THE IMPACT OF THE CARBON TAX ON THE MINING SECTOR

Fact sheet

MINERALS COUNCIL
SOUTH AFRICA

Harmony – Phakisa

"Human-induced warming reached approximately 1°C (likely between 0.8°C and 1.2°C) above pre-industrial levels in 2017, increasing at 0.2°C (likely between 0.1°C and 0.3°C) per decade."

IPCC special report on impact of global warming

THE SCIENCE OF CLIMATE CHANGE

Earth's climate depends on the radiative balance of the atmosphere.

Radiative balance depends on:

solar radiation input

+

atmospheric abundance of radiatively active trace gases (GHGs and others)

Since the 1st industrial revolution, atmospheric concentrations of GHGs (including CO_2, CH_4, O_3) have increased due to human activities.

1st industrial revolution	2nd industrial revolution	3rd industrial revolution	4th industrial revolution
Mechanical production, railroads, steam power	Mass production, electrical power, advent of assembly line	Automated production, electronics, computers	Artificial intelligence, big data, robotics, more to come

POLICY INSTRUMENTS ADOPTED BY SA IN RESPONSE TO CLIMATE CHANGE

2009
UNFCCC, Kyoto Protocol (Copenhagen)

2011
Climate Change policy
National Climate Change Response White Paper

2012
National Development Plan (NPC 2012)

Implementation of climate-compatible sectoral plans
- integrated energy and electricity planning (IEP and IRP)
- industrial policy action plans (IPAP)
- new growth path (NGP)

2016
SA ratifies Paris Agreement

SA submits Nationally Determined Contribution document

2019
Carbon Tax Act Draft:
- Climate Change Bill
- National Adaptation Strategy

TACKLING CLIMATE CHANGE – WHY IT'S IMPORTANT FOR THE MINING INDUSTRY

Mining remains a significant contributor to development of many countries around the world (particularly developing and emerging economies)

Developed, industrial economies depend on secure supply of resources that drive economies

We acknowledge that:
Mining has a significant role in reducing GHG emissions

Sector is vulnerable to climate change (water scarcity in particular)

THE MINERALS COUNCIL'S POSITION ON CARBON TAX

MINERALS COUNCIL SOUTH AFRICA

THE MINERALS COUNCIL:

- Understands and recognises the science of climate change
- Recognises role of fossil fuels in climate change, and that a shift to renewable energy sources is a global and national imperative
- Fully supports SA's commitment to reducing GHG emissions in line with the Peak, Plateau and Decline (PPD) and Nationally Determined Contributions (NDCs) under Paris agreement
- Has lobbied and advocated for certainty and socio-economic consideration in the development of national climate change policy and regulatory regime

Our view?

Climate change policy aimed at facilitating the transition to low-emissions economy should be:

- Balanced
- \+
- Supported by competitive regulatory system

Critical to ensuring that investors continue to invest in capital intensive industries such as mining

BUT the carbon tax, in the absence of any other climate change measures in the overall 'toolbox' that includes incentives and not only disincentives and necessary supporting regulation, is likely to be **damaging to carbon intensive sectors with no pathways for offsets.**

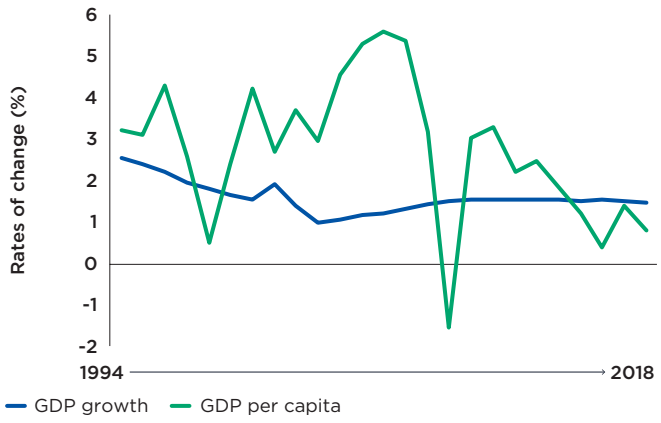
THE CHANGING COMPOSITION OF THE SOUTH AFRICAN ECONOMY

Over the past decade, South Africa's economy grew by an average of only 1.5% a year. This has contributed to a continuous decline in GHG emissions per unit of GDP in a context where:

- The composition of South Africa's growth shifted away from carbon intensive industries, like mining and manufacturing, towards less carbon intensive sectors like financial services and retail; and
- The 523% increase in the electricity price in the past decade, in materially damaging the competitiveness of the mining and smelting industries, further contributed to the decline in carbon-intensive sectors.

