



**PRESIDENTIAL
CLIMATE COMMISSION**
TOWARDS A JUST TRANSITION

Work Plan to develop PCC Recommendations on Energy Mix & Planning System

In the manner of the support we
provided to the NDC process the
PCC will make recommendations
on energy mix and energy
planning in South Africa

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Why is it needed?

The 2019 IRP needs to be updated in line with rapidly changing technology and costs, as well as brought in line with an economically feasible emissions trajectory



A transparent, consultative process

The PCC will work with expert stakeholders to propose an energy plan, including a desired energy mix and the processes needed to update and implement energy planning in South Africa.



The project plan

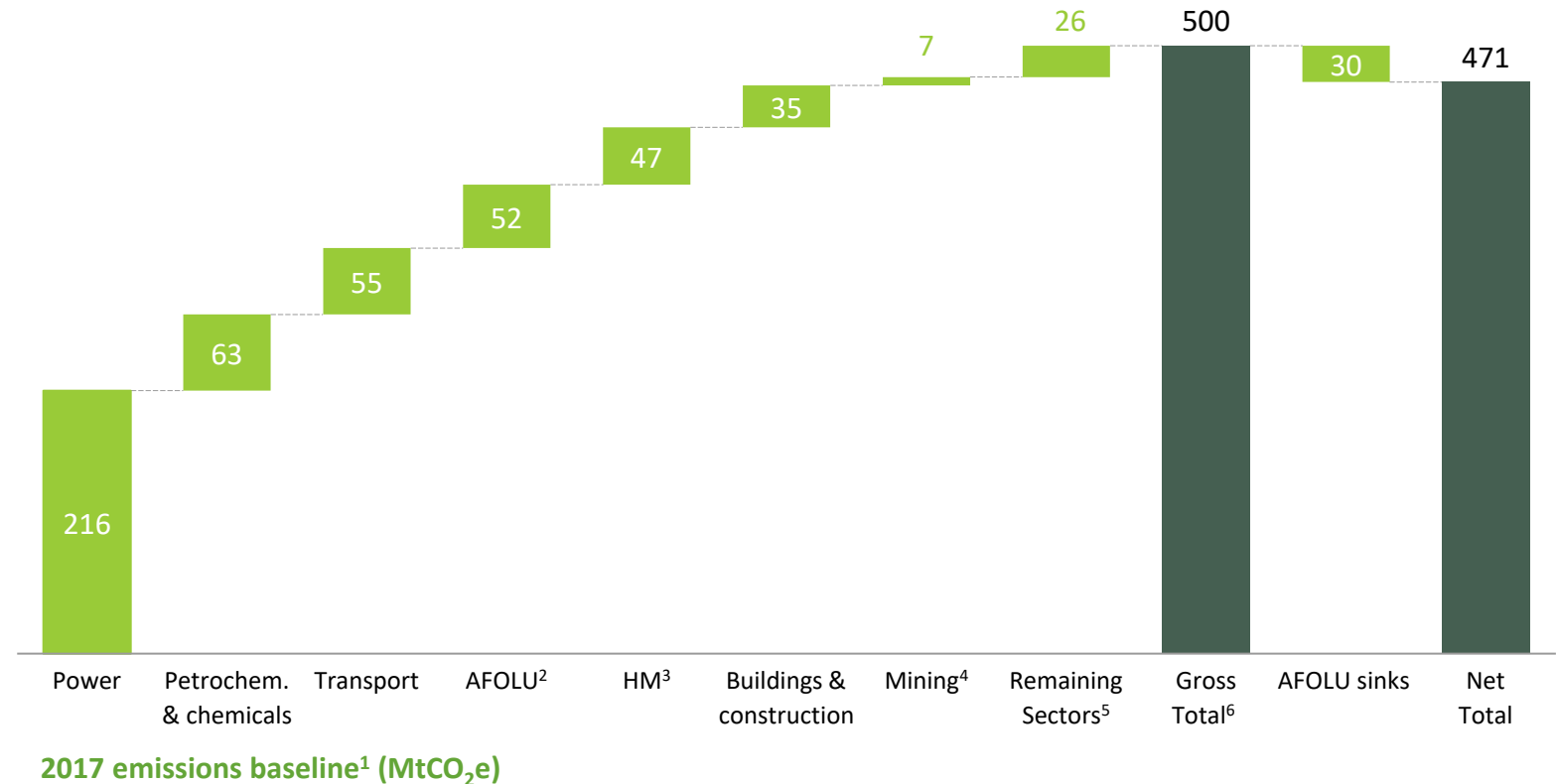
The project is divided into 3 phases. Research and capacity building, consultative dialogues and working with commissioners on a recommendation report.



