



ENERGY ISSUES AND IMPLICATIONS FOR MACROSTABILITY WORKSHOP

ELECTRIC SECTOR INSTITUTIONAL ARRANGEMENTS AND GOVERNANCE

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21CPP – South Africa
April 22, 2016



SOUTH AFRICA, NREL AND THE 21ST CENTURY POWER PARTNERSHIP

- The South Africa program connects South African stakeholders with an international community of expertise.
- Activities: demand-driven technical assistance program; network building and information exchange; sharing of global best practices; collaboration on Reports by multi-country author teams to advance global dialogue

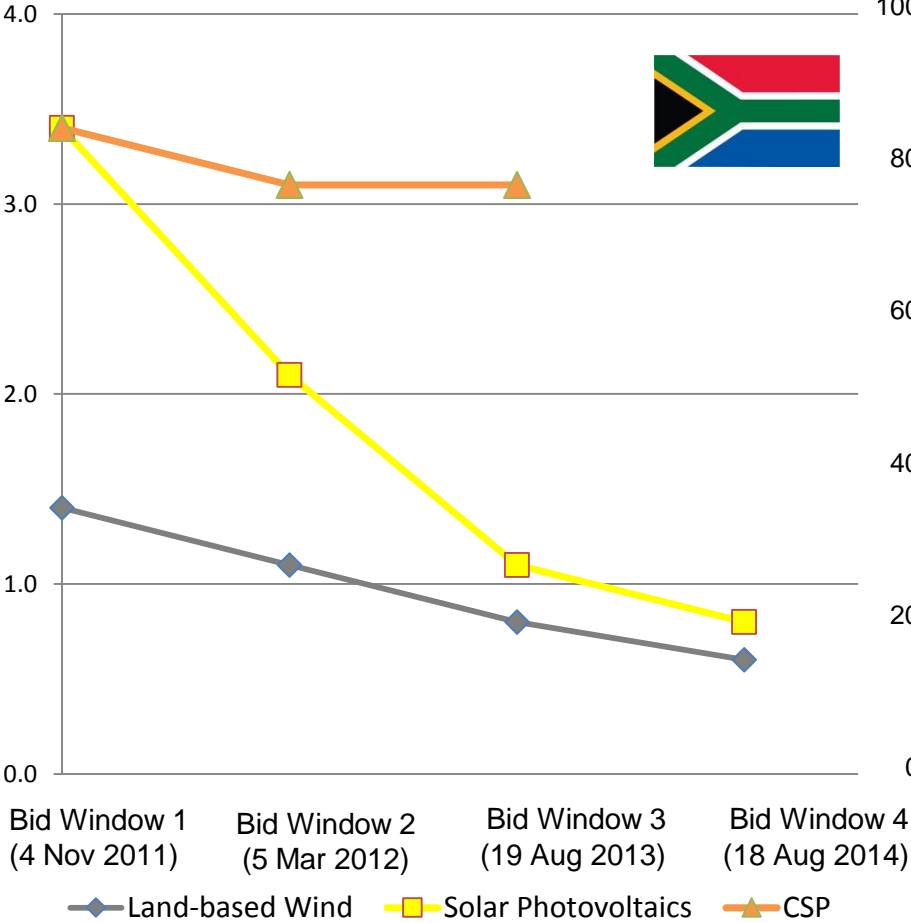


EVOLVING DEFINITIONS OF POWER SECTOR ECONOMIC EFFICIENCY

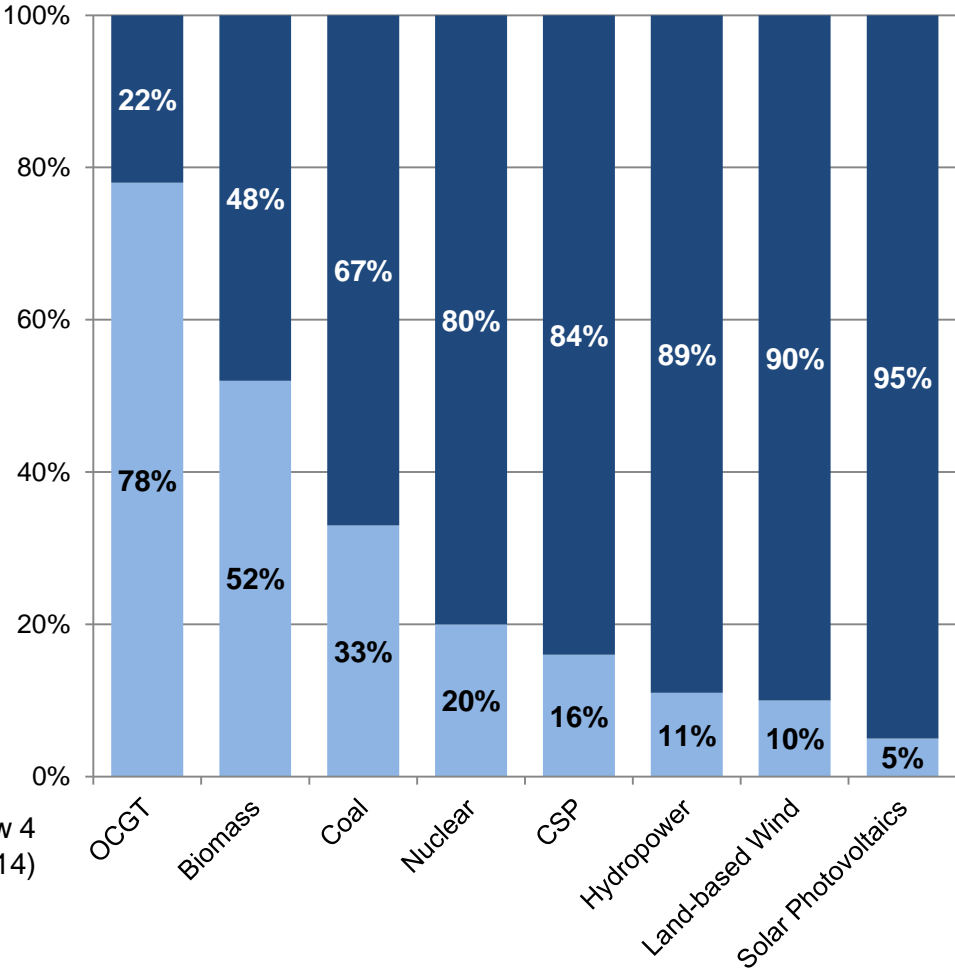
- Technology disruption driving evolution in the meaning of (and means to) “efficiency”
- Increasing need to:
 - Account for technology disruption, price evolutions, and uncertainty/risk
 - Align utility interests with system cost efficiency
 - Ensure generation investment bankability
 - Develop new concepts for cost recovery
 - Address stranded assets