Between 2009 – 2018, economic growth averaged 1.5% per year while the population growth rate over the same period averaged 1.53% per year.

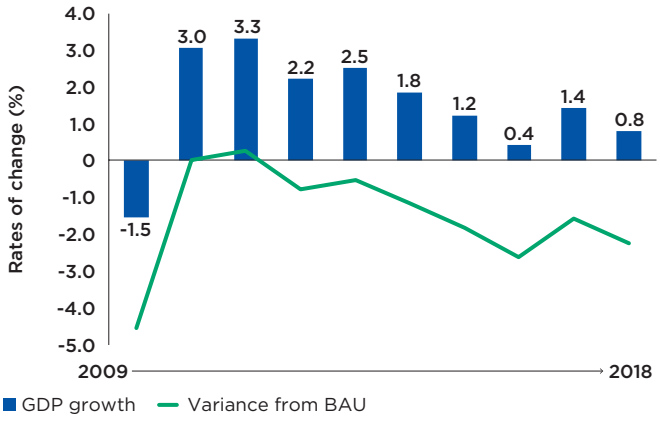
GDP growth vs. GDP per capita



Source: Minerals Council

South Africa's growth performance over the past decade has been significantly below the Business as Usual assumed growth rate of 3% per year.

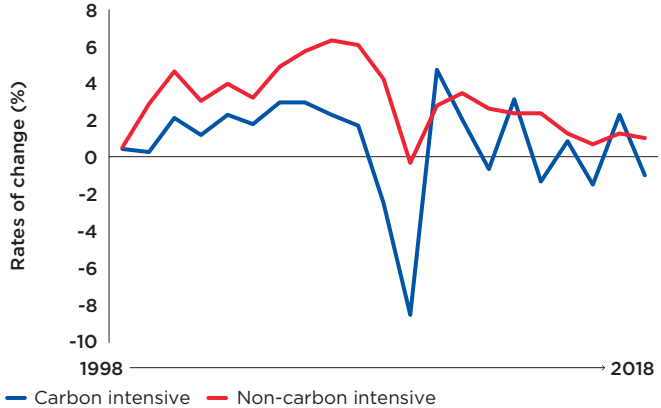
SA GDP Growth (2009 to 2019 = 1.5% Average Growth)



Source: Minerals Council

The changing composition of the South African economy has resulted in a decline in carbon intensity per unit of GDP created.

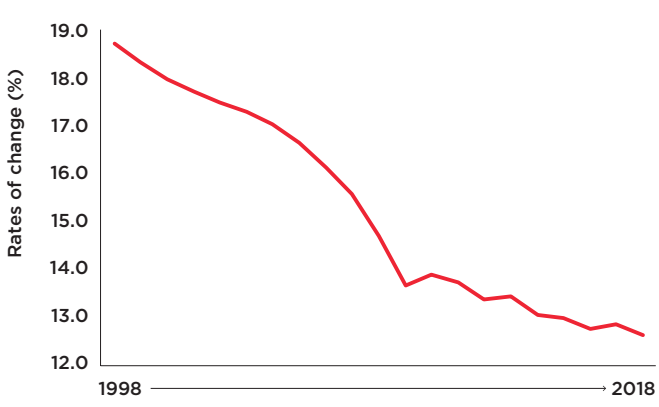
Economic growth – carbon intensive vs. low carbon intensive sectors (1998-2018)



Source: Minerals Council

Carbon intensive sectors as a percentage of GDP nearly halved from 19% in 1998 to 12% in 2018.

