

In collaboration with

**WE MEAN
BUSINESS
COALITION**



NBI
National Business Initiative

SOUTH AFRICA'S 2035 NATIONALLY DETERMINED CONTRIBUTION:

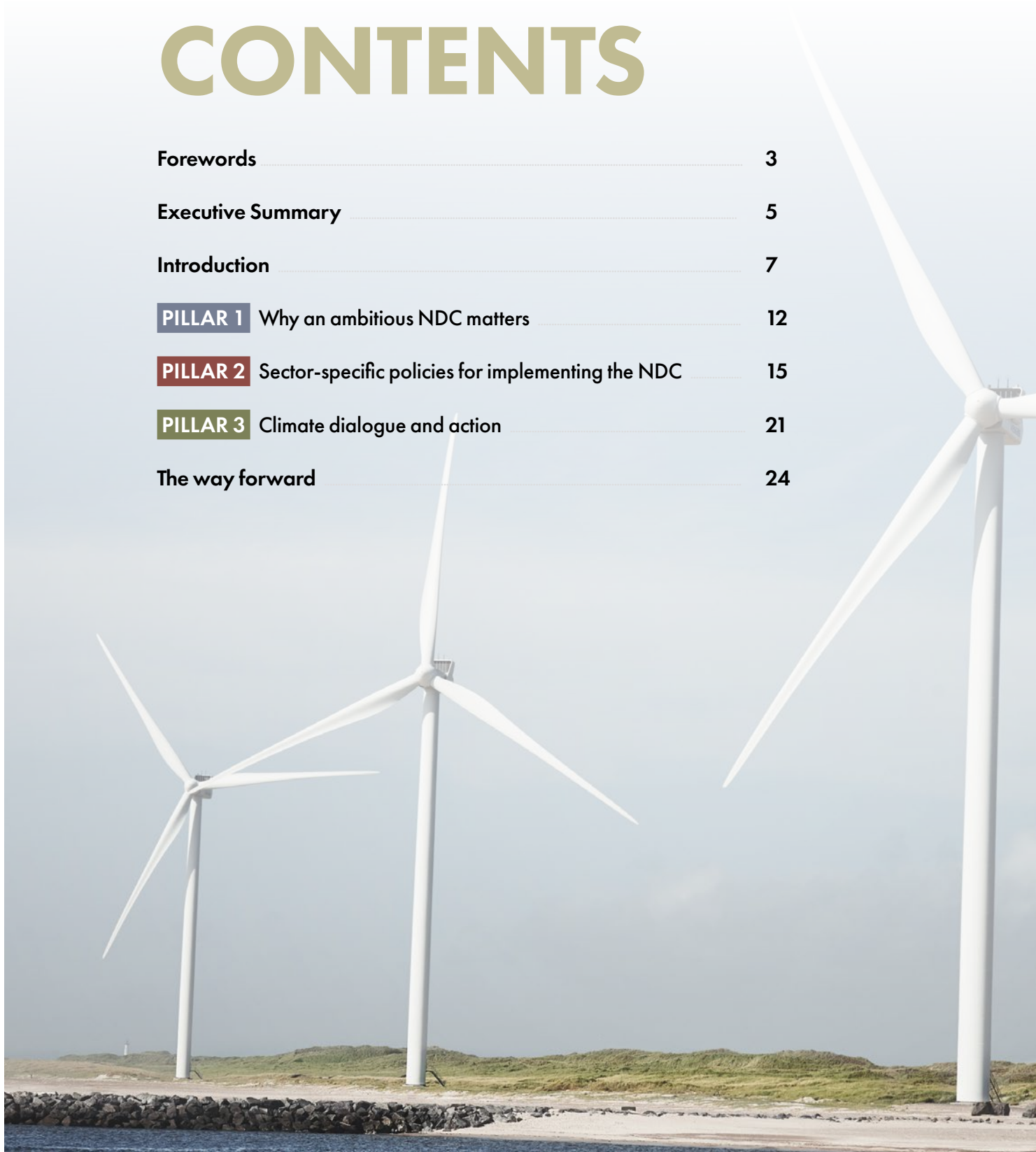
An opportunity to boost industrial competitiveness and attract investment

November 2025



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Forewords

Working closely with South African business, it is clear the global climate transition is well underway. We see this in companies investing in on-site renewables, adopting electric vehicles, focusing on accessing transition finance and decarbonizing their supply chains.

While these shifts may not make headlines, the structural forces driving clean energy, evolving export markets and increasing investor scrutiny are embedded and gaining momentum. As an emerging market facing low growth and significant socio-economic challenges, it is our responsibility as South African business leaders to respond.

Encouragingly, business-government collaboration is starting to bear fruit, particularly in tackling energy, logistics and water challenges. Leveraging private sector expertise and capital is essential for South Africa's low-carbon growth: whether it is in upgrading transmission networks, building renewables, expanding the critical minerals market or advancing the circular economy. We must deepen this collaboration to foster growth and resilience.

South Africa's climate ambition, expressed through the NDC, is central to future competitiveness. Many of the opportunities ahead are green: renewable energy, battery storage, green hydrogen, the bioeconomy, nature-based tourism, clean technologies and new energy vehicles, amongst others.

As we decarbonize, we must center ambition in the context of equity and a just transition. Here government, civil society and business are actively working together to repurpose power stations and enable new economic activities in affected regions.



As we approach ten years of the Paris Agreement, global climate ambition has never been more urgent. South Africa is highly vulnerable to climate impacts and is dependent on domestic and international progress towards meeting climate goals.

The next decade will be defining. We must use the space created for business-government collaboration to accelerate low-carbon development and economic diversification, empower communities and build a resilient economy.

SHAMEELA SOOBARAMONEY

CEO, National Business Initiative



Despite geopolitical turbulence, 2025 remains a pivotal year for climate action and one that will set the pace and direction for the next decade of the low-carbon transition.

The next round of Nationally Determined Contributions (NDCs), due ahead of COP30, are critical to determining not only whether the world can keep the 1.5°C goal within reach, but also how economies compete in the fast-growing global markets for clean energy, technology, and nature-based solutions. By prioritizing resilience and access to clean and reliable energy in its NDC, South Africa can grow a resilient economy and create prosperity for all.

South Africa's second NDC will carry significance far beyond its borders. As Africa's largest economy with strong trade, finance, and supply chain links worldwide, its climate pathway will shape investor confidence, regional development, and export competitiveness. A credible, ambitious, and investible NDC can give businesses the long-term clarity they need to deploy capital, scale clean technologies, and strengthen resilience in the face of climate impacts.

Recent polling of over 100 South African business executives makes this clear. The vast majority (95%) see renewable electricity as vital for sustainable jobs and growth, 86% support phasing out coal for electricity generation by 2035, and 84% say they would consider relocating operations or supply chains abroad if South Africa does not transition away from fossil fuels for electricity generation.

This briefing is the latest in a series of country-specific notes the We Mean Business Coalition is developing in collaboration with in-country partners. Each draws on local business insights to set out practical recommendations for NDCs that are both ambitious and implementable. These briefings aim to support a shared global objective: aligning policy ambition with the scale of private-sector capabilities already in motion to deliver a safer, more prosperous, and competitive future. The National Business Initiative is playing a critical role in this process in South Africa - facilitating dialogue, championing ambition, and not shying away from the difficult discussions that are needed to shape a stronger and more sustainable business environment in South Africa.

MARÍA MENDILUCE
CEO, We Mean Business Coalition



Executive Summary

South Africa's climate transition is underway, but must accelerate to advance energy security, drive green industrialisation and boost export competitiveness. These actions will help to tackle South Africa's key challenges of poverty, inequality and unemployment. As one of the world's top 20 carbon emitters, and a country already warming at twice the global average, South Africa has both a responsibility and an economic interest in raising its climate ambition.

The costs of inaction are significant and already being felt. Prolonged electricity shortages, escalating energy prices, deteriorating air quality, weak economic growth, declining export competitiveness, and constrained investment are compounded by South Africa's carbon-intensive economy and policy uncertainty. For an emerging economy facing deep structural challenges, inaction is no longer affordable.

