



# **South Africa**

# **Transition Factbook**

## **2026**

**BloombergNEF**

# Introduction

## Context

South Africa's energy system is undergoing a major transition. Persistent load shedding has ended as coal capacity returned to service and private-sector participation increased. The country is now pursuing a wholesale power market and private grid investment, while aging coal plants retire and rail constraints emerge as a new bottleneck to exports and growth.

BloombergNEF's *South Africa Transition Factbook* aims to help policy, business and investment professionals understand how the country's key sectors are affected by the energy transition, where new opportunities and risks are emerging, and how mineral resources, local manufacturing and further policy reforms could shape competitiveness and long-term growth.

## Executive summary

**Private clean-power procurement is becoming a defining feature of South Africa's electricity market.** Corporate buyers are becoming increasingly important to renewable deployment, with corporate power purchase agreements expected to support 73% of anticipated utility-scale wind and solar additions in 2026. Transmission capacity is now emerging as a key constraint on further growth.

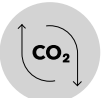
**Coal will remain central to the power system for years, but solar, wind and storage increasingly shape its future.** Coal supplied 78% of South Africa's electricity in 2025, down from 90% in 2015. In BNEF's Economic Transition Scenario, power generation rises 35% to 319TWh by 2050, as solar and wind expand to supply 69% of annual generation, while coal falls to 21% as aging plants retire and the coal fleet shrinks.

**South Africa is a major supplier of strategic minerals – such as platinum-group metals, manganese and chrome – but it captures relatively little value downstream as high power costs and infrastructure constraints weigh on competitiveness.** Industrial electricity prices reached R1,652/MWh in 2025, compared with R964/MWh in China, while weak rail performance continues to constrain mining and exports.

**South Africa is becoming increasingly reliant on China for clean-energy equipment.** China accounted for 98% of solar and 95% of battery imports in 2025 and is gaining bigger shares in wind and electric vehicles. As sub-Saharan Africa becomes a larger market for Chinese clean-tech exports, South Africa has an opportunity to build domestic manufacturing and capture more of the region's growing clean-energy supply chain.

**Decarbonization beyond the power sector is less advanced.** Electric vehicles sales more than doubled in 2025 but still represented less than 1% of passenger-vehicle sales. Cleaner electricity, electrification and low-carbon production routes could reduce emissions and support industrial competitiveness as policies such as the EU Carbon Border Adjustment Mechanism increase pressure on emissions-intensive exports.

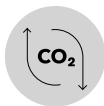
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# Clean power



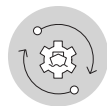
**Clean  
power**



South Africa's  
energy  
scenarios



Regulatory  
landscape



Trade and  
supply chains



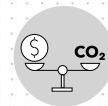
Energy transition  
metals



Decarbonizing  
transport



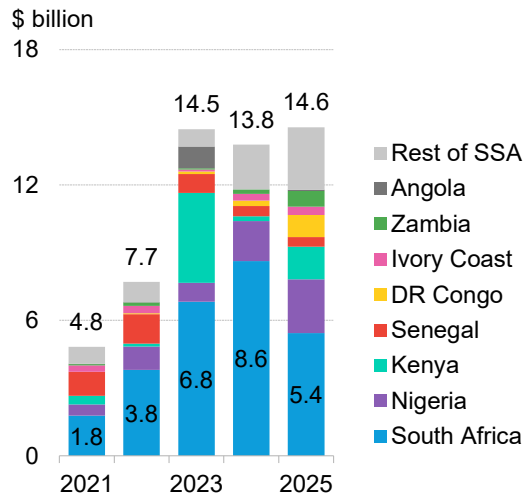
Decarbonizing  
industry



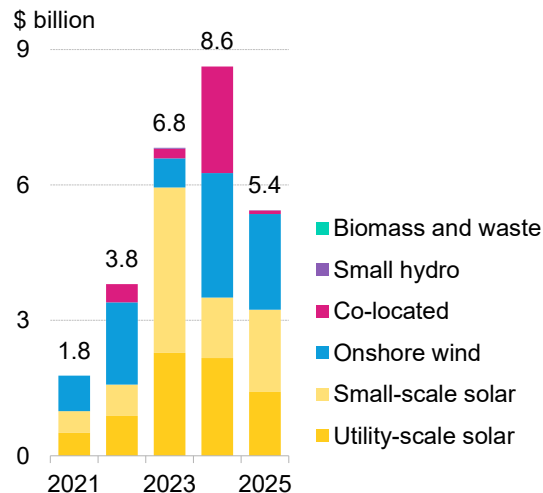
Carbon  
markets

# South Africa remains the region's largest market, but investment slowed in 2025

## Renewable energy investment in sub-Saharan Africa, by market



## Renewable energy investment in South Africa, by sector

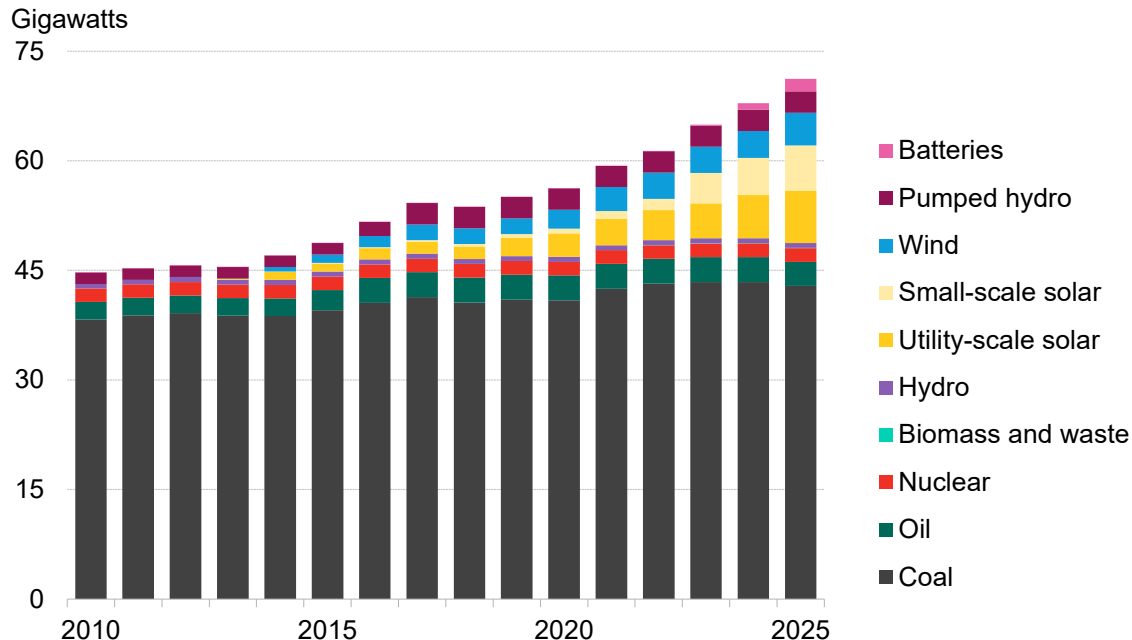


- Sub-Saharan Africa's (SSA) renewable energy investment reached \$14.6 billion in 2025, the third straight year above \$13 billion, and South Africa remained the largest market at \$5.4 billion. Nigeria and Kenya followed with \$2.4 billion and \$1.4 billion.
- Still, South Africa's renewable energy investment fell 41% from \$8.6 billion in 2024. Fewer utility-scale projects reached financial close in 2025, with utility solar down 57% to \$1.4 billion, and onshore wind dropping 30% to \$2.1 billion. Small-scale solar broke the trend, growing 35% to \$1.8 billion and softening the overall drop.
- Despite the decline in South Africa, investment across SSA rose 5.5% from 2024, driven by small-scale solar booms in markets like Nigeria and Kenya. In Nigeria, over 99% of investment went to small-scale solar, as capital costs and a lack of bankable offtakers limited utility-scale deals.

Source: BloombergNEF. Note: Renewable energy investment tracking covers wind, solar, geothermal, small hydro, biofuels, and biomass and waste. Utility-scale investment is recorded when funds raised indicates financial close for a project. Small-scale investment is based on deployment in our latest forecasts. For methodology, see BNEF's Renewable Energy Investment Tracker (web). SSA is sub-Saharan Africa. DRC is Democratic Republic of Congo.

# Coal dominates capacity but additions are needed ahead of planned closures

## South Africa installed power mix by technology

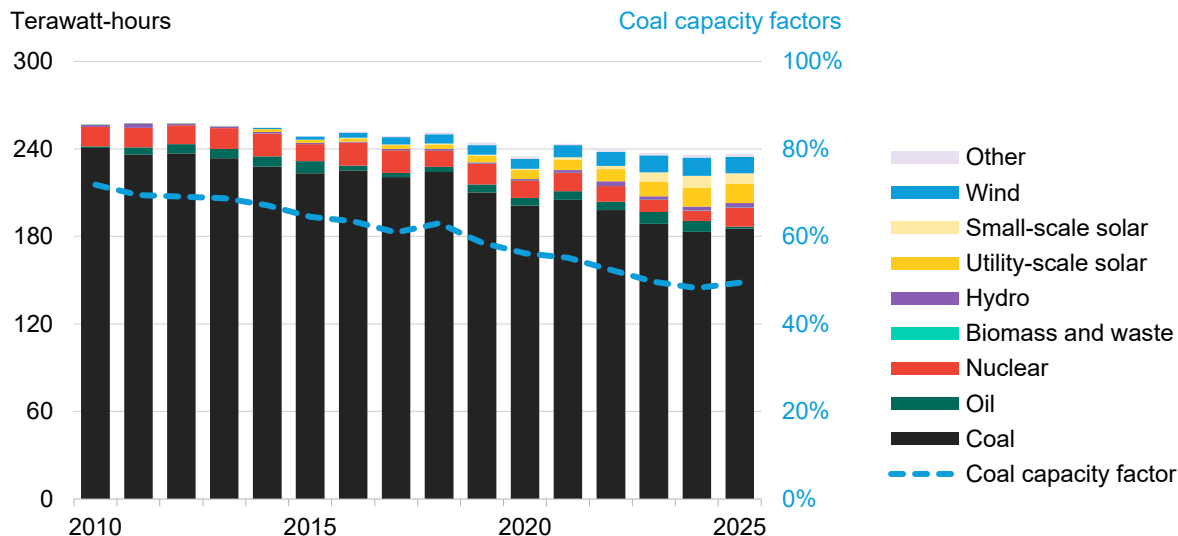


Source: BloombergNEF, Eskom.

- South Africa had 67GW of installed capacity in 2025, dominated by 43GW of coal. The country's 2025 Integrated Resource Plan (IRP) looks to retire 8GW of this coal fleet by 2030, to be replaced by 6GW of gas and 14GW of renewables.
- Due to ongoing delays with gas power procurement, South Africa must decide between running old coal plants for longer or pushing for solar or wind paired with batteries. If solar and wind are prioritized, South Africa would need to ramp up its average annual renewable additions from the 2GW a year recorded from 2020 to 2025 to 3GW a year from 2026 to 2030.
- Additions over the next few years are set to be led by large energy users, which are already procuring more new capacity than government auctions ([slide 9](#)). These users favor wind and solar over gas due to both cost and clean energy mandates, driving renewables into the power mix.

# Coal still leads generation, but its share and capacity factors are falling

## South Africa power generation mix and coal power capacity factors

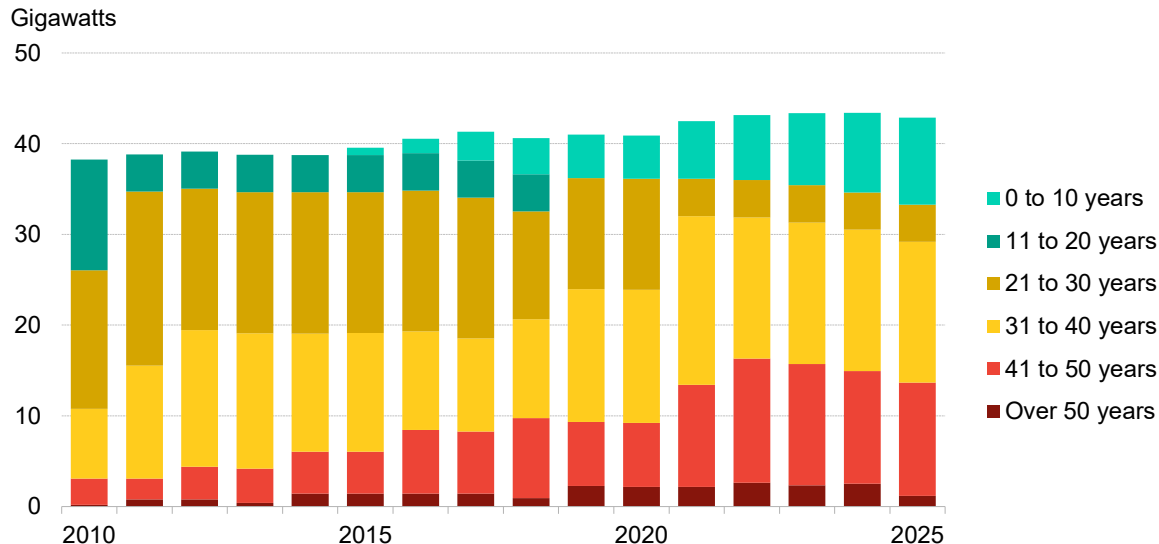


Source: BloombergNEF, Eskom. Note: Coal, oil, nuclear, biomass and waste, and hydro is actual historical generation data from Eskom. Utility-scale solar and wind is split – Eskom provides actual generation data for the solar and wind plants it owns, and generation from the remaining corporate PPA solar or wind projects wheeled through the grid is estimated based on capacity factors of 28% for tracking solar, 17% for single-axis solar and 37% for wind. Generation from small-scale solar is also estimated based on a 14% capacity factor.

- South Africa consumed an estimated 237 terawatt-hours (TWh) of electricity in 2025. Coal provided 185TWh, or 78% of generation, down from 90% in 2015. Solar and wind rose to 13% from 2% over the period.
- Coal generation has been falling due to maintenance issues with Eskom's aging coal fleet. While coal installed capacity rose to 43GW in 2025 from 38GW in 2010, coal capacity factors fell to 49% from 72%.
- The uptick in solar and wind generation was led by Eskom procurement to grow grid supply, but private power purchases by homes and corporates has caught up after rising steadily since 2023, when grid outages hit record levels. Corporate power procurement is now set to be the largest driver of new generation in 2026, beating Eskom additions for the first time.
- For more, see *South Africa Corporate PPA Price Survey 2026* ([web](#) | [terminal](#)).

# Roughly one third of South Africa's coal fleet is old enough to be retired

## South Africa coal capacity by plant age range

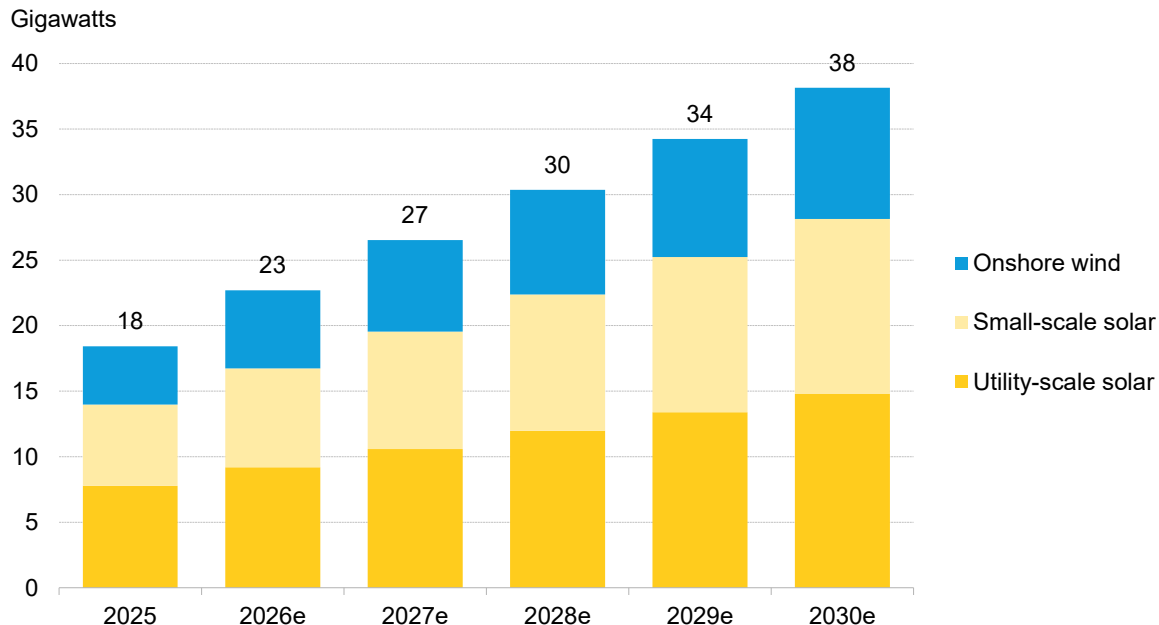


Source: BloombergNEF, Eskom. Note: Age is based on the commissioning date of individual coal power plants. If more granular data is available, we use the age of individual coal units that are part of larger plants. Capacity reductions in age brackets either reflect plants getting older and that capacity being added to the next age bracket, or plants in the “41 to 50” or “Over 50” brackets retiring.

