

Funding Proposal

FP106: Embedded Generation Investment Programme (EGIP)

South Africa | Development Bank of Southern Africa (DBSA) | Decision B.22/24

20 March 2019





Funding Proposal

Version 1.1

The Green Climate Fund (GCF) is seeking high-quality funding proposals.

Accredited entities are expected to develop their funding proposals, in close consultation with the relevant national designated authority, with due consideration of the GCF's Investment Framework and Results Management Framework. The funding proposals should demonstrate how the proposed projects or programmes will perform against the investment criteria and achieve part or all of the strategic impact results.

Project/Programme Title: Embedded Generation Investment Programme ("EGIP")

Country/Region: South Africa

Accredited Entity: Development Bank of Southern Africa ("DBSA")

Date of Submission: 30 October 2018

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Note to accredited entities on the use of the funding proposal template

- Sections **A, B, D, E** and **H** of the funding proposal require detailed inputs from the accredited entity. For all other sections, including the Appraisal Summary in section F, accredited entities have discretion in how they wish to present the information. Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other project documents such as project appraisal document.
- The total number of pages for the funding proposal (excluding annexes) is expected not to exceed 50.

Please submit the completed form to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“[FP]-[DBSA]-[29-10-2018]-[Serial Number]”

ABBREVIATIONS

AfDB	African Development Bank
CO ₂ eq	Carbon dioxide equivalent
COD	Commercial Operation Date
CPs	Conditions Precedent
CSIR	Council for Scientific and Industrial Research
CSP	Concentrated Solar Power
DBSA	Development Bank of Southern Africa
DBSA Act	Development Bank of Southern Africa Act (No. 13 of 1997)
DEA	Department of Environmental Affairs
DESSS	DBSA's Environmental and Social Safeguard Standards
DFIs	Development Finance Institutions
DoE	Department of Energy
DTI	Department of Trade and Industry
E&S	Environmental and Social Policy
EIB	European Investment Bank
EKF	Danish Export Credit Agency
EM	Emerging Markets
EGIP	Embedded Generation Investment Programme
ERA	Electricity Regulation Act (No. 4 of 2006)
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plans
ESMS	Environmental and Social Management System
ESS	Environmental and Social Safeguard
ESSS	Environmental and Social Safeguard Standards
JSE	Johannesburg Stock Exchange
FDI	Foreign Direct Investment
FAA	Fund Activity Agreement
FICA	Financial Intelligence Control Act (No. 38 of 2001)
FOLU	Forestry and Other Land Use
GDP	Gross Domestic Product
GEF	Global Environment Facility
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GW	Gigga Watt
GWh	Gigga Watt Hour
IFC	International Finance Corporation
IFI	International Financial Institution
IIPSA	Infrastructure Investment Programme for South Africa

INDC	Intended Nationally Determined Contribution
IPPPP	Independent Power Producers Procurement Programme
IPPs	Independent Power Producers (IPPs)
IPP Office	Independent Power Producer Office, which is an implementing agent set-up by the NT, the South african Government, the DoE and the DBSA with a key objective to implement key/ priority IPP projects pursuant to the IRP
IRENA	International Renewable Energy Agency
IRP	Integrated Resource Plan
JIBAR	Johannesburg Interbank Agreed Rate
MLA	Mandated Lead Arranger
Mt	Million tonnes
MW	Megga Watt
MYPD	Multi-Year Price Determination
NBFIs	Nonbank Financial Institutions
NDC	Nationally Determined Contributions
NDP	National Development Plan
NEMA	National Environmental Management Act (No. 107 of 1998)
NERSA	National Energy Regulator of South Africa
PMU	Portfolio Management Unit
NER Act	National Energy Regulation Act (No. 40 of 2004 of)
NT	National Treasury
OECD	Organisation for Economic Co-operation and Development
OPIC	Overseas Private Investment Corporation
OTC	Over-the-counter
PEPs	Identification of Politically Exposed Persons
PFMA	Public Finance Management Act (No 1 of 1999)
PPAs	Power Purchase Agreements
PV	Photovoltaic
XXXREIPPPP	Renewable Energy Independent Power Producers Procurement Programme
SAFCOM	Safex Clearing Company (Pty) Ltd
SAPP	South African Power Pool
SAWEA	South African Wind Energy Association
SMMEs	Small, Medium and Micro Enterprises (SMMEs)
Strate	Strate Party Ltd
tCO ₂ e	tonnes Carbon dioxide equivalent
TWG	Technical Working Group
UNFCCC	United Nations Framework Convention on Climate Change
UOS	Use-of-system
VAT	Value Added Tax

A.1. Brief Project / Programme Information		
A.1.1. Project / programme title		Embedded Generation Investment Programme ("EGIP")
A.1.2. Project or programme		programme
A.1.3. Country (ies) / region		South Africa
A.1.4. National designated authority (ies)		Department of Environmental Affairs ("DEA")
A.1.5. Accredited entity		Development Bank of Southern Africa ("DBSA")
A.1.5.a. Access modality		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> International
A.1.6. Executing entity / beneficiary		Executing Entity: DBSA Beneficiary: Various Renewable Energy Independent Power Producers, Local Communities and SMMEs.
A.1.7. Project size category (Total investment, million US\$)		<input type="checkbox"/> Micro (≤ 10) <input type="checkbox"/> Small ($10 < x \leq 50$) <input type="checkbox"/> Medium ($50 < x \leq 250$) <input checked="" type="checkbox"/> Large (> 250)
A.1.8. Mitigation / adaptation focus		<input checked="" type="checkbox"/> Mitigation <input type="checkbox"/> Adaptation <input type="checkbox"/> Cross-cutting
A.1.9. Date of submission		12 December 2018
A.1.10. Project contact details	Contact person, position	Mr. Mpho Mokwele, Head: Project Finance Division
	Organization	DBSA
	Email address	MphoM2@dbsa.org
	Telephone number	+27 (0) 11 313 3987
	Mailing address	Physical Address: 1258 Lever Rd, Headway Hill, Midrand, South Africa. Postal Address: P.O. Box 1234, Halfway House, Midrand, 1685, Gauteng, South Africa.

A.1.11. Results areas <i>(mark all that apply)</i>	
Reduced emissions from:	
<input checked="" type="checkbox"/>	Energy access and power generation (E.g. on-grid, micro-grid or off-grid solar, wind, geothermal, etc.)
<input type="checkbox"/>	Low emission transport (E.g. high-speed rail, rapid bus system, etc.)
<input type="checkbox"/>	Buildings, cities and industries and appliances (E.g. new and retrofitted energy-efficient buildings, energy-efficient equipment for companies and supply chain management, etc.)
<input type="checkbox"/>	Forestry and land use (E.g. forest conservation and management, agroforestry, agricultural irrigation, water treatment and management, etc.)
Increased resilience of:	
<input type="checkbox"/>	Most vulnerable people and communities (E.g. mitigation of operational risk associated with climate change – diversification of supply sources and supply chain management, relocation of manufacturing facilities and warehouses, etc.)
<input type="checkbox"/>	Health and well-being, and food and water security (E.g. climate-resilient crops, efficient irrigation systems, etc.)
<input type="checkbox"/>	Infrastructure and built environment

- ☐ (E.g. sea walls, resilient road networks, etc.)
- ☐ Ecosystem and ecosystem services
(E.g. ecosystem conservation and management, ecotourism, etc.)

