design and effectiveness of the YEKA auction mechanism.

The YEKA Policy Framework and Its Evolution

Introduced in 2016, the YEKA framework represents a paradigm shift in Türkiye's approach to renewable energy deployment. Unlike conventional auction systems that focus solely on deploying capacity at the lowest possible cost, the YEKA model operates at the intersection of energy and industrial policy. By design, it seeks to simultaneously scale up renewable energy capacity, attract foreign direct investment, and foster local investment by linking large-scale generation tenders with stringent domestic manufacturing obligations and Local Content Requirements (LCRs).[7]

Under this framework, the Ministry of Energy and Natural Resources identifies and designates specific resource-rich land areas for renewable energy development, which are then auctioned to private developers through competitive bidding. Over the past decade, the design of these auctions has evolved significantly to reflect shifting macroeconomic conditions and market realities. Recent YEKA rounds, specifically for wind and solar projects, utilize a serial commercial structure. Rather than relying on simple, long-term feed-in tariffs, this model features an initial merchant market phase during which developers sell generated electricity directly into the spot market under a floor-price mechanism, followed by a long-term, fixed-price power purchase agreement (PPA) of up to 20 years.[8]

The structural mechanics of the bidding process have also been refined. In the 2024 auction rounds, bidding operated within a predefined corridor bounded by floor and ceiling prices. In instances where intense competition drove bids down to the floor price, the auction pivoted: developers competed by offering "contribution fees" paid directly to the state. This shifting mechanism ensured that the state could capture economic rents while maintaining a stable floor price for developers. Concurrently, the industrial policy mandates of the YEKA model have remained highly ambitious. The 2024 solar tenders (SPP-2024) mandated a minimum of 75% domestic content for photovoltaic modules, while the 2024 wind tenders (WPP-2024) imposed a minimum domestic component threshold of 55% for wind turbines. These requirements reflect a deliberate strategy to anchor key segments of the renewable energy value chain domestically, positioning green deployment as a primary driver of industrial development.[9]

Auction Dynamics and Investor Interest

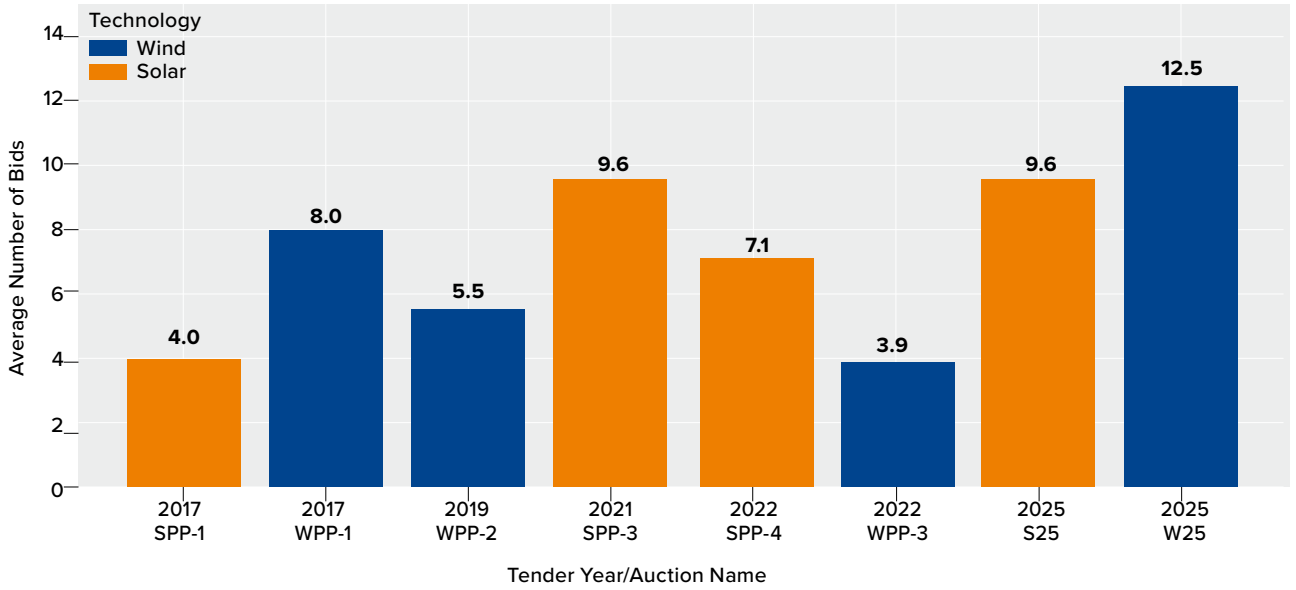
In evaluating the success of the YEKA framework, the competitive dynamics within the auctions serve as a key indicator of investor appetite and

