ACCELERATING DEVELOPMENT THROUGH CLEAN AND RESILIENT ENERGY SYSTEMS IN THE DOMINICAN REPUBLIC

Affordable and clean energy, decent jobs, and climate Resilience

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This report was developed by the authors in consultation with UNDP's Dominican Republic Country Office and the Inclusive Growth team.

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Photo: UNDP Dominican Republic

Executive summary

This brief presents a practical pathway to turn the Dominican Republic's energy transition into a development breakthrough—delivering cheaper, cleaner, and more reliable power while strengthening fiscal sustainability and advancing both climate and development outcomes. This development breakthrough draws on UNDP's NDC x SDG Insights report under the SDG Push initiative, which maps where climate actions create the highest development payoffs and foster policy coherence. In the Dominican Republic, the Insights work highlights accelerators that reinforce SDG 7 (clean, affordable energy), SDG 8 (productive, resource-efficient growth), SDG 11 (resilient cities and communities), and SDG 16 (effective institutions), guiding an integrated national response that sequences reforms, sharpens regulation, and mobilizes finance.

Why energy first? The power system in the Dominican Republic represents one of the economy's most relevant binding constraint as well as the greatest near-term opportunity. With installed capacity around 6.2 GW and renewables already near a quarter of electricity generation, progress is tangible but incomplete. Authorities have committed to doubling electricity supply by 2036 and reaching 30% renewables by 2030 —objectives that require accelerated clean capacity, grid flexibility (energy storage), and improved efficiency. The IMF 2024 Article IV aligns, urging comprehensive electricity reform —especially reducing subsidies and losses— to free fiscal space, cut costs, and enhance competitiveness.

Four priority breakthroughs organize delivery:

1. **Clean generation at scale with storage:** Bundle renewables and batteries via transparent auctions and bankable power purchase agreements (PPAs); reinforce the grid to lower curtailment and price volatility.
2. **Efficiency first:** Minimum energy-performance standards (e.g., ACs, motors), green building codes, advanced metering (AMI), and loss-reduction programs that quickly reduce bills and the subsidy burden.
3. **Cleaner production in anchor industries (i.e., cement):** Fuel switching, clinker substitution, and waste-heat recovery to lower energy intensity and align exports with emerging carbon standards.
4. **Financial sustainability:** Tariff reform with better targeting, distributor performance compacts, and results-based incentives so recurring subsidies shift toward investments that permanently lower system costs.

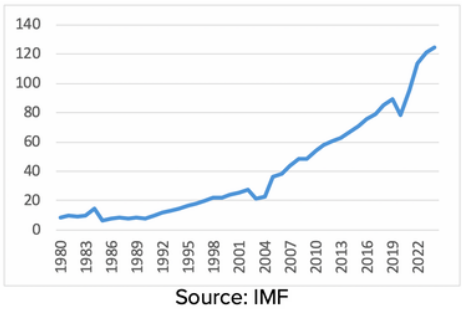
Finance and implementation pathways hinge on a sequenced, mixed-capital strategy. Public finance should prioritize multi-year capex for transmission, distribution (AMI/loss cuts), and project preparation, replacing open-ended tariff subsidies with results-based support for efficiency. On the market side, the sovereign green bond program and GSS framework set disclosure and impact standards that utilities, municipalities, and corporations can mirror for green and sustainability-linked bonds and blended-finance project structures. Institutional coordination—via a Presidency/Finance-led steering committee—should approve an integrated NDC-SDG investment list with specific costs estimations, timelines, and financing modalities (budget, PPP, green bonds, guarantees). UNDP platforms—Integrated National Financing Frameworks (INFFs) and Climate Promise—can align the pipeline with financing, strengthen monitoring, reporting, and verification (MRV), and improve investor-grade reporting.

What does success look like? By mid-decade, competitively procured renewables with storage flatten wholesale prices and improve reliability; measured loss reductions and advanced metering infrastructure shrink subsidies; industrial efficiency lowers energy intensity; and green finance scales network and resilience investments. By 2036, a modernized system that doubles electricity supply becomes a tailwind for growth—cutting import bills, reducing fiscal risks, and crowding in private investment—thereby translating climate commitments into concrete development gains.

