South Africa's Energy Subsidies Inventory, 2025

Data, Definitions, and References Annex

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This document provides a data table, methodology update, subsidy and support descriptions, and references for the International Institute for Sustainable Development's *The Energy Tab: Energy Subsidies in South Africa 2025*.

This work is an update to *Blackouts and Backsliding: Energy Subsidies in South Africa 2023* (published in 2024), and draws on *South Africa's Energy Fiscal Policies. An Inventory of Subsidies, Taxes, and Policies Impacting the Energy Transition* (published in 2022).

Reporting Periods

In South Africa, the government financial year (FY) runs from 1 April to 31 March and is named by the year it ends. So, FY 2024 = FY 2023/2024 = 1 April 2023 to 31 March 2024.

The original sources for the data in Tables 1, 2, and 3 use the government FY, as do our estimations of carbon tax exemption.

Updates From 2024 to 2025

Compared to the inventory published in 2024, there have been several changes in data sources and estimations.

- This inventory contains two additional years, FY 2024 and FY 2025.
- Eight items that previously used Organisation for Economic Co-operation and Development data for South Africa have been replaced with data from the original national sources, and the descriptions after the tables have been updated.
- New measures included: Energy Efficiency Tax Incentive (Section 12L of the Income Tax Act) and the Smart Meters Grant (introduced for FY 2025). The bailouts to Eskom were previously discussed as government support, but these are now included as subsidies. We have identified seven subsidies specific to renewable energy and storage, and four that energy projects might be able to apply for, but the majority of these have not been quantified due to a lack of publicly available data (for published values or inputs to use in own calculations).
- One item was removed: Fiscal funding for the New Multi-Product Pipeline Project by Transnet. Since the pipeline was completed (2014) and upgraded (by 2018), it has not been mentioned in *Estimates of National Expenditure* since 2019.
- Our method for estimating the carbon tax exemption values has been updated and is explained below.
- We have noted the government guarantees for energy, as they can be counted as a subsidy (as government is making a financial contribution by taking on risk). But these are not included in the overall subsidy totals, and these risk-related measures are different from subsidies that involve actual transfer of funds or revenue foregone.

All currency conversions in the report are done using the International Monetary Fund exchange rates data set (downloaded September 2025) for the appropriate historical time period (International Monetary Fund, 2025). Financial years were based on the average of the 12 monthly values. Sums over multiple financial years were converted per financial year and then added.

Table 1. Non-exhaustive list of quantified energy subsidies (nominal values) in South Africa, FY 2018 to FY 2025

#	Policy name	Main energy carrier	Nominal values (ZAR million)							
			FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
1	Value-added tax (VAT) zero-rating for sales of petrol, diesel, and illuminating paraffin	Liquid fuels	23,892	29,279	29,053	22,062	31,767	40,914	40,914	40,914
2	Refund of Fuel Levy and Road Accident Fund (RAF) levy for diesel consumed in specific sectors	Liquid fuels	3,025	5,846	8,767	7,090	7,347	6,508	7,482	7,830
3	General Fuel Levy (GFL) freeze and temporary reduction	Liquid fuels	0	0	0	0	0	10,500	4,000	4,000
4	Petroleum Agency South Africa: subsidies on products and production	Liquid fuels	87	98	127	91	93	94	92	87
5	Government grants for Petroleum Oil and Gas Corporation of South Africa (PetroSA) training	Liquid fuels	4	4	7	Nd	Nd	Nd	Nd	Nd
6	Free basic energy services	Electricity	8,725	9,604	10,612	11,645	12,215	13,997	16,556	18,251

#	Policy name	Main energy carrier	Nominal values (ZAR million)							
			FY 18	**FY 19**	**FY 20**	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**
7	Integrated National Electrification Programme	Electricity	6,092	5,301	4,997	3,342	4,827	5,708	5,550	3,942
8	Energy efficiency and demand-side management grant for selected municipalities	Electricity	203	215	227	193	221	223	224	236
9	Smart Meters Grant	Electricity								500
10	Eskom bailouts	Electricity	0	0	49,000	56,000	31,700	21,900	76,000	64,000
11	South African Nuclear Energy Corporation	Nuclear	664	683	890	933	977	1,008	992	923
12	Fiscal support for water transportation for Eskom power stations and Sasol operations	Multiple	788	1,262	1,229	1,477	1,507	987	1,038	Nd
13	South African National Energy Development Institute	Multiple	60	70	74	74	75	81	81	77
14	Energy Efficiency Tax Incentive	Multiple	611	1,913	181	121	216	3	Nd	Nd
15	Carbon tax exemption	Multiple	0	0	27,930	34,614	36,546	39,239	45,854	57,211
	Total		**44,151**	**54,276**	**133,095**	**137,642**	**127,490**	**141,163**	**198,784**	**197,971**

Notes:1) Figures are rounded to nearest million. 2) Zero values are where the subsidies did not apply in that fiscal year. 3) Nd = No data. These missing values for item #5 are because PetroSA has not released any annual reports or financial statements since 2020. 4) Grey cells are our estimations, and the calculations are explained in the following section on descriptions of measures. 5) The very few renewable energy subsidy values are listed in Table 5, and these are mainly projected future values rather than reported values based on data collected, so they are not included here.

Sources for each subsidy: #1, 2, 13 (National Treasury, 2023b, 2025a); #3 (National Treasury, 2023b, 2024b); #4, 7, 8, 11, 13 (National Treasury, 2021c, 2024e, 2025b); #5 (Petroleum Oil and Gas Corporation of South Africa, 2018, 2019, 2020); #6 (National Treasury, 2017a, 2018, 2019, 2020b, 2021b, 2022b, 2023c, 2024d); #9 (National Treasury, 2024d); #10 (Eskom, 2020b, 2021b, 2022b, 2023b, 2024b); #12 (Trans-Caledon Tunnel Authority, 2019, 2020, 2022, 2023, 2024); #15 Own calculations using data from (Department of Forestry, Fisheries and the Environment, 2025; Eskom, 2020a, 2021b, 2021a, 2022a, 2023b, 2023a, 2024b, 2024a, 2025; Sasol Limited, 2020, 2021, 2022, 2024b, 2024a, 2025c, 2025b, 2025a; South African Revenue Service, 2024a).

Table 2. Non-exhaustive list of quantified energy subsidies (real FY 2025 values) in South Africa, FY 2018 to FY 2025

#	Policy name	Main energy carrier	Real values FY 25 (ZAR million)							
			FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
1	VAT zero-rating for sales of petrol, diesel, and illuminating paraffin	Liquid fuels	33,125	38,797	36,948	27,255	37,301	44,828	42,478	40,914
2	Refund of Fuel Levy and RAF levy for diesel consumed in specific sectors	Liquid fuels	4,194	7,746	11,149	8,759	8,627	7,131	7,768	7,830
3	GFL freeze and temporary reduction	Liquid fuels	0	0	0	0	0	11,504	4,153	4,000
4	Petroleum Agency South Africa: subsidies on products and production	Liquid fuels	121	130	162	113	109	103	96	87
5	Government grants for PetroSA training	Liquid fuels	5	6	9	Nd	Nd	Nd	Nd	Nd
6	Free basic energy services	Electricity	12,097	12,726	13,496	14,386	14,343	15,336	17,189	18,251
7	Integrated National Electrification Programme	Electricity	8,446	7,024	6,355	4,128	5,667	6,254	5,763	3,942
8	Energy efficiency and demand-side management grant for selected municipalities	Electricity	282	285	289	238	259	245	233	236