- More than 12GW of South Africa's 43GW coal fleet was over 40 years in 2025, close to Eskom's typical retirement age between for 41 to 50 years. Another 16GW has been online for 30 to 40 years and would reach the 41-to-50-year range by 2035. The coal units less than a decade old are at the Kusile and Medupi plants, which started coming online in the late 2010s and are now fully commissioned.
- In April 2026, Eskom said that it would decide by September 2026 on the final decommissioning of its oldest coal plants: Camden, Hendrina, Grootvlei, Arnot and Kriel. These plants were due to retire in the 2020s but were kept online to secure power supply during a crisis.
- Eskom extending older coal plants means that the Coal Extension Scenario in our *2023 South Africa Power Transition Outlook* ([web](#) | [terminal](#)) now largely aligns with our Economic Transition Scenario.

# Solar and wind capacity will outstrip coal by 2030 if retirements go ahead

## South Africa cumulative solar and wind capacity forecast

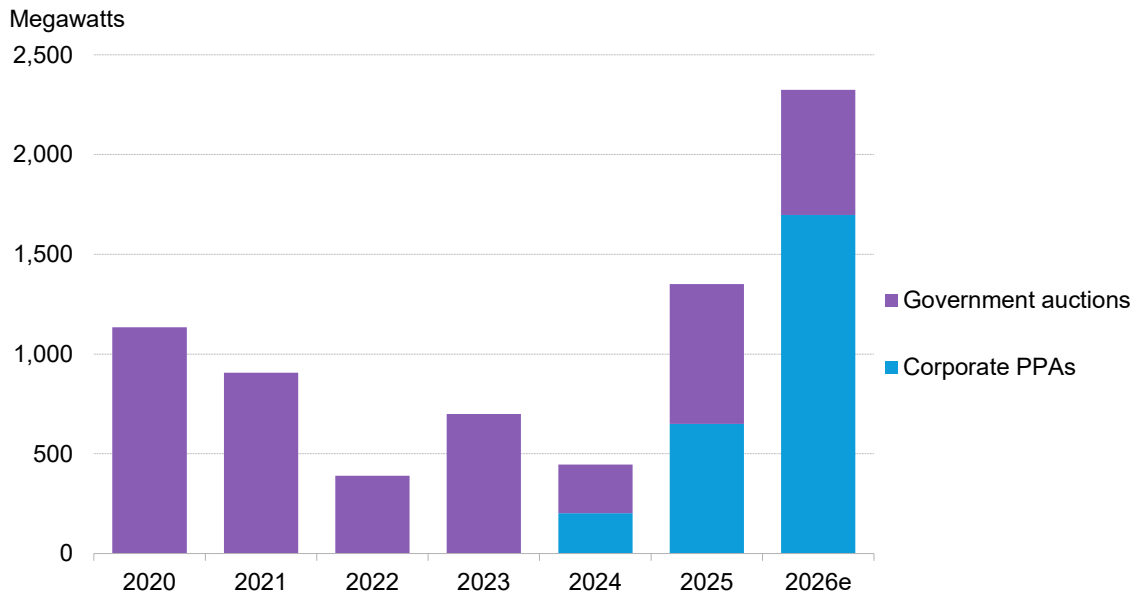


Source: BloombergNEF. Note: "e" means estimate.

- Looking ahead, BNEF expects cumulative solar and wind capacity to grow from 18GW in 2025 to 38GW in 2030, exceeding the 36GW of coal by 2030 in South Africa's Integrated Resource Plan.
- Utility-scale solar capacity grows from 7.8GW in 2025 to 14.8GW by 2030. This will be driven by both government auctions which continue to contract solar projects, as well as corporate power procurement by large energy users. Small-scale solar grows from 6.2GW to 13.4GW over the same period as rising electricity prices due to tariff reforms push homes and businesses toward solar.
- Wind grows 4.4GW to 10GW, driven mostly by large energy users that value wind's stronger generation profile. The extent to which government auctions drive new wind is unclear, as the last round of South Africa's auction had no winning wind bids due to the lower cost of solar.

# Corporate power procurement set to outpace government auctions

Utility-scale solar and wind capacity in South Africa, by commissioning year and PPA type

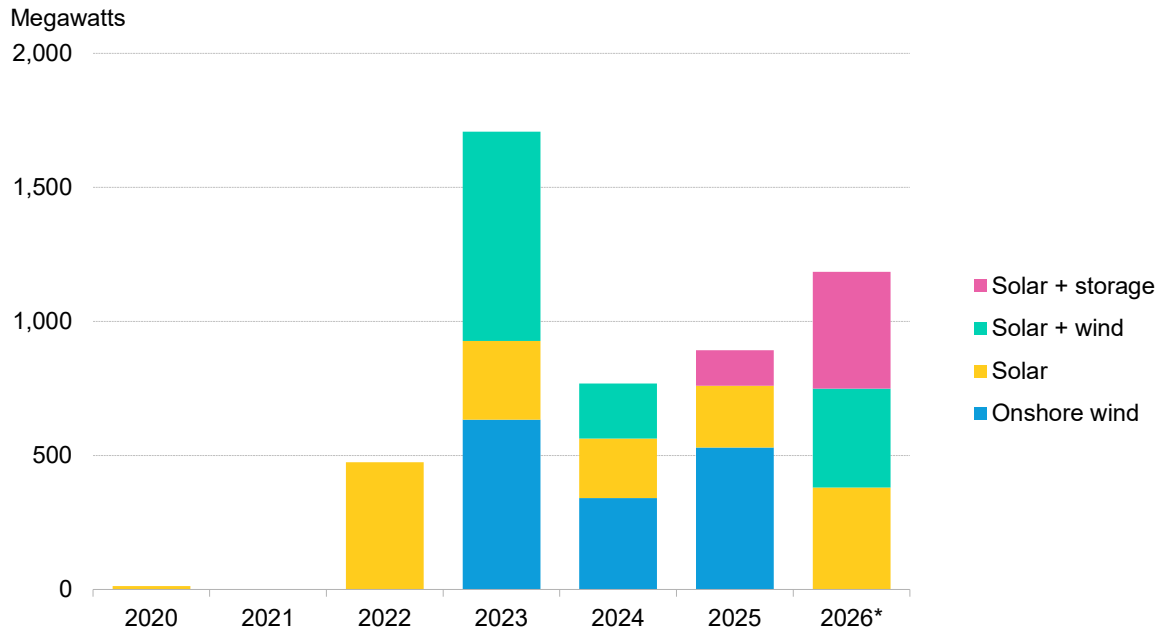


Source: BloombergNEF. Note: “e” means estimate.

- Corporate power purchase agreements (PPAs) are set to drive more utility-scale renewable additions in South Africa than government auctions for the first time in 2026. BNEF expects corporate buyers to support 73% of the 2.3 gigawatts of anticipated solar and wind additions.
- Corporate demand has been growing since the cap on private power projects was removed in 2023. Corporate PPAs supported around 670 megawatts, or 48%, of the 1.4GW tracked in 2025, with major buyers including Sibanye Stillwater, Rio Tinto, Tronox, Air Liquide and Sasol.
- BNEF expects corporate PPAs to remain the main driver of renewables to the end of the decade, with 90% of respondents in our *South Africa Corporate PPA Price Survey 2026* ([web](#) | [terminal](#)) expecting to sell more via PPAs than via the South African Wholesale Electricity Market, which has been delayed to October 2026.

# Corporates have procured more onshore wind power than solar

## Corporate PPA projects signed in South Africa, by signing year

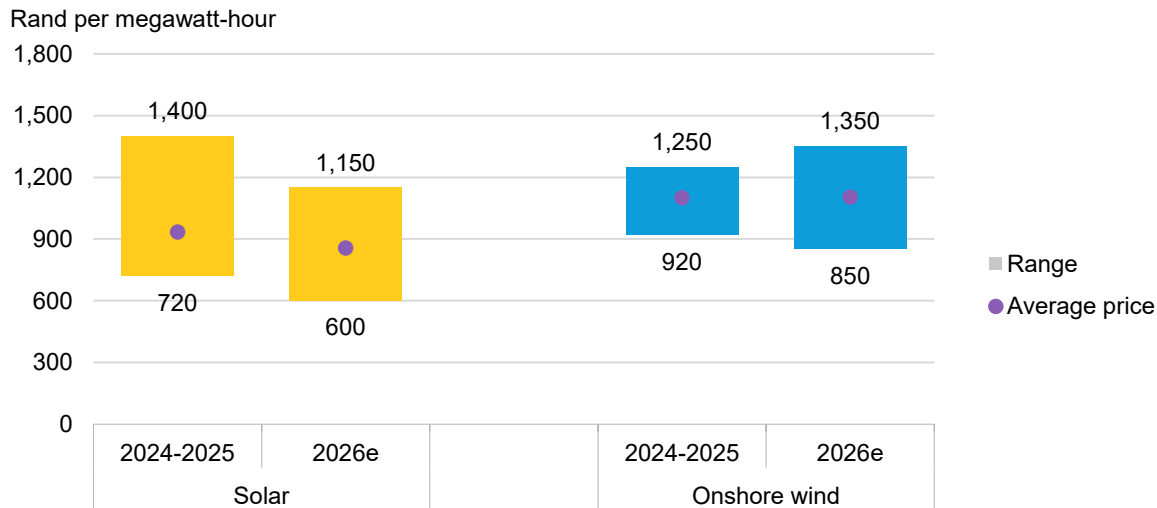


Source: BloombergNEF. Note: 2026\* = Projects signed up to July 2026.

- Since 2020, corporates in South Africa have signed contracts to procure 5GW of clean power. Standalone projects made up 3.1GW of that total, broken down as 1.5GW of wind and 1.6GW of solar. Despite solar being much cheaper than wind, corporates prefer wind's stronger generation profile.
- Co-located projects, which offer an even stronger generation profile, total 1.9GW and are the more popular option so far in 2026. Co-location was initially skewed toward solar-plus-wind, but solar-plus-storage has been more popular since 2025 as developers, corporates and banks become more comfortable with batteries.
- Participants in our *South Africa Corporate PPA Price Survey 2026* ([web](#) | [terminal](#)) expressed interest in further developing co-located projects but cited key challenges such as the complexity in building and contracting projects, and the lack of revenue streams to fully monetize batteries.

# Standalone solar PPA prices expected to drop, but wind to stay the same

## Standalone solar and onshore wind PPA prices in South Africa, historical and expected



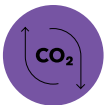
Source: BloombergNEF, survey responses. Note: Historical shows 2024 and 2025 contract price data. 2026 data shows expectations of survey participants, not actual contract prices. Responses were submitted before the start of the Iran war and China's removal of clean technology subsidies. We expect upward pressure on equipment prices and logistics because of these events, potentially driving up prices.

- Solar PPAs in South Africa averaged 935 rand/MWh from 2024 to 2025, compared to 1,102 rand/MWh for onshore wind, reflecting the higher costs and stronger generation profile of wind projects.
- The market expects average solar PPA prices to fall to 848 rand/MWh in 2026, while onshore wind PPA prices rise marginally to 1,104 rand/MWh. This reflects the falling value of solar to offtakers that have already contracted solar and place less value on additional power delivered during sunny hours.
- The lower end of PPA prices reflects developer expectations when contracts have 20-year tenors or longer. The higher end is more reflective of traders signing smaller and shorter-term contracts with multiple offtakers, some of which are less creditworthy than the norm. The added risk here drives the pricing premium.

# South Africa's energy scenarios



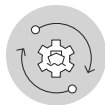
Clean power



South Africa's energy scenarios



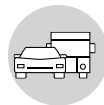
Regulatory landscape



Trade and supply chains



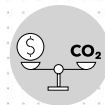
Energy transition metals



Decarbonizing transport



Decarbonizing industry



Carbon markets

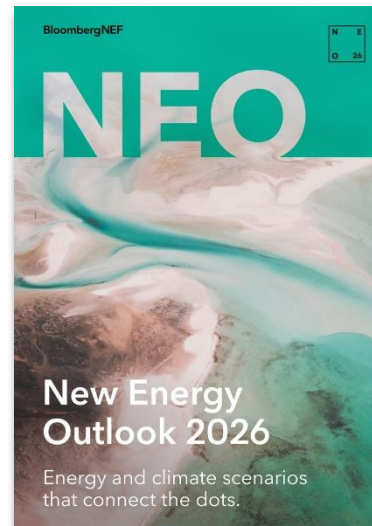
# BNEF modeled two scenarios for the decarbonization of South Africa's power sector

## Economic Transition Scenario (ETS)

- Exploratory base case that describes how the power, industry, transport and buildings sectors might evolve as a result of cost-based technology changes.
- Consistent with a global warming outcome of 2.4C by 2100.
- Assumes no further policy support for the energy transition beyond existing measures.
- The low-carbon transition is largely limited to the power and transport sectors.

## Net Zero Scenario (NZS)

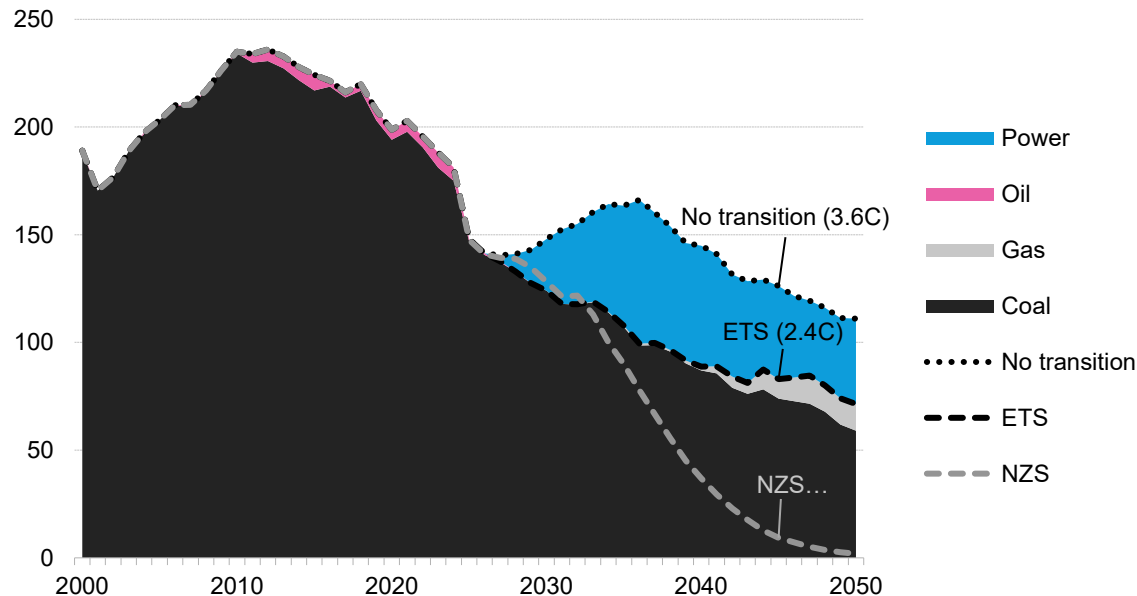
- Normative climate scenario outlining a credible maximum-effort pathway to limit warming to well below 2C using existing technologies.
- Consistent with peak warming of 1.81C by 2049.
- Delivers net zero across power, transport, industry and buildings sectors by 2050 under defined sectoral carbon budgets.
- Includes limited overshoot and moderate post-2050 carbon removals.