A.2. Project / Programme Executive Summary (max 300 words)

Background

South Africa is a contributor to global climate change, with greenhouse gas (“GHG”) emissions resulting mainly from energy production and consumption. The energy sector remains the single largest contributor to the country’s total GHG emissions (82.7% in 2012) in South Africa (the 2000 -2015 GHG inventory report is currently in development). The country is heavily reliant on coal-based fossil fuel energy, with more than 90% of electricity being produced mainly from this source. This dependence on coal continues to strain the country’s efforts to reduce GHG emissions. In 2012 the total GHG emissions in South Africa were estimated at 518,297 CO₂ eq (including FOLU), of which 428,112 CO₂ eq was contributed by the energy industry¹. As a signatory to the United Nations Framework Convention on Climate Change (“UNFCCC”) and the Paris Agreement, South Africa has taken steps to formulate measures to mitigate and adapt to a changing climate. In the National Determined Contributions (“NDC”) submitted in 2015, South Africa has committed to a peak, plateau and decline in GHG emissions trajectory in the range between 398 and 614 Mt CO₂eq for the period 2025 up to 2030. In line with South Africa’s commitments to reduce emissions, the promulgated Integrated Resource Plan 2010–2030 imposed CO₂ emission limits on the electricity generation plan. South Africa’s power sector has to comply with CO₂ emissions constraints: Peak-plateau-decline and a determined carbon budget for the entire sector up to 2050. This Programme along with the existing ongoing sovereign-backed Renewable Energy Independent Power Producers Procurement Programme (“REIPPPP”) will contribute towards these NDC targets.

In line with the national commitment to transition to a low carbon economy, the Department of Energy (“DoE”) designed the sovereign-backed REIPPPP. Since its inception in 2011, the REIPPPP has procured renewable energy capacity of ca. 6,422 MW (ca. 36% of renewable energy target) from 92 large independent power producer (“IPPs”) and 99 MW from 20 small scale (1-5 MW) IPPs.² Up to 2015, South Africa had the fastest growing green economy in the world and the program was lauded as one of the most successful renewable energy programs in the world. The REIPPPP has stalled since the end of 2015 due to liquidity issues at the national utility (Eskom). The PPAs for the 27 large REIPPPP projects from rounds 3.5 and 4 which were affected by the delays and were on hold since 2015, were signed in April 2018.

Draft Integrated Resource Plan (“IRP”) 2018

Recognising the limitation of relying only on government backed renewable energy programmes, the Minister of Energy has published the updated draft IRP 2018 in August 2018 for public comment. The updated IRP indicates a total shift in country’s energy mix towards renewable energy, where it is anticipated that PV will represent 10.5% (7,958 MW) of energy by 2030 and Wind will represent 15.1% (11,442 MW). The draft IRP also allocates 200 MW per annum starting in 2018 for embedded generation capacity (generation for own use allocation) up to 2030 (2,600 MW allocated up to 2030). Embedded generation is the production of electricity from smaller scale power stations, located in close proximity to the place of consumption that are usually directly connected to a distribution network. In South Africa, these includes projects that lie outside of the formal government procurement programmes and usually defined as projects that are planned for own use/consumption.

Rationale for the Programme

The country has a number of private sector backed fully-developed renewable energy projects, targeted at generation for own use. Some projects were developed for REIPPPP but were not successfully awarded preferred bidders. Out of a total of bankable projects, only 24% were successful in being awarded under the REIPPPP. There remains ca 11.2 GW of fully developed and viable renewable energy projects with necessary permitting and licensing in the country that can potentially be supported through the proposed Embedded Generation Investment Programme (“EGIP”).

¹ GHG National Inventory Report, South Africa, 2000-2012
(https://unfccc.int/sites/default/files/resource/28147395_South%20Africa-BUR2-1-South%20Africa_%20GHG%20Inventory%20Report%20-%202000-2012.pdf).

² An Overview, Independent Power Producers Procurement Programme (IPPPP), As at 30 June 2017
(<https://www.ipp-projects.co.za/Publications>).

Embedded generation renewable energy projects have no demonstrable track record of successfully reaching financial close. The key objective of the EGIP is to formulate this track record to ensure that the initial Projects reach financial close, by so doing, a market for embedded generation is created in South Africa.

In order to improve the viability and the bankability of these Projects outside of the REIPPPP, the DBSA has structured a credit support mechanism to support non-sovereign backed PPAs for renewable energy projects in South Africa. Non-sovereign backed renewable energy projects are defined as projects that are wholly implemented by:

- (i) Private sector entities (acting as off-takers and Independent Power Producers ("IPPs")); and
- (ii) Local government entities (acting as off-takers) and private sector entities (acting as IPPs).

This includes both the private and municipal off-takers. The embedded generation allocation per annum will further strengthen this pipeline. The objective is to credit enhance the projects under the Programme, thereby creating an enabling environment for continued renewable energy investment by the private sector in South Africa. In addition, this financing mechanism is intended to crowd-in funding from commercial lenders and to assist South Africa to make further inroads towards their climate change objectives. The intention from the South African Government (as articulated under the draft IRP) is that embedded generation contributes approximately 11.5% to renewable energy capacity by 2030.

The expected direct CO₂ emissions reduction by the new renewable energy generation are ca. 717,794 tons CO₂ eq per year once all the sub-projects are operational.

A.3. Project/Programme Milestone

Expected approval from accredited entity's Board (if applicable)	Q2 2019 (within 90 days of GCF Board approval)
Expected financial close (if applicable)	Q3 2019
Estimated implementation start and end date	Start: Q4 2019 End: Q4 2024
Project/programme lifespan	20 years (the PPA term range from 15 to 25 years)

B.1. Description of Financial Elements of the Project / Programme

The figure below illustrates the proposed DBSA Credit Support Structure and the financial elements of the Programme:

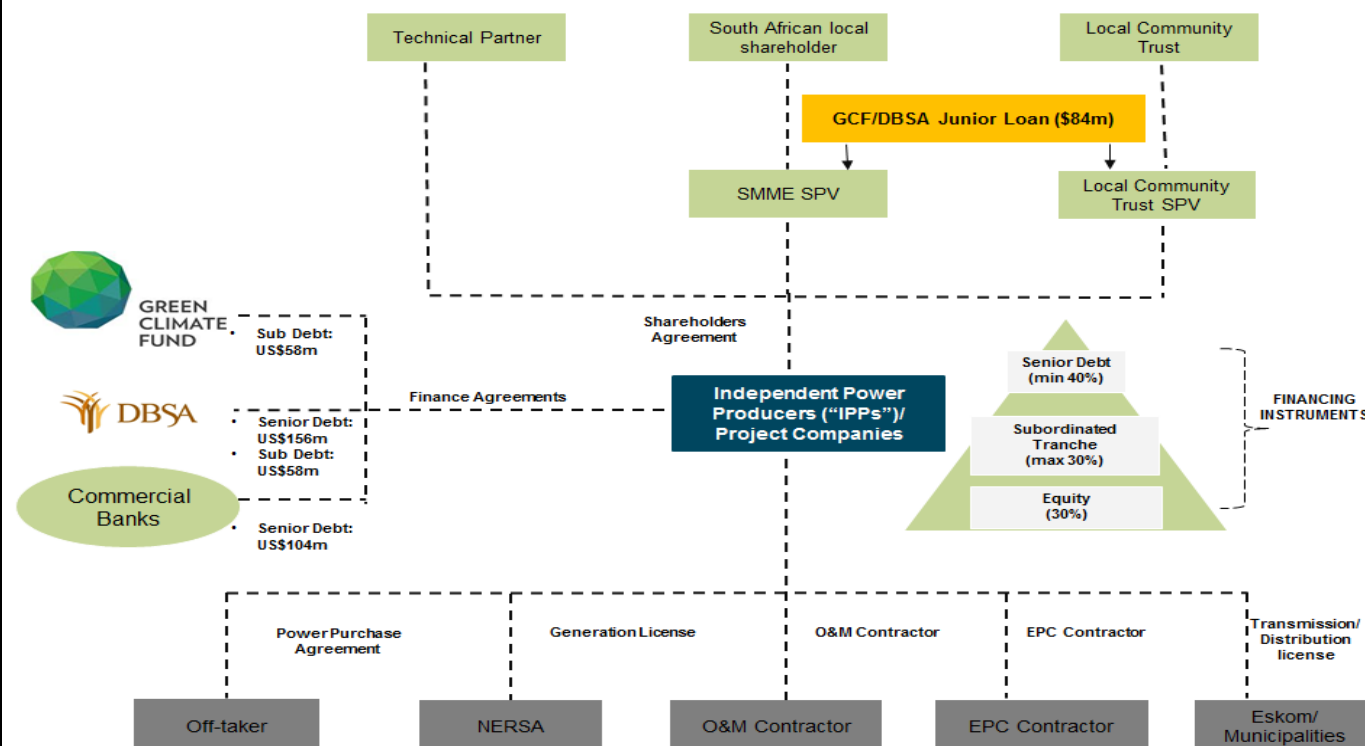


Figure 1: Programme proposed financing structure

Note 1: Off-takers will be medium and large sized companies and municipalities.

Note 2: Reputable EPC and O&M contractors acceptable to DBSA with requisite technical and financial capabilities to implement and operate the sub-Projects.

Programme Capital Structure

The GCF-DBSA Embedded Generation Investment Programme ("EGIP") will support the implementation of renewable energy Projects with a capacity of ca. 330 MW comprising of 280MW Solar PV and 50 MW Wind. Total estimated funding requirement to implement the Programme is US\$537 million.

Key Financing Components

The underlying projects will be funded through a combination of Senior Debt (48% of the total project cost, US\$260 m), Subordinated Debt (22%, US\$116 m) and Equity (30%, US\$161 m). It is proposed that the GCF participates on a matching basis on the subordinated debt and a portion of the Junior Debt targeted at financing equity for the local communities in and around the various sub-projects and small medium and micro enterprises ("SMMEs"). The senior debt will be funded by commercial banks and the DBSA. The total GCF funding contribution to the Programme will be US\$100 million which will be invested in the following two components:

Component 1 – Credit enhancement for renewable energy investments (Subordinated Loans)

This component will provide credit support to private sector solar and wind IPPs established as special purpose vehicles (each, a "Project SPV") and backed by Non-sovereign Off-takers in order to enhance bankability of such RE projects. DBSA, acting as Executing Entity and lender of record, will use a part of the GCF Loan (as defined in the term sheet) on a concessional basis, together with DBSA's own Co-financing, on the same terms, in a ratio of 1:1, to finance blended

subordinated loans in ZAR to the Project SPVs (the “Subordinated Debt”), which in turn will mobilize senior loans from local private and commercial lenders (“LFIs”).

Component 2 – Sustainable development through equity financing (Junior Debt)

This component will provide credit support to special purpose vehicles which are established and owned by Local Community Trusts (LCTs) and/or SMMEs (“Shareholder SPVs”) to support such LCTs and SMMEs in investing into the Sub-projects. DBSA, acting as Executing Entity and lender of record, will use a part of the GCF Loan on a concessional basis, together with DBSA’s own Co-financing, on the same terms, in a ratio of 1:1, to finance blended junior loans in ZAR to the Shareholder SPVs (“Junior Debt”), which in turn shall fully invest the Junior Debt proceeds into the Project SPVs. The Shareholder SPVs will be established solely for the purpose of financing the Sub-Projects financed under Component 1 and the Junior Debt shall be the only debt to be taken by the Shareholder SPVs and will be recorded as a senior loan in the books of the relevant Shareholder SPV.

In lessons learned from the REIPPPP, it has been found that the inclusion of the local community and SMMEs in the sub-projects greatly contributes towards sustainable development impact for the areas where the sub-projects are located. Detailed information regarding this component is presented in section C.3. Figure 8 in section C.3 illustrates the flow of funds between the DBSA, the community trust and the sub-Project.

A breakdown of cost estimates for total project costs and GCF financing:

Table 1: A breakdown of cost estimates for total project costs and GCF financing

Component	Amount (for entire project) US\$ million	Currency	Amount (for entire project) (ZAR)	Local currency	GCF funding amount US\$ million	Currency of disbursement to recipient
Senior Debt	260	<u>million</u> <u>USD (\$)</u>	3,900	ZAR	-	ZAR
Equity	77	<u>million</u> <u>USD (\$)</u>	1,155	ZAR	-	ZAR
Component 1: Credit enhancement for renewable energy investments-Subordinated Debt	116	<u>million</u> <u>USD (\$)</u>	1,740	ZAR	58	ZAR
Component 2: Sustainable development through Junior Debt financing – Junior Debt	84	<u>million</u> <u>USD (\$)</u>	1,260	ZAR	42	ZAR
Total	537	<u>million</u> <u>USD (\$)</u>	8,055		100	ZAR

Assumption: US\$:ZAR exchange rate R15 to the dollar

Note: The GCF funding amount will be exchanged from US\$ to ZAR at each financial close of the individual underlying projects to be funded under the Programme. The lending facility for the projects will thus be a ZAR committed amount to the borrowers.

For the implementation of Component 1, DBSA, as the Accredited Entity and the Executing Entity, will provide or arrange the following Co-financing:

- Up to *fifty-eight US Dollars (USD 58,000,000)* in form of Subordinated Debt from DBSA’s own funding resources, to be blended together with the GCF Reimbursable Funds, to finance the Programme Loans to the Project SPVs;
- Up to *one hundred and fifty six million US Dollars (USD 156,000,000)* in form of senior loans from DBSA’s own funding resources to be provided to the Project SPVs; and
- Up to *one hundred and four million US Dollars (USD 104,000,000)* in form of senior loans from LFIs, with DBSA acting as the lead arranger, to be provided to the Project SPVs.

