

The role of coal in addressing energy poverty in South Africa

WCA-EURACOAL WORKSHOP

BRUXELLES, 13 NOVEMBER 2012

1. Coal's contribution in South Africa
2. Challenges for coal
3. Energy poverty and electrification in South Africa
4. Coal-fired electricity supply costs and connection costs
5. The Global Electricity Initiative (GEI)



- Over 90% of electricity supplied, historically amongst the lowest wholesale electricity costs
- Over 30% of domestic liquid fuel consumption
- Around 5.6% of total merchandise exports
- Around 75 000 direct jobs in coal mining alone
- Also a basis for high value-added products (incl plastic and chemicals manufacture)
- Inherent capacity base (skills, manufacturing)
- Apart from shale gas potential, negligible other domestic fossil reserves
- SA's reserve: production ratio - 119 years (BP, 2011) will be revised upwards
- Coal is more evenly distributed across the world's population (50% of global resources are distributed across 42% of the people— ref CIAB report)

Challenges for coal's continued contribution in the future...

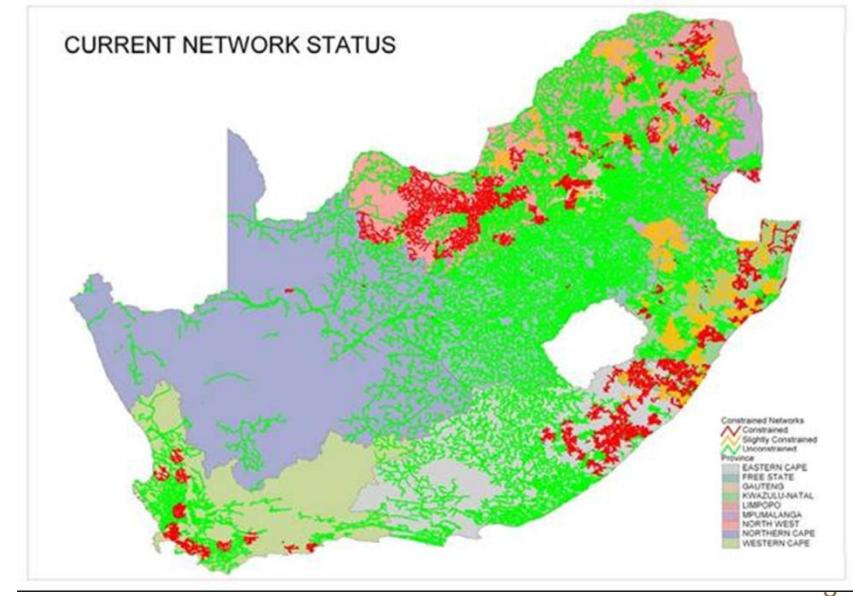
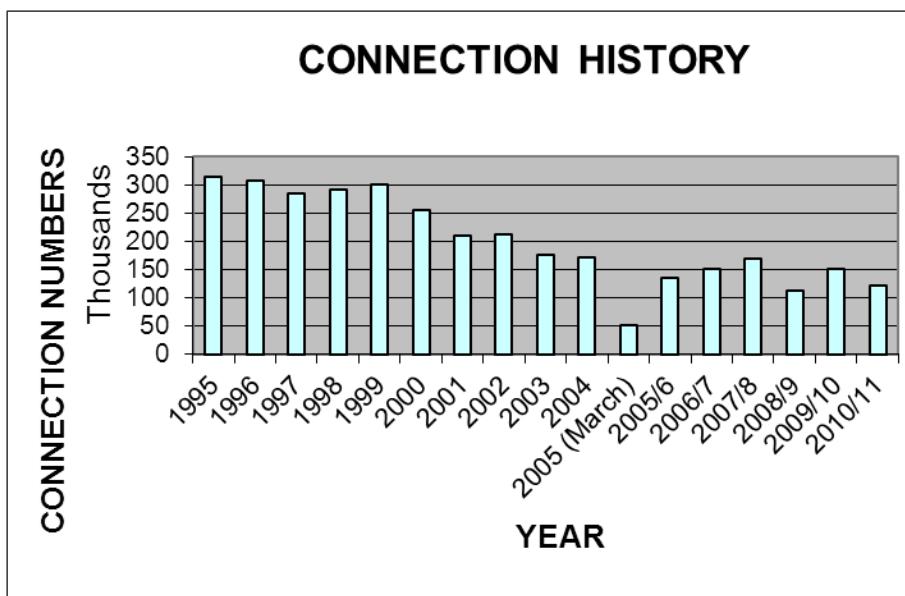
- (Local) air quality management (SO_2 , NOx , particulates, Hg)
- Greenhouse gas emissions reduction requirements
- Water consumption, pollution
- Land transformation and rehabilitation
- Potential vulnerability to climate changes
- Pursuit of opportunities for complementary solutions with alternative electricity supply options