1. Country context

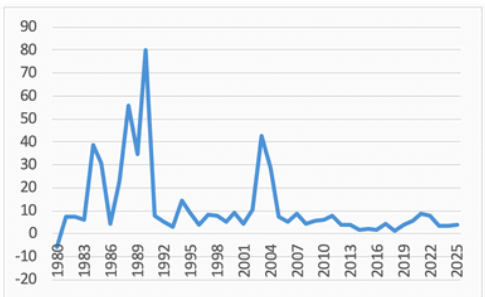
The Dominican Republic presents a comparatively positive economic, social, and environmental context, but one that calls for cautious optimism and sustained policy discipline. The country has achieved noteworthy macroeconomic results over the past two decades, with real GDP expanding at an average of about 5% per year and inflation maintained near the 4% target within an inflation-targeting framework. However, recent developments remind policymakers that continued growth at this pace is not guaranteed: Economic activity slowed to 2.4% in 2023 due to tighter financial conditions, weaker export performance, and climate-related factors. Although growth is projected to gradually return to around 5% beginning in 2024, achieving and sustaining this trajectory will require continued structural reforms, productivity improvements, deeper human capital development, and a stable and credible macro-fiscal framework.

Figure 1: GDP (Billions of U.S. dollars, GDP, current prices)



Source: IMF

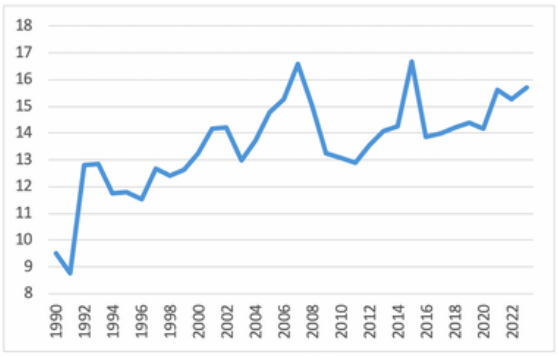
Figure 2: Inflation rate, end of period consumer prices (annual percent change)



Source: IMF

From a fiscal perspective, the country continues to face challenges. Government revenues are relatively low—around 16% of GDP, nearly half of the emerging-market average—and public debt remains close to 59% of GDP, though still considered sustainable under gradual consolidation plans supported by a Fiscal Responsibility Law that aims to reduce debt toward 40% of GDP by 2035. While market perceptions are favorable—reflected in successful access to international financing and the issuance of a USD 750 million sovereign green bond with a 12-year maturity in 2024 —the country continues to hold a speculative-grade credit rating, underlining the need for stronger and more predictable revenue performance and expenditure efficiency.

Figure 3: Government revenue as percent of GDP



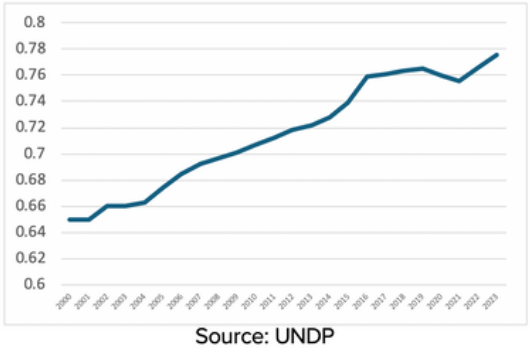
Source: IMF

Figure 4: General government gross debt as percent of GDP

Source: IMF

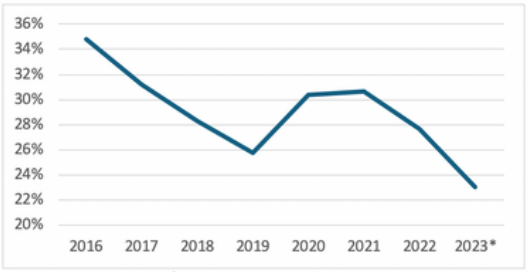
Socially, the Dominican Republic ranks 89th of 193 in human development, with poverty declining to 23.9% and inequality among the lowest in Latin America. Nonetheless, important development gaps persist—particularly in education outcomes, labor market productivity, and institutional capacity building—which will be central to improving long-term competitiveness. Environmentally, the country faces serious climate vulnerabilities, as reflected in its IMF-adapted ND-GAIN index score and projected emissions trajectory, which signal challenges ahead in meeting long-term decarbonization goals. The commitment to a 27% emissions reduction by 2030 and investments of nearly USD 17.6 billion in mitigation and adaptation are significant steps, but success will ultimately be determined by the country's implementation capacity, financing sequencing, and institutional coordination.

