

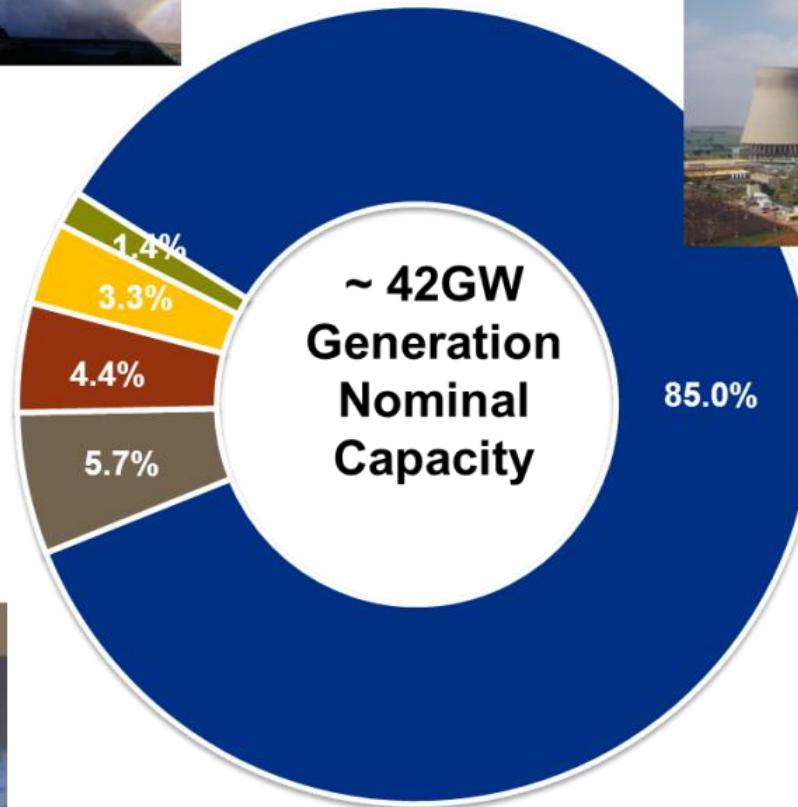
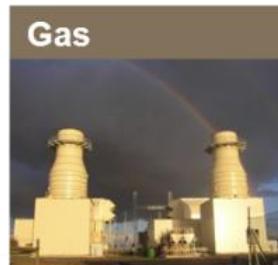
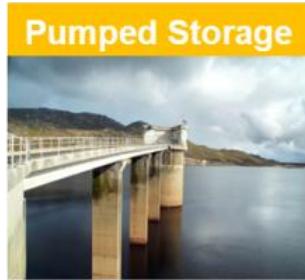
South Africa Electricity Supply Industry An Overview