These can and must be addressed in order for coal to play a bigger role in energy access in future

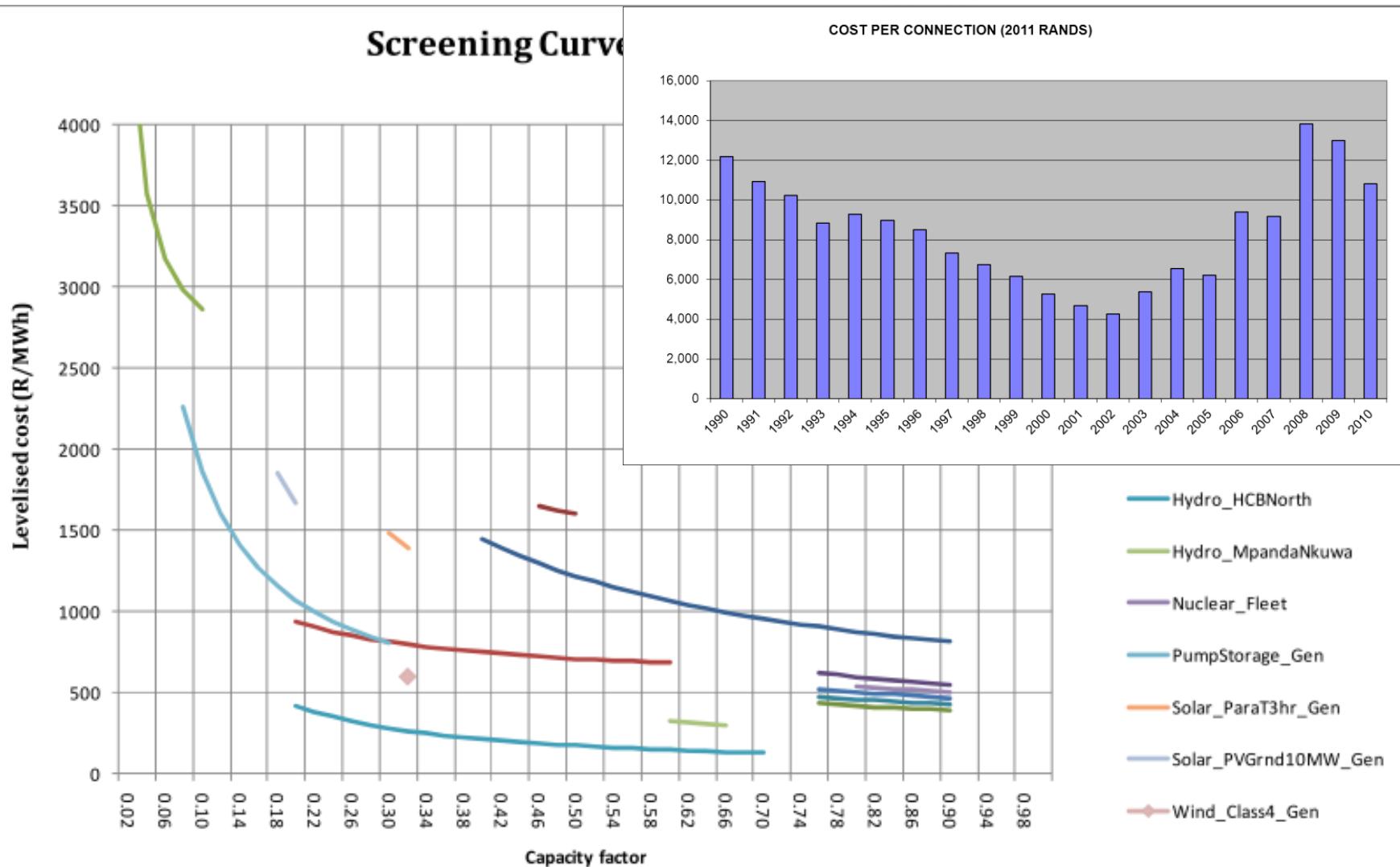


Energy poverty and electrification in South Africa

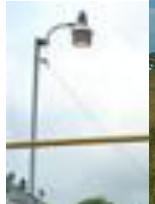
- Between 1991 and 2011, 4,08 million households electrified (programme structure was amended in 2001)
 - from 36% in 1994 to 83% in 2011
- Current backlog in SA is estimated at 3.4 million connections
- Current funding levels will only enable universal access in SA by 2033 (proclaimed and un-proclaimed land), against the target of 2014