#	Policy name	Main energy carrier	Real values FY 25 (ZAR million)							
			FY 18	**FY 19**	**FY 20**	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**
9	Smart Meters Grant	Electricity								500
10	Eskom bailouts	Electricity	0	0	62,315	69,180	37,223	23,995	78,905	64,000
11	South African Nuclear Energy Corporation	Nuclear	921	905	1,132	1,153	1,147	1,105	1,030	923
12	Fiscal support for water transportation for Eskom power stations and Sasol operations	Multiple	1,093	1,672	1,563	1,825	1,770	1,082	1,078	Nd
13	South African National Energy Development Institute	Multiple	83	93	94	91	88	89	85	77
14	Energy Efficiency Tax Incentive	Multiple	847	2,535	230	149	254	3	Nd	Nd
15	Carbon tax exemption	Multiple	0	0	35,520	42,761	42,913	42,993	47,607	57,211
	Total		**61,214**	**71,920**	**169,263**	**170,037**	**149,701**	**154,666**	**206,383**	**197,971**

Calculation of real values for Table 2 (using nominal values from Table 1).

A Consumer Price Index (CPI) time series using monthly data from StatSA CPI history (Statistics South Africa, 2025) was created from April 2017 to March 2025. For each government fiscal year (1 April to 31 March), the average CPI was calculated. The CPI for FY 2025 was used as a baseline. The deflator for each year was then CPI (FY 2025) divided by CPI (required FY). The nominal values for each FY (Table 1) were then multiplied by the relevant deflator to give real values in FY 2025 terms.

Table 3. Direct energy-related government guarantees in South Africa, FY 2018 to FY 2025

#	Government guarantee	Fuel type	Nominal values (ZAR million)							
			FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
16	Eskom	Electricity	250,648	285,587	326,868	298,289	313,020	362,289	356,925	357,587
17	Independent power producers	Electricity	122,188	146,892	161,427	176,684	165,695	187,064	207,701	229,489
18	South African Nuclear Energy Corporation	Nuclear	20	20	20	20	20	20	20	20
	Energy total		**372,856**	**432,499**	**488,315**	**474,993**	**478,735**	**549,373**	**564,646**	**587,096**
	All other (not directly energy)		86,251	93,069	95,493	94,459	90,193	77,686	82,928	88,376
	Total		**459,107**	**525,568**	**583,808**	**569,452**	**568,928**	**627,059**	**647,574**	**675,472**

Note: 1) For FY 24 and FY 25, the Eskom guarantee values include those for the Eskom debt-relief arrangement, as government needed to increase its public sector borrowing requirement to be able to transfer the funds to Eskom. 2) The guarantees for #16 (Independent power producers) are mainly for the Renewable Energy Independent Power Producer Procurement Programme, which has run competitive auctions since 2011.

Source: #16-18 (National Treasury, 2025a).

Table 4. Non-exhaustive list of subsidies specific to renewable energy and energy storage in South Africa between FY 2018 and FY 2025

	Incentive	Primary beneficiary or target	Can energy storage qualify?	Description
A	**Solar water heater programme** 2008 onwards, budget cut in 2018	Households	Yes – it is a form of storage	Two components: 1) Eskom administered rebates to households purchasing solar water heaters up until 2015. 2) Through fiscal funding, the program supported installation of solar water heaters in low-income households, but there were significant mismanagement problems and issues with poor quality installations.
B	Section **12B** of Income Tax Act (ITA) Accelerated depreciation 1 Jan 2009 onwards	Businesses and industry (especially farms, mines, factories)	Yes, if coupled with renewable energy system	Businesses can claim a specific deduction against taxable income when investing in renewable energy technologies and associated storage systems. **Eligibility criteria:** South African taxpayers must own the renewable energy asset, which is used for the purposes of trade. Hydropower < 30 MW. **Tax deduction benefit** ≤ 1 MW solar photovoltaic (PV): 100% first-year deduction. All other qualifying renewables: 50/30/20% over first 3 years
C	Section **12U** of ITA Capital Allowance for Infrastructure 1 Jan 2016 onwards	Renewable energy power generation projects	Maybe, if coupled with renewable energy system	**Eligibility criteria:** As for Section 12B, but capacity >5 MW (and for hydropower must still be <30 MW) **Tax deduction benefit** Enables 100% deduction of capital costs incurred for roads, fencing, and support structures related to renewable power generation (used for purposes of trade), in the year of expenditure.
D	**Renewable energy premium deduction** Linked to Carbon Tax 2019 onwards	Licensed electricity generators	No	A deduction against carbon tax liability based on the amount of renewable energy purchased. The Minister of Finance sets the premium rates (ZAR/kWh) for the eligible renewable energy technologies.

	Incentive	Primary beneficiary or target	Can energy storage qualify?	Description
E	**Section 12BA** of ITA 1 Mar 2023 to 28 Feb 2025	Business registered companies, sole proprietors and other taxpayers conducting business activities.	Yes, if coupled with renewable energy system Depends on how it is used	Additional incentive for private investment in renewable energy. Temporary Expansion of Section 12B of ITA. **Eligibility criteria:** As for Section 12B, but in addition, only new and unused assets that are bought into use for the first time between 1 March 2023 and 1 March 2025 qualify. Does not apply to the government grant proportion of any asset funding. For energy storage, the South African Revenue Service will assess each case. The storage must be linked to the new renewables asset to qualify. **Tax deduction benefit** One-off, upfront deduction of 125% of capital cost incurred for renewable energy assets (and support structures), with no size threshold.
F	**Solar Energy Tax Credit** (in Section 6C of ITA) 1 Mar 2023–29 Feb 2024	Mainly households (Individual taxpayers)	No	25% rebate (up to ZAR 15,000) per individual on the cost of PV panels for residential installations (excludes inverters, batteries). Mechanism: Personal income tax is offset. **Eligibility criteria:** South African taxpayers must own the renewable energy asset, but it is not used for income production (in contrast to Section 12B of ITA).
Risk reduction subsidy				
G	**Energy Bounce Back Loan Guarantee Scheme** 8 Aug 2023 to 30 Aug 2024 (or 1 GW solar photovoltaic capacity supported, whichever came first).	Households and small and medium-sized enterprises (SMEs) investing in rooftop solar and energy service companies (ESCOs) that are contracted.	Yes	Government guarantee: First-loss 20% (South Africa Reserve Bank administered), participating lenders governed remaining 80% of risk. Provided loan guarantees and preferential lending terms to households, SMEs and ESCOs to finance the same category of assets (e.g., rooftop solar, batteries, inverters). Cap: One loan of up to ZAR 300 000 per household, ZAR 10 million for SME, ZAR 100 million per ESCO. While separate from sections of ITA, the scheme may be the enabling factor that allows businesses or households to acquire the assets, which can then be used to claim against Section 12B or the rooftop solar rebate.

Notes: Sections 12B, BA, and U all apply to renewable energy sources of 1) wind, 2) solar (PV or concentrated solar power), 3) hydropower, 4) biomass from organic waste, landfill gas, or plant material.

Section 12N of ITA (1 Jan 2013 onwards) is enabling legislation that facilitates capital allowances under specified sections of the ITA (like Section 12B) when a taxpayer has made improvements to land or buildings that they do not own, but hold the right to use or occupy (South African Revenue Service, 2025).

