

• ANALYSIS

Electrification and the Energy Transition in the COP31 Process

Orçun Demir

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This analysis examines why the main obstacle to COP31's electrification target lies not in generation technology but in grids, flexibility and the cost of capital, and how the return logic of renewable investment can be carried over to these areas.

SUMMARY

For a long time, debates on the energy transition were framed around the tension between climate commitments and economic growth. Yet the main factor behind the rise of renewable energy over the past decade is not how binding the commitments were but the fact that investment became profitable. Falling cost curves, predictable revenue models and economies of scale have made solar and wind the preferred option for capital.

This analysis argues that the same threshold is now being tested in electrification. The center of electricity demand is shifting from advanced economies to developing countries, and transport, cooling, industry and digital infrastructure are creating new pools of demand for electrification. The 31st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP31), which will convene in Antalya on November 9-20, 2026 under Türkiye's presidency, has set electrification as the first global implementation target of its Action Agenda and has put forward a 35% electrification rate in final energy consumption for 2035.

The main argument of the analysis is that the obstacle to this target is not generation technology. As the COP31 Presidency's own diagnosis also points out, the key constraints are inadequate grids, the flexibility gap, access to finance and high upfront investment costs. What these areas have in common is that the return logic established in renewable generation has not yet been carried over to them. The most concrete contribution Antalya can make, therefore, is not a new list of commitments but an architecture of cooperation and risk sharing that makes investments in grids, storage and coal phase-out predictable for investors. With both its rapid deployment record and its grid and cost-of-capital constraints, Türkiye offers a case in which this model is being put to the test.

INTRODUCTION

In current debates, the energy transition is mostly defined as renewable sources replacing fossil sources. Historically, however, every era has been shaped around a key input that determined its capacity to produce and to move. Hay, which made it possible to win a land war in the fifteenth century, coal in the nineteenth century and petroleum products in the twentieth century all served this function. The key input of today, and more importantly of tomorrow, is electricity.¹ As demand shifts toward electricity across a wide range of areas, from transport to heating and from industrial production to data infrastructure, the energy side of the fight against climate change has largely been rebuilt around the power sector.

This shift is also changing the ground on which the classic divide in climate negotiations rests. The debate between developed and developing countries is less about whether there is a will to decarbonize than about the timing of this process. While electricity demand in advanced economies is approaching a plateau, it continues to climb in developing countries. As a result, the course of the global emissions curve now depends largely on which sources emerging economies will use to meet their growing demand.

Türkiye is in a position to assess this picture both as host country and as holder of the presidency. COP31 will convene in Antalya on November 9-20,

¹ Orçun Demir, “Kalkınma ve Yenilenebilir Enerji Geçiş İlişkisi” [The Relationship between Development and the Renewable Energy Transition], *Daktilo1984*, November 29, 2023, accessed September 3, 2026, <https://daktilo1984.com/yazilar/kalkinma-ve-yenilenebilir-enerji-gecisi-iliskisi>.

2026, and Türkiye will preside over a Conference of the Parties for the first time in its history.² In the Presidency's own words, the goal is less to produce new decisions than to close the gap between existing decisions and implementation on the ground. The "implementation COP" formulation of Murat Kurum, Minister of Environment, Urbanization and Climate Change and COP31 President, sums up this approach.³

The Presidency's energy agenda has been built within this framework. At a joint press conference with Fatih Birol, Executive Director of the International Energy Agency (IEA), Kurum listed the five energy-related headings of the COP31 Action Agenda as clean energy transition, zero waste and methane reduction, climate-resilient cities, implementation mechanisms and the green transformation of industry.⁴ The first of the six global implementation targets announced in Bonn in June 2026 is electrification. The Presidency has made this target concrete as meeting 35% of final energy consumption with electricity by 2035, and has identified the factors limiting progress as grid inadequacies, financing gaps, policy misalignment and high upfront investment costs.⁵

The main argument of this analysis is that these four obstacles point to a common economic logic. Renewable generation has accelerated because it became profitable for investors over the past decade. In areas such as grids, storage and the early retirement of coal plants, however, a similar return structure has not yet been established. The most meaningful outcome Antalya can deliver, therefore, is not raising targets once again but carrying the tools that made renewable investment attractive over to the remaining links of the transition. This reading also matters because it turns coal phase-out from a bargain over sacrifice into a question of finance and restructuring.

Within this framework, the study consists of eight sections. The first section examines the economic dynamics behind the surge in renewable investment, and the second addresses the changing role of electrification and emerging economies. The third section assesses the energy architecture of COP31, while the fourth and



Antalya's real task is not raising targets again but extending the return logic of renewables to grids, storage and coal phase-out.

2 "COP31 Türkiye Antalya 2026 UN Climate Change Conference," COP31 Türkiye, accessed September 2, 2026, <https://cop31.tr>.

3 "Türkiye'nin COP31 Gündeminin 5 Önemli Enerji Başlığı Açıklandı" [Five Key Energy Headings of Türkiye's COP31 Agenda Announced], Republic of Türkiye Ministry of Environment, Urbanization and Climate Change, March 12, 2026, accessed September 4, 2026, <https://csb.gov.tr/haberler/turkiye-nin-cop31-gundeminin-5-onemli-enerji-baslighi-aciklandi-304235>.

4 "Türkiye'nin COP31 Gündeminin 5 Önemli Enerji Başlığı Açıklandı."

5 "Bakan Kurum 'COP31 Eylem Gündemi'nin 10 Öncelikli Alanı ve 6 Hedefini Açıkladı" [Minister Kurum Announces the 10 Priority Areas and 6 Targets of the COP31 Action Agenda], Anadolu Agency, June 9, 2026. For the full text of the speech, see "COP31 Başkanı Bakan Kurum, COP31 Eylem Gündemini Paylaştı" [COP31 President Minister Kurum Shares the COP31 Action Agenda], Republic of Türkiye Ministry of Environment, Urbanization and Climate Change, Directorate of Climate Change, June 9, 2026, accessed September 28, 2026, <https://iklim.gov.tr/cop31-bas-kani-bakan-kurum-cop31-eylem-gundemini-paylasti-haber-4937>. See also "Clean Energy Transition," COP31 Türkiye, accessed September 2, 2026, <https://cop31.tr/tr/action-plan/clean-energy>.

fifth sections deal with grids and the cost of capital. The sixth section discusses financing models for coal phase-out and the seventh covers transition technologies. The final section turns to the concrete agenda Türkiye can put forward in Antalya.

THE RETURN THRESHOLD: WHAT ACCELERATED RENEWABLE INVESTMENT

The rise of renewable energy is usually presented as a result of climate policies. This explanation is incomplete. Commitments have stayed at a similar rhetorical level since the 1990s. The real surge in investment volume, by contrast, came at the threshold where solar and wind plants became cost-competitive with new fossil fuel plants. Today, a clearly larger share of global energy investment goes to clean energy technologies.⁶ This picture is explained less by the fulfillment of an obligation than by a change in the direction of capital's search for returns.

Three dynamics were decisive in crossing this threshold. The first is the fall in technology costs. The levelized cost of electricity (LCOE) for solar photovoltaics and onshore wind has declined steadily over the past fifteen years, and both technologies have become the cheapest option for new investment in many markets.⁷ Because the learning curve moves together with installed capacity, this decline has turned into a self-reinforcing process.