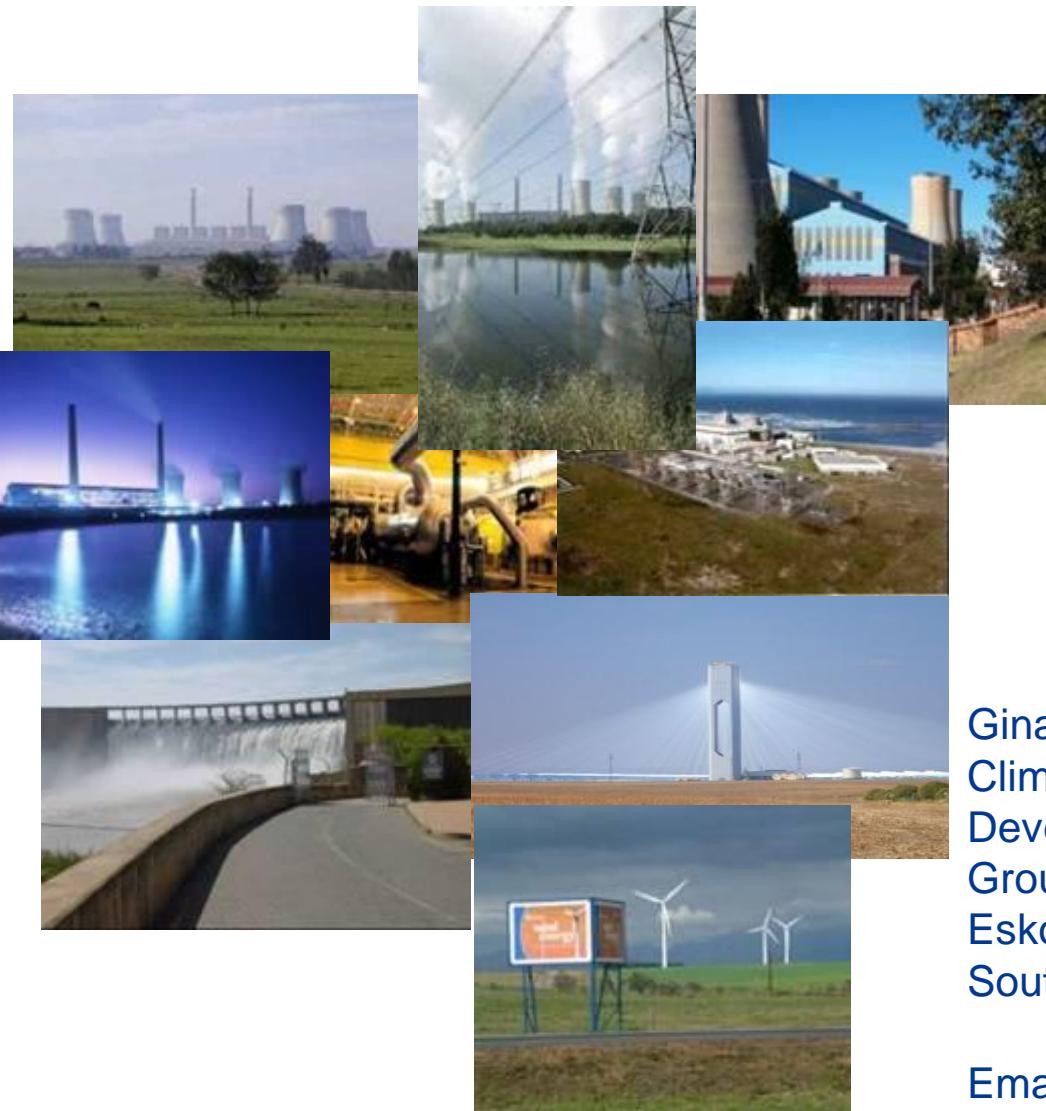
Electrical supply capacity and connection costs are a consideration



United Nation's SE4ALL Initiative - commitment made at Rio +20



- Eskom and Duke Energy, with support from various organisations including Global Sustainable Electricity Partnership, Energy Access Partnership and other interested stakeholders, are developing an **Electrification (E°) Roadmap** for the Southern African Development Community (SADC), Africa and developing countries.
- The initiative will focus on assistance with **consolidation of existing national electrification plans**, plan finalisation as needed and securing resources for accelerating implementation.
- The model for the initiative is one of replication and scale-up with a goal to **connect 500 million people to modern energy services by 2025**.
- The details of the partnership are under development and as such we are busy with communication with stakeholders and role clarification. Support for this initiative is being sought in the form of resources (funding and skills for implementation).



THANK YOU

Gina Downes
Climate Change and Sustainable
Development Department
Group Sustainability
Eskom Holdings SOC Ltd
South Africa

Email gina.downes@eskom.co.za