For the implementation of Component 2, DBSA, as the Accredited Entity and the Executing Entity, will provide the following co-financing:

- (i) Up to *forty two million US Dollars (USD 42,000,000)* in form of Junior Debt from DBSA's own funding resources, blended together with the GCF Reimbursable Funds to finance the Programme Loans to the Shareholder SPVs; and
- (ii) Up to *seventy seven million US Dollars (USD 77,000,000)* in the form of equity investments which consists of: (a) *four million six hundred thousand US Dollars (USD 4,600,000)* from the SMMEs and Local Community Trusts' own resources, to be contributed as equity into the relevant Shareholder SPVs which receive Junior Debt, which proceeds shall be fully invested as equity or shareholder loans into the relevant Project SPVs; and (b) *seventy two million four hundred thousand US Dollars (USD 72,400,000)* from the Technical Partners to be directly contributed as equity or shareholder loans into the relevant Project SPVs.

Private Sector Participation

The DBSA is to act as MLA and Lender of record, and seek to catalyse commercial banks and other financial institutions to take up a portion of the senior debt in the projects. A high level market sounding exercise with various commercial banks and other financial institutions was undertaken to assess their interest to fund the sub-projects in line with their risk appetites, kindly refer to section E.5.3 for the details of the outcome of the roadshows.

The tables below summarises the REIPPPP average cost per MW and tariff trajectory from bid window 1 to bid window 4.

Table 2: Cost benchmarking of projects under the REIPPPP (ZAR)

Technology	REIPPPP Average Cost Per MW (R 'million)				
	Bidding Window 1	Bidding Window 2	Bidding Window 3	Bidding Window 3,5	Bidding Window 4
Onshore Wind	20	19	22		20
Solar PV	37	29	19		20

Portfolio Price	REIPPPP Average Tariff (R/kWh)					% Decrease
	Bidding Window 1	Bidding Window 2	Bidding Window 3	Bidding Window 3,5	Bidding Window 4	
Onshore Wind	1.51	1.19	0.87		0.75	50%
Solar PV	3.65	2.18	1.17		0.91	75%

Source: REIPPPP bidding rounds preferred bidder presentations

Table 3: Cost benchmarking of projects under the REIPPPP (US\$)

Technology	REIPPPP Average Cost Per MW (US\$ 'million)				
	Bidding Window 1	Bidding Window 2	Bidding Window 3	Bidding Window 3,5	Bidding Window 4
Onshore Wind	1.5	1.5	1.7		1.5
Solar PV	2.8	2.2	1.4		1.6

Portfolio Price	REIPPPP Average Tariff (USc/kWh)					% Decrease
	Bidding Window 1	Bidding Window 2	Bidding Window 3	Bidding Window 3,5	Bidding Window 4	
Onshore Wind	11.62	9.15	6.69		5.77	50%
Solar PV	28.08	16.77	9.00		7.00	75%

Source: REIPPPP bidding rounds preferred bidder presentations

From the tables above, it is clearly demonstrated that the REIPPPP has driven the cost of wind and solar PV technologies to levels that is competitive to coal fired power station in terms of end user tariffs. It should be noted that the REIPPPP cost per MW is based on larger RE projects, with maximum capacities of 75 MW for Solar PV and 140 MW for Wind. The REIPPPP projects thus benefit from the economies of scale from these large renewable energy projects, which will not flow through to

this Programme as the sub-projects will, on average, have a capacity of around 10 MW as per the current draft IRP or as the IRP is updated from time to time.

This Programme will be implemented based on lower cost of technologies which will result in lower tariffs to the end consumer.

Proposed Flow of Funds Regime

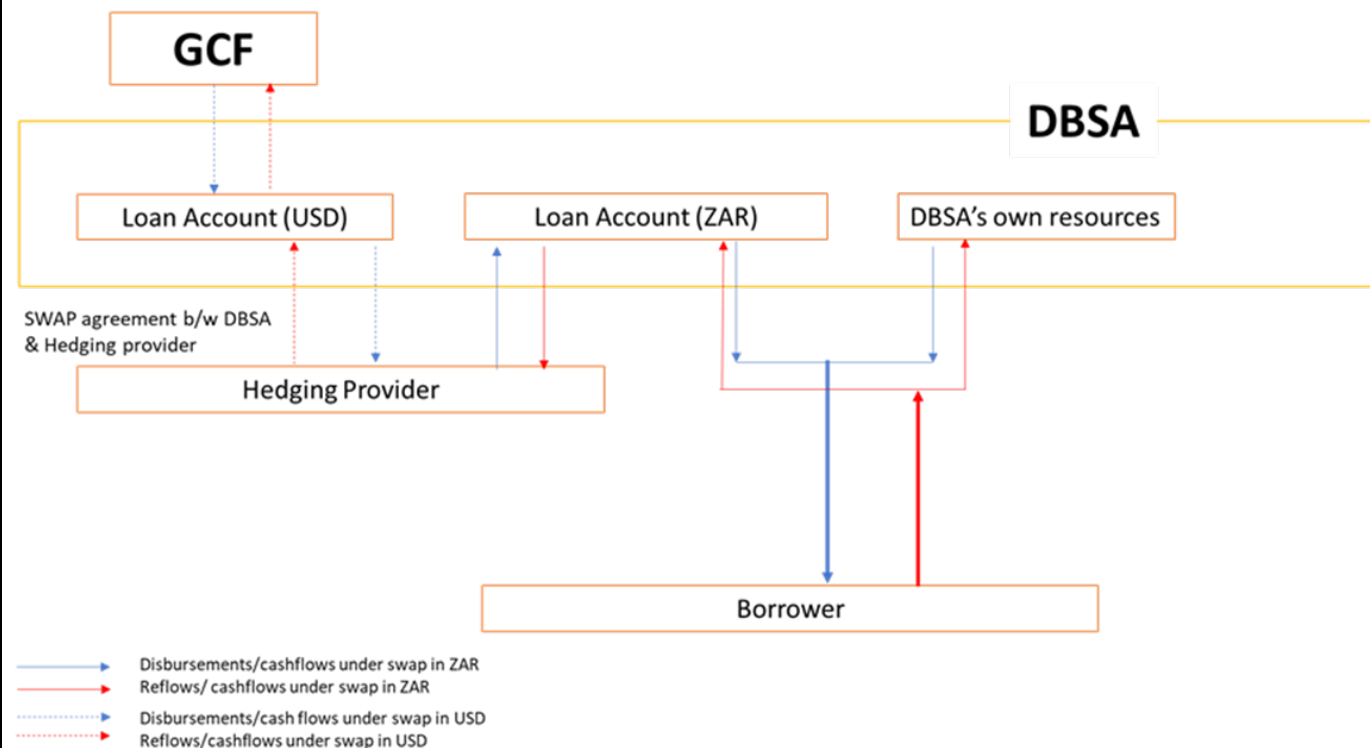


Figure 2: Flow of GCF Funding

The GCF Proceeds will be made available by GCF to the GCF Account to be opened and held by DBSA, in accordance with the FAA. The arrangements to be undertaken by the Accredited Entity for conversion and hedging of the GCF Proceeds are described in the Term Sheet.



