

South Africa's Energy Fiscal Policies: An inventory of subsidies, taxes & policies impacting the energy transition

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Aims of The Report



- Identify current energy fiscal policies, specifically subsidies and revenue
- Assess the social cost of fossil fuels compared with subsidies and revenue and analyze whether these policies are aligned with stated government objectives for the energy sector
- Recommend reforms that would lead to a more coherent and effective approach to energy fiscal policies aligned with key energy policy objectives

What Is The Relevance of This Discussion?



1. Subsidies and taxes are one of the key economic policy levers that governments can use to influence energy production and consumption.
2. Subsidies and taxes come at a high cost to the public budget and are often linked to health and environmental public objectives.
3. Fossil fuel subsidies and revenues have a large impact on local air pollution and greenhouse gas emissions.



Scope and Definitions

- The assessment included all types of commercial modern energy including:
 - Electricity
 - Fossil fuels including
 - Coal
 - Natural gas
 - Petroleum (crude oil and its producers)
- Other categories that were not energy specific but that predominantly benefit one type of energy
 - Electricity transmission and distribution
 - Bailout packages for airlines and Eskom

Scope and Definitions Continued



- Subsidy definition based on Article 1 of the Agreement on Subsidies and Countervailing Measures of the World Trade Organization, includes four types of subsidies:
 - Direct and indirect transfer of funds and liabilities (budget outlays)
 - Government revenue foregone (reduced tax rates and tax exemptions)
 - Provision of goods or services below market value (such as land or water)
 - Income and price support through market regulations (including non-enforcement)
- Our definition of revenues includes taxes and non-tax revenues which follow the SA National Treasury and OECD definition, which are unrequited payments to the general government budget enforced through legislation.

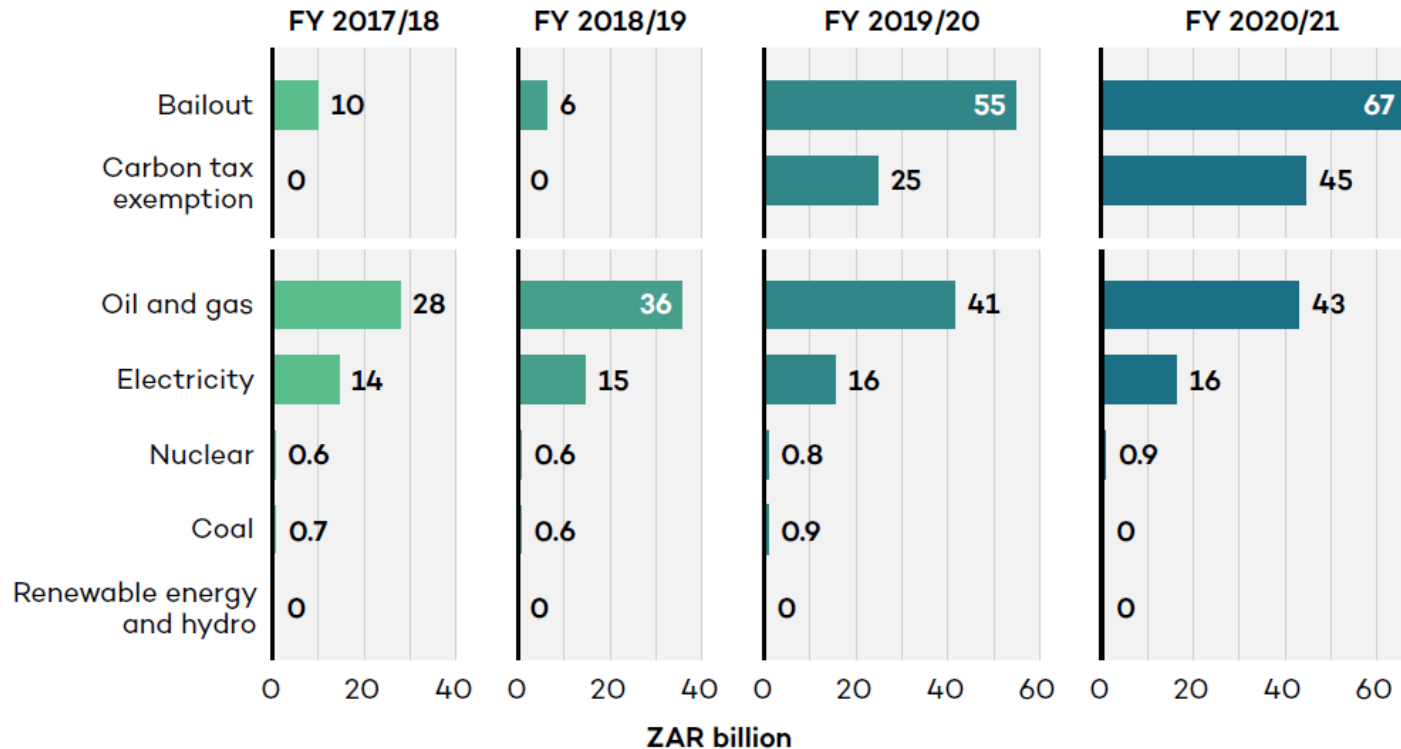
An aerial photograph of a port facility. On the left, a large area of dark grey material, likely coal, is being processed. A yellow excavator is visible in the upper left, and a white truck with a blue trailer is in the lower left. A long, narrow breakwater made of grey stones runs vertically through the center, separating the port from the ocean on the right. The ocean is a deep blue with white waves crashing against the breakwater.