market confidence. In conventional renewable energy auctions, competition is typically assessed using oversubscription ratios, i.e., the ratio of total bid capacity to the capacity on offer.[10] However, the spatial design of the YEKA model necessitates a different analytical approach.

Because YEKA auctions allocate designated, indivisible project sites rather than divisible capacity quotas, competition is more accurately measured by tracking the number of qualified bidders per project site. According to auction theory, a higher concentration of active bidders increases competitive pressure, prompting developers to bid closer to their actual project economics, thereby improving price discovery and enhancing the allocative efficiency of the auction process.[11]

Despite a challenging domestic macroeconomic environment and a broader contraction in capital investment,[12] investor interest in Turkish YEKA auctions has recently shown upward momentum. An analysis of auction data reveals a marked increase in the average number of bids per project site between the inaugural rounds and the most recent tenders. In the 2025 auction round, solar projects attracted an average of nine bids per site, while onshore wind projects received an average of twelve bids. Compared to the first YEKA auctions in 2017, this represents an increase in competitive intensity of approximately 125% for solar installations and 50% for onshore wind. These trends indicate that developer appetite for Turkish renewable energy assets has remained robust, signaling sustained market confidence in the country's long-term resource potential.

Figure 2: Average Number of Bids by YEKA Type and Tender Year



Source: Author's own calculations and illustration based on raw database records from SHURA Energy Transition Center, available at https://shura.org.tr/en/database/. Note: Total auctioned capacities are as follows: solar (SPP-1: 1 GW; SPP-3: 1 GW; SPP-4: 0.8 GW; S25: 0.65 GW) and wind (WPP-1: 1 GW; WPP-2: 1 GW; WPP-3: 0.85 GW; W25: 1.2 GW). Average bids are calculated as the mean number of bids across all individual auction lots within each respective YEKA round and tender year.