EVOLVING PROJECT BANKABILITY REQUIREMENTS

**Average Tariff for REIPPPP
 ZAR / kWh (May 2015 ZAR)**

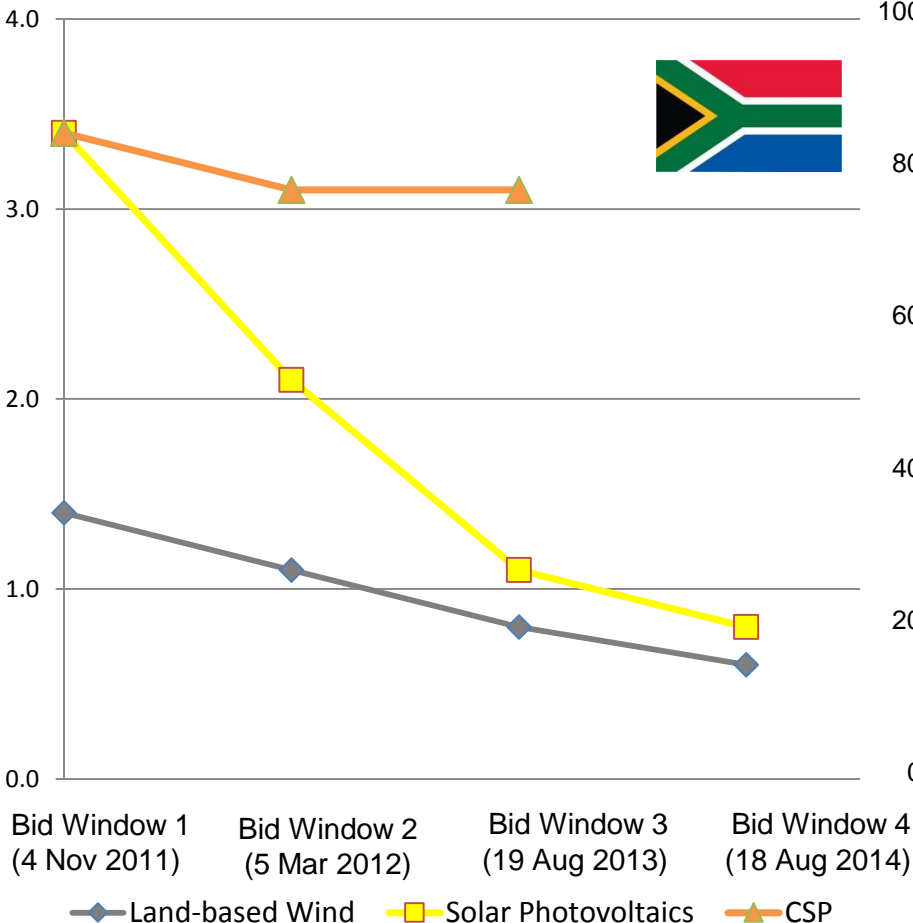