The global clean energy transition is gathering pace, despite global geopolitical uncertainty. Investment in renewable energy (RE) now outstrips fossil fuels globally.¹ RE is the cheapest source of electricity internationally and in South Africa.² Market dynamics will continue to accelerate this shift.

1 IEA, 2025. [Global investment in clean energy and fossil fuels, 2015-2025.](#)

2 IEA, 2025. [Key findings – Global Energy Review 2025 – Analysis.](#)

South Africa's future industrialization will need to leverage the full suite of opportunities within the clean energy value chain. This includes construction, assembly and manufacturing linked to solar, wind, battery storage and transmission, as well as harnessing critical minerals, green hydrogen, electric mobility and rail freight.

The physical impacts of climate change are already imposing a high cost on the South African economy. Recent attribution studies show the significant economic effects of climate-change-related droughts and floods in South Africa. Greater climate ambition domestically and globally will help South Africa avoid catastrophic climate impacts, alongside strengthening the country's adaptive capacity.

Climate adaptation is essential for business. Companies must invest in resilience to protect operations, supply chains and markets, while ensuring long-term growth and competitiveness.

South Africa's second Nationally Determined Contribution (NDC) for 2035 is central to the country's transition and will provide a framework for business action. Heightening mitigation ambition is not solely about South Africa's relative global responsibility, it is about retaining relevance as global economies shift, improving local economic prosperity and social equity, and reducing climate impacts. The South African emissions pathway to 2035 and 2050 must also include heightening adaptation ambition, to support people, ecosystems, and infrastructure.

An ambitious and investible NDC will unlock trade and investment benefits. By aligning with global decarbonisation trends, climate ambition will boost South Africa's competitiveness in export markets, reduce the risks from carbon border measures, and help to attract international climate finance. An ambitious NDC provides long-term clarity for business, positioning South Africa as a credible low-carbon investment destination and supporting economic diversification, job creation, and resilience.

Transitioning away from fossil fuels is an economic imperative. In particular, new coal-fired power would be very difficult to implement and is not required. This would increase future electricity prices and place an unfair burden on consumers. It would also struggle to attract financing, face further legal scrutiny, and does not form part of South Africa's fair share in the global effort to reach net zero global greenhouse gas emissions by the second half of the century.

Electrification in the transport and industry sectors could bring significant economic benefits. For example, a fully electrified transport sector in 2050 could save the economy around ZAR 255 billion annually, or 3.75% of GDP.

To achieve this, **South Africa must provide policy certainty and expand climate finance flows.** The Just Energy Transition Investment Plan (JET IP) provides a strong foundation, but further progress depends on consistent, investible policy frameworks that unlock international and domestic capital.

Breaking down long-term climate targets into more manageable short-term investment plans makes decarbonization more achievable. Four immediate priorities can accelerate growth and competitiveness:

- 1 Advance power sector reform through the Energy Action Plan,** focusing on implementation of the South African Wholesale Electricity Market (SAWEM) and operationalization of the National Transmission Company of South Africa (NTCSA).
- 2 Implementing a robust Integrated Resource Plan (IRP)** that prioritises rapid renewable energy deployment, underpinned by large-scale transmission expansion in line with the Transmission Development Plan (TDP).
- 3 Agree short-term business-government implementation plans to unlock low-carbon growth in key sectors,** including through the approved Electric Vehicle White Paper, Green Hydrogen Commercialisation Strategy and Critical Minerals and Metals Strategy.
- 4 Scale up climate adaptation and resilience efforts,** including rehabilitation of critical water catchments to strengthen water security, reduce disaster risks, and create jobs.

By acting decisively on these priorities, and by deepening public-private collaboration, South Africa can achieve the ambitious end of its 2035 emissions target range while **driving growth, competitiveness, and resilience for its economy and society.**





Introduction

South Africa faces a unique and complex set of climatic challenges, shaped by its geography, economy, people and history. A developing country with a carbon-intensive economy coupled with high levels of poverty, unemployment and inequality, South Africa finds itself at the intersection of climate vulnerability and socio-economic urgency.

South Africa is already experiencing the impacts of climate change.³ Average temperatures have risen at twice the global average, and projections indicate continued warming, particularly in the interior regions. This has already brought more frequent and intense heatwaves, reduced water availability, and changes in rainfall patterns. Parts of the country are becoming drier, while others are experiencing more erratic rainfall and flash flooding. These changes threaten food and water security, with direct consequences for agriculture—a sector that employs a large portion of the rural population and is heavily reliant on predictable weather patterns.

South Africa is one of the twenty highest carbon emitters globally and is highly dependent on coal for its energy needs, with over 80% of its electricity generated from coal-fired power stations. This coal is mostly sourced domestically. The coal industry is a major source of employment, with over 98,000 people employed in coal mining - mostly in Mpumalanga province.⁴ This strong reliance on coal poses a dual challenge to tackling climate change: reducing greenhouse gas (GHG) emissions while maintaining jobs in coal-dependent regions and sectors. Transitioning to a low-carbon economy must be just and inclusive, balancing environmental goals with the socio-economic realities of communities dependent on fossil fuel industries.

3 Johnston et al., 2024. [Climate Change Impacts in South Africa: What Climate Change Means for a Country and Its People](#).

4 Minerals Council South Africa, 2025. [Facts and Figures Pocketbook 2024](#).

PHYSICAL CLIMATE RISKS

Even under scenarios where warming is kept below 2°C, extreme weather events such as heat waves, drought, flooding and heavy rainfall are expected to become more frequent and severe.⁵ Water scarcity is a critical national issue exacerbated by climate change. South Africa is a water-scarce country, and rising temperatures, declining rainfall, and poor water infrastructure management are intensifying this challenge.

Urban centers like Cape Town have already faced severe droughts, and climate models suggest such events could become more frequent. Recent devastating flooding in the country's KwaZulu-Natal Province severely impacted municipalities and key infrastructure and can be attributed to climate change.⁵ This has placed pressure on the Government to invest in adaptation measures and to improve water governance.

Biodiversity loss, sea-level rise, loss of valuable agricultural land, food insecurity, health risks, economic challenges and high unemployment also feature prominently in South Africa's climate and vulnerability risk profile.

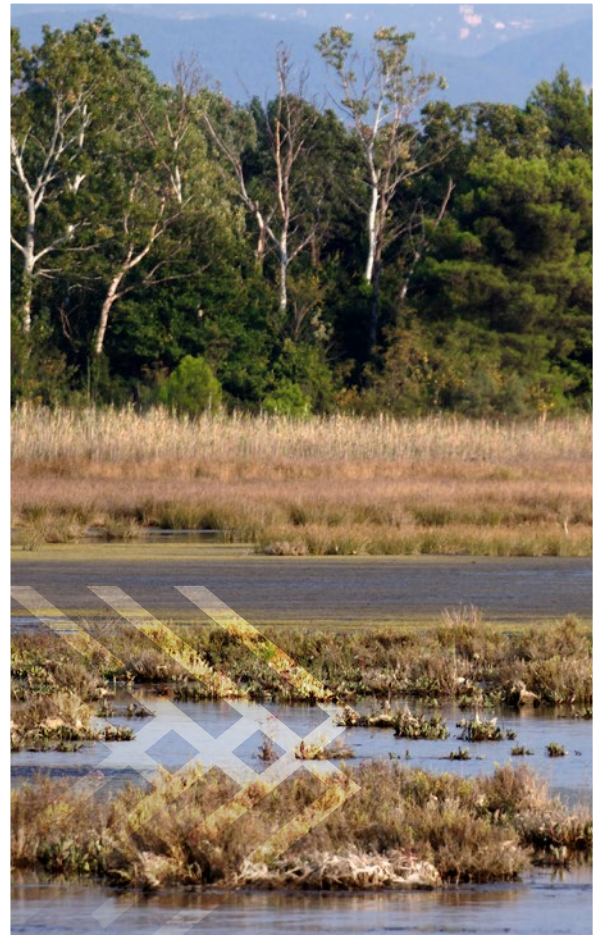
As one of only 17 megadiverse countries globally, South Africa's natural biodiversity is at significant risk. The provision of ecosystems services is essential for the country's economic activity and disaster risk reduction. The restoration and sustainable use of nature is therefore an important measure to reduce national climate vulnerability. Key to ecosystem integrity is the protection of the country's Strategic Water Source Areas (see below).