Implementation Barriers and Realization Rates

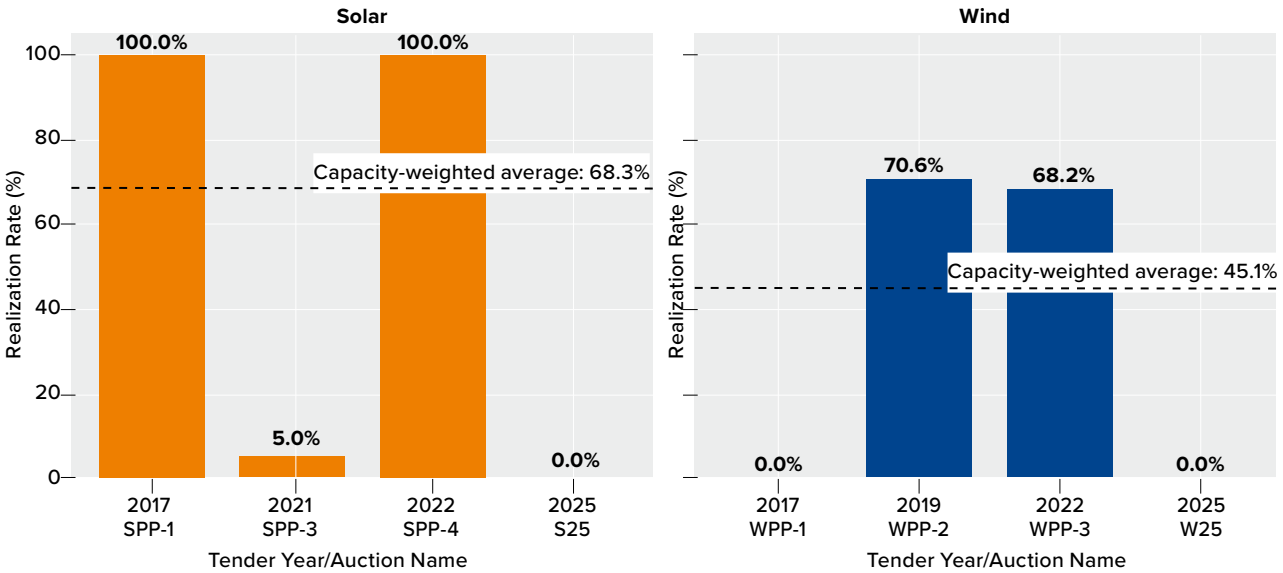
While the YEKA framework has succeeded in stimulating competitive bidding and attracting investor interest, it faces a critical challenge: a pronounced divergence between awarded capacity and actual grid realization. In the context of renewable energy policy, the "realization rate"—defined as the share of awarded auction capacity that is ultimately built, commissioned, and brought into commercial operation—serves as the primary metric of policy effectiveness.[13] Recent auction rounds in Türkiye have yielded moderate to low realization rates. This implementation gap is particularly acute in the wind energy sector, where projects exhibit lower realization rates than solar installations, primarily due to more complex supply chains and demanding permitting procedures.

An analysis of the literature suggests that the low realization of YEKA projects is driven by three main systemic bottlenecks: bureaucratic delays in permitting, local content requirements, and macroeconomic volatility.[14]

Permitting and Bureaucratic Bottlenecks

Historically, the permitting process in Türkiye has been the primary administrative bottleneck. Following an auction win, developers must navigate a highly fragmented regulatory landscape to secure technical approvals, environmental impact assessments (EIAs), land-use licenses (including forestry and agricultural clearances), and grid connection agreements from multiple, uncoordinated government authorities. Government data indicates that the average timeline spanning from

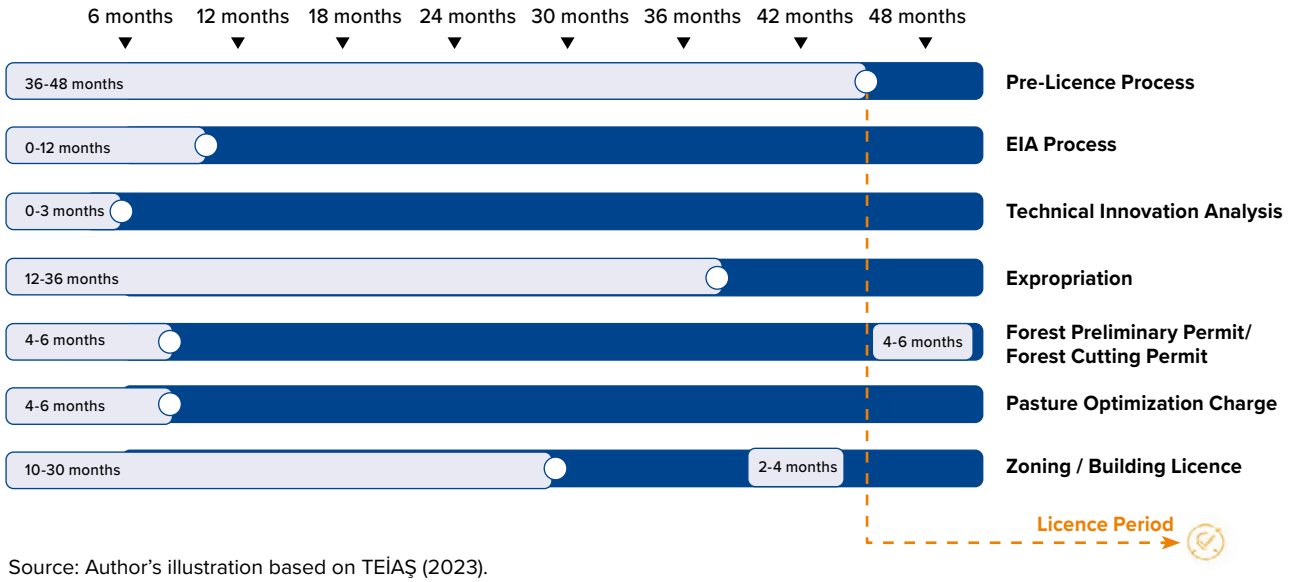
Figure 3: Realization Rate of Allocated YEKA Capacity



