

Department of Minerals and Energy

Gas in South Africa

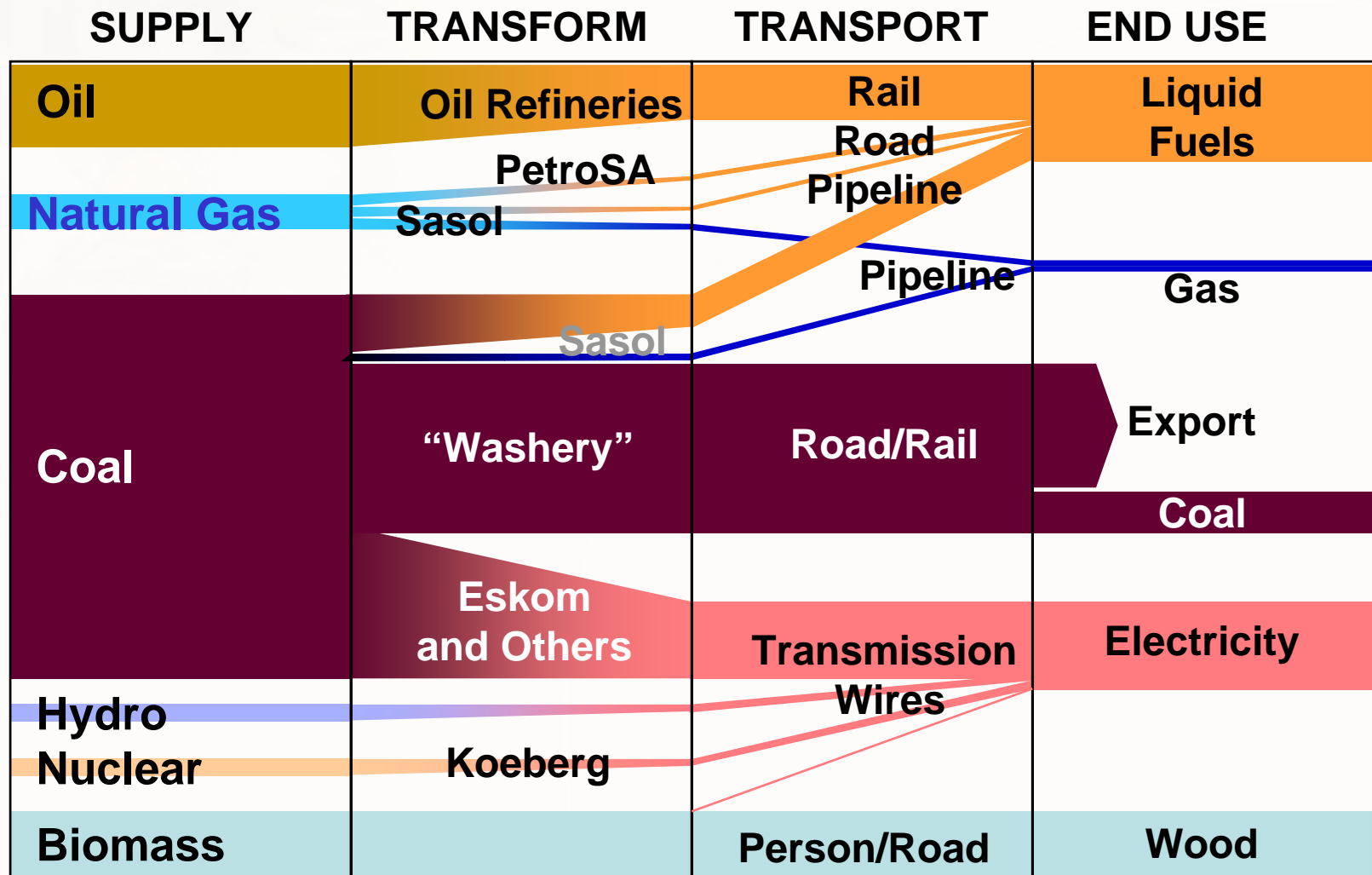