	Financial Instrument	Amount	Currency	Tenor	Pricing		
(a) Total project financing	(a) = (b) + (c)	537	million USD (\$)				
(b) GCF financing to recipient	(i) Senior Loans	(i) 0					
	(ii) Subordinated Loans	(ii) 58	million USD (\$)				
	(iii) Junior Loan (Junior Debt)	(iii) 42	million USD (\$)				
	(iv) Guarantees		million USD (\$)				
	(v) Reimbursable grants *	-	Options				
	(vi) Grants *	-	Options				
		-					
<p>* Please provide economic and financial justification in section F.1 for the concessionality that GCF is expected to provide, particularly in the case of grants. Please specify difference in tenor and price between GCF financing and that of accredited entities. Please note that the level of concessionality should correspond to the level of the project/programme's expected performance against the investment criteria indicated in section E.</p>							
Total requested (i+ii+iii+iv+v+vi)		100	million USD (\$)				
(c) Co-financing to recipient	Financial Instrument	Amount	Currency	Name of Institution	Tenor	Pricing	Seniority
	Senior Loans	260	million USD (\$)	DBSA + Commercial Lenders			senior
	Subordinated Loans	58	million USD (\$)	DBSA			junior
	Equity	77	million USD (\$)	Shareholder			
	Junior Debt	42	million USD (\$)	DBSA			junior
	Lead financing institution: DBSA (MLA)						



	<p><i>* Please provide a confirmation letter or a letter of commitment in section I issued by the co-financing institution.</i></p>										
<p>(d) Financial terms between GCF and AE (if applicable)</p>	<p><i>In cases where the accredited entity (AE) deploys the GCF financing directly to the recipient, (i.e. the GCF financing passes directly from the GCF to the recipient through the AE) or if the AE is the recipient itself, in the proposed financial instrument and terms as described in part (b), this subsection can be skipped.</i></p> <p><i>If there is a financial arrangement between the GCF and the AE, which entails a financial instrument and/or financial terms separate from the ones described in part (b), please fill out the table below to specify the proposed instrument and terms between the GCF and the AE.</i></p> <table border="1"> <thead> <tr> <th>Financial instrument</th><th>Amount</th><th>Currency</th><th>Tenor</th><th>Pricing</th></tr> </thead> <tbody> <tr> <td>Choose an item.</td><td>.....</td><td><u>Options</u></td><td>() years</td><td>() %</td></tr> </tbody> </table> <p><i>Please provide a justification for the difference in the financial instrument and/or terms between what is provided by the AE to the recipient and what is requested from the GCF to the AE.</i></p>	Financial instrument	Amount	Currency	Tenor	Pricing	Choose an item.	<u>Options</u>	() years	() %
Financial instrument	Amount	Currency	Tenor	Pricing							
Choose an item.	<u>Options</u>	() years	() %							
	<p><i>Please provide economic and financial justification for the concessionality that GCF is expected to provide.</i></p> <p>Justification of GCF Concessionality: Purchasing power from private IPPs market at a competitive tariff provides consumers with a certain predictable price trajectory as compared to Eskom and that tariff will be from greener sources. For municipalities, it reduces requirements for price cross subsidy to the poorer communities, thus unlocking capital for further socio-economic spending and infrastructure development.</p> <p>Sourcing power from independent IPPs will be attractive for municipalities for the following reasons:</p> <ul style="list-style-type: none"> • Certainty of cost of supply and long term price predictability; • Generation units are in their control, allowing them to balance power in times of power cuts by Eskom; • The blending of cheaper renewables with Eskom power allows them to serve the poor market at a lower cost thus reducing the level of electricity subsidies allocated for the communities. The municipalities are required by law to provide free basic electricity to the poor. <p>Free Basic Electricity ("FBE") was launched by the Government in 2003, with the aim to support indigent households in meeting their basic energy needs. According to the Free Basic Electricity policy an allocation of 50kWh per month should be provided to all poor households connected to the national electricity grid. This amount of electricity will be enough to provide basic water heating using a kettle, basic ironing and power for a small television set and radio.</p> <p>Municipalities' finances are governed through the Municipal Finance Management Act ("MFMA"), 2003. The MFMA aims to modernise budget and financial management practices in municipalities in order to maximise the capacity of municipalities to deliver services to all their residents, customers and users. The MFMA requires the municipal council to adopt three-year capital and operating budgets that take into account, and are linked to, the municipality's current and future development priorities and other finance-related policies. The financing plan is aligned with the three year capital and operating budget, thus limiting the flexibility for raising financing outside that plan. Infrastructure projects such as renewable energy that are long-term in nature, requires separate National Treasury approvals and are usually handled through PPP policies.</p> <p>Sponsor IRR and end-user tariffs: The reasonability of the equity IRR will be determined considering the affordability and sustainability of the tariff. These will be compared to the REIPPPP programme as well as Eskom bulk buyers' tariffs.</p>										

	The salient terms of the Proposed subordinated debt and Junior Debt financing facilities are summarised in the term sheet negotiated between the GCF and DBSA.
(d) Financial terms between GCF and AE (if applicable)	DBSA is the Accredited Entity and will be deploying the GCF funding on behalf of GCF alongside its own funding as a co-financier directly to the “borrowers” (i.e. The Sub-Project SPVs (i.e. IPPs) under the Component 1, and the Shareholding SPVs under Component 2) and will be performing the role of the executing entity to manage the Framework. In this role the DBSA will be undertaking detailed due diligence of the sub-projects besides periodic monitoring, evaluation and reporting for the projects.

B.3. Financial Markets Overview (if applicable)

Overview of South African Financial Market

South Africa has a well-developed bond and banking market in place, sizable life insurance and pension markets. Some institutional investors have bought into projects post completion, as a result of not showing much appetite for construction risk. The largest project finance programme to date has been in support of investments in the REIPPPP which the domestic banks have so far financed comfortably to the surprise of some international investors. Nevertheless, the implementation of Basel III in general and a growing pipeline of projects could spur greater demand for capital markets financing thus seeing an increase in capital markets financing for future project financed projects.

Most of the South African banking assets are domestic, although banks have net foreign assets and an expanding presence in the rest of Africa. The banking system is dominated by four large banks (ABSA, FirstRand, Nedbank and Standard Bank), a mid-sized investment bank (Investec), and two smaller banks (African Bank and Capitec) specializing in unsecured lending to low income households. Close to 95% of banking assets are domestic. The four largest banks have 46 foreign subsidiaries, of which 39 are in Africa (International Monetary Fund, December 2014). The size of these subsidiaries is significant in some host countries (e.g., Lesotho, Namibia and Swaziland), but the combined rest of Africa exposure accounts for only 2% of banking assets.

The financial sector has a high degree of concentration and interconnectedness. The top five banks hold 90.5% of banking assets, the top five insurers account for 74% of the long-term insurance market, and the seven largest fund managers control 60% of unit trust assets. This concentrated structure gives major financial institutions significant pricing power and enables them to achieve returns on equity and assets higher than in more competitive economies.

In conclusion, the South African financial market is developed, sizeable and robust. This market can be tapped to finance underlying renewable energy projects under this Programme.