Note: The dashed line shows the capacity-weighted average realization rate of the first three auctions within each technology.

Source: Author's own calculation and illustration based on raw database records from SHURA Energy Transition Center, available at https://shura.org.tr/en/database/. Note: Realization rates are based exclusively on auctions held up to 2022, as more recent auctions have not yet had sufficient time for project realization following contract award. *Average realization rates are weighted by the auctioned capacity of each YEKA auction.

Figure 4: Existing Permit Processes



Source: Author's illustration based on TEİAŞ (2023).

the initial auction award to the commencement of physical construction can reach up to 48 months.[15] Because these prolonged lead times are highly unpredictable, arbitrary, and outside the control of developers, they introduce substantial project risks. Rather than representing productive, manageable risks, these delays increase project development costs and, consequently, the cost of electricity generation. To address this administrative drag, the Turkish government introduced regulatory reforms in February 2025, establishing a consolidated "Super Permit" designed to streamline licensing and bypass multi-agency delays.[16] However, because this reform is relatively recent, its practical impact remains unclear, and it has not yet shortened development timelines for existing YEKA projects.

The Impact of Local Content Requirements

While LCRs are designed to cultivate domestic manufacturing capabilities, attract direct investment, and create local employment, their inclusion in auction designs introduces significant implementation risks. If local content quotas are set too high, or if they outpace the operational capabilities of the domestic supply chain, they can delay projects or prevent their realization entirely. For developers, complying with strict LCRs increases transaction costs, administrative complexity, and equipment procurement risks, often leading to reduced participation or project abandonment.[17]

A comparison of historical YEKA rounds shows a non-linear relationship between LCR design and project realization, suggesting that local manufacturing mandates affect solar and wind technologies differently:

- **Solar Sector (SPP-1 vs. SPP-3):** The inaugural YEKA solar auction (SPP-1, 2017) combined a 65% LCR with a mandate to construct a domestic solar module manufacturing facility with an annual capacity of at least 500 MW, alongside mandatory R&D activities. Despite these demanding requirements, the project

achieved a 100% realization rate. Conversely, the SPP-3 round (2021), which relaxed the factory-building mandate but retained substantial domestic component requirements, has achieved a realization rate of only approximately 5% to date.

- **Wind Sector (WPP-1 vs. WPP-2):** The first wind auction (WPP-1, 2017) imposed a 65% LCR, mandatory local hiring quotas, and a domestic R&D center requirement. To date, no operational capacity has been commissioned under this round, representing a 0% realization rate. In contrast, the WPP-2 round (2019) lowered the LCR to 55% for turbine components and eliminated several of the broader industrial obligations. Consequently, its realization rates improved significantly, ranging from 47% to 100% across different awarded sites.

These divergent outcomes indicate that project realization is not dictated by LCR stringency alone. Instead, it is governed by a broader array of variables, including technology-specific supply chain structures, project scale, local industrial capacity, etc.

Macroeconomic Volatility

At the macroeconomic level, high domestic inflation and severe exchange rate volatility historically created a highly challenging risk profile for renewable energy investments in Türkiye, depressing project realization rates under lira-denominated feed-in tariffs.[18] To counter these systemic bottlenecks and restore project bankability, the Ministry of Energy and Natural Resources introduced an overhauled auction design for the YEKA RES-2024 (wind) and YEKA GES-2024 (solar) tenders conducted in early 2025.

