Climate Transparency

Responses to the energy crisis of G20 countries

The role of electrification in the transition away from fossil fuels

COUNTRY PROFILES

北京工業大學 BEIJING UNIVERSITY OF TECHNOLOGY

CBC CENTRO BRASIL NO CLIMA

CLIMATE ANALYTICS

ECCO THE ITALIAN CLIMATE CHANGE THINK TANK

FARN FUNDACIÓN AMBIENTE Y RECURSOS NATURALES

GERMANWATCH

icm INICIATIVA CLIMÁTICA DE MÉXICO

IESR

IGES Institute for Global Environmental Strategies

IISD International Institute for Sustainable Development

IPC ISTANBUL POLICY CENTER SABANCI UNIVERSITY STIFTUNG MERCATOR INITIATIVE

SHURA Enerji Dönüşümü Merkezi

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INTRODUCTION

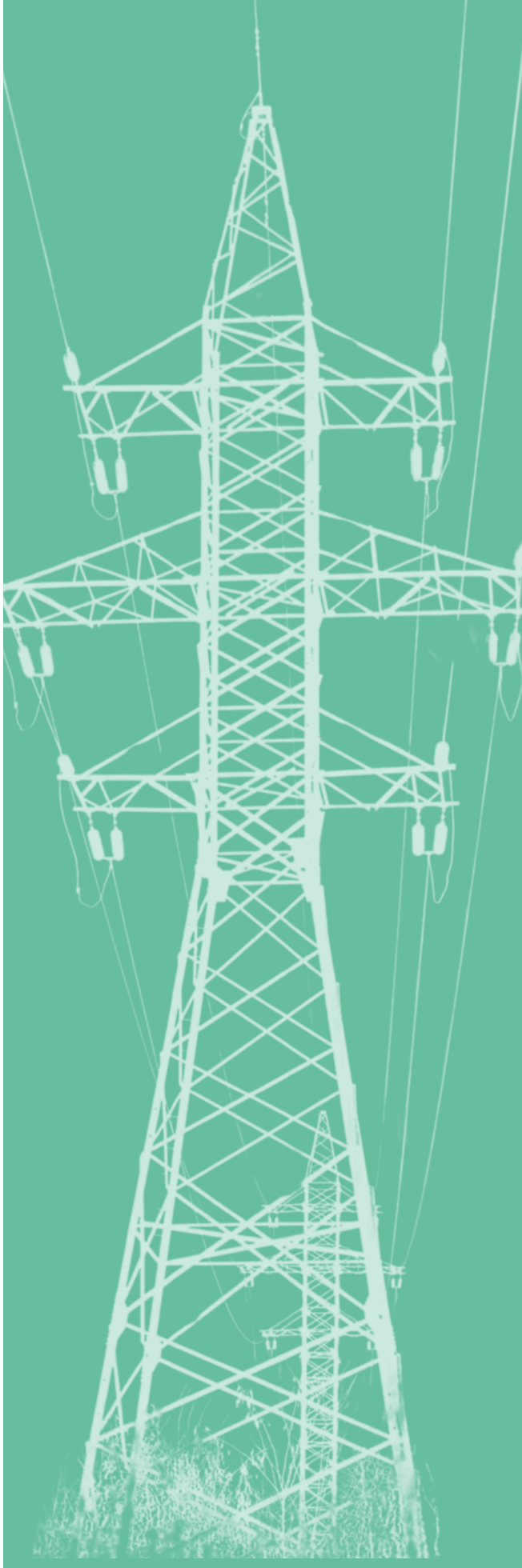
This paper has two complementary objectives. **First, it seeks to complement Climate Transparency's existing analytical work** with a policy-oriented contribution to the evolving international discussion on implementing the energy outcomes of the first Global Stocktake. **Second, it aims to contribute to ongoing policy discussions** by examining how clean electrification is emerging as a strategic response to the evolving energy-security landscape; exploring how experiences from selected G20 countries can inform the implementation of NDC 3.0 and the GST energy outcomes; and providing a comparative overview of national policy responses related to the transition away from fossil fuels.

The analysis combines a review of relevant energy and climate data, policy literature, and official sources with country assessments prepared by Climate Transparency partners and collaborating organisations. It focuses on G20 selected countries, recognising that country coverage depended on partners' participation and availability.

The country profiles presented here form part of a broader analytical effort, with a more comprehensive version of the report forthcoming. This expanded version will include further background analysis, an assessment of global and regional energy trends, a synthesis of cross-cutting lessons, and key messages to inform policy discussions.

These profiles follow a standard template and common set of **guiding questions** to support comparability across G20 countries, addressing: **(1) How have the successive energy crises since COVID-19 affected the country?; (2) How has the government responded over time?; (3) To what extent do these responses support electrification and broader energy transition objectives?; and (4) How do these responses relate to the TAFF?**

Recognising the diverse national circumstances across the G20, this common framework provides a basis for identifying shared trends, emerging patterns, and key differences among the countries examined, which can inform the broader comparative analysis in the subsequent report.



ARGENTINA



Obelisk of Buenos Aires, Argentina

IMPACT OF SUCCESSIVE ENERGY CRISES

Since COVID-19, successive international shocks have interacted with longstanding domestic economic and energy vulnerabilities. **Around 86% of Argentina's primary energy mix comes from fossil fuels,** particularly gas and oil, leaving the country exposed to global energy-price volatility and supply disruptions (Secretaría de Energía, 2025).

These shocks have intersected with high inflation, poverty and public debt, influencing energy policy through changing approaches to tariffs, subsidies, investment, regulation and alignment with the climate and environmental agenda (OECD, 2025).

Despite substantial differences between the Fernández and Milei administrations, an important continuity has been the persistence of an extractive and export-oriented energy development model, with Vaca Muerta expansion remaining central across both administrations (French, 2025; Climate Action Tracker, 2026).

This trajectory poses challenges to Argentina's climate commitments and entails socio-environmental and human-rights impacts, including methane emissions, pressures on water resources, induced seismicity from fracking, **impacts on local communities and territories, and concerns over public participation and access to information** (Acacio et al., 2025).

GOVERNMENT RESPONSE

Government responses have differed significantly between administrations. Under Fernández', energy tariffs were frozen in December 2019 and remained frozen during COVID-19, followed by an income-based tariff segmentation scheme in 2022 aimed at differentiating State support according to households' ability to pay (OECD, 2023).

The Fernández government also continued supporting domestic fossil-gas production through the Gas.Ar Plan and infrastructure to transport gas from Vaca Muerta (French, 2025)

Since December 2023, **the Milei administration has pursued market liberalisation,** significant tariff increases and progressive reduction of consumer subsidies. Between 2023 and 2024, demand subsidies fell 44.2% in real terms, versus 7.8% for supply; in 2023, subsidies to fossil-fuel producers were 53% higher than those to consumers (French, 2025).

The 2024 Bases Law changed the hydrocarbons regulatory framework and created RIGI, providing long-term tax, customs, foreign-exchange and regulatory benefits for large-scale investments, including oil, gas and mining (French, 2025)

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Recent energy policies have provided limited support for a broader energy transition and, in several respects, moved in the opposite direction to the first Global Stocktake outcomes. Fossil-fuel production and infrastructure continued expanding while budget execution for renewable-energy and efficiency programmes fell 64% in real terms in 2025 compared with 2023 (Cena Trebucq, 2026).

PERMER, which provided renewable-energy solutions to rural and isolated communities, was completely defunded in 2024 and received no funding in 2025, although it reappeared in the 2026 budget. Other renewable-energy and distributed-generation instruments were also reduced or underfunded (Cena Trebucq, 2026).

This created a significant imbalance in public resources: in 2025, subsidies to hydrocarbon companies were 41.5 times higher than spending on programmes promoting renewable energy and energy efficiency (Cena Trebucq, 2026).

Electricity access is virtually universal, but inequalities in affordability, quality and continuity persist. The challenge is therefore not simply to electrify more, but to rethink energy demand, improve efficiency and ensure essential energy needs are met equitably (OECD, 2025; World Bank, n.d.)

RELATION TO TAFF

Argentina's current policy trajectory shows **significant tensions with TAFF.** The country lacks a clear pathway for progressively reducing fossil-fuel production and consumption, while existing planning instruments coexist with, and sometimes promote, fossil-gas expansion. Neither the PNAyMCC nor the National Energy Transition Plan to 2030 establishes such a trajectory (Climate Action Tracker, 2026).

Recent subsidy reforms raise distributional questions: support to consumers has been reduced more sharply while public support for fossil-fuel production remains significant, raising concerns over who bears the costs of energy-policy reforms and how public resources are allocated (French, 2025).

A just transition requires universal access to affordable, reliable and high-quality energy services, while addressing territorial inequalities and ensuring an equitable distribution of the costs and benefits of the transition (Acacio et al., 2025)

It also requires preventing socio-environmental impacts, ensuring access to information and meaningful public participation, protecting human rights, and anticipating the employment and productive implications of moving away from a fossil-fuel-dependent economy (Acacio et al., 2025).



Photograph by: Portal Solar, 2023

AUSTRALIA



Sydney Opera House, Australia

IMPACT OF SUCCESSIVE ENERGY CRISES

Australia is the world's second-largest coal exporter and third-largest LNG exporter, and exports almost all the crude oil it produces. Despite this, it remains exposed to global energy shocks because gas prices are tied to international markets and it imports most of its refined fuel needs (Geoscience Australia, 2025).

The COVID-driven energy shock occurred when the government had, according to Climate Action Tracker,

> *"abandoned any serious effort to reduce emissions" and was followed by a "gas-fired recovery" (CAT, 2020; Verrender, 2021).*

Russia's invasion of Ukraine drove sharp price increases which, alongside coal-plant outages, led to the suspension of the spot electricity market in Australia's largest grid for nine days in June 2022. The crisis also contributed to greater public awareness of energy insecurity associated with fossil-fuel reliance (IEA, 2023; Quicke and Venketasubramanian, 2022).

The US–Israel war on Iran renewed fuel-security concerns as oil-product reserves ran low (Commins, 2026).

GOVERNMENT RESPONSE

The COVID-driven energy-market shock was answered through a "gas-fired recovery", which sought to support economic recovery through increased gas supply and infrastructure (Verrender, 2021).

During the 2022 crisis, federal and state governments capped coal prices for power generation and imposed a wholesale price cap on fossil gas sold on the East Coast market, which was subsequently incorporated into policy (IEA, 2023).

The crisis had limited impact on longer-term gas policy: the 2024 Future Gas Strategy maintained that **new sources of fossil-gas supply would be needed** (DISR, 2024).

Following the 2026 fuel-security shock, the government struck supply arrangements with Asian trading partners, committed more than

AUD 10 billion

to fuel security and emergency stockpiles, and temporarily cut fuel excise (Norman, 2026; Borys, 2026; Hewson, 2026).

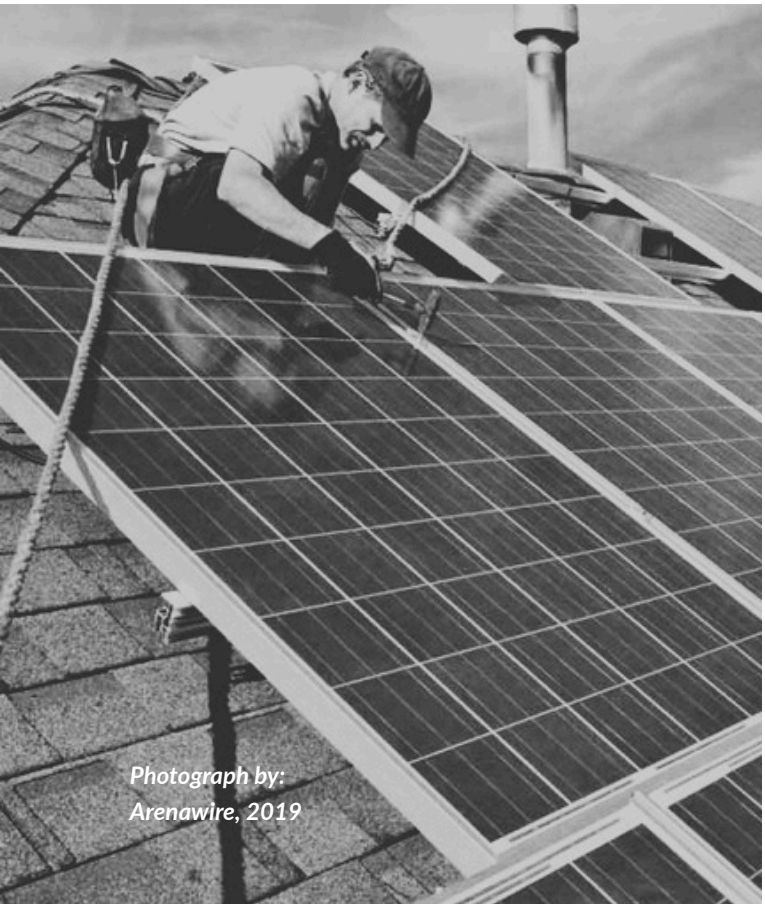
ELECTRIFICATION AND BROADER ENERGY TRANSITION

Fossil-fuel price volatility has **encouraged Australians to switch to electric vehicles**, with EV sales beginning to catch up with those in peer countries, showing a growing role for transport electrification in the response to energy-price volatility (IEA, 2026).

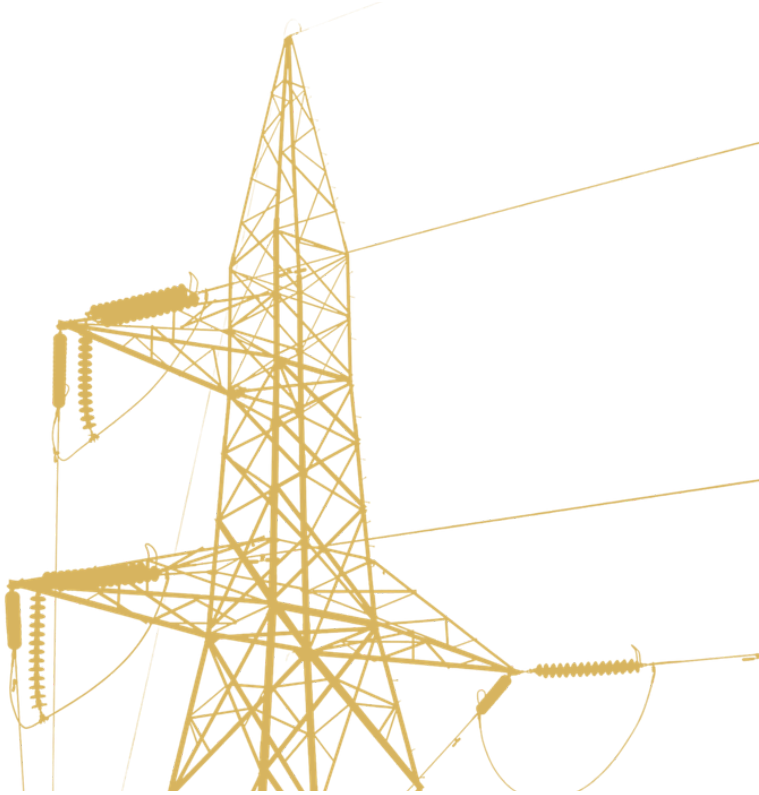
Government responses to successive crises have nevertheless **focused primarily on immediate relief rather than longer-term structural planning.**

At the same time, these crises have contributed to greater public awareness of the benefits that energy independence backed by renewable energy and electrification can deliver, particularly in reducing exposure to fossil-fuel price and supply shocks (Climate Council, 2026b).

