



**By 2030 eThekweni will be Africa's
most caring and liveable city**



Food, Energy and Water Nexus Symposium

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Itumeleng Masenya

Climate Change Mitigations Manager

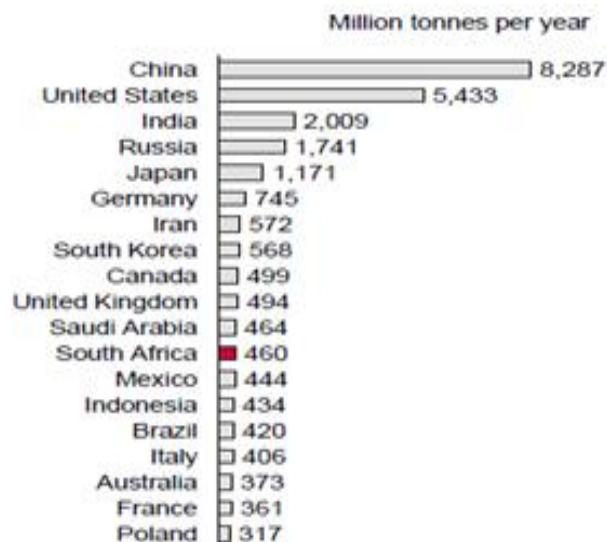
Energy Office

Context

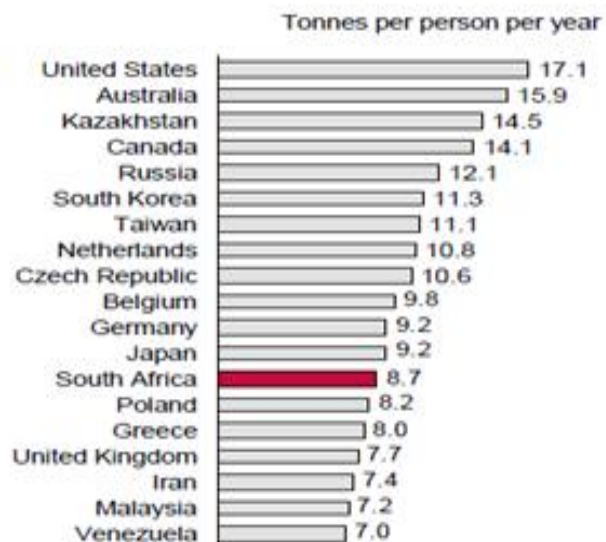
- Amidst the energy transition in SA - social and economic implications;
- South Africa's electricity industry is conventional and monopolistic - Eskom;
- Only 2% of this electricity is distributed by Eskom while rest is distributed across the City by the eThekweni Municipality;
- > **60%** (only 1.5% of surface area) of **South Africa's population** live in urban areas;
- **Consume at least 2/3 of the world's energy** - **70%** of the global CO2 emission;
- Climate change may exacerbate the problems caused by poor urban management;
- Paris Agreement - South Africa is a signatory ;
- **Increased risk of flooding** (SLR and surge storms) - 90% of urban areas being coastal - from sea level rise and extreme storms;
- A very small portion of the electricity used in eThekweni Municipality is locally generated renewable energy - landfill gas projects at the Bisasar Road and Mariannahill landfill sites.
- In South Africa, small-scale embedded generation (SSEG) faces a number of barriers including the lack of clear policy and regulatory frameworks; municipal revenue losses, technical constraints relating to SSEG technology; and financial costs that seem to outweigh overall benefits.