Sources for each subsidy: #A (Department of Energy, 2015; van Diemen, 2025); #B, C, E (South African Revenue Service, 2024b); #D (National Treasury, 2022c; The Presidency, 2019); #F (South African Revenue Service, 2024c); #G (National Treasury, 2023d).

Table 5. Publicly available data on the values of subsidies specific to renewable energy from FY 2018 to FY 2025

	Incentive	Publicly available data on the value or estimation
A	**Solar water heater programme**	The last mention of subsidies to the program in the *Estimates of National Expenditure* was in **FY 2018 for ZAR 235.5 million**. However, after the project budget was cut, solar water geysers in storage accumulated a storage fee of ZAR 325 million over 6 years to 2024, classed as fruitless and wasteful expenditure.
B	Section **12B** of ITA	The value that businesses have claimed has not been made public by South African Revenue Service, and National Treasury has not yet published tax expenditure estimates for this measure.
C	Section **12U** of ITA	As for Section 12B
D	**Renewable energy premium deduction**	The amounts that electricity generators have claimed for this deduction are not publicly available. For Eskom, it could be calculated if sufficient disaggregated data on renewable energy purchases by technology can be acquired from Eskom Data Portal (their public reports are aggregated across all independent power producers). The premium rates (ZAR/kWh per technology type) were established by the Minister of Finance in 2021. In this report, we estimate overall values of the carbon tax exemptions, which would include deductions for this measure, so we have not attempted to calculate it separately.
E	**Section 12BA** of ITA	For 2 years. The *Budget Review 2024* lists the projected impact of this tax proposal on government revenue for **FY 2024 is ZAR 5 billion**, but there is no mention of the second-year estimated impact in *Budget Review 2025*.
F	**Solar Energy Tax Credit**	Only for 1 year, and the Budget Review 2024 lists the projected impact of the tax proposal on government revenue for **FY 2024 as ZAR 4 billion**.
Risk reduction subsidies		
G	**Energy Bounce Back Loan Guarantee Scheme**	In 2023, government issued a guarantee of **up to ZAR 8 billion** to compensate the South African Reserve Bank in case of any losses under the scheme. Details on the usage of the guarantee are not yet public.

Sources for each subsidy: #A (National Treasury, 2021c; van Diemen, 2025); #B, C Research interviews; #D (National Treasury, 2021d), research interviews; #E, F (National Treasury, 2024b); #G (South African Reserve Bank, 2024), research interviews.

Table 6. Non-exhaustive list of general subsidies that could apply to energy projects in South Africa between FY 2018 and FY 2025

	Incentive	Primary beneficiary or target	Details
I	Section **11D** of ITA Research and Development 2 Nov 2006 onwards	Research	Allows 150% deduction on qualifying research and development costs (operational) and an accelerated depreciation over 3 years (50/30/20%) for capital expenditure for machinery or plant used for research and development. All industries, but can benefit renewable energy technology innovation. Pre-approval from the Department of Science and Innovation is required.
II	Section **12I** of ITA Industrial Policy Projects 1 Aug 2009 to 31 March 2020	Industrial manufacturing	Industrial manufacturing projects (>ZAR 50 million since 2015) receive additional capital allowances: 75%–100% in special economic zones, or 35%–55% elsewhere. Not for power generation projects, but renewable energy manufacturing projects can claim Pre-approval from the Department of Trade and Industry.
III	Section **12J** of ITA Venture Capital 1 July 2009 – 30 June 2021	Companies and individuals	Provided a 100% tax deduction on the cost of shares for the holder of shares issued by a venture capital company. Investors in renewables projects set up as venture capital companies may have been able to apply.
IV	The Green Fund 2012 onwards	All green economy actors	A fund to provide catalytic finance to projects that promote a transition to a green economy. Managed by the Development Bank of Southern Africa. National Treasury allocated an initial amount of ZAR 1.1 billion.

Notes: Section 12L for energy efficiency is already covered in Table 1.

Sources for each subsidy: #I: (National Treasury & Department of Science and Innovation, 2021; South African Revenue Service, 2024e); #II: (South African Revenue Service, 2021); #III (South African Revenue Service, 2020); #IV: (Development Bank of Southern Africa, n.d.; Mohamed et al., 2014).

Definition of Energy Subsidies

This section has descriptions of the subsidies #1-18 in Tables 1, 2, and 3. The measures #A-G and #I-IV are described in Tables 4 and 6.

We apply the definition of a subsidy from Article 1 of the Agreement on Subsidies and Countervailing Measures under the World Trade Organization (World Trade Organization, 1994) to South Africa at the national level, and specific to the energy sector.

So, for this work, an energy subsidy is deemed to exist if:

1. The South African government provides a financial contribution where:
   i. there is a direct transfer of funds (e.g., grants, equity infusion)
   ii. there is potential direct transfer of funds or liabilities (e.g., loan guarantees)
   iii. government revenue is foregone or not collected (e.g., tax exemptions)
   iv. government provides goods or services, or purchases goods
   v. government pays a funding mechanism or private body to carry out functions i) to iv) that would normally be done by the government.

or

2. There is any form of income or price support

and

3. A benefit is conferred to an energy producer or consumer.

While this World Trade Organization definition is used to identify the energy subsidies, we then group them by energy carrier (e.g., liquid fuels, electricity) or mechanism (e.g., carbon tax exemption) for the analysis.

In the case of energy, subsidies can also be classified as benefiting production (e.g., an electricity generator) or consumption (e.g., a person buying fuel for their car).

This definition is purely to identify if a measure can be counted as a subsidy; it does not make any judgment on whether the subsidy is inefficient or if it should be reformed.

For additional information on subsidies and government support, see the Methodology Section of the Fossil Fuel Subsidy Tracker, https://fossilfuelsubsidytracker.org/methodology/.

Alignment With the National Treasury Budget Taxonomy

For South Africa's public finance reporting, measures included in this report as subsidies under the World Trade Organization definition are recorded under different annual documents produced by National Treasury:

1. **Direct grants, transfers, and subsidies** are recorded under Transfers and Subsidies in the Estimates of National Expenditure.
2. **Tax expenditures** (foregone revenue such as VAT exemptions or income-tax deductions) are reported separately through the Budget Review.

3. **Local government equitable share allocations** are detailed in the Division of Revenue Bill.
4. **Contingent liabilities** (such as guarantees or debt-relief arrangements) are disclosed under the Fiscal Risk Statement, which is an annexure to the Medium-Term Budget Policy Statement. These numbers are also included in the Budget Review.

Descriptions of Energy Subsidies

Liquid Fuels

Zero-rated VAT for Sales of Petrol, Diesel, and Illuminating Paraffin (#1)

As per the Value-Added Tax Act of 1991, petrol (gasoline), diesel fuel, and illuminating paraffin (kerosene) are not subject to the VAT normally levied on sales of most products in South Africa. Technically, zero-rated VAT is not the same as being "VAT exempt": it applies to sales that are taxed at 0%, while vendors may still claim input VAT on purchases related to those sales. Since FY 2014, the tax expenditure formula has assumed that 20% of petrol sales and 70% of diesel sales are for business purposes by VAT vendors, and would have qualified for VAT input credits (National Treasury, 2021a). For the periods in this inventory, the VAT rate was 14% for FY 2018, and 15% from FY 2019 to FY 2025. This measure is reported as a tax expenditure in South Africa's national budget (National Treasury, 2025a). At the time this report was published, National Treasury had not released results for FY 2024 for this measure. While fuel sales increased in FY 2024, the associated increase in VAT zero-rating was partly offset by a reduction in the average price of fuels. To be conservative, we have used the FY 2023 value for FY 2024 and FY 2025.