This growing public awareness is occurring **while the government continues to support the fossil-fuel industry**, creating greater domestic pressure for a stronger shift towards renewable energy and electrification as part of Australia's broader energy transition.



Photograph by: Arenawire, 2019



RELATION TO TAFF

Australia's recent energy crises have reinforced the energy-security case for **reducing fossil-fuel dependence**: reliance on fossil fuels leaves households and businesses exposed to shortages and price spikes, while renewable energy can reduce exposure to volatile global fossil-fuel markets (Climate Council, 2026a).

The National Energy Performance Strategy identifies electrification and fuel switching as key elements of improved energy performance, linking them to lower emissions, reduced energy bills, improved energy reliability and security, job creation and equitable access to energy-performance benefits (DCCEEW, 2024).

Policy design also emphasises inclusive implementation: the Strategy aims to empower consumers, engage industry, communities and First Nations peoples, and coordinate with state and territory governments to ensure the energy transformation benefits everyone (DCCEEW, 2024).

.Just-transition considerations are more explicit in the 2025 Net Zero Plan, which aims for a fair and orderly transition that delivers affordable and reliable energy, creates new jobs, ensures benefits flow equitably to communities and provides support for transitioning regions (DCCEEW, 2025).

BRAZIL



Christ the Redeemer, Brazil

IMPACT OF SUCCESSIVE ENERGY CRISES

Brazil has been exposed to successive energy shocks since the COVID-19 pandemic, although differently from many G20 economies,

> ***its electricity system is already highly renewable, with renewables accounting for 86.8% of electricity supply in 2025,***

making the country less exposed to imported fossil fuels for power generation (MME, 2021a; MME & EPE, 2026).

The 2020–2021 hydrological crisis revealed a different vulnerability: low reservoir levels increased reliance on more expensive thermal generation and led to an exceptional "water scarcity" tariff surcharge from September 2021 and April 2022 (MME, 2021a; MME & EPE, 2026).

Transport remains much more dependent on oil products and therefore more exposed to international price volatility (MME, 2021a; MME & EPE, 2026).

Russia's invasion of Ukraine in 2022 pushed global oil prices upwards, while the 2026 conflict in the Middle East generated a new shock to domestic fuel prices and inflation (MME, 2021a; MME & EPE, 2026).

GOVERNMENT RESPONSE

Successive governments have responded primarily by cushioning the short-term impact of higher fossil-fuel prices, although through different instruments (Presidência da República, 2022).

In 2022, under President Jair Bolsonaro, federal taxes (PIS/Cofins and CIDE) on gasoline and ethanol were reduced to zero until year-end, while changes to ICMS taxation reduced state taxes on fuels and energy (Presidência da República, 2022).

In 2026, the government of President Lula da Silva introduced an **economic subsidy for fuel producers and importers,** equivalent to the federal taxes deducted from gasoline and diesel prices, **in response to the Middle East shock,** both interventions reduced the immediate inflationary pass-through of higher international oil prices (MME, 2021a; MME & EPE, 2026; Presidência da República, 2022).

Other measures have moved towards reducing fossil-fuel use. The mandatory ethanol share in gasoline increased from 27% to 30% in August 2025, followed by a temporary E32 blend for 180 days from August 2026. The measure strengthens domestic biofuels and reduces fossil-gasoline demand, although it generated technical debate over vehicle compatibility (MME, 2021b, 2026).

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Electrification has accelerated mainly through transport and industrial policy rather than as a direct response to recent energy crises (ABVE, 2026; EPE, 2024; MDIC, 2020).

The federal Mover programme and "Green IPI" increasingly link tax incentives to vehicle efficiency, emissions and domestic production, while import tariffs on electric and hybrid vehicles have been progressively restored since 2024 to encourage local manufacturing (ABVE, 2026; EPE, 2024; MDIC, 2020).

Despite higher tariffs the market has expanded rapidly: 56,074 electrified light vehicles were sold in July 2026, almost three times the July 2025 level and a record 21% of light-vehicle sales, however, charging infrastructure remains an important constraint (ABVE, 2026; EPE, 2024; MDIC, 2020).

Chinese manufacturers have been central to this expansion. BYD reached a 9.1% market share in July and, together with companies such as GWM, is increasingly shifting from imports to local production, contributing to the development of a more local low-emission vehicle industry (ABVE, 2026; EPE, 2024; MDIC, 2020).



Photograph by: ITDP Brazil, 2026

RELATION TO TAFF

Fuel-price support has an important social rationale: higher diesel prices quickly affect freight and essential goods, disproportionately hurting poorer households. Temporary and targeted support can protect affordability, but prolonged or generalised measures risk reinforcing oil dependence and weakening incentives for efficiency, public transport and fuel switching (Cavalcanti et al, 2022; Sousa, 2026).

The transformation of the vehicle industry creates opportunities for investment, employment and new supply chains, while increasing pressures on incumbent manufacturers and making industrial and labour adjustment an important just-transition issue (ABVE, 2026; EPE, 2024; MDIC, 2020).

Oil policy complicates alignment with TAFF: Petrobras identified hydrocarbons in the Foz do Amazonas basin in August 2026, although recoverable volumes and commercial viability remain uncertain. Supporters cite energy security, revenues and jobs, while critics highlight environmental risks and potential inconsistency with transitioning away from fossil fuels (Agência Petrobras, 2025; TCU, 2025).

Brazil's response is therefore a hybrid rather than linear transition strategy. The 2026 Plano Clima, developed with 25 federal ministries, subnational governments, civil society and the private sector, emphasises NDC implementation and a just transition, with implementation, financing and policy coherence remaining key challenges.



Photograph by: ITDP Brazil, 2026

CANADA


CN Tower, Canada

IMPACT OF SUCCESSIVE ENERGY CRISES

The global energy crises triggered by Russia's invasion of Ukraine in 2022 and the US-Iran conflict in 2026 significantly increased fossil-fuel costs in Canada. A composite index of consumer fossil-fuel prices rose by 81% (January 2021-June 2022), while natural gas prices increased by over 50% (Stanford & Weir, 2025).

Because Canadian oil prices are determined by global markets, **domestic oil production does not significantly protect consumers from higher international prices;** similar price increases are expected following the 2026 conflict in Iran (Stanford & Weir, 2025; Stanford, 2026).

Higher energy prices increased business and consumer costs, contributing an estimated 43% of inflation (January 2021-June 2022). Subsequent interest-rate increases further raised household costs. In total, the 2022 energy crisis is estimated to have cost households almost CAD 200 billion between 2022 and 2024 (Stanford & Weir, 2025).

Higher oil and gas prices also increased government revenues. Alberta estimates that each CAD 1 increase in oil prices raises provincial revenue by around CAD 680 million over a full fiscal year (Department of Finance Canada, 2026a; Sidhu, 2026).

GOVERNMENT RESPONSE

Canadian governments have generally responded by mitigating consumer costs while also seeking to leverage higher global prices to expand oil and gas exports (Department of Finance Canada, 2026b; Lam & Gass, 2026).

In 2026, governments presented Canada as a reliable energy partner and supported greater fossil-fuel exports through measures including LNG subsidies and financing, proposed public ownership of a new West Coast oil pipeline and weakening of the industrial carbon price; however, these measures reflect a range of economic and political pressures, so cannot be attributed solely to the energy crisis (Bilton & Mayer, 2026; Department of Finance Canada, 2026a; Canadian Climate Institute, 2026; Thurton & Wilson, 2026).

To reduce consumer energy costs the federal government suspended the fuel excise tax on gasoline, diesel and aviation fuels, with an estimated fiscal cost of CAD 5.3 billion and introduced the Canada Groceries and Essential Benefit to address broader inflationary pressures (Department of Finance Canada, 2026b; Prime Minister of Canada, 2026).

Additional subsidies for green-home retrofits and zero-emission vehicles were also introduced to reduce household costs, with retrofit support targeting low- and middle-income households and EV incentives subject to vehicle price caps (Natural Resources Canada, 2026a; Transport Canada, 2026).

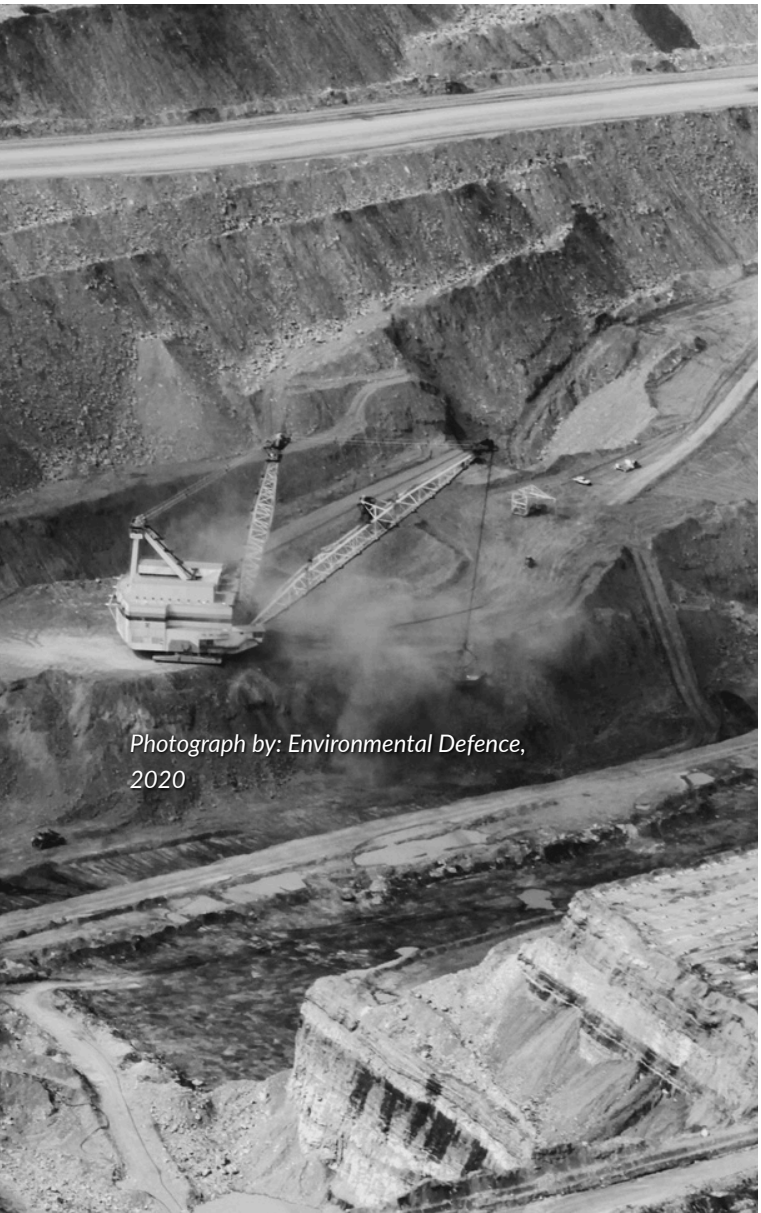
ELECTRIFICATION AND BROADER ENERGY TRANSITION

Overall, policy responses to the global energy crises have slowed Canada's energy transition, with potential implications beyond Canada because of its role as a major fossil-fuel exporter (Canadian Climate Institute, 2026; Haig, 2025).

Increased financial support for fossil-fuel production, combined with greater regulatory leniency, is expected to **increase emissions associated with oil and gas production** (Haig, 2025; Sanderson, 2026).

The federal fuel excise-tax suspension also continues to subsidise domestic fossil-fuel consumption rather than facilitating a transition away from fossil fuels (Baxter, 2026).

Canada will not meet its 2035 NDC target of 45–50% reduction in emissions below 2005 levels by 2035 with its current policies (Linden-Fraser et al. 2026), and this has been recognized by the government (CBC, 2025). Even so, Canada remains committed to solutions such as expanding grid infrastructure and doubling electricity supply by 2050 (Natural Resources Canada, 2026).



Photograph by: Environmental Defence, 2020

RELATION TO TAFF

Canada's crisis response presents a tension with TAFF: measures supporting expanded oil and gas production and exports reinforce fossil-fuel supply rather than accelerating a transition away from fossil fuels (Lam & Gass, 2026).

Affordability has been a central concern. Suspending the federal fuel excise tax reduced immediate gasoline and diesel costs for consumers, but at an estimated CAD 5.3 billion also subsidises fossil-fuel consumption (Department of Finance Canada, 2026b; Baxter, 2026).

Canada's 2026–2030 Sustainable Jobs Action Plan places workers at the centre of the economic transition, combining skills and training with support for workers and businesses affected by structural change, while promoting high-quality jobs through measures including community-benefit agreements, prevailing-wage conditions and unionized labour provisions (Natural Resources Canada, 2026b).

The Plan supports a just transition by investing in skilled-trades training and employment opportunities that prepare workers for a changing economy, alongside a commitment to establish a Youth Climate Corps. These initiatives recognize the importance of ensuring young people entering the workforce have access to secure, meaningful employment and relevant skills that will remain valuable as Canada's energy system and labour market evolve (Natural Resources Canada, 2026b).