Overview of the South African Market Structure

The Johannesburg Stock Exchange (“JSE”) is the only securities exchange in South Africa. It is a public company listed on the JSE main list. Safex Clearing Company (Pty) Ltd (“SAFCOM”), a wholly-owned subsidiary of the JSE, clears JSE derivatives transactions. The JSE manages the pre-settlement process for equities trades and can require margin to cover open positions. Settlement of equity and bond trades takes place at Strate Party Ltd (“Strate”) that is also the Central Securities Depository for both markets. Strate is jointly owned by the JSE (44.6%) and the four largest South African banks each owning 12–15%. The equity market capitalization of the JSE is summarized below as at 31 December 2017.

Table 4: JSE Equity Market Capitalization

Equity Market	Dec-17
Market Capitalization (US\$ million)	1,230,977
Market Turnover (US\$ million)	46,507
Year to Date Liquidity %	31.06%
Monthly Liquidity %	40.61%

Source: www.jse.co.za

From the above discussed, the South African Market Structure is well developed for an emerging market country. It is evident that the equity capital markets are an opportunity for project financed projects.

The Renewable Energy Independent Power Producer Procurement Programme

South Africa has a strong and vibrant financial services sector comprising commercial banks, development finance institutions and other financial institutions (such as insurance companies) who have all been the major source of debt financing for the REIPPPP developers and investors since the inception of the REIPPPP. This has been catalytic in deploying the new energy capacity. REIPPPP attracted approximately ZAR249 billion (US\$16.60 billion) private sector funding, of which 28% was foreign direct investment ("FDI") in bid windows 1, 2 and 3, 3.5 and 4. The figures below depict a summary of the financing within REIPPPP bid windows 1, 2 and 3. As shown below, private equity is not active in the sector but institutional investors are active, especially from round 3. They are also buying derisked assets in the secondary market.

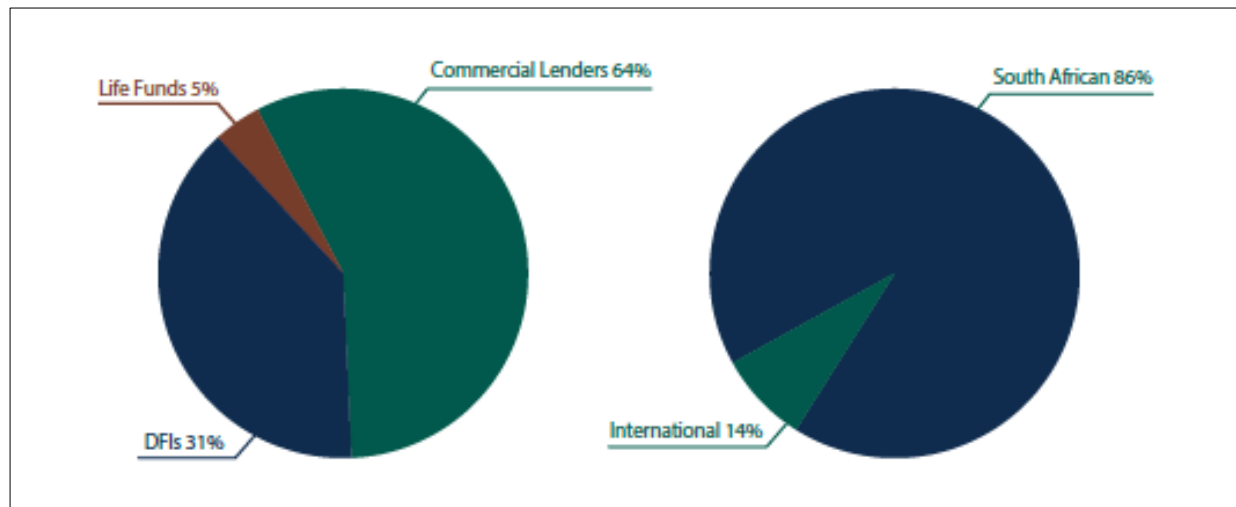


Figure 3: Share of Debt Financing in REIPPPP Rounds 1, 2 & 3 (World Bank Group, 2014)

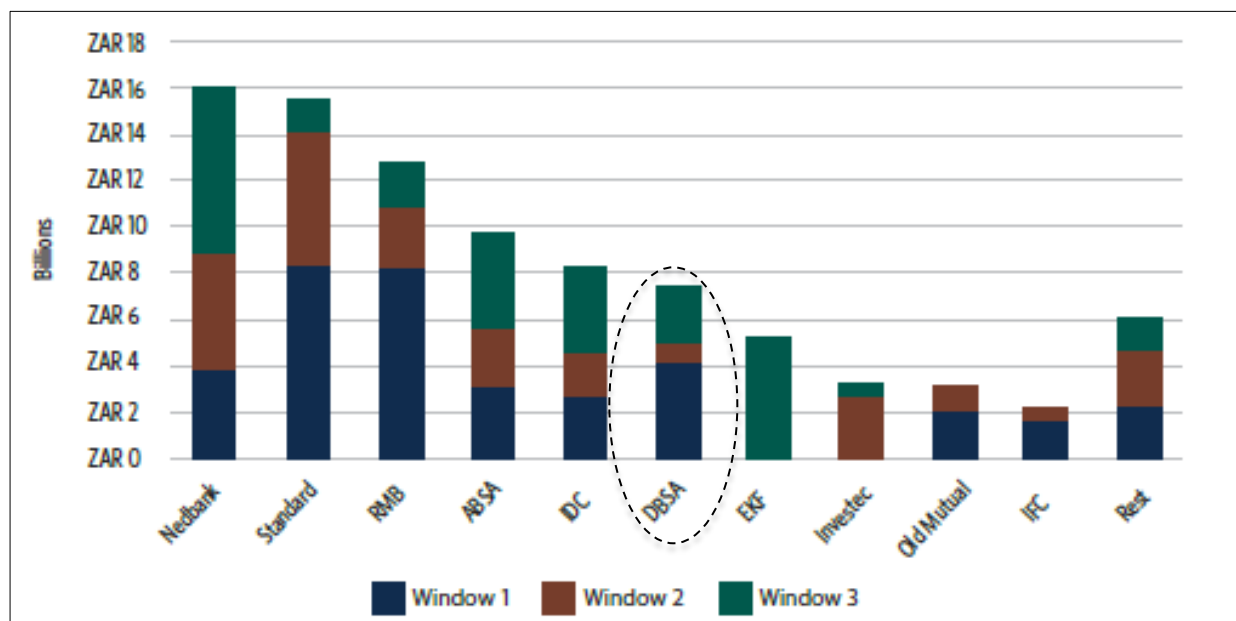


Figure 4: Share of Initial Debt Providers in REIPPPP (World Bank Group, 2014)

After an investor confidence-sapping delay of the REIPPPP bidding round 4 for almost three years, the DoE and Eskom signed the PPAs and the Implementation Agreements on 4 April 2018 for 27 IPPs with a combined capacity of 2,300 MW. The estimated investment value is R56-billion, which will immediately contribute to growth in the economy and job creation. The 27 new projects will stimulate ca 58 000 new jobs, mostly during construction and mostly in the rural areas of the Northern, Eastern and Western Cape provinces, as well as the North West, Free State and Mpumalanga provinces.

Although the signing of the 27 PPAs was generally viewed as a step in the right direction restoring investor confidence. The draft updated IRP indicates a slowdown in the pace of the procurement of renewable energy under the REIPPPP. The IRP indicates an embedded generation allocation (comprising of a total of 2,600 MW), which will be primarily private sector led without sovereign government guarantee backing.