Refund of Fuel Levy and Road Accident Fund Levy for Diesel Consumed in Specific Sectors (#2)

The fuel levy is directed to the National Revenue Fund, while the RAF levy goes to the RAF, compensating those injured in road traffic accidents. Since 2000, VAT-registered consumers of diesel in specific primary production sectors can be refunded a certain percentage of the fuel levy and RAF levy. These sectors (each with its own eligible refund percentages) currently include land (agriculture, forestry, mining), offshore (commercial fishing, coasting vessels, offshore mining, sea rescue and coastal patrol vessels, marine industry research vessels, servicing of fibre optic telecommunications cables), harbour vessels, rail freight transport, and peak-electricity-generating plants with a capacity exceeding 200 MW per plant (National Treasury, 2017b). From 1 April 2023 to 31 March 2025, this was extended to the manufacturing of foodstuffs to limit the impact of power cuts on food prices (National Treasury, 2023b). At the time this report was published, National Treasury had released results for levy collections, but not the refunds for FY 2024 and FY 2025. To estimate the value for FY 2024 and FY 2025, the average of the ratio of levy collections to levy refunds for the previous 2 years was applied to the levy collection values for FY 2024 and FY 2025.

GFL Freeze and Temporary Reduction (#3)

From 1 April 2022 onwards (including in the 2024/25 national budget), there has been no increase in the GFL or the RAF levy, whereas there is usually a yearly increase given in ZAR per litre of fuel. This freeze is intended to help with economic recovery. In addition, there was a temporary 4-month reduction in the GFL to provide relief from rising fuel prices following the Russia/Ukraine conflict. From 6 April 2022 to 6 July 2022, the GFL was reduced by ZAR 1.50 per litre of fuel, and from 7 July 2022 to 2 August 2022, the GFL was reduced by ZAR 0.75 per litre (Department of Mineral Resources and Energy, 2022).

Petroleum Agency South Africa: Subsidies on products and production (#4)

The Petroleum Agency South Africa receives a Medium-Term Expenditure Framework allocation from National Treasury via the Department of Mineral Resources and Energy to fund operations and special projects, such as the shale gas research (Petroleum Agency South Africa, 2024). The Petroleum Agency South Africa and National Treasury documents do not provide further information on the nature of this support.

Government Grants for PetroSA Training (#5)

The PetroSA is a state-owned company (Schedule 2 major public entity) within the Central Energy Fund. The PetroSA annual reports only provide that “PetroSA receives a government grant for training on projects. In terms of the signed agreement, PetroSA will receive a refund based on the cost incurred in order to provide specialised training on the project” (PetroSA, 2020). No further details of training or project are included.

Electricity

Free Basic Energy Services (#6)

The **local government equitable share** is a transfer from national government to municipalities, which includes funding for municipalities to deliver free basic services to indigent households. Each year, the Division of Revenue Bill from National Treasury includes how many households are deemed to be eligible (i.e., below the poverty line), and how the total allocation for basic services is split between energy, water, sanitation, and refuse removal (National Treasury, 2023c). Within the provision for free energy (equivalent to 50 kWh per month), this takes the form of Free Basic Electricity (since 2003) for households with a grid connection, or Free Basic Alternative Energy (since 2007) for those without a grid connection. Electricity alternatives include paraffin, liquefied petroleum gas, coal, and bio-ethanol gel (Department of Mineral Resources and Energy, 2007), but the majority of energy services are provided by electricity.

The current targeting of indigent households relies on data from 2011. When this is updated in 2026, there may be an upward revision of the requirement for free basic energy services (research interviews).

Integrated National Electrification Programme (INEP) (#7)

Since 2001, the INEP has been under the Department of Mineral Resources and Energy (then the Department of Energy). The stated goal of the programme is to contribute to reaching universal access to electricity in South Africa, through bulk grid infrastructure projects, household connections, and non-grid solutions for remote areas (Department of Mineral Resources and Energy, n.d.). In the annual Estimates of National Expenditure from National Treasury, the grants from the national budget for INEP are split between those for municipalities and Eskom, as both are involved in the reticulation and distribution of electricity to households. Grid extension is not always the most cost-effective way of expanding electricity access, and since FY 2024, the INEP has expanded to include rooftop solar photovoltaics where appropriate (research interviews).

Energy Efficiency and Demand-Side Management Grant for Selected Municipalities (#8)

This grant provides selected municipalities with funds to implement energy-efficient municipal infrastructure projects, including public lighting. The grant can also be used to help plan and prepare for a market for private investment in the large-scale retrofitting of municipal infrastructure, where the repayment will be achieved through savings on energy costs. Municipalities can use 15% of the grant to strengthen the market for energy companies offering retrofitting services (National Treasury, 2024a). The majority of this grant is used for electricity.

Smart Meters Grant (#9)

This new conditional grant was introduced in 2024, with allocation of ZAR 500 million in FY 2025, ZAR 650 million in FY 2026, and ZAR 800 million in FY 2027. The baseline for this grant (ZAR 2 billion) was reprioritized from the INEP municipal grant. The intention is to initially fund the rollout of smart prepaid meters for municipalities that are already part of the municipal debt to Eskom programme. Smart meters can help municipalities manage electricity revenue collection and the integration of renewable energy sources. It is expected that the grant will expand to more municipalities.

Eskom Bailouts (#10)

In 2008, the state-owned electricity utility Eskom first had to initiate rotational power cuts when electricity supply could not meet demand. Since 2008, operational performance declined, and debt increased to an unsustainable amount of ZAR 412 billion by FY 2024 (Eskom, 2024b). Between 2008 and 2024, Eskom received state financial support in 10 out of 16 years (National Treasury, 2020a, 2025a) and in 2023 an Eskom debt-relief arrangement was drawn up to provide ZAR 254 billion over 3 years, with conditions Eskom must meet. Specifically, the 2023 package states that it is a “debt-to-equity conversion” that will be “settled in Eskom shares rather than cash” (National Treasury, 2023a).

Eskom Bailouts as a Subsidy

By Eskom bailouts, we refer to the amounts transferred to Eskom from government that are converted to equity.

We have included these bailouts (both pre- and post-debt-relief arrangement from 2023) as subsidies because:

- It is a government transfer that confer a benefit, consistent with the World Trade Organization definition we use in this report.
- The direct transfers to Eskom are converted to equity. As such, they do not function as a loan that will be paid back to government, nor do they function as a guarantee, nor do we expect that Eskom will deliver returns to government on these amounts, such as dividends. Therefore, we consider the entirety of the transfer as the benefit conferred.

Within the World Trade Organization definition, we use Article 14 a), which specifically covers government provision of equity capital and under what circumstances it is considered to confer a benefit.

We recognize that other groups, including National Treasury, may view Eskom bailouts more broadly as "government support." This would not change the analysis in the digital story, as a comparison of "government support for electricity" rather than "electricity subsidies" would include the same measures and values.

For the Eskom debt-relief arrangement, covering FY 2024 to FY 2026, National Government needed to increase its public sector borrowing, so that it could make the transfers to Eskom. As such, amounts equivalent to the Eskom bailouts in these years are also included under the government's list of contingent liabilities (National Treasury, 2025a).