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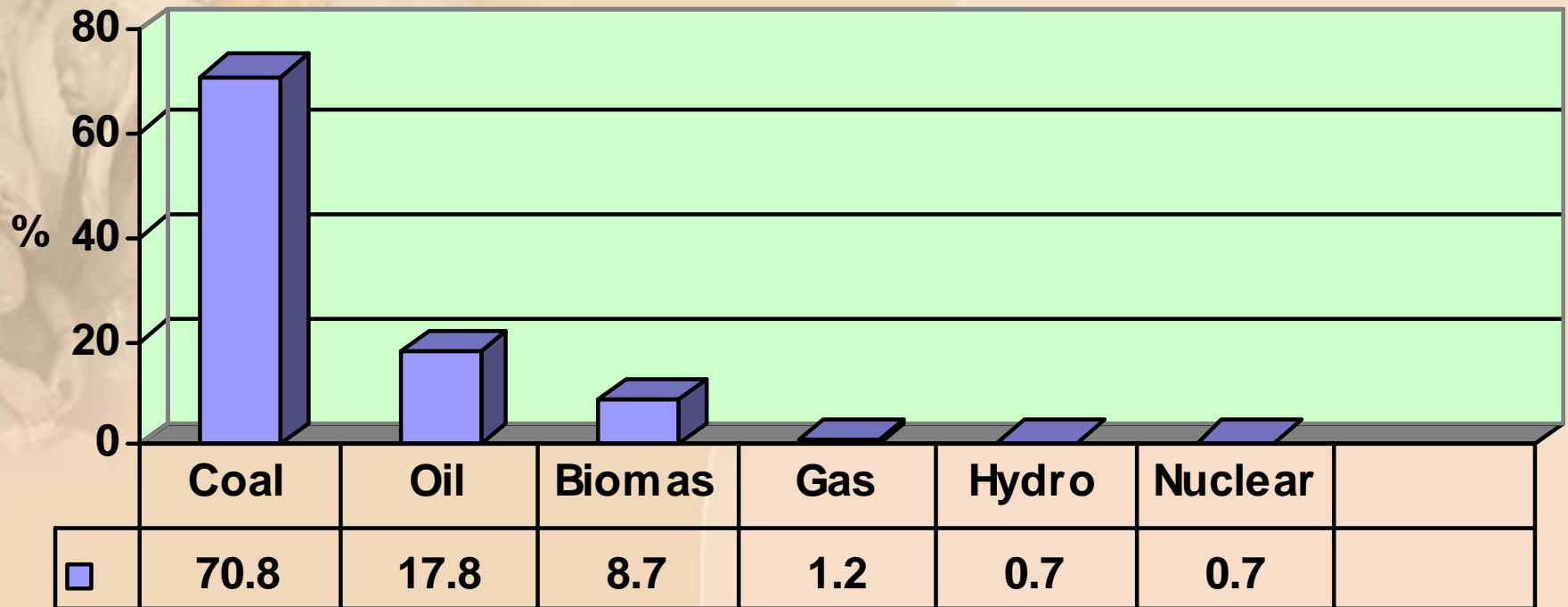
Department:
Minerals and Energy
REPUBLIC OF SOUTH AFRICA

