



Doug Banks
Renewable Energy
Vision

Evening Programme

17h30	Arrivals	Refreshments
18h00	Robert Aitken (Restio Energy)	Welcome and the focus of the DBREV scholarship
18h10	Helene	From the Family
18h15	Jason Schaffler	Keynote speaker
	Sponsor RECORD	Jason to present Karen's message
18h35	Robert Aitken	Introduce scholars
18h40	Kim Pillay	Current Scholar - presentation of Masters proposal & progress
18h55	Sean Kirsten	Brief update on completion of thesis and future plans
17h00	Riaan Opperman (ppt)	Brief summary of project
17h05	Gaby Pitman (Coppez)	First Scholar – brief summary of project , update on experience since completion of Masters and future plans
17h10	Robert Aitken	Discussion , Q&A
17h20	MC	Thank you, more refreshments etc

DBREV focus

- Improving **access** to clean, renewable and efficient energy technologies in **the off-grid space**;
- The Status Quo:
 - 1.3 billion people have no access to electricity
 - Approx. 600 million of these people live in Sub-Saharan Africa
 - Only 29% of Africa's population has access to electricity
 - 3 billion people globally rely on solid fuels for cooking (biomass)

The impact of the Status Quo

- Health impacts:
 - 3 - 4 million people die each year from illnesses attributed to indoor air-pollution (open fires, unimproved cookstoves, etc.)
- Environmental/Climate:
 - SSA consumes more biomass in the form of wood fuel than it re-plants.
 - For instance, 28,000 (+/- 70kgs/bag) bags of charcoal go into Dar es Salaam every day [2,000 tons of charcoal -->13,000 tons of wood]
 - Black carbon particles, carbon monoxide etc are products of incomplete combustion
- Economic:
 - Limited access to modern and affordable energy services is an important contributor to the poverty levels in developing countries

But why off-grid and not grid RETs?

- SA already has successful grid connected RET programme in the form of REIPPP
 - R150 billion+ Private sector investment committed over 65 awarded projects indicating strong investor interest, hugely capable EPC contractors, a facilitating policy framework, etc. It's a rapidly maturing sector in SA.
 - [smaller scale] Distributed rooftop grid connect market is emerging although significant policy obstacles remain
- REIPPP great for security of supply (diversification) and lowering emissions of GHG **BUT** does not within itself promote access to the grid
- 70% of the rural areas that currently lack access are **too remote for grid extension** to be cost effective (SSA).
- The IEA estimates that of the \$48 billion p.a. required, an average of \$20 billion per year globally will be required for **mini-grid and off-grid** solutions

Which is why DBREV is more about this

SHS



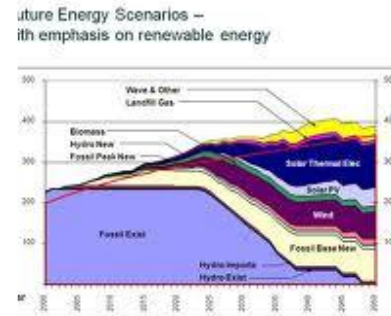
Biogas digesters



Lighting Africa



Scenario planning



Global cookstove alliance



Micro-enterprise



Than it is about this...

Wind farms



Solar farms



Hydro-electric



Solar concentrators



Large turbines



Large scale solar



New developments in the off-grid sector

- But DRETs not simply small, unimaginative and publically funded. Like the REIPPP programme, increasing investor interest in DRETs
- IFC promoting the DESCO model
 - *Distributed energy service company*
 - *Efficiently and cost-effectively reach somewhere close to 500m people over the coming decade.*
 - *Key features; market driven & rapid scaling up*
- *Examples;*
 - *IDCOL (Bangladesh); 60,000 SHS installations/month*
 - *Off-grid electric (Tanzania), 36,000 installs/year*
 - *Contracted with Tz gov – 1 million homes \$100m investment*
 - *Key features;*
 - *Mobile money, commercial investors, LED lighting, high growth rates, clear policies*
 - *Increasingly commercial proposition*



What the sector needs (and how DBREV helps)

- Strong **policies** that are ‘long, loud and legal’; that ensure continuity and promote investment [policy focus]
- Technical **standards** – that ensure RE/EE technologies deliver the required services [engineers/technology focus]
- Credible **research** which will shape the necessary interventions [social scientists]
- Access to **finance**, M/FIs need to be brought up to speed on distributed RE/EE technologies, private sector investment required [finance experts]
- Appropriate **business** models, that are innovative and sustainable [business expertise]
- Most important: an active, committed **professional community** dedicated to improving energy access on the continent

Thank-you