The second element, and the one most often overlooked, is revenue predictability. The cost structure of renewable plants rests largely on upfront investment. Since there is no fuel cost, financing conditions determine total cost. This makes a project's return more sensitive to the price of capital than to the price of the technology. Feed-in tariffs, fixed-price mechanisms and auction models worked exactly at this point. By making revenue streams predictable, they lowered the risk of project finance and, with it, the weighted average cost of capital (WACC).⁸ As the literature shows, the improvement in financing conditions alone has had an effect as decisive as the fall in technology costs.⁹ In other words, the profitability of renewable energy is not something the market produced on its own but a structure built through public policy. This finding also underpins the possibility of transfer discussed in the following sections.

The third dynamic is manufacturing capacity and the supply chain. Economies of scale have pushed equipment prices down and shortened installation

6 International Energy Agency, *World Energy Investment 2026* (Paris: IEA, 2026).

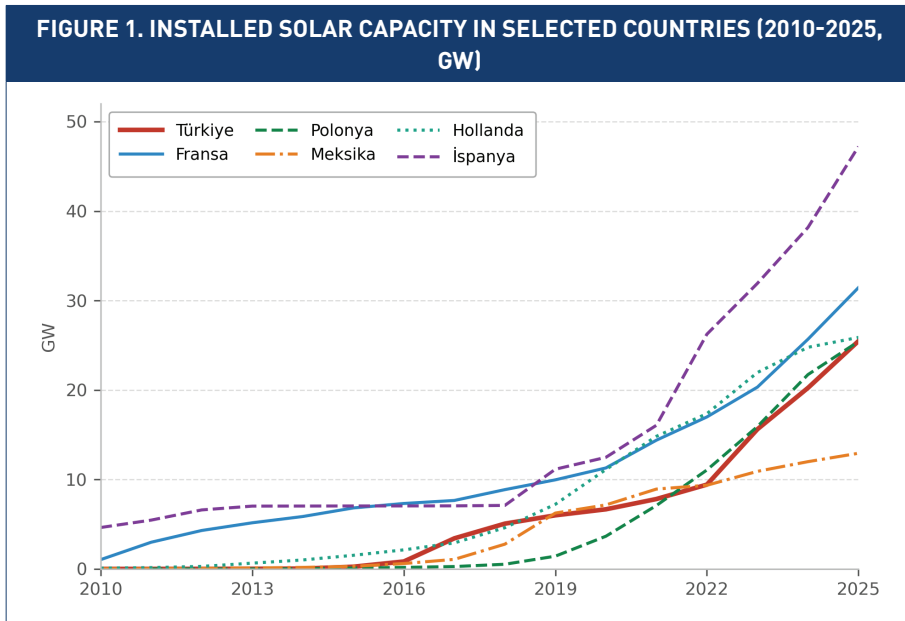
7 International Renewable Energy Agency, *Renewable Power Generation Costs in 2024* (Abu Dhabi: IRENA, 2025).

8 Bjarne Steffen, "The Importance of Project Finance for Renewable Energy Projects," *Energy Economics* 69 (2018): 280-294.

9 Florian Egli, Bjarne Steffen, and Tobias S. Schmidt, "A Dynamic Analysis of Financing Conditions for Renewable Energy Technologies," *Nature Energy* 3 (2018): 1084-1092.

times. The dependence on critical minerals that is often raised at this point is qualitatively different from fossil fuel dependence. These minerals are not a fuel that is consumed continuously but inputs used to build the generating unit. Supply fluctuations may put pressure on costs and deployment speed, but they do not create a dependence that could interrupt the daily flow of energy.¹⁰

Türkiye's experience shows how this logic works at the national level. Solar installations reached a record 4.8 GW in 2023, and a pace close to this level was maintained in the following two years. The 1.9 GW of wind commissioned in 2025 is an all-time annual record. As a result, the share of wind and solar in electricity generation reached 22% in 2025.¹¹ As Figure 1 shows, Türkiye's installed solar capacity started from almost zero in the mid-2010s and by 2025 had reached the level of European economies of similar size. This performance has less to do with an obligation than with investment becoming commercially viable.



Source: Compiled by the author using IRENA data.¹²

This performance makes Türkiye stand out among emerging economies in international comparisons. According to Ember, Türkiye ranks seventh in the world among the countries with the largest increase in solar power generation.¹³ BloombergNEF data put the country tenth in the world for annual new solar in-

¹⁰ Demir, "Kalkınma ve Yenilenebilir Enerji Geçiş İlişkisi."

¹¹ Ember, Türkiye Electricity Review 2026, accessed September 5, 2026, <https://ember-energy.org/latest-insights/turkiye-electricity-review-2026/>.

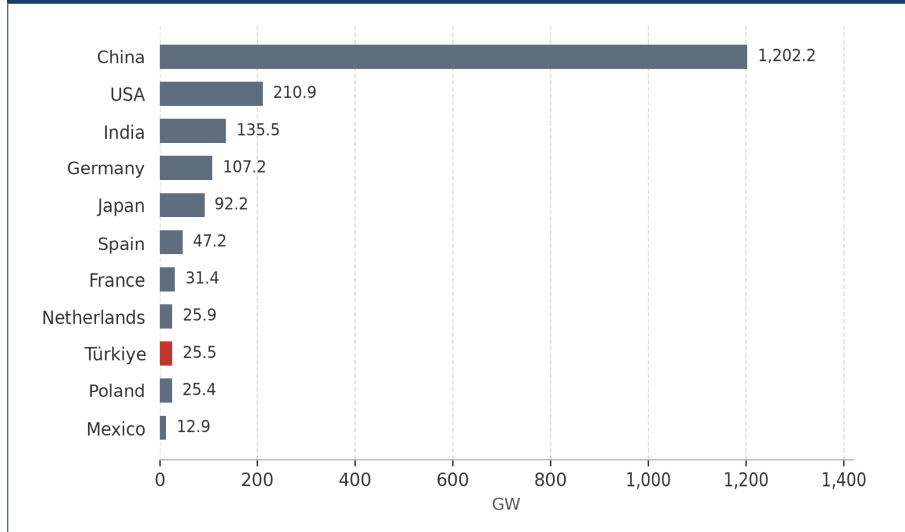
¹² Compiled by the author from International Renewable Energy Agency, Renewable Energy Statistics data. The dataset and comparative charts for different countries are available at Our World in Data, "Installed Solar Energy Capacity," accessed September 7, 2026, <https://ourworldindata.org/grapher/installed-solar-pv-capacity>.

¹³ "Türkiye Rekor Kırdı: Dünyada 7'nci" [Türkiye Breaks a Record, Ranks 7th in the World], Hürriyet, April 21, 2026, accessed September 8, 2026, <https://www.hurriyet.com.tr/dunya/turkiye-rekor-kirdi-dunyada-7nci-43155615>.

stallations.¹⁴ Total installed capacity has exceeded 125,000 MW, and renewables account for 63% of it. In terms of the share of renewables in electricity generation, the country ranks sixteenth among Europe's twenty-four largest electricity producers, fifteenth in wind and fourteenth in solar. Compared with the countries of the Middle East, the Caucasus and Central Asia, however, it is the clear leader.¹⁵ The gap between its high rank in capacity and its position in generation share reflects a natural difference in the stages of the transition. Adding installed capacity quickly and turning that capacity into output at the same speed require different capabilities, and the latter is the next stage of the transition. Much of Türkiye's capacity to speak for other countries in the COP31 process comes from here. The country offers an instructive case for emerging economies that pursue rapid capacity growth together with system integration.