While this modernized framework does not entirely eliminate macroeconomic exposure, it significantly de-risks private investments by utilizing three targeted mechanisms to shield developers from severe currency depreciation and inflation:

1 | **Foreign-Currency Denomination (Hard Currency Peg):** Financial bids, price ceilings, and floor limits are defined entirely in U.S. Dollars (USD). While actual power purchase payments are settled in Turkish Lira (TRY), they are indexed directly to the daily foreign exchange selling rate of the Central Bank of the Republic of Türkiye (CBRT) on the payment date, effectively insulating cash flows from domestic currency devaluation and eliminating foreign exchange mismatches for foreign-currency-denominated debt.

2 | **Two-Stage Tariff Structure with Floor Price:** The updated framework divides the project lifecycle into two distinct financial phases designed to secure predictable revenues while offering protection against macroeconomic volatility:

- **Merchant Phase (60 months for solar/72 months for wind):** For the first five (solar) or six (wind) years after contract signing,[19] developers sell generated electricity directly into the day-ahead market. This phase acts as a natural macroeconomic hedge: selling directly into the free market allows revenues to rise alongside domestic inflation, while a minimum floor price of USD 0.0495/kWh (convertible to TRY based on the daily CBRT rate) guarantees a critical safety net against local market price collapses and currency depreciation during the early payback period.

- **Fixed-Price PPA (20 years):** Following the merchant phase, a fixed-price PPA is established for 20 years, locking in the USD unit price determined at auction and providing long-term macroeconomic predictability.

Conclusion and Policy Recommendations

The analysis of Türkiye's YEKA framework reveals a critical paradox at the heart of the country's energy transition. While the country has set an ambitious target of 120 GW of wind and solar capacity by 2035, achieving this trajectory requires more than just setting targets, it demands a highly functional, rapid, and scalable deployment mechanism.

The YEKA framework is uniquely positioned to play a foundational role in this transition. However, as this paper has demonstrated, the primary bottleneck in the Turkish YEKA system is not a lack of investor appetite or weak competitive dynamics during the price-discovery phase but rather a persistent and systemic "realization gap" in the subsequent implementation phase.

To bridge this divergence between awarded capacity and actual grid connection and to fully leverage the strategic potential of the YEKA model, policymakers must address three core dimensions:

1. TRANSITIONING FROM PERMIT REFORM TO PROVEN IMPLEMENTATION

Turkish policymakers have clearly recognized that excessive bureaucracy and multi-agency delays have historically stalled project development. The introduction of the "Super Permit" reform in February 2025 represented a landmark regulatory attempt to consolidate licensing and compress the average 48-month pre-construction timeline.

However, more than a year after its introduction, the practical on-the-ground efficacy of this framework remains to be seen. Immediate policy priority must be given to rigorous, transparent monitoring of the Super Permit's execution. Ensuring that this consolidated pathway effectively bypasses localized bureaucratic inertia is critical to transforming theoretical permit streamlining into accelerated, real-world grid connections.

2. CALIBRATING LOCAL CONTENT REQUIREMENTS TO INDUSTRIAL REALITIES

The historical performance of YEKA auctions shows that rigid and overly ambitious localization mandates can severely backfire, leading to project abandonment and low realization rates (as observed in WPP-1). Rather than applying inflexible LCR thresholds that risk stalling projects when local supply chains fall short, future auction designs must incorporate flexible, dynamic, or tiered mechanisms.

Policymakers should calibrate domestic content quotas, particularly for highly complex wind turbine components, to the empirical, verified capacity of the domestic manufacturing sector. Aligning LCR levels with actual industrial readiness will de-risk project delivery without undermining Türkiye's long-term green industrial policy objectives.

3. CAPITALIZING ON INVESTOR CONFIDENCE TO SCALE UP AUCTION VOLUMES

Crucially, the empirical data shows that macroeconomic volatility and currency risks do not deter developers from participating in YEKA auctions. The comprehensive financial de-risking package introduced in the RES-2024 and GES-2024 rounds, specifically U.S. Dollar indexation, hard floor-price protection during the merchant phase, and inflation-protected collateral, has proven highly effective in restoring project bankability and stimulating record-high bidding.