Other

South African Nuclear Energy Corporation (NECSA) (#11)

NECSA derives its mandate from the Nuclear Energy Act of 1999 and includes activities such as manufacturing power generation components and decommissioning/decontamination of nuclear facilities. NECSA is also positioning itself to support new-build nuclear power plants in South Africa (Campbell, 2025). Although a significant proportion of activities is related to the production of medical radioisotopes (South African Nuclear Energy Corporation, 2024), this side of NECSA has been profitable in recent years, and so the subsidies are expected to cover the other NECSA activities (research interviews). In the Estimates of National Expenditure for 2025 (as with other previous years), the support to NECSA is reported under "transfers and subsidies," but further details are not provided (National Treasury, 2025b).

Fiscal Support for Water Transportation for Eskom Power Stations and Sasol Operations (#12)

The Trans-Caledon Tunnel Authority is a state-owned entity that receives direct transfers from the Department of Water and Sanitation to support projects whose key users are Eskom power stations and Sasol's petrochemical installations. Three projects are included in this measure: 1) Vaal River Eastern Subsystem Project, to convey water from the Vaal Dam to the

Secunda area and Sasol's operations; 2) the Komati Water System Augmentation Project, which forms part of the Vaal River Eastern Subsystem and aims to convey water to Eskom's power stations in Mpumalanga. 3) The Mokolo-Crocodile River (West) Water Augmentation Project, Phase 1 and 2A, that will supply water to the Lephalale area (to develop the Waterberg Coalfields) and provide Eskom with a second source of water for its Medupi and Matimba power stations (Trans-Caledon Tunnel Authority, 2024).

South African National Energy Development Institute (#13)

The South African National Energy Development Institute is a state-owned entity (schedule 3A public entity, research-focused) that is mandated to direct, monitor, and conduct applied energy research and development, and has programs that work on cleaner fossil fuels (carbon capture and storage, shale gas feasibility studies), smart grids, energy efficiency, energy systems analysis, and clean energy solutions (National Treasury, 2024e).

Energy Efficiency Tax Incentive (#14)

This is covered by Section 12L of the ITA. It allows a qualifying taxpayer to claim a deduction for most forms of energy efficiency, provided they are related to activities for trade or producing income. The incentive started in November 2013, and since 1 March 2015, the deduction amount on taxable income has been ZAR 0.95/kWh or kWh equivalent of energy efficiency savings (South African Revenue Service, 2024d). Initially planned to end on 31 December 2025, it has been extended to 31 December 2030 (Department of Electricity and Energy, 2025). The majority of energy savings under this incentive have been in manufacturing and mining, with over 75% for non-renewable energy carriers and less than 20% for grid electricity (South African National Energy Development Institute, n.d.).

Carbon Tax Exemption (#15)

A carbon tax was introduced in South Africa via a phased approach, with the first payment due 1 June 2019. Phase 1 has been extended to 31 December 2025 (National Treasury, 2022a). However, there are significant exemptions (based on allowances and thresholds), with Eskom not paying any carbon tax despite being the largest greenhouse gas (GHG) emitter in the country. Eskom does pay an environmental levy on electricity generation from non-renewable sources, which has served a similar role to the carbon tax prior to 2019 and is deducted from our calculations of carbon tax exemptions (see methodology below).

The Carbon Tax Act has a threshold of 10 MW (thermal) for activities in the energy sector, above which the tax is to be paid (The Presidency, 2019): this matches the National GHG Reporting Regulations (Department of Forestry, Fisheries and the Environment, 2022). This effectively means that entities below the threshold are 100% exempt from paying the tax. The Carbon Tax Act also lists the potential tax-free allowances for energy sector activities, of between 60% (basic allowance) and 100% in Phase 1. The allowances are made within a context of specific objectives, such as reducing emissions intensities, addressing concerns about international competitiveness, and to provide some assistance to hard-to-abate sectors. Motivation or merit aside, the allowances result in foregone revenue to government and can be classified as a subsidy as per the Definition of Energy Subsidies section. This classification as a subsidy does not make any judgment on whether the allowances and thresholds are inefficient or require reform.

For Phase 2, National Treasury published a discussion document (National Treasury, 2024c), and these proposals have been reflected in the 2025 draft Taxation Laws Amendment Bill (The Presidency, 2025). This discussion document also provides useful context on the changing landscape of the electricity sector in which the tax will operate.

Government revenue foregone because of these exemptions was estimated on a **monthly basis** (June 2019 to March 2024) as the various reporting periods and changes in carbon tax rate do not line up on a yearly basis. Our estimation was done as follows (all references listed in Table 1):

1. Annual Scope 1 GHG emissions for Eskom and Sasol were taken from Eskom annual reports, along with Sasol performance data and climate change reports. For Sasol, this is just for the energy part of the business and does not include operations outside of South Africa. The total annual energy sector Scope 1 GHG emissions were taken from the 9th National GHG Inventory Report up to 2022, and for years 2023 and 2024 we use 2022 data, as it is the most recent available. These were divided by 12 to give monthly Scope 1 GHG estimates. Subtracting the Eskom and Sasol monthly values from the total energy sector monthly value gives the Scope 1 GHG emissions for "Other Energy" per month.
2. For Eskom, Sasol and Other Energy, a hypothetical monthly payment was calculated by multiplying the Scope 1 GHG emissions by the application carbon tax rate, so this assumes no exemptions.
3. For actual monthly payments: a) Eskom is zero, as Phase 1 committed to electricity price neutrality. b) Sasol yearly payments from climate change reports were divided by 12 for a monthly estimate. c) For Other Energy, the assumption was made that all entities are 60% exempt (which is the minimum basic tax-free allowance for energy sector activities in Phase 1 of the carbon tax). The monthly Other Energy actual payment is thus 40% of the Other Energy hypothetical monthly payment. This is a very conservative assumption, as many entities qualify for much higher exemption levels.
4. For liability reduction: a) Eskom publishes the annual total for the environmental levy on electricity generation from non-renewable sources (electricity levy). This is 3.5c/kWh, and although it is a pass-through cost to the customer, it is paid to the government, therefore reducing the revenue foregone due to the carbon tax exemptions. b) In some years, we could find where Sasol published the amount its carbon liability was reduced by the electricity levy and also carbon offsets.
5. For Eskom, Sasol, and Other Energy, the monthly revenue foregone is the monthly hypothetical payment minus the monthly actual payment minus the liability reduction (where applicable).
6. The sum of all monthly revenue foregone amounts per fiscal year is given in Table 1.

Note: Sasol is eligible for a reduction in carbon tax liability due to payments for carbon credits and the electricity levy. The only publicly available data found for these values was between January 2021 and December 2022. For the government FY 2022, this equates to ZAR 679 million, or 1.5% of our total carbon tax revenue foregone estimate for that fiscal year. For Sasol, this represents 9% of their hypothetical carbon tax liability for government FY 2022. So, while entities in our Other Energy category may also be eligible for such reductions, these will likely be more than offset by our assumption of taking the minimum carbon tax exemption level of 60%. Analysis by the International Monetary Fund for FY 2021/22, based on carbon tax revenue collected, gave an effective carbon tax rate of just ZAR

7 per ton of CO_2e when the headline rate was ZAR 134, indicating overall exemptions in that period of about 95% (Qu et al., 2023).