■ Variable Costs ■ Fixed Costs

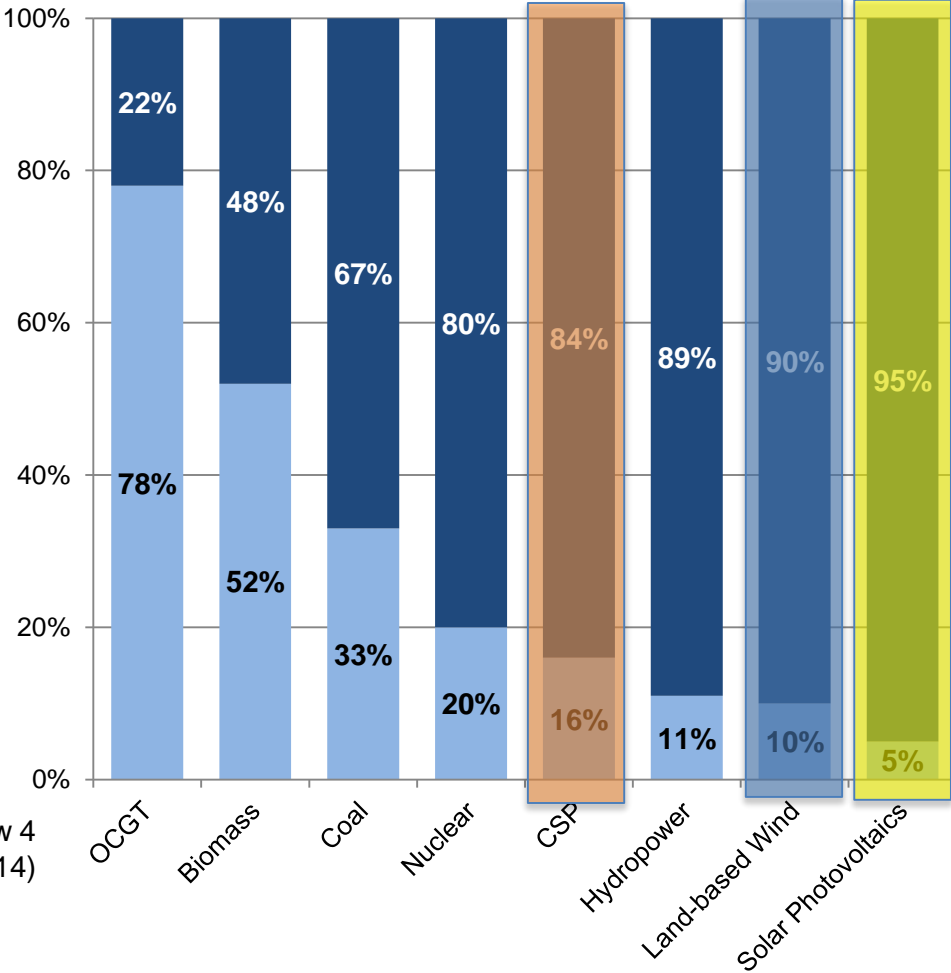


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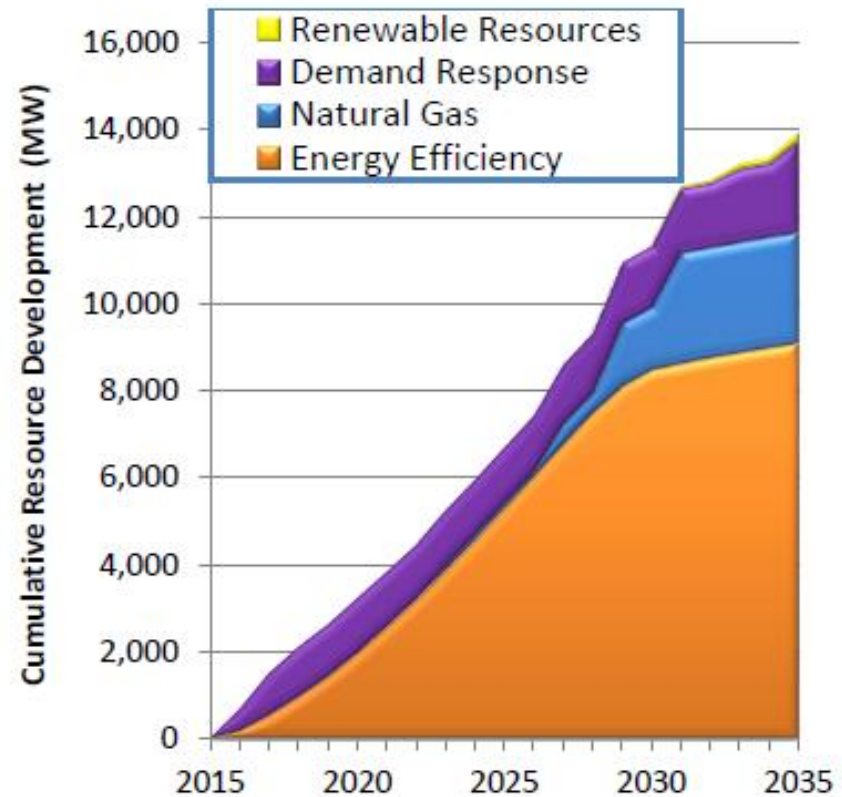