# Power sector emissions halve by 2050 in our base-case scenario

## South Africa power sector emissions by fuel in different scenarios

Million metric tons of CO<sub>2</sub>

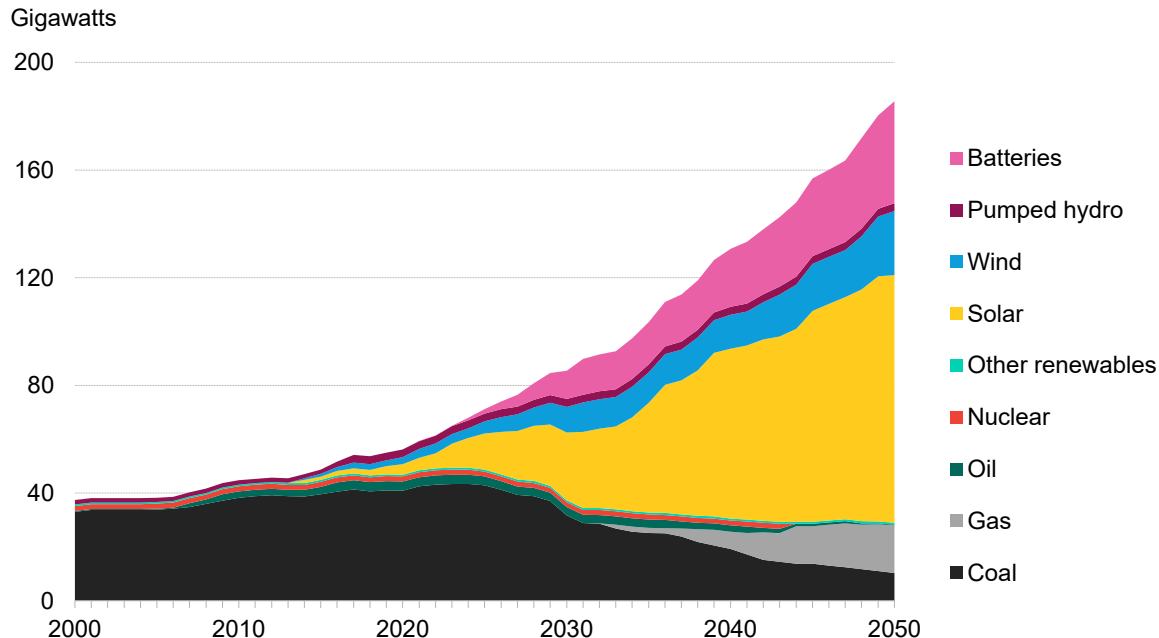


Source: BloombergNEF. Note: ETS means Economic Transition Scenario, NZS means Net Zero Scenario.

- Power sector emissions fell 19% in 2025 to 148 million metric tons of carbon dioxide (MtCO<sub>2</sub>), a steeper decline than any year in our ETS. The drop was mostly driven by improved coal plant efficiency: while coal generation rose 1%, average coal plant efficiency increased significantly after newer Kusile units were added in 2025. Another driver was reduced output from oil plants Acacia and Port Rex, which we expect to wind down operations after 2026.
- Power sector emissions in the ETS fall 52% from 2025 levels by 2050, reaching 71MtCO<sub>2</sub>. That is 36% below our “No transition” scenario without strong uptake of renewables. Coal is still the main emitter by 2050, with 10GW still online. Emissions spike in 2044, as gas generation grows after the Koeberg nuclear plant retires.
- Emissions in the NZS decline steeply from 2030 to 1.9MtCO<sub>2</sub> by 2050, largely aided by nuclear, gas and carbon capture.

# Installed power capacity more than doubles to 189GW by 2050

## South Africa installed capacity by technology, Economic Transition Scenario

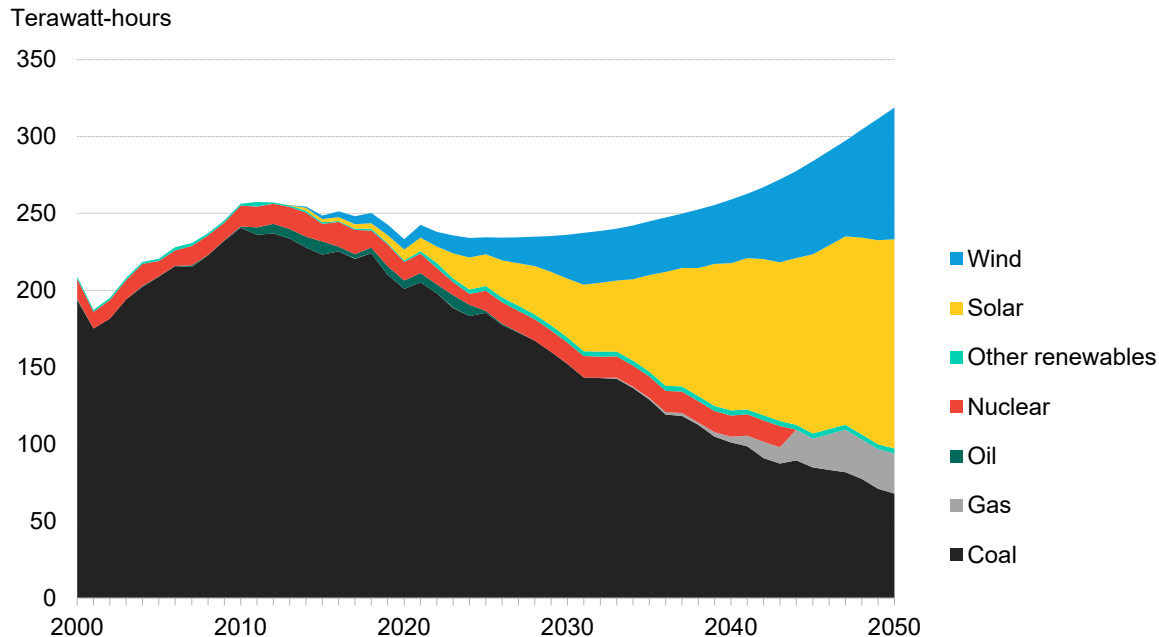


Source: BloombergNEF. Note: Other renewables includes hydro and bioenergy.

- Installed capacity in the ETS more than doubles to 2050 from 2025, hitting 189GW from 75GW. This helps offset firm capacity retirements and meet demand growth.
- Solar is the largest source of capacity by 2050, while wind is secondary. Solar grows sevenfold from 2025 levels to reach 92GW, while wind rises fourfold to 24GW. Solar outpaces wind as it is already much cheaper to deploy, and costs fall faster.
- Batteries grow to 38GW, as higher solar penetration drives the need for flexible capacity, which is also met by 2.9GW of pumped hydro storage capacity that stays online through to 2050.
- There is 10GW of coal by 2050, as the newer Medupi and Kusile coal plants are still far from retirement, having been fully commissioned in 2021 and 2025, respectively. Older coal plants are largely replaced by gas, which reaches 18GW.

# Solar and wind dominate but gas is key to replacing firm coal and nuclear

## South Africa power generation by technology, Economic Transition Scenario

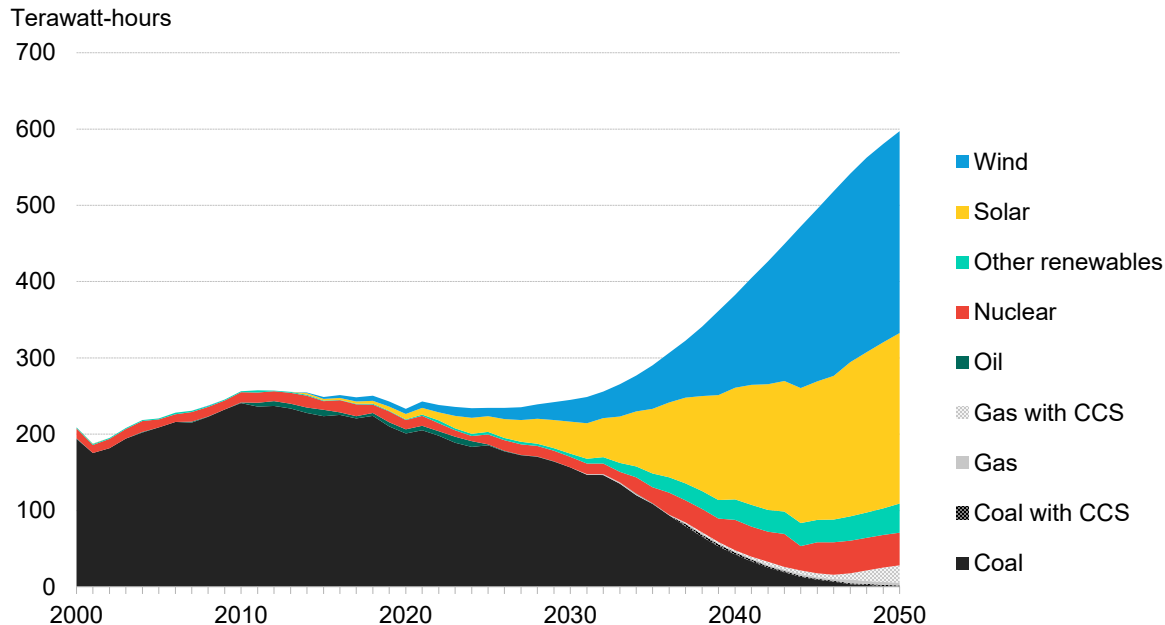


Source: BloombergNEF. Note: Other renewables includes hydro and bioenergy.

- Power generation in the ETS grows 35% from 2025 to 2050, from 237 terawatt-hours (TWh) to 319TWh. This supports data centers, electric vehicles, air conditioning and other economic growth.
- Solar overtakes coal in 2041, after coal generation falls 5TWh a year from 2025 to 2040 as closures cut the fleet from 43GW to 19GW. By 2041, solar hits 100TWh, or 39% of annual generation, while coal accounts for 99TWh and wind 42TWh.
- Nuclear retirements create a key role for gas in 2044, when the 1.9GW Koeberg power plant retires after averaging 14TWh a year from its commissioning in 1985 to its closure. This loss is replaced by 3GW of gas capacity in the same year.
- Coal is at its lowest share of generation by 2050, falling to 68TWh, or 21% of annual generation. Solar and wind by then are 69% of annual generation, and gas is 8%.

# Net zero requires nuclear and CCS alongside a solar and wind boom

## South Africa power generation by technology, Net Zero Scenario



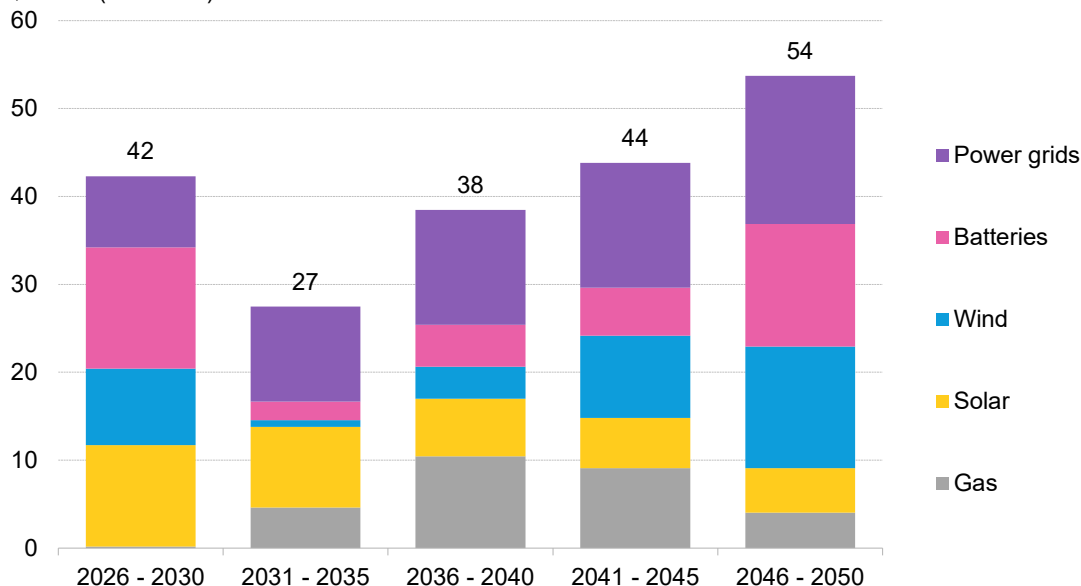
Source: BloombergNEF. Note: Other renewables includes hydro and bioenergy. CCS refers to carbon capture and storage.

- In our more ambitious Net Zero Scenario (NZS), which maps out a path for South Africa to meet its 2050 net zero target, generation rises 2.5-fold to 598TWh by 2050, aiding full decarbonization of power, transport, industry and buildings.
- Unabated coal generation falls to zero by 2050. The steepest fall is from 2031 to 2040, when coal drops to 42TWh, or 11% of generation. The remaining 0.46GW of coal by 2050 uses carbon capture.
- Wind is the largest source of generation by 2050, beating solar: more aggressive coal closures drive demand for wind's stronger generation profile. Wind hits 265TWh, or 44% of total generation, up more than 23-fold from 2025. Solar reaches 225TWh, up nearly 10 times from 23TWh in 2025.
- The last mile to net zero is met by new nuclear, bioenergy, hydro and gas with carbon capture, adding to 15% of 2050 generation.

# Power sector investment dips before rising to support firm capacity

## Power sector investment in South Africa by segment, Economic Transition Scenario

\$ billion (real 2025)



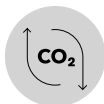
Source: BloombergNEF. Note: ETS stands for Energy Transition Scenario.

- Power sector investment under the ETS totals \$207 billion from 2026 to 2050, averaging \$8.3 billion a year. Investment dips from 2031 as coal retirements slow, before rising again from 2041.
- Power generation investment accounts for \$144 billion, or 70% of total power sector investment. Batteries lead that \$144 billion investment with \$40 billion, followed by \$38 billion of solar, \$37 billion wind and \$28 billion gas. Battery investment is \$2.8 billion a year from 2026 to 2030 but rises to similar levels from 2046, when battery demand peaks. Wind and gas also pick up from 2036 onward as solar saturates and firm power plants shut.
- Power grid investment totals \$63 billion from 2026 to 2050, equating to \$0.44 for every \$1 invested in power generation. Replacement of aging assets accounts for 58% of investment, system reinforcements for 28% and new connections for 14%.

# Regulatory landscape



Clean power



South Africa's energy scenarios



**Regulatory landscape**



Trade and supply chains



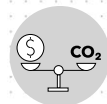
Energy transition metals



Decarbonizing transport



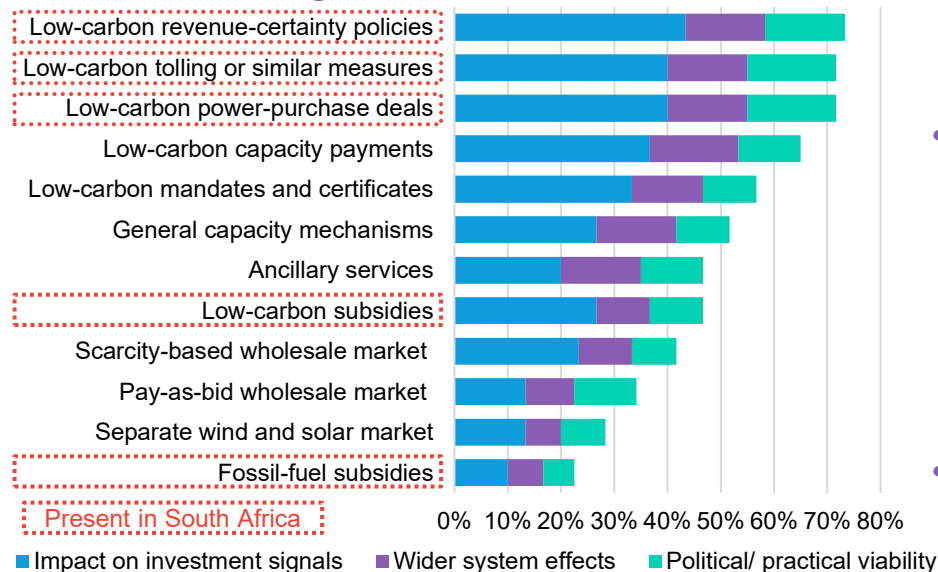
Decarbonizing industry



Carbon markets

# Power policy design matters as much as policy choice in South Africa

## BNEF assessment of mechanisms to ensure power market investment signals

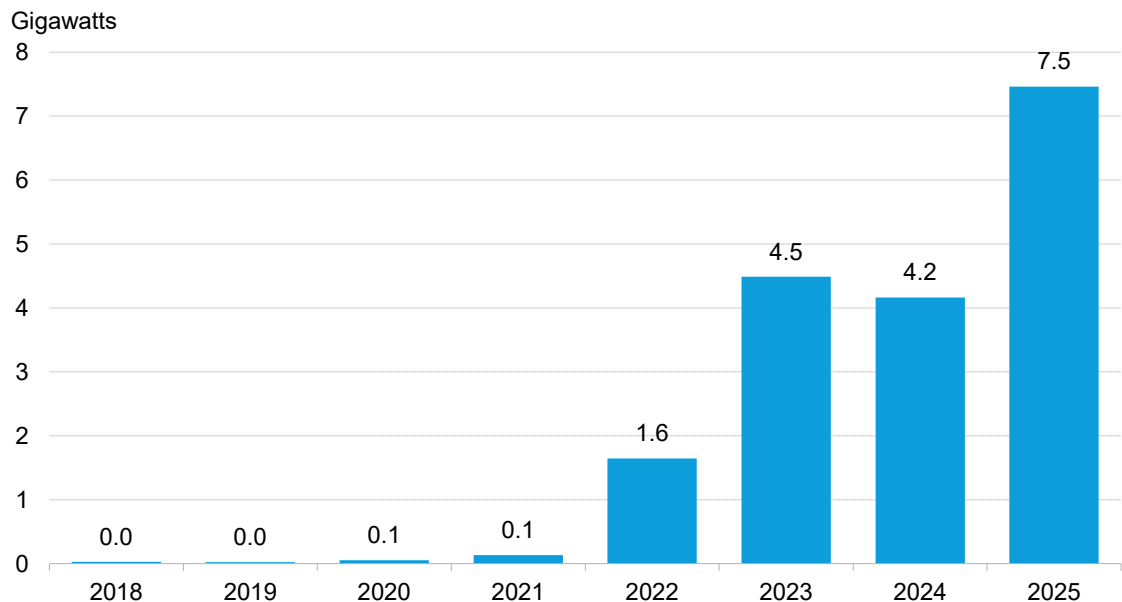


Source: BloombergNEF. Note: Each mechanism is scored based on BNEF's analysis of power markets around the world. The total is weighted: 50% for effectiveness and 25% each for the other two criteria.