April 2016

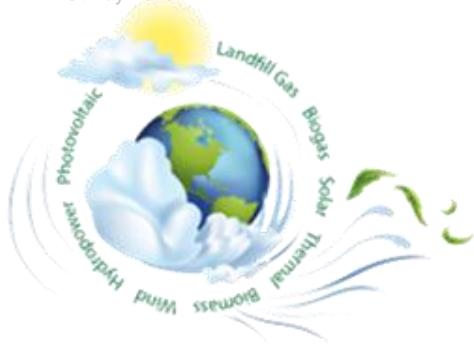


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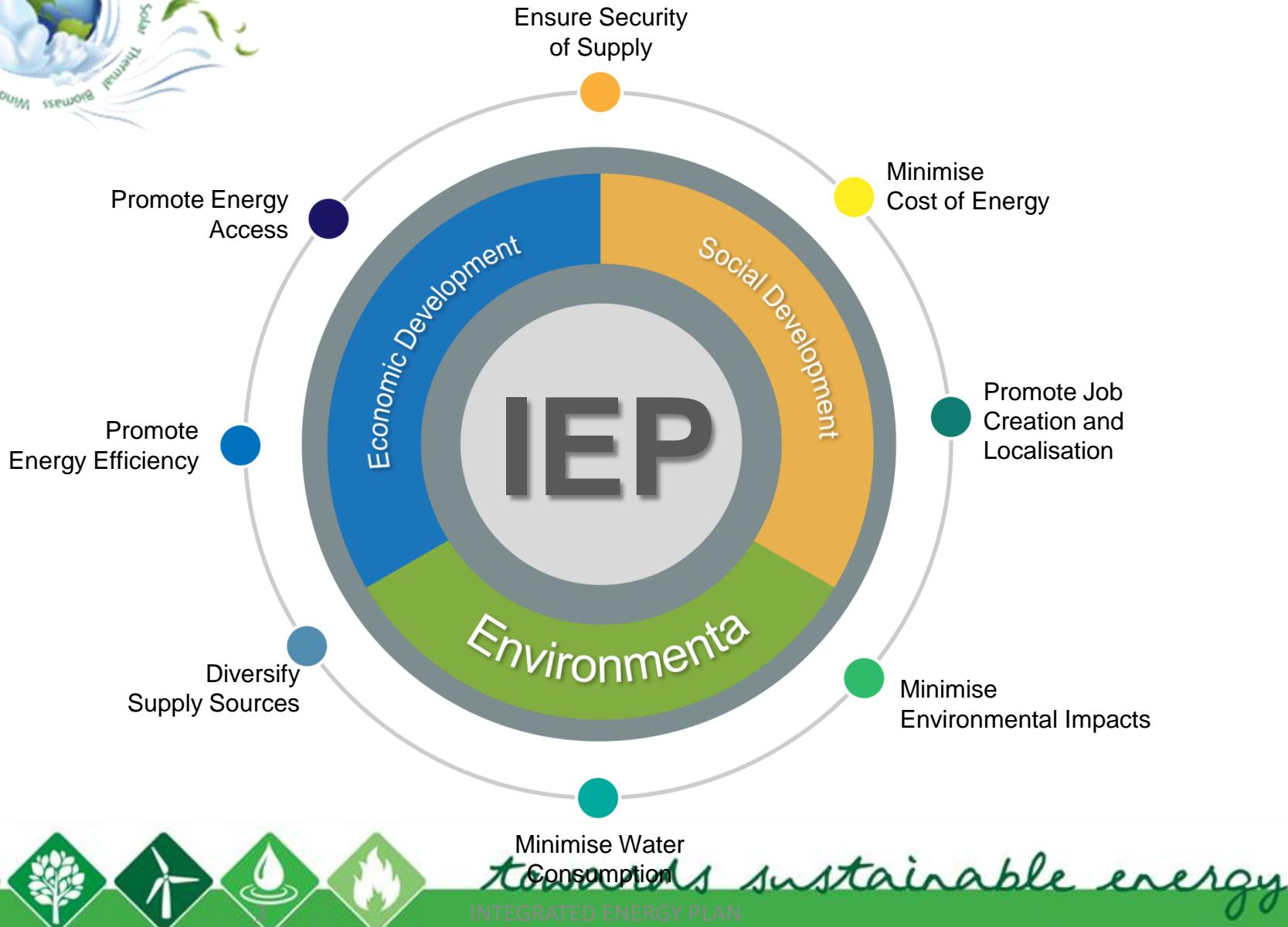
Current Power Generation plant mix