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Director: Coal & Gas

Energy Overview: Energy Flows

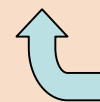
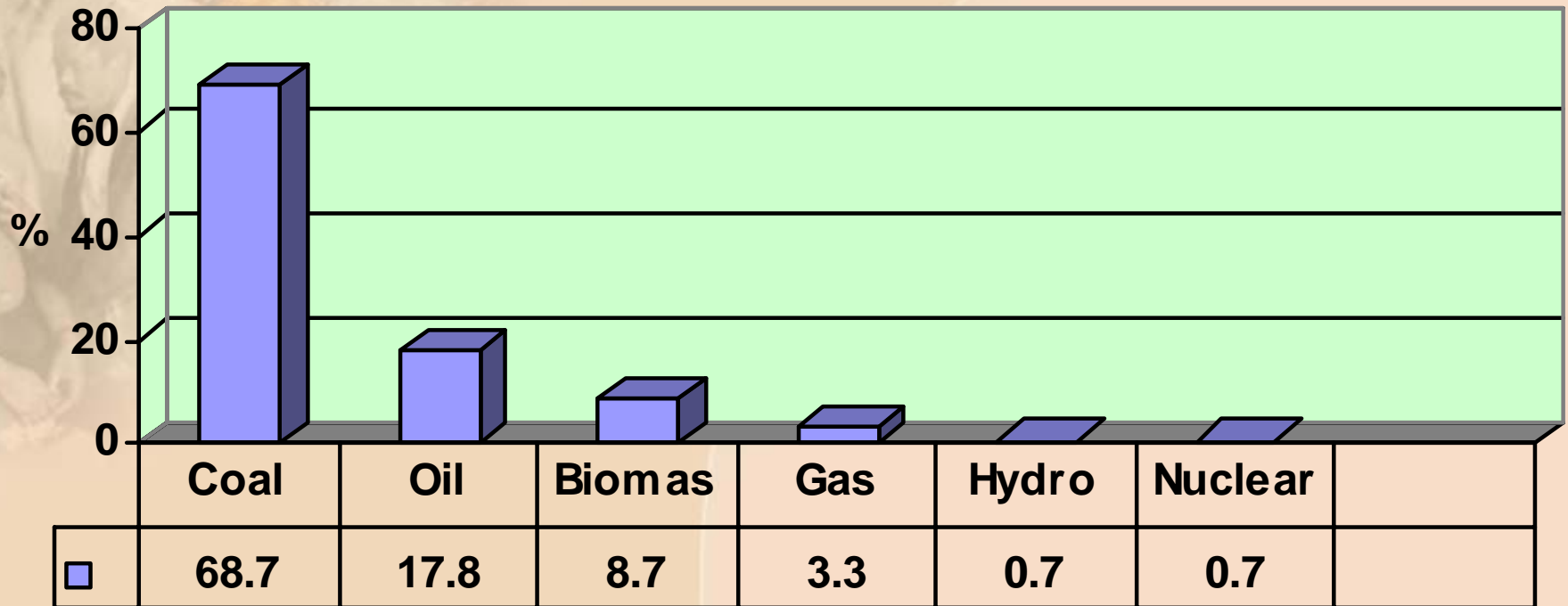