This rapid rise takes on a different meaning when set against absolute size. Figure 2 shows the total installed solar capacity of selected countries as of the end of 2025. With more than 25 GW, Türkiye is in the same band as the Netherlands and Poland and is closing in on France and Spain. China's capacity, by contrast, is more than forty times this level. The United States, India and Germany are above the 100 GW mark, and Japan is close to it. This distinction between the speed and the scale of the transition also underlies the concentration of investment discussed in the second section.

FIGURE 2. TOTAL INSTALLED SOLAR CAPACITY IN SELECTED COUNTRIES (END OF 2025, GW)



Source: Compiled by the author using IRENA data.¹⁶

¹⁴ "Türkiye'nin Yenilenebilir Enerji Karnesi Açıklandı: Dünyada Kaçınıcı Sıradayız?" [Türkiye's Renewable Energy Scorecard Released: Where Do We Rank in the World?], CNBC-e, June 28, 2026, accessed September 8, 2026, <https://www.cnbc.com/haberler/turkiyenin-yenilenebilir-enerji-karnesi-aciklandi-dunyada-kacinci-siradayiz-h32334>.

¹⁵ Ember, Türkiye Electricity Review 2026.

¹⁶ Compiled by the author from International Renewable Energy Agency, Renewable Energy Statistics data; figures are as of the end of 2025. For country comparisons, see Our World in Data, "Installed Solar Energy Capacity," <https://our-worldindata.org/grapher/installed-solar-pv-capacity>.

There is, however, a recoverable gap between the current pace and the level required by the announced targets. Reaching the 120,000 MW target set for wind and solar for 2035 requires 8 to 9 GW of new capacity to be commissioned every year. In 2025, by comparison, combined installations of the two sources were around 6.5 GW.¹⁷ The gap stems not from a lack of investor appetite but from the system's capacity to absorb this volume, and that capacity depends on two main variables, namely the physical carrying capacity of the grid and the growth rate of demand.

The second variable is often neglected. The increase in renewable capacity is not moving in step with the increase in electricity demand. According to IEA data, electricity demand in Türkiye grew by about 3% in 2025 and is expected to rise by an average of 2.6% a year in 2026-2030.¹⁸ In the first seven months of 2026, however, demand growth stayed below 1%.¹⁹ The National Energy Plan, on the other hand, projects that electricity consumption will reach 510 TWh in 2035, while generation in 2025 stood at 393 TWh.²⁰ The plan thus assumes strong demand growth over ten years. Realizing this pathway is also a condition for integrating additional capacity into the system smoothly. Electrification is therefore not only a decarbonization tool but also the demand condition that keeps the return structure of renewable investment standing.

The numerical side of this relationship can be seen in the price mechanism. The market clearing price (MCP) in the day-ahead market is set where the supply and demand curves intersect. Since wind and solar plants have no fuel costs and can submit price-independent bids, they shift the supply curve to the right during hours of high output and push natural gas plants out of the price-setting position. The result is marked downward pressure on prices around midday. In the first five months of 2026, the average MCP in Türkiye was around 1,616 TL/MWh, and the price fell to zero TL/MWh in 351 hours over the same period.²¹ In dollar terms, the 2025 average was \$66.40/MWh, while in the first months of 2026 it fell to around \$37.61/MWh.²² This decline is a direct gain for consumers, while on the investment side it calls for more diversified revenue models. The fall in unit revenue as new capacity enters the system acts as a market signal that raises the value of storage and flexibility investments. Known in the market as “zero-price risk” and described in the literature as the “cannibalization effect,” this

¹⁷ Ember, Türkiye Electricity Review 2026.

¹⁸ International Energy Agency, Electricity 2026: Analysis and Forecast to 2030 (Paris: IEA, 2026).

¹⁹ TEİAŞ, “Aylık Elektrik Üretim-Tüketim Raporları” [Monthly Electricity Generation and Consumption Reports], accessed September 9, 2026, <https://www.teias.gov.tr/aylik-elektrik-uretim-tuketim-raporlari>.

²⁰ Republic of Türkiye Ministry of Energy and Natural Resources, Türkiye National Energy Plan (Ankara: MENR, 2023). For 2025 generation data, see Ember, Türkiye Electricity Review 2026.

²¹ EPIAŞ Transparency Platform, “Piyasa Takas Fiyatı” [Market Clearing Price], January-May 2026 data, accessed September 11, 2026, <https://seffaflik.epias.com.tr>.

²² EPIAŞ Transparency Platform, “Piyasa Takas Fiyatı.”

phenomenon refers to the way the market value of variable renewables changes with their penetration rate. It is read as a sign of maturity seen in all systems that reach high renewable shares.²³

In this way, the return logic set out at the beginning of the analysis produces its own limit. The low cost structure that makes renewables attractive to investors weakens the price signal as penetration rises, and without this signal it becomes harder to sustain capacity growth. Breaking this cycle depends on three interventions. These are storage and flexibility capacity that shifts generation over time, grid infrastructure that moves generation across space, and electrification that creates new demand. It is no coincidence that all three appear together on the COP31 Action Agenda. This picture is not unique to Türkiye. It is a shared agenda item that every emerging economy rapidly expanding its capacity faces at the same stage, and for exactly this reason it lends itself to a multilateral setting such as COP31. The next section looks at how this agenda appears at the global level and at the geographical shift in demand.

THE NEW CENTER OF DEMAND: ELECTRIFICATION AND EMERGING ECONOMIES

For a long time, the carbon intensity of electricity generation was the only axis of energy transition debates. Yet cleaning up generation means little without asking how much of the economy actually runs on electricity. In a structure where transport relies on petroleum products, buildings on natural gas and coal, and industry largely on fossil fuels, the effect of clean electricity on total emissions remains limited even as its share grows. Today, only about 21% of global final energy consumption is met by electricity.²⁴ In other words, one-fifth of the energy used by end users has been electrified, and the bulk of the decarbonization debate lies in the remaining four-fifths.

Under current policies, this share is rising more slowly than the targeted pathway requires. The IEA's net zero scenario projects that the share of electricity in final energy consumption will exceed 27% by 2030 and 50% by mid-century.²⁵ If current trends continue, however, this share is estimated to reach only about 25% in 2035, whereas scenarios aligned with the Paris Agreement point

23 Lion Hirth, "The Market Value of Variable Renewables: The Effect of Solar Wind Power Variability on Their Relative Price," *Energy Economics* 38 (2013): 218-236.