- South Africa has some of the most effective types of policy and market mechanisms designed to maintain investment signals in renewables-heavy systems. As more wind and solar power comes online, traditional wholesale markets alone cannot ensure sufficient investment for a reliable, low-carbon system.
- As a result, generation and storage projects require stacked, predictable revenue streams to secure low-cost financing. Clean energy subsidies like South Africa's auction programs improve project bankability. But revenue certainty mechanisms like contract-for-difference tenders reduce public spending, as do corporate procurement and tolling agreements. Their impact will be limited by contract design and corporate demand. Capacity mechanisms can significantly improve dispatchable technologies' economics. But they risk over-procurement and tend to favor existing fossil-fuel-fired assets.
- However, simply implementing these types of policy is not enough to ensure investment signals. These mechanisms need to be well-designed and ensure that other barriers like complex qualification rules and grid connection delays do not impede their effectiveness. It will also be crucial to phase out inefficient fossil-fuel subsidies to prevent such support from counteracting the effects of low-carbon programs.

# Market reforms unleashed private power investment, but grid is a bottleneck

## New power generation capacity registrations in South Africa



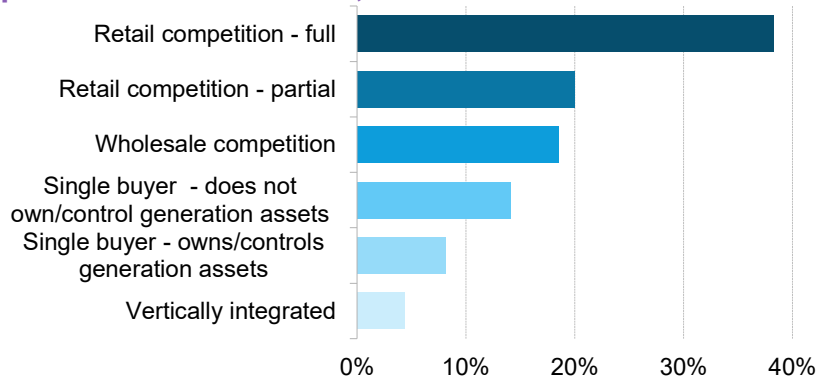
Source: National Energy Regulator of South Africa.

- Landmark market reforms, including removing limits on private power plants for large energy users, helped South Africa past its electricity crisis. Along with extensions for older coal plants, these reforms improved electricity supply and economic growth, supporting mining, manufacturing and other export industries.
- Investors and large energy users are planning further investment in power capacity, but transmission grid capacity is emerging as a limiting factor in how quickly these investments can go ahead.
- Without faster grid expansion, the energy transition may deliver less economic growth than expected. Considering limited capital to directly invest in new power grid infrastructure, South Africa opened power grid investment to private actors, with the first request for proposals scheduled to go to prequalified actors by the end of 2026.

# Careful power market reform can boost renewables

- South Africa's power market reform is in the implementation phase. The National Transmission Company has been legally established but remains an Eskom subsidiary. A wholesale market is in the works, subject to completion of a market code and supporting regulations.
- Such reforms help promote private-sector investment, renewables deployment and electricity system resilience. Globally, wind and solar

## Wind and solar share of power generation capacity by power market structure, 2024

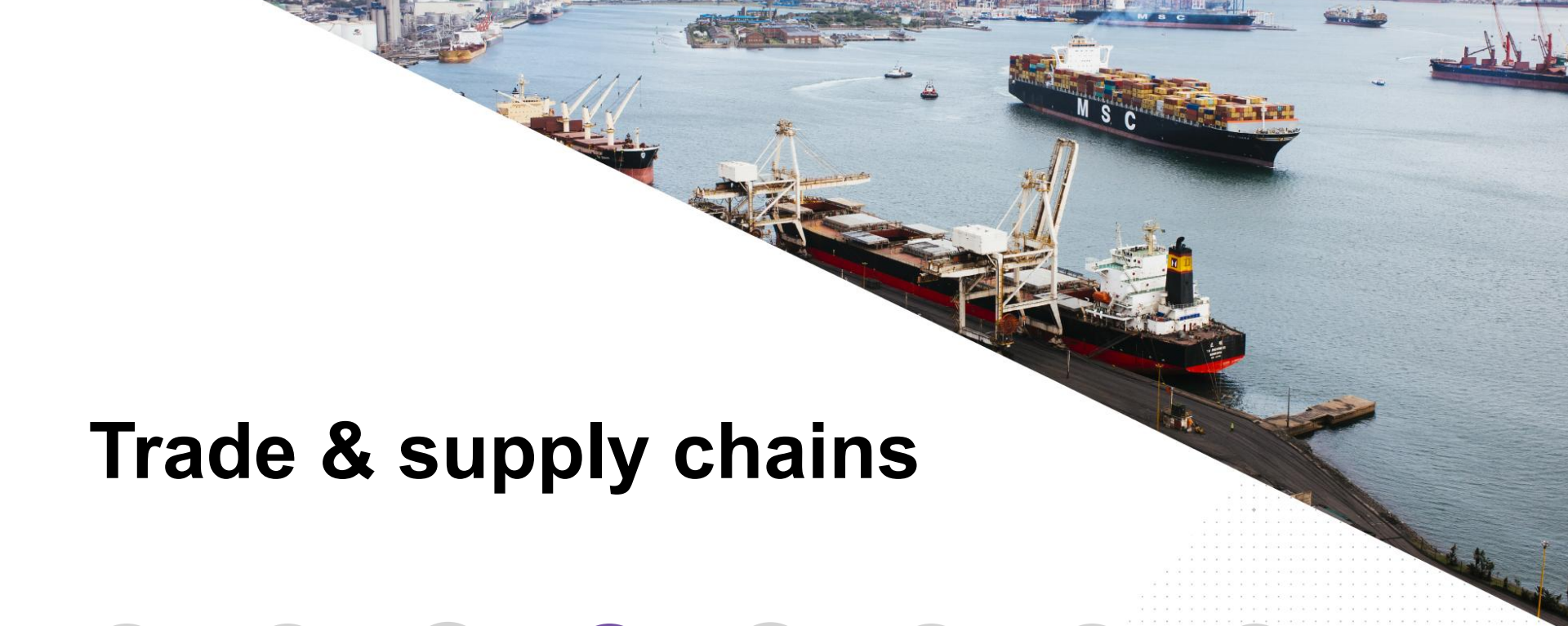


Source: BloombergNEF, World Bank, Global Power Market Structures Database.

comprised an average 18% of generating capacity in 2024 where a wholesale market was operational compared with 4% for vertically integrated utilities. However, power market reform also raises challenges: liberalization in the European Union took nearly three decades.

## Key lessons learned from EU power market reforms

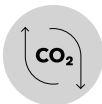
| Challenge                                                               | Lessons learned                                                                                                                                    |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Resistance from incumbents and market concentration                     | Strong political commitment to reform, clear implementation timelines and independent regulators were key                                          |
| Insufficiency of legal or accounting separation (unbundling)            | Vertically integrated utilities continued to discriminate against competitors and thus eventually ownership or operational unbundling was required |
| Faster generation growth than grid expansion                            | Grid reform needed to accompany market liberalization, to avoid later bottlenecks downstream                                                       |
| Investment uncertainty as energy-only markets failed to provide signals | Governments had to offer revenue-certainty mechanisms and policies to promote power-purchase agreements. See previous slide                        |



# Trade & supply chains



Clean  
power



South Africa's  
energy  
scenarios



Regulatory  
landscape



**Trade and  
supply chains**



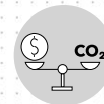
Energy transition  
metals



Decarbonizing  
transport



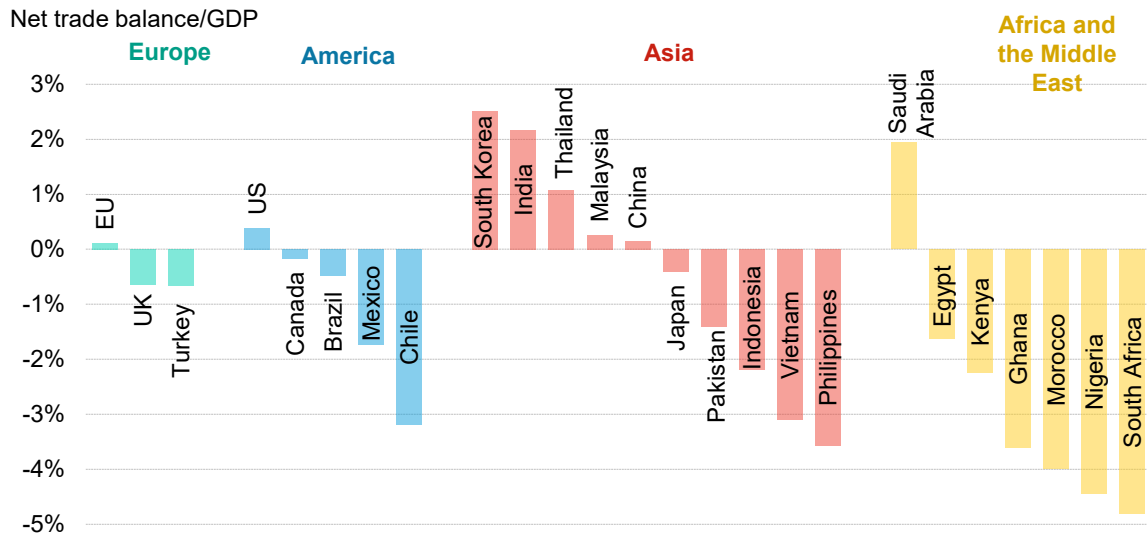
Decarbonizing  
industry



Carbon  
markets

# Clean energy can help South Africa reduce its dependency on oil imports

## Net oil product imports and exports as a share of GDP by market, 2025



Source: BloombergNEF, Sinoimex, International Monetary Fund. Note: Given uneven trade data availability across African countries, we relied on the latest available data for each country, either from 2023 or 2024, and assumed constant trade levels for 2025. Oil products refer to refined oil products like petrol, diesel-type fuels, jet fuel, lubricants, blended fuels, and waste oils.

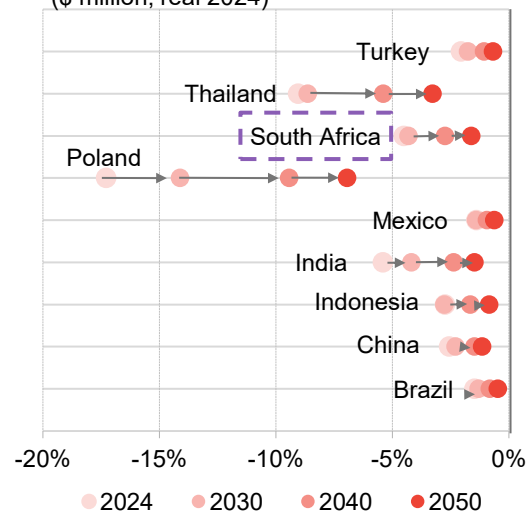
- The Iran conflict pushed global fossil fuel prices to dizzying heights, but the impact has been felt more strongly in countries among the world's largest net importers of refined oil products such as gasoline and diesel.
- South Africa stands out for its reliance on imported oil products: imports significantly exceed exports, resulting in a negative trade balance equivalent to nearly 5% of the country's GDP. Other African countries with similarly high levels of dependence are Nigeria, Morocco and Ghana.
- Net fossil fuel importers like South Africa are exploring measures to manage the impact of rising energy prices. One such measure has been removing subsidies that previously cushioned consumers from higher fuel costs (web). These measures could accelerate growing demand for clean tech, shifting imports from oil products to low-carbon technologies such as solar, wind, batteries and electric vehicles.

# South Africa reduces its fossil fuel import dependence under NEO scenarios

## Fossil fuel import dependence by market, under BNEF scenarios

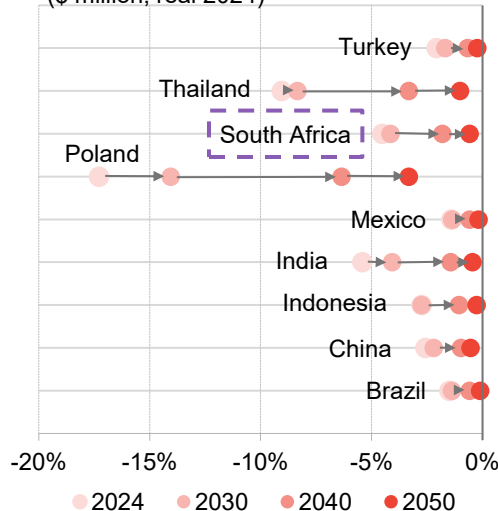
### Energy Transition Scenario

Energy imports as share of GDP  
(\$ million, real 2024)



### Net Zero Scenario

Energy imports as share of GDP  
(\$ million, real 2024)

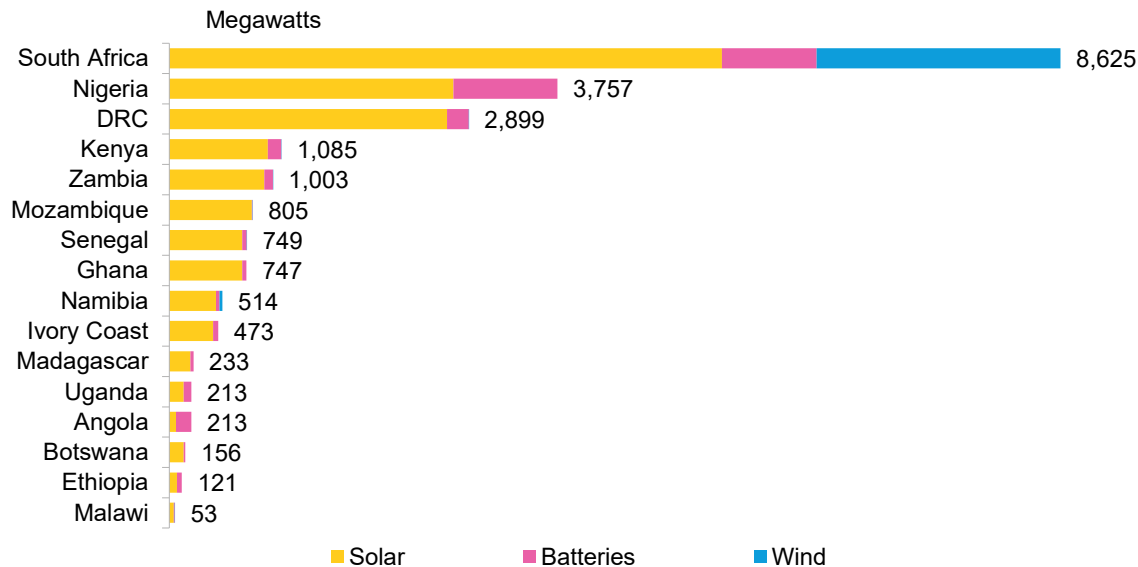


Source: BloombergNEF, Sinoimex, Global Change Analysis Model (GCAM). Note: Fossil fuel imports based on observed 2024 trade data from relevant custom codes for coal, lignite, crude, petroleum oil products, natural and petroleum gas. Future imports scaled forward based on market demand for products under different scenarios. This projection assumes relative trade patterns remain static.

- South Africa's transition reduces its dependence on imported fossil fuels over the long term. Fossil fuel imports accounted for 4.5% of South Africa's GDP in 2024, falling to 4.3% in 2030, 2.8% in 2040 and 1.6% by 2050 under the Economic Transition Scenario (ETS). This is largely driven by declining imports of oil products and internal combustion engine (ICE) vehicles.
- South Africa remains more reliant on imported fossil fuels than Brazil, China, Indonesia, Mexico and Turkey, although the gap narrows over time.
- Under the Net Zero Scenario (NZS), fossil fuel imports decline more rapidly to 1.8% in 2040 and 0.6% by 2050 as electrification accelerates and demand for imported fossil fuels falls.
- Lower fossil fuel imports improve South Africa's economic resilience. Reduced dependence on imported fuels lowers exposure to global energy price volatility and supply disruptions, while supporting the trade balance by reducing the country's fossil fuel import bill over time.