The overall success rate of the REIPPPP in terms of the MW procured is 24%. Although the remaining 76% projects were not successful under the REIPPPP bidding process, these projects are fully developed, with the necessary permitting and licensing, and are bankable on a standalone basis, therefore rapid implementation timelines can be achieved. Some of these projects will form part of the Programme. These projects and other newly developed projects are looking at implementation through non-sovereign backed PPAs.

Participation of financiers under the REIPPPP

The REIPPPP also attracted International DFIs which included the International Finance Corporation (“IFC”) and the Danish Export Credit agency with three projects each, and the Netherlands Development Finance Company, the African Development Bank, European Investment Bank and the Overseas Private Investment Corporation, with one project each. DBSA, in cooperation with the DoE and NT, played a critical role in supporting the establishment of the IPP office which was tasked with the establishment of a renewable energy program in South Africa.

The five large South African commercial banks – Standard Bank, Nedbank, ABSA, RMB, and Investec have dominated REIPPPP lending. Their relative share as well as other financial institution’s share of commercial and overall debt financing is shown in the figure above. Nedbank has been involved in the most projects (23) followed by Standard (17), ABSA (14), RMB/First Rand (11) and Investec (4) in bid windows 1, 2 and 3. These banks have all played lead debt arranging roles, although not for all deals. In a number of projects they have also participated as co-senior lenders or as providers of subordinated debt.

The typical debt financing parameters at the commencement of the REIPPPP were as follows:

- a) Debt tenors of between 15 to 17 years from Commercial Operation Date (“COD”); and
- b) Spreads over JIBAR in the range of 310 to 400 basis points.

Currently, the typical spreads over JIBAR that are used in senior debt financing parameters of REIPPPP projects range 280 to 350 basis points. It is thus evident that the spreads have declined since the inception of the REIPPPP.

DBSA’s Role in renewable energy projects in South Africa

The DBSA, in cooperation with the Department of Environmental Affairs and National Treasury, played a critical role in supporting the establishment of the IPP office which was tasked with the establishment of a renewable energy program in South Africa. The REIPPPP has successfully channeled substantial private sector expertise and investment into grid-connected renewable energy in South Africa at competitive prices. As such, the DBSA has been instrumental in financing renewable energy projects under the REIPPPP. Its support for the programme includes:

- Programme management support to assist the DoE,
- Acting as a joint MLA and underwriter for the projects in which the DBSA has been involved; and
- Acting as a leading financier of SMME parties and local community trusts.

To date, the DBSA has a committed portfolio of 34 renewable energy projects and has invested approximately R16.6 billion (US\$1.1 billion) with a total of approximately 2, 541 MW across the various renewable technologies. It should be further noted that currently there are no renewable energy projects in the DBSA’s non-performing loans book. The DBSA’s lending commitments are in the form of senior debt and support for local SMME parties and local community trusts.

BW1 - BW4

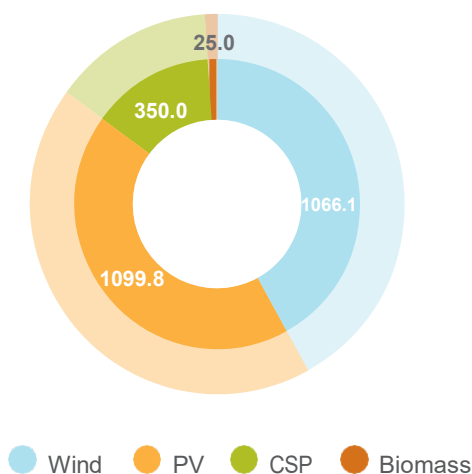


Figure 5: DBSA's energy portfolio by MW

The projects supported by the DBSA are located across various South African provinces, including Northern Cape, Mpumalanga, North West, Eastern Cape and Western Cape. In addition to providing much-needed energy supply for the country, this has stimulated the economy, created jobs and improved livelihoods in communities in the areas surrounding the projects. As the local DFI tasked with infrastructure delivery, the DBSA has to play of critical role establishing a new renewable energy market driven solely by the private sector. GCF's support would assist in achieving this strategy.

Please fill out applicable sub-sections and provide additional information if necessary, as these requirements may vary depending on the nature of the project / programme.

C.1. Strategic Context

Economic Situation

South Africa has a population of approximately 55.6 million people and in 2016 the Gross Domestic Product ("GDP") was US\$ 296 billion (World Bank, 2016). Per capita GDP is estimated at US\$ 5,299 (World Economic Forum). According to OECD Economic Survey, South Africa has accomplished enormous social progress by bringing to millions of citizens access to key public services such as education, health, water, housing and electricity. Almost 84% of households have access to electricity (Statistics South Africa, 2016). Nevertheless, growth has trended downward since 2011 to 2016 due to constraints on the supply side, in particular electricity shortages, falling commodity prices, and policy uncertainty. In the October 2018 Medium Term Budget Policy Statement ("MTBPS"), NT's economic projections depart sharply from the optimism in the February budget, halving expected real growth for 2018 from 1.5% to 0.7%, increasing to 1.7% in 2019. The extended period of weak investment arising from weak demand and policy uncertainty is expected to recover and grow steadily to 2.9% in 2021. Currency depreciation combined with past fiscal slippages (high public sector wage increases, extra funding for SOEs and budget for the presidential economic stimulus plan) has pushed government debt as a share of GDP upwards to stabilise at just under 60% by 2023/24 and the budget deficit up by 0.5% each year to peak at 4.1% for that year. Government's on budget capacity to fund infrastructure is declining. The MTPBS provided further indications of government action to partner with the private sector and mobilise resources from Development Finance Institutions to raise the rate of investment in South Africa.

The unemployment rate in South Africa increased to 27.2% in the second quarter of 2018 majority being the youth at 59.3% in 2018³. Persistent low growth has led to the stagnation of GDP per capita. According to the World Bank, between 2011 and 2016, per capita incomes in South Africa barely increased and more than 3 million people have joined the 30.4 million poor South Africans now living on less than R1,131 (US\$75.4) per month (about US\$2.5 a day). Between 2008 and 2015, almost 80% of South Africa's population experienced poverty, with about half permanently and the other half intermittently. Insufficient economic growth pushing South Africa into a vicious circle of insufficient tax revenue raises the risk of public debt distress, which played an important role in the downgrade of South Africa's sovereign credit rating in early 2017. Although the outlook under the new government seems bright, rebuilding investor confidence will be measured against the government's ability to 1) achieve policy certainty, 2) improve institutional stability, 3) restore credibility of the criminal justice system, and 4) demonstrate the political will to turn around the economy.

Apart from a drop in global commodity prices, domestic factors such as drought, electricity shortages, logistical constraints, and difficult labor relations have contributed to South Africa's poor growth performance in recent years. In line with the National Development Plan, the following actions were taken to revive the economy.