Electricity, largely driven by coal, is key to SA's transition

Electricity generation contributes the majority of South Africa's emissions

46%
of emissions
from power



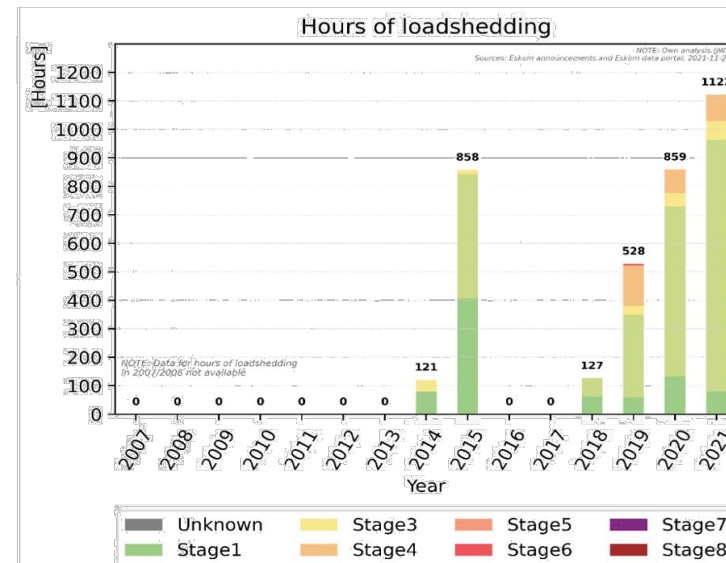
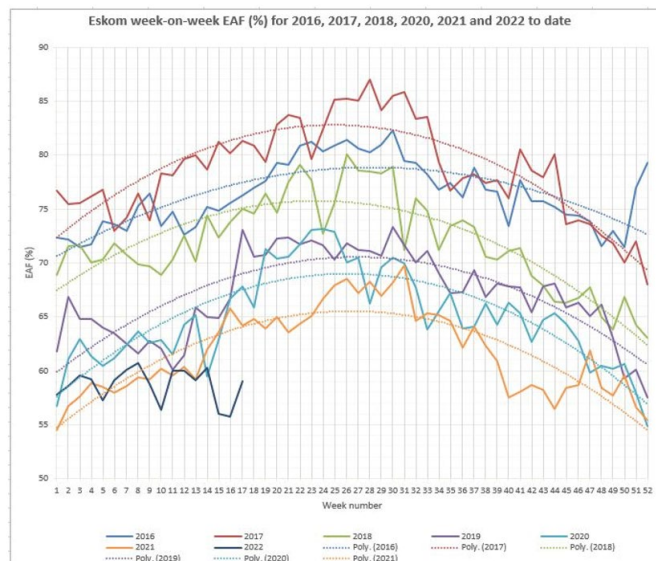
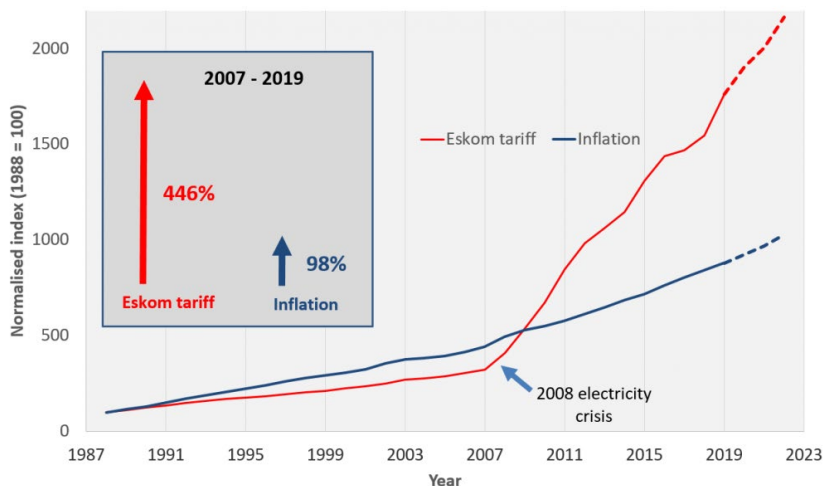
Coal use is critical for short-medium term energy security and its phase down affects the competitiveness of many of South Africa's critical employment and export industries. It is something that must be carefully planned and managed. In the long-term phase down of coal is important to electricity affordability and competitiveness.



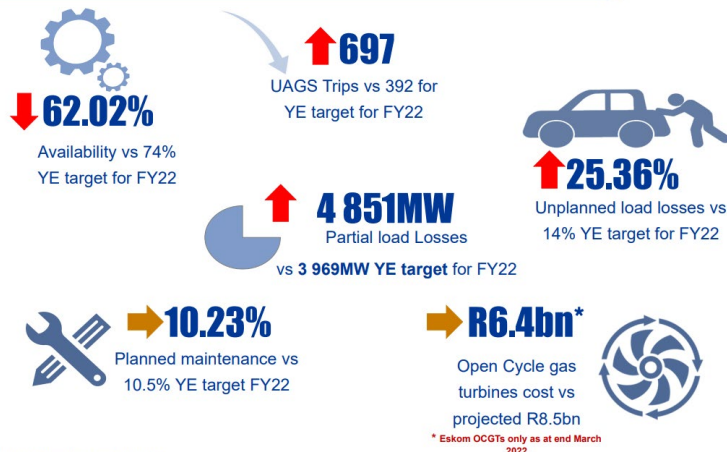
Electricity affordability and security is critical to the economy

Load shedding, impacts of electricity pricing, coal closures and climate change have put the future of power systems in South Africa top of mind

Eskom average tariff vs. inflation (CPI)



Generation performance for End March 2022 reflects the challenges being faced with plant availability and reliability



“ Eskom will close around 50% [22 GW] of its coal generation plant by 2035.”