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Planning objectives





Informal settlements - energy access challenge

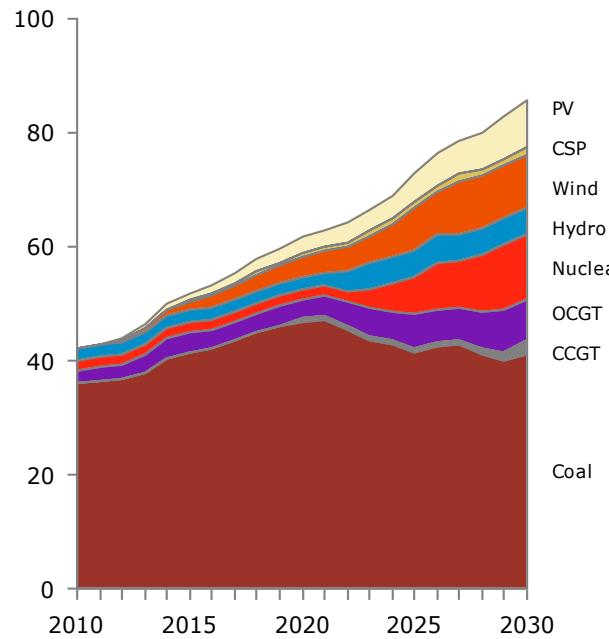




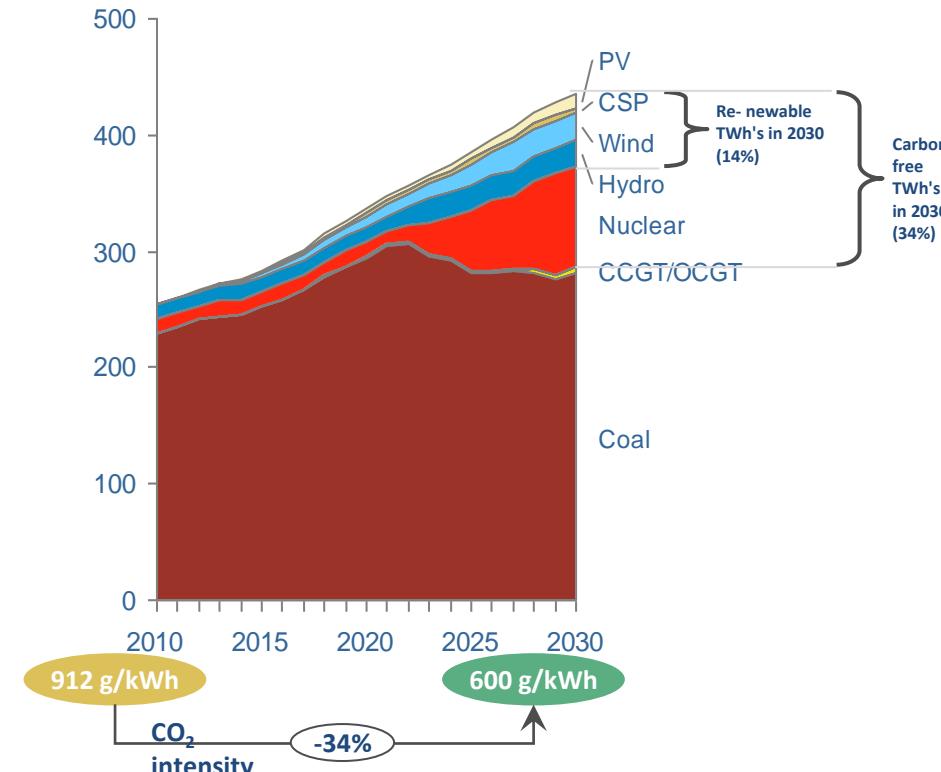
Changing the Energy Mix and Reducing Carbon

Coal and nuclear are still the backbone of the energy supply

Capacity installed in GW¹



Electric energy supplied in TWh p.a.