Energy Overview: Supply 2000



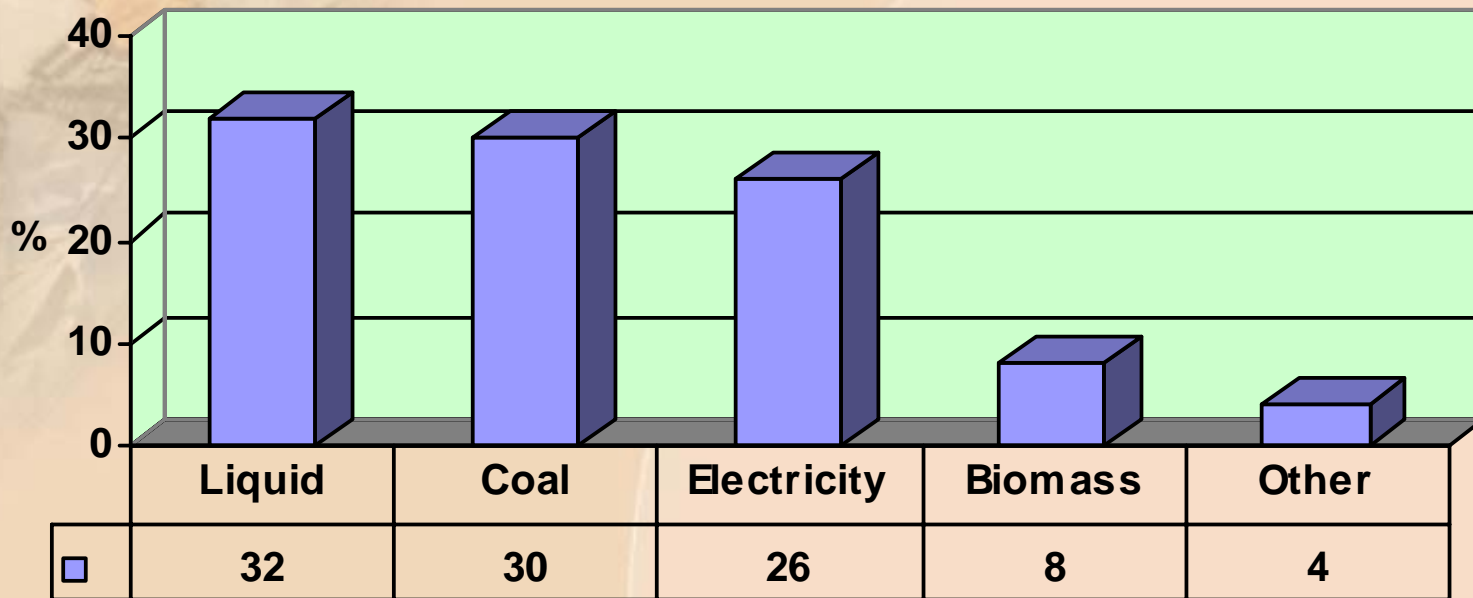
Energy Overview: Supply 2004

[Note Increase in gas and Decrease in Coal]



Gas increase due to start of gas flow from Mozambique

Energy Sector: Demand



**Liquid Fuels Dominates
Private Sector**

Includes Gas



Regulated – Price & Licenses

Integrated Energy Plan I

- ❖ Energy supply will remain reliant on coal for at least the next two decades.
- ❖ Diversify energy supply through increased use of natural gas and new and renewable energies.
- ❖ Continue investigations into nuclear options as a future new energy source.
- ❖ Promote the use of energy efficiency management and technologies.
- ❖ Maximise load factors on electricity generation plant to lower levelised lifecycle costs.