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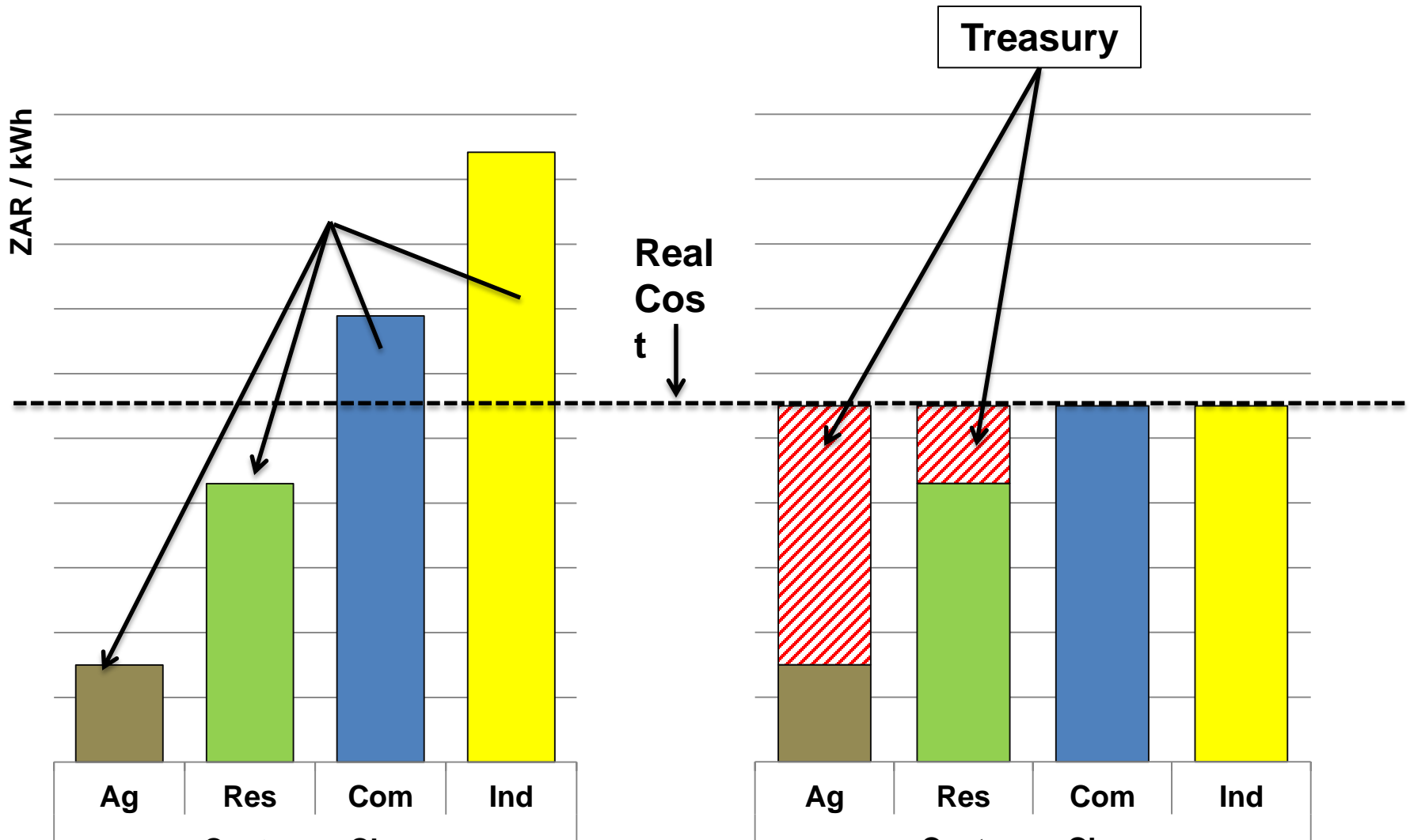


