

# COEGA DEVELOPMENT CORPORATION

## IEP/IRP Public Hearing

### 14 December 2016



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B-BBEE LEVEL 1 CONTRIBUTOR ISO 9001 14001 15498  
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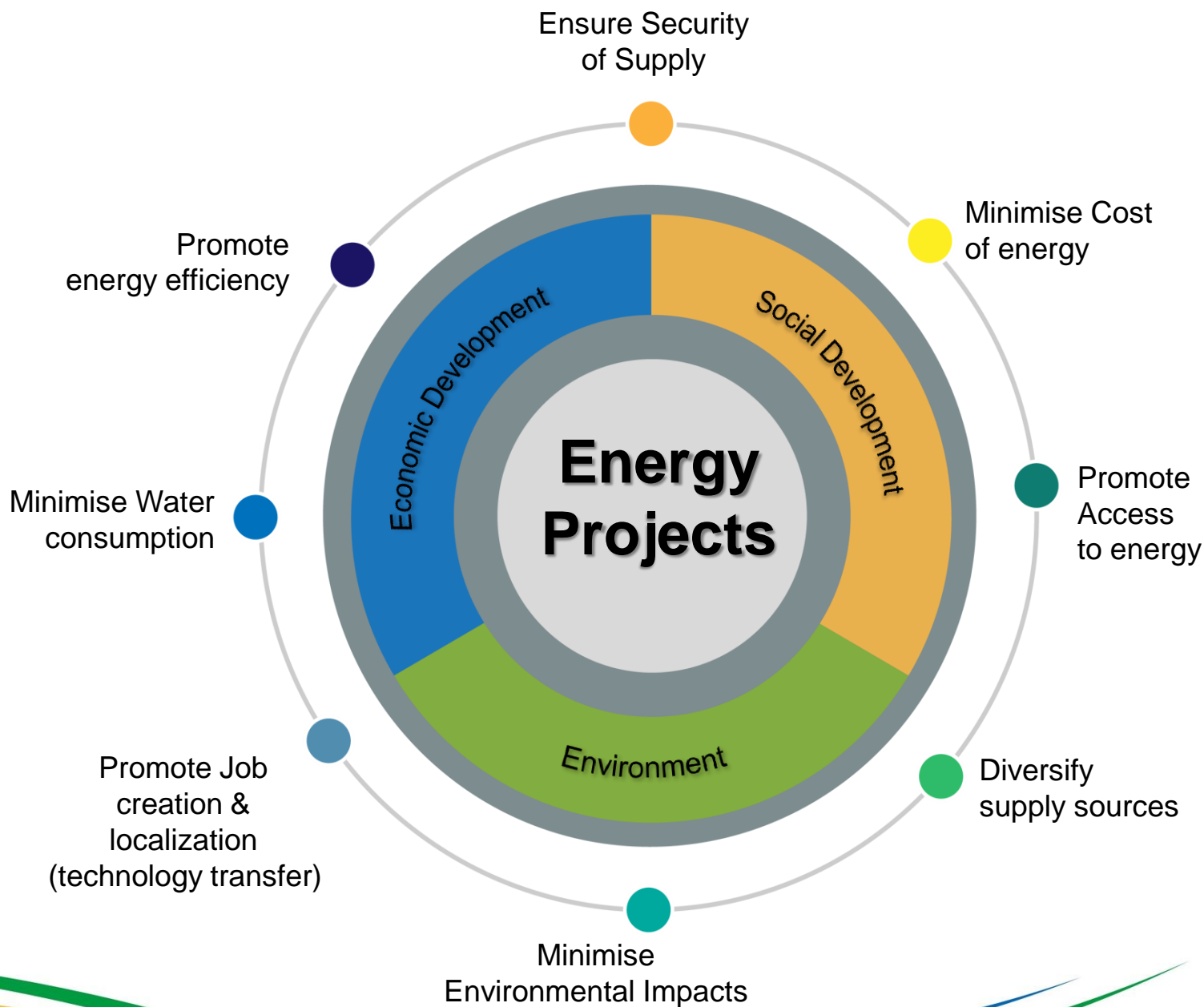
# Integrated Energy Plan Pillars



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# Energy Planning – 8 Objectives