Source: IRP 2010

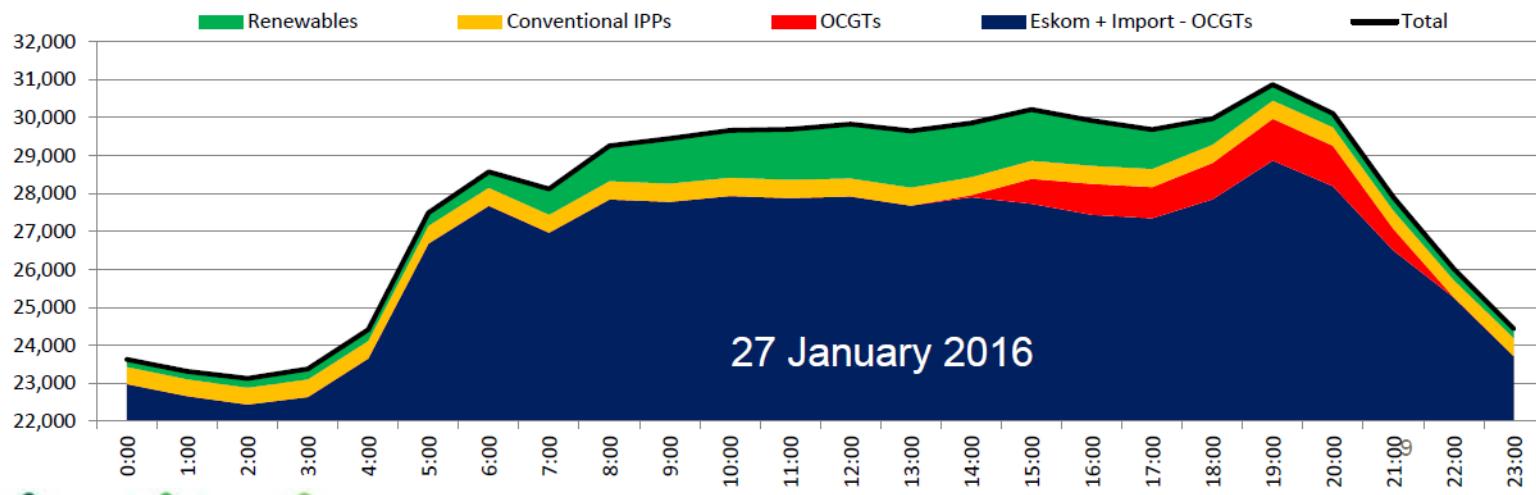
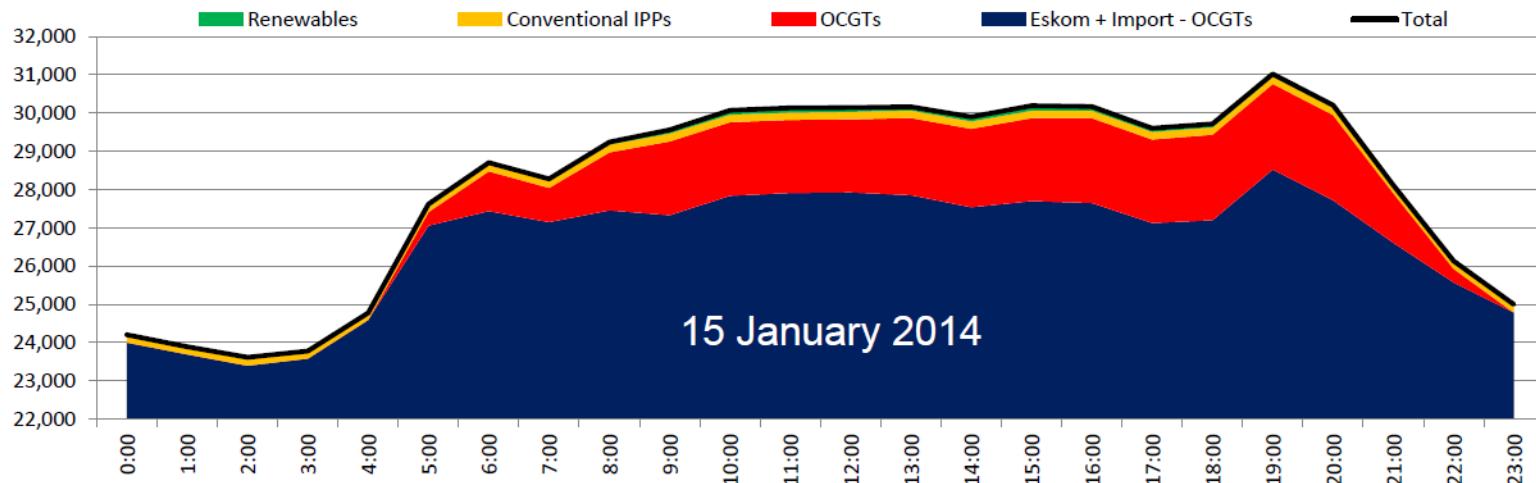


1. Pumped storage capacity of 1,4 GW in 2010 and 2,7 GW in 2030 is not included since it is a net energy user