Maintaining South Africa's 'water factories'

South Africa's 22 formally defined Strategic Water Source Areas (SWSAs) are amongst the country's most critical natural assets.⁶ They constitute 8% of national land but provide 50% of the country's water and support two thirds of economic activity. It is for this reason they are regarded as South Africa's 'water factories'. Approximately 19% of this land has some form of protected area status, and they form a key component of the National Ecological Infrastructure Network.

Effective management and restoration of these high value natural assets, which are characterized by various land uses, supports ongoing protection of nature, water security and livelihoods in urban and rural environments.

South Africa's climate change context is characterized by high vulnerability to climate impacts and a high-emission economy that must decarbonize rapidly. Addressing these challenges requires a carefully managed, all-of-economy, all-of-society transition that not only reduces emissions but also builds resilience, reduces inequality, and promotes inclusive development. This will demand strong political will and robust collaboration across all areas of society.



5 Johnston et al., 2024. [Climate Change Impacts in South Africa: What Climate Change Means for a Country and Its People](#).

6 Stats SA, 2023. [Natural Capital Series 3: Accounts for Strategic Water Source Areas, 1990 to 2020](#).

ECONOMIC CONTEXT

South Africa is experiencing slow economic growth amidst high unemployment and inequality. The country's inequality is amongst the highest in the world (Gini coefficient ~0.63).⁷ Unemployment is also high, at 33.2% for the second quarter of 2025,⁸ and youth unemployment exceeds 60% in some areas.

For more than a decade, chronic load shedding (planned blackouts) disrupted daily life and economic activity, highlighting the fragility of the national electricity system. With the ongoing phasing out of older power stations that have reached end of life, there is an urgent need to recapitalize the country's power sector.

While load shedding has recently abated, the need to recapitalize South Africa's electricity sector is an urgent national priority. Six older coal-fired power stations (totaling 12.5 GW in capacity and 24% of total national installed capacity) are currently scheduled for full decommissioning by the end of 2030.

This coal decommissioning process is based on national electricity planning and considers the considerable operating cost of maintaining older assets beyond their scheduled life span.⁹

The rapid rollout of renewable energy is an essential requirement to modernize South Africa's power sector and ensure energy security. The South African Renewable Energy Master Plan (SAREM) calls for delivering renewable energy at scale, with at least 3-5 gigawatts (GW) of renewables added annually to the grid by 2030, followed by 6-8 GW annually thereafter. The NBI's Just Transition Pathways reports argue that as much as 18 GW of renewable energy is required annually to decarbonize the power sector, support green hydrogen development and realize the transition to New Energy Vehicles (NEVs).¹⁰

A Just Transition is central to South Africa's economic policy. This involves shifting towards renewable energy and more sustainable economic practices in a way that protects vulnerable workers and communities.

Business perceptions on South Africa's clean energy transition

A recent global business survey, *Powering Up*,¹¹ has shown overwhelming support for renewable energy: 97% of executives surveyed globally support a move away from fossil fuels to a renewables-based electricity system. 104 large South African businesses with annual turnover of USD 1 million and above were included in the survey.

Results from the 104 South African business executives surveyed showed:

- A majority (95%) of business leaders support renewable electricity as a source of sustainable jobs and long-term economic growth.
- 86% support phasing out coal from electricity generation by 2035.
- 84% would consider relocating operations or supply chains to another country if South Africa does not transition away from fossil fuels for electricity generation.
- 76% believe that a renewables-based power system would have the effect of creating new jobs, 72% believe it would make electricity prices more stable, 72% believe it would make electricity affordable for all, and 70% say it will enhance public health and safety.

Furthermore, in the WBCSD Business Breakthrough Barometer 2025 survey of more than 300 global business leaders, 96% said governments should stay the course on net-zero commitments and 56% said the primary motivation for investing in the transition is to secure long-term industrial competitiveness.¹²



7 Sulla et al., 2022. [Inequality in Southern Africa: An Assessment of the Southern African Customs Union](#).

8 Stats SA, 2025. [Quarterly Labour Force Survey \(QLFS\) – Q2: 2025](#).

9 Creamer, 2024. [Eskom provides update on five coal plants where decommissioning has been delayed to 2030](#). A list of South Africa's coal-based power stations is available on the Eskom website.

10 NBI in partnership with BUSA and BCG. [Climate Pathways and a Just Transition for South Africa](#).

11 E3G, Beyond Fossil Fuels, We Mean Business Coalition and Savanta, 2025. [Powering up: Business perspectives on shifting to renewable electricity](#).

12 WBCSD, 2025. [Business Breakthrough Barometer 2025](#).

GEOPOLITICAL CONTEXT

South Africa is an important emerging market economy with strong trade links to Europe and North America. As a signatory to the Paris Agreement, it is required to align with the global goal of limiting warming to well below 2°C and pursuing efforts to limit it to 1.5°C. The first Global Stocktake process, completed at COP28 in 2023, highlighted the urgent need for countries to strengthen their NDCs. As one of the top twenty emitters globally, South Africa is expected to submit ambitious targets and transparent implementation plans.

South Africa's climate commitments are shaped by local and international geopolitical pressures. These pressures can influence the pace, ambition, and scope of the transition to a net zero economy. Navigating these requires careful balancing of national interests, social equity, and global responsibility.

SOUTH AFRICA'S NDCS

South Africa's first NDC (updated in 2021) includes a commitment to reduce South Africa's greenhouse gas emissions to between 350–420 megatons of carbon dioxide equivalent (MtCO₂e) by 2030, with a net-zero target by 2050.¹⁵ It contains both mitigation and adaptation components, prioritizing a mitigation target as well as resilience in water, agriculture, biodiversity, and human settlements. The NDC also recognizes the need for international finance, technical support, and capacity building to achieve goals.

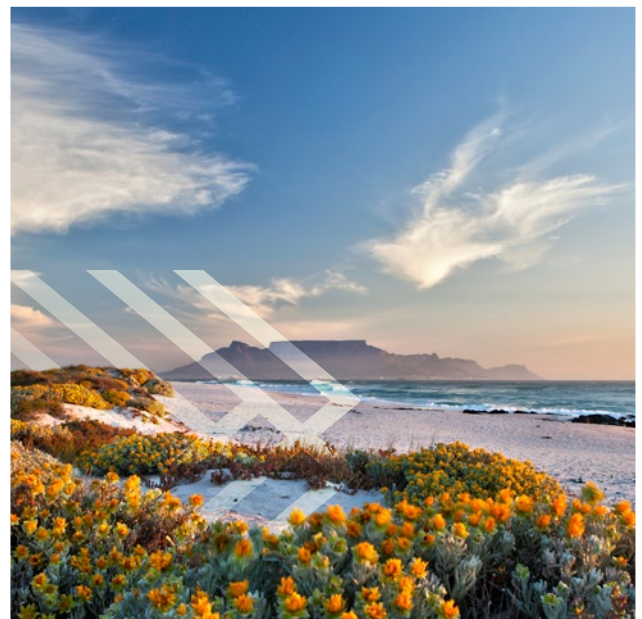
“[South Africa's] mitigation targets reflect our highest possible ambition and are put forward in the context of equity, common but differentiated responsibilities, and respective capabilities, in the light of different national circumstances.