# South Africa is already the region's top importer of clean energy equipment

Clean energy equipment imports to selected sub-Saharan Africa markets from 2025 to April 2026

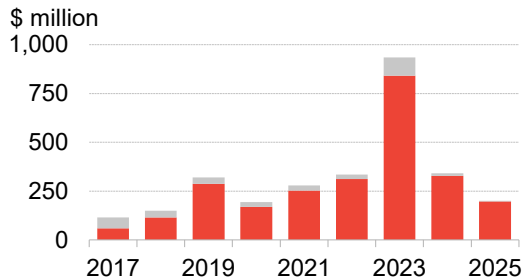


Source: Sinoimex, Trade Map, China Customs, Japan Customs, South Korea Customs. DRC is Dem. Rep. of Congo.

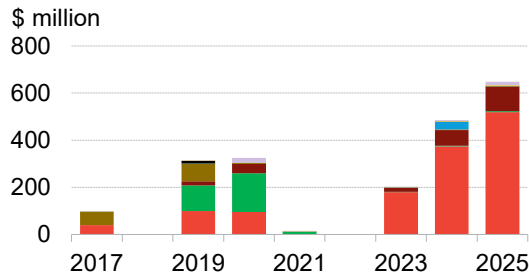
- South Africa is already the largest importer of clean energy products in sub-Saharan Africa. From the start of 2025 to April 2026, South Africa imported an estimated 5.3GW of solar, 0.92GW of battery energy storage and 2.4GW of wind capacity.
- Solar demand in South Africa and the rest of sub-Saharan Africa was fuelled by the closure of the Strait of Hormuz, which raised regional concerns around surging costs and energy security. Battery demand is picking up for similar reasons, as homes and businesses installing small-scale solar systems are adding batteries to cut their reliance on unreliable grid power as much as possible.
- Wind plays a much smaller role: outside of South Africa, it is difficult to secure the typical scale of financing required for wind projects. It is also logistically difficult to develop wind projects due to limited port and road infrastructure in several markets.

# South Africa's dependence on China for clean energy equipment is growing

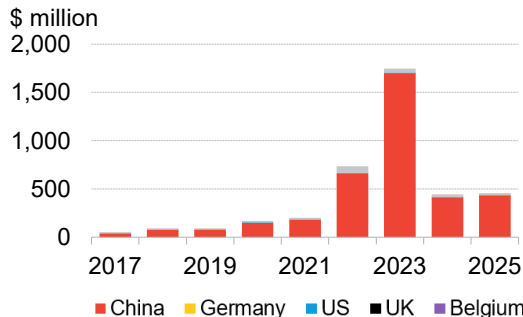
## Solar imports by source



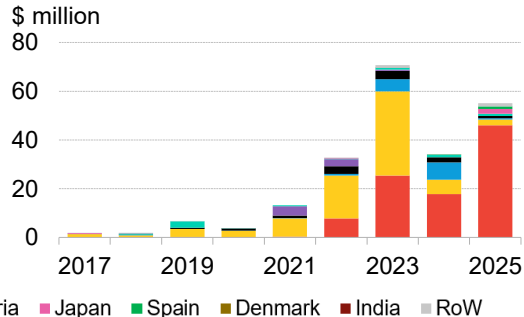
## Wind imports by source



## Battery imports by source



## Electric vehicle imports by source

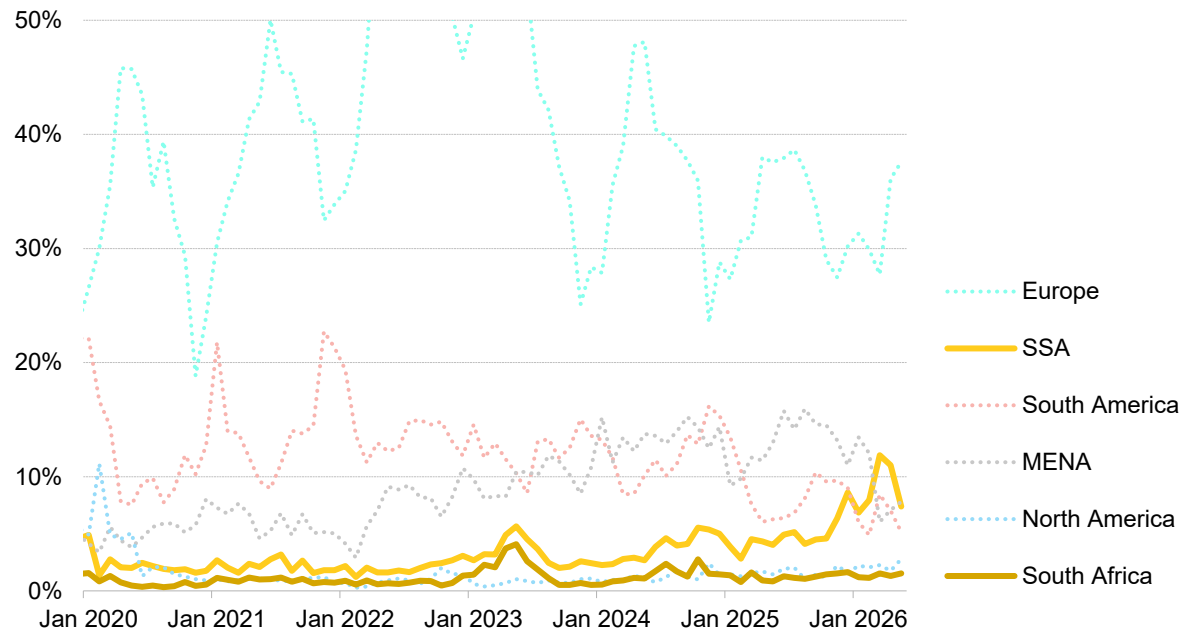


- China's role supplying South Africa's clean energy equipment is extending beyond solar modules and batteries, for which China respectively accounted for 98% and 95% in 2025.
- Wind and electric vehicles are moving in the same direction: in 2025, China was the source of 80% of wind imports and 84% of electric vehicle imports, gaining share from Europe and the US by offering lower-cost products to a price sensitive market.
- For wind, the most active Chinese turbine provider is Goldwind, competing with European providers Vestas and Nordex. For electric vehicles, 89% of all sales from January to May 2026 were from Chinese automakers like BYD, Chery, Geely, Great Wall Motor, JAC or Leapmotor. Charging infrastructure investment is going the same way: the largest rollout target to date was set by BYD, with plans to install up to 300 charging stations in 2026.

Source: Sinoimex, Trade Map, China Customs, Japan Customs, South Korea Customs.

# Sub-Saharan Africa is now a priority market for Chinese clean energy exports

## Share of global Chinese solar export value, by destination of exports



Source: Sinoimex, BloombergNEF. Note: SSA is sub-Saharan Africa, MENA is Middle East and North Africa.

- Clean energy demand in sub-Saharan Africa is increasingly key for global solar growth, which has been hampered in the past year by flat or declining demand in regions like Europe and South America.
- Sub-Saharan Africa had the biggest year-on-year solar import growth from 1Q 2025 to 1Q 2026, taking delivery of 10% of solar exports from China in March 2026, up from 5% averaged in 2025. Despite a decline in April and May 2026, sub-Saharan Africa is still tallying a larger share of Chinese solar exports than South America, the Middle East and North Africa.
- South Africa is no longer the main driver of solar demand in sub-Saharan Africa. Compared to a peak in 2023, when there were record blackouts and solar imports to South Africa surged, demand is now more spread out across the region, driven by small-scale solar booms in markets like Nigeria, Kenya and DR Congo.

# South Africa's EV strategy could revive auto competitiveness

- In BNEF's 2025 Global Lithium-Ion Battery Supply Chain Ranking – which scores 30 markets on their full battery value chain – South Africa sits 22nd, down from a spot in the top 20 in the previous edition, highlighting unrealized downstream potential.
- South Africa's power crisis became an unintended tailwind driving the adoption of clean energy solutions such as stationary storage and solar. The private sector solar market and the [Battery Energy Storage Independent Power Producers Procurement Program](#) tenders have turned clean energy into a core grid-stability tool even before EV demand scaled.
- The South African government's [EV White Paper](#) gives the country's auto sector incentives to produce electric vehicles for both the local and export markets through the enhanced Automotive Investment Scheme (AIS) and other instruments. Collectively, these initiatives could create the demand needed to scale battery-manufacturing domestically.
- With 618,077 vehicles produced and a record 414,271 exported in 2025 according to the [Automotive Business Council](#), shifting existing auto capacity toward EVs could help revive South Africa's export competitiveness.

Source: BloombergNEF. For more details on South Africa's performance, see BNEF's Global Lithium-Ion Battery Supply Chain Ranking ([web](#) | [terminal](#)).

## South Africa's performance in selected categories in BNEF's Global Lithium-Ion Battery Supply Chain Ranking

### Raw materials



The country held onto sixth position in the raw materials category. It leads in mined manganese production. Sibanye-Stillwater is leveraging nickel as a byproduct of its platinum group metals operations, and Marula Mining's [lithium project](#) is taking off. South Africa's refining remains limited

Rank 6/30

### Batteries



Cwenga LiB operates the region's first lithium-ion battery recycling facility, opened in 2025. The government is [proposing](#) to extend electric vehicle manufacturing incentives to include the Automotive Production and Development Program and battery manufacturing.

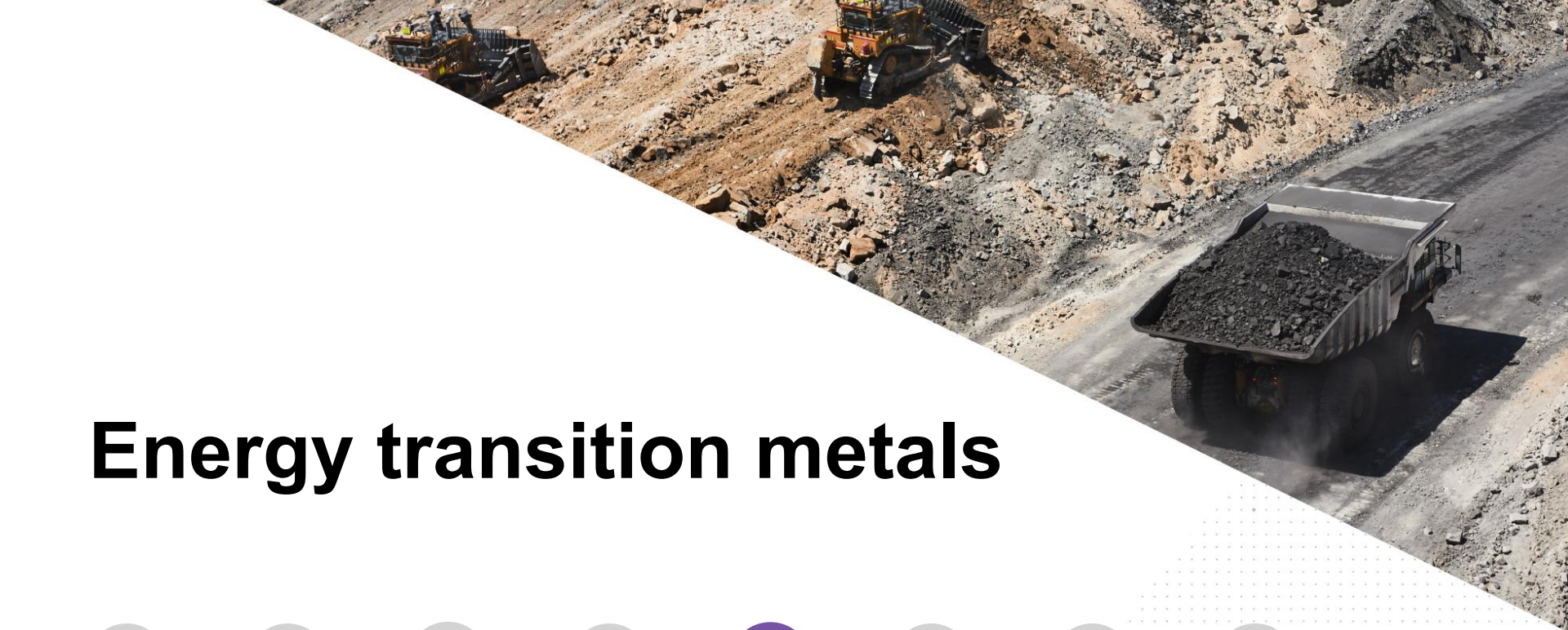
Rank 21/30

### Demand



The country has a small EV market. Storage underpins battery demand in South Africa, with [Battery Energy Storage Independent Power Producers Procurement Program](#) leading utility-scale storage additions. The country's storage capacity additions rank ninth overall.

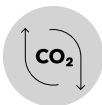
Rank 24/30



# Energy transition metals



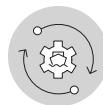
Clean  
power



South Africa's  
energy  
scenarios



Regulatory  
landscape



Trade and  
supply chains



**Energy transition  
metals**



Decarbonizing  
transport



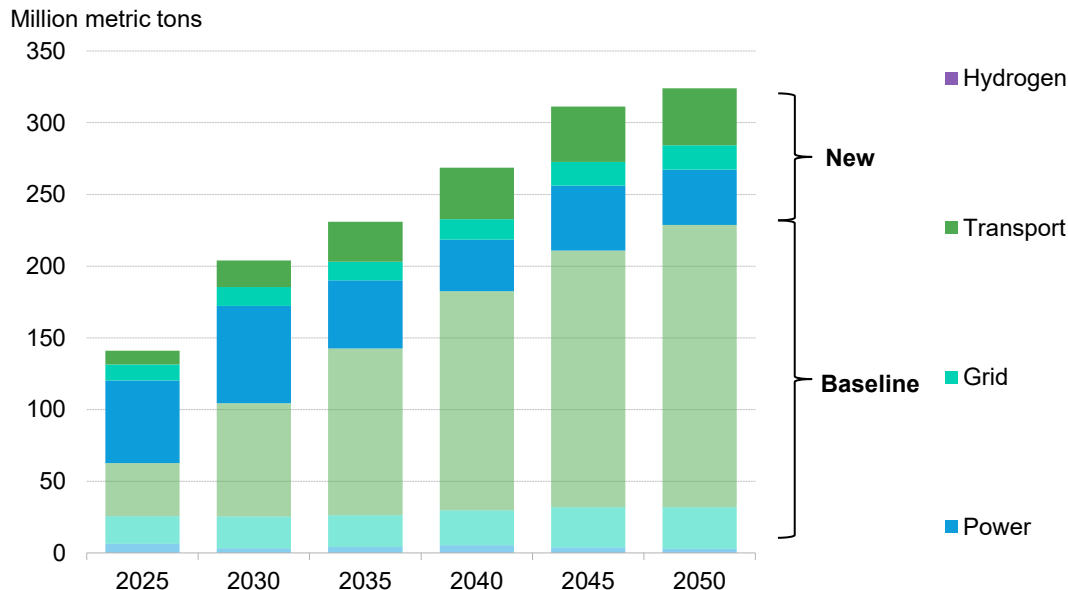
Decarbonizing  
industry



Carbon  
markets

# Demand for energy transition metals will exceed 300 million tons by 2050

## Annual demand for metals going into energy technologies, by sector

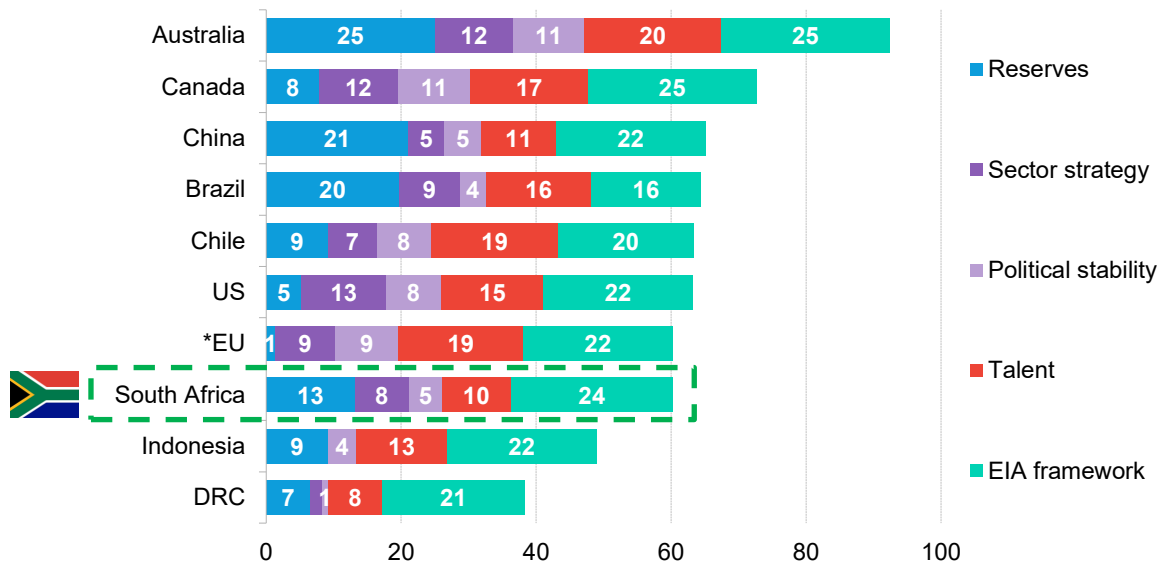


Source: BloombergNEF. Note: Demand is under BNEF's Economic Transition Scenario. Demand for lithium is in metric tons lithium carbonate equivalent. Demand for rare earth elements is for end-use in permanent magnets only. The faded part of the bar chart represent baseline demand from technologies that need replacement while new is those built anew.