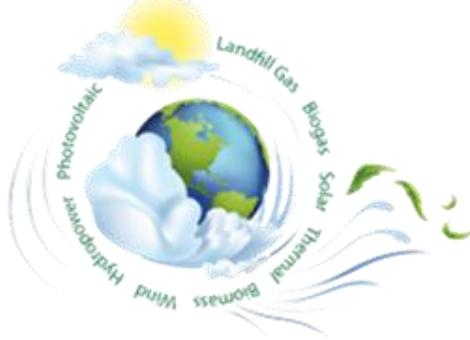
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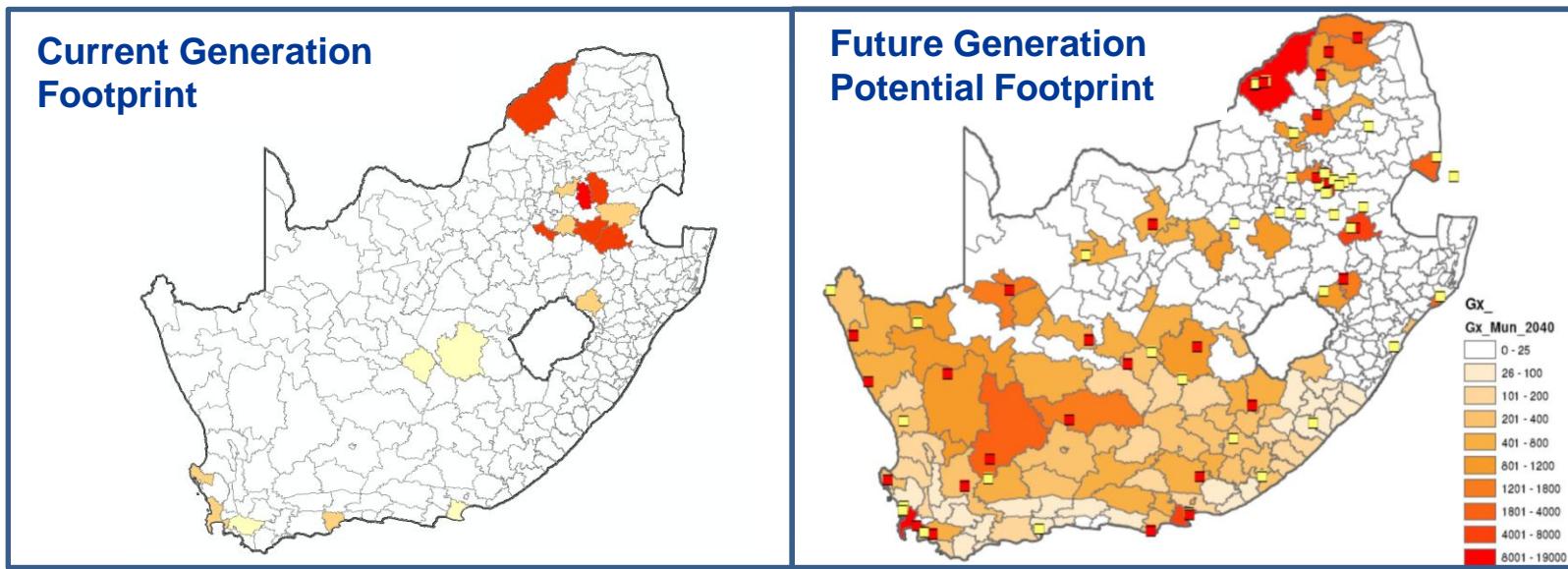
Changing Generation Dispatch, including Renewables