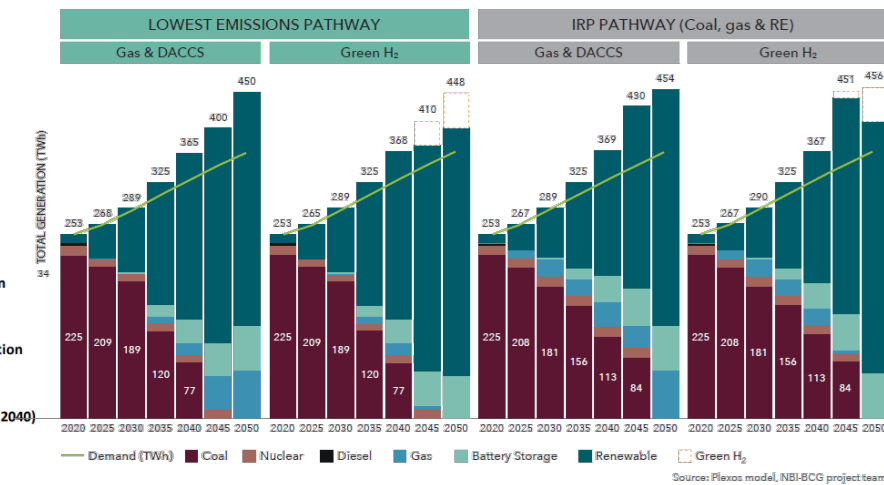
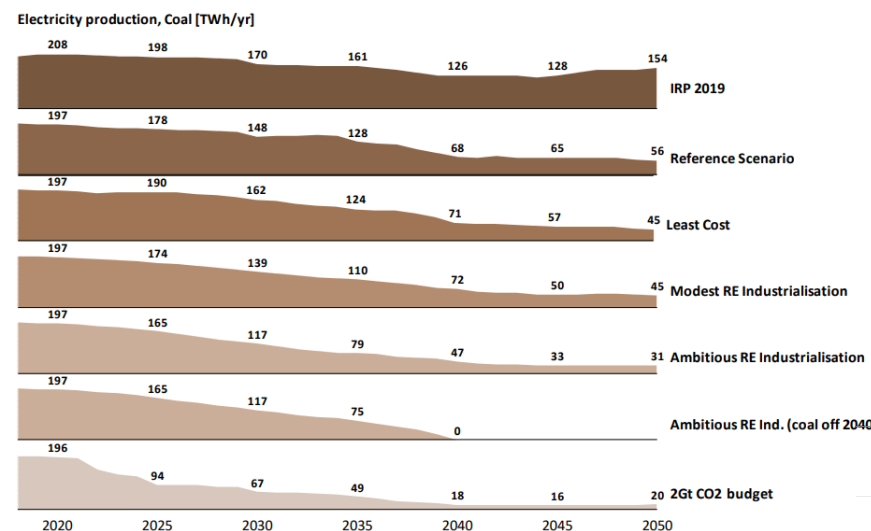
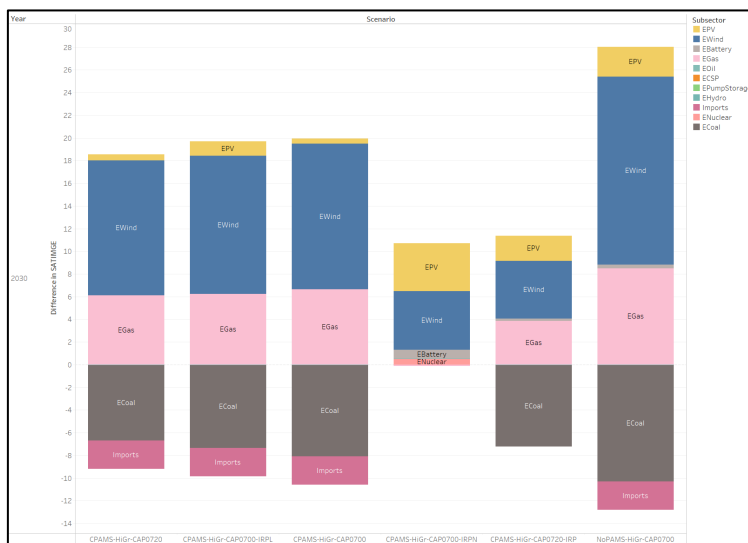
Jan Oberholzer, Chief Operating Officer, Eskom Holdings Ltd.

Source: <https://poweroptimal.com/2019-update-eskom-tariff-increases-vs-inflation-since-1988-with-projections-to-2022/>; Chris Yelland, 09 May 2022. In Daily Maverick. <https://www.dailymaverick.co.za/article/2022-05-09-sa-needs-a-marshall-plan-to-solve-its-load-shedding-crisis-or-face-a-national-disaster/>; Eskom, 2022. May System Status and Outlook Presentation. <https://www.eskom.co.za/wp-content/uploads/2022/05/State-of-the-SystemBriefing11May2022.pdf>



South Africa is blessed with a strong modelling capability

Future analysis can take advantage of this expertise to consider a range of scenarios