Coal-reliance makes RSA one of the largest CO2 emitters

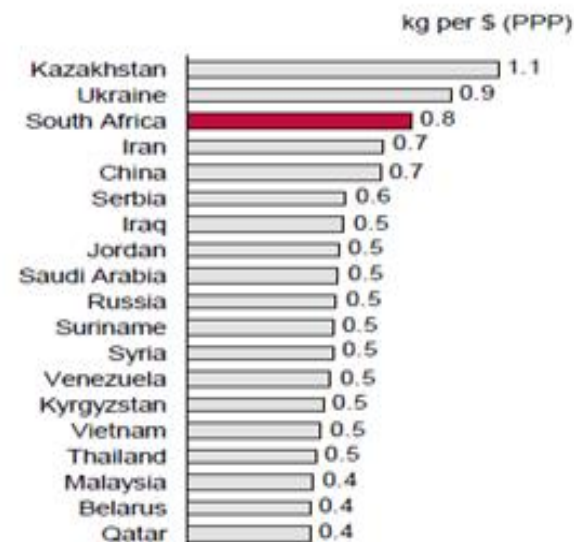
Absolute CO2: #12



CO2 per capita: #13



CO2 per GDP: #3



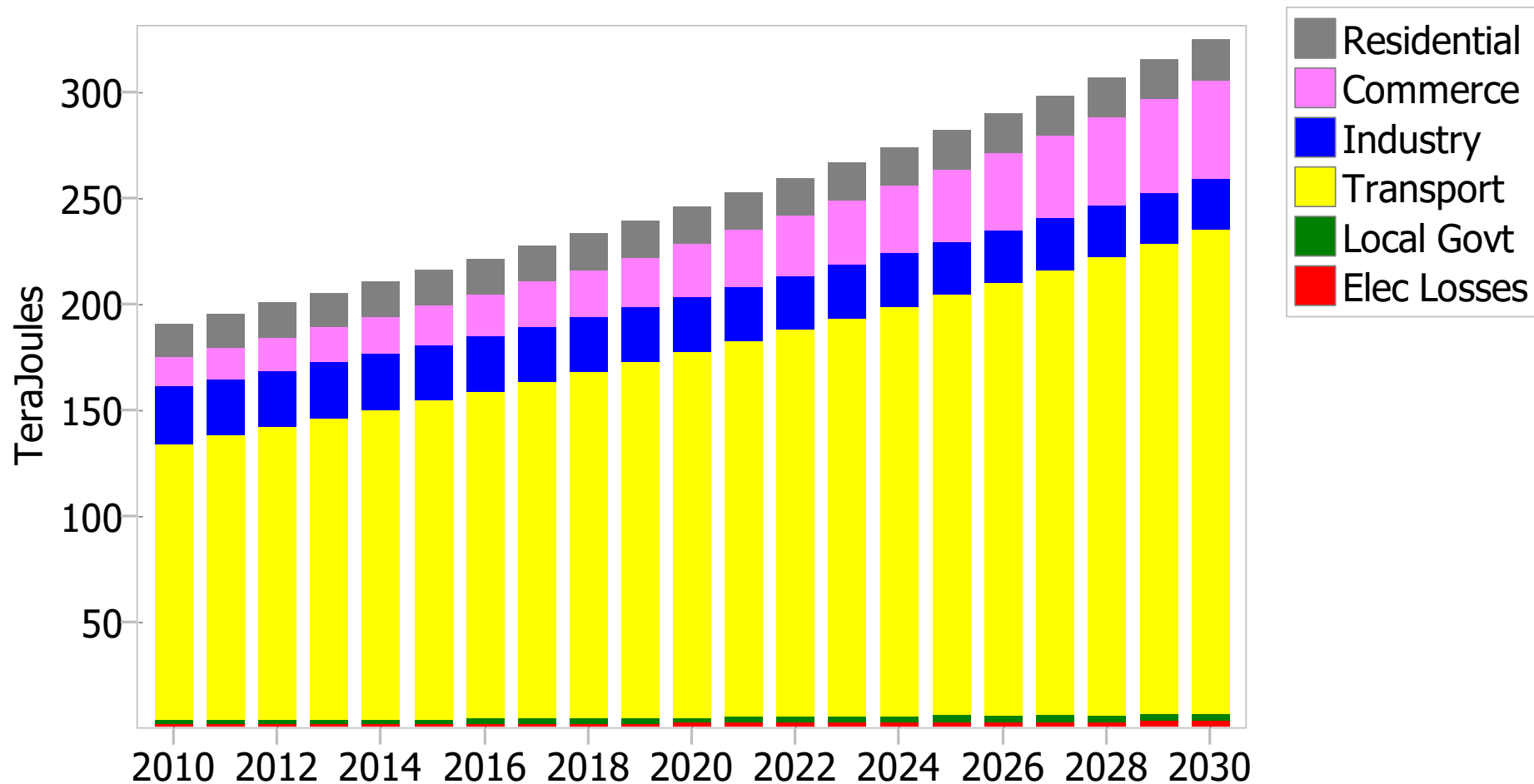
South Africa needs to work on an energy transition towards a less carbon-intensive economy