Figure 5: Human development index



Source: UNDP

Figure 6: Poverty rate at national general poverty line



Source: World Bank

This brief treats the energy transition not only as a source of growth and fiscal space, but also as an engine for boosting decent jobs: Productive work that provides a fair income, safe conditions, social protection and equal opportunities for women and men. The just energy transition in the Dominican Republic must therefore create pathways into quality jobs in clean energy and energy efficiency, with a deliberate focus on training, entrepreneurship and the expansion of leadership opportunities for women and youth, who remain under-represented in the energy workforce worldwide.

Overall, maintaining progress will depend not only on past performance but on deepening reforms, boosting productivity, improving energy and fiscal efficiency, strengthening institutions, and building climate-resilient development pathways.

2. NDC x SDG Insights overview: Dominican Republic

This policy brief draws on UNDP's NDC x SDG Insights initiative under the SDG Push umbrella, which links climate action to national development priorities providing evidence to guide integrated and coherence policymaking. In the Dominican Republic, the Government —through the Ministries of Environment, Economy/Planning, Energy & Mines, and Finance— engaged with UNDP to examine which NDC proposed activities can accelerate progress on the SDGs while supporting the National Development Goals under the "Meta 2036" plan. The initiative frames climate action as an important driver of sustainable development, aligning mitigation and adaptation with development priorities such as reliable and affordable energy, resilient infrastructure and cities, decent work, and territorial cohesion.

Decent jobs are a central part of the development payoff from climate action. Energy-sector measures identified in the NDC x SDG Insights — from utility-scale renewables and storage to efficiency retrofits and green transport — can generate new, formal jobs with better wages, skills, and protection; while phasing out low-productivity and high-risk activities linked to fossil fuels. Ensuring that women access these opportunities on equal terms, including through targeted technical training and support for women-led enterprises, is essential to ensuring a just energy transition.

The Insights work in the country has produced a concise, data-driven map of where policy coherence is strongest and where targeted reforms can deliver "double wins". Identifying acceleration points that jointly advance SDG target 7.3 (energy efficiency), SDG target 8.4 (resource efficiency/decoupling), SDG target 11.5 (disaster and risk reduction), and SDG target 16.6 (effective, accountable institutions). For example, minimum energy-performance standards and green building codes, industrial efficiency and circularity measures, risk-informed urban planning with stronger building codes and early-warning systems, transparent MRV, and budgeting frameworks that improve delivery. These insights could shape a national response centered on sequencing reforms, sharpening regulations, and mobilizing blended finance and performance-based instruments to translate NDC commitments into near-term, high-impact outcomes aligned with the SDG targets mentioned above.

UNDP's SDG Push tools, including the SDG Push Diagnostic, have helped identify the policy accelerators most likely to deliver multi-sector gains —pinpointing where regulatory updates, targeted fiscal incentives, and green finance frameworks can drive both climate and development outcomes. The diagnostic's country-specific analytics guide prioritization (e.g., loss-reduction and smart metering to free fiscal space; e-bus procurement and charging codes to cut fuel imports and urban pollution; nature-based solutions to safeguard tourism assets), offering a practical pathway to strengthen the NDC 3.0 ambition while advancing the specific SDG targets that have been prioritized in the Dominican Republic's development agenda.