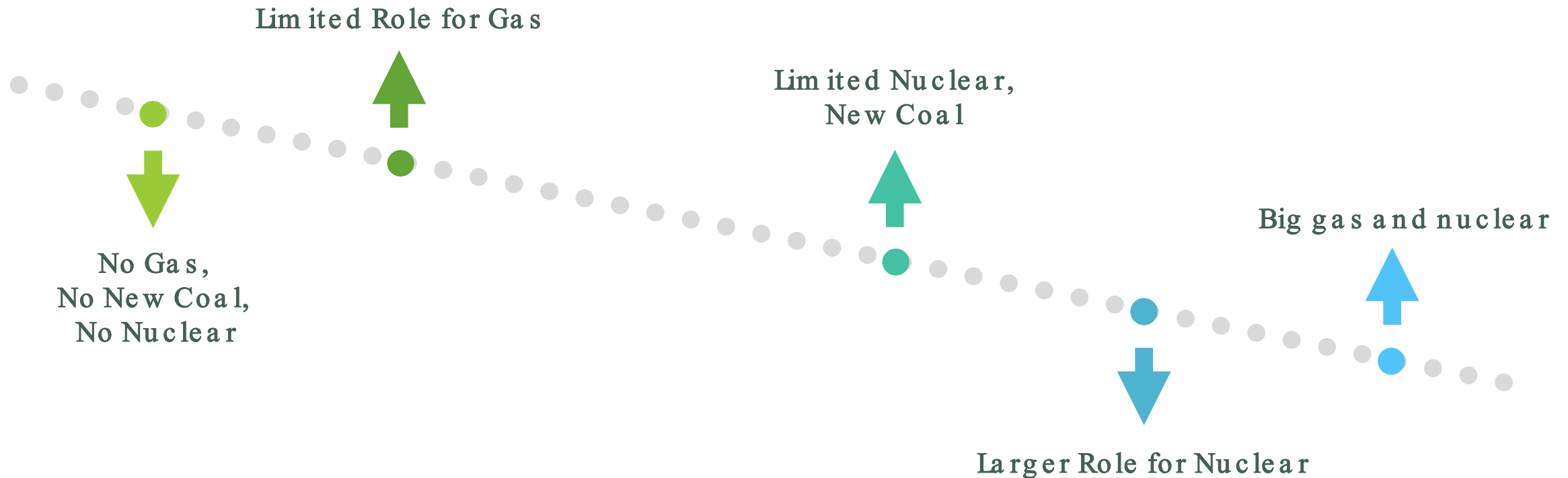


To meet our NDC commitments and move to a net-zero economy, the expertise within DMRE, Eskom, UCT, NBI and CSIR-Meridian and others can be used to objectively consider scenarios and technology options.



There are areas of significant public debate

There remains significant disagreement between stakeholders on key issues of energy planning



Aligning, or at the least unearthing differing assumptions, on key issues will be a significant positive outcome of the process



While demand for coal may drop off the future of mining is bright

Mining exploration and beneficiation of green minerals is key to South Africa's future

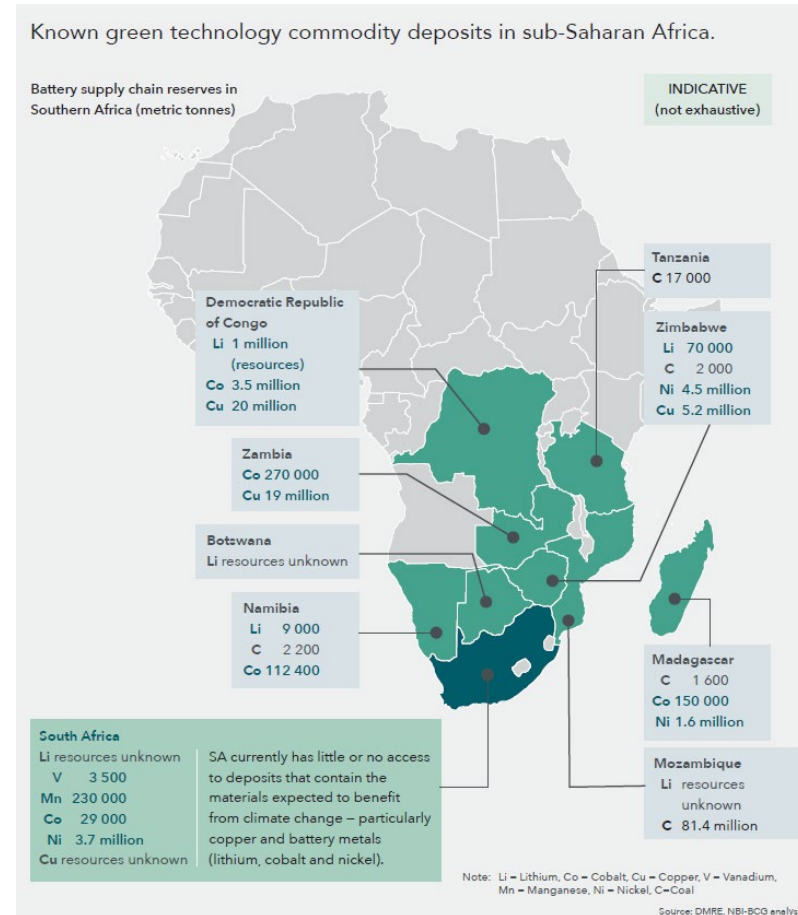
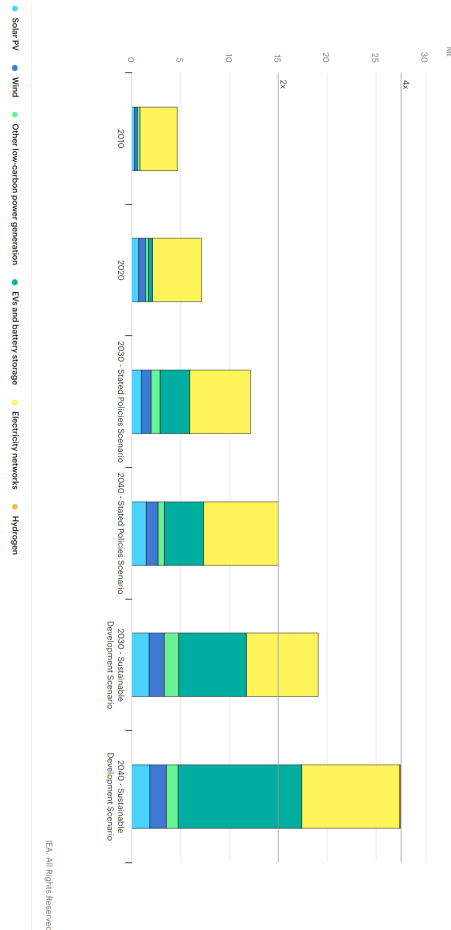