However, the immense investor interest recorded in recent rounds highlights a profound structural

mismatch: while market confidence is robust, the current policy envelope remains far too conservative. The planned annual tender volume of 2 GW (1 GW wind and 1 GW solar) represents only a quarter of the approximately 8 GW of annual additions required to meet the 2035 national target.

While the government's announcement of 3.5 GW of new capacity at the transmission and distribution levels in March 2026 is a positive step to bypass the gridlock in unlicensed and storage-integrated projects, these alternative routes lack long-term volume control. The YEKA framework remains Türkiye's only structured, volume-controlled mechanism capable of driving sustained, utility-scale expansion.

Ultimately, the market has demonstrated both the appetite and the financial resilience to absorb significantly larger capacities. To close the looming 2035 target gap, the Turkish government must move beyond its cautious volume allocation and aggressively scale up annual YEKA tender limits. By combining expanded auction volumes with dynamic LCR calibration and a fully operational Super Permit system, Türkiye can successfully translate strong market interest into rapid, real-world grid realization.

Notes

1 | Republic of Türkiye Ministry of Energy and Natural Resources (MENR), "Yenilenebilir Enerjide 2035 Yol Haritası [Roadmap for Renewable Energy to 2035]," October 21, 2024, https://enerji.gov.tr/haber-detay?id=21380.

2 | Turkish Electricity Transmission Corporation (TEİAŞ), Installed Capacity Registry Data, December 2025/January 2026.

3 | Assuming no plant retirements, the required average annual addition is calculated as: (120 GW–40 GW)/10 years = 8 GW/year. This calculation is based on MENR/TEİAŞ registry data indicating approximately 40 GW of cumulative wind and solar capacity installed by the end of 2025.

4 | Ufuk Alparslan, "Türkiye Electricity Review 2026," *Ember*, April 8, 2026, https://ember-energy.org/latest-insights/turkiye-electricity-review-2026/.

5 | The currently announced annual tender volume of 2 GW (1 GW wind and 1 GW solar) is, on its own, quantitatively insufficient to meet the approximately 8 GW of annual additions required for the 120 GW target by 2035.

6 | Alparslan, Türkiye Electricity Review 2026.

7 | Ayşe Ceren Sarı and Değer Saygın, "Opportunities to Strengthen the YEKA Auction Model for Enhancing the Regulatory Framework of Turkey's Power System Transformation," SHURA Energy Transition Center, January 2019, https://www.shura.org.tr/wp-content/uploads/2019/01/SHURA_Opportunities-to-strengthen-the-YEKA-auction-model-for-enhancing-the-regulatory-framework-of-Turkeys-power-system.pdf.

8 | Republic of Türkiye Ministry of Energy and Natural Resources (MENR), "YEKA WPP-2024 Specifications," October 28, 2024, https://enerji.gov.tr/Media/Dizin/BHIM/tr/Duyurular/

YEKAWPP2024S_A_202412251019.pdf; Republic of Türkiye Ministry of Energy and Natural Resources (MENR), "YEKA SPP-2024 Specifications," November 4, 2024, https://enerji.gov.tr/Media/Dizin/BHIM/tr/Duyurular/YEKA_SPP-2024_SPECIFCATIONS_202411041304.pdf.

9 | Ibid.

10 | Vasilios Anatolitis, "AURES II Auction Database," *Mendeley Data*, V1, July 1, 2022, https://doi.org/10.17632/2h9jpzy3wx.1.

11 | Pablo del Río, "Designing auctions for renewable electricity support: Best practices from around the world," *Energy for Sustainable Development* 41 (2017): 1–13. https://doi.org/10.1016/j.esd.2017.05.006; *Renewable Energy Auctions: Status and Trends Beyond Price (Preliminary Findings)* (International Renewable Energy Agency (IRENA), 2019), https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jun/IRENA_Auctions_beyond_price_2019_findings.pdf.