- BNEF divides energy transition demand for metals into two categories:
  - **New energy transition** demand arises directly from the deployment of new clean technologies like solar and wind.
  - **Baseline energy transition** demand is from existing end uses that support or interact with the energy transition like coal and gas plants retrofitted with carbon capture and storage.
- Energy transition demand for metals is set to grow from 141 million metric tons in 2025, with power, grid and transport driving the total, to 324 million tons by 2050.
- The drivers of this growth shift over time. In the near term, the rapid deployment of clean energy technologies such as solar become the largest contributor of new demand. In the longer term, the electrification of transport gradually grows to eventually match demand from the power sector.

# South Africa is a major upstream supplier of minerals

## Energy transition metals production scores



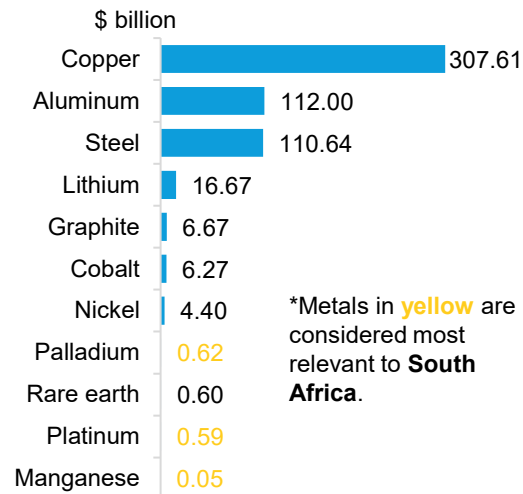
Source: BloombergNEF's *Energy Transition Metals Production Scores*. Note: DRC is Democratic Republic of Congo. EIA stands for Environmental Impact Assessment, a legal tool used to identify and interpret the environmental impact of a development project and propose mitigation approaches \*Poland is used as a proxy for the EU's mining salaries and EIA framework scores. The entire bloc is evaluated for the other categories.

- Countries are racing to secure their share of critical minerals to diversify supply chains. BNEF conducted a deep dive on 10 of the leading mining markets to assess their ability to ramp up supply to meet growing demand.
- The markets were ranked based on their reserves, sector strategy, political stability, talent availability and Environmental Impact Assessment (EIA) frameworks.
- South Africa ranked eight with its mineral endowment in platinum-group metals, manganese and chrome giving it a strategic edge.
- The country can improve its competitiveness by streamlining the mine permitting process. For example, Southern Palladium applied for its Bengwenyama Mining Right on October 2023, but it was only approved on Aug. 7, 2026. Streamlining processes could help companies move from discovery to production on-time without compromising a stringent assessment.

# South Africa captures limited transition metal revenue beyond PGMs

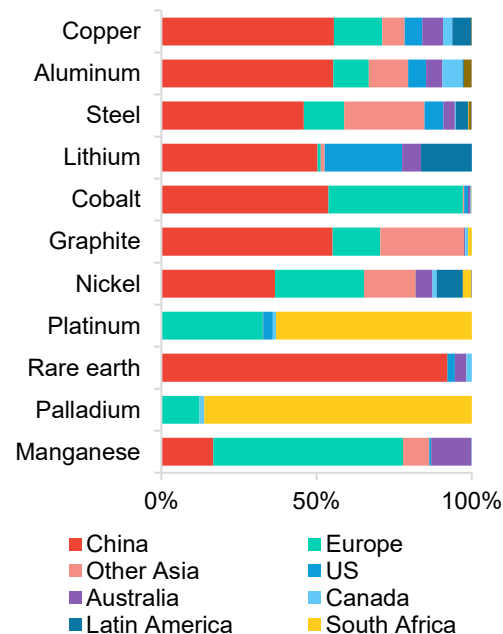
## Identified corporate revenue from energy transition metals

### By metal



\*Metals in yellow are considered most relevant to **South Africa**.

### By region of incorporation

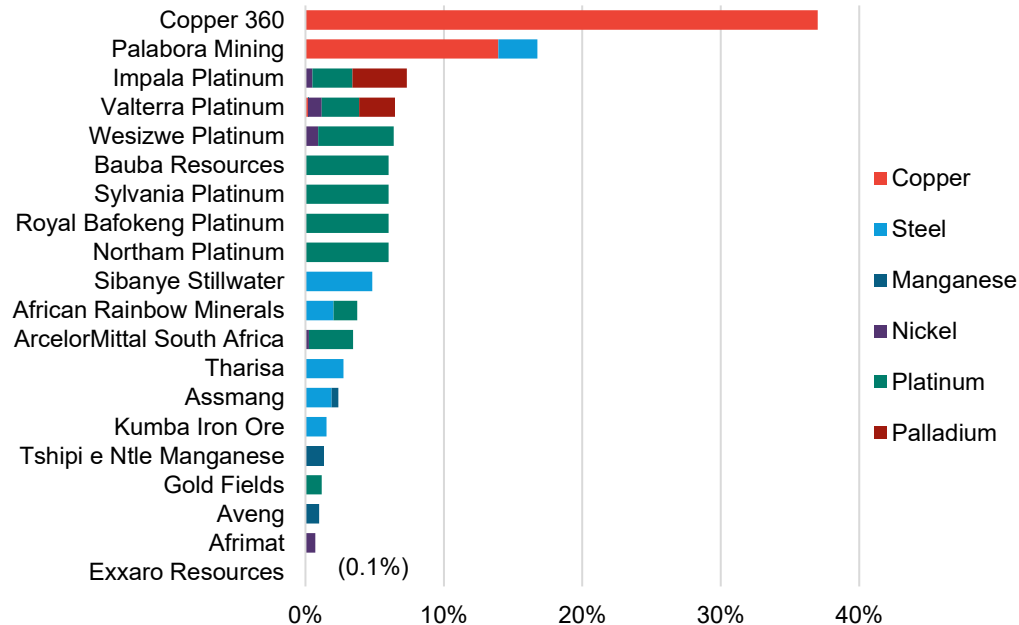


Source: BloombergNEF. Note: TRE is Transition Revenue Exposure. PGMs are Platinum Group Metals. Results in charts are aggregated based on company revenues we identified or estimated. Data reflect revenues for fiscal year 2025.

- Based on BNEF's Transition Revenue Exposure methodology, global corporate revenues from energy transition metals are estimated at \$566 billion. This excludes most privately held companies, which do not publicly disclose revenues.
- South Africa's identified transition revenues are concentrated in platinum (\$588 million) and palladium (\$617 million), reflecting its position as the world's top producer of platinum group metals.
- Despite also being the world's largest producer of manganese ore, South Africa captures relatively little identified transition metal exposure. This is largely due to the low transition demand profile for manganese and the fact that many major producers are privately owned or listed offshore.
- China dominates corporate revenues across most energy transition metals, including \$171 billion (or 56%) of the \$307.6 billion in identified copper revenues, \$62 billion in aluminum and \$51 billion in steel revenues. This reflects well-established downstream supply chains spanning refining, processing and manufacturing.

# South Africa's mining sector shows broad exposure to energy transition metals

## Energy transition metal exposure percentages of 20 South African companies, by metal

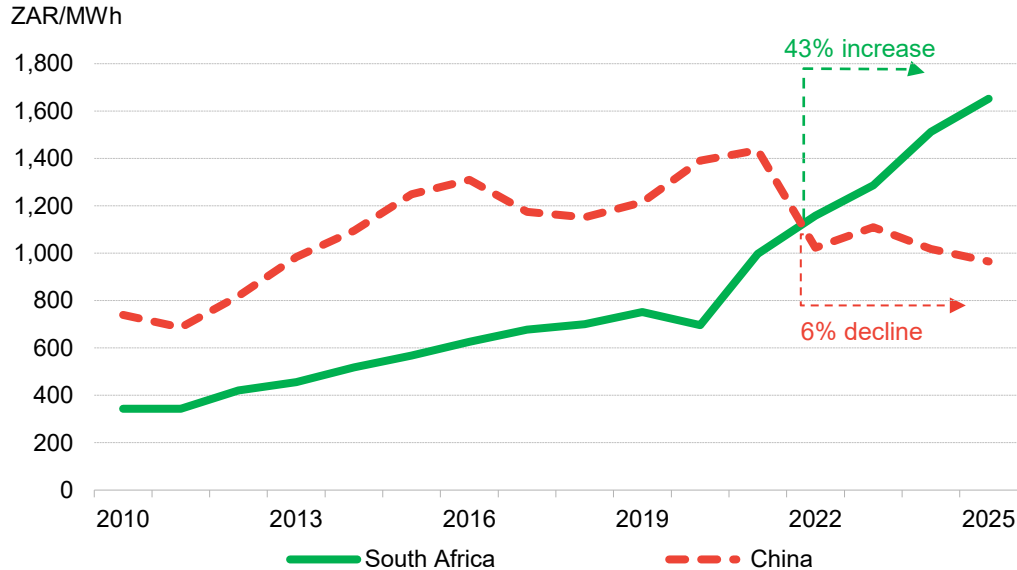


Source: BloombergNEF. Results as of 4Q 2025.

- South Africa's listed mining sector spans multiple energy transition value chains, including electrification through copper, hydrogen through platinum group metals (PGMs), and batteries through nickel and manganese. Transition metal exposure represents the share of a company's revenue linked to energy transition demand.
- Copper 360 exhibits the highest transition metal exposure (20%), while Palabora Mining combines exposure to both copper (14%) and steel (3%). Copper's higher transition weighting reflects its essential role in power generation, electricity networks and electric vehicles.
- Most South African companies in this analysis derive their transition metal exposure from PGMs, with specialist producers generating between 3% and 6% of revenues from transition-related demand.
- Despite South Africa's position as the world's largest producer of manganese ore, companies such as Assmang and Tshipi exhibit relatively little transition metal exposure, as most manganese demand is still driven by traditional steelmaking rather than clean energy technologies.

# High power costs weigh on South Africa's competitiveness

## Average industrial electricity prices in South Africa and China, 2010 to 2025

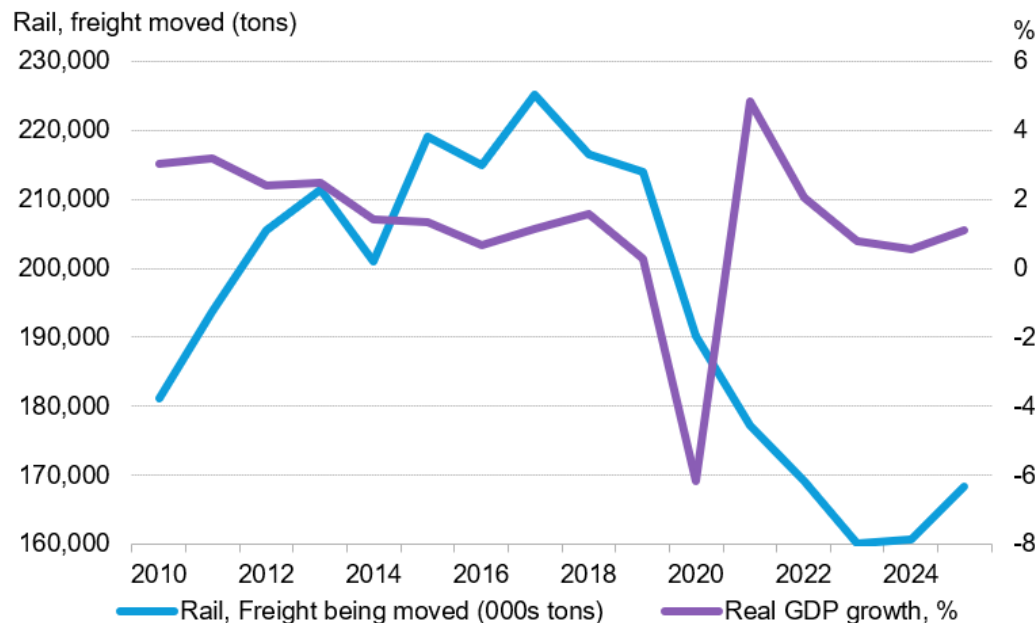


Source: Climatescope, BloombergNEF. Note: Average industrial prices were converted from CNY/MWh for China to ZAR/MWh using average annual CNY/ZAR exchange rates found using the ticker CNYZAR Currency <GO>. ZAR is the South African Rand.

- South Africa's high power prices are hampering the government's ambition to grow its critical minerals industry, with average industrial tariffs sitting at R1,652/MWh in 2025 compared to R964/MWh in China.
- According to the Minister of Energy and Electricity, "South Africa currently has 66 smelters but only 11 are operational due to high electricity costs and market pressures".
- The government is revising its Electric Pricing Policy. So far, the focus has been on bringing power prices down but that will not be enough to save the sector. Reducing logistical costs through efficient rail lines and port investments will significantly improve its cost competitiveness.
- Top producers such as African Rainbow Minerals have entered a consortium to bid for the upgrade of the Port of Ngqura in the Eastern Cape to boost annual capacity from 5.5m tons to 16m. This, in addition to the recently announced concessions to private rail companies such as Minrail and Grindrod, could help lower the cost of operations for the mineral industry.

# ... while logistics bottlenecks constrain exports and economic growth

## South Africa freight movement versus real GDP growth



Source: Statistics South Africa, IMF.

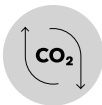
- While the end of load shedding drove an improvement in South Africa's economic growth from electricity-crisis lows, the country's aging rail system has replaced electricity as a key constraint. South Africa's rail freight movements dropped to 168 million tons in 2025, down from a high of 230 million tons in 2017.
- There appears to be a solution on the horizon: Transnet, the freight-rail operator, signed deals in May 2026 to let private trains run on its tracks, hoping that this will reverse the collapse in rail volumes.
- New rail infrastructure should go a long way toward ending logistics issues that prevented iron ore and coal exports from reaching global markets, with mining companies such as Glencore and Kumba Iron Ore impacted, as well as carmakers and farmers. If reforms are successful, the government is targeting a resurgence to 250 million tons by 2030.



# Decarbonizing transport



Clean  
power



South Africa's  
energy  
scenarios



Regulatory  
landscape



Trade and  
supply chains



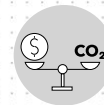
Energy transition  
metals



**Decarbonizing  
transport**



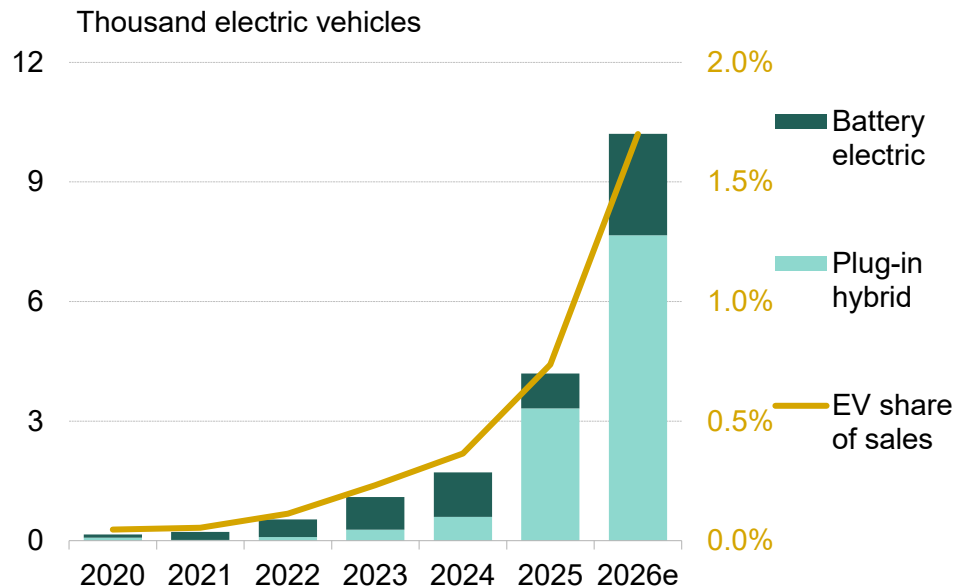
Decarbonizing  
industry



Carbon  
markets

# EV sales more than double in 2025, but are still only a fraction of the market

## South Africa passenger electric vehicle sales and share of total passenger vehicle sales

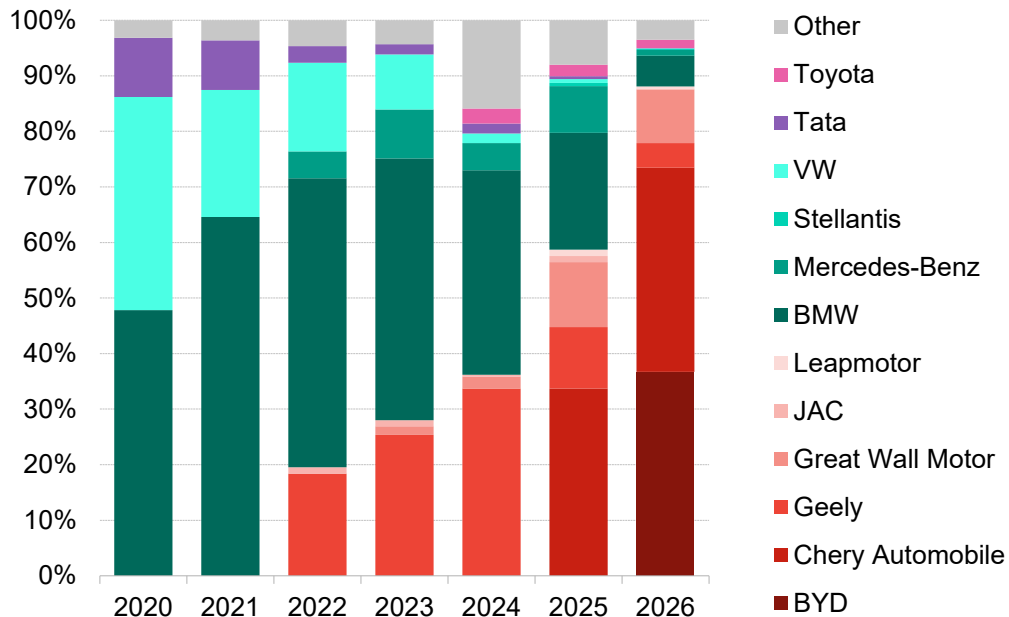


Source: BloombergNEF, MarkLines. Note: 2026e is estimated sales.