Figure 9: Transport and trade corridors of Africa



The International Energy Agency notes that the demand for “green” minerals could increase 6 fold

Although a significant opportunity for South Africa, not all of that demand can be met by South Africa (source NBI)

Who in Africa will position themselves as an export hub and potentially a beneficiation hub (required significant investment in ports and rail)



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The project plan

The project is divided into 3 phases. Research and capacity building, consultative dialogues and working with commissioners on a recommendation report.



Recommendations on an energy plan and transition and process is grounded in the PCC mandate and principles of transparency and science

Our approach

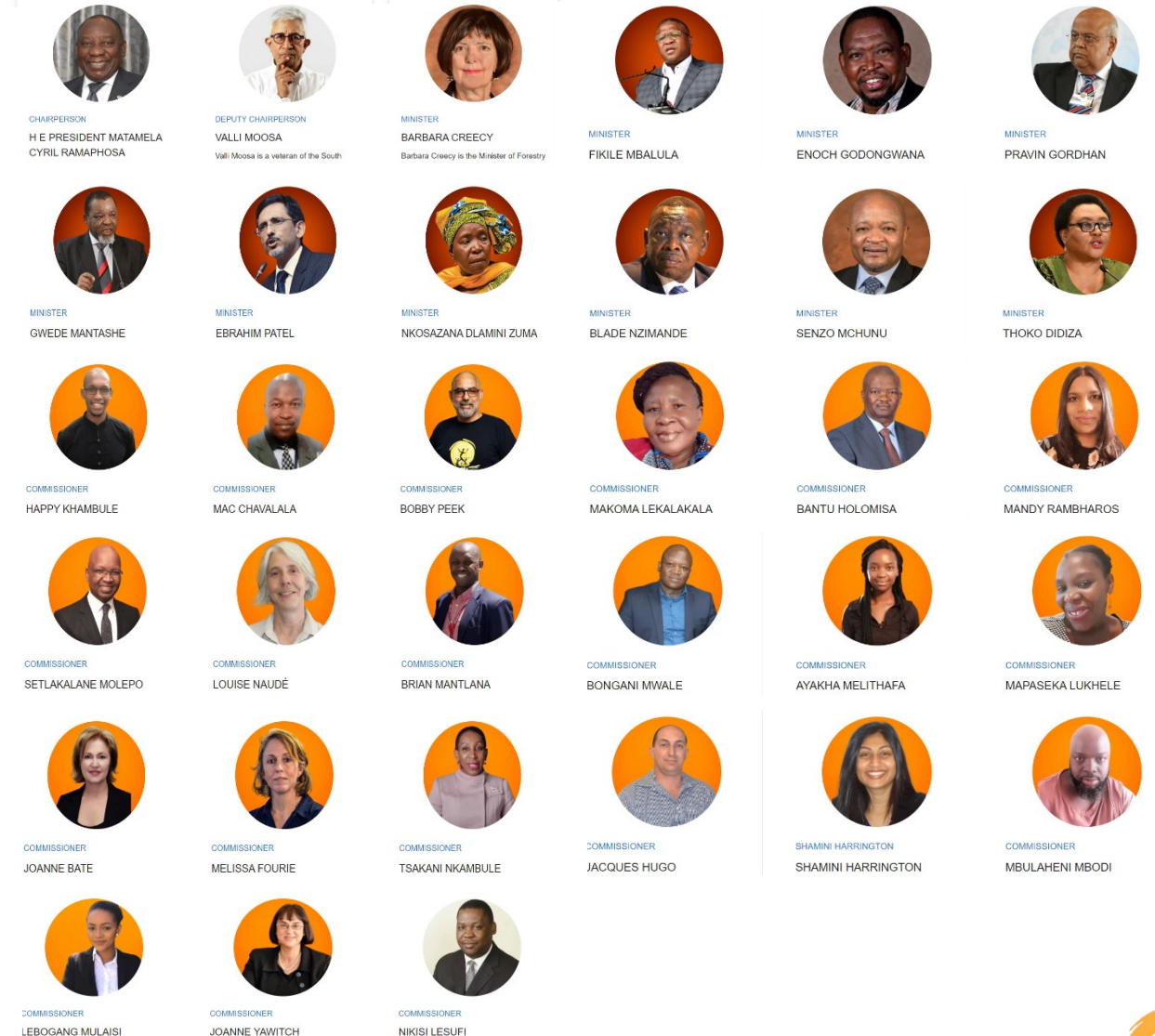
The Presidential Climate Commission is charged with building a social partnership around the just transition, built on a solid foundation of science and research. The commitment to improving the lives and livelihoods of all South Africans is central to our mandate, particularly those who have been historically marginalised, or those who will be most affected by the transition in the years ahead.