CHINA

IMPACT OF SUCCESSIVE ENERGY CRISES

China's energy endowment is "**rich in coal, poor in oil and short of gas".** In 2025 external dependence was 72.7% for oil and ~40% for natural gas (China Energy News, 2026)

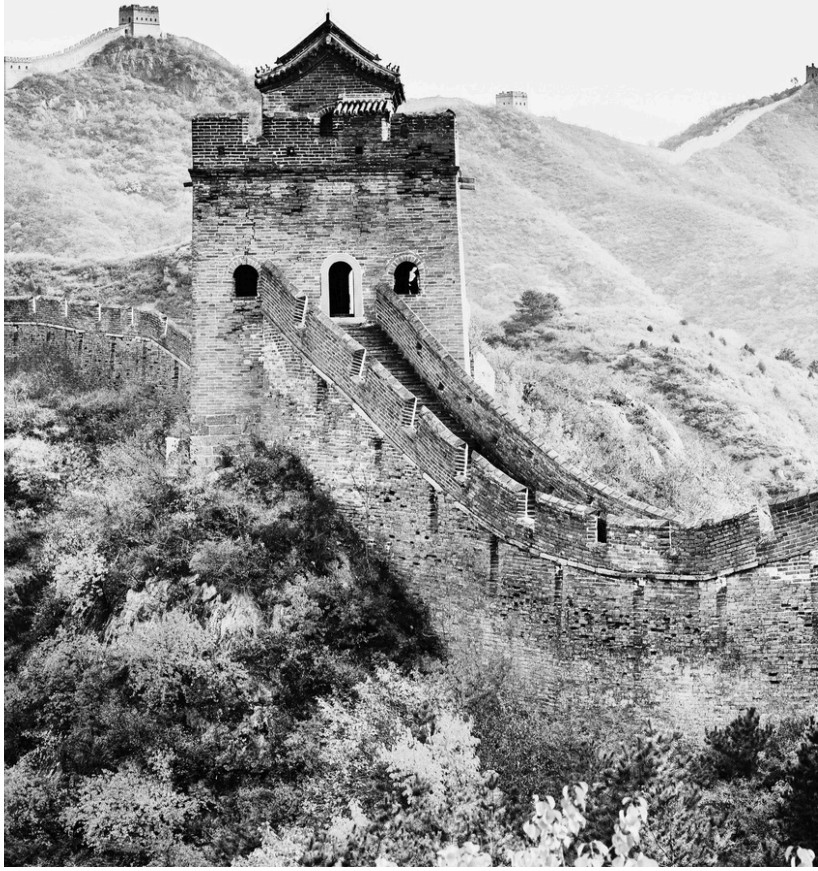
Successive shocks, from the pandemic to the Russia–Ukraine and the Middle East conflicts, have driven high volatility in international energy prices, increasing import costs and inflationary pressures. Domestic refined-oil prices rose substantially in 2021, 2022 and 2026 amid renewed Middle East tensions (China Energy News, 2026; NDRC, 2026)

Higher oil prices have affected industrial costs, in August 2026 prices rose 10.5% year-on-year in oil and gas extraction, 11.1% in oil, coal and other fuel processing, and 9.1% in chemical manufacturing; some mid- and downstream firms may also faced squeezed margins because of limited ability to pass on costs (NBS, 2026b)

In 2021 coal shortages and surging fuel prices triggered power rationing in many regions, a**ffecting industrial production and daily life.**

The energy crisis exposed the risks associated with dependence on oil and gas and concentrated import sources (IMF, 2023)

Great Wall, China



GOVERNMENT RESPONSE

China's energy policy has followed a **dual-track strategy combining temporary crisis measures with longer-term structural reforms.** In 2020 electricity costs were reduced by 5% for most industrial and commercial users, off-peak gas pricing was brought forward, and rapid-response mechanisms secured energy for essential services (Xuequan, 2020).

During the 2021 power crunch, authorities mandated long-term coal supply contracts, mobilised state-owned enterprises to prioritise output and imports, and used cross-regional power transmission to address shortages (NDRC, 2021).

From 2022 energy security was re-emphasised, with coal treated as the system's "ballast stone". The "1+N" carbon-peaking policy was reaffirmed alongside measures to **increase coal production capacity by 300 million tonnes annually**, provide financial support to coal-power enterprises, stabilise coal prices and avoid further power rationing (Xinhua, 2022).

Long-term transition measures continued alongside the 2060 carbon-neutrality goal through large wind and solar bases, pumped storage and green financial tools. The national carbon market expanded to steel, cement and aluminium in 2025, now covers around **60% of emissions** and is intended to broaden further (MEE, 2025).

ELECTRIFICATION AND BROADER ENERGY TRANSITION

China's policy strongly supports long-term electrification. The "15th Five-Year Plan" explicitly aims for new clean energy to cover all new electricity demand. **By 2025, China had already exceeded its 2030 wind/solar capacity targets,** with non-fossil fuel power accounting for 61.7% of installed capacity (NDRC, 2025; Economic Daily, 2026).

Grid flexibility is being strengthened through major investment in energy storage, pumped hydro and ultra-high-voltage transmission, supporting greater integration of variable renewable electricity (IEA, 2025; NDRC & NEA, 2026).

Official data shows the "14th Five-Year Plan" energy intensity target was exceeded, thanks to revised calculations that incentivize renewables. **Key industrial sectors are also undergoing mandated efficiency upgrades (NBS, 2026a).**

However, the transition remains dual-track: coal expansion has continued following the 2021 power shortages, partly to provide a supporting backup role for the grid. This creates a paradox in which **China is building the world's largest clean-energy system while continuing heavy investment in coal as an energy-security measure**, creating friction with the transition pathway outlined in the GST (Qin et al., 2026).



Photograph by: Dialogue Earth, 2025



RELATION TO TAFF

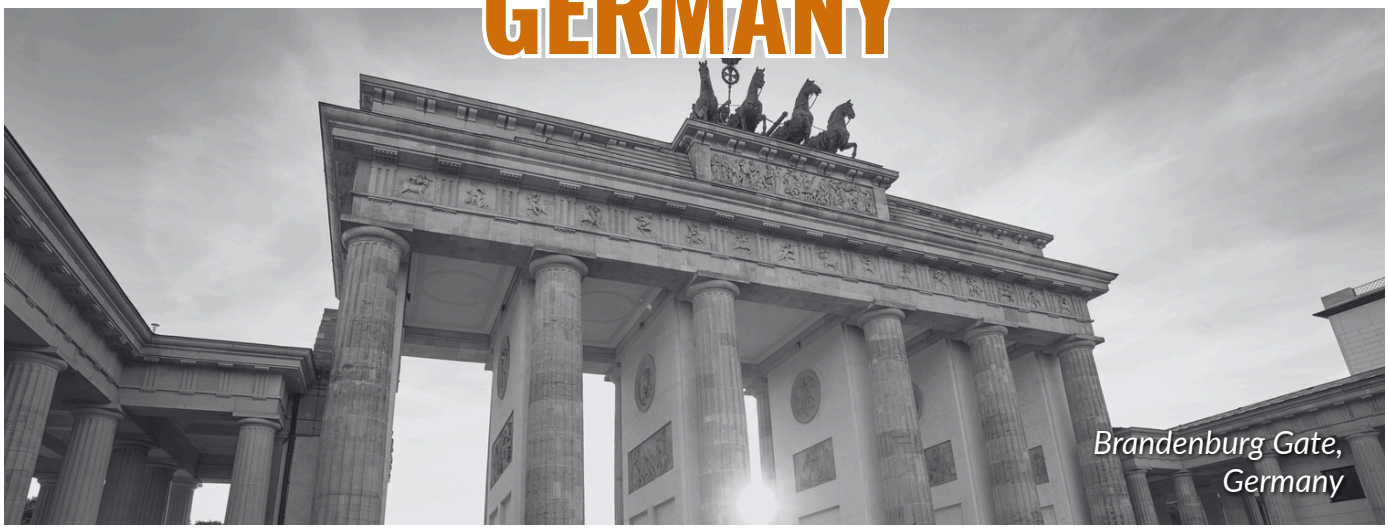
Despite soaring renewables, the coal build-out remains a structural barrier: in 2025 new coal proposals reached 161 GW, 78 GW was commissioned and a 291 GW pipeline remained. **Following the 2021 power shortages, local governments also treated coal as a "risk control" measure,** while tax revenues, jobs and state-owned-enterprise incentives reinforced the risk of fossil-fuel lock-in (Qin et al., 2026).

Policies also address worker impacts, during the 2016–2020 overcapacity cuts, the central government allocated RMB 100 billion for worker compensation and retraining, including early-retirement and job-placement programmes (IEA, 2023).

New just-transition proposals include RMB 30–50 billion for Shaanxi and RMB 5 billion for Guangdong to support economic diversification, balanced coal-retirement strategies could retain up to 1.78 million additional job-years for coal workers (ISC, n.d.; S. Li et al., 2026).

The transition is exacerbating inequality for vulnerable groups, rural households in ecologically fragile areas spend up to 12.6% of income on energy, double the national average of 6.5%, **while digital governance reforms have improved efficiency, they have also increased inequality for retirees and poorer families** (Xia et al., 2026; M. Li et al., 2026).

GERMANY


Brandenburg Gate, Germany

IMPACT OF SUCCESSIVE ENERGY CRISES

Since COVID-19, **Germany has faced successive energy shocks**, including pandemic-related demand fluctuations, the gas and electricity price crisis following Russia's invasion of Ukraine, and renewed oil and gas volatility during the 2026 Iran war (Climate Action Tracker, 2026).

These shocks exposed **Germany's fossil-fuel import dependence.** In 2025, imports covered 65.6% of energy supply, including over 96% of oil, around 89% of natural gas and all hard coal; in 2024, fossil-fuel imports reached around 2,000 TWh and EUR 80 billion (AGEB, 2025, 2026; Luderer et al, 2025).

High and volatile energy prices pressured households, businesses and industry and burdened public budgets. **Weaker industrial production and energy demand also contributed to emissions reductions,** indicating part of the decline was economically rather than structurally driven (Climate Action Tracker, 2026).

Germany avoided major supply disruptions, but supplier diversification and expanded import infrastructure did not eliminate exposure to global fossil-fuel prices and geopolitical risks. High renewable penetration helped dampen average and peak electricity prices during the 2022 crisis (Schwartz & Ligewie, 2026).

GOVERNMENT RESPONSE

The government combined temporary consumer and business support with emergency supply-security measures. During 2022–2023, **measures included one-off household payments, lower fuel taxes, heavily subsidised public transport and an economic defence shield** of up to EUR 200 billion centred on gas and electricity price brakes and business support (European Commission, 2023).

Gas-storage requirements, new LNG terminals, supplier diversification and the temporary return of coal-fired capacity were used to secure supply after Russian pipeline deliveries declined (European Commission, 2023).

In parallel, longer-term reforms adopted in 2022 amended renewable-energy legislation, establishing target for renewables to cover at least 80% of gross electricity consumption by 2030, alongside reforms to heating, grids, renewable permitting and industrial decarbonisation, contributing to faster renewable deployment (Weischer et al, 2023).

In 2026, **the government combined further electricity-cost subsidies,** including lower electricity taxation for manufacturing and subsidised network charges, **with renewed temporary crisis measures,** including a mineral-oil-tax reduction and strategic-oil-reserve releases. An industrial electricity price was introduced for 2026–2028 (Bundesregierung, 2026a, 2026b).



Photograph by: Patrick pleul, 2019



Photograph by: Power Magazine, 2014

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Supported by strong policies and reforms, renewable electricity reached 55.1% of gross electricity consumption in 2025 and around 57% in the first half of 2026, providing an increasingly strong foundation for electrification (UBA, 2026a).

Progress remains uneven across sectors: renewables accounted for only 23.8% of total final energy consumption in 2025, with substantially slower progress in heat and transport. Electrification can deliver significant efficiency gains through electric vehicles, heat pumps and industrial processes (UBA, 2026a).

Electricity still faces tax and levy burdens that can disadvantage it relative to fossil gas, while grid congestion, slow connections and limited digitalisation constrain EVs, heat pumps, storage and flexible industrial demand. Only 5.5% of metering locations had intelligent metering systems at end-2025 (European Commission, 2026).

THE POLICY FRAMEWORK

therefore supports renewable-power deployment but has not produced a comparable structural shift in buildings, transport and industry; current projections show substantial emissions gaps in transport and buildings, putting overall climate targets at risk (UBA, 2026b).

RELATION TO TAFF

Germany's policy response is only partly aligned with the current TAFF agenda. While Germany has strongly supported a global TAFF roadmap internationally, **it has not established a dedicated national implementation plan linking fossil-fuel phase-down with energy, climate and industrial policies** (Schäfer et al, 2026).

The current policy mix combines measures supporting renewable energy and electrification with policies that risk prolonging fossil-fuel dependence, and Germany has not yet developed an integrated cross-sectoral pathway combining TAFF with energy-security and transition objectives (Climate Action Tracker, 2026).

Affordability has been a central concern in short-term crisis relief, but these social measures remain insufficiently integrated with longer-term transition planning and structural reform (Climate Action Tracker, 2026).

Further alignment would require a stronger link between electrification and renewable energy, alongside just-transition safeguards across global value chains to avoid shifting disproportionate social and environmental costs onto critical-mineral-producing countries (Schäfer et al., 2026).

INDIA


Taj Mahal, India

GOVERNMENT RESPONSE

India's crisis response has combined continued reliance on coal in mid to long term with growing support for cleaner energy: the government increased domestic coal production and imports and brought imported-coal plants back into operation, developing LNG infrastructure, while more recently accelerating renewable deployment, mainly solar (Das, 2022a; Das, 2026).

During the Russia–Ukraine shock, the immediate response centred on increasing coal production and imports, helping address supply shortages without removing exposure to fossil-fuel volatility (Das, 2022a).

IMPACT OF SUCCESSIVE ENERGY CRISES

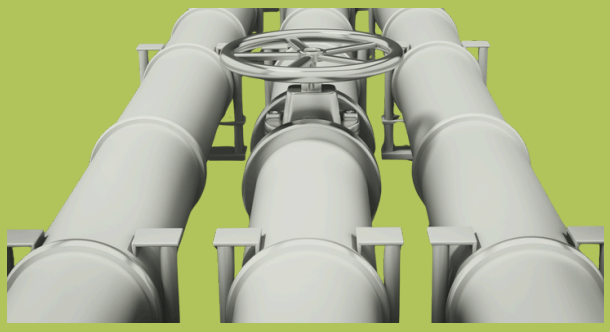
Heavy import dependence (~20% coal, 88% crude oil, 50% natural gas) exposes India to geopolitical and price shocks (Ministry of Coal, 2025; Das, 2026; Slav, 2026).

COVID-19 cut petroleum import costs but disrupted supply chains; when demand recovered, power-plant coal stocks fell from 28.7 Mt in June 2021 to 8.1 Mt in September. **Domestic coal acted as a "shock absorber",** though India still imports over 240 Mt annually (PIB Delhi, 2023; Das, 2026).

After Russia's 2022 invasion, oil, LNG and coal prices rose together. Thermal plants faced a ~30 Mt domestic-coal gap; power-sector imports doubled from 27.0 to 55.6 Mt, while fertiliser subsidies rose ~75% from 2019/20 (PIB Delhi, 2023; Das, 2022b).

Russian crude diversification reduced supplier concentration, not structural dependence. In July 2026 Russia supplied 50.8% of crude imports; trade deficits reached $30.43 bn in June and $31.98 bn in July, with an $18.31bn oil bill and the rupee at ~₹95.62/USD (Verma, 2026; Acharya and Kumar, 2026; Kalra, 2026).

By 2026, renewable deployment increased but battery storage and grid integration remains a challenge (Das, 2026; CAT, 2026).



Continued investment in coal, gas pipelines, LNG infrastructure and coal gasification nevertheless raises fossil-fuel lock-in concerns. **India has improved its ability to manage individual crises, but structural vulnerability persists** because domestic coal and supplier diversification do not eliminate fossil-fuel demand or exposure to international markets (Das, 2026).