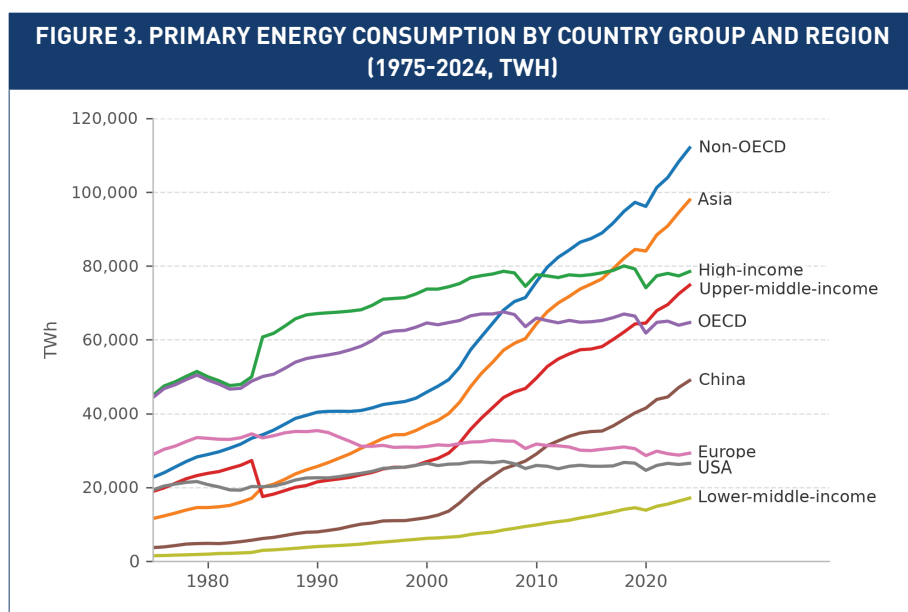
24 SHURA Energy Transition Center, *Electrification: The Backbone of the Energy Transition* (Istanbul: SHURA Energy Transition Center, 2026).

25 International Energy Agency, *Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach* (Paris: IEA, 2023).

to a level of around 35%.²⁶ This ten-point gap also underpins the threshold the COP31 Presidency has set as a global implementation target.

The geography of electrification, meanwhile, is changing markedly. While electricity demand in advanced economies has long been approaching a plateau, it continues to climb in developing countries. According to the IEA, most of the additional electricity consumption to 2030 will come from developing economies, with China alone continuing to account for about half of global growth.²⁷ The drivers of demand have also diversified. Industrial production, electric vehicles, air conditioning and cooling systems, and data centers are putting pressure on the system at the same time. This is why approaches that read electricity demand only through population and industrial capacity fall short.

Figure 3 shows the long-term course of this shift. While primary energy consumption in OECD countries has been flat since the mid-2000s, consumption in non-OECD countries rose continuously over the same period and overtook the high-income group. The pathway of upper-middle-income countries directly reveals the weight emerging economies have gained in the energy system.



This picture makes electrification a development issue as well as a matter of climate policy. Around 730 million people worldwide lack access to electricity, and 2 billion depend on polluting cooking methods, which is linked to about 3.7

²⁶ SHURA Energy Transition Center, Electrification: The Backbone of the Energy Transition.

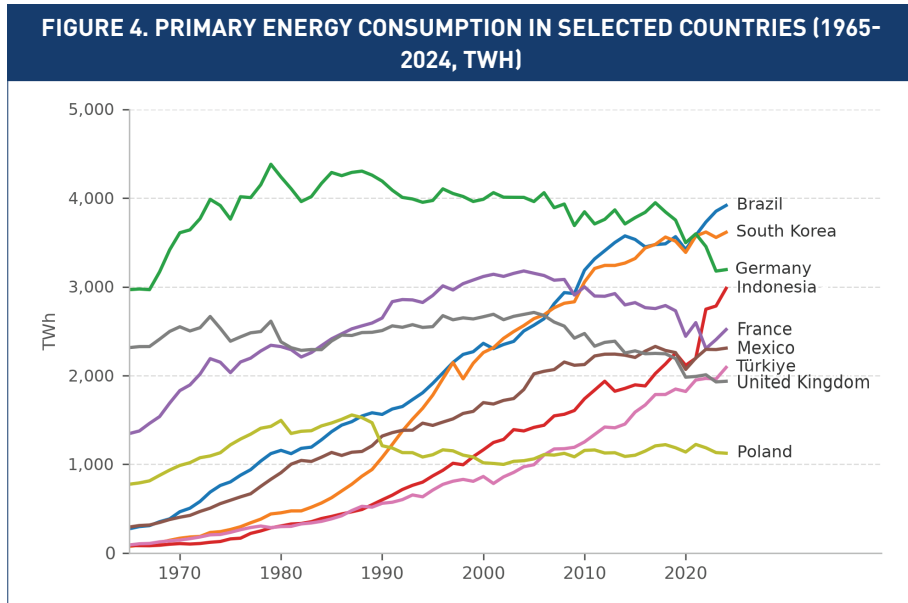
²⁷ International Energy Agency, Electricity 2026.

²⁸ Our World in Data, "Primary Energy Consumption," compiled by the author from Energy Institute and U.S. Energy Information Administration data, accessed September 12, 2026, <https://ourworldindata.org/energy>.

million premature deaths a year.²⁹ For this population, electrification is a question of health, income and access before it is a tool for cutting emissions. By opening its clean energy transition heading with an emphasis on access and clean cooking, the COP31 Presidency has made a choice that helps the agenda gain legitimacy among developing countries.

Yet the places where demand is growing and the places where capital is concentrated do not overlap. Countries that make up about two-thirds of the world's population attract only a limited share of global clean energy investment, while China alone accounts for a significant part of it.³⁰ Putting rapidly growing energy demand in developing countries on a cleaner footing is therefore less a question of technology availability than of directing investment. Because the same technology faces different financing conditions in different countries, it is built at different costs. This asymmetry is taken up separately in the fifth section of the analysis.

A similar reordering can be seen at the country level. As Figure 4 shows, the primary energy consumption of Brazil, South Korea and Indonesia has caught up with or overtaken that of industrialized European economies such as Germany, France and the United Kingdom over the past twenty years. Türkiye, too, has come close to the level of the United Kingdom over the same period. This convergence explains why the center of gravity of the energy transition debate is shifting to emerging economies.



Source: Compiled by the author using data from the Energy Institute and the U.S. Energy Information Administration.³¹

²⁹ "Clean Energy Transition," COP31 Türkiye.

³⁰ Demir, "Kalkınma ve Yenilenebilir Enerji Geçiş İlişkisi." For current figures, see International Energy Agency, World Energy Investment 2026.

³¹ Our World in Data, "Primary Energy Consumption."

At the global level, the direction of capital is already largely settled. According to the IEA, electricity-related spending reaches 60% of global energy investment in 2026, up from less than 40% a decade ago. Spending on electricity supply and infrastructure is expected to rise to \$1.6 trillion, and to \$2 trillion when end-use electrification is included, well above the roughly \$1.2 trillion going into fossil fuel supply.³² Renewable capacity additions also hit a record in 2025, and about 60% of the growth in global energy demand was met by low-emission sources.³³ Put differently, the return threshold discussed in the first section has been crossed globally. The problem lies in how this threshold is distributed geographically and in the system's capacity to absorb new capacity.

The second constraint shows up on the connection side rather than the generation side. Worldwide, more than 2,500 GW of renewable, storage and large-load projects are waiting in grid connection queues.³⁴ This figure is the global counterpart of the absorption problem identified for Türkiye in the first section. When projects with investment decisions taken, financing secured and technology ready cannot enter the system, raising targets alone does not deliver results.

