

GROWING A FOCUSED, SUSTAINABLE AND DEVELOPMENTAL DBSA

TRANSPORT

ENERGY

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WATER

Role in the Independent Power Producer Sector
27 August 2015

South Africa's Energy Landscape

Integrated Resource Plan

- The Integrated Resource Plan (“IRP”) 2010 is a living plan that forms the strategy of new generation capacity by 2030.
- The IRP 2010 aims to increase investments into new power projects by 40,000MW by 2030.
- The IRP 2010 provided the following:
 - Coal's total share expected to increase by 15%
 - Nuclear's total share expected to increase from 5% (2010) to 23%
 - Renewable energy's share expected to increase by 42%, a significant milestone given that modern forms of renewable energy have been almost non-existent in SA's current generation mix.

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REIPPPP Available MW(New determination 8100MW + Bal. of 602MW)

Technology	Original Determination	MW capacity allocated in First Bid Window	MW capacity allocated in Second Bid Window	MW capacity allocated in Third Bid Window	MW capacity allocated in Third & Half Bid Window	MW capacity allocated in Forth Bid Window	Additional MW capacity allocated for Forth Bid Window	Total MW Allocated To Date	MW capacity allocated in Extended Window	MW capacity allocated for Future Rounds	Total MW capacity remaining
Solar photovoltaic	2525	632	417	435		415	398	2297	520		2 568
Wind	3320	634	563	787		676	687	3347	650		2 898
Concentrated solar	600	150	50	200	200	0		600	450		2 025
Small hydro (\leq 40MW)	135	0	14	0		5		19	40		296
Landfill gas	25	0	0	18				18	15		75
Biomass	59	0	0	16		25		41	100		468
Biogas	60	0	0	0				0	25		173
Small IPPs	200							0		200	400
Total	6924	1416	1044	1456	200	1121	1085	6322	1800	6300	8902



Gas Baseload Programme

- Gas Utilisation Masterplan (GUMP) currently being drafted
- Shale gas mostly still being developed
- Bulk of onshore developments controlled by Shell
- Timelines 7-10 years to commercial operation
- Potential markets:
 - Power generation (fuel of choice)
 - Residential (one of cheapest forms of energy)
 - Industrial (petrochemicals, refining, waste treatment)
 - Non-energy use (petrochemicals & fertilizer)
 - Gas-to-Liquids (currently 3xGTL plants, 2x under construction)

IPP - DBSA's Financing Role

- From the perspective of financing, DBSA has committed to supporting the IPP peakers and the REIPP programme via debt and empowerment equity funding.
- DBSA's committed exposure is as follows:

IPP Peakers and REIPPP Rounds 1, 2	
No of committed projects	15
Technology profile	Peaking plants Solar photovoltaic Concentrated solar power Wind
MW	1903
Status	<ul style="list-style-type: none"> • 8 projects successfully completed and are in the operations phase • 7 projects under construction
Total funding committed	ZAR 8.66 billion
BEE funding committed	ZAR 1.9 billion

REIPPP - DBSA's Financing Role

- Specifically for renewable under projects under the REIPPP, DBSA's committed exposure is as follows:

REIPPP Rounds 1 and 2	
No of committed projects	13
Technology profile	Solar photovoltaic Concentrated solar power Wind
MW	896
Status	<ul style="list-style-type: none">8 projects successfully completed and are in the operations phase5 projects under construction
Total funding committed	ZAR 6.7 billion
BEE funding committed	ZAR 1.3 billion

IPP Peaking Power



Independent Power Producers Peakers Plants (Open Cycle Gas Turbine)

- Department of Energy initiated a process to procure peaking power from IPPs
- These peaking plants are the largest independent power producer (IPP) plants to be developed in South Africa to date, with a combined net capacity power of 1 005 MW as follows:
 - 670 MW Avon Facility is being built near Shakaskraal, in KwaZulu-Natal, and will comprise of four units.
 - 335 MW Dedisa Plant, which will be located in the Coega industrial development zone, of the Eastern Cape, will comprise of two units.

DBSA's Financing Role – Peaking Power



Independent Power Producers Peakers Plants (Open Cycle Gas Turbine)

- The DBSA has provided funding of R2 billion in the form of loans, guarantees and Empowerment Funding to facilitate the development of these two peaking electricity plants collectively valued at R9.7-billion.
- The projects are being pursued by a consortium led by GDF SUEZ
- DBSA allocated R560-million for empowerment financing and guarantees support to a BEE consortium, led by Legend Power, and a community trust, facilitated by GDF SUEZ.

DBSA Products and Services for IPP Projects



The following products are typically applied towards IPP projects:

Debt	Long-term debt, 15 years ZAR financing
Empowerment Finance	Equity Finance to support the BEE/LEE partners
Arranging	Lead Arranger
Underwriting	Underwrite to ensure complete financing package

Other products that could potentially be applied to enhance the projects:

Project Preparation Assistance	Funding applied towards feasibility studies and project preparation
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Key Investor Considerations...

*Clarity and Regulatory Framework:
Acts enabling Legislation,
Licenses and Conditions*



Regulatory and Legal:

- Clarity in the regulatory environment
- Transparent procurement system
- Key terms of the PPA
- Understanding of the tariff regime
- Contracting regime
- Security

Key Investor Considerations...

Sponsors and Operators with experience and a proven track record



Commercial Considerations:

- Government support and commitment
- Strong transaction advisory support
- Strong sponsors and operators
- Committed partners
- Technology
- Resource Considerations
- Currency considerations

Key Investor Considerations...



Improving the livelihood of the people through improved access to services



Development Impact:

- Environmental Issues
- Improved access to services
- Job creation
- Local Economic Development
- Skills Development
- Transfer of Risks

Conclusion and Parting Thoughts...

IPPs can be successfully applied in the region



Taking cognizance of the challenges IPPs in energy are a viable proposition:

- Various sources of funding can be leveraged
- Government has the opportunity to influence and guide development outcomes
- Opportunities are created for Investors, Local Economic Empowerment and transformation

Contact Details

Development Bank of Southern Africa

Physical Address	Postal Address	Tel/Fax
1258 Lever Road Headway Hill Midrand	P.O. Box 1234 Midrand 1685	+27 11 313 3825 +27 11 206 3825
Loyiso Jiya	Business Development Professional – Energy, PPPs and Environment	



Thank You



Development Bank
of Southern Africa

www.dbsa.org • +27 11 313 3911