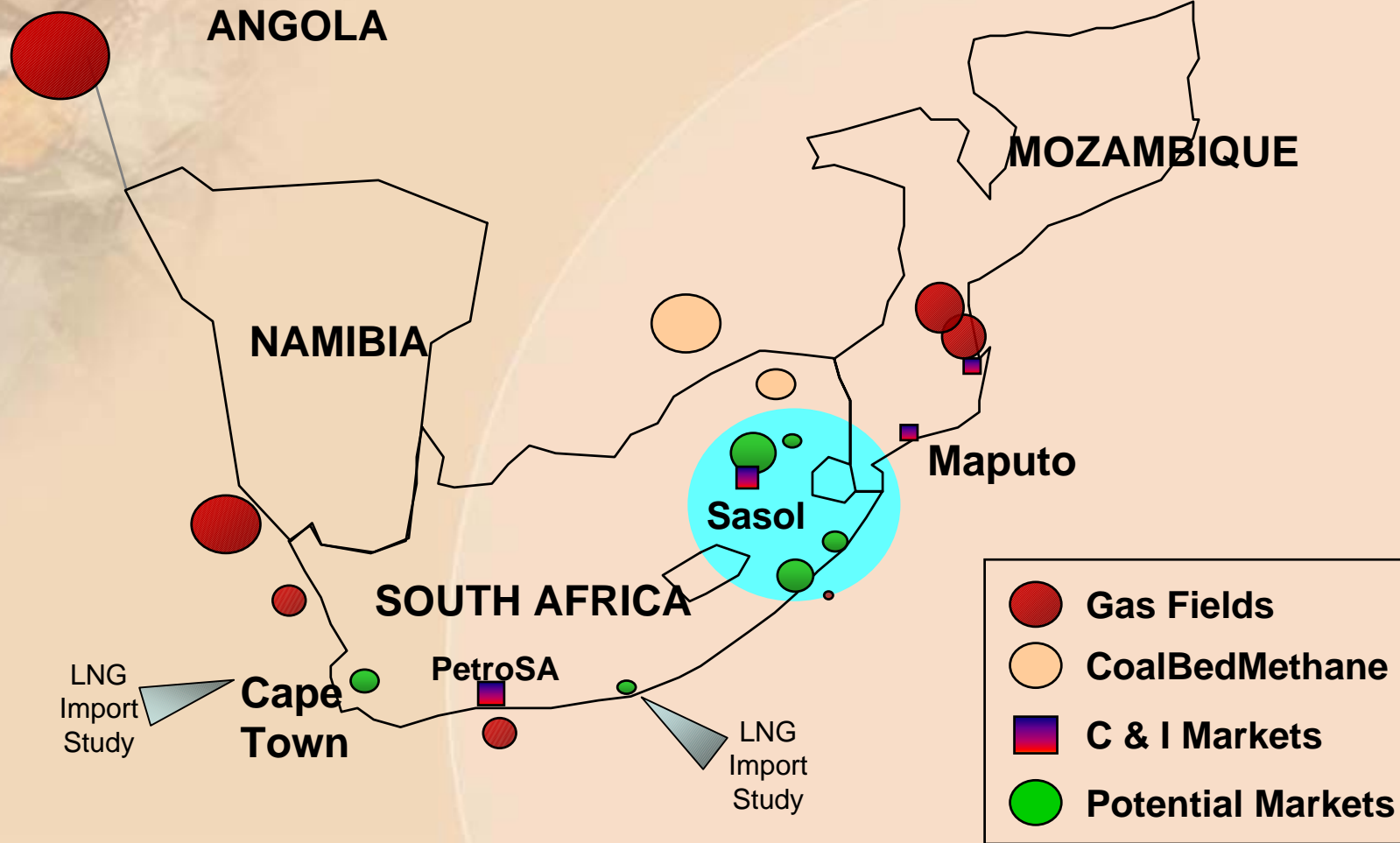
Integrated Energy Plan II

- ❖ Lessen reliance on imported liquid fuels by exploring and developing oil and gas deposits.
- ❖ Increase existing oil refineries capacity when appropriate rather than greenfields development.
- ❖ Continue with existing synfuel plants and supplement with natural gas as feedstock.
- ❖ New electricity generation will remain coal based with potential for hydro, natural gas and nuclear capacity.
- ❖ Ensure environmental considerations in energy supply, transformation and end use.