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Renewable deployment has accelerated rapidly: India crossed the NDC threshold of **50% installed electricity** capacity from non-fossil sources in June 2025; by December the share reached 51.93%, and by June 2026 renewable capacity was about 288.6 GW, including 162.2 GW solar and 57.4 GW wind (NITI Aayog, n.d.).

PM Surya Ghar added about 9.57 GW of residential rooftop solar by March 2026, while PM E-DRIVE had supported about 2.21 million EV sales by January 2026, alongside funding for e-buses and charging infrastructure. **These policies can reduce future oil requirements if electricity increasingly comes from low-carbon sources** (PIB Delhi, 2026b).

Installed capacity nevertheless overstates power-sector decarbonisation: non-fossil sources generated only 29.2% of electricity in FY2025/26, while coal and lignite supplied around 69.5% during April–June 2026 (PIB Delhi, 2026a).

End-use electrification is progressing slowly (Climate Analytics, n.d.; CAT, 2026).

RELATION TO TAFF

Rooftop solar, renewable generation, batteries, electric mobility and green hydrogen can reduce demand for coal, oil and gas while improving energy security, particularly given oil import dependence close to 90%. PMUY LPG assistance, subsidised household solar and electric public transport also add affordability and equity dimensions (CAT, 2026).

Current policy does not constitute a fossil-fuel phase-out pathway. As of early 2026, around 38.7 GW of thermal capacity was under construction, another 22.9 GW had been awarded, and the government envisaged roughly 97 GW of additional coal/lignite capacity by 2034/35; domestic coal production also exceeded one billion tonnes annually (PIB Delhi, 2026c).

India is expanding renewable energy and electrification while also expanding fossil-fuel supply and infrastructure to meet fast-growing demand and safeguard affordability and reliability, making the approach **closer to diversification plus gradual transition than to a defined fossil-fuel exit trajectory** (CAT, 2026).

Photograph by: The Economic Times, 2025



INDONESIA

IMPACT OF SUCCESSIVE ENERGY CRISES

COVID-19 hit affordability rather than supply. Electricity bills were waived for 24.16 million 450 VA households and halved for 7.72 million subsidised 900 VA customers (PLN, 2020).

The 2021–2022 commodity shock exposed supply and fiscal risks: coal under-delivery threatened outages for over 10 million customers, prompting a temporary export ban, while energy subsidies and compensation reached Rp 551.2 trillion (MEMR, 2022; MoF, 2023a).

Indonesia is exposed to fossil-price shocks from two directions: it exported 65% of its 790 Mt thermal-coal output in 2025, but remains dependent on imported oil products and LPG; more than 80% of LPG is imported (MEMR, 2026; EIA, 2025; Bachtiar, 2026). Administered prices add a third: coal for power is capped at USD 70 a tonne against a June 2026 benchmark of USD 121.83, and after the 2023 rules swapped the DMO's export-netback fine for a compensation levy whose collection body was never established, PLN's 13 Mt deficit in mid-2026 was closed by withholding export cargoes rather than by enforcement (Kepmen ESDM 399.K/2023; Asia Times, 2026; Trend Asia, 2026).

The 2026 Strait of Hormuz crisis intensified import and budget exposure: roughly a quarter of crude imports and 30% of LPG come from the region, while each additional dollar in oil prices is estimated to add Rp 6.7 trillion to the fiscal burden (Reuters, 2026; IESR, 2026).

GOVERNMENT RESPONSE

The emergency response was quick and focused on short term measures. In 2022, the government included Rp 24.17 trillion in targeted support through cash transfers, wage subsidies and regional budgets. The World Bank found that cash transfers turned an expected poverty increase into a 0.4-point fall (MoF, 2022; World Bank, 2025). **To stabilize domestic supply, GOI banned coal exports temporarily (MEMR, 2022).**

In 2026, Pertalite and biosolar prices are to remain unchanged until 31 December, provided crude averages no more than USD 97, with the shock absorbed by the budget and purchase caps (Bloomberg Technoz, 2026).



Borobudur, Indonesia

Structural measures include Perpres 112/2022, which accelerated renewables and required a coal-retirement roadmap, PMK 103/2023 fiscal support, and the RUPTL 2025–2034, planning 42.6 GW of renewables, 10.3 GW of storage and transmission expansion (Government of Indonesia, 2022; MoF, 2023b; PLN, 2025).

Separately, the 100 GWp solar programme launched in August 2026 with 14 projects totalling 5.3 GWp, aimed at energy self-sufficiency and retiring around 13 GW of diesel (Presidential Secretariat, 2026; Enerdata, 2026).

ELECTRIFICATION AND BROADER ENERGY TRANSITION

The power sector presents a mixed picture: **renewables reached 16.3% of electricity in 2025,** while the government pushed its 19–23% renewable-energy target from 2025 to 2030, and frontloaded fossil-fuel power generation up until 2029, and planned to continue the trend through 2034. **Current policies fall short of tripling-renewables goals** or accelerating coal reduction, while most of RE buildout backloaded to after 2030 (Republic of Indonesia, 2025).

The 100 GWp solar programme is Indonesia's strongest electrification signal, potentially aligning energy security and decarbonisation by replacing imported diesel with domestic solar. However, it is not yet included in the RUPTL in force (PLN, 2025; Cabinet Secretariat, 2026).

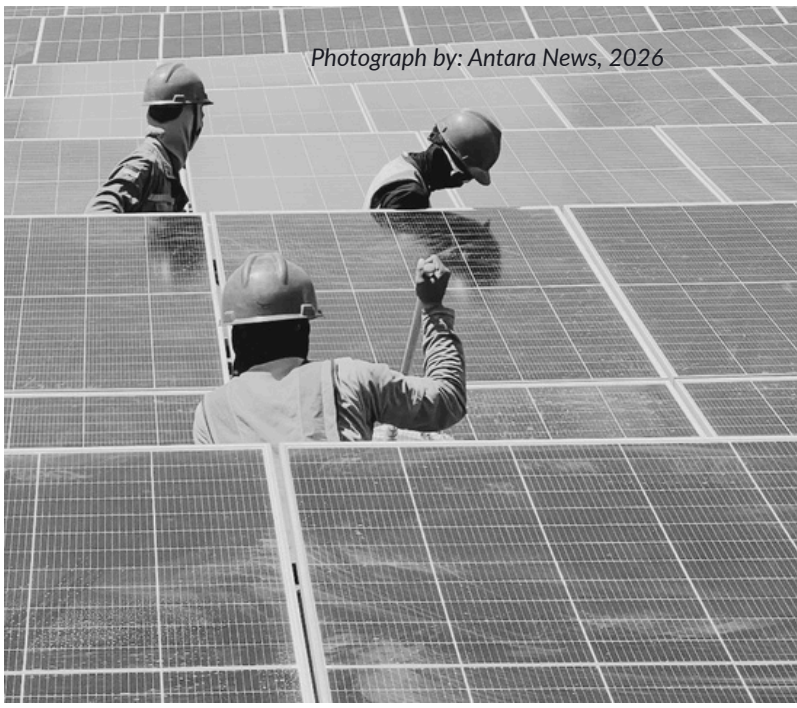
The demand side receives less attention. **More than 80% of LPG is imported,** while IEEFA estimates an induction programme for around 42 million means-tested households could repay itself in about 1.7 years (Bachtiar, 2026).

IESR estimates one million electric cars could save 13.2 million barrels of crude annually, while rooftop-solar net metering was scrapped in 2024 (IESR, 2026).

Data-centre demand sits outside RUPTL: PLN's president director put requests at 20 GW in October 2026 and said meeting them would need roughly 20 GW on top of the 69.5 GW already in the RUPTL (ANTARA, 2026).



Photograph by: Renewables Now, 2026



Photograph by: Antara News, 2026

RELATION TO TAFF

Indonesia's alignment with TAFF is only partial. The Second NDC makes no commitment to phase out coal exploration, production or generation, while the RUPTL carries 16.6 GW of new fossil capacity (CAT, 2026; Hasan et al., 2025).

> *The larger structural gap is captive coal for mineral processing, outside both the RUPTL and JETP. By July 2025, 19.3 GW was operating, with a prospective total above 31 GW (Hasan & Hummer, 2026).*

The JETP faces credibility challenges: about USD 1.1 billion of USD 21.4 billion pledged had been disbursed, only 2.6% was grant funding, and the Cirebon-1 early-retirement pilot was dropped in December 2025 (Climate Home News, 2026; The Jakarta Post, 2025).

On equity, Indonesia still works through price rather than targeting: subsidies remain regressive, the 2026 freeze postpones reform, and support for coal regions and workers remains thin. **The Second NDC commits to a just transition, but concrete workforce, diversification and social-protection programmes remain limited** (Bachtiar, 2026).

ITALY


Roman Colosseum, Italy

IMPACT OF SUCCESSIVE ENERGY CRISES

Since 2021 Italy has faced overlapping shocks from COVID-19, the 2022 European gas crisis and renewed Middle East tensions, exposing a structurally import-dependent energy system. **Net imports covered 75.2% of gross energy availability in 2025 and 95% of gas supply** (MASE, 2026).

The loss of Russian pipeline gas accelerated diversification towards LNG and alternative suppliers. LNG reached 34% of gas imports in 2025, **improving resilience but leaving Italy exposed to global gas prices and geopolitical risks**, including Qatari LNG dependence during the 2026 Hormuz crisis (Andreolli & Signorelli, 2026).

Price volatility increased household affordability pressures: Milan heating costs peaked at ~€1,400 in winter 2024–2025, 68% above pre-COVID levels; Banca d'Italia and ISTAT attribute the post-2022 inflation surge primarily to the gas-price shock (Andreolli & Leonardi, 2024; Neri et al., 2023).

Demand reduction helped avert disruptions: gas consumption fell 9.8% in 2022 and 20% between September 2022 and February 2023, supported by savings, efficiency, lower industrial demand and renewables. Despite rising 2.1% to 63.1 bcm in 2025, consumption remained 15% below 2019 levels and declined 1.1% year-on-year in the first eight months of 2026 (Andreolli et al., 2023; ECCO, 2026).

GOVERNMENT RESPONSE

After Russia's invasion of Ukraine, **Italy diversified gas supplies through new pipeline contracts and LNG capacity**, while turning into a European gas-hub, however, existing and committed infrastructure was assessed as sufficient under decarbonisation-aligned scenarios (Andreolli & Cassetti, 2024).

A September 2022 emergency demand-containment plan reduced heating temperatures and operating hours and increased non-gas generation, with expected savings of around 5.3 bcm of gas; it was explicitly framed as a transitional measure (MiTE, 2022).

From 2021 fiscal packages cut gas VAT and system charges, expanded social bonuses, tax credits and fuel-excise cuts, with support reaching ~€35 billion by the 2023 budget law before being progressively phased out (Sgaravatti et al., 2023).

After the 2026 Hormuz shock, repeated fuel-excise cuts and sectoral tax credits evolved into around €2.7 billion in fossil-fuel support. **The same crisis postponed the coal phase-out to 2038**, retaining remaining plants for potential energy-security use (Andreolli, 2026).

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Renewable electricity rose from 36% of demand in 2021 to 41.1% in 2025, still below the 47.4% NECP target. Renewable capacity reached 83.5 GW and storage 7.4 GW, although wind remains constrained by permitting bottlenecks (Berlen, 2026; Confservizi Emilia-Romagna, 2026).

Electrification of end-uses has moved more slowly. A targeted 2025–2026 incentive pushed BEV registrations to a record 10% in June 2026 but expired without replacement, while corporate fleets remain weak and the reformed Fondo Automotive dilutes targeted electrification support (Bienati, 2026).

Heat pumps place Italy among Europe's largest markets, but weakening incentives slowed growth. **Electrification remained around 20% through 2025 and renewables just below 26% of final consumption**, below the RED III trajectory, showing progress concentrated on electricity rather than end uses (Cassano, 2026b; ENEA, 2026).

A KEY STRUCTURAL OBSTACLE

is the heavier tax and levy burden on electricity than fossil fuels, which erodes savings from more efficient electric technologies and increases switching costs (Bedocchi et al, 2026).



Photograph by: Materia Rinnovabile, 2026

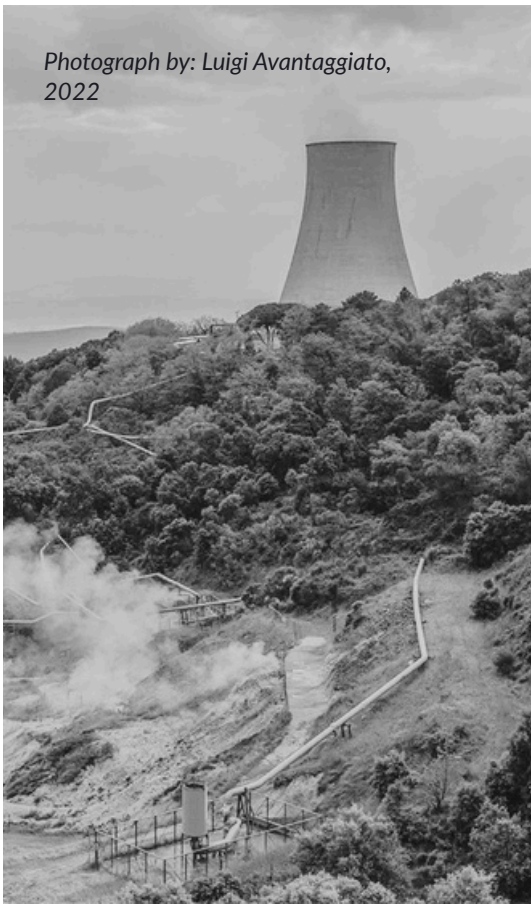
RELATION TO TAFF

Italy's policy response is mixed rather than coherent or aligned with TAFF. Gas-demand contraction since 2021, driven by savings, efficiency and renewables, together **with growing but uneven power-sector electrification**, has reduced fossil-fuel dependence (Andreolli et al., 2023).

Other measures actively reinforce it: the 2026 postponement of the coal phase-out to 2038, the push for an oversized LNG hub with infrastructure not required under the scenarios assessed and untargeted excise and VAT cuts that lower fossil-fuel prices rather than accelerate substitution away from them (Andreolli, 2026; Andreolli & Cassetti, 2024; OECD, 2026).

Affordability has featured heavily through social bonuses, tax credits and fuel discounts, but largely as short-term relief disconnected from structural reform. At the same time, **Italy taxes electricity much more heavily than gas,** working against the affordability of electrification as a durable substitute for fossil fuels (Sgaravatti et al., 2023; Bedocchi et al., 2026).

Italy has not articulated an integrated pathway linking fossil-fuel reduction, energy security, affordability and just transition, nor a dedicated national plan for phasing out fossil fuels or gas, leaving TAFF without a concrete domestic translation (Cassano, 2026a).



Photograph by: Luigi Avantaggiato, 2022

JAPAN



Chureito Pagoda, Japan

IMPACT OF SUCCESSIVE ENERGY CRISES

Successive energy shocks exposed Japan's extreme vulnerability as a country importing roughly

90% of its primary energy

reinforcing concerns over its structural dependence on external energy supplies (Cahill et al., 2024).