Carbon intensive sectors as percentage of GDP

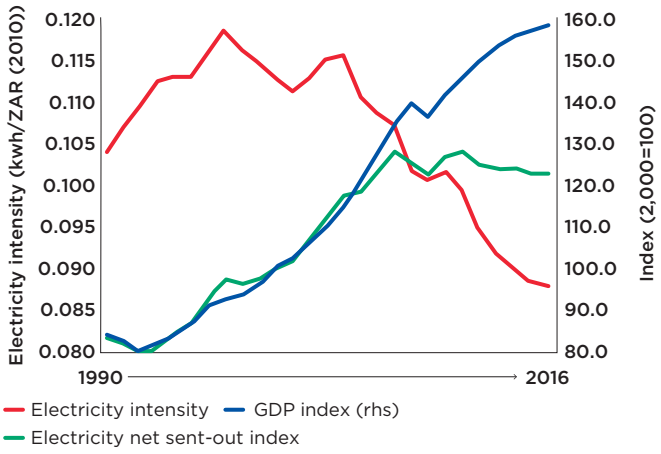


Source: Minerals Council

The South African economy is experiencing decoupling between GDP growth and electricity intensity.

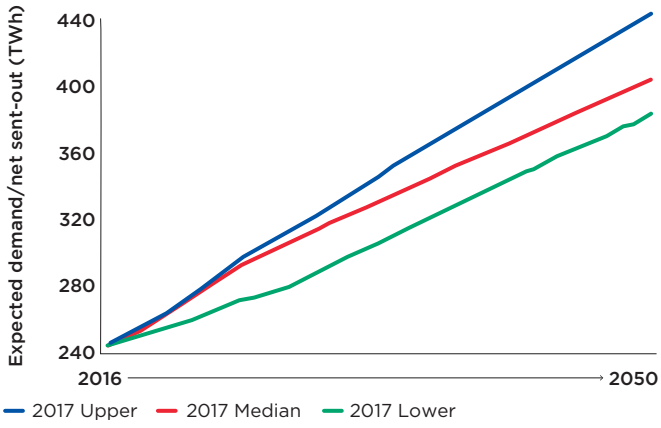
This trend has been induced by steep increases in electricity prices and lower availability.

Electricity intensity history 1990–2016

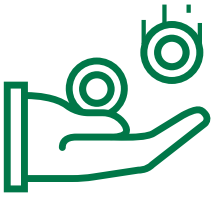


Source: Minerals Council

Expected electricity demand forecast 2016-2050



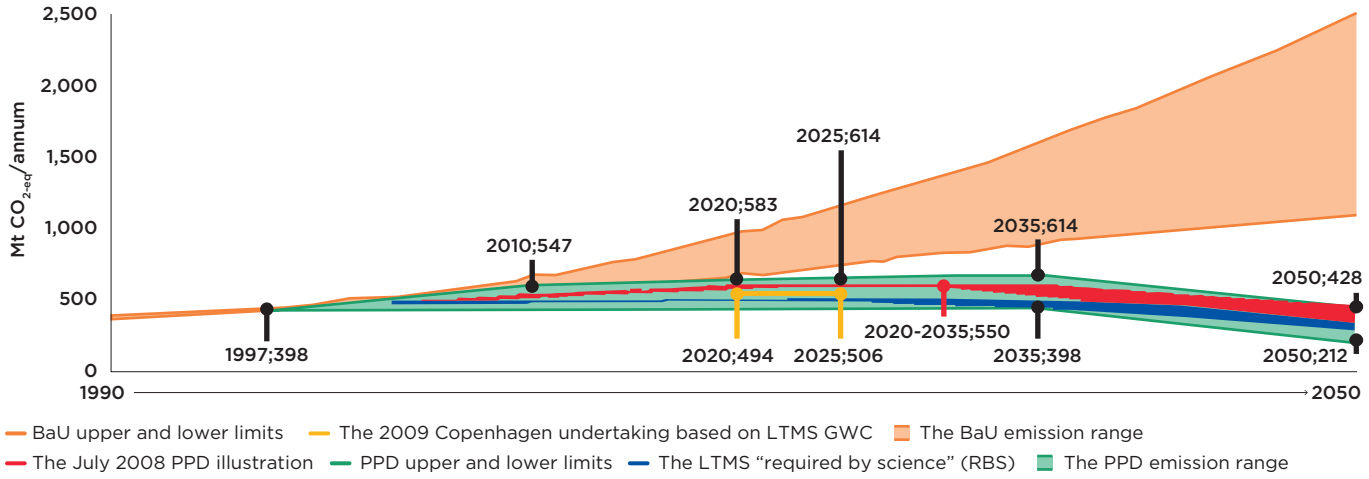
Source: Minerals Council



"It is highly likely that South Africa will achieve its Paris commitments without implementing carbon tax."