# Inclusive Growth - SA's developmental trajectory

Sustainable  
economic growth

Advancing  
Black-owned  
businesses &  
Industrialists

Job Creation –  
combating youth  
unemployment

Social security  
Health &  
Education

Women-owned  
enterprises

Broadening  
participation in  
Economy

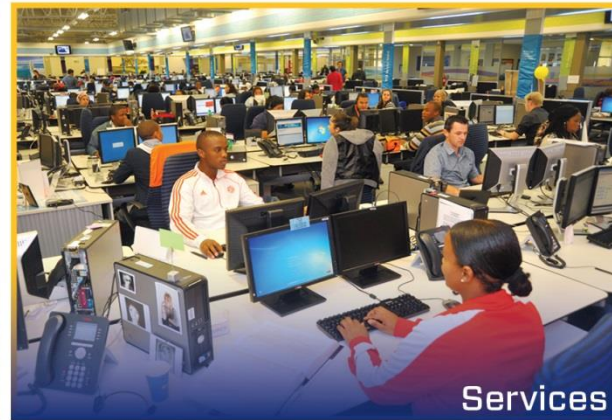
# Coega Overview



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# Coega Overview: Investment Sectors



# Transformational Mega Projects at Coega

#	Project Name	Description	Investment Value	Jobs Created (direct & indirect)
1	Gas-to-Power Project	An additional IPP – driven power generation solution (2500MW) that is linked to a imported LNG	R 40 bn	8 140
2	Aquaculture Complex	Development of an Aquaculture Development Zone at Coega.	R 2 bn	5 605
3	Return Effluent	Recycle water for industrial use	R 1.2 bn	1 500
4	Manganese export & Rail Upgrade	To increase Manganese export capacity to 16mtpa by upgrading the rail infrastructure between Hotazel & Coega.	R 27 bn	5 000
5	Renewable Energy	Renewables	R 2.8 bn	2 500
6	PMG Manganese Smelter	Manganese Smelter to assist SA minerals	R 7 bn	1 500
7	Biodiesel Plant	Green fuels, Environmental Friendly	R 3.5 bn	25 200
8	Project Mthombo	Oil Refinery	R 100 bn	24 000
	<b>TOTAL</b>		<b>R 183,5 bn</b>	<b>73 445</b>