The shocks triggered domestic inflationary pressures, particularly through energy-price increases and significantly tightened power supply-demand conditions in FY2022 (ANRE, 2023b).

These pressures also forced a historic U-turn on nuclear-power policy and reshaped Japan's national energy-security strategy, increasing the emphasis on securing reliable domestic energy supply (Reuters, 2022).

The Hormuz Strait crisis in 2026 also underscored the fact that over **90% of Japan's crude-oil** imports pass through the Strait of Hormuz, highlighting growing concerns over energy security (ANRE, 2026a).

GOVERNMENT RESPONSE

In response to the energy crisis triggered by Russia's invasion of Ukraine, the government developed its **Green Transformation (GX) policy,** aimed at transforming the socio-economic system while simultaneously reducing GHG emissions, supporting economic growth and strengthening industrial competitiveness, towards net-zero emissions by 2050 (ANRE, 2023a).

The GX Basic Policy was approved by the Cabinet in February 2023, followed by the GX Promotion Act in May 2023 and Sector-specific Investment Strategies in December 2023, revised in December 2024. In May 2025, the GX Promotion Act was amended to introduce a **mandatory emissions trading scheme** (ANRE, 2025a).

Alongside these structural reforms, the government repeatedly implemented short-term affordability measures in response to soaring energy prices, including **subsidies for electricity and city gas bills** from January 2023 and fuel subsidies, in response to price levels and the energy situation, as well as the release of strategic oil reserves. (ANRE, 2023a, 2026b).

The response also sought to strengthen **energy security** through energy efficiency, greater use of renewables and nuclear power, and investment in a more resilient energy supply-demand structure (ANRE, 2023a).



Photograph by: Bloomberg, 2026

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Electrification is promoted as a key approach to decarbonisation, alongside hydrogen, ammonia and synthetic fuels in the power and transport sectors. However, these new fuels may prolong fuel-based thermal-power and transport systems (OECD, 2025).

While the GX Basic Policy aims to turn crisis response into structural transformation, the government still remains committed to strengthening fossil-fuel security by **diversifying supply sources**, increasing investment in upstream natural gas and supporting Japanese private companies in securing interests in overseas gas and oil fields (ANRE, 2025b).

THE 7TH STRATEGIC ENERGY PLAN

maintains a target of 100% electrified passenger-vehicle sales, including BEVs, PHEVs, FCVs, and HEVs, by 2035, for small commercial vehicles 20–30% of new sales should be electrified by 2030 and 100% electrified or use decarbonised fuels by 2040 (ANRE, 2025b).

Supporting infrastructure targets include 300,000 charging plugs and a domestic battery production base of 150 GWh/year by 2030 (ANRE, 2025b).

RELATION TO TAFF

Japan's GX policy can contribute to TAFF, but with important caveats. Following the Ukraine crisis, Japan strengthened LNG security through long-term procurement and upstream investment, while large-scale gasoline subsidies have continued since the Hormuz Strait crisis. These measures support immediate energy security but **do not themselves constitute a transition away from fossil fuels** (IEA, 2026).

The **emphasis on new fuels,** most of which are expected to become fully commercialised after 2030 or later, may prolong the use of existing fossil-fuel assets (OECD, 2025).

GX policy also emphasises CCUS, which can reduce CO_2 emissions while allowing continued fossil-fuel use (ANRE, 2025b).

Just-transition considerations have become more explicit under the GX2040 Vision, including support for labour mobility towards growth sectors, job-transition support, reskilling for existing workers and acquisition of new skills such as robotics and AI as industrial structures and supply chains transform (ANRE, 2025a).

MEXICO


Angel of Independence, Mexico

IMPACT OF SUCCESSIVE ENERGY CRISES

COVID-19 reshaped electricity demand: gross consumption fell 2.76% in 2020, while residential sales rose 6.7% and industrial and commercial consumption declined. GDP contracted 8.2% and petroleum revenues fell 38.5% from 2019, highlighting fiscal exposure to oil (SENER, 2020, 2021; SHCP, 2021).

In 2021, Winter Storm Uri exposed Mexico's dependence on U.S. natural gas as Texas supply disruptions affected gas-fired generation and left ~4.8 million users without electricity (CENACE, 2022).

Geopolitical shocks added price pressures: the Ukraine war raised energy and food prices, while the 2026 escalation involving Iran disrupted oil markets and pushed up energy prices. U.S. pipeline imports now cover more than 70% of Mexico's natural gas consumption, reinforcing an energy security narrative that frames gas as strategic for national sovereignty (Banxico, 2022, 2026; EIA, 2026; SENER, 2026).

Extreme weather also challenges grid resilience, as hurricanes and high-impact events damage electricity infrastructure and disrupt supply, increasing the need for climate-resilient infrastructure (CFE, 2025a).

GOVERNMENT RESPONSE

Short-term measures focused on affordability through fuel-price stabilisation, estimated by the IMF to have cost around 1.4% of GDP in 2022; similar measures have continued under the current administration, including IEPS tax (Special Tax on Production and Services) incentives (IMF, 2022; SHCP, 2026)

Longer-term policy has placed greater emphasis on energy sovereignty and security, strengthening CFE and Pemex, Mexico's state-owned enterprises in the electricity and hydrocarbons sectors, respectively. The 2024–2025 reform transformed both into Public State Companies and established a minimum 54% state share in electricity generation, with private participation capped at 46% (ITA, 2025; Odegaard, 2026).

Plan México, a long-term industrial development strategy aimed at strengthening domestic production, attracting investment and reducing import dependence, positions energy sovereignty and security as priorities, combining increased domestic gasoline, diesel and natural-gas production with accelerated CFE investment, grid expansion, renewable-energy permitting and rural electrification. PROSENER 2025–2030 (the Energy Sector Programme) reinforces these priorities, combining oil and gas production with renewables, energy efficiency and battery storage (Presidencia de la República, 2025; SENER, 2025c).

Energy-related activities, including electricity generation, transport, and oil and gas, accounted for around 65% of Mexico's GHG emissions in 2025 (excluding LULUCF), making energy-sector decarbonisation central to achieving the country's climate commitments. Mexico's NDC 3.0 establishes economy-wide net emissions targets of 364–404 $MtCO_2e$ unconditionally and 332–363 $MtCO_2e$ conditionally by 2035, alongside targets to increase clean electricity generation to 38.5% by 2030 and 43.3% by 2035. These commitments highlight the challenge of aligning continued oil and gas production with the country's decarbonisation objectives (INEGyCEI, 2026; SEMARNAT, 2025).



Photograph by: PEMEX, 2026

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Mexico's electricity planning is anchored in the binding Electricity Sector Development Plan (PLADESE 2025–2039), which foresees 28 GW of new capacity by 2030 (17 GW State, 11 GW private) and 38% clean generation, rising to ~76 GW by 2039 (SENER, 2025b; IMCO, 2025). CFE's 2026–2030 Development Programme plans 18.6 GW of additions, 82% renewable, while the Government's June 2026 expansion announcement raises the 2030 total to 32 GW, ~70% renewable (CFE, 2026; Presidencia de la República, 2026).

Private participation is advancing through priority calls: the first permit round awarded 3.3 GW (plus 1.5 GW of storage) and CFE's first mixed-investment round 7.4 GW, ~11 GW in total, while second rounds are still under way (JD Supra, 2026; pv magazine Latinoamérica, 2026; Energía a Debate, 2026).

Mexico's NDC 3.0 extends electrification to transport and industry through electric public transport, charging infrastructure and greater use of electricity and cleaner energy in industrial processes (SEMARNAT, 2025). Renewable expansion continues alongside combined-cycle generation and natural-gas infrastructure, including Tula II, Salamanca II, Altamira and Mazatlán, creating a mixed pathway in which reliance on gas continues (CFE, 2025b).

Implementation may also be challenging, as significant private investment is needed despite the more state-led framework, while CFE's 2026 investment budget is 16.7% lower in real terms than 2025 and equipment supply constraints persist (Odegaard, 2026; IMCO, 2025).

RELATION TO TAFF

Mexico's alignment with TAFF remains inconsistent: although NDC 3.0 (SEMARNAT, 2025) supports renewables and electrification, and Mexico endorsed the non-binding Belém Declaration on transitioning away from fossil fuels (Evans et al., 2025), these commitments have not been matched by a clear domestic roadmap to reduce fossil-fuel production and consumption.

Domestic energy policy continues to prioritise fossil fuels with Plan México and PROSENER promoting domestic oil and gas production, refining and gas infrastructure (Presidencia de la República, 2025; SENER, 2025c). While these policies may strengthen supply security by reducing the need for fuel imports, they also risk prolonging fossil-fuel dependence rather than accelerating TAFF .

Fuel-price stabilisation has helped contain inflation and protect consumers, but has also weakened incentives to reduce fossil-fuel consumption and shift towards cleaner alternatives (IMF, 2022).

The LPTE (the Energy Planning and Transition Law) introduces energy justice into federal law, addressing energy poverty and social and gender inequalities, while NDC 3.0 calls for a National Just Transition Plan (Cámara de Diputados, 2025; SEMARNAT, 2025), however, **translating these commitments into an equitable transition requires concrete implementation measures**, financing and protections for workers and communities affected by the shift away from fossil fuels.



TÜRKIYE


Hagia Sophia, Türkiye

IMPACT OF SUCCESSIVE ENERGY CRISES

Successive energy crises exposed **Türkiye's structural dependence on imported fossil fuels**, particularly natural gas, coal and oil (OECD, 2023).

Rising global energy prices following the COVID-19 recovery and Russia–Ukraine war sharply increased energy import costs, contributing to inflation, higher electricity and heating costs, and pressure on public finances through energy subsidies (OECD, 2023).

GOVERNMENT RESPONSE

The government initially responded to soaring wholesale electricity prices through emergency market interventions, including the Maximum Settlement Price (AUF) mechanism, regulated electricity and gas tariffs, targeted subsidies and other fiscal support to protect consumers and maintain affordability (EPDK, 2022; OECD, 2023).

Structural measures to reduce import dependence have included expanding renewable capacity through YEKA auctions and other support schemes, increasing grid investment, promoting battery storage, strengthening transmission and distribution infrastructure, and reforming regulation to facilitate renewable integration (EEA, 2025).

Türkiye maintained uninterrupted energy supply through diversified import routes and long-term contracts, but the crises heightened concerns over energy security, affordability and macroeconomic resilience (Łoskot-Strachota & Michalski, 2023)

These shocks reinforced the importance of reducing fossil-fuel dependence through renewable energy and electrification as a longer-term energy-security strategy (IEA, 2026).


Photograph by: Daily Sabah, 2026

Electrification has gained prominence through incentives for electric vehicles, charging infrastructure and electric public transport (IEA, 2026).

Progress in heat pumps and industrial electrification remains slower, indicating the need for stronger and more targeted policy frameworks as part of broader energy-efficiency and decarbonisation strategies (SHURA, 2023).



Photograph by: Sustainable Bus, 2020

ELECTRIFICATION AND BROADER ENERGY TRANSITION

Recent policies increasingly support electrification by expanding solar and wind capacity, increasing the availability of clean electricity for transport, buildings and industry (IEA, 2026).

Investments in grid modernisation and energy storage improve system flexibility and enable higher shares of variable renewable energy, while Türkiye's Long-Term Climate Strategy and 2053 net-zero target provide a strategic framework linking electrification with renewable deployment, energy efficiency and industrial competitiveness (Republic of Türkiye, 2024).

FURTHER PROGRESS

will require stronger policy frameworks, financing and incentives to accelerate electrification across transport, buildings and industry and support the wider deployment of electric technologies (OECD, 2025).

It will also depend on stronger sector coupling, accelerated industrial electrification, wider adoption of electric heating technologies, demand-side flexibility, dynamic electricity pricing, increased investment in grids, energy storage and smart systems, continued power-market reforms, and enhanced international cooperation through technology, knowledge and experience sharing (IEA, 2026).


Photograph by: Daily Sabah, 2020

RELATION TO TAFF

Türkiye's recent policy direction is broadly consistent with TAFF objectives through the expansion of renewable electricity and greater electrification across end-use sectors (IEA, 2026).

Natural gas continues to play an important role in ensuring system reliability and meeting growing energy demand, although recent investments increasingly prioritise renewable generation, electricity networks and clean-energy technologies (IEA, 2026).

Affordability considerations have been addressed through targeted consumer support and regulated pricing, while renewable investments also contribute to long-term energy security by reducing import dependence (OECD, 2023).

Further alignment with TAFF will require continued efforts to accelerate fossil-fuel substitution in buildings, transport and industry, strengthen electricity-market reforms, and ensure that the benefits of electrification are accessible across all regions and consumer groups (IEA, 2026).

