

FISH HOEK VALLEY RATEPAYERS & RESIDENTS ASSOCIATION

(Incorporating Fish Hoek, Clovelly and Sun Valley)

~~Central Circle, Fish Hoek 7975~~

Web: <https://www.fhvrra.org.za/> Facebook: www.facebook.com/FHVRRRA/

Heritage Western Cape: Conservation Body

TO: DIRECTOR-GENERAL: DEPARTMENT OF MINERAL RESOURCES AND
ENERGY IRP.Queries@dmre.gov.za

SUBJECT: COMMENTS ON INTEGRATED RESOURCE PLAN, 2023 ¹

DUE DATE: 23 FEBRUARY 2024

We, the Fish Hoek Valley Ratepayers & Residents Association, feel that the Integrated Resource Plan (IRP) as written, fails in that it cannot sufficiently meet the energy needs of South Africa, which will lead to on-going and even more load-shedding. This gap negatively impacts our economy. Without a thriving economy, taxes cannot be collected to adequately cover all of the government's spending on social "needs" and infrastructure. Also, the energy gap does not comply with the IRP's Clause 1.2 ensuring security of electricity supply balancing supply with demand.

We do not think that the IRP should scale back on renewables. Solar comprises just 5% of the energy mix at present. As the cheapest source of energy now. Solar's contribution alone should be increased above the 22% for all renewables (wind, solar and hydro). Australia is targeting 82% renewables by 2030.

Increasing the use of natural gas might be cheaper and is cleaner than burning diesel (Clause 5.2.1 Intervention 2).

Environmentally, all coal powered power stations should be shutdown. Emission abatement technology can't be installed immediately with cleaner coal technologies (Clause 1.3.1 and 5.2.1 Intervention 3). Note that the Scatec ASA's Kenhardt solar battery project was completed in 18 months.

We agree with Clause 1.3.6 Storage needs developing, such as batteries for storing electrical energy, other storage of energy, such as thermal storage, compressed air storage and gravity storage should be employed. Also, green hydrogen needs further development. ²

A revised plan should include tapering out Koeberg. It's unit two steam generator replacement will not be completed in time for its designed end-of-life retirement this year. Clause 1.3.2 says that nuclear power is a clean energy source, but what about the harmful impact of radiation and cost of proper storage of spent fuel rods? Small modular reactors would have the same problem. South Africa has an abysmal track record with pebble bed reactors.

We look forward to Clause 1.4.2's "unleashing businesses and households to invest in rooftop solar". However, this seems unlikely as the City of Cape Town has recently

¹ <https://www.energy.gov.za/IRP/irp-2023.html>

² https://www.dailymaverick.co.za/article/2024-01-10-shoddy-experts-decry-south-africas-new-blueprint-for-energy/?utm_source=Sailthru

released its NERSA compliance list (vs Clause 1.4.3) which tripled the cost of a 3kW system.

"Improved plant performance" in Clause 2.6 can be removed from the scenarios. It isn't going to happen. Clause 3.1 says that performance "for the 2023 financial year has plummeted to 54.72 percent."

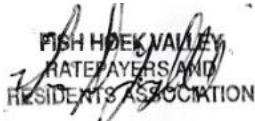
Missed opportunity

Plant crops can be grown to produce ethanol for combustion in normal spark injected combustion motors like in our petrol motor powered vehicles. This can produce electricity during peak hours and after the sun goes down (solar). The remaining biomass can be used as animal feed stock or converted into compost.

Summary

We support Pathway Two (energy storage), then Pathway One in Clause 6.1 for solar, wind and gas with a reduction in carbon emissions. We do not support Pathway Three, which allows for a nuclear option. Pathway Four is untenable as the coal fired plants won't survive until 2035. Pathway Five won't be immediate and will be too expensive.

With distribution finally separated from the Eskom parent company, private solar storage can be wheeled to the City of Cape Town as an end-user.

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