The COP31 Presidency's approach is built on this diagnosis. Electrification has been set as the first of the Action Agenda's six global implementation targets, and the target has been quantified as raising the share of electricity in final energy consumption to 35% by 2035. The Presidency has also announced that it will develop cooperation with the IEA in renewable energy, food, cooling and heating, and digitalization.³⁵ This step stands out in two respects. First, the target is designed as a coordination tool rather than a binding commitment. Second, the aim is to build technical monitoring capacity together with a specialized institution.

This target also has a national counterpart for Türkiye. The Ministry of Energy and Natural Resources has announced that it has placed electrification at the center of its energy policy and has set a 35% electrification rate as a target for 2035. The current electrification rate is about 29% in industry and 22-23% in buildings, and transport is expected to be the truly transformative area.³⁶ One indicator supporting this view comes from the automotive market. The share of electric and hybrid cars in total sales reached 51.4% in the first four months of 2026.³⁷ A similar trend can be seen in Southeast Asia, where electric vehicle sales are approaching half of total sales.³⁸ This rapid spread in emerging economies shows that electrification is not

32 International Energy Agency, World Energy Investment 2026.

33 International Energy Agency, Global Energy Review 2026 (Paris: IEA, 2026).

34 International Energy Agency, Electricity 2026.

35 "Türkiye'nin COP31 Gündeminin 5 Önemli Enerji Başlığı Açıklandı."

36 "Bayraktar: 2040 Türkiye Ulusal Enerji Planı'nı COP31 Öncesinde Açıklamak İstiyoruz" [Bayraktar: We Aim to Announce the 2040 Türkiye National Energy Plan before COP31], Anadolu Agency, September 10, 2026.

37 Automotive Distributors and Mobility Association, "Otomotiv Pazar Verileri" [Automotive Market Data], January-April 2026, accessed September 14, 2026, <https://www.odmd.org.tr>.

38 International Energy Agency, World Energy Investment 2026.

tied to a prosperity threshold and can advance even faster in developing markets once cost and product availability are in place.³⁹

The debate thus shifts from whether the target is reasonable to the conditions for implementing it. Demand is growing, capital is moving toward electricity and technology costs are falling. Projects, on the other hand, are waiting in connection queues, investment is geographically concentrated and the cost of finance varies widely from country to country. The next section looks at the institutional tools through which the COP31 Presidency plans to respond to these conditions.

COP31'S ENERGY ARCHITECTURE AND IMPLEMENTATION TOOLS

The COP31 Presidency has built its Action Agenda around ten thematic headings and six global implementation targets. The headings directly related to energy are clean energy transition, zero waste and methane reduction, climate-resilient cities, implementation mechanisms and the green transformation of industry.⁴⁰ What sets this structure apart is that the headings do not map one-to-one onto the negotiating agenda. The Action Agenda aims to move forward on issues that cannot be settled at the negotiating table through voluntary coalitions and partnerships.

The clean energy transition heading is divided into five focus areas. These are clean cooking and energy access; grids, storage and flexibility; energy efficiency and cooling; electrification pathways; and nationally grounded transitions.⁴¹ What stands out in the list is the absence of any heading directly addressing fossil fuel supply. The agenda is built on transforming demand rather than limiting supply.

This choice should be read together with the situation inherited from Belém. At COP30, a roadmap for transitioning away from fossil fuels failed to make it into the negotiated text, and the debate moved to a voluntary track. More than fifty countries attended the first conference on the issue, held in Santa Marta in April 2026 and co-hosted by Colombia and the Netherlands, but some of the largest producers and consumers stayed out of the process.⁴² The supply-side debate is therefore continuing on a track separate from Antalya.

This separation can be read either as avoidance or as a division of labor. What supports the second reading is the Presidency's own comparative advan-

39 "Elektrifikasyonun Geleceği" [The Future of Electrification], Son Buzul Erimeden, accessed September 14, 2026, <https://sonbuzulerimeden.substack.com/p/elektrifikasyonun-gelecegi-buyuk>.

40 "COP31 Türkiye Antalya 2026 UN Climate Change Conference," COP31 Türkiye. For the energy headings, see also "Türkiye'nin COP31 Gündeminin 5 Önemli Enerji Başlığı Açıklandı."

41 "Clean Energy Transition," COP31 Türkiye.

42 First International Conference on Transitioning Away from Fossil Fuels, Santa Marta, Colombia, April 24-29, 2026.

tage. Making progress on grids, storage, efficiency and energy access is a more attainable goal, both technically and politically, than setting a timetable for fossil fuel supply. The results an implementation-focused presidency achieves in these areas may prove more lasting than a symbolic decision in supply-side negotiations.

To this end, the Presidency has developed three institutional tools. The first is the Climate Implementation Bridge, which aims to help countries turn their Nationally Determined Contributions into financeable projects, with the UN Development Programme as its implementing partner. The second is the Istanbul Climate Finance Summit, which seeks to bring public and private finance together, along with the declaration expected to come out of it. The third is the High-Level Climate Action Champion, who leads the private sector and local government strand of the Action Agenda.⁴³ What the three tools have in common is that they are designed to deliver results without depending on the negotiated text.

The negotiating structure is also unusual. While Türkiye has taken on the roles of host and COP President, the management of the negotiations has been left to Australia, and the pre-summit preparatory meeting is being held in the Pacific.⁴⁴ This arrangement makes it easier to bring the demands of island states into the process while allowing the Presidency to focus on its implementation agenda.

The finance items handed over to Antalya were largely shaped in Belém. Chief among them are the decision to triple adaptation finance by 2035, the roadmap toward the annual \$1.3 trillion finance goal for developing countries, and the Belém Action Mechanism established for a just transition.⁴⁵ What the three files have in common is that the targets have been set but the finance architecture is not yet complete. The next two sections examine two concrete energy-related elements of this architecture, grid capacity and the cost of capital.



The Presidency's three tools are designed to deliver results without depending on the negotiated text.

GRID FLEXIBILITY AND CAPACITY ALLOCATION

The first physical constraint on the electrification target is not generation capacity but the infrastructure that carries and balances the electricity produced. In Türkiye's case, this issue has two levels, the carrying capacity of transmission lines and the system's ability to balance itself in real time. The first is a matter of

⁴³ "COP31 Türkiye Antalya 2026 UN Climate Change Conference," COP31 Türkiye.

⁴⁴ On the presidency structure and the pre-summit preparatory meeting, see "COP31 Türkiye Antalya 2026 UN Climate Change Conference," COP31 Türkiye.

⁴⁵ United Nations Framework Convention on Climate Change, COP30 Global Mutirão Decision (Belém, 2025).

investment and the second a matter of operation. The fact that the two can be handled with different tools also makes policy design easier.

Türkiye's transmission program is ambitious. The plan announced by the Ministry of Energy and Natural Resources envisages high voltage direct current (HVDC) lines with 40 GW of capacity and a total length of about 14,700 kilometers, 40 new converter stations and 15,000 kilometers of additional alternating current transmission lines.⁴⁶ Investment on this scale is needed to deliver the growth in generation capacity to consumption centers.



HVDC is not just a hardware issue: the human side of the transition cannot be separated from its infrastructure.