REFERENCES

Acacio, J. A., Blanco, G., Keesler, D., & Wyczykier, G. (2025). *Transición energética y conflictos socioambientales en Argentina: Del extractivismo a la equidad* (Resumen ejecutivo). Fundación Ambiente y Recursos Naturales. https://farn.org.ar/wp-content/uploads/2026/01/Transicion-energetica-y-conflictos-socioambientales-en-Argentina.pdf

Acharya, S., & Kumar, M. (2026). India's goods trade deficit widens on Hormuz disruptions, weak exports. *Reuters*. https://www.reuters.com/world/india/indias-june-merchandise-trade-deficit-3043-bln-reuters-calculation-shows-2026-07-13/

AG Energiebilanzen (AGEB). (2025). *Importabhängigkeit der deutschen Energieversorgung auch 2024 hoch* (Infografik). https://ag-energiebilanzen.de/wp-content/uploads/2025/03/AGEB_Infografik_04_2025_Importabhaengigkeit_2024.pdf

AG Energiebilanzen (AGEB). (2026). *Energieverbrauch in Deutschland im Jahr 2025*. https://ag-energiebilanzen.de/wp-content/uploads/AGEB_Jahresbericht2025_20260709_dt.pdf

Agência Petrobras. (2025). *Perguntas e respostas sobre a perfuração em águas profundas do Amapá*. https://agencia.petrobras.com.br/w/perguntas-e-respostas-sobre-a-perfura%C3%A7%C3%A3o-em-%C3%A1guas-profundas-do-amap%C3%A1

Agency for Natural Resources and Energy, Japan (ANRE). (2023a). *Energy white paper 2023 (Summary): FY2022 annual report on energy*. https://www.enecho.meti.go.jp/en/category/whitepaper/pdf/2023_outline.pdf

Agency for Natural Resources and Energy, Japan (ANRE). (2023b). *The increasing importance of energy security in the face of the energy crisis*. https://www.enecho.meti.go.jp/en/category/special/article/detail_181.html

Agency for Natural Resources and Energy, Japan (ANRE). (2025a). *GX2040 Vision*. https://www.meti.go.jp/files/900015359.pdf

Agency for Natural Resources and Energy, Japan (ANRE). (2025b). *Strategic energy plan*. https://www.enecho.meti.go.jp/category/others/basic_plan/pdf/2025_strategic_energy_plan.pdf

Agency for Natural Resources and Energy, Japan (ANRE). (2026a). *Current situation over resources and fuels policies*. https://www.meti.go.jp/shingikai/enecho/shigen_nenryo/pdf/046_03_00.pdf

Agency for Natural Resources and Energy, Japan (ANRE). (2026b). *Energy white paper 2026: FY2025 annual report on energy*. https://www.enecho.meti.go.jp/about/whitepaper/2026/pdf/whitepaper2026_all.pdf

Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA). (2026). *Analisi trimestrale del sistema energetico italiano: Anno 2025*. https://www.pubblicazioni.enea.it/download/send/4-analisi-trimestrale-del-sistema-energetico/778-analisi-trimestrale-del-sistema-energetico-italiano-anno-2025.html

Andreolli, F. (2026). *Centrali a carbone: La proroga al 2038 rischia di essere inefficace e onerosa.* ECCO. https://eccoclimate.org/centrali-a-carbone-la-proroga-al-2038-rischia-di-essere-inefficace-e-onerosa/

Andreolli, F., Bellisai, F., & Leonardi, M. (2023). *Risparmi: la cura efficace che ha fatto guarire il mercato del gas in Italia*. ECCO. https://eccoclimate.org/risparmi-la-cura-efficace-che-ha-fatto-guarire-il-mercato-del-gas-in-italia/

Andreolli, F., & Cassetti, G. (2024). *Lo stato del gas: Quali infrastrutture servono all'Italia? Scenari 2030, 2040 e 2050*. ECCO. https://eccoclimate.org/lo-stato-del-gas-scenari-2030-2040-e-2050/

Andreolli, F., & Leonardi, M. (2024). *Prezzo del gas: Il prossimo inverno sarà il più caro di sempre.* ECCO. https://eccoclimate.org/prezzo-del-gas-il-prossimo-inverno-sara-il-piu-caro-di-sempre/

Andreolli, F., & Signorelli, G. (2026). *Sicurezza energetica: Il percorso di riduzione della dipendenza italiana dal GNL qatarino (Policy Briefing).* ECCO. https://eccoclimate.org/wp-content/uploads/2026/03/LItalia-puo-sostituire-il-GNL-del-Qatar-con-rinnovabili-ed-efficienza-entro-un-anno.pdf

REFERENCES

ANTARA. (2026, October 27). PLN siap dukung kebutuhan listrik untuk data center. Associação Brasileira do Veículo Elétrico (ABVE). (2026). ABVE Data. https://abve.org.br/abve-data/

Bachtiar, R. (2026). Solving Indonesia's LPG subsidy challenge requires induction, not swapping fuels. Institute for Energy Economics and Financial Analysis (IEEFA).

Banco de México (Banxico). (2022). Quarterly report January–March 2022. *https://www.banxico.org.mx/publications-and-press/quarterly-reports/%7B5B64A553-0BA9-3ACA-D39A-59C1BC7F23CF%7D.pdf*

Banco de México (Banxico). (2026). Reporte de estabilidad financiera – Junio 2026. https://www.banxico.org.mx/publicaciones-y-prensa/reportes-sobre-el-sistema-financiero/%7B86FBB07E-F883-0A38-2110-3C736DB0760E%7D.pdf

Baxter, D. (2026). $5.3B subsidy won't counter 'oil-fuelled inflation', critics say, as Ottawa extends gas tax suspension. Energy Mix Productions. https://www.theenergymix.com/5-3b-subsidy-wont-counter-oil-fuelled-inflation-critics-say-as-ottawa-extends-gas-tax-suspension/

Bedocchi, C., Molinari, C., Andreolli, F., Bienati, M., & Leonardi, M. (2026). Electrification, interrupted: How taxes and levies are slowing the energy transition in Italy. ECCO. https://eccoclimate.org/en/taxes-public-expenditure-and-bills/

Berlen, L. (2026). Solare ed eolico valgono oltre un quinto dei consumi elettrici. QualEnergia.it. https://www.qualenergia.it/articoli/solare-eolico-valgono-un-quinto-consumi-elettrici/

Bienati, M. (2026). Mercato dell'auto in Italia e nella UE: monitoraggio e distanza dai target di emissione – Maggio-Giugno. ECCO. *https://eccoclimate.org/mercato-dellauto-in-italia-e-nella-ue-monitoraggio-e-distanza-dai-target-di-emissione-maggio-giugno/*

Bilton, C., & Mayer, A. (2026). Carney talks about Canada's 'energy sovereignty.' But what does that really mean? CBC News. https://www.cbc.ca/news/business/canada-energy-sovereignty-oil-climate-9.7265441

Bloomberg Technoz. (2026). Harga Pertalite ditahan selama 2026, asumsi minyak US$100 cukup.

Borys, S. (2026). More than $10 billion slated to boost fuel supplies and emergency stockpiles. ABC News. https://www.abc.net.au/news/2026-05-06/government-commits-10-billion-for-australian-fuel-supply/106582514

Bundesregierung. (2026a). Das macht die Bundesregierung für Entlastungen bei den Energiepreisen: Niedrigere Energiekosten für alle. https://www.bundesregierung.de/breg-de/aktuelles/senkung-energiepreise-haushalt-2358526

Bundesregierung. (2026b). Genug Energie für Deutschland, den Urlaub und die Tankstelle? Fragen und Antworten zu Energiepreisen und Energieversorgung. https://www.bundesregierung.de/breg-de/service/fragen-und-anworten/fragen-antworten-energie-2425230

Cabinet Secretariat of the Republic of Indonesia. (2026). Presiden Prabowo luncurkan PLTS 100 GWp, diawali 14 PLTS berkapasitas 5,3 GWp.

Cahill, B., Nakano, J., & Irié, K. (2024). How Japan thinks about energy security. Center for Strategic and International Studies (CSIS). https://www.csis.org/analysis/how-japan-thinks-about-energy-security

Cámara de Diputados. (2025). Ley de Planeación y Transición Energética (LPTE). Diario Oficial de la Federación. https://www.diputados.gob.mx/LeyesBiblio/pdf/LPTE.pdf

Canadian Climate Institute. (2026). *MOU with Alberta puts Canada's commitment to net zero emissions by 2050 firmly out of reach*. https://climateinstitute.ca/news/mou-with-alberta-puts-canadas-commitment-to-net-zero-emissions-by-2050-firmly-out-of-reach/

Cassano, M. (2026a). Pniec, il conto alla rovescia per il 2030 non aspetta l'Italia. *QualEnergia.it*. https://www.qualenergia.it/articoli/pniec-conto-rovescia-2030-non-aspetta-italia/

Cassano, M. (2026b). Pompe di calore, l'Europa riparte ma deve correggere il rapporto elettricità-gas. *QualEnergia.it*. https://www.qualenergia.it/articoli/pompe-calore-europa-riparte-deve-correggere-rapporto-elettricita-gas/

Cavalcanti, M., Santos, F., Bastos, E., Lameiras, M., & Carvalho, L. (2022). Visão geral da conjuntura. Carta de Conjuntura No. 57, Nota de Conjuntura 29, 4º trimestre de 2022. Instituto de Pesquisa Econômica Aplicada (IPEA). https://repositorio.ipea.gov.br/server/api/core/bitstreams/3c3503d5-ab78-42f9-9bc6-08184f5fda32/content

CBC News. (2025). Carney says Canada won't meet climate targets with current policy [Audio podcast episode]. In Power & Politics with David Cochrane. CBC. https://www.cbc.ca/listen/cbc-podcasts/123-power-and-politics/episode/16188057-carney-says-canada-wont-meet-climate-targets-with-current-policy

Cena Trebucq, M. (2026). Presupuesto ambiental en Argentina: la consolidación de un ajuste. Fundación Ambiente y Recursos Naturales (FARN). https://farn.org.ar/documentos/presupuesto-ambiental-argentina-resultados-2025-proyecciones-2026/

Centro Nacional de Control de Energía (CENACE). (2022). Programa de ampliación y modernización de la Red Nacional de Transmisión y Redes Generales de Distribución que correspondan al Mercado Eléctrico Mayorista 2022–2036 (PAMRNT). https://www.cenace.gob.mx/Docs/10_PLANEACION/ProgramasAyM/Programa%20de%20Ampliaci%C3%B3n%20y%20Modernizaci%C3%B3n%20de%20la%20RNT%20y%20RGD%202022%20-%202036.pdf

China Energy News (中国能源报). (2026). Global oil supply chains disrupted, testing China's energy resilience (全球油路受阻，考验中国能源韧性). Zhejiang Provincial Economic Information Center (浙江省经济信息中心). https://zjic.zj.gov.cn/ywdh/nyhj/202604/t20260409_24027118.shtml

Climate Action Tracker (CAT). (2020). Scaling up climate action in Australia. Climate Action Tracker. https://climateactiontracker.org/publications/scalingupaustralia/

Climate Action Tracker (CAT). (2026a). Argentina: Policies & action. https://climateactiontracker.org/countries/argentina/policies-action/

Climate Action Tracker (CAT). (2026b). Germany: Policies & action. https://climateactiontracker.org/countries/germany/policies-action/

Climate Action Tracker (CAT). (2026c). India: Policies & action. https://climateactiontracker.org/countries/india/policies-action/

Climate Action Tracker (CAT). (2026d). Indonesia: 2035 NDC assessment. Climate Analytics and NewClimate Institute.

Climate Analytics. (n.d.). What is India's pathway to limit global warming to 1.5°C? (1.5°C National Pathway Explorer). https://1p5ndc-pathways.climateanalytics.org/countries/india/primary-energy-and-sectors

Climate Council. (2026a). Federal Budget 2026–27: Does it deliver on energy security and climate? Climate Council. https://www.climatecouncil.org.au/resources/federal-budget-2026-27-does-it-deliver-on-energy-security-and-climate/

Climate Council. (2026b). Help us electrify: What Australians want in the Federal Budget. Climate Council. https://www.climatecouncil.org.au/resources/help-us-electrify-what-australians-want-in-the-federal-budget/

Climate Home News. (2026). Indonesia's failing Just Energy Transition Partnership is a cautionary tale.

Comisión Federal de Electricidad (CFE). (2025a). Annual green, social and sustainability bond report 2025. https://www.cfe.gob.mx/finanzas/financial-economic-information/ESG/Reporte%20Anual%20de%20Bonos%20Sostenibles/2025/2025%20Annual%20Green%2C%20Social%20and%20Sustainability%20Bond%20Report.pdf

Comisión Federal de Electricidad (CFE). (2025b). La CFE impulsa el fortalecimiento y expansión del Sistema Eléctrico Nacional con proyectos estratégicos de transmisión, generación firme y energías limpias [Comunicado de prensa]. https://app.cfe.mx/Aplicaciones/OTROS/Boletines/boletin?i=10396

Comisión Federal de Electricidad (CFE). (2026). Programa de Desarrollo CFE 2026–2030. https://www.cfe.gob.mx/finanzas/Documents/ProgramaDesarrollo-26.pdf

Commins, P. (2026). Seven charts that reveal how unprepared Australia was for the fuel crisis. The Guardian. https://www.theguardian.com/business/2026/mar/24/seven-charts-that-reveal-how-unprepared-australia-was-for-the-fuel-crisis

REFERENCES

Confservizi Emilia-Romagna. (2026). Irex annual report: Rinnovabili e accumuli soluzione a crisi energetica globale. https://www.confservizi.emr.it/2026/05/irex-annual-report-rinnovabili-e-accumuli-soluzione-a-crisi-energetica-globale/?print=pdf

Das, N. (2022a). Heatwave and war are unveiling the vulnerability of India's coal dominated power sector. Climate Analytics. https://climateanalytics.org/comment/heatwave-and-war-are-unveiling-the-vulnerability-of-indias-coal-dominated-power-sector

Das, N. (2022b). South Asia is paying a high price for its dependence on imported fossil energy. Climate Analytics. *https://climateanalytics.org/comment/south-asia-is-paying-a-high-price-for-its-dependence-on-imported-fossil-energy*

Das, N. (2026). Breaking the cycle of energy shocks: India's renewable opportunity. Climate Analytics. https://climateanalytics.org/comment/breaking-the-cycle-of-energy-shocks-indias-renewable-opportunity

Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2024). The National Energy Performance Strategy. Australian Government. https://www.dcceew.gov.au/sites/default/files/documents/national-energy-performance-strategy.pdf

Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2025). Australia's Net Zero Plan. Australian Government. https://www.dcceew.gov.au/sites/default/files/documents/net-zero-report.pdf

Department of Finance Canada. (2026a). Spring Economic Update 2026. Government of Canada. https://budget.canada.ca/update-miseajour/2026/report-rapport/pdf/update-miseajour2026-eng.pdf

Department of Finance Canada. (2026b). The Government of Canada extends the federal fuel excise tax relief on gasoline, diesel, and aviation fuels for Canadians. Government of Canada. https://www.canada.ca/en/department-finance/news/2026/09/the-government-of-canada-extends-the-federal-fuel-excise-tax-relief-on-gasoline-diesel-and-aviation-fuels-for-canadians.html

Department of Industry, Science and Resources (DISR). (2024). Future Gas Strategy analytical report. Australian Government. https://www.industry.gov.au/publications/future-gas-strategy-analytical-report

ECCO. (2026). A che punto è la transizione in Italia? Progress report 2026 del Piano Nazionale Integrato Energia e Clima (PNIEC). https://eccoclimate.org/wp-content/uploads/2026/10/PNIEC-PROGRESS-REPORT-2026_18ott2026.pdf

Economic Daily (经济日报). (2026). A blueprint for building the new power system (新型电力系统建设明确施工图). National Energy Administration (国家能源局). https://www.nea.gov.cn/20260817/43f478dfe4724af583286b61f36dfa04/c.html

Empresa de Pesquisa Energética (EPE). (2024). Demanda de energia dos veículos leves: 2025–2034 (Nota Técnica NT-EPE-DPG-SDB-2024-10). https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-331/topico-739/NT-EPE-DPG-SDB-2024-10_Demanda%20de%20energia%20veiculos%20leves_2025-2034_R1.pdf

Enerdata. (2026). Indonesia launches the first 14 projects (5.3 GW) of its 100 GW solar plan by 2029.