3. Development breakthrough breakdown

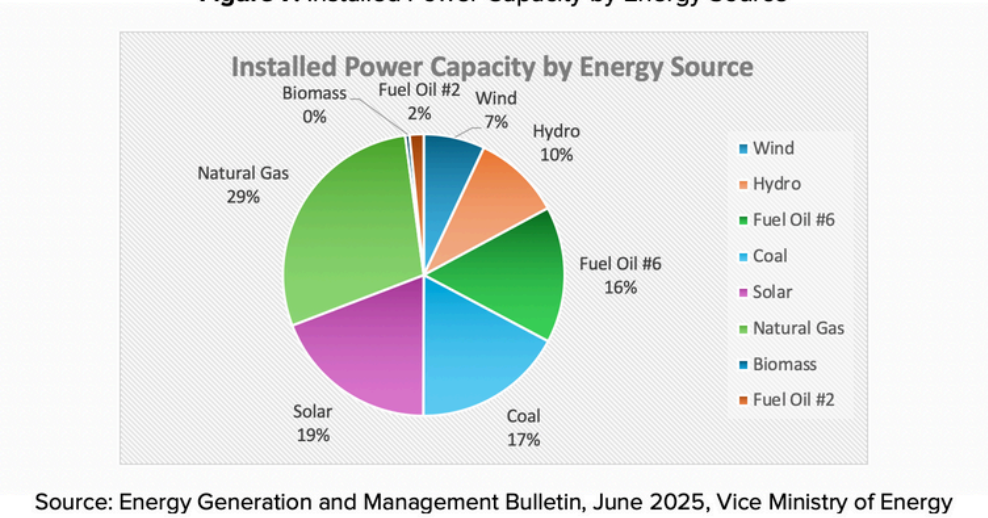
Why energy is the pivotal breakthrough

The Dominican Republic's next leap in inclusive growth runs through its power system: cheaper, cleaner, more reliable electricity that increases productivity, reduces fiscal risks, and accelerates climate and development outcomes. Three facts anchor the case. First, the energy system capacity reached 6,163 MW by June 2025, with renewables already supplying roughly a quarter of electricity generation —evidence that the transition is underway but incomplete. Second, authorities have committed to doubling electricity supply by 2036 and to reaching 30% renewable generation by 2030, signaling a steep ramp-up in clean capacity, flexibility, and grids. Third, comprehensive electricity-sector reform —including curbing subsidies— is essential for fiscal space, competitiveness, and long-run growth (IMF, 2024). Together, these points define a coherent energy breakthrough: Scale clean generation and efficiency while tackling losses, tariffs, and governance so power becomes a catalyst —not a constraint— for development.

The starting line: Progress made, existing gaps, and estimated costs

On the supply side, the country has moved fast: The National Energy Commission (CNE) reports renewables at 24.5% in 2025 and a pipeline exceeding 7.4 GW (solar, wind, and hybrid projects), with investment needs of about USD 5.4 billion to 2030. On flexibility, authorities have made a step-change by launching the first national tender requiring battery storage alongside up to 600 MW of solar and wind —an explicit response to variability and peak needs that will improve reliability and lower curtailment. On price dynamics, government bulletins show spot and contracted costs that still reflect fossil dependence and system inefficiencies —keeping end-user tariffs high and the subsidy bill material. These conditions motivate an integrated push: cleaner megawatt-hours, smarter networks, and a disciplined subsidy reform.

Figure 7: Installed Power Capacity by Energy Source



Source: Energy Generation and Management Bulletin, June 2025, Vice Ministry of Energy

Why subsidy and electricity reforms matter for growth

The Dominican Republic presents a favorable macroeconomic outlook —growth around 5% and inflation near target— however fiscal buffers and competitiveness depend on structural reforms. The adoption and implementation of a fiscal responsibility rule, coupled with improved revenues by rationalizing exemptions, and spending efficiency, is needed. In line with those recommendations, reducing power losses and revising the electricity-sector subsidies and untargeted transfers is paramount. The message is straightforward: If electricity becomes financially sustainable and technically modern, the spillover gains to private investment, external balances (via lower oil imports), and inclusive growth could materialize.

Breakthrough 1 — Clean generation at scale (including storage)

A durable pathway is now visible: Bundled renewables and battery energy storage systems (BESS) under long-term PPAs; transparent tenders; and grid reinforcement. The 600 MW tender with mandatory 4-hour storage sets a new national standard, aligning with UNDP's NDC x SDG Insights emphasis on climate–development "double wins": Cleaner electricity that also reduces import exposure, price volatility, and local pollution. Pipeline momentum is strong (international developers expanding portfolios; local capital mobilizing), but sustained progress requires faster interconnection processes, bankable offtake, and timely resilience grid upgrades. Success here advances SDG 7 (affordable, clean energy) and SDG target 9.4 (cleaner industry and infrastructure) while directly supporting the NDC's energy mitigation track.

Bundled renewables and storage can also anchor a new wave of decent green jobs in construction, operations, maintenance and services, especially in regions hosting wind and solar parks. Explicit labour standards in tenders, together with requirements for local hiring, skills development and women's participation in technical roles, can help ensure that these jobs offer fair wages, safe conditions and career prospects rather than precarious temporary work.

