Powering growth and development: DA Energy & Electricity Policy Position

DA



Powering growth and development: DA Energy & Electricity Policy Position

This is an abridged version of the DA's policy on Energy and Electricity

1. Executive Summary and Strategic Approach

Policy statement: The goal of the DA's energy policy is to ensure access to cheap electricity and fuel, to end loadshedding, and to secure the environment for future generations. These are the necessary ingredients for South Africa's social and economic development and prosperity.

The President and Minister of Energy are instead leading the country further away from these goals and presiding over rising electricity and fuel costs, rolling blackouts, as well as widespread environmental and economic losses.

DA Approach	ANC Approach
Consumer centric: Putting the energy	ANC centric: Putting the ANC and its
consumer & country first	ideological commitments first
Access to electricity for all: Supporting self-	Electricity for some: Households left to fend
generation for all households, and full	for themselves in installing expensive self-
coverage of indigent households leading to	generations solutions. As well as less than 30
fewer illegal connections	% of indigents with free basic electricity,
	driving widespread illegal connections
Whole of society approach: Making	Government control: Eskom 2.0 proposal is
meaningful room for prosumers and the	a reflection of a government that is navel-
private sector. As well as following expert	gazing and unable to look beyond its own
advise closely.	universe for solutions.
Deregulation & making it easier to do	Price controls and Excessive red tape: Even
business: In electricity and fuel markets we	where there is an opening to private
are committed to making it easier for a	players, the business environment is
competitive market to emerge that will	characterized by complex licensing,
result in cheaper prices for consumers.	registration and regulated prices.
Strong climate commitments: NDCs in line	Weak climate commitments: NDCs will
with keeping global warming below 1.5 °C	contribute to global warming above 1.5 °C
Ensuring nobody is left behind while	Short term protectionism focused on the
embracing the future	past and not the future.
Policy certainty: The DA leadership and	Policy uncertainty: President, ministers,
policy thinking are pulling in the same	party etc. all issue contradictory statements.
direction. Evidenced in alignment between	In such an environment there can be no
DA party pronouncements & actions by DA-	predictability and confidence about the
led governments. This lends itself to	future.

The DA's approach and that of the ANC differ in the following fundamental ways:

confidence and is	conducive to effe	effective
implementation.		

2. Access to electricity for all:

South Africa's national grid provides 85% of the country with access to electricity.ⁱ

However, even when households possess the technical capability to access electricity, it is often unreliable, costly, and from sources which impact poorly on the environment. While much of the opportunity (and capital to support the roll-out) for Small-Scale Embedded Generation (SSEG) lies in the commercial and industrial sector, the residential sector represents a significant market that, with the right incentives, can have a meaningful impact on South Africa's energy demand profile. Factors that constrain broader adoption include burdensome registration requirements (typically municipal and ESKOM-related), the high cost of installation, the need for new feed-in meters, and the variance in feed-in tariffs paid by municipalities for any surplus electricity generated.

The DA would address these challenges by:

- Promoting and actively facilitating the emergence of "prosumers", where customers of electricity may also generate renewable energy into the grid when they have surplus energy, and working towards harmonised feed-in tariff structures and standards where we govern.
- Removing restrictions preventing prosumers from feeding more electricity into the grid than they use.
- Incentivise the uptake of rooftop solar for residential purposes by granting a once-off tax rebate for the installation of small-scale embedded generation and feed-in meters. And where feasible, to ensure that government subsidized housing benefits include or make self-generation options accessible.
- Eliminate illegal connections by ensuring indigent households are properly connected to receive their 50kWh of free basic electricity (FBE) per month, in accordance with national regulations. Research by the Public Affairs Research Institute (PARI) revealed that in the 2019/20 financial year, approximately R9-billion disbursed by National Treasury to local government for the provision of free basic electricity to poor households was misappropriated by municipalities. The report indicates that currently less than 30% of the 10.1-million indigent households that qualify for free basic services, and for which municipalities received funding, receive them.
- The DA would have an amnesty period to call for all households with an illegal connection and who qualify to come forward so that they can be provided with legal free basic

services. The DA will simultaneously clamp down on those who do not qualify and are illegally connected, and those who are enabling such connections.

3. Reliability by putting an end to loadshedding:

Consumers should be able to have access to the quantity of energy they need, when they need it, and wherever they need it. This means that the occurrence of blackouts should be virtually eliminated. In contrast, South Africa has experienced blackouts frequently over the last decade.

Reliability is dependent on robust generation, transmission, and distribution capabilities.