12 | OECD, *OECD Economic Surveys: Türkiye 2025* (Paris: OECD Publishing, April 2025), https://doi.org/10.1787/19990480; World Bank, *Europe and Central Asia Economic Update, April 2026: Industrial Policy* (World Bank, April 2026), https://openknowledge.worldbank.org/server/api/core/bitstreams/f6424ef3-a279-4872-a77a-34cf01c4c8af/content.

13 | David Matthäus, "Designing Effective Auctions for Renewable Energy Support," *MIT CEEPR Working Paper* CEEPR WP 2020-002, Center for Energy and Environmental Policy Research (Massachusetts Institute of Technology, 2020), https://ceepr.mit.edu/wp-content/uploads/2021/09/2020-002.pdf.

14 | "Turkey Transition Factbook 2026: Clean Power Growth Positions Turkey for the Next Phase of Its Energy Transition," *BloombergNEF*, June 24, 2026, https://about.bnef.com/insights/clean-energy/bloombergnef-turkey-transition-factbook-2026-clean-power-growth-positions-turkey-for-the-next-phase-of-its-energy-transition/; Bahadır Sercan Gümüş, "New targets, old challenges in Turkish wind and solar tenders," *Ember*, February 27, 2025, https://ember-energy.org/latest-insights/new-targets-old-challenges-in-turkish-wind-and-solar-tenders/.

15 | Republic of Türkiye Ministry of Energy and Natural Resources (MENR), "Türkiye's Renewable Energy 2035 Roadmap," Presentation, October 22, 2024, https://enerji.gov.tr/Media/Dizin/BHIM/tr/Duyurular/Lansman%20EN_202410221149.pdf.

16 | Lale Defne Mete, Georg Scherpf, Tutku Şen Demirel, and Oya Tekelioğlu, "The Super Permit: Türkiye's Renewable Energy Agenda," *Daily Jus*, February 10, 2025, https://dailyjus.com/world/2025/02/the-super-permit-turkiyes-renewable-energy-agenda.

17 | Ulrich Elmer Hansen, Ivan Nygaard, Mike Morris, and Glen Robbins, "The effects of local content requirements in auction schemes for renewable energy in developing countries: A literature review," *Renewable and Sustainable Energy Reviews* 127 (2020): 109843. https://doi.org/10.1016/j.rser.2020.109843; del Río, "Designing auctions for renewable electricity support."

18 | BloombergNEF, "Turkey Transition Factbook 2026."

19 | However, a critical structural weakness of this mechanism lies in its temporal trigger: the Merchant Phase commences immediately upon contract signing rather than actual commercial operation (commissioning). Consequently, the pre-construction phase, encompassing bureaucratic permitting and physical plant installation, directly cannibalizes the duration of the open-market sale period.

About the Istanbul Policy Center-Sabancı University-Stiftung Mercator Initiative

The Istanbul Policy Center–Sabancı University–Stiftung Mercator Initiative aims to strengthen the academic, political, and social ties between Turkey and Germany as well as Turkey and Europe. The Initiative is based on the premise that the acquisition of knowledge and the exchange of people and ideas are preconditions for meeting the challenges of an increasingly globalized world in the 21st century. The Initiative focuses on two areas of cooperation, EU/German-Turkish relations and climate change, which are of essential importance for the future of Turkey and Germany within a larger European and global context.

Moritz Zackariat is a 2025/26 Mercator-IPC Fellow at IPC.

The interpretations and conclusions made in this paper belong solely to the author and do not reflect IPC's official position.

Beyond Targets: Assessing the Strategic Evolution and Implementation Barriers of Türkiye's YEKA Auction Framework
11 p.; 25 cm. - (Istanbul Policy Center-Sabancı University-Stiftung Mercator Initiative)

Cover Design and Page Layout: MYRA

Istanbul Policy Center
Bankalar Caddesi Minerva Han No: 2 Kat: 4
34420 Karaköy-İstanbul
T +90 212 292 49 39
ipc@sabanciuniv.edu - ipc.sabanciuniv.edu

IPC | ISTANBUL POLICY CENTER
SABANCI UNIVERSITY
STIFTUNG MERCATOR INITIATIVE