South Africa's second NDC¹⁶

This point is underscored by the implementation of Carbon Border Adjustment Mechanisms (CBAMs) by the United Kingdom and the European Union.¹³ These CBAMs pose a serious threat to South African exports, particularly for carbon-intensive industries like iron and steel, aluminium and fertilizers. This trade pressure is intended to incentivize South Africa to decarbonize its industrial sectors or risk losing market access. However, these trade measures also pose serious risks to the country's heavy manufacturing sectors, which are key contributors to GDP exports, and employment. South Africa, through the Department of Trade, Industry and Competition (DTIC), has officially opposed the CBAM, calling it a unilateral and coercive measure that undermines multilateral trust and sustainable development. The DTIC has called for flexibility in implementing CBAMs in developing economies that recognises local efforts to decarbonize.¹⁴

The second NDC¹⁶ sets the following target: “South Africa's annual GHG emissions will be in a range from 320-380 MtCO₂e in 2035.” The NDC reflects South Africa's dual challenge of reducing emissions while addressing inequality, unemployment, energy insecurity and loss and damage from extreme weather events.

South Africa took a structured and consultative approach to its second NDC. Under the Climate Change Act (2024)¹⁷, all sectors are required to develop Sectoral Emissions Targets (SETs) aligned with the national GHG mitigation trajectory. A formal consultation process on the NDC was led by the Department of Forestry, Fisheries and Environment (DFFE) in mid-2025.



13 A Carbon Border Adjustment Mechanism is a policy that applies a carbon price to certain imported goods based on how much climate pollution was created making them.

14 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14748-Carbon-Border-Adjustment-Mechanism-CBAM-downstream-extension-anti-circumvention-and-rules-on-electricity-emissions/F3593480_en

15 South African Government, 2021. [South Africa First Nationally Determined Contribution under the Paris Agreement – Updated 2021](#).

16 South African Government, 2025. [South Africa's Second Nationally Determined Contribution under the Paris Agreement](#).

17 South Africa's Climate Change Act was promulgated in 2024: https://www.dffe.gov.za/mediarelease/george_climatechangeact

It is worth noting that consensus was not reached between stakeholders in the consultation process on the level of ambition of the mitigation target within the second NDC. Some civil society participants argued that the target range in the second NDC did not show sufficient ambition, and exposed South Africa to climate transition risks.^{18 19}

On the other hand, some carbon-intensive industries argued for weaker emission targets, citing concerns around rising operational costs impacting on competitiveness and higher consumer prices. Delays in implementing large scale renewable energy were also raised as a concern, as well as the lack of a clear policy framework and enabling environment for implementation.

DOCUMENT STRUCTURE

This document sets out what business needs to deliver South Africa's second NDC. It builds on We Mean Business Coalition's Business Call for Ambitious and Investible NDCs released in 2024,²⁰ which urged governments to set clear, ambitious and implementable NDCs across three pillars:

PILLAR 1

Put forward ambitious NDCs containing economy-wide emissions reduction targets that are aligned with 1.5°C, as well as sector-specific targets and policy commitments to transition from fossil to clean energy solutions and to restore nature.

PILLAR 2

Develop clear and consistent policy frameworks to implement NDCs by unlocking private investment, including national-level strategy and planning, sector-specific policies, and international coordination on policies and implementation.

PILLAR 3

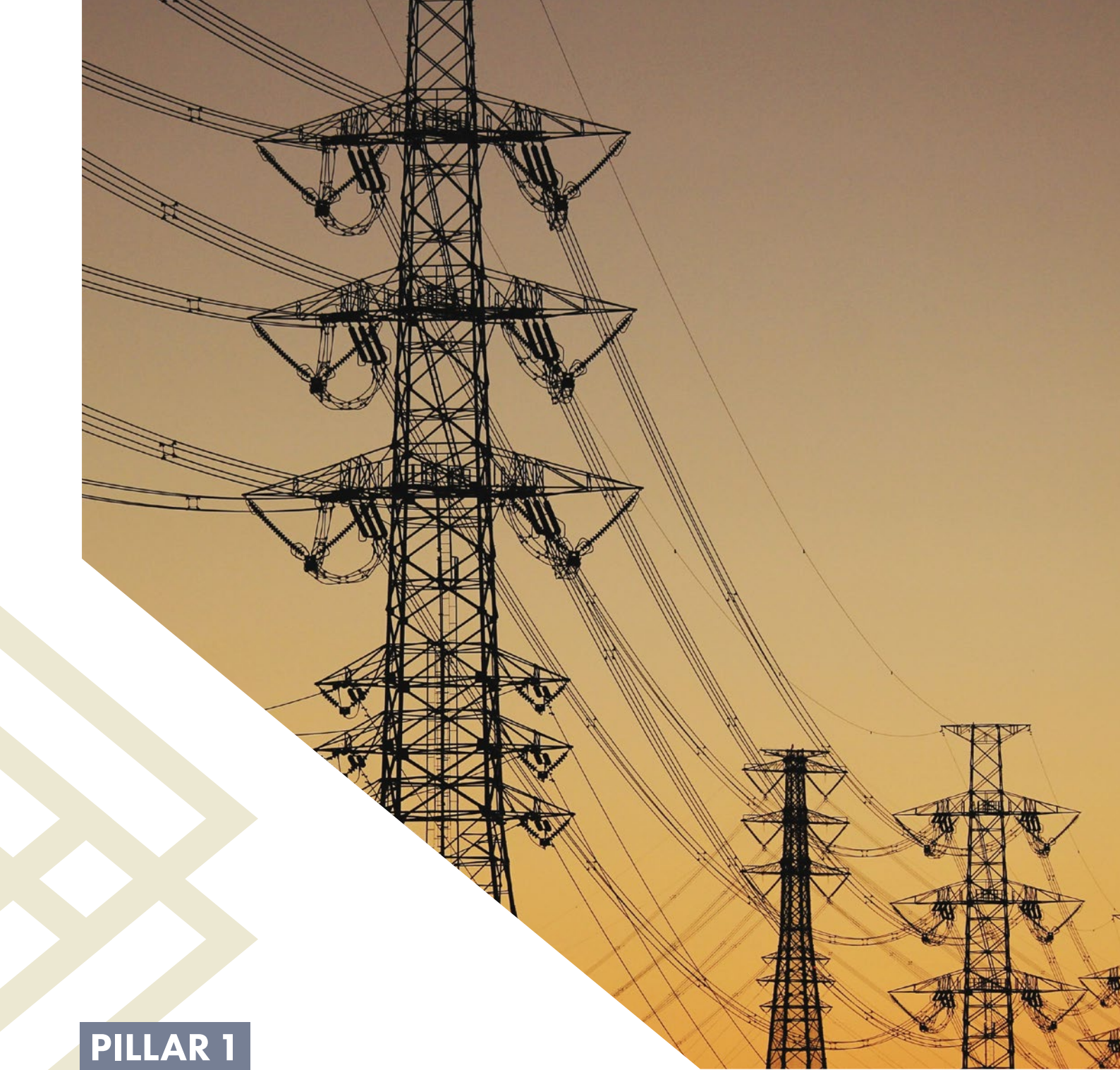
Undertake transparent and inclusive dialogue with businesses, including thorough consultations on NDC content, co-creation with business of solutions for implementation, and effective reporting and communication strategies. Building on the original call to action, the Coalition is now supporting and amplifying business voices in key geographies advocating for robust NDCs together with clear and consistent plans and policies for NDC implementation.



18 https://cer.org.za/wp-content/uploads/2025/09/Life-After-Coal-comments_Draft-Second-NDC_29-August-2025.pdf

19 https://justshare.org.za/wp-content/uploads/2025/09/250829_Draft-NDC-submissions_final-1.pdf

20 We Mean Business Coalition, 2024. [Business Call to Action for Ambitious and Investible NDCs](#).



PILLAR 1

Why an ambitious NDC matters

As a developing country with high vulnerability to climate impacts and significant carbon emissions, South Africa needs to urgently undertake climate action that builds resilience and advances its developmental needs. South Africa's second NDC sets a GHG emissions target range of 320 to 380 MtCO_{2e} for 2035 and reaffirms a goal of net zero emissions by 2050.