Unbundling and privatization:

- Eskom is in a well-recognised utility death spiral. There should be a complete unbundling of Eskom. The DA would unbundle and restructure Eskom in a staged process to establish an end-state comprising:
 - A diversified, competitive generation sector which could include a number of independent generation companies, these comprising former Eskom generators, newpublic-private partnership (PPP) generators, municipal generators, IPPs, and distributed generators embedded on customers' premises or wheeling power through the grid to end consumers.
 - Eskom should get out of the generation business as far as possible, this should be carried out as promptly as due diligence allows. Commercially viable power stations should be sold to private owners and operated until the end of the remaining life of the station.
 - A rationalised electricity distribution industry built around former Eskom and municipal electricity distributors, comprising a significantly reduced number of financially viable and sustainable regional electricity distributors (REDs) established as public companies listed on the Johannesburg Securities Exchange (JSE), with public and private sector shareholders, which can include the state, Independent Transmission system and Market Operator (ITSMO), municipalities, financial institutions, and private investors.
 - A competitive retail electricity sector comprising a diverse range of private-sector retail entities with experience in wholesale procurement, innovative repackaging, marketing, and resale in a variety of retail offerings to meet the needs of different domestic and commercial customers and market segments.
 - The remaining transmission entity of Eskom should become a stand-alone ITSMO,

with power planning, procurement, contracting, grid system and electricity market operation functions.

- ITSMO should be free of conflicts of interests and allow for equal access to the grid for both the former Eskom generators and new entrants. Board membership should be reflective of the diverse generation sector, distribution entities, and the government.
- An ITSMO would establish a transparent and fair platform for the competitive procurement of least-cost power, remove Eskom's conflict of interest and allow for more diversification, competition, and private sector investment.
- The future Eskom ITSMO should establish an electricity market that facilitates electricity market transactions between generators, customers and prosumers, as well as bilateral contracts and electricity trading between generators and customers of electricity, and the wheeling of power through the grid, including cross border electricity trading via the South African Power Pool.

Additional comments on generation:

- South Africa urgently requires new generation capacity. The immediate and short-term electricity needs must be met by a plan that addresses the reliability of supply in the most cost effective and **source agnostic manner**.
- To increase the pace there should be a lifting of capacity limits (e.g., renewable build limits and licensing thresholds for embedded generation), as well as other obstructive constraints such as BEE and local content criteria. The priority for South Africa in the short term is adding increased capacity and storage, other policy goals which undermine this should be removed.
- Keeping in mind the least cost path to reliable and sustainable energy and electricity, South Africa should take a neutral position between technologies capable of achieving the same objectives. Such objectives should include clear indicators, for example emissions thresholds as the indicator for sustainability (CO₂/kWh), proven track record etc.
- Centralised procurement should be complemented by interventions to support direct procurement from IPPs by municipalities and self-generation. The process for municipalities is still not sufficiently permissive. DA municipalities will push ahead as much possible, but clear directives from the minister would aide in creating market certainty. The City of Cape Town has indicated the following measures would aid municipal procurement:

- "Exempt financially-healthy municipalities from all unnecessary legislation and regulations (including those governing municipal procurement) that will delay bringing new generation capacity online. A minimum-compliance approach must be allowed in respect of tenders for IPP procurement and the construction of municipal owngeneration projects."
- "Declare in clear and unequivocal terms that municipalities do not require approval from energy minister Mantashe for electricity procurement. Uncertainty in this regard is having a chilling effect on municipalities' ability to procure new generation and introducing delays; there is no good reason for this to continue."
- "Offer National Treasury guarantees in respect of any borrowing by municipalities and private entities — necessary for IPP generation projects and municipal owngeneration projects."

Additional comments on distribution

Tariffs don't reflect costs

- Continued deficit differences between tariffs and prices lead to inefficiency and increased debt. A number of municipalities still do not have cost-reflective tariffsⁱⁱ. In the absence of cost-reflective tariffs, prices do not reflect the costs of supply. This results in nonalignment of revenue and the cost of supplying energyⁱⁱⁱ.
- With NERSA currently in the process of reviewing its tariff price determination methodology, it is imperative that they include time-of-use pricing, as this would bring immediate relief to revenue generation of municipalities resulting in better alignment of cost of supply to revenue generated.^{iv}
- The implementation of time-of-use pricing should be accompanied by nation-wide education and awareness campaigns on how customers can use electricity efficiently, lower costs and ultimately put less pressure of the grid. For customers to be able to accurately monitor their electricity usage, distributors should consider installing smart meters that would provide such features.
- Ring fence revenue from electricity sales to pay off bulk electricity purchases first. This should happen before cross subsidisation of other municipal services.