Government Guarantees (#16–18)

The government guarantees are listed in the national budget under contingent liabilities. These guarantees will result in government expenditure to pay a lender if the borrowing entity is unable to meet a financial obligation (National Treasury, 2024b). So they are a risk that is taken on by government and can be considered a financial contribution in terms of the subsidy definition from Article 1 of the Agreement on Subsidies and Countervailing Measures under the World Trade Organization. As these subsidies relate to risk, rather than actual grants or revenue foregone, we separate them from the measures listed in Table 1.

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References

Digital Story

Colmer, J., Martin, R., Muûls, M., & Wagner, U. J. (2025). Does pricing carbon mitigate climate change? Firm-level evidence from the European Union Emissions Trading System. *The Review of Economic Studies, 92*(3), 1625–1660. https://doi.org/10.1093/restud/rdae055

Department of Mineral Resources and Energy. (n.d.). *Energy balances*. Retrieved November 2, 2025, from https://www.dmre.gov.za/energy-resources/energy-statistics-reports/energy-balances

Department of Mineral Resources and Energy. (2025). *Breakdown of petrol, diesel and paraffin prices as at March 5, 2025.* https://www.dmre.gov.za/Portals/0/Resources/Fuel Prices Adjustments/Fuel Prices Per Zone/2025/March 2025/Breakdown-of-Prices.pdf

Ember. (2025, April 10). *South Africa*. https://ember-energy.org/countries-and-regions/south-africa

G20. (2009). *G20 leaders statement: The Pittsburgh summit.* http://www.g20.utoronto.ca/2009/2009communique0925.html

Godongwana, E. (2025). *Budget speech 2025*. https://www.gov.za/news/speeches/minister-enoch-godongwana-budget-speech-2025%C2%A0-21-may-2025

Interagency Working Group on Social Cost of Greenhouse Gases. (2021). *Technical support document: Social cost of carbon, methane, and nitrous oxide interim estimates under Executive Order 13990*. United States Government. https://bidenwhitehouse.archives.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf

International Monetary Fund African Dept. (2023). *South Africa: Selected issues* (IMF staff country reports, 2023/195). https://doi.org/10.5089/9798400245350.002

Just Share. (2025). *The obstruction playbook: How corporate lobbying threatens South Africa's just transition*. https://justshare.org.za/wp-content/uploads/2025/05/JS-Lobbying-Report-Obstruction-Playbook-digital-1.pdf

Labuschagne, H. (2025, July 25). *Eskom electricity price emergency*. MyBroadband. https://mybroadband.co.za/news/energy/603874-eskom-electricity-price-emergency.html

Lemanski, C., Haque, A. N., de Groot, J., & McAskill, N. (2025). The false optimism of electrification: Why universal electricity access has not delivered urban energy transformation in South Africa. *Energy Policy, 198*, Article 114506. https://doi.org/10.1016/j.enpol.2025.114506

Moore, F. C., Drupp, M. A., Rising, J., Dietz, S., Rudik, I., & Wagner, G. (2024). Synthesis of evidence yields high social cost of carbon due to structural model variation and uncertainties. *Proceedings of the National Academy of Sciences, 121*(52), Article e2410733121. https://doi.org/10.1073/pnas.2410733121

National Treasury. (2023). *Budget review 2023*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2023/review/FullBR.pdf

National Treasury. (2024a). *Budget review 2024*. Republic of South Africa. https://www.treasury.gov.za/documents/National%20Budget/2024/review/FullBR.pdf

National Treasury. (2024b). *Carbon tax discussion paper: Phase two of the carbon tax*. Republic of South Africa. https://www.treasury.gov.za/public%20comments/TaxationOfAlcoholicBeverages/Phase%20two%20of%20the%20carbon%20tax.pdf

National Treasury. (2024c). *Division of revenue bill 2024*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2024/[B4-2024]%20Division%20of%20Revenue%20Bill.pdf

National Treasury. (2025a). *2025 budget review. Revenue trends and tax proposals*. Republic of South Africa. https://www.treasury.gov.za/documents/National Budget/2025May/review/Chapter 4.pdf

National Treasury. (2025b). *Budget overview 2025*. Republic of South Africa. https://www.treasury.gov.za/documents/National Budget/2025May/review/May 2025 Budget Overview.pdf

National Treasury. (2025c). *The renewable energy tax incentives survey report*. Republic of South Africa. https://www.treasury.gov.za/Renewable%20Tax%20Incentives%20Survey%20Report.pdf

Our World in Data. (n.d.). *Carbon intensity of electricity generation, 2024*. https://ourworldindata.org/grapher/carbon-intensity-electricity?time=2024

South African Revenue Service. (2024). *Guide on the allowances and deductions relating to assets used in the generation of electricity from specified sources of renewable energy*. https://www.sars.gov.za/wp-content/uploads/Ops/Guides/Legal-Pub-Guide-IT39-Guide-on-the-Allowances-and-Deductions-Relating-to-Assets-Used-in-the-Generation-of-Electricity.pdf

Statistics South Africa. (2025). *P0141 CPI history*. https://www.statssa.gov.za/publications/P0141/CPIHistory.pdf

Tyler, E., van Doesburgh, N., Cohen, B., & Khetsi, R. (2025). *Exploring the impact of phase two of the carbon tax in a transforming power sector*. Meridian Economics. https://meridianeconomics.co.za/wp-content/uploads/2025/09/Briefing-note-Exploring-the-impacts-of-the-carbon-tax-on-the-electricity-sector.pdf

World Trade Organization. (1994). *Agreement on subsidies and countervailing measures*. https://www.wto.org/english/docs_e/legal_e/24-scm.pdf

Annex

Campbell, R. (2025, June 13). *Necsa is positioning itself to support South Africa's future nuclear energy programme*. Engineering News. https://www.engineeringnews.co.za/article/necsa-positioning-itself-to-support-south-africas-future-nuclear-energy-programme-2025-06-13

Department of Electricity and Energy. (2025). *Deputy Minister Samantha Graham-Maré on extension of deadline for Section 12L Tax Incentive* [Press release]. Republic of South Africa. https://www.gov.za/news/media-statements/deputy-minister-samantha-graham-mar%C3%A9-extension-deadline-section-12l-tax

Department of Energy. (2015). *Energy on update of solar water heater programme*. Republic of South Africa. https://www.gov.za/news/media-statements/energy-update-solar-water-heater-programme-04-feb-2015

Department of Forestry, Fisheries and the Environment. (2022). *Methodological guidelines for quantification of greenhouse gas emissions*. Republic of South Africa. https://www.gov.za/sites/default/files/gcis_document/202210/47257gon2598.pdf

Department of Forestry, Fisheries and the Environment. (2025). *9th national greenhouse gas inventory report 2000—2022*. Republic of South Africa. https://www.dffe.gov.za/sites/default/files/legislations/nemaq_nggireportt_g52067gon5850.pdf

Department of Mineral Resources and Energy. (n.d.). *Integrated national electrification programme*. Republic of South Africa. https://www.dmre.gov.za/energy-resources/programmes-and-projects/integrated-national-electrification-programme/overview

Department of Mineral Resources and Energy. (2007). *Free basic alternative energy policy*. Republic of South Africa. https://www.gov.za/sites/default/files/gcis_document/201409/29760.pdf