Energía a Debate. (2026). Modifica SENER por cuarta ocasión fechas de la Segunda Convocatoria de proyectos eléctricos estratégicos. Energía a Debate. https://energiaadebate.com/modifica-sener-por-cuarta-ocasion-fechas-de-la-segunda-convocatoria-de-proyectos-electricos-estrategicos/

Energy Market Regulatory Authority (EPDK). (2022). Azami Uzlaştırma Fiyatlarının Belirlenmesine İlişkin 29/03/2022 tarihli ve 10888 sayılı Kurul Kararı [Board Decision No. 10888]. EPİAŞ. https://www.epias.com.tr/mevzuat/kurul-kararlari/

Environment and Climate Change Canada (ECCC). (2025). Cutting pollution and building a strong economy for the future: Canada's 2035 commitment under the Paris Agreement. Government of Canada. https://www.canada.ca/en/environment-climate-change/news/2025/02/cutting-pollution-and-building-a-strong-economy-for-the-future-canadas-2035-commitment-under-the-paris-agreement.html

European Commission. (2023). 2023 Country report – Germany (Commission Staff Working Document SWD(2023) 605 final). https://economy-finance.ec.europa.eu/system/files/2023-05/DE_SWD_2023_605_en.pdf

European Commission. (2026). 2026 Country report – Germany. https://economy-finance.ec.europa.eu/economic-surveillance-eu-member-states/country-pages-including-country-reports/country-report-germany_en

European Environment Agency (EEA). (2025). Türkiye: Country profile (Europe's Environment 2025). https://www.eea.europa.eu/en/europe-environment-2025/countries/turkiye

Evans, S., Dunne, D., Lempriere, M., Gabbatiss, J., Chandrasekhar, A., Patel, A., Viglione, G., Quiroz, Y., & Dwyer, O. (2025). COP30: Key outcomes agreed at the UN climate talks in Belém. Carbon Brief. https://www.carbonbrief.org/cop30-key-outcomes-agreed-at-the-un-climate-talks-in-belem

French, G. (2025). Los subsidios a los combustibles fósiles 2023-2024: Llueve sobre mojado. Fundación Ambiente y Recursos Naturales (FARN). https://farn.org.ar/documentos/los-subsidios-a-los-combustibles-fosiles-2023-2024/

Geoscience Australia. (2025). Australia's Energy Commodity Resources 2025: Production and trade. Australian Government. https://www.ga.gov.au/aecr2025/production-and-trade

Government of Indonesia. (2022). Peraturan Presiden No. 112/2022 tentang Percepatan Pengembangan Energi Terbarukan untuk Penyediaan Tenaga Listrik.

Haig, S. (2025). How Canadian LNG impacts the climate: Carbon emissions, fuel switching, and cleaner alternatives. International Institute for Sustainable Development (IISD). https://www.iisd.org/articles/deep-dive/how-canadian-lng-impacts-climate-carbon-emissions-fuel-switching-and-cleaner

Hasan, K., & Hummer, L. (2026). Out of sight, out of control: 31 GW of captive coal is jeopardizing Indonesia's economic and emissions goals. Centre for Research on Energy and Clean Air (CREA) & Global Energy Monitor (GEM).

Hasan, K., Zahiruddin, N., & Swastika, A. B. (2025). Indonesia's RUPTL 2025–2034: Fossils first, renewables later. Centre for Research on Energy and Clean Air (CREA).

Hewson, G. (2026). The fuel excise cut ended at midnight. This is what you can expect at the pump. ABC News. https://www.abc.net.au/news/2026-08-02/fuel-excise-cut-to-end-in-august-2/106965630

Institute for Essential Services Reform (IESR). (2026). Indonesia's energy subsidy outlook and deficit risks amidst oil price volatility: Opportunities for savings through transportation electrification.

Institute for Sustainable Communities (ISC). (n.d.). Case studies for subnational energy transitions. https://sustain.org/project/case-studies-for-subnational-climate-just-transitions/

Instituto Mexicano para la Competitividad (IMCO). (2025). El sector eléctrico ante el nuevo panorama regulatorio: 2025. https://imco.org.mx/el-sector-electrico-ante-el-nuevo-panorama-regulatorio-2025/

Instituto Nacional de Ecología y Cambio Climático (INECC). (2026). Inventario Nacional de Emisiones de Gases y Compuestos de Efecto Invernadero (INEGyCEI), 1990–2025 (actualización de octubre de 2026). Base de datos. https://www.gob.mx/inecc/documentos/investigaciones-2018-2013-en-materia-de-mitigacion-del-cambio-climatico

International Energy Agency (IEA). (2023a). Australia 2023: Energy policy review. https://iea.blob.core.windows.net/assets/02a7a120-564b-4057-ac6d-cf21587a30d9/Australia2023EnergyPolicyReview.pdf

International Energy Agency (IEA). (2023b). China's coal and steel capacity cuts and worker re-employment. https://www.iea.org/policies/17837-chinas-coal-and-steel-capacity-cuts-and-worker-re-employment

International Energy Agency (IEA). (2025). World energy investment 2025: China. https://www.iea.org/reports/world-energy-investment-2025/china

International Energy Agency (IEA). (2026a). Electric car markets in a time of uncertainty: An update to the Global EV Outlook 2026. https://iea.blob.core.windows.net/assets/a096b500-9d47-411d-a5db-b297a5d95927/ElectricCarMarketsinaTimeofUncertainty.pdf

REFERENCES

International Energy Agency (IEA). (2026b). Japan 2026: Energy policy review. https://iea.blob.core.windows.net/assets/ab97a4d0-393c-453e-9366-9c766f37d31b/Japan2026.pdf

International Energy Agency (IEA). (2026c). Türkiye 2026: Energy policy review. https://www.iea.org/reports/turkiye-2026

International Monetary Fund (IMF). (2022). Mexico: Staff concluding statement of the 2022 Article IV mission. https://www.imf.org/en/news/articles/2022/10/07/cs1072022-mexico-staff-concluding-statement-of-the-2022-article-iv-mission

International Monetary Fund (IMF). (2023). People's Republic of China: Selected issues (IMF Country Report No. 23/81). https://www.imf.org/-/media/files/publications/cr/2023/english/1chnea2023002.pdf

International Trade Administration (ITA). (2025). Mexico energy sector reform. https://www.trade.gov/market-intelligence/mexico-energy-sector-reform

JD Supra. (2026). Segunda Convocatoria para la Atención Prioritaria de Solicitudes de Permisos de Generación e Interconexión al Sistema Eléctrico Nacional. https://www.jdsupra.com/legalnews/segunda-convocatoria-para-la-atencion-3843028/

Kalra, J. (2026). Oil pangs resurface for rupee, options market gauge signals bearish bias. Reuters. https://www.reuters.com/world/india/rupee-braces-pressure-with-oil-taking-centre-stage-us-iran-flare-up-2026-07-13/

Lam, J., & Gass, P. (2026). The Strait of Hormuz crisis emphasizes why Canada should move away from oil and gas—not expand it. International Institute for Sustainable Development (IISD). https://www.iisd.org/articles/deep-dive/strait-hormuz-crisis-why-canada-should-move-away-oil-gas

Li, M., Jiang, W., & Yu, D. (2026). The transparency trade-off: Public data openness and energy inequality. Journal of Environmental Management, 414, Article 130452. https://doi.org/10.1016/j.jenvman.2026.130452

Li, S., Wang, Z., Zhou, W., Lin, A., & Ren, H. (2026). Provincial employment effects of coal mine retirement in China's carbon-neutral transition. Energy Policy, 210, Article 115038. https://doi.org/10.1016/j.enpol.2025.115038

Linden-Fraser, R., Sawyer, D., Förg, F., Griffin, B., & Zhang, A. (2026). Independent assessment: 2025 progress report on the 2030 emissions reduction plan. Canadian Climate Institute. https://climateinstitute.ca/wp-content/uploads/2026/02/Climate-Institute-440-Megatonnes-Independent-Assessment-2026-2025-Progress-Report-2030-Emissions-Reduction-Plan.pdf

Łoskot-Strachota, A., & Michalski, A. (2023). Turkey's dream of a hub: Ankara's wartime gas policy (OSW Commentary). Centre for Eastern Studies (OSW). https://www.osw.waw.pl/en/publikacje/osw-commentary/2023-03-10/turkeys-dream-a-hub-ankaras-wartime-gas-policy

Luderer, G., Bartels, F., Brown, T., Aulich, C., Benke, F., Fleiter, T., Frank, F., Ganal, H., Geis, J., Gerhardt, N., Gnann, T., Gunnemann, A., Hasse, R., Herbst, A., Herkel, S., Hoppe, J., Kost, C., Krail, M., Lindner, M., … Verpoort, P. C. (2025). Die Energiewende kosteneffizient gestalten: Szenarien zur Klimaneutralität 2045 (Ariadne Report). Kopernikus-Projekt Ariadne. https://ariadneprojekt.de/publikation/report-szenarien-zur-klimaneutralitat-2045/

Ministério de Minas e Energia (MME). (2021a). CREG determina a implementação de Programa de Resposta Voluntária da Demanda para os consumidores cativos e de bandeira tarifária "escassez hídrica". https://www.gov.br/mme/pt-br/assuntos/noticias/creg-determina-a-implementacao-de-programa-de-resposta-voluntaria-da-demanda-para-os-consumidores-cativos-e-de-bandeira-tarifaria-201cescassez-hidrica201d

Ministério de Minas e Energia (MME). (2021b). Gasolina C com adição de 30% de etanol anidro (E30). https://www.gov.br/mme/pt-br/assuntos/secretarias/petroleo-gas-natural-e-biocombustiveis/combustivel-do-futuro/e30/e30

Ministério de Minas e Energia (MME). (2026). CNPE aprova elevação do teor de etanol anidro na gasolina para 32%. https://www.gov.br/mme/pt-br/assuntos/conselhos-e-comites/cnpe/comunicacoes/cnpe-aprova-elevacao-do-teor-de-etanol-anidro-na-gasolina-para-32

Ministério de Minas e Energia (MME), & Empresa de Pesquisa Energética (EPE). (2026). Balanço Energético Nacional 2026: Relatório Síntese 2026. https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-975/topico-847/BEN_S%C3%ADntese_2026_PT.pdf

Ministério do Desenvolvimento, Indústria, Comércio e Serviços (MDIC). (2020). Programa MOVER. https://www.gov.br/mdic/pt-br/assuntos/sdic/setor-automotivo/programa-mover

Ministero dell'Ambiente e della Sicurezza Energetica (MASE). (2026). Situazione energetica nazionale. *https://sisen.mase.gov.it/dgsaie/situazione-energetica-nazionale*

Ministero della Transizione Ecologica (MiTE). (2022). Piano nazionale di contenimento dei consumi di gas naturale. https://www.mase.gov.it/portale/documents/d/guest/piano-contenimento-consumi-gas_mite_6set2022_agg-pdf

Ministry of Coal. (2025). Achievements of the Ministry of Coal. Government of India. https://coal.gov.in/sites/default/files/2025-08/Achievements-050825.pdf

Ministry of Ecology and Environment of China (MEE). (2025). Progress report of China's national carbon market (2025). https://www.mee.gov.cn/ywgz/ydqhbh/wsqtkz/202509/W020250927515319387445.pdf

Ministry of Energy and Mineral Resources (MEMR). (2022). Preventing power outages, Government temporarily bans coal export. https://www.esdm.go.id/en/media-center/news-archives/hindari-pemadaman-10-juta-pelanggan-pln-pemerintah-larang-sementara-ekspor-batubara

Ministry of Energy and Mineral Resources (MEMR). (2023). Keputusan Menteri ESDM No. 399.K/MB.01/MEM.B/2023 tentang Perubahan atas Keputusan Menteri ESDM No. 267.K/MB.01/MEM.B/2022 tentang Pemenuhan Kebutuhan Batubara Dalam Negeri.

Ministry of Energy and Mineral Resources (MEMR). (2025, February 28). Skema baru HGBT: Perkuat daya saing industri dan efisiensi anggaran negara (Siaran Pers No. 017.Pers/04/SJI/2025).

Ministry of Energy and Mineral Resources (MEMR). (2026). Capaian Positif Tahun 2025: Negara Hadir Penuhi Kebutuhan Energi Masyarakat.

Ministry of Finance (MoF). (2022). Untuk Melindungi Masyarakat Miskin dan Rentan Miskin, Pemerintah Alokasikan Dana BLT BBM Rp24,17 Triliun.

Ministry of Finance (MoF). (2023a). Kinerja Positif APBN 2022 Jadi Modal Kuat Hadapi Tahun 2023.

Ministry of Finance (MoF). (2023b). Peraturan Menteri Keuangan No. 103/2023 tentang Pemberian Dukungan Fiskal melalui Kerangka Pendanaan dan Pembiayaan dalam Rangka Percepatan Transisi Energi di Sektor Ketenagalistrikan.

National Bureau of Statistics of China (NBS) (国家统计局). (2026a). Significant progress in energy transition and green, low-carbon development during the 14th Five-Year Plan (能源转型跨越发展 绿色低碳成效显著——"十四五"经济社会发展成就系列报告之十四). https://www.stats.gov.cn/sj/sjjd/202606/t20260604_1963892.html

National Bureau of Statistics of China (NBS) (国家统计局). (2026b). Industrial producer price indexes in August 2026. https://www.stats.gov.cn/english/PressRelease/202609/t20260910_1965274.html

National Development and Reform Commission (NDRC) (中华人民共和国国家发展和改革委员会). (2021). Notice on ensuring energy supply during the summer peak of 2021 (关于做好2021年能源迎峰度夏工作的通知). Operations Bureau (运行局). https://www.ndrc.gov.cn/xwdt/tzgg/202107/t20210723_1291350.html

National Development and Reform Commission (NDRC) (中华人民共和国国家发展和改革委员会). (2025). Accelerating the comprehensive green transition of economic and social development guided by carbon peaking and neutrality (以碳达峰碳中和为牵引 加快经济社会发展全面绿色转型). Department of Resource Conservation and Environmental Protection (国家发展改革委资源节约和环境保护司). https://www.ndrc.gov.cn/xwdt/dt/sjdt/202512/t20251230_1402807_ext.html

National Development and Reform Commission (NDRC) (中华人民共和国国家发展和改革委员会). (2026). Continued government intervention and adjustment of refined oil prices on September 24, 2026 (2026年9月24日国家继续实施调控，成品油价格适当调整). Price Department (价格司). https://www.ndrc.gov.cn/xwdt/xwfb/202609/t20260924_1407824.html

REFERENCES

National Development and Reform Commission (NDRC), & National Energy Administration (NEA) (国家发展改革委 国家能源局). (2026). 15th Five-Year Plan for the development of the new power system (新型电力系统建设“十五五”规划). https://www.ndrc.gov.cn/xxgk/zcfb/tz/202608/t20260803_1406883_ext.html

National Institution for Transforming India (NITI Aayog). (n.d.). Consumer profile (India Climate & Energy Dashboard). https://www.iced.niti.gov.in/energy/electricity/distribution/consumer

Natural Resources Canada. (2026a). Building a prosperous future for workers and communities: Canada's 2026–2030 Sustainable Jobs Action Plan. Government of Canada. https://natural-resources.canada.ca/sustainable-jobs/building-prosperous-future-workers-communities-canada-s-2026-2030-sustainable-jobs-action-plan

Natural Resources Canada. (2026b). Canada Greener Homes Initiative. Government of Canada. https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/canada-greener-homes-initiative/canada-greener-homes-initiative

