

SASOL'S PRESENTATION TO THE RESPONSE MEASURES WORKSHOP



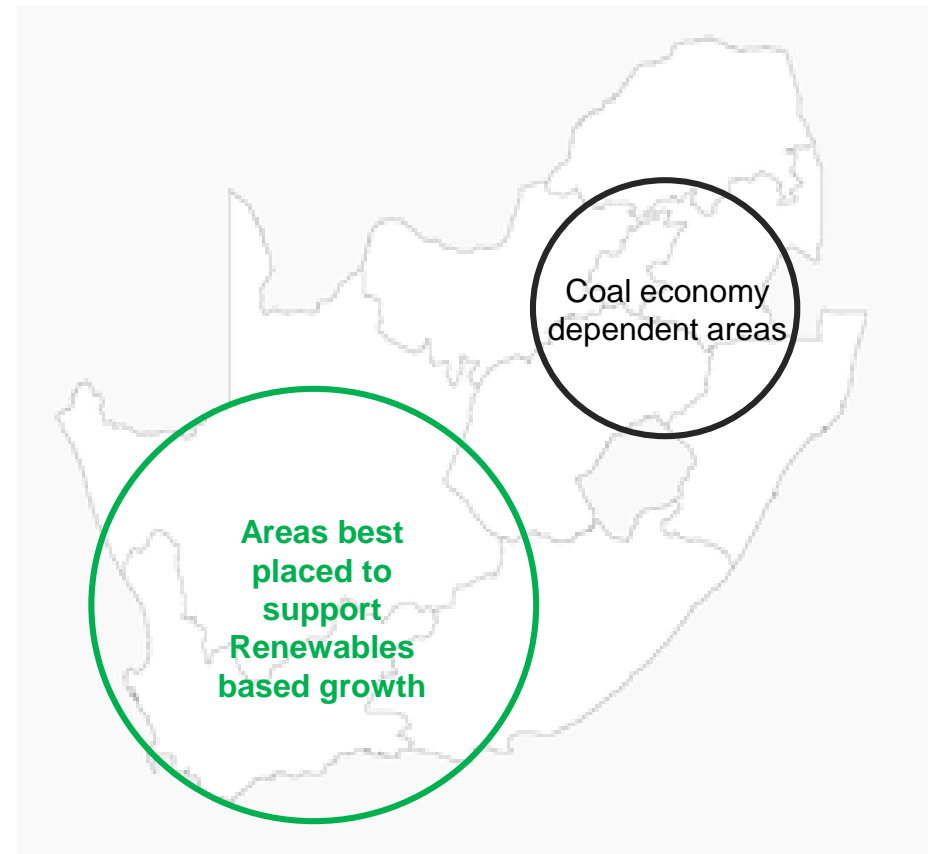
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Appropriate mitigation solutions for regional impacts, especially in the short term are critical for this transition



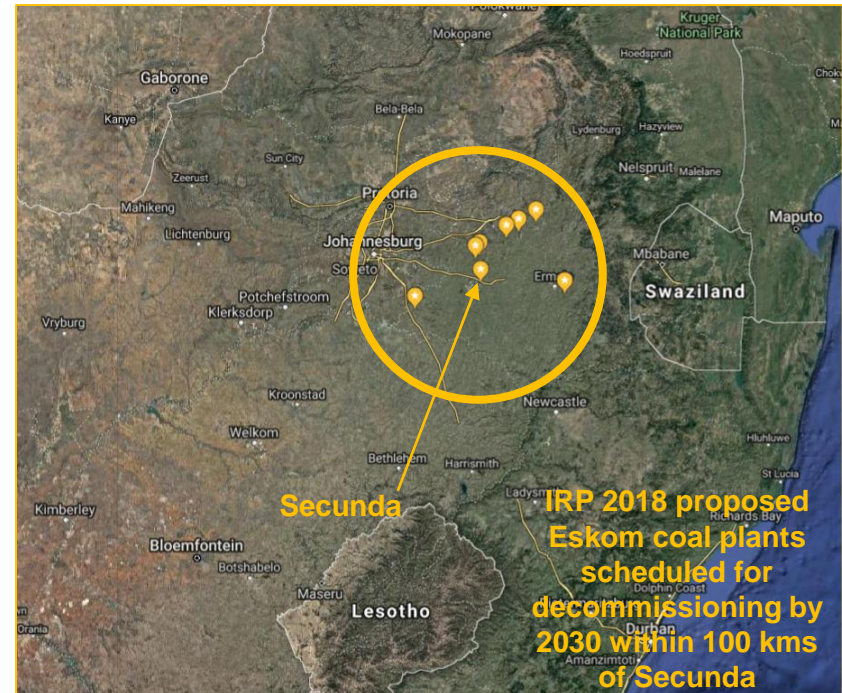
1. South Africa is currently heavily reliant on coal based energy inputs, and so in order to meet our PPD aspirations, the coal based economic sectors will be severely impacted.
2. Transitioning the vulnerable coal based sectors and localities (e.g. Mpumalanga) is just as important as transitioning the country to a lower-carbon economy.
3. The intent is to frame and position for ensuring a meaningful impact analysis to understand the long term lower carbon transition, both at specific local levels, as well as a country level.