# Transformational Energy Projects



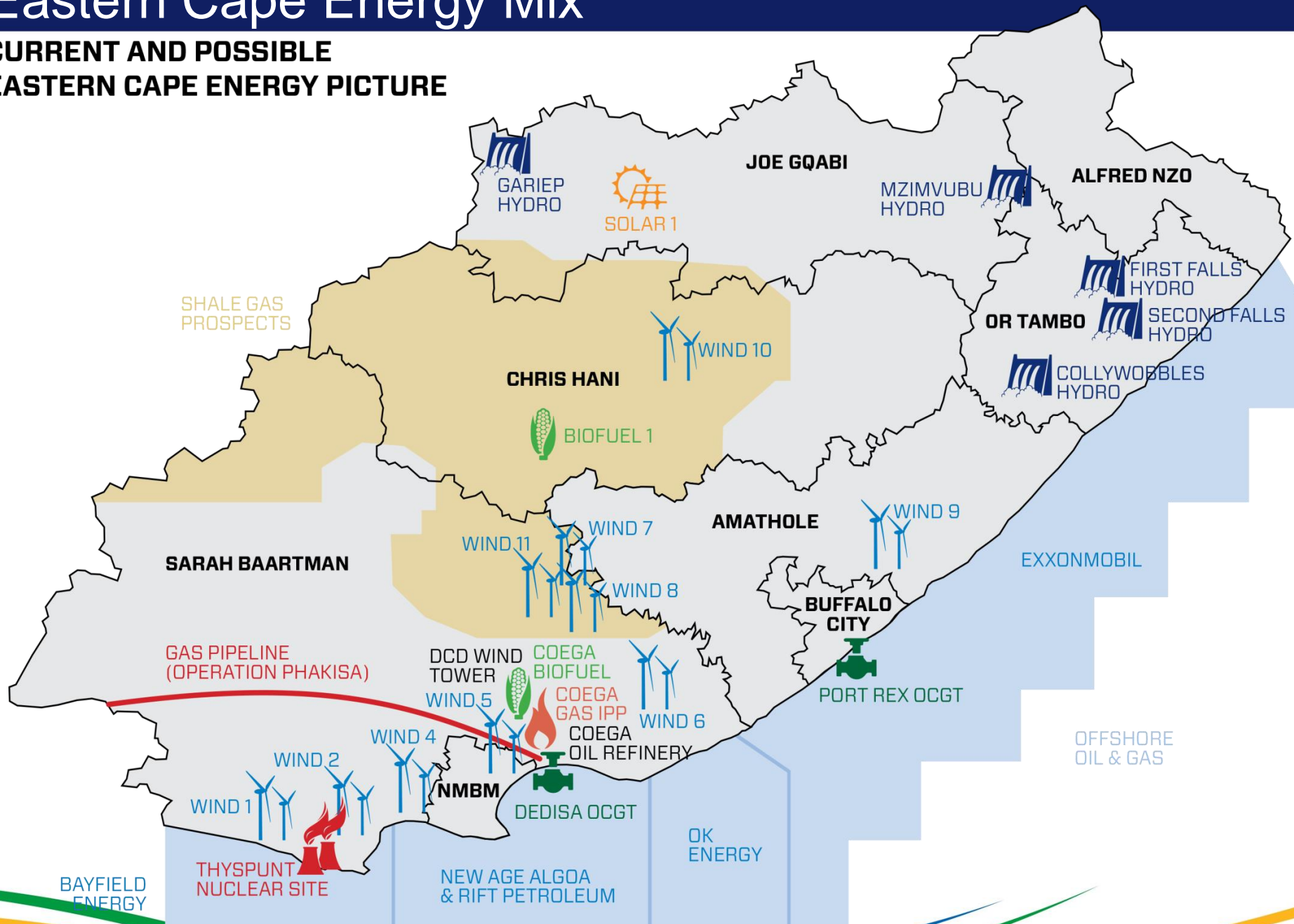
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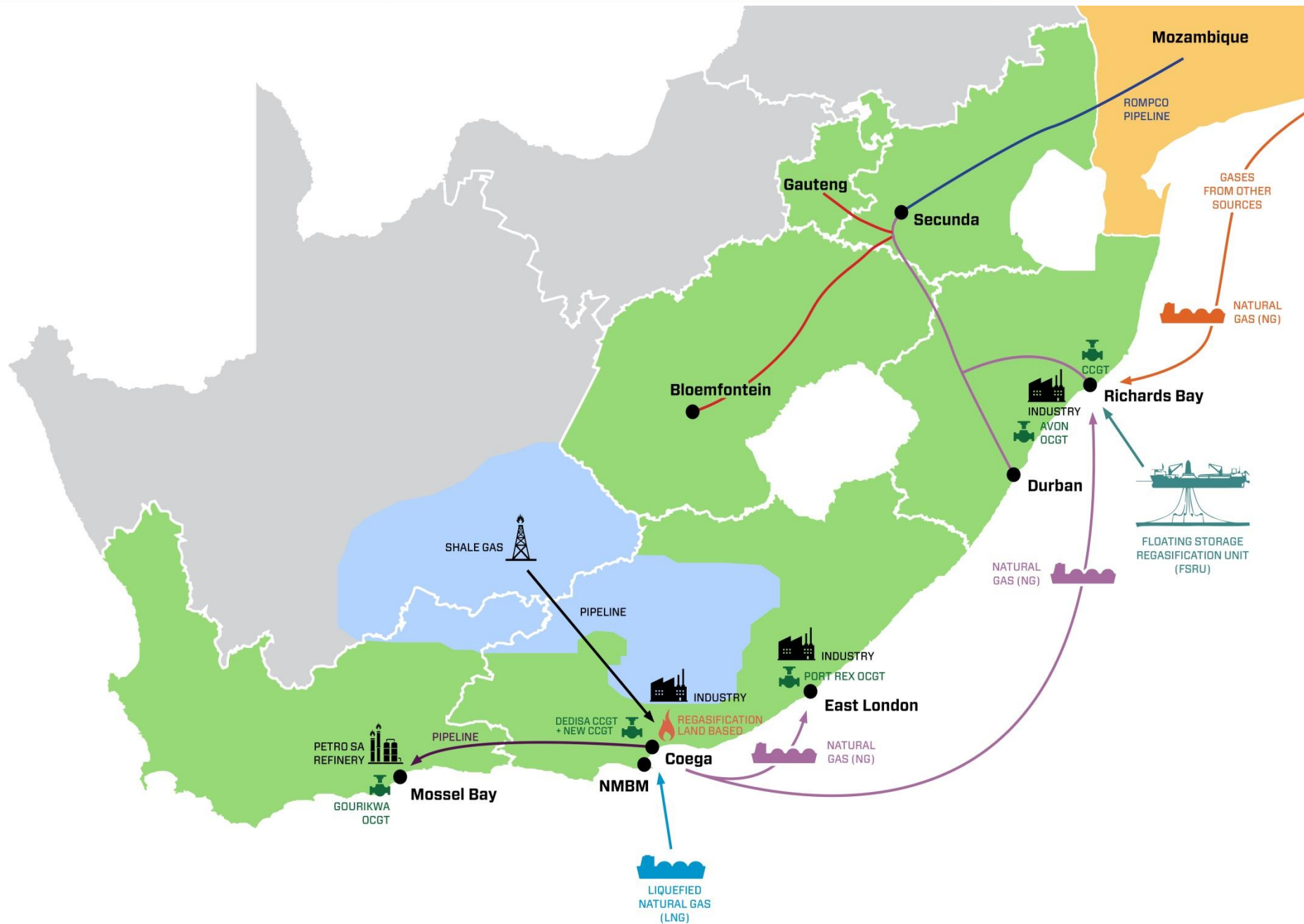


