Department of Energy

EXPLORING SOLUTIONS TO CHALLENGES TO FINANCING THE RENEWABLE ENERGY PRODUCTS

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Presentation Outline

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• Department of Energy’s mission and vision
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Department of Energy’s Mandate

• Ensure secure and sustainable provision of energy for socio-economic development through:
  – Provision of an enabling platform for other sectors to speed up economic growth and transformation, create decent jobs and sustainable livelihoods,
  – Unlocking of infrastructure investment through policy and regulatory framework,
  – Contribution to the massive programme to built economic and social infrastructure,
  – Implementation of various interventions to encourage sustainable energy resource management and use, through flagship interventions such as solar water, (Wind, PV, CSP, etc)
  – Improved efforts to meet the energy efficiency and renewable energy projects
Department of Energy’s Mission and Vision

MISSION
• To regulate and transform the sector for the provision of secure, sustainable and affordable energy

VISION 2014
• A transformation and sustainable energy sector with universal access to modern energy carriers for all by 2014

VISION 2025
• Improving our energy mix by having 30% of clean energy by 2025
Drivers and Pressures in the Energy Sector in South Africa

- Access to energy
- Poor economic regulation
- Demand management
- Upward pressure on cost of energy
- Safety
- Energy security
- International cooperation
- Climate change (Clean energy)
- Skills and capacity
- Diversity of supply

Energy sector

Department of Energy
REPUBLIC OF SOUTH AFRICA
Energy Policies and Regulatory Framework

- **Energy Act of 2008:**
  - This is the primary legislative instrument that governs the evolution and transformation of the South African energy economy. It seeks to ensure that diverse energy resources are available in sustainable quantities and at affordable prices to the South African economy in support of economic growth and poverty alleviation.

- **Electricity Regulation Act as Amended:**
  - One of the objectives of this Act is to “promote the use of diverse energy sources and energy efficiency”.
  - The Act has a provision for new generation capacity. In this provision, “The Minister may, in consultation with the Energy Regulator determine that new generation capacity is needed to ensure the continued uninterrupted supply of electricity and determine the types of energy sources from which electricity must be generated, and the percentages of electricity that must be generated from such sources.”
Energy Policies and Regulatory Framework Cont’

- These processes are supported by Preferential Procurement Policy Framework Act; **Tax Incentive Regulations by National Treasury** and **IPAP2** by **the dti and** respectively.

- **Independent Systems Market Operator (ISMO) Bill:** The ISMO is intended to level the playing field between producers and consumers of electricity in a manner that protects the smaller players from potential market abuse by the bigger players.

- The partnership led by the Economic Development Department (EDD) through the National Economic Development Labour Advisory Council (NEDLAC) resulted in the signing of a Green Economy Accord, Local Procurement Accord, National Skills Development.

- This clearly was demonstrated the acknowledgement that government alone cannot do it and therefore it needs to partner with other stakeholders for a coordinated implementation and impact.
SA has a relatively infant but growing renewable energy industry.

Notwithstanding the above, the government has done a lot of work in injecting the much-needed thrust into this fledging industry.

This includes, among others:

- Approval of Renewable Energy White Paper in 2003;
- Approval of Biofuels Industrial Strategy in 2007;
- Approval of Integrated Resource Plan in 2011,
- Creation of a legal and regulatory frameworks for RE i.e. New Generation Capacity Regulation Act; and
- Introduction of financial support to realize the government’s RE policy goals i.e. Fiscal allocation and Eskom rebate for solar water heating through the MYPD.

“Government is committed to diversifying its energy mix and this include the introduction of renewable energy at a large scale”
Challenges and Successes in the sector

- Major challenges remain the high capital costs and capacity building to deal with installation, maintenance, and development of local market and business.

- Government has so far created potential opportunities for skilling people and ensuring that they get absorbed into the energy sector market either through energy auditing, in particular the localisation value chain, i.e. manufacturing, supply and maintenance of energy technologies.

- This was done through various stakeholders, such as government departments, Business and Civil Society, as well as Academia through scientific and technological research, education and training.

- However, continued support and proactive participation and partnerships between various actors from business, all spheres of government, civil society and international community is still required.
Responding to renewable energy market is expensive and will require a comprehensive resource package.

South Africa will therefore have to commit to mobilising the resources. This should include financial resources, technical cooperation and technology transfers at local, regional, and international levels.

As a developing country, South Africa recognises that international resources (as envisaged under the UNFCCC) need to complement domestic resources to finance the cost of transition to a low and green economy.