Key Findings From The Report

Overview of Subsidies by Energy Type



Figure 2. Subsidies by energy and subsidy type, FY 2017/18 to FY 2020/21

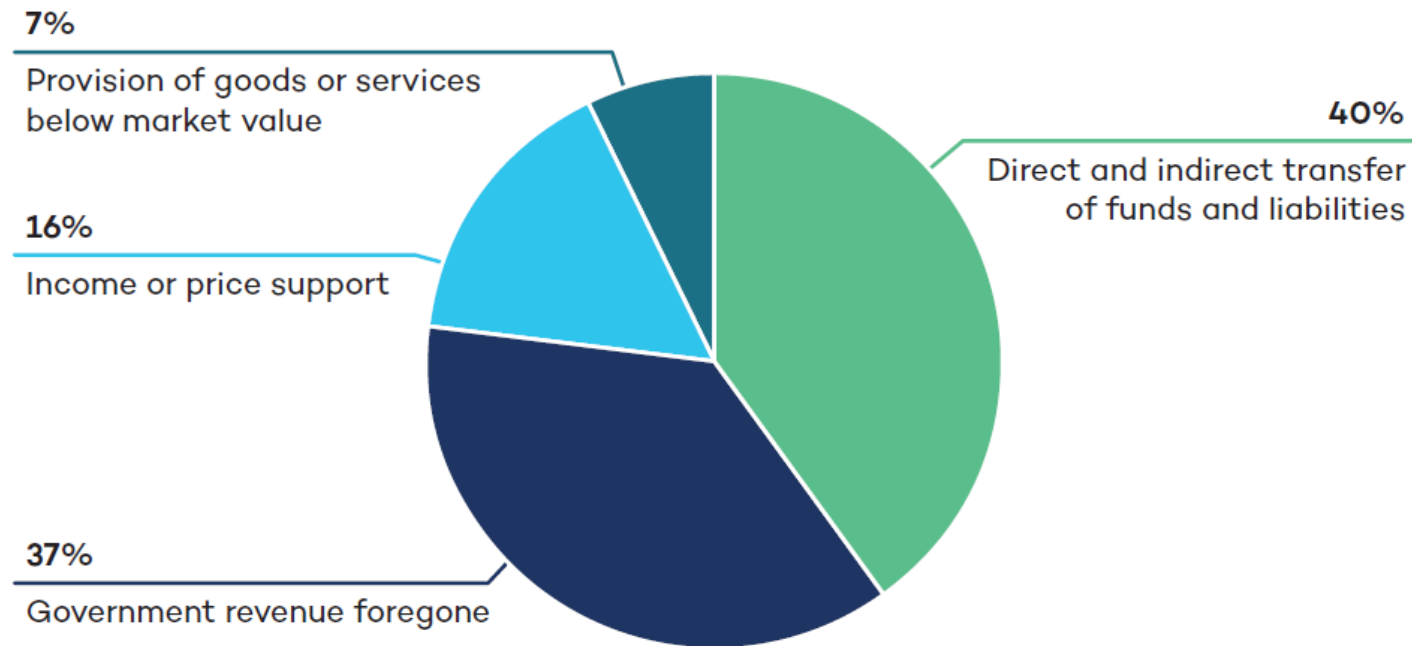


Source: Authors' calculations. Note that a significant number of subsidy policies for renewables have been identified but cannot be quantified due to a lack of transparently available data. See subsequent discussion and accompanying spreadsheets for more details.