# Eastern Cape Energy Mix

## CURRENT AND POSSIBLE EASTERN CAPE ENERGY PICTURE

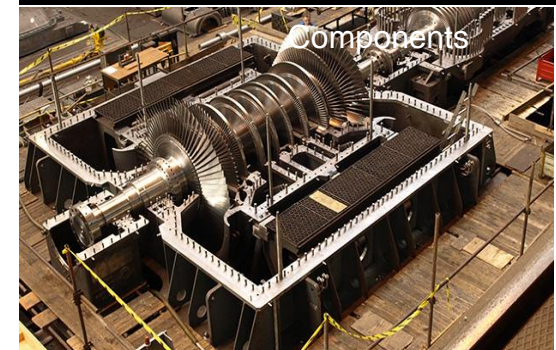
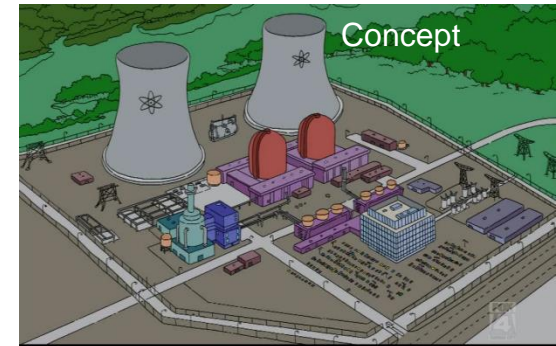