Yet HVDC investments are not just a hardware issue. Operating direct and alternating current systems together requires integrated system simulation and advanced engineering capacity at converter stations. Planning equipment procurement together with this capacity will maximize the investment's contribution to system stability. For this reason, the human resources side of the transition should not be treated separately from its infrastructure side.

The second issue is matching capacity allocation with grid planning, and it is most visible in storage. While the National Energy Plan projects 7.5 GW of battery capacity for 2035, licensed battery projects have reached a total of 33 GW.⁴⁷ One independent assessment puts the battery capacity Türkiye is expected to reach by 2035 at 8 GW, while wind projects with storage licensed last year total close to 19 GW.⁴⁸ This gap between allocated capacity and the capacity expected to be built shows the strength of investor interest. At the same time, it points to the importance of tying allocation processes to real investment commitments. The experience gained from wind applications in the late 2000s offers an established body of knowledge to draw on here.

The cost of the flexibility gap cuts both ways. On the one hand, prices falling to zero during hours of high output erode investors' revenues. On the other, during supply shocks such as droughts the system quickly turns back to imported fuel. In 2025, Türkiye lost 18 terawatt-hours of hydropower generation. This loss was made up by natural gas plants, creating an additional import bill averaging \$1.8 billion a year.⁴⁹ Storage and demand-side flexibility are the only group of tools that can reduce both of these costs at once.

Financing grid investment is a separate issue. Transmission and distribution investments have a revenue structure limited by regulated tariffs, and this struc-

46 "Bakan Bayraktar: Yenilenebilir Enerji Kurulu Gücünde Avrupa'da İlk Beşteyiz" [Minister Bayraktar: We Are in Europe's Top Five in Installed Renewable Capacity], Anadolu Agency, May 7, 2026.

47 Ember, Türkiye Electricity Review 2026. For the plan target, see Republic of Türkiye Ministry of Energy and Natural Resources, Türkiye National Energy Plan.

48 "Türkiye'nin Yenilenebilir Enerji Karnesi Açıklandı: Dünyada Kaçınıcı Sıradayız?" CNBC-e.

49 Ember, Türkiye Electricity Review 2026.

ture falls short at a time when investment needs are multiplying. Enabling the state-owned transmission company to borrow on capital markets on the strength of its own creditworthiness, in addition to loans from international financial institutions, is therefore a question of institutional capacity rather than a technical one.

There is also room for improvement on the price signal side. The current structure, based on a single price zone, does not directly tell investors where grid constraints are concentrated. Mechanisms such as zonal pricing could reduce the need for transmission investment by steering generation investment toward places where grid capacity is available. The cost side of this debate should not be ignored either. The pressure that rising investment will put on tariffs requires striking a balance between energy affordability and financing.

All of these issues fall under the grids, storage and flexibility focus of the COP31 Action Agenda. Yet progress in these areas depends on financing conditions, which are the subject of the next section.

THE COST OF CAPITAL: THE REAL PRICE OF THE TRANSITION

The price of a wind turbine or a solar panel is set in a global market, yet the cost of the electricity the same turbine produces varies markedly from country to country. The source of this difference is not technology but finance, and it is the least discussed dimension of the energy transition debate.

Because almost all of the cost of renewable projects is concentrated in the upfront investment, the final cost of electricity is highly sensitive to the price of capital. A difference of a few percentage points in the weighted average cost of capital significantly changes the cost of the electricity the same project produces. The literature explains this by the different risk structure of low-carbon investments compared with conventional energy investments, and shows that public tools aimed at reducing risk can have a larger effect on costs than direct subsidies.⁵⁰ The derisking framework developed by the UN Development Programme rests on the same logic. Tools that reduce policy risk lower the cost of finance and thereby increase the leverage of public money.⁵¹

For Türkiye, this debate is not abstract. The investment needed to reach the 2035 targets is estimated to exceed \$200 billion, a significant part of which must go to grid and flexibility investments.⁵² A capital need of this scale cannot

50 Tobias S. Schmidt, “Low-Carbon Investment Risks and De-Risking,” *Nature Climate Change* 4 (2014): 237-239.

51 United Nations Development Programme, *Derisking Renewable Energy Investment* (New York: UNDP, 2013).

52 Presidency of the Republic of Türkiye Investment Office and APLUS Enerji, *Enerji Sektör Raporu 2026* [Energy Sector Report 2026] (Ankara: Presidency of the Republic of Türkiye Investment Office, 2026).

be met from domestic sources alone. The cost at which foreign capital comes in is therefore an energy policy variable as decisive as the design of incentive mechanisms.

This is where a factor usually seen as lying outside energy policy comes into play, namely the country risk premium. International investors price project risk on top of country risk. A fall in the risk premium reduces the cost of grid and generation investments without any sector-specific tool being used. This is why macroeconomic stability should be treated as a direct policy tool in financing the energy transition.

At the international level, the toolkit is well known. The cost of capital in developing countries remains markedly higher than in advanced economies, which wipes out much of the advantage from lower technology costs.⁵³ Tools that could change this picture include partial risk guarantees, local currency financing, strengthening the capital base of multilateral development banks, and blended finance structures that take on first-loss positions. Whether the \$1.3 trillion finance goal on the COP31 agenda can be met depends largely on how quickly these tools are put to work.⁵⁴

The cost of capital debate completes the argument made at the beginning of the analysis. In renewable generation, the return threshold was crossed with tools that made revenue streams predictable. Carrying the same logic over to grids, storage and coal phase-out, the subject of the next section, is a matter of financial rather than technical design.

MAKING COAL PHASE-OUT PAY

Coal is still the largest single source of electricity generation in Türkiye. In 2025, about 34% of generation came from coal, and two-thirds of this relied on imported coal.⁵⁵ The picture has two sides. No new coal plant has been commissioned since 2022, while setting a phase-out timetable remains one of the items on the agenda for the coming period.

Recently, the purchase guarantee for domestic coal plants has stood out as a measure that could lead to a renewed rise in coal generation.⁵⁶ The rationale behind it is security of supply and the use of domestic resources. The possibility that the same mechanism could extend the economic life of coal plants in the medium term, however, calls for a transition finance design that takes both security of supply and the phase-out timetable into account.

⁵³ International Energy Agency, Cost of Capital Observatory (Paris: IEA).

⁵⁴ United Nations Framework Convention on Climate Change, COP30 Global Mutirão Decision.

⁵⁵ Ember, Türkiye Electricity Review 2026.

⁵⁶ Ember, Türkiye Electricity Review 2026.

International experience shows that this dilemma is not resolved by closure decisions alone. Coal plants are mostly assets financed through long-term contracts, and early closure means an uncompensated loss for investors and lenders. As a result, models developed in recent years rest on refinancing rather than closure. The Asian Development Bank's Energy Transition Mechanism refinances a plant's debt with cheaper capital in order to shorten its economic life and redirect the freed-up resources to renewable investment.⁵⁷ The Climate Investment Funds' coal transition program and the Just Energy Transition Partnerships in South Africa, Indonesia and Vietnam are built on a similar logic.⁵⁸

What these models have in common is that they turn coal phase-out from a bargain over sacrifice into a financial transaction. Low-cost finance provided in return for a plant's early retirement both compensates the investor's loss and funds a regional investment package. The return logic that works in renewable generation is thus applied to the closure side.