Setting an ambitious second NDC under the Paris Agreement is important for South Africa for various domestic and international reasons, summarized into four key areas below:

1 Market competitiveness and avoiding climate-related trade risks

As global markets shift toward low-carbon products and standards, carbon border adjustment mechanisms will penalize exports from carbon-intensive countries including South Africa. An ambitious NDC will boost South Africa's competitiveness in a decarbonizing global economy by aligning industrial policy with future trade realities.

An important component of this is supporting companies to prepare for, and respond to, sustainability expectations from international and local investors, and ensuring alignment with the environmental requirements of multinationals seeking to invest in the country.

2 Attracting and leveraging climate finance

An ambitious NDC provides direction for a low-carbon development pathway, helping to attract green investment and international climate finance. The NDC helps set the framework for climate action and incentivize private sector investment in low-carbon industries. Ultimately, this supports economic diversification, job creation, and technology transfer in the medium to long term. An ambitious decarbonization pathway within South Africa is likely to have a positive impact on the economy.²¹

3 Global climate leadership

As Africa's most industrialized economy and largest emitter, South Africa has a leadership role to play on the Continent. An ambitious NDC boosts credibility in international climate negotiations and allows South Africa to advocate more effectively for climate justice and equity, increased adaptation and loss and damage funding, and technology access on behalf of developing countries.

4 Harnessing new industries and an improved trade balance

Climate ambition, backed by strong, consistent renewable energy deployment, will unlock green energy and energy security, while creating jobs within construction, manufacturing and service sectors. This will help position South Africa to capture opportunities in green hydrogen and new energy vehicles.

Oil and refined petroleum products are South Africa's single largest imports at roughly USD 19 billion per annum. By 2050, a fully electrified mobility sector powered by renewable energy holds the opportunity of saving the economy approximately ZAR 255 billion annually at current prices, or 3.75% of GDP.²²

Transitioning away from fossil fuels is not only a climate priority — it is an economic necessity. Clear targets and timelines for phasing out unabated fossil fuels, aligned with a 1.5°C pathway, must be backed by robust national plans and policies that ensure a just transition for affected workers and communities. This approach is already recognised as a global business priority, with more than 260 companies supporting the shift through the We Mean Business Coalition's Fossil to Clean campaign²³

An ambitious NDC is about more than emissions reductions. It is a tool for building climate resilience, transforming the economy, unlocking global finance, maintaining energy security and affirming South Africa's leadership on the African and global stage.

21 PCC, 2025. [Draft Recommendations for South Africa's 2030-2035 Nationally Determined Contributions \(NDC\) Update](#).

22 [South Africa \(ZAF\) Exports, Imports, and Trade Partners | The Observatory of Economic Complexity](#). It should be noted that 75% of South Africa's oil and refined petroleum imports are used in the road transport sector.

23 The Fossil to Clean campaign is a global movement of businesses led by the We Mean Business Coalition that are moving from fossil fuels to clean energy. As part of the campaign, more than 260 companies with a combined revenue of >\$1.6 trillion have signed a letter to Heads of State urging governments to set clear targets and timelines for the phase-out of unabated fossil fuels and the creation of policies to accelerate clean energy deployment. See <https://www.wemeanbusinesscoalition.org/fossil-to-clean/>

The NBI's Just Transition Pathways

The NBI has published a series of reports on just transition pathways for South Africa. This work found that “the cost of inaction to climate change in South Africa is massive: in a decarbonized world where trade partners act on their net-zero commitments, ~50% of South Africa’s export value, ~1 m direct jobs, and ~15% of GDP could be at risk if current high carbon emissions are maintained.”²⁴

“Furthermore, unlocking South Africa’s renewable energy resources – in combination with South Africa’s access to key mining commodities, expertise in key industries such as synthetic fuels production, existing trade relationships, and a young, growing population – positions South Africa well to compete in new, green markets and to drive further job creation.”²⁵



24 NBI, 2023. [Decarbonising South Africa’s Heavy Manufacturing Sector.](#)

25 NBI, 2022. [It All Hinges on Renewables: The Massive and Urgent Energy Transformation South Africa Needs.](#)



PILLAR 2

Sector-specific policies for implementing the NDC

The pathway to reaching net zero in South Africa includes policy interventions in specific sectors that are the largest contributors to GHG emissions. This section focuses on the power, transport and heavy industry sectors, which are key for national decarbonization. Each sector faces its own set of challenges and complexities.

South Africa's Net-Zero Transition

"South Africa can reach net-zero by 2050. Achieving this will require significant changes both in the economy and through behavioral changes of individual South Africans. The energy sector will shift away from coal to a renewables dominant system. Renewables-based power will become the primary energy carrier, as heating and mobility – which are currently fossil fuel-based – are electrified, while economic growth will be driven by new green industries.

Some sectors, such as the power sector, will have to decarbonize faster due to its lower switching cost, while other sectors such as steel and cement are harder to decarbonize and will have increased demand due to the growing infrastructure need of the transition. South Africa's carbon budget, therefore, needs to balance increased allowance for harder to abate sectors, with faster emissions from sectors with lower switching costs."²⁶



Figure 1 outlines the cumulative emissions contribution of the power, transport and hard-to-abate sectors from 2020 to 2050, under a net-zero emissions pathway for South Africa.

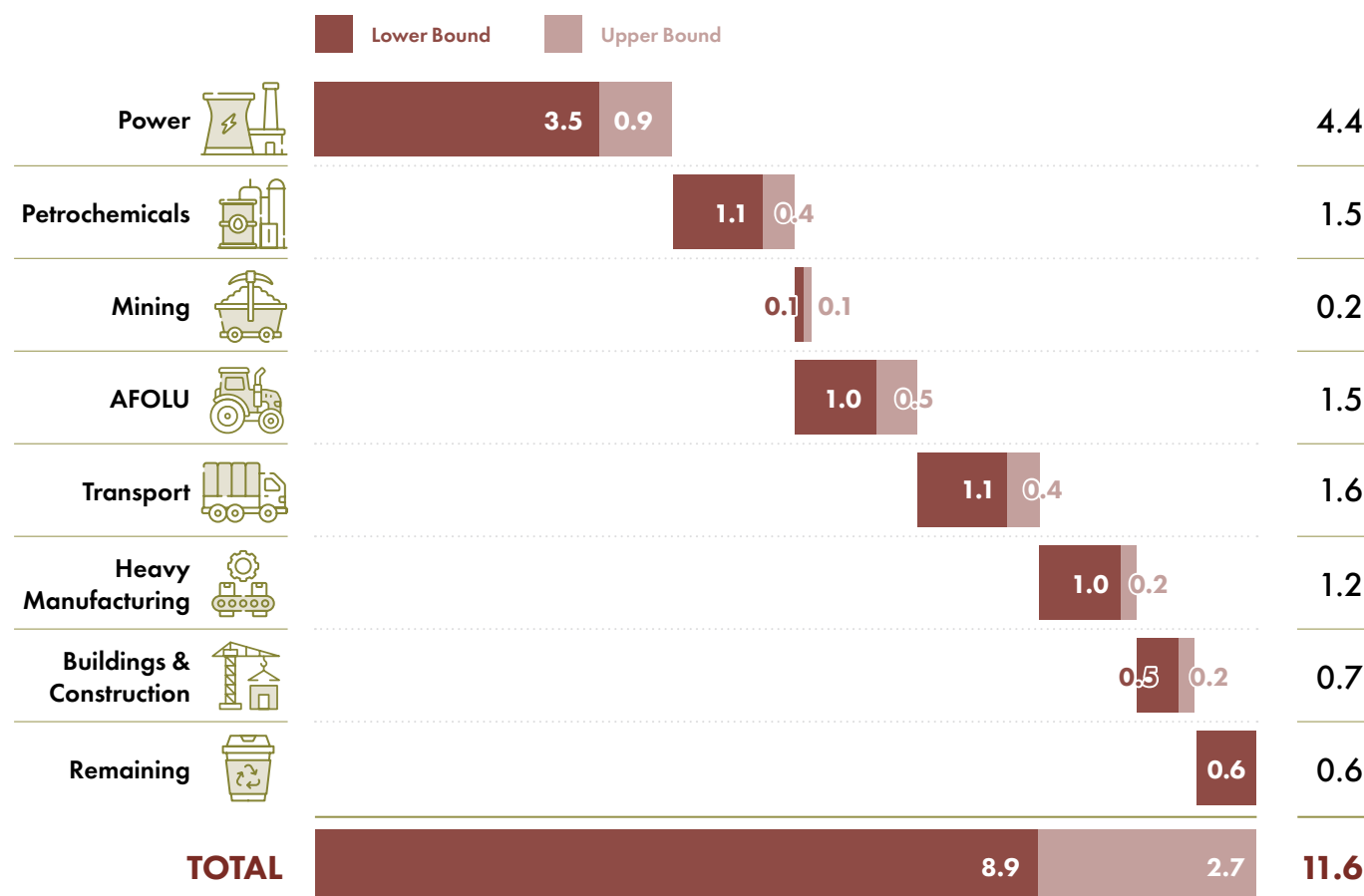


Figure 1: South Africa's 2020 to 2050 cumulative emissions distribution by sector, showing the contribution of the power, transport and hard-to-abate sectors.²⁷