Further, Government recognises that improved finance policy coordination is critical to creating a sustainable climate finance architecture for South Africa. Environment-related financial reforms in the private and public sectors will seek to fundamentally transform South Africa into a climate resilient economy and society.
Breaking the barriers through forging partnerships

• There is need for a multi-disciplinary partnership, that is,

• National/Provincial governments, Academic institutions, Community Based Organisations, Technology Designers and Manufacturers, Donor Governments, Investors, Microfinance Institutions, Multilateral Institutions, Non-Governmental Organisations, Research Institutions, Self-help groups, Small and medium enterprises, Socially responsible funds, Development Banks, etc

• This partnership will enhance our overall understanding of the challenges and solutions in the sector while addressing import tariffs and trade barriers through localisation and mobilising effecting sales, distribution, and supply chains and engaging all agents of change.
Exploring Solutions to challenges on financing renewable products:
Independent Power Producers (IPP) programme

• The Renewable Energy Programme was launched in August 2011.

• The Department negotiated with the DBSA in terms of funding BEE portions of the projects.

• The DBSA term sheets for lending the money to BEE was included in the procurement documents.

• It is acknowledged that some of the conditions might have changed since the release of the documents in August 2011 and the department will amend the DBSA funding requirements accordingly.

• The programme requires projects that have already sourced funding from the respective banks

• A letter of support must be provided by the concerned bank for each project submitted to the Department
Exploring Solutions to challenges on financing renewable products: Independent Power Producers (IPP) programme

- The programme requires developers that are ready in terms of:
  - Land, Environmental Authorization; and
  - Letter of support from the funding providers

- The programme provides for mix funding:
  - Funding may come from international institutions
  - Local banks are expected to play a critical role in funding the projects

- It should be noted that National Treasury does not accept any project indexed to a foreign currency

- At the bid submission stage projects must be ready and have all the necessary funding
Exploring Solutions to challenges on financing renewable products: Independent Power Producers (IPP) programme

- DBSA, IDC and PIC are expected to continue to play a significant role in terms of funding a portion of the projects relating to BEE and Community development.

- The Department together with National Treasury initiated a RE funding programme through concessionary funding.

- In addition to this, there are a number of funding institutions which demonstrated interest to participate in such a fund.

- It is expected that this funding mechanism will lead money to the renewable projects at a reasonable rate.

- The Department is working very closely with National Treasury to develop the funding framework for the concessionary fund.
Exploring Solutions to challenges on financing renewable products: Off Grid Technologies

• The DoE has partnered with the Kreditanstalt fur Widerauba (KfW) on “the German Financial Cooperation with South Africa on Rural Electrification Programme” to roll out the Solar Systems in the Eastern Cape Province: Concession for Decentralised Rural Electricity Supply with Solar Systems.

• German Government has allocated a grant for non-grid electrification in the Eastern Cape of households, schools and clinics in the respective permission areas since 2000.

• There are various other financing institutions that fund the following technologies to lift the quality of life from economic, environmental and sustainability purposes:
  – Lighting
  – Solar Battery Chargers
  – Solar Homes Systems
  – Space heating, etc
Exploring Solutions to challenges on financing renewable products: Off Grid Technologies

- The US government approached the South African government through the Department of Science and Technology to partner on some of the Off Grid Technologies which should be considered for rural and remote areas. The DST is still engaging with the DoE in this regard.

- The said partnership is the Global Alliance for Clean Cookstoves which is an innovative public-private partnership, led by the United Nations Foundation, to save lives, improve livelihoods, empower women, and combat climate change by creating a thriving global market for clean and efficient household cooking solutions.

- The Alliance’s ‘100 by 20’ goal calls for 100 million homes to adopt clean and efficient stoves and fuels by 2020 and works with public, private, and non-profit partners to help overcome the market barriers that currently impede the production, deployment, adoption, and use of clean Cookstoves in the developing world.

- The Alliance seeks to advance the use of innovative finance mechanisms for clean stoves at scale;
Financing Solutions for some Renewable Energy Products

- Renewable Energy Market Transformation (REMT) Programme housed at DBSA offers financial support for prefeasibility and feasibility studies of RE power generation and solar water heating projects. The last Call for Proposals is currently opened until 30 January 2012. For more information visit [www.remtproject.org](http://www.remtproject.org)

- Energy and Environment Partnership Programme also housed at DBSA offers financial support for prefeasibility, feasibility and demonstration of both off grid and grid connected projects. For more information visit [www.eepafrica.org](http://www.eepafrica.org)

- Working for Energy programme which the department is implementing through SANEDI focuses on projects that can increase energy access in rural areas whilst creating jobs in the process. For more information visit [www.wfe.org.za](http://www.wfe.org.za)
The Department of Energy is participating in the Energy and Environment Partnership Programme for Southern and Eastern Africa (EEP S&EA or simply EEP) which is a 3-year programme that promotes renewable energy, energy efficiency, and clean technology investments in 8 selected countries from Southern and Eastern Africa.