ENERGY EFFICIENCY

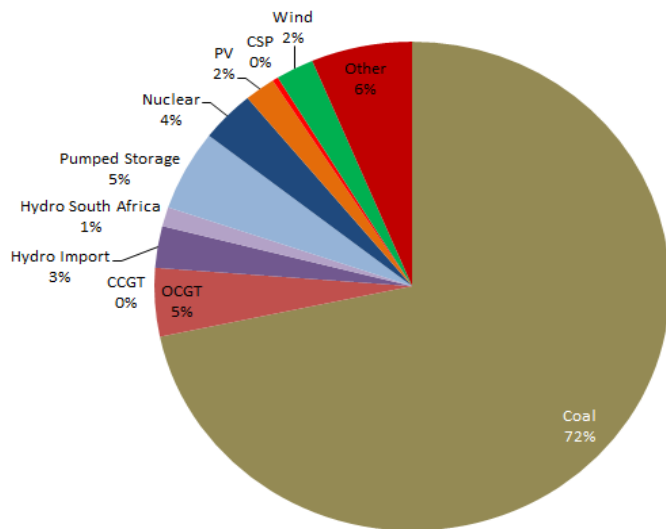
Thought Experiment: Large-scale rollout of customer energy efficiency program



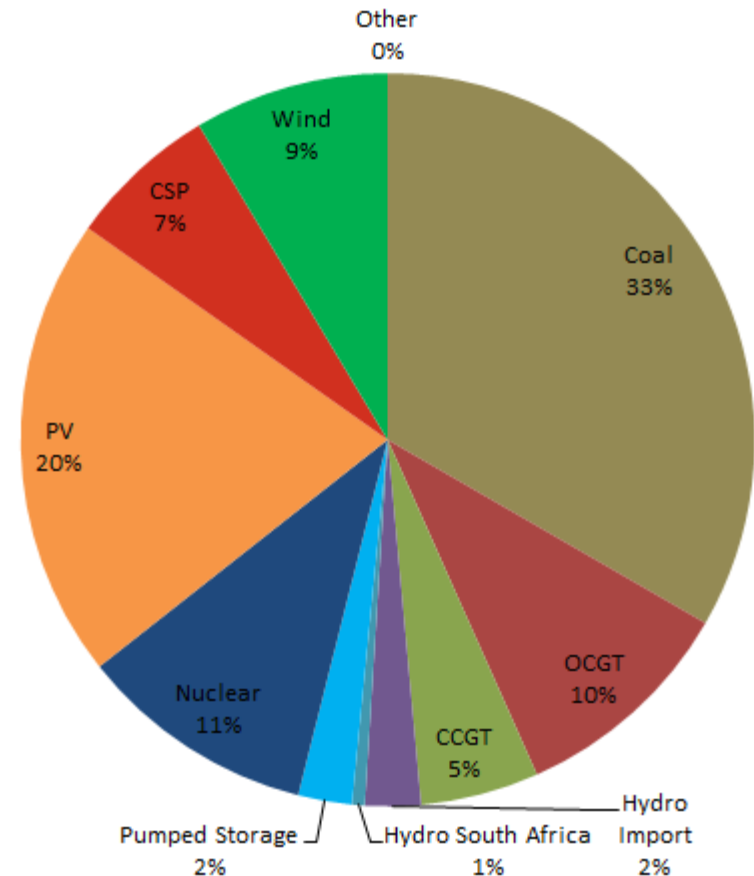
UTILITY COST RECOVERY APPROACHES



WHERE IS Eskom GOING?

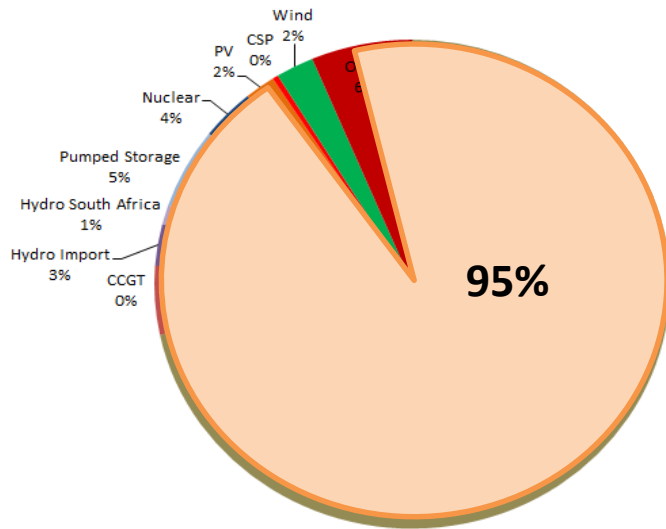


~40,000 MW
Today (2015)