Recommendations from the NBI-BUSA-BCG Just Transition Pathways Study:

The NBI Just Transition Pathways work has shown that a net-zero target by 2050 is possible, if South Africa undertakes ambitious actions including:

- 1 Deployment of renewable energy ten times faster than the current rate, at ~6-7 GW per annum, to decarbonize the power sector. Doubling this rate will enable South Africa to capture the green hydrogen opportunity.
- 2 Phase out of coal power by the mid-2040s.
- 3 Rapid electrification of transport with 700,000 electric vehicles on the road by 2030.
- 4 Banning of conventional vehicle sales by 2035.
- 5 A 15% and 20% increase in passenger and commercial rail use respectively.



27 NBI, 2023. [Decarbonising South Africa's Heavy Manufacturing Sector](#).

POWER

The transition away from coal-based electricity is at the heart of South Africa's ability to reach net zero. The NBI-BUSA-BCG Just Transition Pathways study²⁵ found that South Africa's shift to a competitive, net-zero economy hinges on its ability to unlock its globally advantaged, high-potential wind and solar energy resources at scale and at an unprecedented pace.

By developing an energy system anchored on renewables, South Africa can contribute to solving its current energy crisis and improve the affordability, availability, and reliability of its power supply – all while enabling new green industries to build the foundation of a globally competitive economy.

By 2050, at least 190 GW of renewables are needed to fully decarbonize the power sector.²⁸ This is achievable and would build off the 300% increase in national RE capacity realised between 2014 and 2024, largely due to the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)²⁹ as well as recent policy interventions to remove licensing thresholds for self-generation.



Transitioning South Africa's power system to renewable energy will allow the country to reduce electricity costs, enable fast deployment of urgently needed power generation capacity, and enable the decarbonization and diversification of South Africa's economy.



NBI, 2022. It All Hinges on Renewables: The Massive and Urgent Energy Transformation South Africa Needs.



28 NBI, 2023. [Decarbonising South Africa's Heavy Manufacturing Sector.](#)

29 CSIR, 2025. [Utility-Scale Power Generation Statistics in South Africa 2024.](#)

The rise of renewables: the REIPPPP and solar rooftops

Now in its 7th competitive bidding window, South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) has achieved significant gains. In its first five windows to accept proposals, the program rapidly deployed over 8.9 GW of wind and solar at some of the lowest prices internationally, while leveraging USD 13 billion (ZAR 234 billion) in private investment. The preferred bidders under the 6th and 7th windows are expected to add a further 3.7 GW to the national grid.

Key to future program expansion is the scaling of the national transmission network in high resource zones, which is envisaged to be financed through various means, including the implementation of Independent Transmission Projects (ITPs).

At the same time, power shortages have seen a dramatic rise in domestic, commercial and industrial solar PV uptake, with national rooftop solar capacity doubling in just one year in late 2023, to reach 5.7 GW in current capacity.

The REIPPPP and growth of solar rooftops with battery storage have helped to grow supply, curtail electricity demand and reduce ongoing load shedding, complementing the strong progress made under the Energy Action Plan implemented by the National Energy Crisis Committee (NECOM).³⁰



A commitment to no new coal-fired power plants could also help South Africa to access finance from multilateral development banks for grid expansion and scaling up renewable energy and reduce its borrowing costs.

Recommendations:

- 1 Facilitate massive renewables investment: target at least 6–8 GW/year through the REIPPPP and through private and municipal investment.
- 2 Leverage the steady build out of renewables to realize value chain opportunities in the construction, assembly, manufacturing and recycling of all renewable energy related components, including in batteries and transmission.
- 3 Commit to no new coal-fired power and align the planned decommissioning of older coal-fired plants with renewables deployment, including clean energy investment in coal affected regions.
- 4 Expand and modernize the power grid: invest in grid upgrades and expansion, with a focus on improved grid access and timely grid connection approvals.
- 5 Just transition deployment: scale green job creation in coal regions, backed by retraining and demand-led upskilling to support new employment opportunities, recognizing that certain older coal stations are due for closure for economic reasons unrelated to climate change.
- 6 Mandate local resilience: local governments must operationalize adaptation plans and integrate them with electricity planning, while building capacity and cost recovery mechanisms in their implementation of the National Wheeling Framework.³¹

More detailed policy recommendations on renewable electricity for South Africa have been recently developed by NBI, RE100 and South African businesses.³²

30 Available from: <https://www.gov.za/news/media-statements/presidency-releases-18-month-progress-report-energy-action-plan-27-mar-2024>

31 National Energy Regulator of South Africa: Regulatory Rules on Network Charges for Third-Party Wheeling of Energy: Version 1

32 RE100 and NBI, 2025. [South Africa policy recommendations for renewable electricity](#). Accessible at www.raisehub.co.za

TRANSPORT

The transport sector is a key area requiring ambition to reach climate targets. The national Green Transport Strategy (2018–2050)³³ aims to decarbonize the transport sector by using cleaner fuels, making modal shifts, improving vehicle efficiency and promoting behavioral changes. However, progress is slow and integration into national mitigation planning remains limited.

Transport contributes about 11% of national GHG emissions, predominantly from road vehicles. Around 75% of these emissions come from private cars and freight trucks.³⁴ The potential for modal shift is high, as current freight is almost exclusively road-based (88%). South Africa's rail network is extensive yet not all of it is fully operational, which has resulted in the negative trend of freight being moved from rail to roads.

Current plans target shifting toward a 50/50 road-rail balance by 2043 to improve efficiencies and reduce emissions.³⁵ These are ambitious targets given current challenges within the sector, but the area of transport and logistics has been granted elevated national priority through the formation of the National Logistics Crisis Committee (NLCC)³⁶, which has commenced work.

Urban mobility in cities and towns is dominated by minibus taxis and private vehicles, and to a smaller extent buses, which has resulted in high emissions and poor services for many residents. Larger cities are investing in electric buses, often within the bus rapid transit approach, but these are expensive investments and have limited routes.

There is a need to integrate non-motorized transport (walking, cycling) with public transport systems, which can support mitigation efforts. Transport infrastructure is susceptible to extreme weather events including floods, heat waves, and erosion damage to roads and bridges from heavy rainfall, cutting off services and commerce. Recent extreme weather events show growing vulnerability that has resulted in deaths, damage to infrastructure and disruption to supply chains and passenger transport.³⁷

The growth of electric vehicles shows significant potential for transitioning towards sustainable mobility and enhancing automotive and component manufacturing. As the world's largest producer of manganese (a central element to lithium-ion batteries), South Africa is well placed to expand its market share in the global EV manufacturing value chain.

Transport infrastructure needs investment for climate-proof design. Adaptation is therefore equally important in this sector, and outside of investing in general transport infrastructure, there is a need to consider more innovative approaches to maintenance, including though embracing green infrastructure options. This includes improving stormwater drainage and upstream catchment management, adapting materials to the impacts of heat waves and high intensity rainfall events, as well as employing wetlands and ecological buffer zones in flood defense, and local resource-led construction.