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Changing the Generation Spatial Footprint

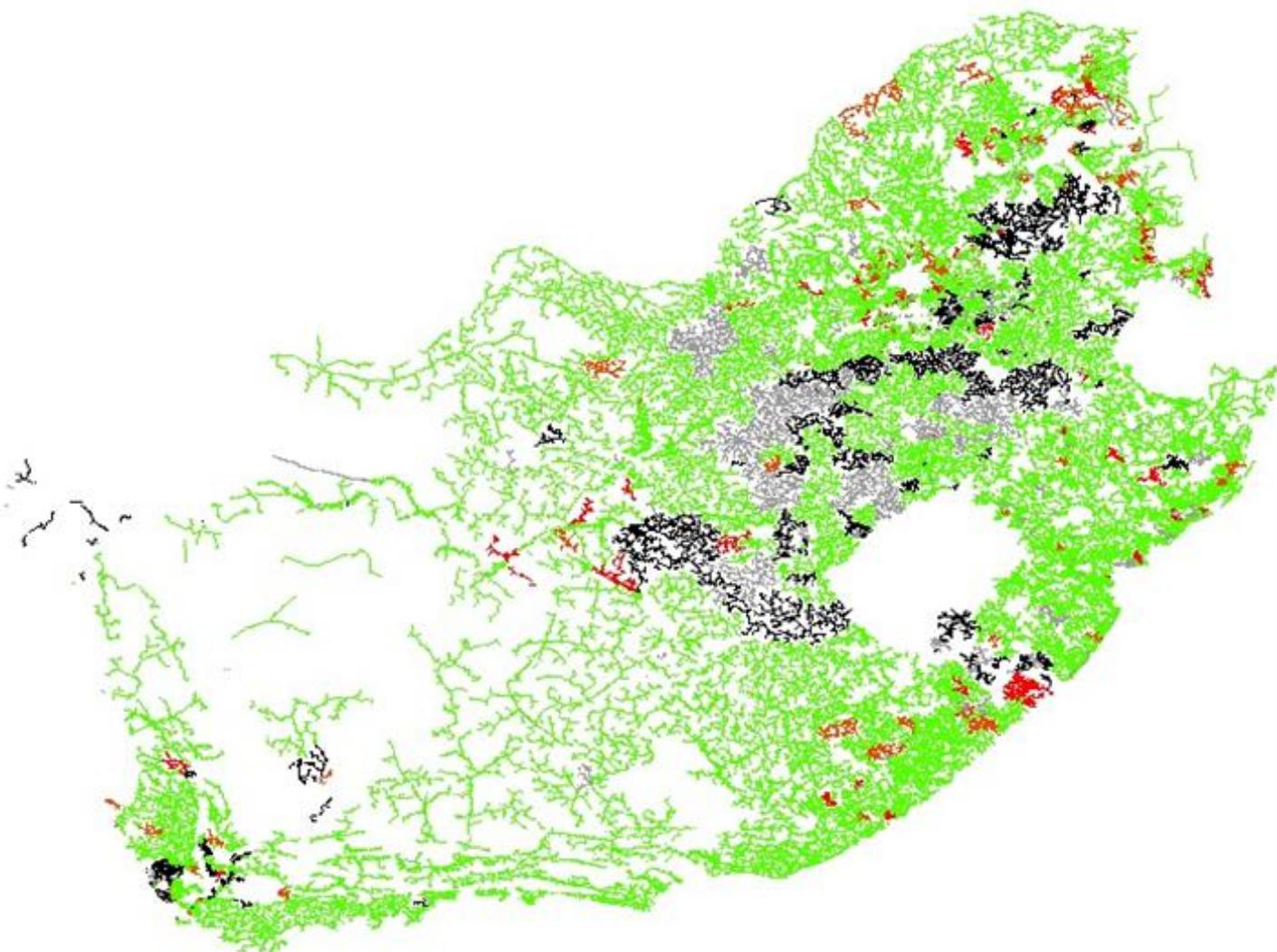


Irrespective of generation scenario

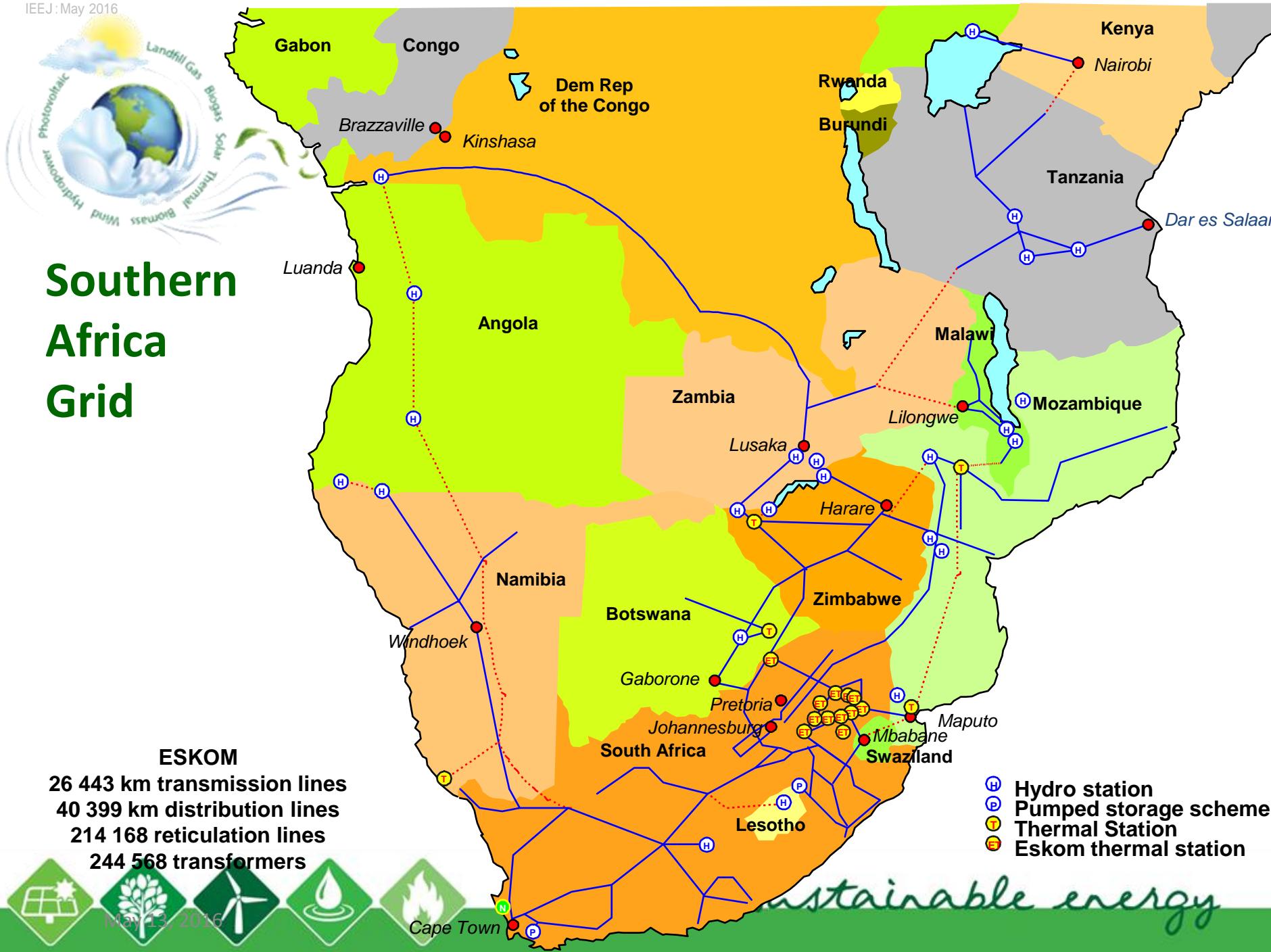


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Extensive Grid Network Coverage