# Towards an Integrated Natural Gas Industry

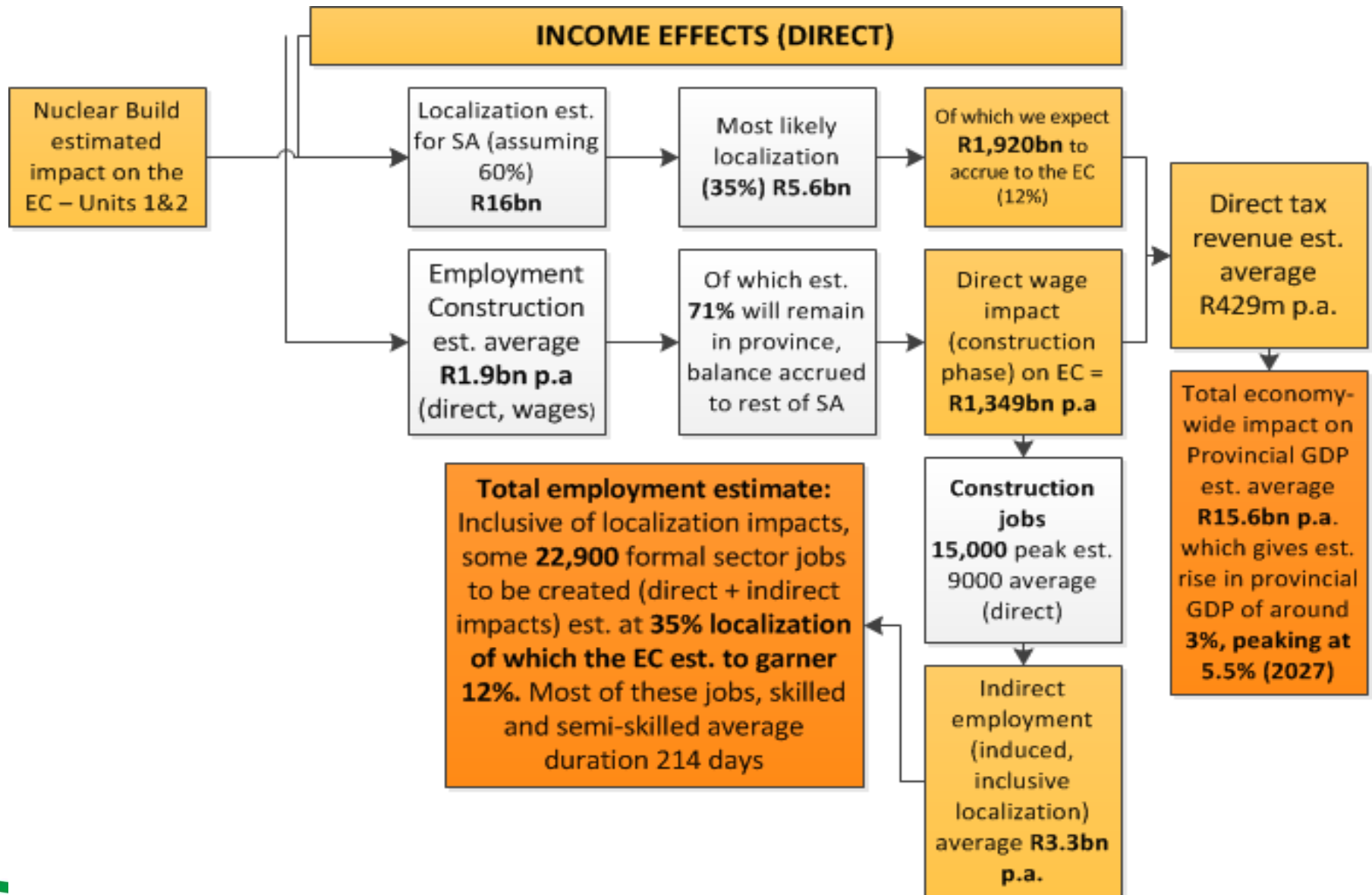


# Nuclear New Build Programme (NNBP) at Thyspunt

- Reliable supply & long term tariff predictability;
- Risks e.g. SA's success with mega projects;
- NNBP could be delivered progressively;
- Significant opportunity for new investment and JV's for local and global markets (IPAP);
- Strategic development of human capacity and infrastructure;
- Localization of components & Nuclear Fuel;
- EC Gov support to drive nuclear awareness.



# Income effects ... Wages, profits and tax contributions



# Consumption – how nuclear drives demand

## CONSUMPTION EFFECTS

Construction of a new nuclear power plant will provide a substantial boost to suppliers of **commodities** like concrete and steel and manufacturers of hundreds of components. The figures are calculated per megawatt (MW) of installed capacity.

