South Africa needs to urgently transform its energy system. Research on South Africa’s energy sector indicates that the long-term cost of inaction is high. As the world’s most carbon-intensive economy among the G20 countries, almost 50% of the country’s exports are at risk as key trade partners prioritise imports from low-carbon economies instead. Combined with a stalled GDP growth, an unemployment crisis, rising inequality, and the increasing severity of climate impacts, a Just Transition to a net-zero economy by 2050 is imperative. Decarbonising South Africa’s electricity system, through ramping up renewable energy deployment is the catalyst for driving that change.

The National Business Initiative (NBI), Business Unity South Africa (BUSA), and the Boston Consulting Group (BCG) Climate Pathways and Just Transition study assesses what it would take for South Africa to reach net-zero by 2050 and to ensure a Just Transition. Over the past two years, the NBI, BUSA and BCG, have explored pathways to achieve a net-zero economy within a fair share carbon budget, and to lift South Africa’s people out of poverty, inequality, and unemployment.

This study is one of the most robust, transparent, and inclusive climate studies in South Africa, and is championed by a cross-sector group of 30+ CEOs. The research was conducted in consultation with more than four hundred stakeholders from across business, government, civil society, and labour through over two hundred hours of technical workshops and one-on-one engagements. This work, led by business, has achieved local and international acclaim, positioning the private sector as instrumental in achieving a just transition to a net-zero economy.

It all hinges on Renewables. We will launch an integrated energy report on 21 July 2022 detailing South Africa’s Just Transition. This important report lays out the core findings regarding the transformation South Africa needs to pursue in terms of our energy sector and draws upon the series of six innovative research reports released in 2021. The report finds that South Africa can solve its current energy crisis and realise a Just Transition to a competitive, net-zero economy, if it can unlock its globally advantaged, high-potential wind and solar energy resources at scale and at an unprecedented pace.

This energy transition would improve the availability and reliability of South Africa’s power supply – all while enabling new green industries to build the foundation of a globally competitive economy that is resilient to trade risks from a transition to net-zero.

The report further highlights:

1. The urgent need to drive decarbonisation and transformation of the energy sector in South Africa immediately
2. The need for Renewables to be elevated as a national priority going forward
3. The need for a coordinated approach to incubate new green industries, drive economic diversification and create opportunities for skills development, job creation and improved livelihoods in order to build an inclusive future economy

The Climate Pathways study is an ongoing project, several detailed analytical and model-based sector-level reports have been released. Access all the reports here.
INFO FOR MEDIA
FIVE KEY FINDINGS FROM THE REPORT

1. Large-scale renewable energy deployment is the backbone of a Just Transition. It can result in net-positive job creation. Unlocking South Africa’s renewable energy resources – in combination with South Africa’s access to crucial mining commodities, expertise in key industries such as synthetic fuels production, existing trade relationships, and a young, growing population – positions South Africa well to win in new, green markets and to further drive job creation.

Decarbonising South Africa’s energy supply requires an unprecedented roll-out of renewables. By 2050, at least 190 gigawatts (GW) of renewables need to be deployed to decarbonise the power sector fully. Furthermore, capturing the opportunity presented by the green hydrogen (H2) economy requires an additional 170-200 GW of dedicated renewables capacity.

2. South Africa will need to build ~6-7GW of renewables every year for the next three decades for the power system alone, doubling when considering the green H2 requirements. To put that in perspective: South Africa has an installed capacity of ~5GW of renewables today – which took over ten years to build.

A critical enabler for the large-scale and rapid pace of renewables deployment is the modernisation, expansion and strengthening of the national power grid. This is a challenge the rest of the world also faces, so fast-tracking grid strengthening, and modernisation efforts can be a global competitive advantage for South Africa as it enables the fast scale-up of new green industries.

3. South Africa’s transition to net-zero will require massive investments. Over the next three decades, more than ZAR 6 trillion is necessary to decarbonise the economy – more than half of which is needed in the power sector.
About the Authors

About the National Business Initiative
At the National Business Initiative (NBI), we believe in collective action and collaboration to effect change; building a South African society and economy that is inclusive, resilient, sustainable and based on trust. We are an independent, business movement of around 80 of South Africa’s largest companies and institutions committed to the vision of a thriving country and society. The NBI works with our members to enhance their capacity for change, leverage the power of our collective, build trust in the role of business in society, enable action by business to transform society and create investment opportunities.

About Business Unity South Africa
BUSA, formed in October 2003, is the first representative and unified organisation for business in South Africa. Through its extensive membership base, BUSA represents the private sector being the largest federation of business organisations in terms of GDP and employment contribution. BUSA’s work is largely focused around influencing policy and legislative development for an enabling environment for inclusive growth and employment.

About Boston Consulting Group
BCG partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG, the pioneer in business strategy when it was founded in 1963, today works closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organisations to grow, build sustainable competitive advantage, and drive positive societal impact. Our diverse, global teams are passionate about unlocking potential and making change happen and delivering integrated solutions.

For Further Contact
If you would like to discuss this report, please contact the authors.