Poor distribution infrastructure performance

• A lack of investment in distribution networks has resulted in poor infrastructure performance.

- Opening distribution to private partnerships would help to address the key issues being faced such as chronic lack of investment, skills shortages, financial management and billing.^v Bringing in private players to take on some of the functions will improve efficiency and attract much needed capital investment.
- Improving energy efficiency will also help to alleviate pressure on distribution grids. Examples of such measures include installing light-emitting diodes (LED) in all streetlights and traffic lights. LEDs are more environmentally friendly and are energy saving.^{vi} The DA is leading by example in its energy saving strategies. The DA-run Hassequa^{vii} municipality installed the country's first solar power desalination plant. DA-run George Municipality has installed a 300kW solar plant on top of covered parking bays that powers the main municipal building.

Culture of non-payment

- Before Eskom implements blackouts to entire communities it is imperative that municipalities seek to solve revenue collection and address illegal connection challenges as soon as possible.
- Municipalities should take a zero-tolerance approach to non-payment, as evidenced by the success of Tshwane in clearing its Eskom debt. Municipalities should also promote meter installations in all residential areas.

Transmission

- Lack of investment in transmission infrastructure has affected its performance. The creation of an independent transmission entity will make it easier for the transmission entity to raise capital.
- In 2018, it was reported that Eskom lost R20 billion due to electricity theft^{viii}. Illegal tampering not only has financial implications but also overloads the grid which increases the risk of blackouts.^{ix} There needs to be an investment in smart grids and other technologies which will assist in the detection and location of illegal connections. Such an intervention would increase the likelihood of being caught, which is often more important as a deterrent than the strictness of sanctions once caught.
- Eskom alone has incurred a loss of R2 billion due to cable theft, often disrupting power supply^{xxi}. The DA has outlined measures to address cable theft, including:
 - Implementation of the Second Hand Goods Law of 2009, which aims to regulate the business of second-hand goods to combat trade in stolen goods^{xii}.
 - Setting copper theft reduction targets at parastatals.

- Creating a specialised SAPS unit to specifically combat copper theft.
- Creating a standardised transaction recording of scrap metals in South Africa.
- Improving the relationships between law enforcement and metal recyclers, as well as offering rewards for tracking and reporting of cable theft^{xiii}.

4. Making South Africa's fair contribution to reducing global warming

- South Africa can, and should, improve its Nationally Determined Contributions.
- The declining cost of renewables and storage solutions means that even with the need to resolve immediate supply and our status and challenges as an emerging market it is possible for South Africa to meet its energy demands affordably and reliably, while contributing its fair share to keep global warming below 1.5 °C.

5. Ensuring nobody is left behind

- A 'just transition' towards lower-carbon technologies requires reducing the risks faced by people who might be most adversely affected. It includes workers, poor communities, and small businesses.
- According to the Mineral Council of South Africa, the coal mining industry alone accounts for approximately 170,000 indirect jobs.^{xiv} The coal industry is also frequently a source of contracts for several small businesses in local coal-dependent areas. For example, according to a study on Steve Tshwete in Mpumalanga, 57% of businesses in the study area provide services to either coal mines or coal power plants.^{xv}
- There needs to be a clear transition plan that will upskill and reskill former coal sector workers as well as reducing barriers for community owned projects to compete.

6. Energy source analysis

While the approach should be **source agnostic**, i.e., open to any source which meets defined criteria, it aides planning and investment decisions to be transparent about our high level thinking with regards to each energy source. Especially as state resources (financial or otherwise) are often implicated.

Coal position

• Adopt a watching brief on international developments in the fields of "clean coal" technologies, underground coal gasification and carbon capture and storage, pending any indication that these may play a meaningful social and economic value-adding role in light of commitments to decarbonisation of the energy and electricity sectors of South Africa.

• Commit to the phasing out of new coal-fired power stations in South Africa in a planned, phased programme as alternative, cleaner, and more sustainable sources of electricity generation capacity come online. Reject any move to use state resources to fund new coal plants.

Gas position

- Recognising that natural gas is at best a transitionary, non-renewable, hydrocarbon-based energy carrier. Policy efforts should therefore instead signal a move to local or regional production of renewable, green hydrogen, green ammonia and other green hydrogenbased derivatives, both for export and for local use, rather than the use of imported natural gas.
- In the interim, allow private sector development of infrastructure for production, importation, and distribution of liquefied natural gas (LNG), compressed natural gas (CNG) and liquefied petroleum gas (LPG), only to the extent that this is necessary, economically viable and unsubsidised by government.
- The DA supports an incremental and risk-averse approach to further exploration of natural gas through hydraulic fracturing (fracking). Small scale, strictly controlled and responsible research and investigations should be done into fracking. Once sufficient knowledge has been obtained on the issue, a more informed decision can be made regarding further gas exploration in the Karoo, and other parts of South Africa.