Our work is guided by:

- Robust research and analysis: we conduct rigorous and evidence-based research and communicate our findings transparently
- Engagement: we work in an open and transparent manner with all stakeholders, with the aim of building social consensus around the complex and challenging decisions required to successfully navigate a just transition



Commissioners
agreed in the
February PCC
strategy session
that this is a key
area of activity
for the PCC



The PCC will:

1.

make recommendations on an energy mix and energy governance that enables us to achieve the emissions trajectory set out in our NDC.

2.

base its recommendations on best available science and modelling that factors all aspects of a just energy transition - affordability, security, job creation and decarbonisation.

3.

PCC will do this in a participatory and inclusive way that enables participation by all social partners, and draws conclusions in a transparent and participatory manner.



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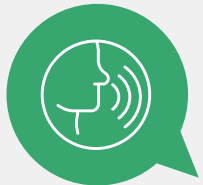
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A 3 phased process to establish the science and build consensus

The PCC will commission a series of research papers and dialogues to support the commissioners in drafting recommendations to the President

August 2022

May 2022 – Research and capacity building

The PCC will commission a series of research papers to support public dialogues

Oct

Nov

Synthesis
Workshop

Commissioner
recommendations
to President

September 2022

June 2022 – Public Dialogues

The PCC will host a series of public dialogues, as we did with the NDC, to drive a consensus view on energy planning and the energy mix

November 2022


September 2022 – Commissioner report writing

The PCC commissioners, with the support of the secretariate, draft a set of recommendations to the President



Research and Capacity Building

A well research fact base allows for equal engagement and accurate outcomes



Review of existing power modelling studies

A review of the underlying assumptions and processes effecting the interpretation and comparability of existing modeling studies.



The implications of air quality regulations on coal closure

How do air quality regulations impact the timing and costs of coal closure and the electricity price



A review of the energy regulation environment

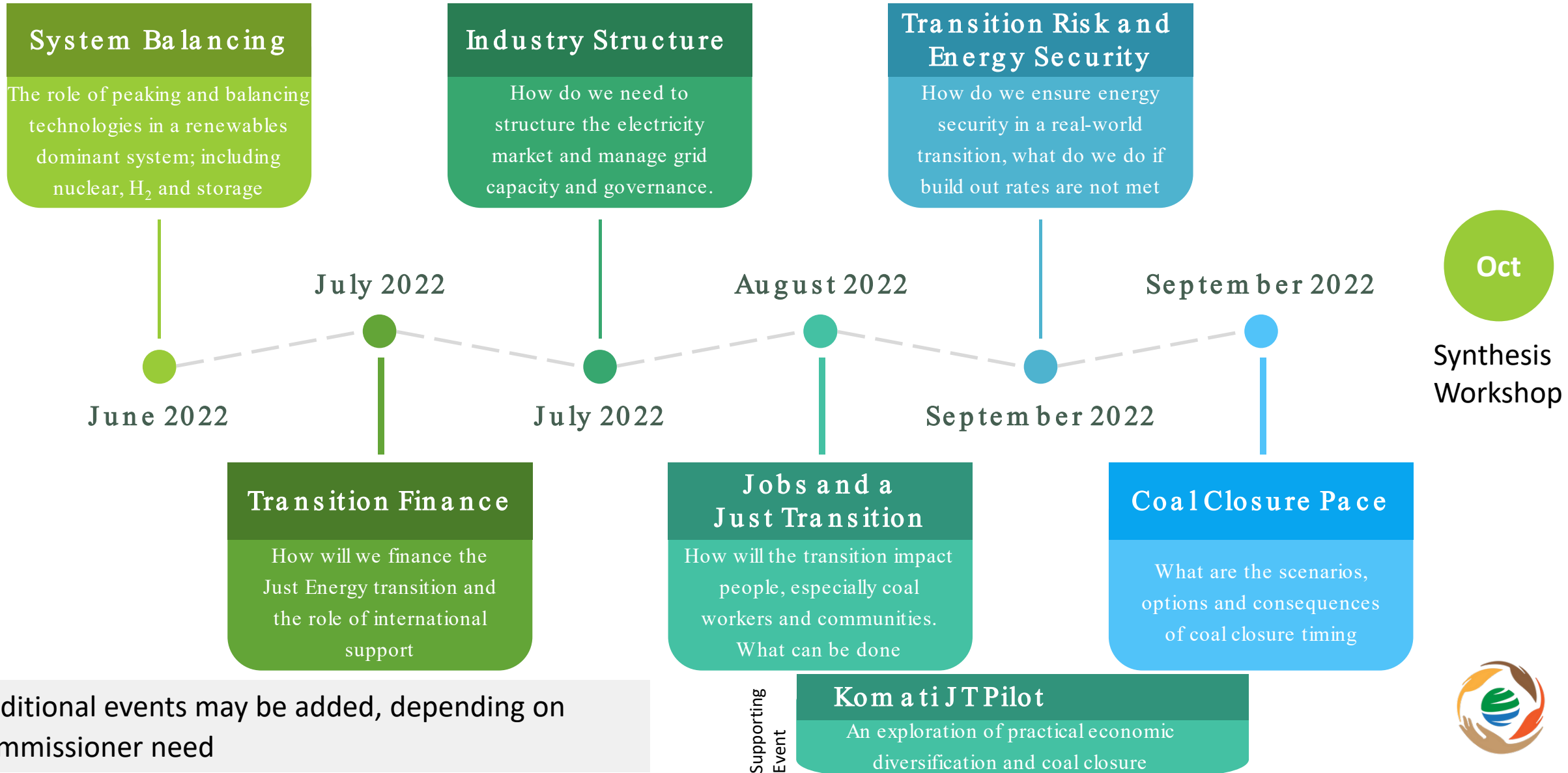
A review of how energy is regulated across various spheres of government. This is a key input into energy planning processes.