The meaning of this framework for Türkiye is clear. National modeling studies show that phasing out coal by the mid-2030s is technically possible, but that this depends on a marked increase in annual deployment rates and an expansion of storage capacity.⁵⁹ Such a pathway requires replacing the debate on purchase guarantees with a debate on transition finance. Framed this way, coal sites are no longer a burden but become transformation areas able to attract finance.

The social dimension of the process is an agenda item in its own right. In basins such as Zonguldak, Soma and Afşin-Elbistan, coal is not just a fuel but one of the pillars of direct and indirect employment, local revenues and the regional economic structure. This problem is not unique to Türkiye. In Shanxi, one of China's most important coal-producing centers, in the Indian states of Jharkhand, Chhattisgarh and Odisha, in Poland's Upper Silesian basin and in Germany's Lusatia and Rhineland regions, the energy transition also emerges as a problem of restructuring coal-dependent regional economies. In China, mine closures in Shanxi have led to programs for worker redeployment, retraining and transition to alternative sectors. In India, policies on mine closures, especially in Jharkhand and Chhattisgarh, are increasingly framed around land rehabilitation, alternative livelihoods and regional economic diversification.⁶⁰

In Europe, the Just Transition Fund provides resources for diversifying employment, reskilling workers and transforming mining sites in Poland's



Refinancing turns coal phase-out from a bargain over sacrifice into a financial transaction.

⁵⁷ Asian Development Bank, Energy Transition Mechanism (Manila: ADB).

⁵⁸ Climate Investment Funds, Accelerating Coal Transition Investment Program (Washington, DC: CIF).

⁵⁹ Istanbul Policy Center, Türkiye'nin Karbonsuzlaşma Yol Haritası: 2053'te Net Sıfıra Doğru [Turkey's Decarbonization Roadmap: Towards Net Zero by 2053] (Istanbul: Istanbul Policy Center, 2026).

⁶⁰ World Bank, China Energy Transition Towards Carbon Neutrality Project (P175708): Concept Environmental and Social Review Summary (ESRS Concept Stage), Report No. ESRSC01952 (Washington, DC: World Bank, 2021).

Silesia region, while in Germany's Lusatia and Rhineland regions coal phase-out is being carried out together with long-term structural change and regional employment policies.⁶¹ What these examples have in common is that they show coal phase-out cannot be managed simply by closing plants and mines. Reskilling the workforce, bringing new economic activity to the region, re-using mining sites and compensating for lost local revenue are integral parts of transition policy. The Belém Action Mechanism established at COP30 offers a platform for monitoring the just transition at the international level. Linking this mechanism in Antalya to a concrete financing window for coal regions is one of the areas where Türkiye could stand out as both host and implementer.

BRIDGES OF THE TRANSITION: GAS, NUCLEAR AND THE FLEXIBILITY PORTFOLIO

As the share of variable sources grows, what the system needs is not simply more capacity but a flexibility portfolio that can be called on across different time scales. The components of this portfolio are battery storage on an hourly scale, pumped hydro and natural gas on a daily scale, and sources that provide predictable baseload generation on a seasonal scale.

Natural gas is the most contested component of the portfolio. For Türkiye, 2026 is a year in which the contract structure is being rebuilt. Some long-term import contracts are expiring, and renewal negotiations are under way.⁶² Over the same period, output from the Sakarya field in the Black Sea is rising, and long-term liquefied natural gas agreements are diversifying the supply portfolio.⁶³ This renewal cycle offers a limited but real window of opportunity to redesign contracts with flexibility provisions in mind. The bridging role of gas, however, depends on how it is used. A plant run at a low capacity factor to provide flexibility does not have the same emissions profile as one run as baseload. The rise in imports during the drought shows that gas still largely serves as a substitute in Türkiye's system, and that strengthening its flexibility role will only be possible together with storage and grid investments.

On the nuclear side, meanwhile, the timeline overlaps with COP31. The first unit of the Akkuyu Nuclear Power Plant is expected to start generating electricity in 2026, and the National Energy Plan envisages 7.2 GW of nuclear ca-

61 European Commission, Directorate-General for Regional and Urban Policy, Just Transition Platform Case Study: Regional Observatory of the Transition Process in Silesia (ROPT) (Luxembourg: Publications Office of the European Union, 2024), DOI: 10.2776/951581.

62 Energy Market Regulatory Authority, Doğal Gaz Piyasası Sektör Raporu 2025 [Natural Gas Market Sector Report 2025] (Ankara: EMRA, 2026).

63 Turkish Petroleum Corporation, 2025 Faaliyet Raporu [2025 Annual Report] (Ankara: TPAO, 2026).

capacity for 2035.⁶⁴ Talks on the second and third plant projects and on small modular reactors are ongoing. Nuclear's contribution to the system is not only emission-free generation but also a predictable base alongside variable sources.

Given Türkiye's geographical advantages, pumped hydro is one of the areas with the highest potential and one that can be developed quickly in the near term. Converting part of the existing hydropower infrastructure into pumped storage could provide longer-duration storage at a lower unit cost than battery investments.

What these components have in common is that the relationship between security of supply and climate goals is not, as is often assumed, a trade-off. Every step that reduces import dependence also lowers emissions, and every investment that makes the system more flexible raises its capacity to take in renewables.

This finding matters for the Antalya agenda, because security of supply is the main concern shaping how developing countries approach the energy transition.



Security of supply and climate goals are not a trade-off: every step that cuts import dependence also cuts emissions.

TÜRKİYE IN ANTALYA: DIPLOMATIC POSITION AND TRANSFERABLE EXPERIENCE

The influence of a COP presidency comes less from the host country's negotiating power than from its capacity to represent others. In this respect, Türkiye is in an unusual position. It has neither the profile of an OECD economy whose demand is approaching a plateau nor that of a low-income country that puts energy access at the center of its agenda. It stands right in the middle of middle-income economies whose demand is growing, which import much of their energy and which have nevertheless built rapid momentum in renewable deployment. Since the course of the global emissions curve over the next decade depends largely on the choices of this group, the Presidency's diplomatic weight draws on this position.

Türkiye's legal position within the climate regime is the institutional reflection of this in-between status. Its inclusion in Annex I of the Convention while remaining outside Annex II obligations was long seen as a unique position in the negotiations. On an implementation-focused agenda, however, the same position takes on a different function. Few actors can speak both the finance language of developed countries and the priorities of developing countries at the same table, and Türkiye is one of them.

What turns this position from rhetoric into experience is the deployment drive of the past decade. How this drive happened is more instructive than how

⁶⁴ For the capacity target, see Republic of Türkiye Ministry of Energy and Natural Resources, Türkiye National Energy Plan.

much it achieved, because Türkiye made this leap without waiting for every structural condition to improve. The leap took place while an import-dependent supply structure, rising demand and current account pressure persisted. Even so, installed solar capacity rose from almost zero to more than 25 GW, and the share of wind and solar in generation moved above the global average. The transition was carried out not as a program waiting for all preconditions to be met but as a process that moved forward under existing conditions and built its own capacity along the way.



Türkiye made its renewable leap without waiting for every structural condition to improve.