Given that South Africa's GHG emissions are currently below the Peak, Plateau and Decline GHG trajectory, and taking the changing composition of South Africa's economy into account, it is highly likely that South Africa will achieve its Paris commitments without implementing measures such as carbon tax.

The desired South African climate change mitigation outcome – the "Peak, Plateau and decline" (PPD) greenhouse gas emission trajectory – comparison with other popularised conceptions of PPD



REQUIREMENTS OUTLINED IN THE CARBON TAX ACT

The socio-economic implications of the tax and regulatory uncertainty which negatively impacts on the competitiveness of the mining industry, are significant concerns.

Phase 1 (June 2019 – December 2022)

Phase 1 is a transitional period to determine how effective the law is in reducing national GHG emissions and to provide allowances to impacted companies to cushion the impacts of the carbon tax on their operational costs.

Carbon tax will be levied on scope 1 emissions which is direct emissions (process, fugitive and combustion emissions). The tax rate for 2019 is R120/tonne of CO_2e emitted, which will increase at a rate of CPI +2% until December 2022.

In this phase, mining companies qualify for a tax-free portion of 60% and approximately 30% of allowances which amounts to around 85%. Given that the regulations to enable the implementation of the Performance Allowances, Carbon Offset, Carbon Budget and Trade Exposure Allowances are not yet finalised, it is difficult to determine the actual precise figures on the eligibility of the allowances.

Phase 2 (January 2023 – 2030)

During phase 2, scope 2 emissions from indirect sources will apply in addition to scope 1 emissions. National Treasury has not yet specified any potential tax-free allowances for phase 2 and it is not clear if the allowances for phase 1 will remain in place.

The significant uncertainly associated with phase 2 of the implementation of the carbon tax will be materially negative for South African mining.

ALLOWANCES PROPOSED BY NATIONAL TREASURY DURING PHASE 1:

60%	basic tax-free allowance
10%	allowance for process emissions
10%	allowance for fugitive emissions
0%-10%	variable tax-free allowance for trade exposed companies
5%	allowance for companies that have allocated and comply with a carbon budget
5%	tax-free allowance for above average performance for reducing carbon emissions
5% or 10%	tax-free allowance for carbon offset programmes

Anglo American Platinum, Polokwane Smelter

THE IMPACT OF CARBON TAX ON THE MINING INDUSTRY

The mining sector is a price taker and cannot pass on the cost associated with carbon tax to final consumers. Conversely, suppliers to the mining sector can pass the cost of the tax to the mining sector. Therefore, the mining industry carries the impact of the tax on both its direct and indirect liabilities which means that mining companies would likely be required to absorb the full cost of carbon tax, undermining the viability of marginal mines.

The Minerals Council did an assessment to determine the impact of the carbon tax on the industry. Minerals Council members across various commodities participated in the study and were included in the sample. The findings of the assessment were presented to National Treasury and there was in-principle alignment on the methodology applied.

The assessment calculated the mining sector's carbon tax liability for:

DIRECT IMPACT

The mining industry's direct carbon tax liability is influenced by the tax companies are required to pay to the South African Revenue Service on direct emissions in terms of the CO_2 tax formula stipulated in the Carbon Tax Act. Additionally, mining companies are liable for the carbon tax levy which is imposed on liquid fuels (diesel and petrol) and paid at the pump.

INDIRECT IMPACT

The indirect impact of the carbon tax on mining companies consists of the possible passthrough of costs as a result of the consumption of emissions intensive inputs in mining processes such as lime, cement, steel (from 2019 onwards) and electricity (from 2023 onwards).

TAX INTENSITY

The tax amount paid in rands per unit of commodity produced.

MINING CONTRIBUTES TO SOUTH AFRICA

Contribution to GDP:	R350.8 billion
Contribution to fixed investment:	R91.1 billion
Total primary mineral sales:	R498.7 billion
Royalties paid:	R7.6 billion
Company taxes paid:	R22.0 billion
PAYE by mining personnel:	R21.0 billion

APPROACH

The study looked at the impact of carbon tax on the industry during both phases. The CO_2 tax formula of R120/tonne of CO_2e emitted, increasing at a rate of CPI +2% until December 2022 and CPI thereafter was applied, with CPI estimated to be 4.5%.

