



The reference scenario

considered recent trends in the decline of economic growth rates, the economic impact of covid-19, lower electricity demand, recent renewable energy costs and an up to date assessment of Eskom's fleet performance.

The climate policy scenario

considered a situation where South Africa revises its Nationally Determined Contribution to be compatible with the global goals contained within the Paris Agreement to limit warming to well below 2 degrees celsius and pursue efforts towards 1.5 degrees celsius.

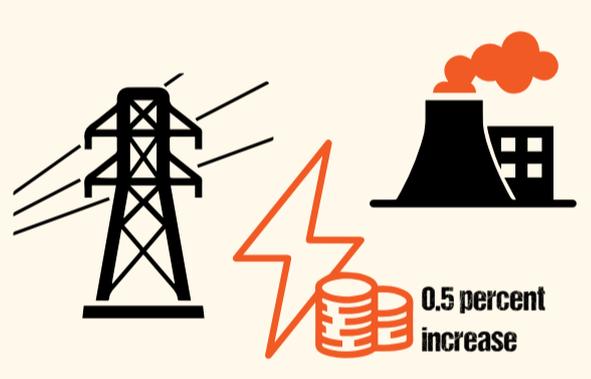
Building new coal into South Africa's electricity system will **raise costs** even when climate goals and environmental harms are not considered, and it also makes the achievement of the country's commitments to **fighting climate change vastly more expensive**. If a least-cost electricity plan were to be adopted, it would not contain any new coal power capacity.

COST ↑

R23 billion

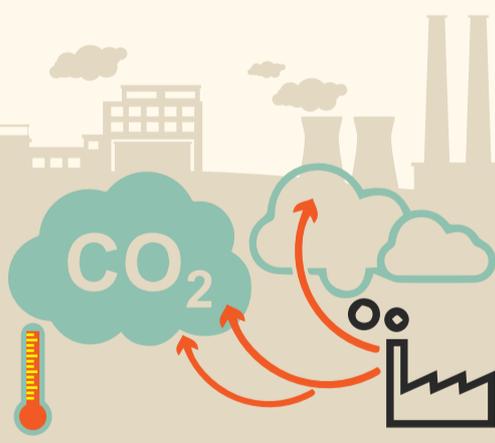
Forcing new coal to 2030 and beyond would incur additional costs of at least **R23 billion in the reference case**.

Result: **In effect, electricity consumers would be required to pay more for electricity, which increases emissions of air pollutants and greenhouse gases – a 0.5 percent increase in the electricity price.**



If **South Africa** intends to meet its revised climate **targets (350 - 420 MtCO₂e) by 2030 and still go ahead with its plans for 1.5 GW of new coal power**, it will cost an additional **R74 - R109 billion**. Even in meeting SA's less ambitious and inadequate target of **420 MtCO₂e**, to which it has committed, power system costs for SA would increase by **R74 billion** compared to an optimised electricity system without **1.5 GW new coal**.

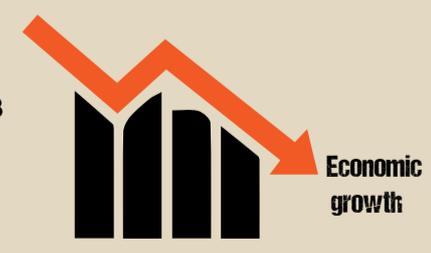
This forced coal would result in job losses of around **25 000 in 2030** across the economy.



This would not happen if the government commits to no new coal plants.

The coal capacity would increase cumulative **greenhouse gas emissions to 2050 by 289 Mt CO₂-eq** compared to the optimal build plan that excludes new coal plants.

The additional coal power plants result in a **GDP loss of 0.11 percent in 2030 and 0.08 percent in 2040** relative to a least cost capacity expansion



*** The impacts of government's plans for 1500 MW of new coal power in South Africa**
 Based on a 2021 report by Merven, Burton and Lehmann-Grube of the University of Cape Town's Energy System's Research Group, 'Assessment of new coal generation capacity targets in South Africa's 2019 Integrated Resource Plan for Electricity'.

SA's electricity system could run reliably without 1.5GW of new coal power and with clean renewable alternatives instead. The modelling shows that if a new least cost electricity plan were to be adopted, it would not contain any new coal power capacity.