Subsidy Mechanisms Employed in FY 2020



Figure 3. Subsidy mechanisms employed in FY 2020



Source: Authors' calculations.⁴

Renewable Energy Policies



Table 2. Identified renewable energy support policies in South Africa, FY 2017/18–FY 2019/20

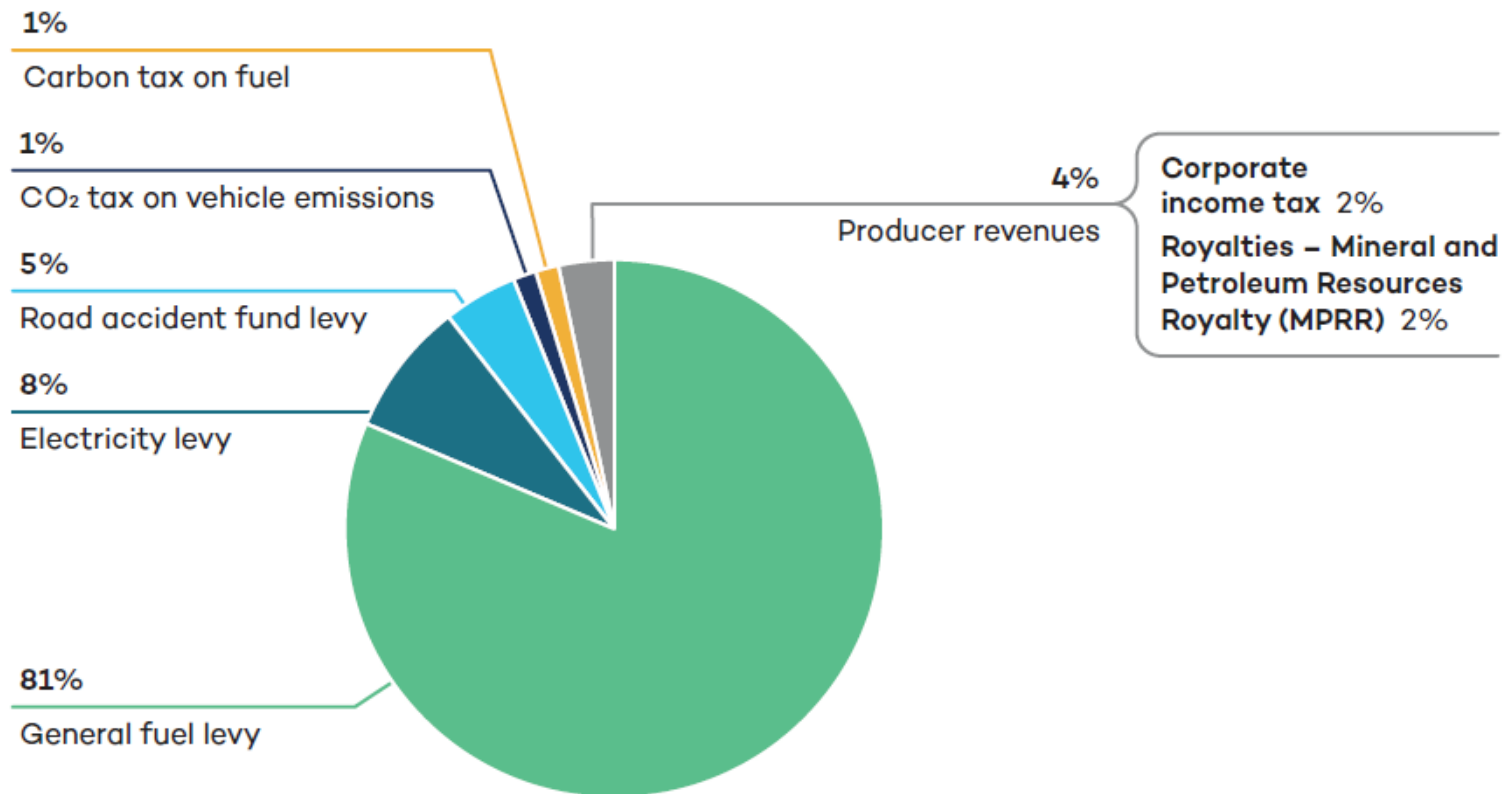
	Energy fiscal policy	Energy type	Cumulative value (million ZAR)	FY 2017/18	FY 2018/19	FY 2019/20
1	South African National Energy Development Institute (SANEDI) (national R&D organization) ⁶	Multiple fossil fuels; renewables and hydro	200	60	70	70
2	IRENA (international R&D organization)	Renewables and hydro	3.53	1.015	1.177	1.336
3	REIPPPP	Renewables and hydro; wind and solar PV only	N/A ⁷	N/A	N/A	N/A
4	Accelerated depreciation under Section 12B of the Income Tax Act (ITA) Any plant or machinery used in a process of manufacture or any other process of a similar nature, for the production of renewable energy (original tax act expanded to include renewables in 2006)	Renewables and hydro	N/A	N/A	N/A	N/A
5	Section 12U of ITA Deduction for expenditure for supporting infrastructure such as roads and fences (introduced April 1, 2016)	Renewables and hydro	N/A	N/A	N/A	N/A
6	Section 12N of ITA Deductions allowed for improvements with regard to property under procurement plans, like the REIPPPP (introduced Jan. 1, 2013)	Renewables and hydro; wind and solar PV only	N/A	N/A	N/A	N/A