Department of Mineral Resources and Energy. (2022). *Ministers Gwede Mantashe and Enoch Godongwana on temporary reduction in general fuel levy*. Republic of South Africa. https://www.gov.za/news/media-statements/ministers-gwede-mantashe-and-enoch-godongwana-temporary-reduction-general

Development Bank of Southern Africa. (n.d.). *Green fund*. https://www.dbsa.org/solutions/climate-financing/green-fund

Eskom. (2020a). *Annual financial statements 31 March 2020*. https://www.eskom.co.za/wp-content/uploads/2021/06/0005_Eskom-AFS-2020.pdf

Eskom. (2020b). *Integrated report 31 March 2020*. https://www.eskom.co.za/wp-content/uploads/2021/06/2020IntegratedReport_secured.pdf

Eskom. (2021a). *Annual financial statements 31 March 2021*. https://www.eskom.co.za/wp-content/uploads/2021/08/AFS2021.pdf

Eskom. (2021b). *Integrated report 31 March 2021*. https://www.eskom.co.za/wp-content/uploads/2021/08/2021IntegratedReport.pdf

Eskom. (2022a). *Annual financial statements 31 March 2022*. https://www.eskom.co.za/wp-content/uploads/2022/12/2022_annual_financial_statements.pdf

Eskom. (2022b). *Integrated report 31 March 2022*. https://www.eskom.co.za/wp-content/uploads/2022/12/2022_integrated_report.pdf

Eskom. (2023a). *Annual financial statements 31 March 2023*. https://www.eskom.co.za/wp-content/uploads/2023/10/Eskom_annual_financial_statements_2023.pdf

Eskom. (2023b). *Integrated report for the year ended 31 March 2023*. https://www.eskom.co.za/wp-content/uploads/2023/10/Eskom_integrated_report_2023.pdf

Eskom. (2024a). *Annual financial statements 31 March 2024*. https://www.eskom.co.za/wp-content/uploads/2024/12/Eskom-annual-financial-statements-2024.pdf

Eskom. (2024b). *Integrated report for the year ended 31 March 2024*. https://www.eskom.co.za/wp-content/uploads/2024/12/Eskom-integrated-report-2024.pdf

Eskom. (2025). *Integrated report 2025*. https://www.eskom.co.za/wp-content/uploads/2025/10/Eskom-integrated-report-2025.pdf

International Monetary Fund. (2025). *Exchange rates (ER)*. https://data.imf.org/en/datasets/IMF.STA:ER

Mohamed, N., Maitho, E., Masvikeni, E., Fourie, R., Tilly, M., & Zondi, N. (2014). The green fund of South Africa: Origins, establishment and first lessons. *Development Southern Africa, 31*(5), 658–674. https://doi.org/10.1080/0376835X.2014.935295

National Treasury. (2017a). *Division of revenue bill 2017*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2017/b%204-2017%20(division%20of%20revenue).pdf

National Treasury. (2017b). *Review of the diesel fuel tax refund system*. Republic of South Africa. https://www.treasury.gov.za/comm_media/press/2017/20170215001%20-%20REVIEW%20OF%20THE%20DIESEL%20FUEL%20TAX%20REFUND.pdf

National Treasury. (2018). *Division of revenue bill 2018*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2018/division%20of%20revenue%20bill%20b2%202018.pdf

National Treasury. (2019). *Division of revenue bill 2019*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2019/[B5-2019]%20(Division%20of%20Revenue).pdf

National Treasury. (2020a). *Budget review 2020*. Republic of South Africa. https://www.treasury.gov.za/documents/National%20Budget/2020/review/FullBR.pdf

National Treasury. (2020b). *Division of revenue amendment bill 2020*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2020/[B09-2020]%20(Division%20of%20Revenue%20Amendment%20Bill).pdf

National Treasury. (2021a). *Budget review 2021. Annexure B*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2021/review/Annexure%20B.pdf

National Treasury. (2021b). *Division of revenue bill 2021*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2021/[B3%20-%202021]%20(Division%20of%20Revenue).pdf

National Treasury. (2021c). *Estimates of national expenditure 2021*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2021/ene/FullENE.pdf

National Treasury. (2021d). *Notice in respect renewable energy premium in respect of a tax period for purposes of symbol "b" in formula contained in Section 6(2) of Carbon Tax (Act No. 15 of 2019)*. Republic of South Africa. https://www.gov.za/sites/default/files/gcis_document/202112/45654gon1627.pdf

National Treasury. (2022a). *Budget review 2022*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2022/review/FullBR.pdf

National Treasury. (2022b). *Division of revenue bill 2022*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2021/[B3%20-%202021]%20(Division%20of%20Revenue).pdf

National Treasury. (2022c). *Treasury on renewable energy premium notice*. Republic of South Africa. https://www.gov.za/news/media-statements/treasury-renewable-energy-premium-notice-21-jan-2022

National Treasury. (2023a). *2023 budget review Eskom debt relief annexure W3*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2023/review/Annexure%20W3.pdf

National Treasury. (2023b). *Budget review 2023*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2023/review/FullBR.pdf

National Treasury. (2023c). *Division of revenue bill 2023*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2023/[B2-2023]%20(Division%20of%20Revenue).pdf

National Treasury. (2023d). *Treasury on energy bounce back loan guarantee scheme*. Republic of South Africa. https://www.gov.za/news/media-statements/treasury-energy-bounce-back-loan-guarantee-scheme-08-aug-2023

National Treasury. (2024a). *2024 budget review. Explanatory memorandum to the Division of Revenue*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2024/review/Annexure%20W1.pdf

National Treasury. (2024b). *Budget Review 2024*. Republic of South Africa. https://www.treasury.gov.za/documents/National%20Budget/2024/review/FullBR.pdf

National Treasury. (2024c). *Carbon tax discussion paper: Phase two of the Carbon Tax*. Republic of South Africa. https://www.treasury.gov.za/public%20comments/TaxationOfAlcoholicBeverages/Phase%20two%20of%20the%20carbon%20tax.pdf

National Treasury. (2024d). *Division of revenue bill 2024*. Republic of South Africa. https://www.treasury.gov.za/legislation/bills/2024/[B4-2024]%20Division%20of%20Revenue%20Bill.pdf

National Treasury. (2024e). *Estimates of national expenditure 2024*. Republic of South Africa. https://www.treasury.gov.za/documents/national%20budget/2024/ene/FullENE.pdf

National Treasury. (2025a). *Budget review 2025*. Republic of South Africa. https://www.parliament.gov.za/storage/app/media/Docs/budgt/01dx3n75h5hogcy6zuarhlcrksdzkwc7r5.pdf

National Treasury. (2025b). *Estimates of national expenditure 2025*. Republic of South Africa. https://www.treasury.gov.za/documents/National%20Budget/2025May/ene/FullENE.pdf

National Treasury, & Department of Science and Innovation. (2021). *Reviewing the design, implementation and impact of South Africa's research and development tax incentive*. Republic of South Africa. https://www.treasury.gov.za/comm_media/press/2021/TaxPolicyDiscussion/2021121501%20Discussion%20Document%20-%20Research%20and%20Development%20Tax%20Incentive.pdf

Petroleum Agency South Africa. (2024). *Audited annual financial statements for the year ended 31 March 2024*. https://petroleumagencysa.com/wp-content/uploads/2024/11/Petroleum-Agency-SA-31-March-2024-Financial-statements-Stamped.pdf