Recommendations:

- 1 Scale up modal shift: prioritize rail freight, Bus Rapid Transit and non-motorized transport.
- 2 Modernize the public transport fleet: accelerate minibus taxi and bus renewal and electrification, supported by incentives and regulation.
- 3 Substantially invest in rail: revitalize freight and commuter rail to reduce emissions and relieve road networks.
- 4 Support innovation in corporate e-mobility: further encourage the growing e-bike, e-motorbike and e-van delivery market in urban nodes, linked to commercial solar charging and battery swapping facilities.
- 5 Support the development of electric vehicles: this holds potential for transitioning to sustainable mobility and enhancing automotive and component manufacturing.
- 6 Strengthen climate resilience: implement climate-proof road infrastructure designs to reduce flooding and heat impacts.



33 Download the report here: https://www.changing-transport.org/wp-content/uploads/L_K_Green-Transport-Strategy_South-Africa_2018_EN.pdf

34 Kitili and Ribarsky, 2024. [South Africa: Technical Assistance Report - Report on Macro-Relevant Climate Change Statistics Diagnostic Mission \(July 17–21, 2023\)](#).

35 Ntuli et al., 2024. [Energy sustainability and carbon dioxide emissions mitigation options for South Africa's road transport sector](#).

36 [Roadmap for the freight logistics system in South Africa](#)

37 Bopape et al., 2025. [Weather related disasters in South Africa from 1980 to 2023](#).

HEAVY INDUSTRY

Hard-to-abate sectors such as heavy industry are important to reflect on as they are costly and complex to decarbonize and have specific challenges to setting ambitious climate targets. While the potential of these sectors to contribute to meeting national climate targets may be limited in the near term, they are important to South Africa's long-term climate ambitions. Addressing the complexities in these sectors now helps ensure that long-term planning is in place to support climate target achievement.

South Africa's hard-to-abate sectors are deeply entwined with the country's carbon-intensive economic legacy. This means that achieving climate goals requires integrated policy, adequate financing, and coordination, while prioritizing a just transition by ensuring communities and workers are not left behind.

Heavy industries (e.g. iron and steel, cement, heavy machinery and equipment) can be seen as the building blocks of the economy. They are key to infrastructure and export competitiveness, but they are energy intensive.

The cost of transitioning is high for this sector, making investment support essential. Additionally, coherent and coordinated policy is critical as there is a risk of fragmented or isolated "enclave" projects that lack integration into broader value chains and industrial ecosystems that can lead to wider economic growth.

Emerging strategies (led by the Industrial Development Corporation) propose using green hydrogen for low-carbon steel. However, scaling up green hydrogen for use in the steel industry depends on a reliable supply of fossil-free electricity at competitive prices. Achieving this will require significant upgrades to the electricity grid (or effective mini grids) and strong coordination across industrial policy.

South Africa faces a looming shortfall in natural gas needed for industrial use, electricity generation, and transitioning from coal, which creates an energy security risk for many hard-to-abate sectors. However, natural gas must be seen as a short-term option, with renewables and green hydrogen the longer-term solution to meet net-zero goals in the sector.



South Africa is well-positioned to grow its heavy manufacturing sector to become a future global green manufacturing hub for energy-intensive goods, given its access to abundant, high-quality renewable energy resources; proximity to critical raw materials; existing relevant local capabilities; and a growing young population...

Affordable green power and globally competitive local green H₂ production can be a source of competitive advantage for South Africa's heavy manufacturing sector – but it will require extensive investment (~ZAR 150–160 bn) to upgrade heavy manufacturing plants to incorporate green processes and technology.



NBI, 2022. It All Hinges on Renewables: The Massive and Urgent Energy Transformation South Africa Needs.

Recommendations:

- 1 Focus on the implementation of mature technologies that can reduce roughly 40% of the sector's Scope 1 and Scope 2 emissions. This includes scaling up investments in process efficiency, materials substitution, electrification, fuel and feedstock switching and energy efficiency, to reduce fossil fuel reliance.
- 2 Work to achieve large-scale, affordable renewable energy access and deployment in the sector, which could require a third of all installed renewable power by 2050.
- 3 Scale future investments in green hydrogen supported by industrial policy, blended finance and supportive infrastructure planning.
- 4 Prioritize the development of sector transition plans and financing options, given the significant investment needed to upgrade current plants to incorporate green processes and technology.
- 5 Finalize and enforce key components within the Climate Act including formalizing a carbon budget and Sector Emission Targets (SETs) that will provide clarity and direction to industry.
- 6 Boost adaptation finance and measures to safeguard vulnerable industries and communities.



PILLAR 3

Climate dialogue and action

Climate action in South Africa will succeed or fail based on the strength of its partnerships across sectors and different levels of government, and between business, policymakers, civil society and affected communities.

COLLABORATIVE ENGAGEMENT FOR SYSTEMIC CHANGE

South Africa's second NDC represents an important milestone for setting ambitious climate targets. However, as a largely coal-dependent economy, progress cannot be achieved by government alone. Sustained collaboration between business, government and civil society is essential. Alignment around shared NDC goals will help ensure climate targets are credible, equitable and achievable, while ultimately helping to drive investment.

Beyond the goal of a common vision, collaboration is important for several additional reasons:

- **Ambitious goals require shared effort.** Several of the technologies and innovations needed for net zero are still maturing. Working in synergy can go beyond what isolated efforts might achieve and generate creative solutions with diverse perspectives.
- **Accessing climate finance requires joint action.** Emergent technologies such as green hydrogen require a blend of grant, concessional and commercial finance to scale and reach full commercialization. Leveraging of private sector expertise and financing at all levels of government will be essential to South Africa's net zero pathway.
- **System level change is complex.** Driving transformation at scale requires aligned and coordinated action across society.
- **Collaboration fosters inclusion and fairness.** Processes that consider the perspectives of vulnerable groups can lead to more equitable outcomes and build broader public support for change.



Trust and transparency between government and the private sector is the foundation of collaboration. The Government must set clear and consistent climate and energy policies, removing barriers to implementation and creating an enabling environment. Robust mechanisms for accountability and the enforcement of regulations should be in place, supported by clear and consistent public engagement.

Business should operate with integrity and transparency; adhering to regulations and engaging constructively with the Government around implementation challenges and how they can be overcome. Businesses also need to ensure that their advocacy and lobbying activities are fully aligned with their climate targets and plans, as outlined in We Mean Business Coalition's framework for Responsible Policy Engagement.³⁸ Harnessing business led solutions, value chains and investment will be essential.

In the short term, a just transition will lie at the heart of government-business engagement. This will require consensus on how South Africa can access, and leverage limited international funds, overcome institutional capacity constraints and eliminate bureaucratic hurdles.

The development of bottom-up investable plans for key economic sectors will enable South Africa to implement meaningful mitigation actions that are commercially realizable. This approach will allow the country to attract investment in key industries and reach specific climate goals in the short and medium term, even as new opportunities and technologies become financially viable.

Many of the tools and approaches needed to unlock barriers to economic growth are already in place and have achieved good success. Initiatives such as Operation Vulindlela³⁹ have shown what is possible and offer a public-private partnership model for accelerating delivery and scaling impact.