Breakthrough 2 — Efficiency first: Reduce waste and lower bills

Efficiency is the cheapest new "source" of electricity. UNDP's SDG Push emphasizes that energy efficiency cuts emissions and costs while lifting productivity —precisely the Dominican Republic's development priority. A national package could combine: (i) minimum energy-performance standards (ACs, motors, refrigeration); (ii) green building codes for new commercial and tourism infrastructure; (iii) advanced metering (AMI) and loss-reduction in distribution; and (iv) results-based finance for industrial retrofits. These measures deliver immediate system relief, flatten peak demand, and reduce the subsidy burden. For households and MSMEs, lower kWh consumption at the meter matters as much as new supply. Efficiency is also the bridge that makes intermittent renewables reliable at lower total system cost.

An efficiency-first strategy also creates decent jobs in installation, retrofitting and energy services, many of them in small firms that serve buildings, hotels, and industry. Designing programs that actively recruit and train women and young workers in these trades (e.g., through targeted scholarships, apprenticeships, and certification) can expand the pool of qualified technicians while closing gender gaps in STEM and technical occupations.

Breakthrough 3 — Cleaner production in anchor industries (cement)

Industrial decarbonization lowers energy intensity and shields exports from emerging carbon standards. In the cement industry, options already assessed with official and partner support include fuel-switching (e.g., from heavy fuel oil/petcoke toward biomass and, prospectively, green hydrogen where viable), clinker substitution (additions like pozzolans), and waste heat recovery. Sector documents and road-mapping efforts point to MRV protocols and circular-economy linkages that reduce process and energy emissions while improving resource efficiency. Pairing these measures with stable power and competitive tariffs can raise productivity, open greener finance opportunities, and tie industrial policy to NDC delivery.

For anchor industries such as cement, cleaner production is also an opportunity to upgrade jobs, with higher technical content, better occupational safety and stronger social dialogue around working conditions. Roadmaps that pair decarbonization investments with reskilling, upskilling and social protection measures can support a just transition for workers currently dependent on carbon-intensive processes.

Breakthrough 4 — Make electricity financially sustainable (subsidy & power loss reform)

No energy transition is affordable without fixing the fiscal plumbing. Consolidation anchored in a fiscal rule, durable revenue measures, and electricity-sector reforms to reduce subsidies could lead to important development gains (IMF, 2024). On the operational side, that means loss-reduction compacts with distributors, better targeting of social tariffs, and time-of-use signals once AMI is in place. On the financing side, the country's recent progress in sustainable finance (e.g., green bond framework/issuance) can help fund grids, storage, and resilient infrastructure, provided project pipelines are NDC-aligned and transparently monitored. The payoff is a virtuous cycle: Fewer leakages, lower financing costs, and room to cut end-user prices over time as system costs fall.

Subsidy and tariff reforms should be sequenced with active labor policies, including support for workers and communities affected by structural changes in the power system, so that fiscal consolidation and efficiency gains translate into more and better jobs, rather than job losses or informality. This includes using part of the savings to finance training, entrepreneurship and local value-chain development in clean energy and efficiency, with a focus on women-led and youth-led businesses.

Delivery mechanisms: Who does what

- Energy & Mines / CNE / CUED: Run storage-bundled tenders; accelerate interconnections; publish grid upgrades; track loss-reduction and AMI roll-out.
- Finance & Economy: Embed energy reforms in fiscal plans; align budget tagging to NDC commitments and SDG targets; expand green financing windows.
- Environment / Climate Council: Ensure NDC MRV captures energy, industry, and subsidy-reform outcomes.
- Industry & Tourism: Adopt efficiency codes and cleaner-production standards; link firm retrofits to concessional/guarantee instruments.

What success looks like (by 2028–2036)

By mid-decade, competitively procured renewables with storage start flattening wholesale prices and improving reliability; measured loss reductions and AMI shrink the subsidy bill; industrial efficiency and cleaner fuels cut energy intensity in cement and other anchors; and green finance scales grid and resilience investments. By 2036, doubling electricity supply on a modernized system turns energy into a tailwind for growth, with lower import bills, smaller fiscal risks, and higher private investment—the definition of a development breakthrough powered by clean, affordable, and reliable electricity.