- Passenger electric vehicle (EV) sales in South Africa, including battery-electric and plug-in hybrid vehicles (PHEV), more than doubled in 2025, to over 4,000 units. The majority of those, at 79%, were plug-in hybrids.
- Despite rapid growth, electric vehicles still contributed under 1% of the total South African passenger vehicle market in 2025.
- EVs have been the country's fastest-growing drivetrain since 2020. The compound annual growth rate (CAGR) of passenger plug-in hybrid vehicles sales from 2020 to 2025 was over 113%, meaning PHEV sales have doubled on average each year over that period.
- Battery-electric vehicle (BEV) sales grew with a CAGR of 60% from 2020 to 2025. In comparison, combustion engine (ICE) vehicle sales have been increasing with a CAGR of 11% over the same period.
- 2026 is set to be another record year, with passenger electric vehicle sales crossing 10,000 units. That will see them contributing just 1.7% to all passenger cars sold in the country, according to BloombergNEF outlook.

# Chinese brands built 60% of all EVs sold in South Africa in 2025

## Automaker EV market share in South Africa

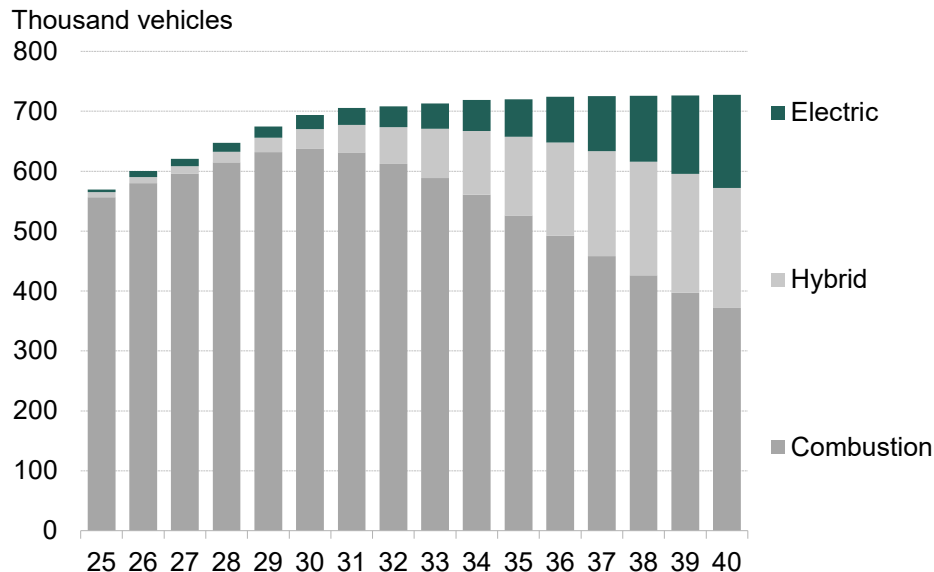


Source: BloombergNEF. Note: 2026 is January to May 2026. Includes battery-electric and plug-in hybrid vehicles.

- Chinese automakers dominate the passenger electric vehicle market in South Africa. In 2025, some 60% of all electric cars sold in the country came from automakers headquartered in China.
- Their dominance has strengthened further in 2026 with BYD's rapid expansion in South Africa. Over 89% of all electric cars sold from January to May 2026 came from automakers like BYD, Chery Automobile, Geely, Great Wall Motor, JAC or Leapmotor.
- Chinese automakers are increasingly targeting overseas markets as intense price competition and overcapacity squeeze margins at home.
- South Africa is relatively accessible for Chinese automakers, but not particularly supportive of EVs. The country has not imposed additional tariffs on Chinese-made EVs, unlike Brazil and Turkey, but all imported EVs still face a higher tariff than internal combustion engine vehicles and limited consumer incentives continue to constrain overall EV adoption.

# South Africa's EV sales rise under Economic Transition Scenario

## South Africa passenger vehicle sales, Economic Transition Scenario

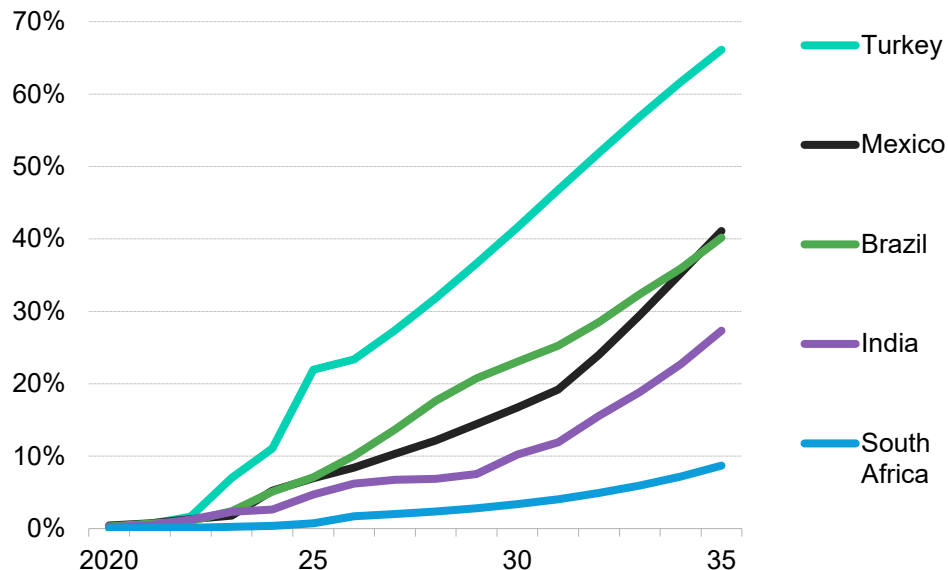


Source: BloombergNEF. Note: Electric includes battery-electric and plug-in hybrid vehicles.

- Under BNEF's Economic Transition Scenario, South Africa's electric vehicle (EV) sales rise steadily to more than 23,000 units in 2030, more than double the estimated 2026 level. Combined sales of internal combustion engine and full hybrid vehicles peak around 2031, while EVs account for a growing share of passenger vehicle sales thereafter.
- As global demand shifts toward EVs, the South African government is prioritizing investment in domestic EV manufacturing to preserve the country's role as a vehicle export hub.
- Since March 2026, qualifying investments in zero-emission vehicle manufacturing have been eligible for a 150% first-year tax deduction. This complements the Automotive Investment Scheme's cash grants and the Automotive Production and Development Programme's production incentives and duty rebates.
- Chinese automaker Chery has acquired a manufacturing plant in South Africa and plans to begin local assembly for both internal combustion and electric vehicles in 2027, with annual capacity eventually reaching 50,000 vehicles. Increased local production should improve vehicle availability and affordability, supporting longer-term EV adoption.

# South Africa's EV share remains below selected emerging markets

## Electric vehicle share of passenger vehicle sales in selected markets



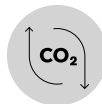
Source: BloombergNEF. Note: Includes battery-electric and plug-in hybrid vehicles.

- In BNEF's outlook, South Africa's EV share of passenger vehicle sales remains below other large emerging markets and stays below 10% in 2035.
- Unlike the other emerging markets, South Africa has no direct consumer EV incentives and applies a 25% import tariff to EVs versus 18% for internal-combustion-engine passenger cars, contributing to a higher upfront cost for EVs. Turkey, India, Brazil and Mexico use tax reductions, purchase incentives or registration tax exemptions for EVs.
- The government has instead prioritised manufacturing incentives, citing fiscal constraints and the need to preserve South Africa's automotive manufacturing.
- Public charging infrastructure has expanded to more than 1,300 connectors. Based on BNEF's estimated cumulative EV sales through 2026, South Africa has roughly 14 EVs per public connector, comparable with mature EV markets such as Austria. While BYD plans further charging deployment in South Africa, government support for charging infrastructure remains limited.

# Decarbonizing industry



Clean  
power



South Africa's  
energy  
scenarios



Regulatory  
landscape



Trade and  
supply chains



Energy transition  
metals



Decarbonizing  
transport



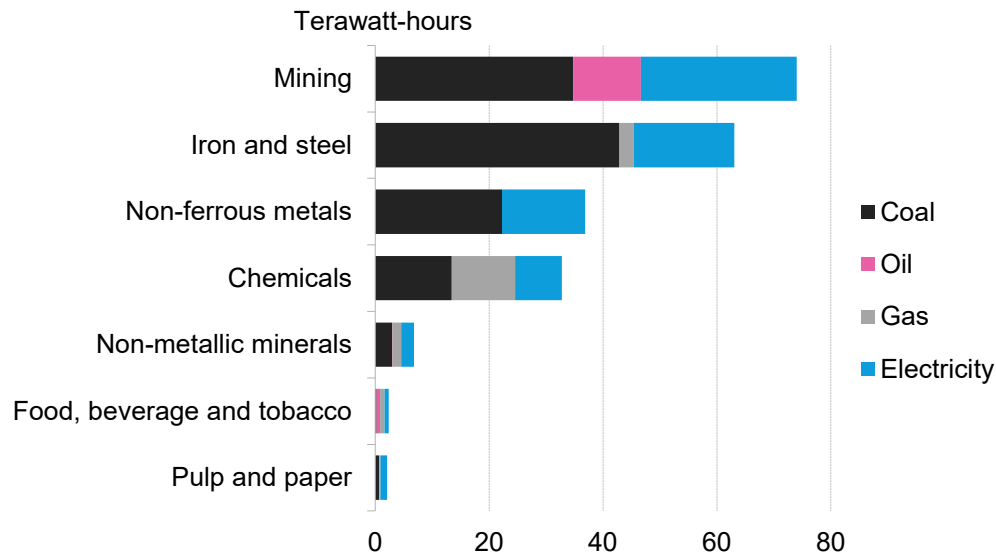
Decarbonizing  
industry



Carbon  
markets

# South Africa's industries are heavily reliant on coal

## Final energy demand from industrial yin South Africa, 2022



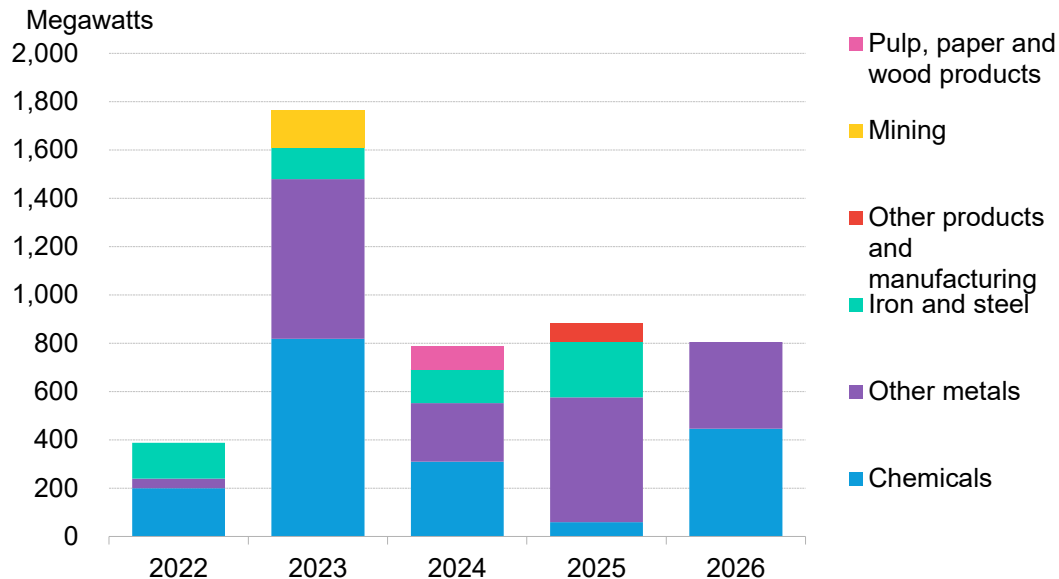
Source: BloombergNEF, 2024 South African Energy Sector Report using DMRE Energy Data 2022.

Note: Does not include 'Non-specified industry', where fuel breakdown data is not available.

- South Africa's industrial base is concentrated in energy-intensive mining and metals production, making these sectors central to the country's decarbonization challenge. It is Africa's third-largest steel producer, producing around 4.5 million metric tons of crude steel (Mtpa) in 2025 – versus 1,200Mtpa for the world's top three producers – and a major aluminium producer, accounting for roughly 44% of the continent's output.
- Coal supplied more than half of final energy demand across major industrial sectors in 2022, while electricity accounted for 33%, the second-largest share. The energy mix has also shifted further since 2015, with coal's share increasing by 33 percentage points and electricity's declining by 10 percentage points, a trend particularly pronounced in mining and metals.
- Coal's dominant role in final energy demand highlights the potential for fuel switching and electrification to reduce industrial emissions.

# South African industries look to clean power to reduce emissions

## Renewable energy procurement from industrial offtakers in South Africa by estimated signing year

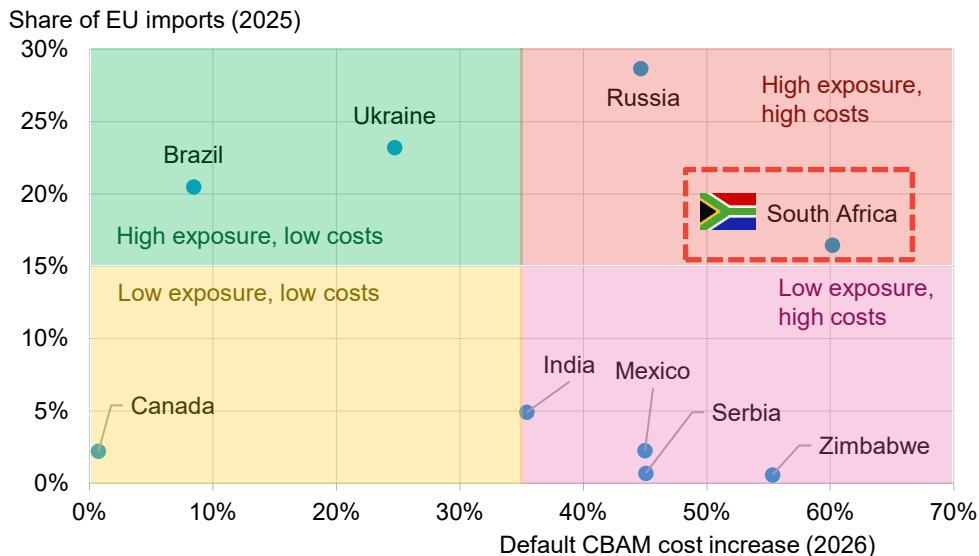


Source: BloombergNEF's Power Purchase Agreements (PPA) database. Note: Data as of June 2026. PPA is power purchase agreement.

- Corporate power purchase agreements (PPAs) are a key tool for industrial producers and manufacturers to reduce emissions and secure long-term power.
- South African industrial companies have signed a total of 4.6 gigawatts (GW) of clean PPAs as of June 2026. Sasol Ltd and Air Liquide SA, two chemical producers, lead with over 1.4GW of capacity signed collectively.
- South Africa's carbon-intensive grid gives its aluminum production among the highest Scope 2 emissions globally at 12.7 metric tons of CO<sub>2</sub> per metric ton of aluminum, significantly higher than production powered by clean electricity.
- As buyers increasingly prioritize lower-emissions materials, access to clean power will become a key competitive advantage. However, Scope 2 emissions are not currently covered by the EU's Carbon Border Adjustment Mechanism for metals, so reducing them does not lower CBAM liabilities for exports.