What made this possible is a relatively clear division of labor between the state and the private sector. In the Renewable Energy Resource Area (YEKA) model, the state narrows the uncertainty investors face by setting the site, grid connection capacity and offtake terms in advance, and links the resulting demand to industrial policy through local manufacturing requirements. The unlicensed generation regime worked in the opposite direction, bringing in a dispersed base of investors relying on self-consumption. Indeed, about 84% of the new solar capacity commissioned in 2025 came through this channel.⁶⁵ Running centralized tenders and dispersed investment side by side ensured that the transition did not depend on a single financing model. What is transferable to developing markets is essentially this dual structure.

The same kind of relationship also explains why the pace on the grid side has been different. Investment came quickly in areas where the state narrowed uncertainty, while matching capacity allocation with physical infrastructure required its own planning tools. Strong demand for storage licenses shows the strength of investor interest and points to the importance of designing allocation and grid planning together. Seen this way, Türkiye's experience is meaningful as a case that shows concretely which tools make coordination work. This is also where the most useful knowledge lies for countries at a similar stage.

The diplomatic value of this becomes clearer at the regional level. In terms of the share of wind and solar in electricity generation, Türkiye is well ahead of the countries of the Middle East, the Caucasus and Central Asia, and offers them an attainable example.⁶⁶ Joint investments developed with Gulf capital, opening domestic manufacturing capacity to the region, and grid interconnections reaching the Balkans and the Caucasus offer an opportunity to turn this example into a network of relationships.⁶⁷ Many of the tools that could carry the Presidency's influence beyond the summit lie not in the negotiating hall but in this region.

65 "Türkiye'nin Yenilenebilir Enerji Karnesi Açıklandı: Dünyada Kaçınıcı Sıradayız?" CNBC-e.

66 "Türkiye Rekor Kırdı: Dünyada 7'nci," Hürriyet.

67 "Türkiye'nin Yenilenebilir Enerji Karnesi Açıklandı: Dünyada Kaçınıcı Sıradayız?" CNBC-e.

On top of all this, it is worth stressing that the timing is also favorable. The new National Energy Plan covering the period up to 2040 is expected to be announced before the summit.⁶⁸ The Climate Law, which entered into force in 2025, and the emissions trading system regulation issued afterward have placed Türkiye among the countries that have set up a carbon market.⁶⁹ Because its design is not yet final, a system in its pilot phase offers relatively flexible ground for joining early debates on alignment with carbon border adjustment mechanisms and on mutual recognition.

What all of these have in common is that they are not a new commitment but a transfer of existing experience. The contribution Türkiye can make in Antalya is not the recipe of a country that has completed its transition, but the accumulated knowledge of a country still in transition about which tools work and which fall short. This is the kind of contribution that fits the Presidency's emphasis on implementation.

CONCLUSION

The course of the energy transition over the past decade has shown that binding targets are not the only effective tool of climate policy, and that technological progress combined with investment becoming profitable creates a much stronger transformative dynamic. Technological learning, economies of scale and cost declines, which the energy transition literature has long pointed to, are now less a theoretical expectation than factors that shape market behavior. Thanks to the combination of falling technology costs and predictable revenue models, renewable energy has become the preferred option for capital, and this shift has happened at a speed that negotiation processes alone could not have achieved. Yet the same mechanism also produces its own limit. As penetration rises, the price signal weakens, grid capacity becomes the binding constraint, and the return structure needed for the next link of the transition does not emerge on its own.

This picture also allows for a stronger but conditional confidence in the direction of technological change. Five years ago, much of the debate centered on when solar and wind would become cost-competitive with fossil sources. Today, solar and wind are among the lowest-cost options for new generation capacity in many markets. A similar change is under way in storage. Not long ago, the economic viability of large-scale storage was still being debated. Today, battery capacity is growing fast, costs are falling, and a market is beginning to form in

68 "Bayraktar: 2040 Türkiye Ulusal Enerji Planı'nı COP31 Öncesinde Açıklamak İstiyoruz," Anadolu Agency, September 10, 2026.

69 Climate Law No. 7552, Resmi Gazete [Official Gazette], July 9, 2025. For the emissions trading system regulation, see Türkiye Emisyon Ticaret Sistemi Yönetmeliği [Türkiye Emissions Trading System Regulation], Resmi Gazete, August 27, 2026.

which storage can access different revenue streams, from energy arbitrage to balancing services. In short, technological progress is not only lowering the cost of renewable generation but also widening the economic space for solutions to the system problems created by high renewable penetration.

The COP31 Presidency's decision to set electrification as the first global implementation target is consistent with this diagnosis. Raising the share of electricity in final energy consumption to 35% by 2035 both protects the returns on renewable investment by creating new demand and covers transport, heating and industry, which account for the bulk of decarbonization. The four constraints listed by the Presidency are also institutional and financial rather than technological, namely inadequate grids, the financing gap, policy misalignment and high upfront investment costs.⁷⁰

Türkiye shows both sides of this equation at once. A country that has raised its installed solar capacity from almost zero to more than 25 GW in a decade and brought the share of wind and solar in generation to 22% is now pursuing a parallel agenda on connection capacity, storage allocation and the cost of capital to sustain this momentum. This dual picture makes Türkiye both a success story for emerging economies and a reference point that can share the lessons of the second stage of the transition. The Presidency's credibility depends largely on its ability to present this duality openly.

The mark Antalya leaves will therefore be measured not by the length of the text it produces but by whether the return logic is carried over to the remaining links of the transition. Grid investment becoming a financeable asset class, storage being able to earn revenue in more than one market, the early retirement of coal plants being structured as a transaction rather than a loss, and a fall in the cost of capital in developing countries are the concrete markers of this yardstick. To the extent that these happen, the electrification target stops being a wish and becomes the natural outcome of investment decisions. Progress on these markers will make Antalya a presidency remembered for its implementation tools rather than only its texts of commitment.

70 "Bakan Kurum 'COP31 Eylem Gündemi'nin 10 Öncelikli Alanı ve 6 Hedefini Açıkladı."

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Electrification and the Energy Transition in the COP31 Process

Orçun Demir

L For a long time, debates on the energy transition were framed around the tension between climate commitments and economic growth. Yet the main factor behind the rise of renewable energy over the past decade is not how binding the commitments were but the fact that investment became profitable. Falling cost curves, predictable revenue models and economies of scale have made solar and wind the preferred option for capital.

This analysis argues that the same threshold is now being tested in electrification. The center of electricity demand is shifting from advanced economies to developing countries, and transport, cooling, industry and digital infrastructure are creating new pools of demand for electrification. The 31st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP31), which will convene in Antalya on November 9-20, 2026 under Türkiye's presidency, has set electrification as the first global implementation target of its Action Agenda and has put forward a 35% electrification rate in final energy consumption for 2035.

The main argument of the analysis is that the obstacle to this target is not generation technology. As the COP31 Presidency's own diagnosis also points out, the key constraints are inadequate grids, the flexibility gap, access to finance and high upfront investment costs. What these areas have in common is that the return logic established in renewable generation has not yet been carried over to them. The most concrete contribution Antalya can make, therefore, is not a new list of commitments but an architecture of cooperation and risk sharing that makes investments in grids, storage and coal phase-out predictable for investors. With both its rapid deployment record and its grid and cost-of-capital constraints, Türkiye offers a case in which this model is being put to the test.



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