Each dialogue will also have a brief pre-read input paper



Public Dialogues

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper



Commissioner Recommendations Report

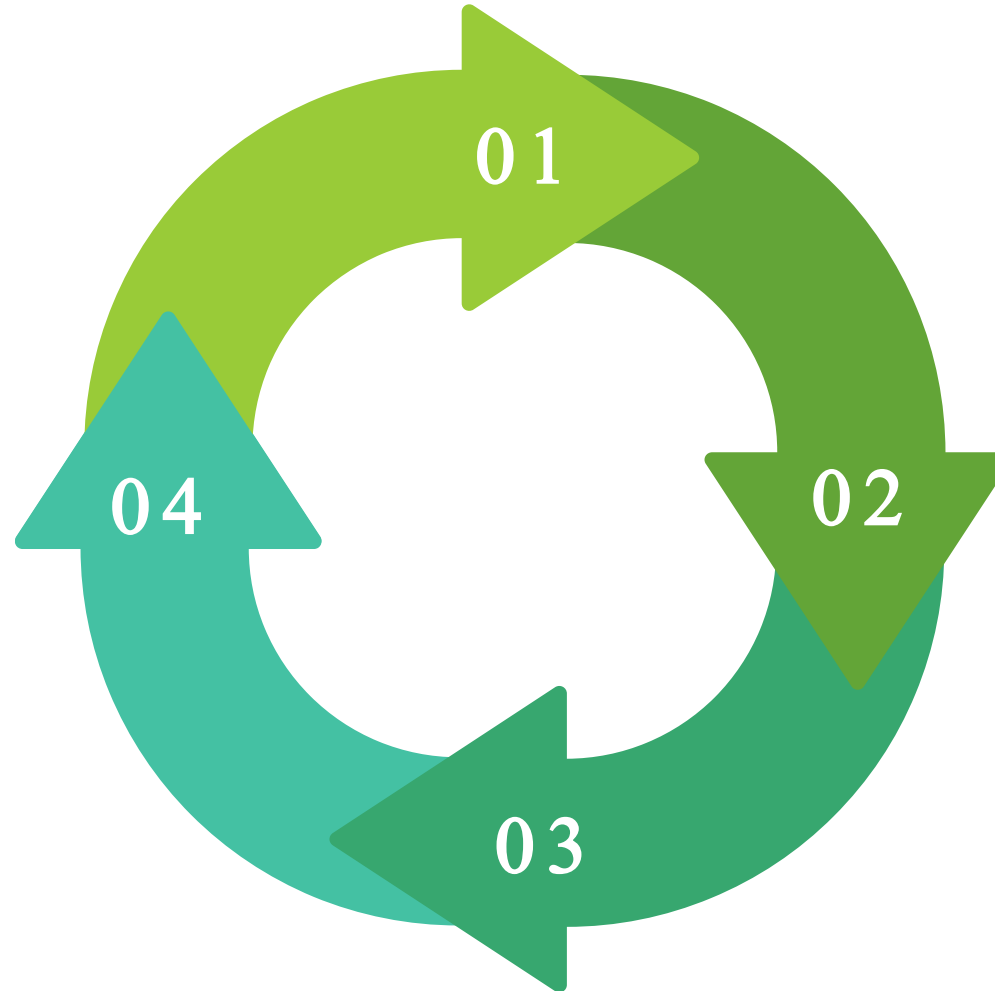
The PCC secretariate will support the commissioners, and public, in making recommendations to the President

Secretariate Drafting

The secretariate will summarise the findings of the research papers, briefing documents and dialogue sessions into a set of recommendations. This will be complimented by engagement with commissioners and the mitigation working group.

Final Commissioner Review

The secretariate will update the recommendations report based on feedback from the public and will present this to the commissioners for their final review and sign-off.



Commissioner Review

PCC commissioners will review the draft recommendations report and provide feedback.

Public Review

The secretariate will update the recommendations report based on commissioner feedback and enable a period of public input into the recommendations report.

The final recommendations report will be presented to the President and cabinet in November 2022





PRESIDENTIAL
CLIMATE COMMISSION
TOWARDS A JUST TRANSITION

Thank You
and
Questions

Public Dialogue Detail – System Balancing

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper

System Balancing

The role of peaking and balancing technologies in a renewables dominant system; including nuclear, H₂ and storage



15th June 2022

Briefing Paper to cover:

- Current modelled scenarios
- The need for peaking
- Peaking options and storage
- The role of gas
- The role of nuclear
- The role of CCS
- The opportunity of H₂

Session Chair:

- Commissioner Joanne Yawitch (NBI)

Potential Speakers:

- Commissioner Joanne Yawitch (NBI)
- Professor Andrew Marquard (UCT)
- Commissioner Brian Mantlana (CSIR)
- Mr Jan Oberholzer (Eskom)
- Mr Tseliso Maqubela (DMRE)

Event concept: To discuss the differences between baseload and flexible systems and the implications of transition between them. In particular to focus on peaking technologies and the role of gas, nuclear and CCS. Speakers are experts in transition and transition modelling with the critical participation of the DRME and Eskom.