Sources: National Treasury, 2019a, 2019b; South African Government, 1962.

Consumption Revenue



Figure 7. Key fossil fuel revenue sources, consumer (left) and producer (right), 2019/20



Source: Authors' diagram with data from National Treasury and SARS, 2020.

Consumption Revenue



Table 3. Revenue from fossil fuel consumption, 2019/20

	ZAR million	USD million	% of general revenue
General Fuel Levy	82,886	5,737	6.10%
Electricity levy	8,141	563	0.60%
RAF levy	4,768	330	0.35%
CO ₂ tax on vehicle emissions	1,327	92	0.10%
Carbon tax on fuel	1,287	89	0.09%
Total	97,122	6,722	7.2%

Notes: Based on total government revenue of ZAR 1,355 billion (USD 94 billion).

Source: Authors' diagram based on data from National Treasury and SARS, 2020.

Production Revenue



Table 5. Revenue from fossil fuel production, 2019/20

	ZAR million	USD million	% of general revenue
MPRR	1,741	121	0.13%
Corporate income tax	1,593	110	0.12%
Total revenue	3,334	231	0.25%

Source: Authors' diagram based on data from National Treasury and SARS, 2020.



What Does This All Mean?

The Social Cost of Energy



Table 7. Social costs of fossil fuel combustion for air pollution and GHG emissions in South Africa, per year^a

Externality	Unit	Estimated cost per unit	Cost (ZAR million)	Cost (USD million) ^b
Mortality	13,000 deaths	Value of statistical life (VSL): USD 1.046 million	224,000	13,598
Morbidity	996,628 Working Days Lost (WDL)—from coal combustion only	Value WDL (RSA minimum wage 2021): ZAR 43,035	42,890	131
Climate change	429.9 million tonnes CO ₂ e (2015)	USD 40/tCO ₂ e	283,270	17,196
Total			550,160	33,398

Notes: ^a The results cannot be attributed to a single year given input data were derived from multiple years. The results are considered a proxy for 2020.