South Africa's transition to a lower carbon economy is imperative but it must be undertaken in a holistic manner with appropriate mitigation solutions to the required response measures

Impacts on local communities where Eskom plans to decommission as per the latest draft Integrated Resource Plan (IRP 2018)

- Increased unemployment in coal based value chains as per the proposed decommissioning plan
- Sasol will also have to understand the impacts related to the decommissioning of these Eskom coal power plants – greatest impact foreseen in and around Secunda
 - Could potentially impact our operations, supply chain and logistics value chains



Holistic modelling across the full value chain is required to offer a view on interdependencies in the economy



- An appropriate model should consider the direct and indirect consequential impacts upstream and downstream of each sector/company, e.g. a Computable General Equitable Model (CGEM) type of a model.
- The sectors need to be defined as per the economic classifications, and not only environmental classifications, i.e. industry needs to be fully mapped as per the Standard Industrial Coding (SIC) system, and not only the IPCC codes
 - For example, Sasol's operations would impact the following sectors under the economic sector classification:
 - Mining (of coal and lignite – SIC210)
 - Petroleum refineries/synthesisers (SIC332)
 - Manufacture of Basic Chemicals (SIC334)
 - Manufacture of other chemical products (SIC335)
 - Production, collection and distribution of electricity (SIC411)
 - Gas distribution (SIC412)
 - Water and steam (SIC420/413)
 - Waste and recycling (across a number of SIC codes)
 - Agriculture, hunting, forestry and fishing (SIC1)
 - Transport, storage and communication (SIC7), etc.
 - Whereas, under the Environmental sector classification, Sasol's impact would be quantified only under the following categories:
 - Energy
 - Mining
 - Petroleum Refining
 - Chemicals (only Ammonia & Nitric acid)

This warrants an independent detailed modeling, to truly understand the full impact and plan for the transition to a lower carbon economy

Direct impact on Sasol of an eventual shift to a lower carbon economy and its potential knock-on effects



Short term view (2025): Impacts on Sasol based on currently proposed response measures

High level impacts:

1. Carbon tax liability between **ZAR 0.7 – 2 billion per annum** (as per current carbon tax design).
2. Sasol South Africa heading towards becoming a sunset business with review and reduction of further investments .
3. Our coal based process flow scheme of our integrated value chain means that we cannot simply transition into renewables;
 - However we can reduce our dependence on coal from an energy perspective and this is being considered (i.e. integrating renewables and using more gas as a feedstock).

Long term view: South Africa's PPD commitments outline the emissions pathway, i.e. decommissioning CTL

High level impacts of decommissioning CTL for Mpumalanga & South Africa:

1. ~ 26000 Sasol jobs impacted (2017 figures)
2. Loss of capital spend in SA (> ZAR 16 billion in 2017), leading to indirect job losses in the wider economy
3. Revenue loss to SA government due to the direct & indirect taxes paid by Sasol
4. Other indirect job losses to our service providers over a wide range of activities and skill levels
5. Uncertainty for Secunda, Embalenhle, Trichardt, who are largely dependent on Sasol Secunda CTL facility (population over 120 000)
6. ~ ZAR 595 million of social investment in SA (2017)
7. ~ 30% of SA's fuel requirements, i.e. higher fuel imports

- 1. In order to meaningfully understand the impact of the transition to a lower carbon economy and plan for the appropriate mitigation solutions, the following is required:**
 - a. Long term certainty through integrated and holistic policy making regarding the trajectory of the carbon tax, integration with the carbon budget and direction of energy policy through the various policy instruments such as the IRP, the Integrated Energy Plan (IEP), Gas Utilisation Master Plan (GUMP), etc.
 - b. Government national and sector focused initiatives that mitigate job loss and incentivize job creation.
 - c. Business plans in terms of company specific transition programmes.

- 2. There is a need to understand the full value chain of each sector's impact, including with other sectors and sub-sectors.**
 - a. It is proposed as a critical input to undertake a mapping exercise of the affected sectors and sub-sectors based on the economic classification, i.e. SIC codes.
 - b. Generate a set of assumptions and boundary conditions to define mutually agreed scenarios.
 - c. Perform an independent impact analysis.

- 3. Keep investigating opportunities to transition to a lower-carbon economy, that could result in sustaining/mitigating/creating jobs, such as:**
 - a. At a company level, Sasol currently studying the possibility of securing greater gas supply from Mozambique. This may allow South Africa to position renewable & gas power generation in Mpumalanga and other coal affected areas, where grid networks and infrastructure already exists.
 - b. Consider promoting Mpumalanga as the choice for integrating renewables in the energy mix, given the existing power grid infrastructure.

THANK YOU