Nuclear position

- Support the life-extension of the Koeberg Nuclear Power station in the Western Cape Province by twenty years (from 2024 until 2044), following the expiration of its operating licence in 2024. The DA notes with concern that the life extension project has been delayed, and this is likely to affect Koeberg's licensing beyond 2024.
- This position is in recognition that South Africa and Eskom have thirty years of successful experience in the operation of the power station, and have significant scientific, engineering and operating resources to do this.
- Support the replacement of the SAFARI-1 nuclear research reactor with a new multipurpose reactor as the current reactor has reached end of life.
- Set aside ambitions for new nuclear power generation plants in South Africa in the short and medium term and adopt a fleet-of -foot watching brief with regards to global developments in the international nuclear power sector in respect of the commercialisation of small modular nuclear reactors (SMRs), new generation large nuclear reactors, and nuclear fusion technologies.

Energy storage position

- Explore and encourage further commercial application of conventional energy storage technologies for power systems, including hydroelectric power, surface and underground pumped water storage systems, gravity-based potential energy storage, flywheel energy storage, molten salt, and gas storage facilities.
- Facilitate, encourage, and incentivise the development and commercial application of emerging technologies for utility-scale and distributed embedded energy storage in power systems, including battery energy storage, fuel cells, and super capacitors.
- Incentivise and facilitate the dual use of electric vehicles cars, motorcycles, taxis, busses, and trucks for both transportation and as a source of distributed energy storage for own use or generation of electricity into the distribution network at times of peak demand.

Liquid-fuels position

- In light of policy commitments to achieve net-zero carbon emissions by 2050, ensure that exploration and prospecting for new oil and gas is managed according to strict environmental regulations and monitored accordingly.
- Support the natural move toward further imports of refined liquid-fuels, recognising that crude oil feedstock is imported anyway, with low economic and social value-add by local refineries.
- Support the decarbonisation of the transportation sector away from oil, diesel, petroleum, kerosene, and coal- and gas-based liquid fuels through the encouragement and incentivisation of a gradual move away from internal combustion engines to fuel-cell and battery powered electric vehicles, and the local production of renewable, hydrogenbased power fuels for cars, trucks, busses, and trains.
- Remove or reduce the tariff on electric vehicles.
- Improve and build new storage and distribution infrastructure to ensure that South African facilities can handle the importation and export of oil products across the value chain.
- Sell off PetroSA. Restructure Strategic Fuel Fund to focus on strategic fuel stock holding only.
- Cut fuel taxes by scrapping the general fuel levy and enabling tax refunds for road users with third party liability insurance. In addition, fuel prices can be brought down by deregulating prices.

7. Political leadership and policy certainty

- Establish a dedicated energy ministry, separated from mineral resources, to focus on putting in place sound, forward-looking energy and electricity policies and performance monitoring processes that address the problems of the past and prepare South Africa for the future.
- Review and amend existing energy policies, legislation, regulations, and planning processes to streamline and remove barriers and stumbling blocks to the implementation of the energy and electricity policies detailed in this policy.
- Review and amend existing transportation sector policies, regulations, and planning processes, towards achieving zero-net emissions.
- Establish a Ministerial Advisory Council on Energy (MACE) that brings together the best energy and electricity minds and thinkers in the country, including academics, scientists, researchers, financiers, industrialists, business leaders, Eskom, municipal leaders, organised labour and civil society to advise and guide the Minister on implementation of energy and electricity policies.
- In consultation with MACE, finalise without delay a comprehensive, national IEP, that considers all the primary energy resources and energy carriers available to South Africa, to ensure consistent, integrated energy planning across the various sectors that rely on a reliable, sustainable, and affordable energy and electricity supply.
- Electricity policy updating has been infrequent, with seven years between the publishing in 2011 of an Integrated Resource Plan (IRP) for electricity, and a revised IRP2019 covering the decade to 2030.^{xvi} The IRP should be reviewed and updated on a regular basis to reflect changes in economic conditions, consumer demands and technology. To be effective, the IRP requires updates to incorporate the latest information and data regarding economic indicators and technology prices, especially as relative technology costs change the supply and demand trends, requiring assumptions to adjust. Furthermore, relevant reforms which would enable for government to expedite the procurement process and other areas of flexibility should be permitted by the IRP.