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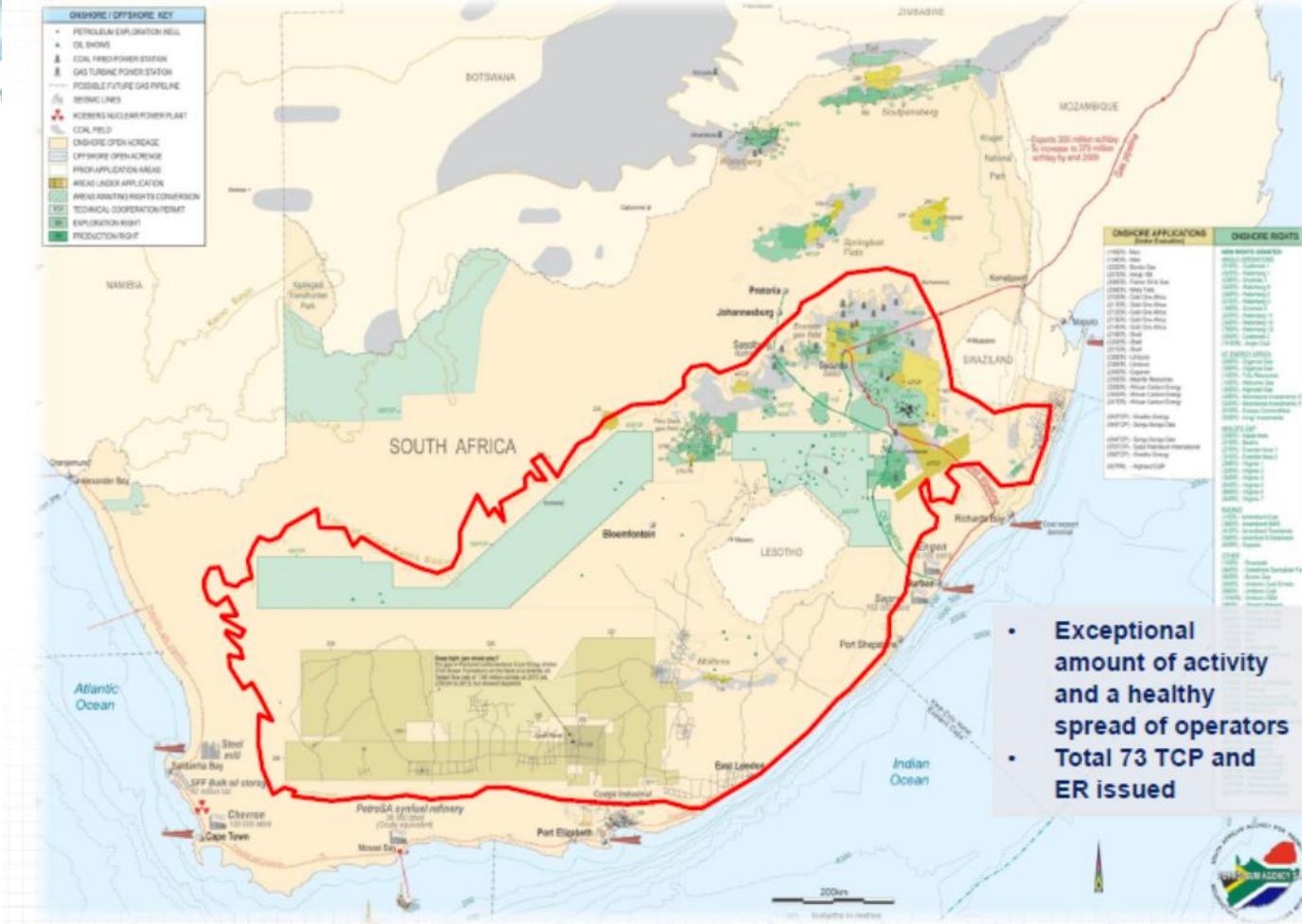