# CBAM could sharply raise costs for some South African metal exports

## Share of imports versus cost increases from default EU CBAM obligations for pig iron

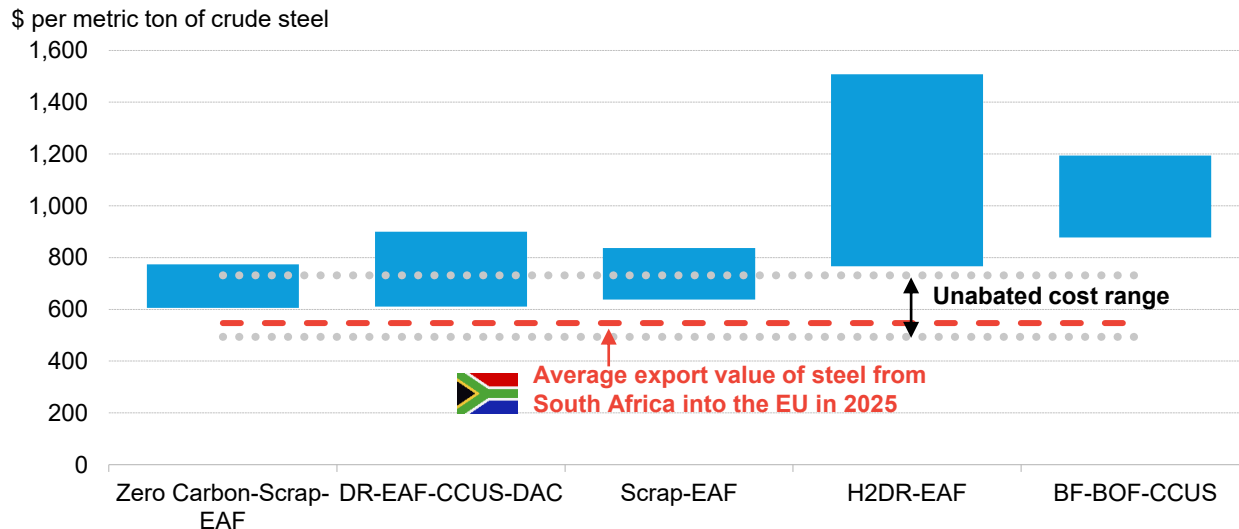


Source: BloombergNEF, Eurostat, European Commission. Note: CBAM refers to Carbon Border Adjustment Mechanism. Refers to product code 7201. Carbon pricing uses the published Q1 2026 CBAM Certificate price from the European Commission for 2026.

- The EU's Carbon Border Adjustment Mechanism (CBAM) requires importers of selected goods to purchase certificates reflecting the embedded emissions of those products. The mechanism covers iron and steel, aluminum, cement, fertilizers, hydrogen and electricity.
- South Africa's total trade exposure to the policy is small, compared to other markets. In 2025, the country exported \$1.4 billion of CBAM-covered goods to the EU.
- However, the cost impact on affected exports could be significant. BNEF estimates that CBAM could add €199 per metric ton (\$227/t) to the cost of South African pig iron exports to the EU in 2026.
- Producers can reduce CBAM liabilities by supplying verified emissions data or lowering the embedded emissions of production. As the mechanism is phased in through 2034, compliance obligations will increase, strengthening incentives to decarbonize.

# Cheap scrap and clean power could support competitive low-carbon steel

## Projected levelized cost range of low-emissions steel, 2030



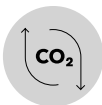
Source: BloombergNEF's SteelVal Model (1.2.0), 2026, Eurostat. Note: EAF is electric arc furnace, DR is direct reduction of iron, CCUS is carbon capture utilization and storage, H2DR is hydrogen-based direct reduction of iron, BF-BOF is blast furnace-basic oxygen furnace. Unabated production includes BF-BOF and DR-EAF. All costs are for new build facilities. Average export value is based on total trade value divided by trade volume for South African exports into the EU in 2025, based on product code 7208.

- BNEF estimates that, by 2030, scrap-based electric arc furnaces (EAFs) and direct reduction-electric arc furnace (DR-EAF) routes could be cost-competitive with unabated steel production in some markets.
- Cheap clean power and low-cost feedstocks, such as scrap, high-quality iron ore and hydrogen, are the main drivers of competitiveness for low-carbon steel. For example, scrap accounts for about 70% of the lifetime production costs for benchmark scrap-based EAFs, while hydrogen costs accounts for about half of the lifetime costs for hydrogen-based DR-EAF production.
- Lower clean power costs could improve South Africa competitiveness, with its projected solar levelized electricity cost falling to \$40/MWh in 2030. Though costs would still need to fall further to match markets such as China, where solar stands at \$27/MWh.

# Carbon markets



Clean  
power



South Africa's  
energy  
scenarios



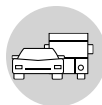
Regulatory  
landscape



Trade and  
supply chains



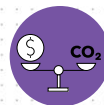
Energy transition  
metals



Decarbonizing  
transport



Decarbonizing  
industry



**Carbon  
markets**

# South Africa's carbon tax is broad in scope and modest in price

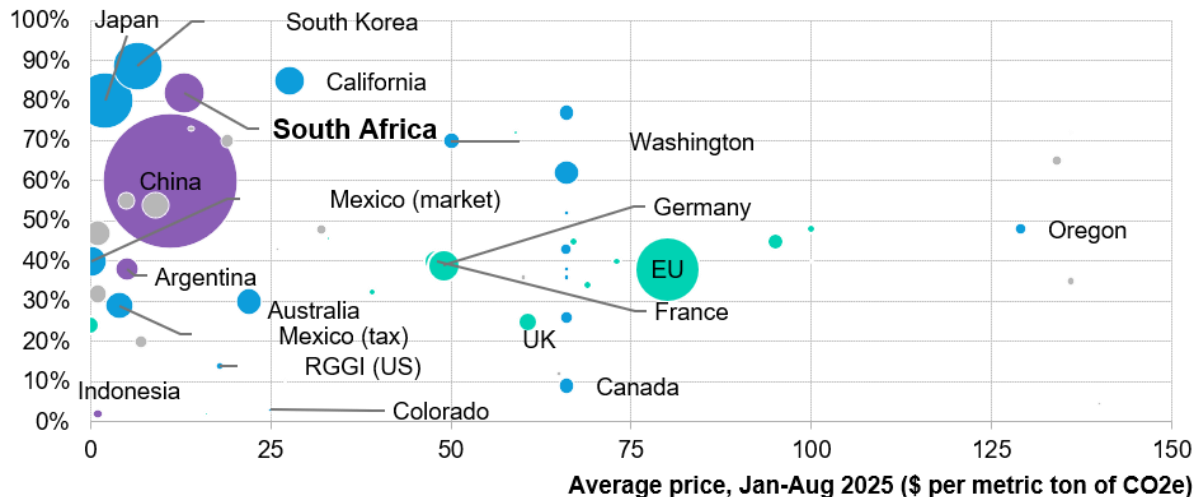
## Emission coverage and prices across existing carbon pricing schemes

Bubble size: absolute emissions covered by carbon price

○ = 250 million metric tons of CO<sub>2</sub>e

Share of jurisdiction's emissions covered by carbon price

● OECD Europe    ● Other OECD  
● Non-OECD    ● Non-G20



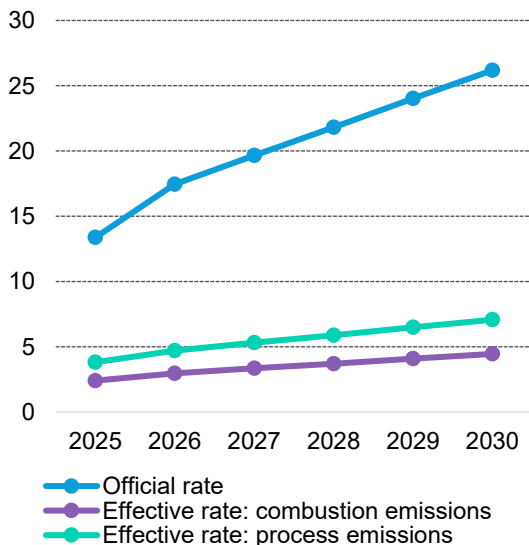
Source: BloombergNEF, Carbon Credit Fungibility Data Viewer, Global Carbon Market Prices LiveSheet, World Bank, governments. OECD is the Organisation for Economic Co-Operation and Development Effective rates assume maximum use of offsets and concessions, except productivity.

- South Africa's carbon tax covers around 90% of the country's emissions, including those from fuel combustion, industrial activity and fugitive emissions. The introduction of the carbon tax was spurred by the country's voluntary commitment – made at the Conference of the Parties held in Copenhagen (COP15) in 2009 – to cut emissions from its modeled business-as-usual trajectory by 34% by 2020 and 42% by 2025.
- The headline rate stands at about 308 rand (\$18.81) per metric ton of CO<sub>2</sub> equivalent and will reach 462 rand per ton by 2035. But most emitters benefit from generous tax-free allowances, which significantly reduce their effective carbon costs. These concessions have been retained for much longer than originally anticipated. Should the government phase out these allowances, a higher tax rate will increase companies' exposure, incentivising investment in lower-carbon technologies.

# Carbon tax demand could outstrip South Africa's offset supply

## Official South African carbon tax compared with effective rate

\$ per metric ton of CO<sub>2</sub>e



Source: BloombergNEF, South African government. Note. Effective rate refers to the carbon price after accounting for tax-free allowances. Data as of July 2, 2026.

## Tax-free allowance levels in 2026 versus 2025

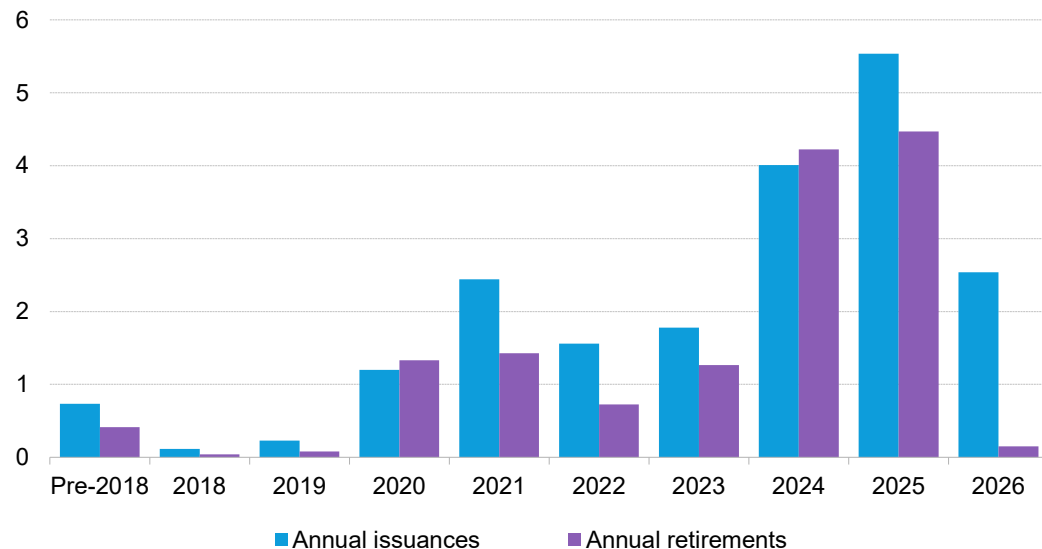
|                      | 2025  | 2026                                      |
|----------------------|-------|-------------------------------------------|
| Basic                | 60%   | 60%                                       |
| Process and fugitive | 10%   | 10%                                       |
| Trade-exposed        | 10%   | 10%                                       |
| Performance          | 5%    | 5%                                        |
| Carbon budget        | 5%    | Replaced with new carbon budget framework |
| Carbon offsets       | 5-10% | 10-15%                                    |

- A tax-free allowance is the share of a compliance entity's taxable emissions that is excluded before the carbon tax rate is applied. The basic tax-free allowance applies broadly across covered emissions and can be combined with additional allowances, resulting in up to 95% of emissions being tax-free.
- Compliance entities may also use eligible domestic carbon credits to offset a portion of their taxable emissions, further reducing carbon tax liability, alongside other applicable tax-free allowances. These units must be verified using standards from the Clean Development Mechanism, Verra and Gold Standard to be eligible.
- Despite the uptake in credit issuance in South Africa, available volumes are unlikely to fulfil offset demand driven by the local carbon tax in the near term. Based on data from the [National Treasury](#), demand exceeded supply by 8MtCO<sub>2</sub>e between 2021 and 2023, and it will remain imbalanced out to 2040.

# UN-led global carbon market could unlock South African credit exports

## Annual issuances and retirements of carbon credits from South African projects listed on Verra and Gold Standard

Million metric tons of CO<sub>2</sub>e

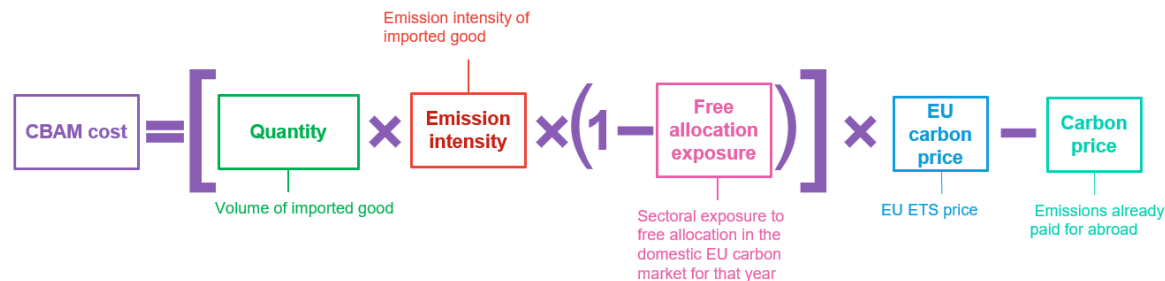


Source: BloombergNEF, Verra, Gold Standard. Note: data as of March 10, 2026.

- While South African credits made up only 2% of total issued credits globally in 2025, the annual supply of credits doubled in 2024 relative to 2023, signaling increased focus in the South African economy. Some 19.4 million carbon credits had been issued by South African projects listed on Verra and Gold Standard, as of March 10, 2026, and 13.7 million were retired on the two international registries between 2019 and 2026.
- These credits from South African projects come from a wide variety of sectors, spanning forestry, waste, energy demand and transport. The energy demand sector – generating credits from energy efficiency and clean cookstove projects – contributed the biggest share of total issuances and retirements.
- Aligning South Africa's national offsetting system with the carbon market mechanisms under Article 6 of the Paris Agreement means the government could use domestic credits for its own climate targets or authorize them for international transfer. This could unlock international carbon trading opportunities, provided no double counting issues occur.

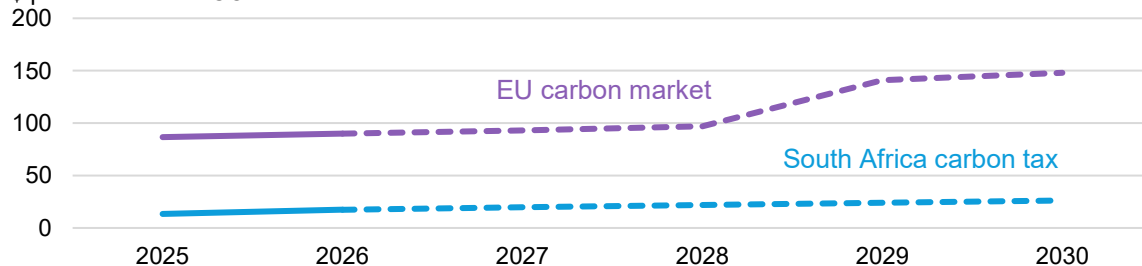
# South Africa's carbon tax provides little protection from CBAM

## General CBAM cost formula



## Historical and projected carbon pricing schemes in South Africa and EU

\$ per metric ton of CO<sub>2</sub>e



Source: BloombergNEF's EU ETS 1H 2026 [Market Outlook](#), South African government. Solid line indicates historical price and dotted line indicates projection.

- The EU's CBAM aims to level the playing field between EU producers subject to carbon pricing and foreign competitors by applying a carbon price to imported goods. As CBAM is phased in, gradually increasing CBAM costs, free carbon allowances for EU producers will be phased out.
- Implementing a domestic carbon price can reduce CBAM liabilities. The European Commission's draft rules currently allow up to 10% of CBAM obligations to be met with carbon credits authorised under Article 6 of the Paris Agreement. This aligns with South Africa's 10% offset limit for fugitive and process emissions but is below its 15% limit for combustion emissions. South African exporters relying on offsets above the 10% threshold for combustion emissions could therefore remain liable for CBAM charges on the difference.
- Given South Africa's relatively low carbon price, however, the resulting reduction in CBAM liability is likely to be limited.

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Sofia Maia  
smaia5@bloomberg.net

#### Client enquiries:

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