These include Botswana, Kenya, Mozambique, Namibia, South Africa, Swaziland, Tanzania and Zambia. The programme started about 6 years ago in Central America before its implementation in South-East Asia and Africa.

The Programme is jointly funded by the Governments of Finland and Austria and its implementation started in April 2010.

It is anticipated that all the projects will generate jobs in the areas where they are rolled out.
The EEP Programme supports projects which aim to provide sustainable energy services to the poor and simultaneously combating the climate change.

Moreover, the supported projects will demonstrate high innovation in delivering energy services, facilitating technology transfer, encouraging cooperation with other organizations and increasing local stakeholders’ participation in projects.

The EEP Programme operates from its Regional Coordination Offices (RCO) hosted at DBSA Agencies Unit and receives advisory, technical and administrative support from DBSA Agencies Unit, the Ministry for Foreign Affairs of Finland (MFA) in Pretoria.
Climate Financing Mechanism

- The Copenhagen Accord resolved on Fast Start Financing approaching $30 Billion by 2012 and on long term funding arrangements of up to $100 Billion per year by 2020.

- Through the Fast start funding, the Danish Energy Agency has been engaging the DoE in developing a project document to fund several RE products planned to start in January 2013 after the signing of the Implementation Agreement.

- The Cancun agreements was to establishment of a **Green Climate Fund**, **Finance Standing Committee** and the establishment of **Technology Mechanism** under the guidance and accountable to the COP.

- The Durban Platform made headway on the process on the Green Climate Fund (GCF) as an operating entity of the financial mechanism of the Convention; a fund expected to mobilize US$100 billion a year by 2020.
South African Renewable Energy Initiative (SARi)

- The South African Renewable Initiative is an ambitious initiative which has the potential of catalysing South Africa’s transition to a greener growth path.

- The South African Renewable Initiative (SARi) has been established by the Government of South Africa to support the rapid and ambitious scaling up of renewables in a manner that will deliver economic, social and environmental benefits without imposing unacceptable costs on the nation’s citizens and economy.

- South Africa is taking steps to develop as a site for renewable energy generation. The current national plan for electricity includes an ambitious 19 gigawatts (GW) of renewables to be added to the grid by 2030.

- The South African Government is seeking to working together with other international partners to develop a set of innovative blended financial instruments aligned to national plans for green growth.
The South African Renewable Initiative (SARi)

- The vision – unlocking South Africa’s green growth potential. The South African Renewables initiative (SARi) has now been confirmed by Cabinet and forms part of South Africa’s White Paper on Climate Change Response Strategy as well as its Industrial Policy Action Plan.
The South African Renewables Initiative (SARi) has been established by the Government of South Africa to support the rapid and ambitious scaling of renewables in South Africa in a manner that will deliver economic, social and environmental benefits without imposing unacceptable costs on the nation’s citizens and economy.

**Benefits**
- Localisation and job creation
- Greening of electricity supply
- Medium term energy security
- Catalysing green growth

**Costs**
- Technology costs
- Capital costs
- Costs of accelerating deployment
Examples of climate mitigation-focused public financing mechanisms which aim to leverage private investment include:

- **Partial risk guarantees** enable Development Finance Institutions to offer low cost loans. Partial loan guarantees underwritten by governments and other public finance institutions protect private investors against defaults and enable development finance institutions to raise capital on the market.

- **Policy insurance and guarantees** that cover private lenders, or investors against the risk of a government (or government-owned entity) failing to perform its contractual obligations with respect to a private project, or changing the basis of a specific public policy needed for project viability.

- **Carbon finance facilities** monetize the advanced sale of emissions reductions to finance project investment costs.

- **Grants and contingent grants** share project development costs, reducing risk and investment needed at the early stage of project development.
Learning from International Experience: using public funding to leverage private investment

- **Loan softening programmes** use aid funding to offset the cost of credit and offer loans at concessional rates, significantly below low cost market rates.

- **Foreign exchange liquidity facility** help reduce the risks associated with local currency fluctuations where projects need to repay loans on borrowed debt in foreign currency.

- **Export credit guarantees** offer credit to technology exporters, reducing the cost on enhancing access to key technology inputs.

- **Pay-for-performance grants** offer direct payment of incremental costs to support low carbon policies, for example, by funding feed-in tariffs for strategic renewables procurement.

- **Equity capital ‘pledge’ funds, and subordinated equity** use public equity to take a ‘first loss’ position to encourage much larger investment by private investors, such as sovereign wealth funds, large private equity firms and pension funds.

- **Green bonds have been proposed as mechanisms** guaranteed by OECD country governments to be issued to private sector investors to generate funds for climate change activities.
CONCLUSIONS

• It is recommended that the PPC note the existing programmes on financing renewable products.

• The level of partnership required within the sector
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