Gas Infrastructure Aspiration

LNG, pipeline infrastructure and ultimately Shale Gas development

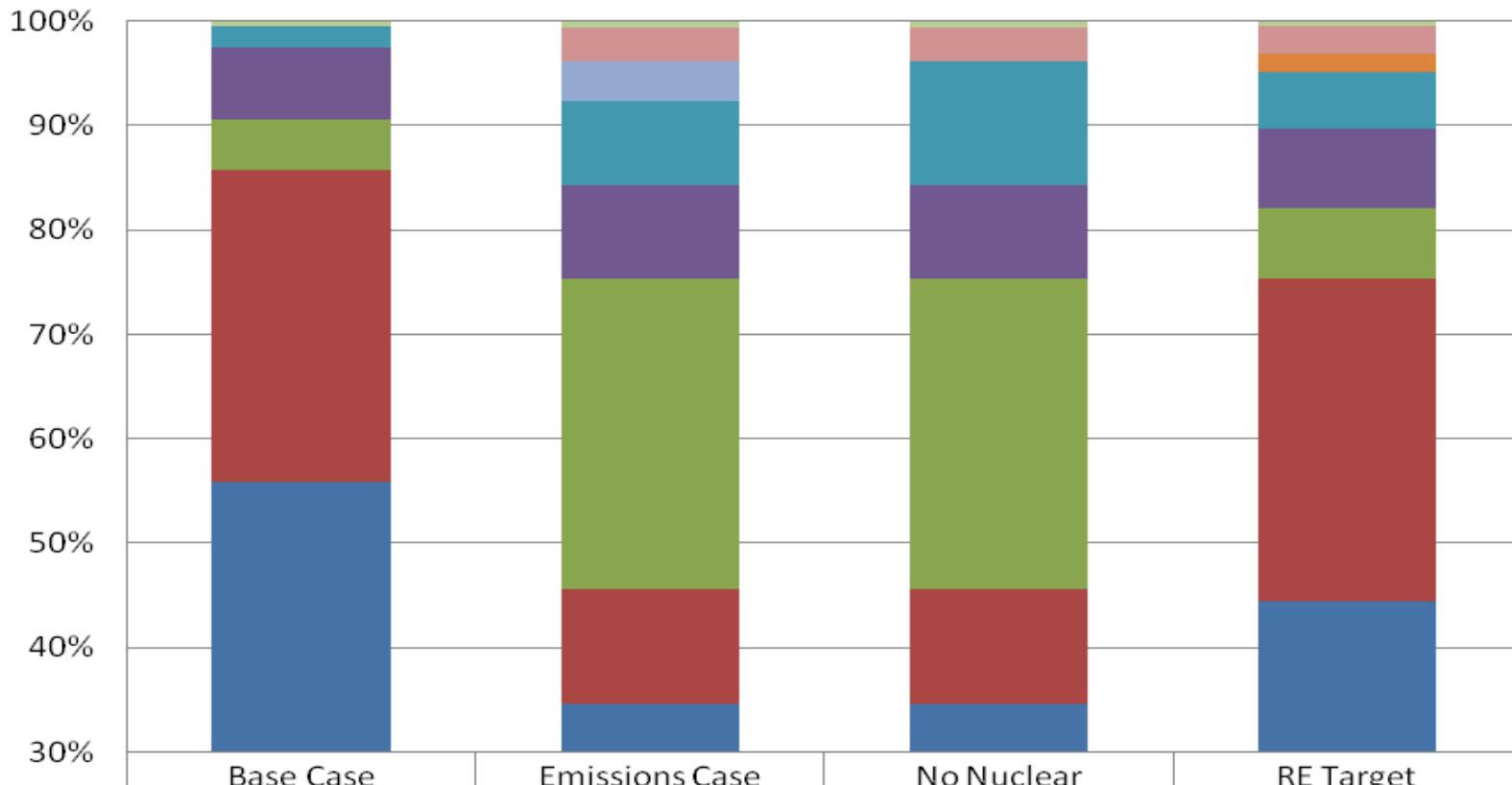
Snapshot of onshore exploration developments in South Africa



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Primary Energy Use (2050)

Share of Energy Carrier (%)



	Base Case	Emissions Case	No Nuclear	RE Target
Hydro	0%	1%	1%	1%
Wind	0%	3%	3%	3%
Nuclear	0%	4%	0%	0%
Biomass	0%	0%	0%	2%
Solar	2%	8%	12%	5%
Gas	7%	9%	9%	8%
Petroleum product	5%	30%	30%	7%
Crude	30%	11%	11%	31%
Coal	56%	35%	35%	44%



Thanks

April 2016

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