4. Finance and implementation pathways

Financing the energy transformation requires a sequenced, blended-capital strategy anchored in fiscal credibility, sovereign signaling to markets, and instruments that crowd in private investment for clean generation, flexibility (storage), resilient networks, and efficiency. Passing and operationalize a fiscal responsibility framework, raising durable revenues by rationalizing exemptions, improving spending efficiency, and reducing untargeted electricity-sector subsidies is necessary to shift towards growth-enhancing capex (including resilient energy grids). These measures lower sovereign risk and borrowing costs, improving the economics of long-term energy investments.

Public finance anchors should prioritize: (i) a multi-year energy capex envelope for transmission, distribution (AMI, loss-reduction), and system operations; (ii) targeted, time-bound results-based subsidies to accelerate demand-side efficiency (MEPS for ACs/motors, hotel retrofits) rather than open-ended tariff subsidies; and (iii) budgetary allocations for project preparation (feasibility, interconnection, environmental and social safeguards) that de-risk private bids in storage-bundled renewable tenders. This fiscal re-composition creates space to shift from recurrent subsidies to investment that lowers the structural cost of electricity.

On the market-facing side, the country should continue to use thematic bonds and pipelines to signal scale and standards. The 2024 sovereign green bond—USD 750 million, 12-year—set a pricing and disclosure benchmark for NDC-aligned investments in clean energy, transport, and waste and demonstrated investor appetite (oversubscribed; cost below conventional issuance). The Green, Social and Sustainability (GSS) Bond Framework provide a taxonomy and reporting architecture that, utilities, and corporates can mirror for destination-level green bonds, sustainability-linked bonds (SLBs), and project bonds (e.g., storage-paired solar). Establishing a regular sovereign GSS issuance calendar and an annual allocation/impact report will consolidate this market and anchor corporate issuance.

To mobilize private capital at scale, it is recommended to use blended-finance mechanisms that match the risk profile of each asset class. For utility-scale renewables and BESS, structured transparent auctions with bankable PPAs, standardized curtailment clauses, and viability-gap funding or partial credit guarantees for early projects are needed. For distribution-level investments (AMI, feeders, loss-reduction), the requirement is to deploy results-based financing linked to verified technical/commercial loss cuts. For industrial efficiency and cleaner production (i.e., cement), the government should develop credit-enhanced on-lending windows via commercial banks, tied to measurable energy-intensity reductions and MRV. These tools reduce the weighted cost of capital and align incentives with verified performance.

Institutional coordination is the spine of delivery. A Steering Committee led by the Presidency or Finance Ministry —bringing together Energy & Mines/CNE, Environment, Economy/Planning, utilities/regulators, and the capital-markets supervisor— should approve an integrated climate and development investment list with estimated cost, sequencing, and financing modality per project (budget, PPP, GSS, blended). Here, UNDP platforms can be leveraged explicitly. First, Integrated National Financing Frameworks (INFFs) provide the country-led mechanism to connect the energy pipeline with a financing strategy that maps public, private, and external sources; INFFs align budget tagging and set reporting rules for climate and SDG outcomes. Second, UNDP's Climate Promise —already supporting the updated NDC— can help structure the project pipeline and strengthen MRV so that green-bond and blended-finance reporting is decision-grade for investors and ministries.

Implementation should include three cross-cutting financial enablers: First, tariff and subsidy reform with better targeting (e.g., social registry) to protect the vulnerable while gradually phasing down generalized subsidies. Second, a national SDG/Climate budget-tagging system possibly embedded in the INFF to track allocations and impacts across ministries and issuers, improving transparency and access to concessional climate windows. And third, a project-preparation facility that standardizes feasibility, environmental studies, and contracts for storage-bundled tenders and grid projects, accelerating time-to-market. Together, these measures lower financing costs, expand investable deal flow, and translate commitments into bankable projects, enabling the Dominican Republic to deliver cheaper, cleaner, and more reliable power in line with its NDC and development priorities.

Finally, implementation arrangements should treat decent jobs and gender equality as core results of the energy transition, not side benefits. The Steering Committee can adopt indicators on job creation, formalization, occupational safety and women's participation in new energy and efficiency jobs that require project sponsors to report on these alongside emissions and financial metrics. Aligning auctions, blended-finance instruments and green-bond pipelines with SDG 8 and the ILO Decent Work Agenda would help ensure that every dollar invested in clean and resilient energy also expands opportunities for quality employment, especially for women, youth, and vulnerable communities.

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Press/sector (New Energy Events)

Official/partner docs (industry) (CNCC)

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