Notes: CO2 emissions per capita only shown for countries with a population > 10 million; North Korea excluded from CO2/GDP calculations due to lack of reliable GDP data
Sources: United Nations; World Bank; Bischof-Niemz analysis
Dr Bischof-Niemz – presentation at the Africa PVSEC

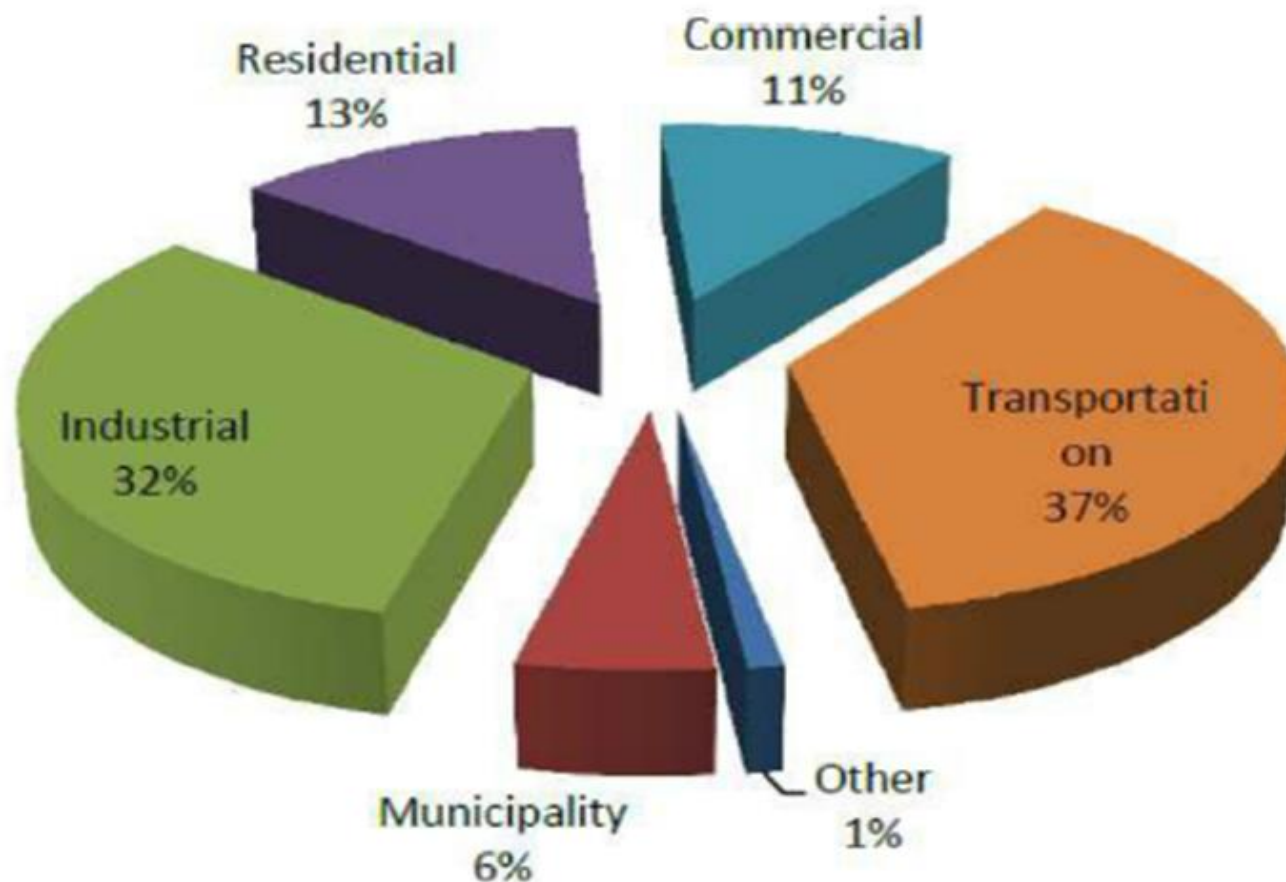
DURBAN ENERGY DEMAND

Energy Demand (TJ)

Scenario: Business As Usual



GHG Emissions – sector





Thank you

ENERGY OFFICE

3rd Floor, SmartXchange, 5 Walnut Road, Durban, 4001

P O Box 1014, Durban 4000

Tel: +27 31 322 2632, Fax: +27 31 311 1089

Email: itumeleng.masenya@durban.gov.za

www.durban.gov.za