Neri, S., Busetti, F., Conflitti, C., Corsello, F., Delle Monache, D., & Tagliabracci, A. (2023). Il recente shock energetico e l'inflazione nell'area dell'euro (Questioni di Economia e Finanza No. 792). Banca d'Italia. https://www.bancaditalia.it/pubblicazioni/qef/2023-0792/index.html

Norman, J. (2026). Anthony Albanese dashes to Singapore as Australia engages in a costly, complex fuel scramble. ABC News. https://www.abc.net.au/news/2026-04-09/prime-minister-anthony-albanese-singapore-fuel-talks/106542828

Odegaard, C. (2026). Mexico's grid is waking up. Are market participants ready? Amperon. https://www.amperon.co/blog/mexico-power-market-changes-2026

Organisation for Economic Co-operation and Development (OECD). (2023a). OECD economic surveys: Türkiye 2023. OECD Publishing. https://doi.org/10.1787/864ab2ba-en

Organisation for Economic Co-operation and Development (OECD). (2023b). OECD inventory of support measures for fossil fuels: Country notes. OECD Publishing. https://doi.org/10.1787/5a3efe65-en

Organisation for Economic Co-operation and Development (OECD). (2025a). OECD economic surveys: Argentina 2025. OECD Publishing. https://doi.org/10.1787/27dd6e27-en

Organisation for Economic Co-operation and Development (OECD). (2025b). OECD economic surveys: Türkiye 2025. OECD Publishing. https://doi.org/10.1787/d01c660f-en

Organisation for Economic Co-operation and Development (OECD). (2025c). OECD environmental performance reviews: Japan 2025. OECD Publishing. https://doi.org/10.1787/583cab4c-en

Organisation for Economic Co-operation and Development (OECD). (2026). OECD economic surveys: Italy 2026. OECD Publishing. https://doi.org/10.1787/539538b2-en

PIB Delhi. (2023). Average power purchase cost increased by 71 Paisa only between FY 22 and FY 23: Union Power and New & Renewable Energy Minister. https://www.pib.gov.in/PressReleasePage.aspx?PRID=1986642&reg=48&lang=2

PIB Delhi. (2026a). India ranks third globally in Renewable Energy Installed Capacity: Shri Pralhad Joshi. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2250039&lang=2&reg=48

PIB Delhi. (2026b). PM Surya Ghar Yojana drives energy transition: 9.56 GW rooftop solar capacity added till March 2026. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2245159&lang=1&reg=1

PIB Delhi. (2026c). Power generation and demand-supply gap. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2240743&lang=1&reg=3

Presidência da República. (2022). Lei Complementar nº 194, de 23 de junho de 2022. Diário Oficial da União. https://planalto.gov.br/ccivil_03/leis/lcp/lcp194.htm

Presidencia de la República. (2025). Presidenta Claudia Sheinbaum: Haremos el mejor México posible, tenemos mucho pueblo; anuncia 18 programas y acciones del Plan México [Comunicado de prensa]. https://www.gob.mx/presidencia/prensa/presidenta-claudia-sheinbaum-haremos-el-mejor-mexico-posible-tenemos-mucho-pueblo-anuncia-18-programas-y-acciones-del-plan-mexico

Presidencia de la República. (2026). Plan de Crecimiento de Energías Renovables es histórico y aumenta la soberanía, serán 32 mil MW; el 70% de fuentes renovables: Presidenta [Comunicado de prensa]. https://www.gob.mx/presidencia/prensa/plan-de-crecimiento-de-energias-renovables-es-historico-y-aumenta-la-soberania-seran-32-mil-mw-el-70-de-fuentes-renovables-presidenta?idiom=es-MX&

Prime Minister of Canada. (2026). Prime Minister Carney announces new measures to make groceries and other essentials more affordable for Canadians [Press release]. Government of Canada. https://www.pm.gc.ca/en/news/news-releases/2026/01/26/prime-minister-carney-announces-new-measures-make-groceries-and-other

PT PLN (Persero). (2020). PLN siap jalankan perpanjangan stimulus Covid-19.

PT PLN (Persero). (2025). Begini sebaran EBT tiap pulau, PLTS dan PLTA jadi kontributor terbesar pada RUPTL 2025–2034.

pv magazine Latinoamérica. (2026). México adjudica 6,7 GW fotovoltaicos en su primera convocatoria de esquemas mixtos. pv magazine Latinoamérica. https://www.pv-magazine-latam.com/2026/06/10/la-cfe-adjudica-6-7-gw-fotovoltaicos-en-su-primera-convocatoria-de-esquemas-mixtos/

Qin, Q., Shearer, C., & Schaepe, B. (2026). Built to peak: Coal power expansion runs out of room in China. Centre for Research on Energy and Clean Air & Global Energy Monitor. https://energyandcleanair.org/publication/built-to-peak-coal-power-expansion-runs-out-of-room-in-china/

Quicke, A., & Venketasubramanian, S. (2022). Climate of the Nation 2022: Tracking Australia's attitudes towards climate change and energy. The Australia Institute. https://australiainstitute.org.au/report/climate-of-the-nation-2022/

Republic of Indonesia. (2025). Government Regulation No. 40 of 2025 on National Energy Policy.

Republic of Türkiye. (2024). 2053 long term climate strategy. United Nations Framework Convention on Climate Change (UNFCCC). https://unfccc.int/sites/default/files/resource/Turkiye_Long_Term_Climate_Strategy.pdf

Reuters. (2022). Japan turns back to nuclear power to tackle the energy crisis. Euronews. https://www.euronews.com/2022/12/17/japan-nuclear

Reuters. (2026). Indonesia to import more crude oil from US as Middle East conflict escalates, minister says. Reuters.

Sanderson, I. (2026). *The consequences of weakening Alberta's industrial carbon pricing*. The Pembina Institute. https://www.pembina.org/blog/consequences-weakening-albertas-industrial-carbon-pricing

Sasmita, R. P. (2026, July 3). Why coal-rich Indonesia can't keep the lights on. *Asia Times*.

Schäfer, L., Lydén, P., Schultheiß, L., Eckstein, D., Gill, F., Koop, F., Pradipta, G. M., Brandt, K., Opfer, K., Chennamaneni, L., Adil, L., Mirwald, M., Schwarz, R., Sudmann, U., & Künzel, V. (2026). *From Bonn to Antalya: Reflections on SB64 and priorities for COP31* [Blog post]. Germanwatch. https://www.germanwatch.org/en/blog/bonn-antalya-reflections-sb64-and-priorities-cop31

Schwartz, J., & Ligewie, S. (2026). *Kurzstudie: Stabil statt Fossil: Wie ein System aus erneuerbaren Energien und Flexibilitäten den Strompreis senkt und Energiepreiskrisen abfedert*. Montel GmbH & BUND. https://www.bund.net/fileadmin/user_upload_bund/publikationen/energiewende/stabil-statt-fossil-studie-energiewende-Montel-BUND-2026.pdf

Secretaría de Energía. (2025). Balance Energético Nacional 2024. Ministerio de Economía de la Nación (Argentina). https://www.argentina.gob.ar/econom%C3%ADa/energ%C3%ADa/planeamiento-energetico/balances-energeticos

Secretaría de Energía (SENER). (2020). Informe pormenorizado sobre el desempeño y las tendencias de la industria eléctrica nacional 2020. https://base.energia.gob.mx/InfPormenorizado/IP2020.pdf

REFERENCES

Secretaría de Energía (SENER). (2021). Programa de Desarrollo del Sistema Eléctrico Nacional 2021-2035 (PRODESEN). https://base.energia.gob.mx/dgaic/DA/P/SubsecretariaElectricidad/ConjuntosProyectosInversion/SENER_07_ProgramaDesarrolloSistemaElectricoNacional2021-2035%28PRODESEN%29.pdf

Secretaría de Energía (SENER). (2025a). Consolida SENER nuevo modelo energético en primer año de la Presidenta Claudia Sheinbaum. https://www.gob.mx/sener/articulos/consolida-sener-nuevo-modelo-energetico-en-primer-ano-de-la-presidenta-claudia-sheinbaum

Secretaría de Energía (SENER). (2025b). Plan de Desarrollo del Sector Eléctrico (PLADESE) 2025-2039. Diario Oficial de la Federación. https://dof.gob.mx/nota_detalle_popup.php?codigo=5770297

Secretaría de Energía (SENER). (2025c). Programa Sectorial de Energía 2025–2030 (PROSENER). Diario Oficial de la Federación. https://dof.gob.mx/nota_detalle.php?codigo=5776838&fecha=22/12/2025#gsc.tab=0

Secretaría de Hacienda y Crédito Público (SHCP). (2021). Cuenta pública 2020. https://www.cuentapublica.hacienda.gob.mx/es/PTP/Cuenta_Publica_2020

Secretaría de Hacienda y Crédito Público (SHCP). (2026). Empresarios gasolineros y el Gobierno de México refrendan acuerdos de estabilización de precios de la gasolina regular y el diésel [Comunicado de prensa]. https://www.gob.mx/shcp/prensa/empresarios-gasolineros-y-el-gobierno-de-mexico-refrendan-acuerdos-de-estabilizacion-de-precios-de-la-gasolina-regular-y-el-diesel-422808

Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT). (2025). Actualización de la Contribución Determinada a nivel Nacional (NDC) 3.0 de México. Gobierno de México. https://unfccc.int/sites/default/files/2026-08/NDC%203.0%20M%C3%A9xico_spanish.pdf

Sgaravatti, G., Tagliapietra, S., Trasi, C., & Zachmann, G. (2023). National fiscal policy responses to the energy crisis [Dataset]. Bruegel. https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices

SHURA Energy Transition Center. (2023). Electrification of Türkiye's residential and industrial process heat. https://shura.org.tr/en/electrification-of-turkiyes-residential-and-industrial-process-heat/

Sidhu, I. (2026). From deficit to surplus? Alberta's bleak budget outlook 'changed dramatically' as oil prices rise. CBC News. https://www.cbc.ca/news/canada/calgary/sidhu-alberta-fiscal-outlook-2026-surplus-possible-9.7274508

Slav, I. (2026). India's oil import dependence climbs to nearly 89% as domestic output lags. Oilprice.com. https://oilprice.com/Latest-Energy-News/World-News/Indias-Oil-Import-Dependence-Climbs-to-Nearly-89-as-Domestic-Output-Lags.html

Sousa, M. F. (2026). Influenciada pelo grupo de Alimentos e Bebidas, inflação fica em 0,58% em maio. Agência IBGE Notícias. https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/47089-influenciada-pelo-grupo-de-alimentos-e-bebidas-inflacao-fica-em-0-58-em-maio

Stanford, J. (2026). A sequel we don't want: What the 2026 oil price shock will cost Canadians. Centre for Future Work. https://centreforfuturework.ca/wp-content/uploads/2026/05/A-Sequel-We-Dont-Want.pdf

Stanford, J., & Weir, E. (2025). Counting the costs: Impacts of the 2022 oil price shock for Canadian consumers and workers. Centre for Future Work. https://cdn.prod.website-files.com/679d4ed301fa26e771ccafaa/68e7f6f5455ed72dca79079d_FalseProfits-March2025-Counting%20the%20Costs.pdf

The Jakarta Post. (2025). Govt backtracks on early retirement of Cirebon-1 coal plant.

Thurton, D., & Wilson, B. (2026). Taxpayers could be on hook for West Coast pipeline, but it's a 'good investment': Energy minister. CBC News. https://www.cbc.ca/news/politics/taxpayers-could-be-on-hook-for-west-coast-pipeline-but-it-s-a-good-investment-energy-minister-9.7258006

Transport Canada. (2026). Electric Vehicle Affordability Program (EVAP). Government of Canada. https://tc.canada.ca/en/road-transportation/innovative-technologies/electric-vehicles/electric-vehicle-affordability-program

Trend Asia. (2026). Indonesia blackout: Mengungkap masalah struktural rantai pasok batubara.

Tribunal de Contas da União (TCU). (2025). Acórdão 2732/2025 – Plenário (Processo TC 000.347/2025-6). https://pesquisa.apps.tcu.gov.br/documento/acordao-completo/*/NUMACORDAO%253A2732%2520ANOACORDAO%253A2025%2520COLEGIADO%253A%2522Plen%25C3%25A1rio%2522/DTRELEVANCIA%2520desc%252C%2520NUMACORDAOINT%2520desc%252C%2520COPIACOLEGIADO%2520desc/0

Umweltbundesamt (UBA). (2026a). Renewable energies in figures. https://www.umweltbundesamt.de/en/topics/climate-energy/renewable-energies/renewable-energies-in-figures

Umweltbundesamt (UBA). (2026b). Treibhausgas-Projektionen 2026 – Ergebnisse kompakt: Treibhausgas-Projektionen für Deutschland. https://www.umweltbundesamt.de/system/files/medien/376/publikationen/2026-03/Projektionsdaten2026_Ergebnisse%20Kompakt_bf_2026_03_14_v2.pdf

U.S. Energy Information Administration (EIA). (2025). Country analysis brief: Indonesia. U.S. Department of Energy.

U.S. Energy Information Administration (EIA). (2026). U.S. natural gas exports and re-exports by point of exit to Mexico [Data set]. U.S. Department of Energy. https://www.eia.gov/dnav/ng/ng_move_poe2_dcu_nus-nmx_a.htm

Verma, N. (2026). Russian share of India's oil imports surges to record high in July. Reuters. https://www.reuters.com/business/energy/russian-share-indias-oil-imports-surges-record-high-july-2026-08-14/

Verrender, I. (2021). Has Australia's gas-fired recovery run out of steam before it even began? ABC News. https://www.abc.net.au/news/2021-05-31/has-the-gas-fired-recovery-run-out-of-steam/100177438

Weischer, L., Voß, M., Chen, Z., Steinlein, A., & Bachinger, M. (2023). Renewables or coal? 11 lessons on Germany's changing energy mix. Germanwatch & adelphi. https://www.germanwatch.org/sites/default/files/germanwatch_renewables_or_coal_2023.pdf

World Bank. (n.d.). Sovereign ESG Data Portal: Argentina [Data set]. https://esgdata.worldbank.org/data/countries?iso3=ARG

World Bank. (2025). Indonesia economic prospects. World Bank Group.

Xia, H., Chen, Z., Leung, J. Y. S., Cai, Y., Duan, M., Pei, J., Zhu, J., Guo, R., Zhuang, M., & Li, L. (2026). Promoting just energy transition in ecologically fragile areas of China through a rural household survey. Communications Earth & Environment, 7, Article 483. https://doi.org/10.1038/s43247-026-03478-z

Xinhua. (2022). China capable of stable energy supply. State Council of the People's Republic of China. https://english.www.gov.cn/archive/statistics/202205/07/content_WS6275cc66c6d02e533532a5ae.html

Xuequan, M. (2020). China cuts electricity costs of enterprises from February to June. Xinhua Net. https://www.xinhuanet.com/english/2020-02/23/c_138809198.htm