Given the uncertainty as to whether or not the allowances proposed for phase 1 would still be in place during phase 2, the following two scenarios were developed:

LOW COST SCENARIO

This scenario assumes that the relief mechanisms (allowances) remain in place until 2030. Whilst the Minerals Council acknowledges the potential benefit in tax relief for participating in the carbon budget, it is worth noting that most Minerals Council members are not participating in this voluntary phase, therefore, this allowance is not factored into the assessment. Should fundamental policy principles underpinning the carbon budget be favourable in the climate change bill, companies will definitely take advantage of this allowance.

HIGH COST SCENARIO

This scenario assumes that the relief mechanisms (allowances) are phased out linearly from 2023 until 2030.

MINING SECTOR TAX LIABILITY

	2020 estimate	2023 estimate	2030 estimate
Direct tax liability			
Low cost scenario	R645 million	R760 million	R1.040 billion
High cost scenario	–	R955 million	R3.130 billion
Indirect tax liability (pass through)			
Low cost scenario	R135 million	R3.035 billion	R3.300 billion
High cost scenario	–	R3.630 billion	R8.520 billion
Total mining carbon tax liability			
Low cost scenario	**R780 million**	**R3.789 billion**	**R4.340 billion**
High cost scenario	**–**	**R4.585 billion**	**R11.650 billion**

Low cost scenario: 10 years

456%

increase

(2020: R780 million vs. 2030: R4.340 billion)

High cost scenario: 10 years

1,394%

increase

(2020: R780 million vs. 2030: R11.650 billion)

2030

Low cost scenario

VS.

High cost scenario

168% difference

(2030: R4.340 million vs. 2030: R11.650 billion)

In 2020 (phase1), the potential total tax liability for the mining industry on scope 1 emissions – taking into account both the direct tax liability of R645 million and the indirect tax liability of R135 million that will be passed through to the mining industry from suppliers (primarily from products such as steel, lime and cement) – is R780 million.

During phase 2, scope 2 emissions from indirect sources will apply in addition to scope 1 emissions. **The industry's indirect/pass through tax liability increases significantly and will be greater than its direct tax liability from 2023 onwards when pass through effects from electricity come into play.** This clearly demonstrates the significant potential passthrough impact of electricity prices, particularly for energy-intensive industries.

If the allowances for phase 1 fall away during phase 2 – and assuming that mining output, consumption of high emission inputs, and emission intensities remain constant – the potential total carbon tax liability increases to R4.585 billion by 2023 and R11.650 billion by 2030 increasing the cost of carbon tax to the mining sector by 1,394% in just a decade.

CONSEQUENCES OF CARBON TAX IN ITS CURRENT FORM

Significant cost consequences of punitive carbon tax, in absence of incentives

A - B = C

Mining as a price taker will have to absorb increasing costs **A**

MINUS

Incentives to improve energy efficiency or develop renewable energy **B**

EQUALS

Negative investment in a developing economy **C**

LEGISLATIVE AND REGULATORY OBSTACLES TO INVESTING IN RENEWABLE ENERGY

The challenges posed by the Carbon Tax are exacerbated by the fact that mining companies that want to invest in renewable energy, solar energy in particular, are faced with material regulatory hurdles. These include the need to obtain IRP2010 exemptions, licences from the National Energy Regulator of South Africa (NERSA), agreement with Eskom on wheeling and transmission fees, and are required to traverse a web of environmental authorisations. These issues seriously hamper the ability of mining companies to invest in and implement renewable energy projects.

Sibanye-Stillwater, Kroondal Mine

"In the absence of any other climate change measures in the overall 'toolbox' that includes incentives and not only disincentives and necessary supporting regulation, the carbon tax is likely to be damaging to carbon intensive sectors with no pathways for offsets."

CONTACT DETAILS

MINERALS COUNCIL SOUTH AFRICA

T +27 11 498 7100
E info@mineralscouncil.org.za

MEDIA

Allan Seccombe
E aseccombe@mineralscouncil.org.za

@Mine_RSA
www.facebook.com/Mine

Rosebank Towers, 19 Biermann Avenue
Rosebank, Johannesburg, 2196
PO Box 61809, Marshalltown 2107
www.mineralscouncil.org.za