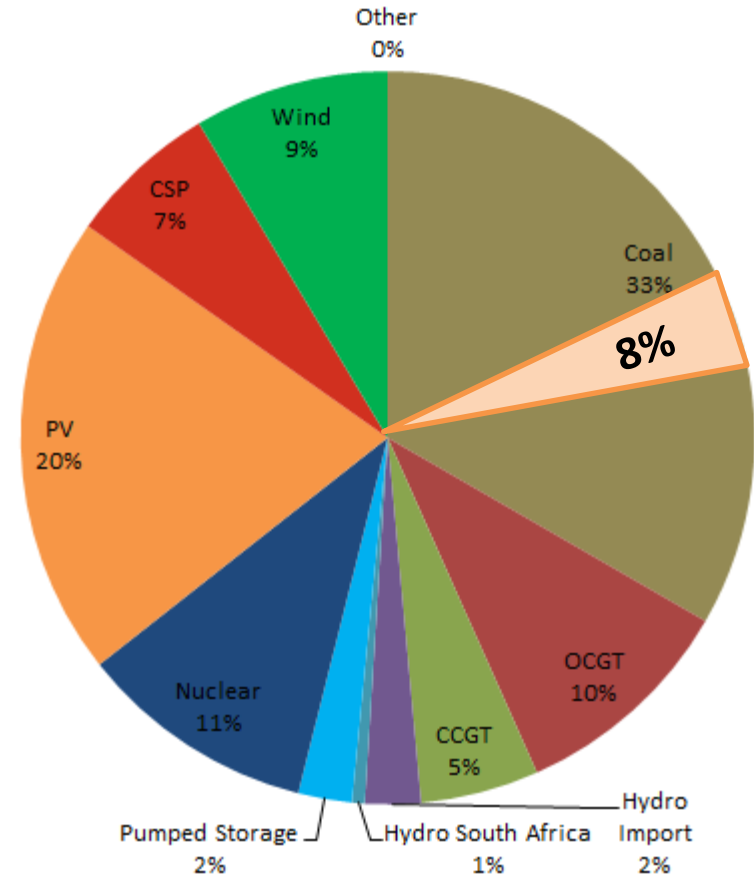


~120,000 MW
Future (2050)

WHERE IS Eskom GOING?



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Today (2015)



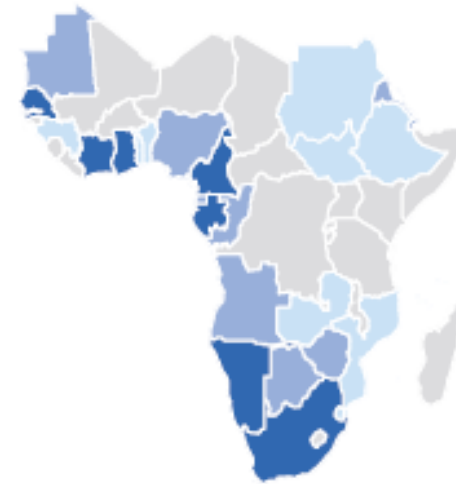
~120,000 MW
Future (2050)

WHERE IS ESKOM GOING?

In a “wires-only” future, can Eskom be a growing and profitable enterprise?



Sub-Saharan Africa electrification rates⁵



Source: McKinsey: Brighter Africa

- **Not all “ISMO” futures are created equal**
- Large diversity of end points that meet the definition of ISMO

ISMO AND AN ESKOM DEVELOPMENTAL ROLE – IS IT IRRECONCILABLE?

- Example: **Mexico**