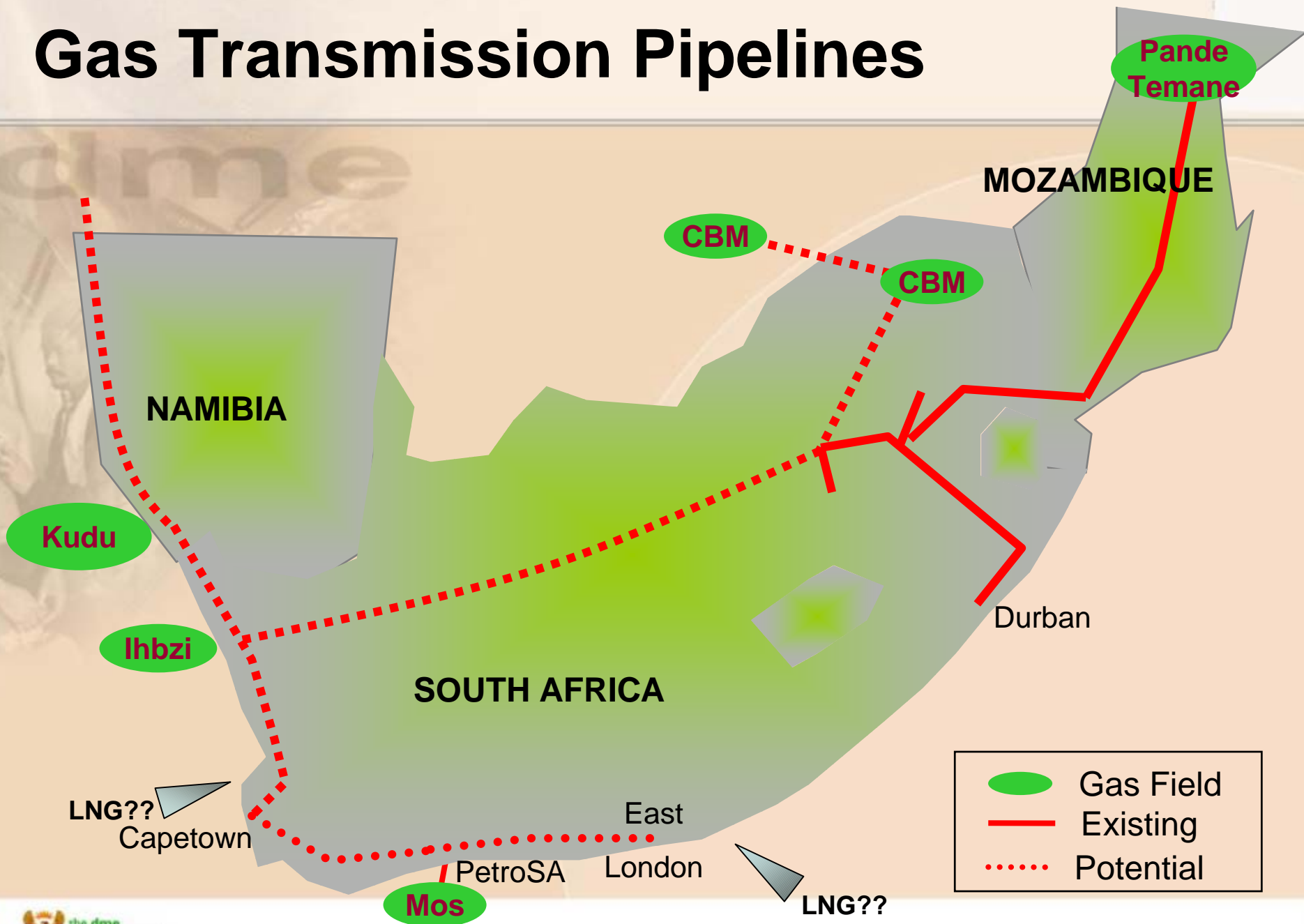
Integrated Energy Plan III

- ◆ Promote universal access to clean and affordable energy, with emphasis on household energy supply being coordinated with provincial and local integrated development programmes.
- ◆ Introduce policy, legislation and regulation for the promotion of renewable energy and energy efficiency measures and mandatory provision of energy data.
- ◆ Undertake integrated energy planning on an ongoing basis.

Gas/Market Locations



Gas Transmission Pipelines



Gas Activities: Natural Gas

Project	Type	Reserves	Status
Mossel Bay South Africa	NG Offshore	~0.2 tcf	Producing GTL PetroSA
Ibhubezi South Africa	NG Offshore	~0.3 tcf	Not Producing Forest/PetroSA
Mozambique Pande/Temane	NG Onshore	~3 tcf	Producing 865 km pipe to SA Sasol
Namibia Kudu	NG Offshore	~1.3 tcf	Not Producing

Gas Activities: Coal Bed Methane

Project	Type	Reserves	Status
Waterberg South Africa	CBM	~1 tcf??	5 x pilot wells Flaring [Jun04] AngloCoal
Waterberg South Africa	ECBMR	??	Feasibility Study Sasol
Botswana	CBM	12/196 tcf???	Pilot wells 2007 100 x wells & Product Sales

Gas Activities: Land Fill Gas

Project	Status
Ekurhuleni Near JNB	LFG collected and stored Power Refuse Collection Vehicles since 1999
Ethekwini Durban	LFG 3 x sites Investigation to generate 10 MWe World Bank PCF
Richards Bay Alton	1 MW potential investigation
CEF/Jnb	5 x LFG sites under investigation
CEF/Pvt	Nelson Mandela Bay 2 x sites [3MW] under investigation

Other Investigations:

Waste water and sludge
Coaltech2020

END