523,560 m<sup>3</sup> concrete

66,000 tons of steel

70.4 km of piping

480 km of electric wiring

130,000 electrical components

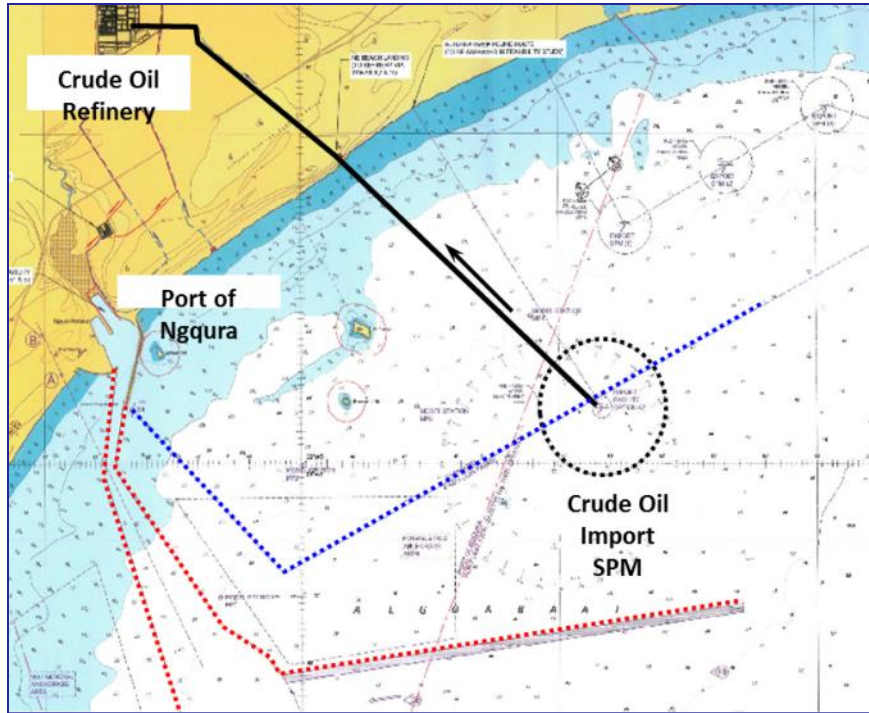
*The commodity estimates in are based on normalized averages from analyses of the economic and employment impact of 23 U.S. nuclear plants.*

### Likely localization scope:

- Civil construction and engineering
- Piping
- Pressure vessels and tanks
- Ventilation
- Electrical components
- Steel cladding
- Instrumentation and control components

The **multiplier estimates** are based on multipliers normed for the EC economy by Quantec and gives for every Rand spent on nuclear, the local economy will benefit R1.04 (Kouga), the EC economy **R1.18** and the national economy **R1.87**. The EC multiplier is based on existing industrial capacity, **however with a supplier development and localization programme the balance can shift to R1.36 (EC) and R1.94 (national).**

# Oil Refinery: Project Mthombo



New crude oil refinery for PetroSA to be based in Coega, Port Elizabeth.

## -Construction phase

Up to 23,000 at peak  
5,000 to 10,000 highly skilled artisans.

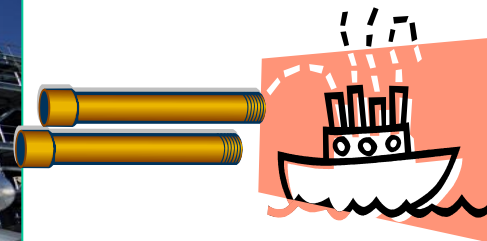
## -Operation phase

Approx. 1,000 permanent refinery jobs;  
18,000 indirect jobs

## Macroeconomics

- \$10 b to be spent during construction;
- R94,6b per annum operational costs (including feedstock);
- 83% of economic impact will accrue to the Eastern Cape;
- Household income in the Eastern Cape could rise R1.8b per annum;
- 5.5% p.a possible economic growth for the Eastern Cape province.
- Spin-offs from the localisation initiative amounting to about R20bn could come to the province.

# Biodiesel Pipeline



## Soyabeans

- 300,000 t/a
- 500 jobs

## Canola seeds

- 400,000 t/a
- 25,000 Jobs

## Waste vegetable oil

- Importation of WVO
- 100,000 t/a
- 100 jobs

# Conclusion



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# Coega Energy Vision

- Eastern Cape endowed with resources for a diverse energy mix;
  - Locate **LNG & Gas-to-Power** power solution at Coega;
  - Leverage lessons from **Dedisa PPP & REIPPPP experience** of the region;
  - Build socio-economic linkage to **Shale Gas** prospect & **Deep-water Gas**;
  - Central in **Nuclear Readiness** Programme to support the New Build Programme;
  - Development of an **Oil Refinery** at Coega;
  - Unlock **Biofuels & other clean energy projects**;
  - Expand **RE implementation** to drive socio-economic growth;
  - Incorporation of **Inclusive Growth** imperatives
  - **Remain relevant** to the developmental trajectory of South Africa.
- 



# THANK YOU



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