Petroleum Oil and Gas Corporation of South Africa. (2018). *Integrated annual report 2018*. https://www.petrosa.co.za/PetroSA%20AR%202018%20Combined%20Final.pdf

Petroleum Oil and Gas Corporation of South Africa. (2019). *Integrated annual report 2019*. https://www.petrosa.co.za/PetroSA%20AR%202019%20combined%2009.pdf

Petroleum Oil and Gas Corporation of South Africa. (2020). *Integrated annual report 2020*. https://www.petrosa.co.za/PetroSA%20AR%202020%20Final.pdf

Qu, H., Suphachalasai, S., Thube, S. D., & Walker, S. (2023). *South Africa carbon pricing and climate mitigation policy*. International Monetary Fund Selected Issues Papers, 2023(040). https://doi.org/10.5089/9798400247620.018

Sasol Limited. (2020). *Climate change report for the year ended 30 June 2020*. https://www.sasol.com/sites/default/files/2022-04/SASOL%20CCR%202020.pdf

Sasol Limited. (2021). *Climate change report for the year ended 30 June 2021*. https://www.sasol.com/sites/default/files/2022-04/Sasol%20Climate%20Change%20Report_2021_22Sep21_0_0.pdf

Sasol Limited. (2022). *Climate change report for the year ended 30 June 2022*. https://www.sasol.com/sites/default/files/2022-11/SASOL_CC%20Report%202022%20%202_0.pdf

Sasol Limited. (2024a). Form 20-F for the year ended 30 June 2024. https://www.sasol.com/sites/default/files/2024-09/Sasol%2020-F%20Website%20Version%202024_1.pdf

Sasol Limited. (2024b). *Performance data for the year ending 30 June 2024*. https://www.sasol.com/sites/default/files/2024-08/SASOL-PERFORMANCE%20DATA-24_0.pdf

Sasol Limited. (2025a). *CDP corporate questionnaire 2024*. https://www.sasol.com/sites/default/files/2025-04/Sasol_CDP%20Climate%20and%20Water%202024.pdf

Sasol Limited. (2025b). *Form 20-F for the year ended 30 June 2025*. https://www.sasol.com/sites/default/files/2025-08/Sasol%20Form20-F_0.pdf

Sasol Limited. (2025c). *Performance data for the year ending 30 June 2025*. http://sasol.com/sites/default/files/2025-08/JOB029629_SASOL%202025_PERFORMANCE%20DATA_0.pdf

South African National Energy Development Institute. (n.d.). *Energy efficiency*. https://sanedi12ltax.org.za/#!/content/home

South African Nuclear Energy Corporation. (2024). *Integrated annual report 2023/2024*. https://www.necsa.co.za/wp-content/uploads/2024/10/Necsa-Integrated-Annual-Report-2024-October-Version.pdf

South African Reserve Bank. (2024). *Annual report 2023/24*. https://www.resbank.co.za/content/dam/sarb/publications/reports/annual-reports/2024/SARB%20Annual%20Report%202023_24.pdf

South African Revenue Service. (2020). *Guide on venture capital companies*. Republic of South Africa. https://www.sars.gov.za/wp-content/uploads/Ops/Guides/LAPD-IT-G30-Guide-on-venture-capital-companies.pdf

South African Revenue Service. (2021). *Interpretation note 86* (Issue 3). https://www.sars.gov.za/wp-content/uploads/Legal/Notes/LAPD-IntR-IN-2015-06-IN86-Additional-investment-and-training-allowances-for-industrial-policy-projects.pdf

South African Revenue Service. (2024a). *Guide for tax rates/duties/levies* (Issue 17). https://www.sars.gov.za/wp-content/uploads/Ops/Guides/Legal-Pub-Guide-Gen02-Guide-for-Tax-Rates-Duties-Levies.pdf

South African Revenue Service. (2024b). *Guide on the allowances and deductions relating to assets used in the generation of electricity from specified sources of renewable energy*. https://www.sars.gov.za/wp-content/uploads/Ops/Guides/Legal-Pub-Guide-IT39-Guide-on-the-Allowances-and-Deductions-Relating-to-Assets-Used-in-the-Generation-of-Electricity.pdf

South African Revenue Service. (2024c). *Guide on the solar energy tax credit provided under Section 6C*. https://www.sars.gov.za/wp-content/uploads/Ops/Guides/Legal-Pub-Guide-IT37-Guide-on-the-solar-energy-tax-credit-provided-under-section-6C.pdf

South African Revenue Service. (2024d). *Interpretation note 95* (Issue 3). Republic of South Africa. https://www.sars.gov.za/wp-content/uploads/Legal/Notes/Legal-IntR-IN-95-Deduction-for-energy-efficiency-savings.pdf

South African Revenue Service. (2024e). *Research and development incentive*. Republic of South Africa. https://www.sars.gov.za/businesses-and-employers/my-business-and-tax/research-and-development-incentive/

South African Revenue Service. (2025). *Interpretation note 119* (Issue 2). Republic of South Africa. https://www.sars.gov.za/wp-content/uploads/Legal/Notes/Legal-IntR-IN-119-Deductions-iro-improvements-to-land-or-buildings-not-owned-by-a-taxpayer.pdf

Statistics South Africa. (2025). *P0141—Consumer price index (CPI), July 2025*. Republic of South Africa. https://www.statssa.gov.za/publications/P0141/CPIHistory.pdf

The Presidency. (2019). *The Carbon Tax Act*. Republic of South Africa. https://www.gov.za/sites/default/files/gcis_document/201905/4248323-5act15of2019carbontaxact.pdf

The Presidency. (2025). *Draft Taxation Laws Amendment Bill, 2025*. Republic of South Africa. https://www.sars.gov.za/wp-content/uploads/Legal/Drafts/Legal-LPrep-Draft-2025-21-Draft-Taxation-Laws-Amendment-Bill-2025-16-August-2025.pdf

Trans-Caledon Tunnel Authority. (2019). *Integrated annual report 2018 | 2019*. https://www.tcta.co.za/wp-content/uploads/2021/07/38a8cb_9f033ddf35d9454687fccefb50a198b7.pdf

Trans-Caledon Tunnel Authority. (2020). *Integrated annual report 2019 | 2020*. https://www.tcta.co.za/wp-content/uploads/2021/07/38a8cb_bbd0062d8897428fbb24902047876c55.pdf

Trans-Caledon Tunnel Authority. (2022). *Integrated annual report 2021 | 2022*. https://www.tcta.co.za/wp-content/uploads/2022/10/TCTA_IAR_2022_DIGITAL_INTERACTIVE-Final.pdf

Trans-Caledon Tunnel Authority. (2023). *Integrated annual report 2022 | 2023*. https://www.tcta.co.za/wp-content/uploads/2023/10/TCTA-Annual-Report-2022-23_Interactive-final-web.pdf

Trans-Caledon Tunnel Authority. (2024). *Integrated annual report 2023 | 2024*. https://www.tcta.co.za/wp-content/uploads/2024/10/TCTA-AR-2023-24-M.pdf

van Diemen, E. (2025, March 15). National solar water heater programme is 'a total failure' after wasting R325m, DMRE admits. *Daily Maverick*. https://www.dailymaverick.co.za/article/2025-03-15-national-solar-water-heater-programme-is-a-total-failure-after-squandering-r325m-dmre-admits/

World Trade Organization. (1994). *Agreement on subsidies and countervailing measures*. https://www.wto.org/english/docs_e/legal_e/24-scm.pdf

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