38 We Mean Business Coalition, 2023. [Climate ambition to advocacy: A framework for responsible policy engagement.](#)

39 Government initiative to accelerate implementation of structural reforms and support economic recovery: <https://www.stateofthenation.gov.za/operation-vulindlela>

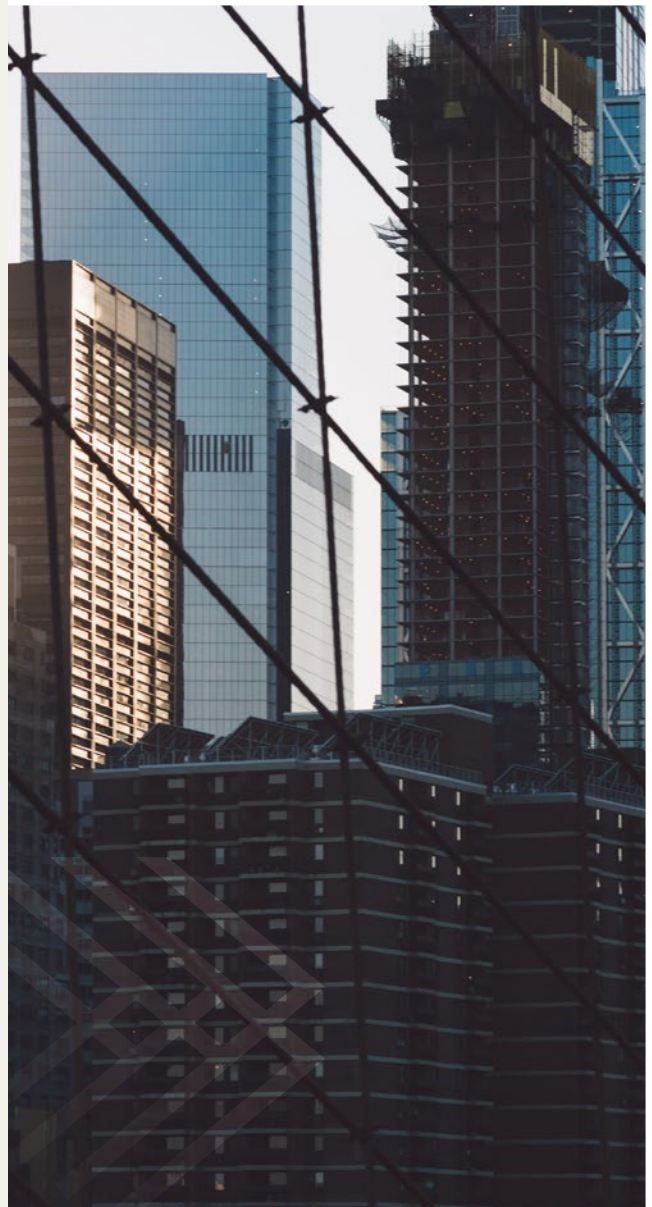
The role of SMEs in delivering South Africa's NDC

Small and Medium Enterprises (SMEs) employ roughly half of the work force and account for around one third of South Africa's GDP.⁴⁰ They will therefore play a crucial role in delivering South Africa's NDC as well as future-proofing global value chains. However, SMEs often lack the resources and support needed to take climate action and adapt to the impacts of climate change.

We Mean Business Coalition's SME Climate Hub aims to mainstream climate action for SMEs with under five hundred employees.⁴¹ As of July 2025, 38 South African SMEs have joined the Hub and taken on climate commitments.

The following actions would help to facilitate the participation of SMEs in South Africa's transition:

- Recognize the key role SMEs will play in delivering South Africa's NDC and include them in consultation processes for NDCs, National Adaptation Plans (NAPs), and National Biodiversity Strategies and Action Plans (NBSAPs), including the development of objectives, incentives and implementation frameworks.
- Improve access for SMEs' to proven net-zero technologies and solutions by expanding market availability and reducing adoption barriers.
- Facilitate SMEs' access to appropriate climate-related funding through:
 - i. Incentivizing financial institutions and other ecosystem players to offer tailored, accessible financing products for SMEs.
 - ii. Developing and endorsing standardized frameworks and guidelines for SME green finance eligibility, supported by tools, to ensure SMEs can demonstrate readiness for green finance.
 - iii. Providing direct government support to SMEs for climate action, such as green grants, concessional loans, or tax incentives.



SETTING MEANINGFUL AND ACHIEVABLE GOALS

To meet the 2035 target in South Africa's second NDC, collaboration and dialogue with business and civil society is a necessary next step. Disaggregating an intimidating long-term 2050 target into 5-year sectoral investment plans will also make decarbonization much more manageable.

40 The Banking Association South Africa, 2025. [Small Medium Enterprises](#).

41 <https://smeclimatehub.org/>



The way forward

The second NDC will play an important role in South Africa's transition. Heightening mitigation ambition is not solely about South Africa's relative global responsibility, it is about retaining relevance as global economies shift, improving local economic prosperity and equity, and reducing climate impacts.

The NDC must be ambitious, socially inclusive, and implementation-ready, demonstrating South Africa's commitment to climate action within its development priorities. The South African emissions pathway to 2035 and 2050 must also include heightening adaptation ambition, to support livelihoods, ecosystems and infrastructure. The second NDC demonstrates this heightened ambition by including goals for mitigation and adaptation, as well as a specific section on loss and damage.

The current international geopolitical environment (in particular, the USA's decision to withdraw from the Paris Agreement) has weakened the international pressure on countries to scale up their climate ambition. However, in the context of a long-term net-zero target by 2050, yielding to short-term geopolitical pressures risks undermining economic competitiveness, energy security and the country's long-term climate goals.

Instead, prioritizing a just transition and focusing on realistic, near-term actions, particularly in the power, transport, critical minerals and heavy manufacturing sectors, can create a more stable pathway to net zero. This creates an enabling environment from government that business is supportive of the long-term clarity it provides and is in businesses' interest. This approach not only supports emission reductions and export competitiveness, but promotes consistent support for new industries, economic growth and job creation.

There is much that South Africa can do now to promote new growth and societal resilience. Part of the solution to the implementation challenge lies in breaking down longer-term goals into more immediate, achievable actions and investment plans, which will unlock future decarbonization.

Whilst there are a range of opportunities, four key priorities that can make an immediate impact in the next year in driving South Africa's economic development are to:

- 1 Continue to advance power sector reform through the Energy Action Plan⁴²**, focusing on the implementation of the South African Wholesale Electricity Market (SAWEM) and effective operationalization of the National Transmission Company of South Africa (NTCSA)⁴³. There are also many quick wins to be had through investments in energy efficiency and on-site renewables.
- 2 Implement a robust Integrated Resource Plan (IRP) for electricity that places the rapid scaling of RE at its heart**, backed by the rollout of large-scale transmission upgrades through the Transmission Development Plan (TDP⁴⁴).
- 3 Agree short-term business-government implementation plans to unlock low-carbon growth in key sectors**, including through the approved Electric Vehicle White Paper, Green Hydrogen Commercialization Strategy and Critical Minerals and Metals Strategy.
- 4 Increase the number of stewardship sites and hectares under rehabilitation** in South Africa's critical water catchments, in line with the targets under the Medium-Term Strategic Framework, to reduce exposure to future disasters, advance water security and unlock new jobs.



42 Progress on the Energy Action Plan: https://www.gov.za/sites/default/files/progress_on_EAP.pdf

43 Details on SAWEM and the NTCSA: <https://www.ntcsa.co.za/sa-wholesale-electricity-market-sawem/>

44 Available: <https://www.ntcsa.co.za/transmission-development/>

ABOUT WE MEAN BUSINESS COALITION

We Mean Business Coalition works with the world's most influential businesses to take action on climate change. The Coalition is a group of seven nonprofit organizations: BSR, CDP, Ceres, Climate Group, CLG Europe, The B Team and WBCSD. Together, we catalyze business and policy action to halve emissions by 2030 and accelerate an inclusive transition to a net-zero economy.

Find out more at wemeanbusinesscoalition.org

 linkedin.com/company/wemeanbusiness

 [@wemeanbusiness.bsky.social](https://x.com/wemeanbusiness)

 youtube.com/WeMeanBusinessCoalitions

ABOUT THE NATIONAL BUSINESS INITIATIVE (NBI)

We are an independent business movement of nearly 100 South African and multi-national member companies committed to the vision of a thriving country and society. The NBI was launched in 1995 by the then President, Nelson Mandela as a voluntary coalition of South African and multinational businesses.

The NBI is for the committed.

Find out more at nbi.org.za

 linkedin.com/company/national-business-initiative

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 youtube.com/@NBISouthAfrica

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