Public Dialogue Detail – Transition Finance

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper

7th July 2022



Transition Finance

How will we finance the
Just Energy transition and
the role of international
support

Briefing Paper to cover:

- Status of JET-P
- Governance Structure
- What is needed to reach the lower bound of the NDC
- Finance needs for the transitions
- Options under consideration for the JET-P

Session Chair:

- PCC Commissioner Joanne Bates (IDC)

Potential Speakers:

- Mr Daniel Mminele (JET-P)
- Ms Nazmeera Moola (NinetyOne)
- Mr Patrick Dlamini (DBSA)
- Mr Gert Kruger (FirstRand)
- Mr Ismail Momoniat (Treasury)
- Ms Mafalda Duarte (CIF)

Event concept: Financing the just energy transition is extremely challenging. This event will look at finance options, touching on Eskom debt, and the role of international support. It will be topical to deal with the activities of the JET-P. Speakers are drawn from different components of the financial system.



Public Dialogue Detail – Industry Structure

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper

Industry Structure

How do we need to structure the electricity market and manage grid capacity and governance.



28th July 2022

Briefing Paper to cover:

- Industry structure options
- Grid investment requirements
- The role of the System Operator
- Eskom debt
- Eskom restructuring options and progress
- Municipal challenges
- Implications for electricity pricing

Session Chair:

- Mr Mandla Nkomfe, advisor to Minister DPE

Potential Speakers:

- Minister Pravin Gordhan
- Mr Andre de Ruyter (Eskom)
- Debt Finance Expert
- Municipal Representative
- Mr Roger Baxter (MINCOSA)
- Mr Rudi Dicks (Presidency)
- NERSA

Event concept: Part of the transition is dealing with the restructuring of Eskom and how we deal with Eskom debt. What options do we have for restructuring the sector and what are the implications of different strategies for dealing with Eskom debt. The complications with municipal revenue and impacts must be considered as well as the need to finance the transmission grid. Speakers have researched this area or are impacted by this change.



Public Dialogue Detail – Jobs and a Just Transition

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper

18th August 2022



Jobs and a Just Transition

How will the transition impact people, especially coal workers and communities.
What can be done

Briefing Paper to cover:

- Current work
- The need for green industrialisation
- Reskilling and retraining
- The role of labour markets and collective bargaining
- Sector Jobs Resilience Plans

Session Chair:

- Commissioner Lebogang Mulaisi (COSATU)

Potential Speakers:

- Mr Mike Levington (SAREM)
- Commissioner Bongani Mwale
- Commissioner Nikisi Lesufi
- Commissioner Ayakha Melithafa
- Commissioner Mac Chavalala
- Mr Saul Levin (TIPS)
- Mr Mike Mulcahy (Green Cape)

Event concept: The impact of the transition on communities and jobs is paramount. What research has been done on jobs and reskilling. What are differing stakeholder perspectives on the primacy of job creation. Speakers are drawn from the research, implementation and labour communities.



Public Dialogue Detail – Transition Risk and Energy Security

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper

Transition Risk and Energy Security

How do we ensure energy security in a real-world transition, what do we do if build out rates are not met



8th September 2022

Briefing Paper to cover:

- The scale of RE roll-out
- Technology dependencies and uncertainty
- Global commodity shortages
- Uncertainty in the modelling
- Energy security scenarios

Session Chair:

- Professor Mark Swilling (Stellenbosch University)

Potential Speakers:

- Mr Jacob Mbele (DMRE)
- Eskom expert
- Mr Kesh Mudaly (BCG)
- Mr Jared Write (Independent)
- Mr Andrew Marquard (UCT)
- Mr Grove Steyn (Meridian)
- IEA Representative

Event concept: Energy transitions are extremely complicated and no one could argue that the real world is somewhat different to that modelled. What would be the implications of failing to implement normative model outcomes and what are some of the risk management approaches we could take. Speakers are drawn from the research community and from Eskom.



Public Dialogue Detail – Coal Closure Pace

Public dialogues will be commissioned to address key issues of the transition, each supported by a briefing paper

29th August 2022



Coal Closure Pace

What are the scenarios,
options and consequences
of coal closure timing

Briefing Paper to cover:

- Differences in modelled closure dates
- Carbon budgets and the need for early closure
- Closure schedule scenarios
- Financial implications
- Implications for coal jobs

Session Chair:

- Mr Saliem Fakir (ACF)

Potential Speakers:

- Mr Saliem Fakir (ACF)
- Ms Jarredine Morris (CT)
- Ms Reitumetse Molotsoane (NBI)
- Mr Mbulaheni Mbodi (NUMSA)
- Eskom Expert

Event concept: What are the various scenarios for coal closure and what impacts do they have on jobs and on South Africa's international commitments and ability to attract financial support. Speakers from the modelling and research community, as well as from Eskom.

