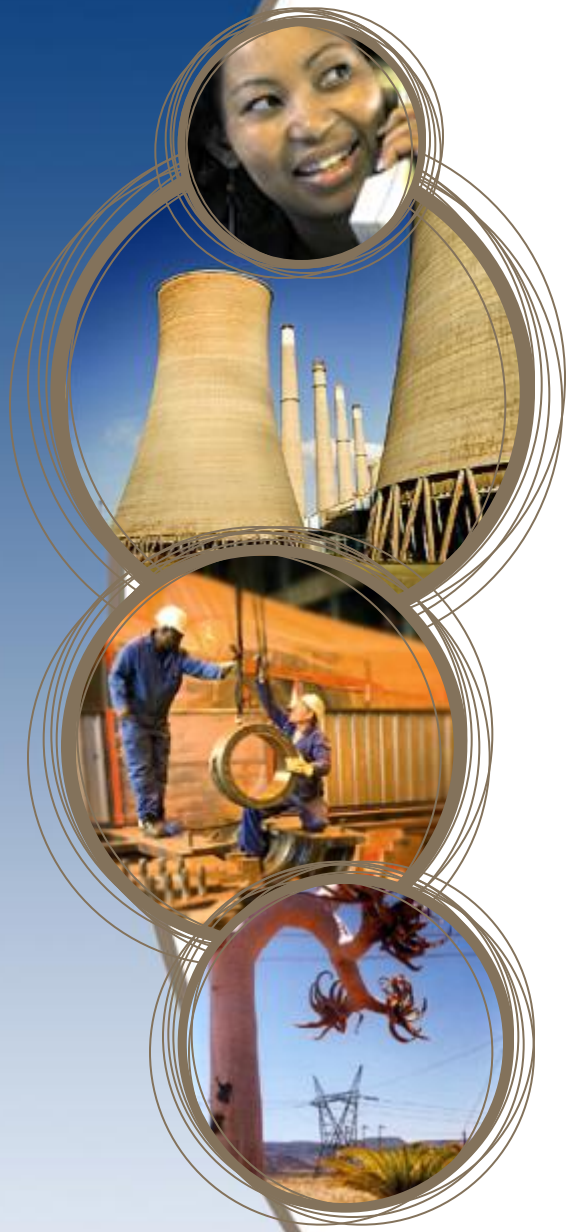

Leveraging private sector finance and expertise to deliver energy access

Electrification in South Africa

- Added ~4.5 million households to the grid since 1994 – the majority using prepayment technology
- Electrification has significantly increased from 1994 to today:
  - Nationally from 30% to 83% in Urban areas
  - Rural electrification from 12% to 57%
  - Limited success with stand alone solar home systems
  - Focus on schools and clinics
- Funded initially through the electricity tariff, then from the fiscus
- Protection for the poor through Free Basic Electricity
- **Still a significant backlog of 2.5m – 3m households without access to electricity – cost of $5 – 7bn**

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IMPLICATIONS OF THE PROGRAMME

- A Connection every 30 sec
- A Pole every 10 seconds
- 200m cable every minute
- Managing 1000 projects each year with 200 running simultaneously
- Investment of more than 7.5 billion Rand (~$1bn)
- Major positive benefits
  - Job creation – directly and indirectly
  - SMME development
  - Air quality – replace coal and wood
  - Education
  - Security
  - Safety – paraffin burns and poisoning
  - Health care
- The “external” benefits far exceed the costs

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Funding Electrification

Energy Access Partnership
Practical realities in creating energy access….

There will always be a need for funding from non-commercial sources and this is a big limiting factor in what can be achieved in terms of creating energy access for over half a billion Africans – investment required is no less than 1 trillion USD (at USD 2,000 per connection)

Firm belief that the two pillars of the EAP concept (local empowerment and management; local revenues to cover for local costs and maintenance) are sound. We need to mobilise local resources!

Creating local capacities is not to be done in a vacuum; i.e. funding for the rural power systems needs to be secured prior to mobilising future local electricity utilities. If done in the reverse way disappointment, frustration and lack of interest result from the delays and unsuccessful attempts to secured funding

Systematically assessing technology options (focus on renewables where possible) results in the most cost-effective power generation systems; i.e. the less costly option – but still expensive!

There is a need for existing (political) systems *to accept* other approaches to increase energy access. For example 'one tariff for all' does not allow for making use of local willingness and ability to pay for real operation and maintenance costs – locally available cash is very much needed to accelerate energy access.