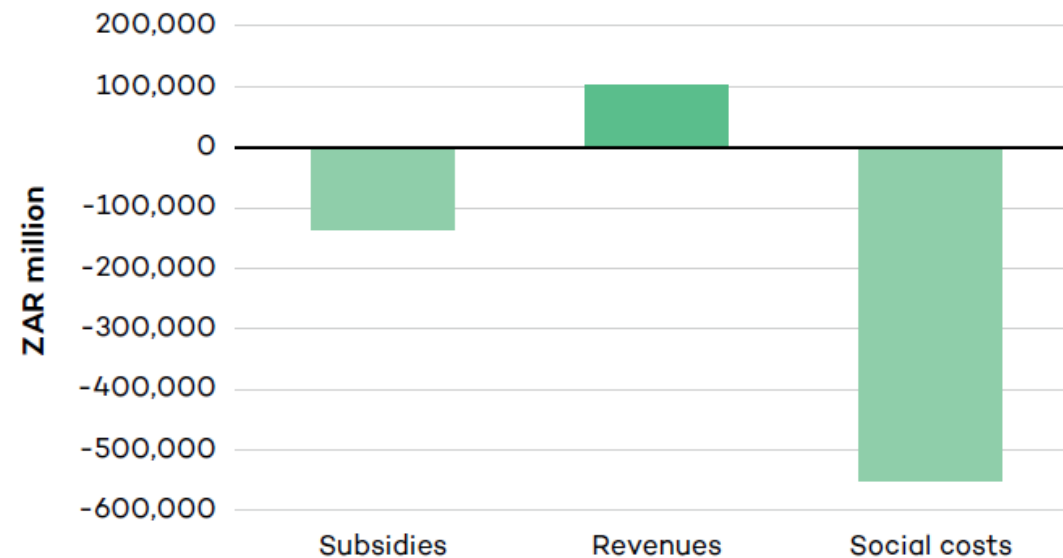
^b Exchange rate conversions based on 2020 average from (OECD, 2021a): ZAR 16.43 per USD 1.

Sources: Mortality: deaths—Farrow et al., 2020; VSL—Viscusi & Masterman, 2017; Morbidity: WDL—Holland 2017; minimum wage: Department of Employment and Labour, 2021; Climate change: GHG emissions, Republic of South Africa, 2017; carbon price—Stiglitz & Stern, 2017.

Comparing Fossil Fuel Subsidies, Tax and Non-Tax Government Revenues, and Social Costs



Figure 8. Comparison of South Africa's fossil fuels subsidies, tax and non-tax government revenues, and social costs (climate change and air pollution only), 2019/20



Source: Source: Authors' diagram with data from Department of Employment and Labour, 2021; Farrow et al., 2020; Holland, 2017; Republic of South Africa, 2017; Stiglitz & Stern, 2017; Viscusi & Masterman, 2017.

Key Findings and Recommendations



- Finding
 - Fossil fuel subsidies are too high
- Recommendations
 - Reforming/reducing bailouts provided to Eskom
 - Ending the exemptions to the carbon tax
 - Increased transparency on energy fiscal policies

Key Findings and Recommendations



- Finding
 - Pollution associated with fossil fuel use places a heavy cost on the health of South Africa's citizens
- Recommendations
 - There is a need for a review of current energy fiscal policies
 - The revenue generated by efficient pricing of fossil fuels could be used at targeted support for vulnerable households
 - Increasing fossil fuel taxes is an important stage in the energy transition

Pollution from fossil fuel use costs South Africa




ZAR 550 billion each year

in environmental harm and damage to public health.

IISD Global Subsidies Initiative

The Way Forward



REMOVE		<p>Phase out fossil fuel subsidies that have no or little potential for energy access</p> <p>Some fossil fuel subsidies have little or no potential to improve energy access. Governments should aim to phase out such subsidies, taking adequate steps to mitigate negative economic or social impacts, particularly for poor households and women.</p> <p>Examples: producer subsidies; gasoline and diesel subsidies</p>
TARGET		<p>Targeted subsidies aimed at access for those that really need them</p> <p>Some fossil fuel subsidies are used to incentivize the use of energy technologies for which there is no short-term sustainable alternative. If these subsidies are deemed necessary, governments should improve the effectiveness and efficiency of these subsidies through targeted subsidies aimed at poor households. Facilitating new connections should be a major focus in this respect.</p> <p>Examples: liquefied petroleum gas (LPG) subsidies; electricity subsidies</p>
SWAP		<p>Shift fossil fuel subsidies to investments in renewable energy and energy efficiency</p> <p>Shifting subsidies to renewable energy technologies for energy access and energy efficiency can support households and improve the sustainability of energy access.</p> <p>Examples: kerosene subsidies for lighting; diesel subsidies for agriculture; subsidies to transport fuels; subsidies to coal and gas for electricity generation</p>

Thank You!

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