Conclusion

South Africa needs a competitive energy market where the state does not have a monopoly on energy generation, supply, and distribution. There should be a multiplicity of private

suppliers, competing with one another to provide the best service and lowest price. This requires making it easier for energy suppliers to enter and participate in energy markets.

Our ambition for South Africa is that energy should mainly come from renewable sources in the long term. However, we recognize that our longer-term plans will be influenced by the success of short-term measures employed to deal with the immediate and ongoing risk of loadshedding. This is our vision for giving power back to the people- powering growth and development in South Africa.

^{viii} Jamil Ddamulira Mujuzi, "Electricity Theft in South Africa: Examining the Need to Clarify the Offence and Pursue Private Prosecution?," *Obiter* 41, no. 1 (2020): 78–87.

^{ix} Eskom, "Integrated Report: 31 March 2021".

https://www.gov.za/documents/second-hand-goods-act.

^{xiii} "DA Establishes a Task Team to Combat the Theft of Public Infrastructure," Democratic Alliance, accessed July 27, 2022, https://www.da.org.za/2022/05/da-establishes-a-task-team-to-combat-the-theft-of-public-infrastructure.

ⁱ World Bank (2019). World Development Indicators. [Online] Worldbank.org. Available at: http://data.worldbank.org/data-catalog/worlddevelopment-indicators [Accessed 18 January 2022]

ⁱⁱ Staff Writer, "Some Municipalities Are Not Charging What They Should for Water and Electricity in South Africa: Mboweni," accessed July 28, 2022, https://businesstech.co.za/news/finance/489787/some-municipalities-are-not-charging-what-they-should-for-water-and-electricity-in-south-africa-mboweni/.

ⁱⁱⁱ Eberhard, "The Municipal Electricity Industry – Key Dynamics with a Focus on the Metros," 17.

^{iv} National Energy Regulator of South Africa, "A Consultation Paper to Determine a New Price Determination Methodology", September 2021, accessed on 29 July 2022, <u>https://www.nersa.org.za/wp-content/uploads/bsk-pdf-manager/2021/09/Consultation-paper-to-determine-a-new-price-determination-methodology.pdf</u>. ^v Ibid.

^{vi} John Steenhuisen, "10 reasons to vote DA to keep your lights on and affordable," Democratic Alliance News, 29 September 2021. https://www.da.org.za/2021/09/10-reasons-to-vote-da-to-keep-your-lights-on-and-affordable

^{vii} John Steenhuisen, "10 reasons to vote DA to keep your lights on and affordable," Democratic Alliance News, 29 September 2021. https://www.da.org.za/2021/09/10-reasons-to-vote-da-to-keep-your-lights-on-and-affordable

^x "South Africa: Eskom Welcomes Cable Theft Ruling - AllAfrica.Com," accessed July 27, 2022, https://allafrica.com/stories/202205170620.html.

^{xi} Kgomotso Phooko, "Eskom Suffers R2 Billion in Losses a Year Due to Cable Theft and Vandalism," The Citizen, May 4, 2022, https://www.citizen.co.za/news/south-africa/3090446/eskom-suffer-r2-billion-losses-to-cabletheft-and-vandalism/.

xii "Second-Hand Goods Act 6 of 2009 | South African Government," accessed July 27, 2022,

^{xiv} Minerals Council South Africa. 2018. "National Coal Strategy for South Africa" Accessed July 28, 2022.

https://www.mineralscouncil.org.za/special-features/604-national-coal-strategy-for-south-africa.

^{xv} Stanley Semelane, Nnamdi Nwulu, Njabulo Kambule, and Henerica Tazvinga. 2021. "Evaluating Available Solar Photovoltaic Business Opportunities in Coal Phase-out Regions – an Energy Transition Case of Steve Tshwete Local Municipality in South Africa." *Energy Policy* 155 (August): 112333. https://doi.org/10.1016/j.enpol.2021.112333.

^{xvi} Department of Energy (2011) *Electricity Regulation Act No.4 of 2006. Electricity Regulations on the Integrated Resource Plan 2010-2030.* May 2011. Accessed at: http://www.energy.gov.za/IRP/2010/IRP_2010.pdf [09 August 2021] and: Department of Mineral Resources and Energy (2019) *Integrated Resource Plan (IRP2019)* [Online] Available at: http://www.energy.gov.za/IRP/2019/IRP-2019.pdf [09 August 2021]