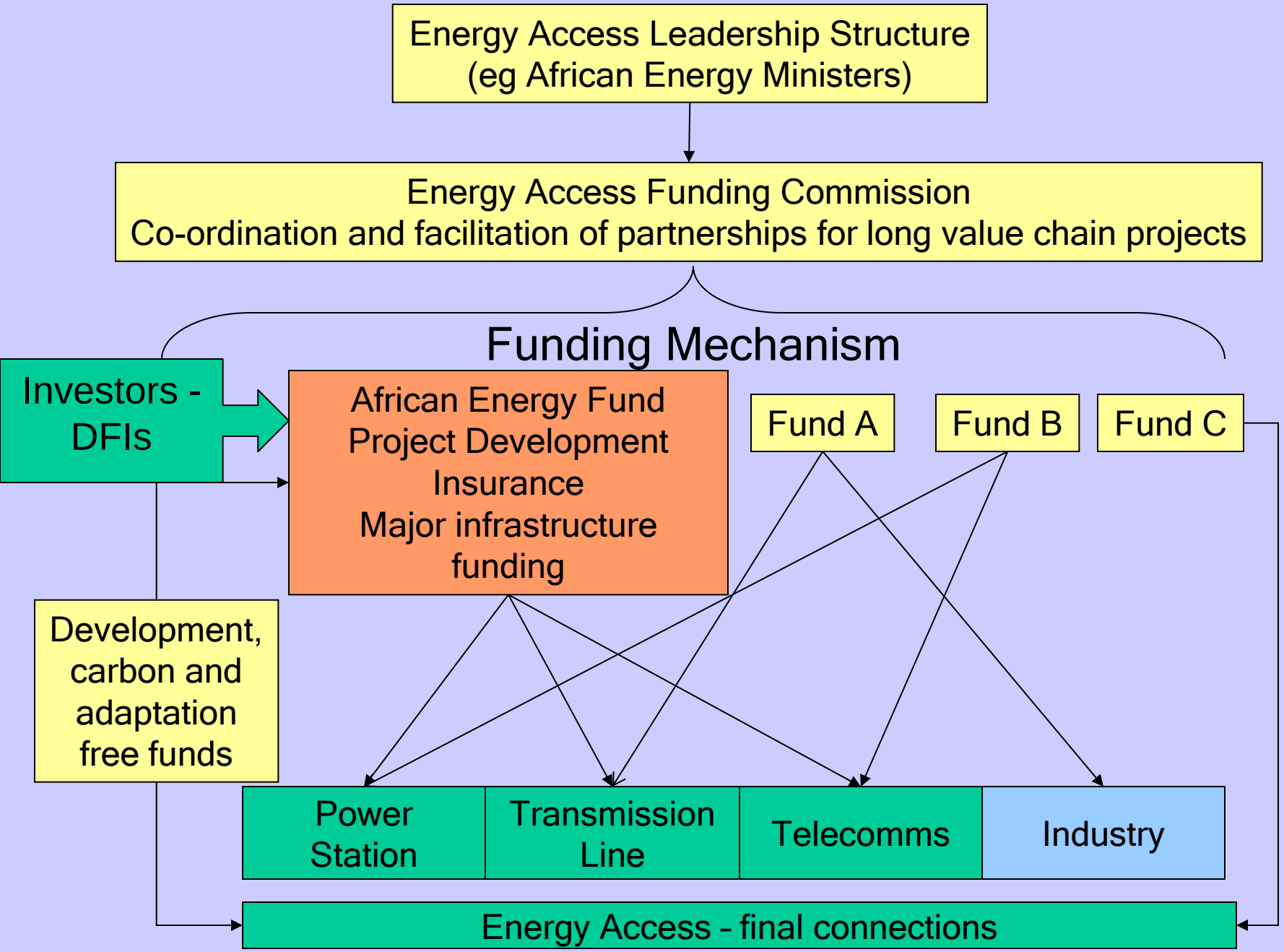
Energy Access Critical Success factors

- Committed champions at all levels
- Access plans per region/country
- Community buy in throughout the process
- Enabling regulatory environment
- Standard technology packages
- Large scale roll out for economies of scale
- Project pipeline – development capacity needed
- Execution partner
- Funding model for capital
- Sustainable O&M model
- Local economic empowerment

Public – Private sector Fund proposal

- Combine development, carbon and adaptation funding with institutional investors and credible implementation partners in the financing and execution of energy access projects.
- The proposed fund has four main components: -
  1. A "free" capital infrastructure base sourced from
     1. Consolidated development/grant funding from development agencies
     2. Adaptation funds from the Green Climate Fund – more access means more resilience
     3. Clean technology funds (typically for low carbon projects)
  2. Investments from institutional "sustainability" investors.
  3. Equity investments from core African businesses and institutions.
  4. Equity investments from non-African partners.
- The concept is based on the free or blended funding of the core infrastructure and connections – and then a sustainable business model for O&M and growth
- Support with strong project development capacity for the development and execution of major generation and transmission projects, as well as final connections
- Holistic approach to maximise local benefits – long value chain projects
- Note – opportunities for stand alone electrification projects – must be reliable, scalable and upgradable

The Fund Concept



Conclusion

- Energy Access is a key enabler of sustainable economic growth and development
- Standard commercial models for energy access do not work
- The Business case for energy access is a strong one when all costs and benefits are considered
- Energy Access increases the resilience of an economy and society, hence making a contribution to adaptation to the negative impacts of climate change
- Major low carbon energy access opportunities exist in Africa
- All of the above strongly justify the use of development, carbon and adaptation funds to finance key energy access infrastructure.
- Public and private sector funds can be blended and leveraged to effect sustainable energy access globally

Thank you