- To increase confidence in the economy, the government has followed a moderate fiscal policy to stabilise debt level;
- An important investment programme has been developed to rapidly increase electricity production with private sector participation and limit power blackouts;
- To reduce inequalities and poverty, and potentially boost demand, a national minimum wage was introduced in 2018; and
- The government has established a R400 billion (US\$26.7 billion) infrastructure fund to drive economic growth through infrastructure development.

Energy Sector Overview

The Ministry of Energy through the DoE is responsible for energy policy and strategy in South Africa. NERSA regulates the electricity market as mandated chiefly by the Electricity Regulation Act No. 4 of 2006 ("ERA") and the National Energy Regulatory Act No.40 of 2004 ("NER Act"), by providing licences, regulatory rules, guidelines and codes. The IRP is the country's long-term energy blueprint that guides both the size of electricity sector (to be constructed in anticipation of demand) and the energy mix. In May 2011, DoE gazetted the Electricity Regulations on New Generation Capacity (New Generation Regulations) under ERA. The ERA and regulations enable the Minister of Energy (in consultation with NERSA) to determine what new capacity is required. Ministerial determinations give effect to components of the planning framework of the IRP.

³ Statistics South Africa Q2 2018 report

³ IRENA (2017), Turning to Renewables: Climate-Safe Energy Solutions, International Renewable Energy Agency, Abu Dhabi.

The country's electricity industry supply is still predominantly vertically integrated with the bulk of the power generation, transmission and distribution of electricity still controlled by Eskom, the sole energy utility in South Africa. Eskom is charged with the development of the electricity supply industry, and it still generates over 90% of the electricity consumed in the country. Transmission lines span for thousands of kilometres to the different load centres across the country. Eskom operates most of the base-load and peaking capacity, although the role played by IPPs is expanding. Eskom is also the designated buyer for power generated by IPPs, including renewable energy under the REIPPPP (refer to section C6 for more detailed regulatory analysis).

Current Eskom financial situation

Eskom's funding requirement is extremely large. Eskom has stated that its debt will peak at about R500 billion (US\$33.3 billion) in about 2020. Eskom plans to raise almost R340 billion (US\$22.7 billion) in the next five years, while meeting R413 billions (US\$27.5 billion) of interest and debt repayments, which amounts to ca.8% of South Africa's GDP. Therefore, it is highly unlikely the Sovereign can guarantee hundreds of billions of additional Eskom debt, including that of the REIPPPP. Sovereign guarantees of Eskom debt already exceed R300 billion (US\$20.0 billion) which is more than 20% of the country's annual budget. The bulk of these debts were incurred to fund Eskom's two new mega coal power stations Medupi and Kusile, which have been characterised by delays and costs overruns. This money, once invested, can only be recovered from the tax payer or through profits made by Eskom.

Eskom's projected debt in 2020 will have to be repaid from the electricity tariffs. At present Eskom's turnover is just over R177 billion (US\$11.8 billion) per annum on which they made a loss of R2 billion (US\$0.13 billion) per annum. Their sales are lower now than ten years ago with little prospect of a meaningful rise in units sold. With Eskom credit rating being well below investment grade, the interest on the debt is likely to be considerable.

The liquidity challenges at Eskom were highlighted during early 2018, when local banks, including the DBSA, had to urgently approve a credit line of R20 billion (US\$1.3 billion) to cover Eskom's short-term needs. It was highlighted that Eskom's liquidity problem, if not managed could culminate into the collapse of this State Owned Company with dire impact of South Africa as well as Southern Africa electricity generation. These financial challenges led to the reduced pace of implementing the REIPPPP, where Eskom is the designated buyer. From the draft IRP, it is clear that the government backed renewable energy Programme will be scaled back to limit the strain on the fiscus.

C.2. Project / Programme Objective against Baseline

Emissions Baseline

South Africa's GHG emissions comprise 1.1% of global emissions and GHG emissions per capita are above the average for G20 countries, which include developing country giants China, India and Indonesia. However, the country's GDP is only 0.6% of global GDP and the level of development is below the G20 average. This is a combination of the development deficit of apartheid and South Africa's historical dependence on coal and energy-intensive industry.

In August 1997, South Africa joined the majority of countries in the international community in ratifying the UNFCCC. As a signatory to the UNFCCC, South Africa is required to report on GHG emissions from the energy, transport, waste and the agriculture, forestry and other land use (AFOLU) sectors. South Africa's 2012 total GHG emissions including FOLU were 518,297 CO₂ eq of which 428,112 CO₂ eq was contributed by the energy industry (representing 82.6%)⁴. In the same period, the country's total GHG emissions excluding FOLU were 539,112 million tonnes tCO₂e. Focusing on strategies to accurately report and mitigate GHG emissions in the energy sector will help the country to manage their overall emissions profile. The energy intensity of the South African economy, largely due to the significance of mining and minerals processing industries in the economy and the coal-intensive energy system, has resulted in an emissions profile that differs substantially from that of other developing countries at a similar stage of development. Currently analyses indicate that if left unchecked by climate mitigation actions, South Africa's emissions could grow rapidly by as much as fourfold by 2050. In the draft IRP, it is further indicated that the decommissioning of coal plants (total 28GW by 2040 and 35GW by 2050), together with emission constraints imposed, imply that coal will contribute less than 30% of the energy supplied by 2040 and less than 20% by 2050.

⁴ GHG National Inventory Report, South Africa, 2000-2012
(https://unfccc.int/sites/default/files/resource/28147395_South%20Africa-BUR2-1-South%20Africa_%20GHG%20Inventory%20Report%20-%202000-2012.pdf).

Climate Change Context

According to IRENA, around two-thirds of GHG emissions stem from energy production and use, which puts the energy sector at the core of efforts to combat climate change, with the largest CO₂-emitting sectors being electricity generation and industry. Globally, it is also currently estimated that 84% of the energy use comes from fossil fuels, with 16% derived from renewables (IRENA, 2017), and this also reflects the current energy scenario for South Africa. It is argued that a combination of renewable energy and energy efficiency measures will be essential to achieve aggressive climate change objectives. The latest targets for emissions reduction for most countries has been set under the Paris Agreement, which entered into force in November 2016.

South Africa is a contributor to global climate change with GHG emissions resulting mainly from energy production and consumption. The energy sector remains the single largest contributor to the country's total GHG emissions in South Africa. The country is heavily reliant on coal-based fossil fuel energy, with more than 90% of electricity being produced mainly from this source. It is striking to note that as a percentage of South Africa's primary energy supply, South Africa's coal dependence is the highest in the G20, and the country has one of the lowest shares of renewable energy of G20 countries. This dependence on coal continues to strain the country's efforts to reduce GHG emissions.

South Africa's 2012 total GHG emissions including FOLU were 518,297 CO₂ eq of which 428,112 CO₂ eq was contributed by the energy industry. In the same period, the country's total GHG emissions excluding FOLU were 539,112 million tonnes tCO₂e. The energy intensity of the South African economy has resulted in an emissions profile that differs substantially from that of other developing countries at a similar stage of development.

South Africa has committed to progress its contribution to the global effort to mitigate climate change in line with the principle of common but differentiated responsibilities and respective capabilities. South Africa's mitigation component of the Nationally Determined Contributions ("NDC") moves from a "deviation from business-as-usual" form of commitment and takes the form of a peak, plateau and decline GHG emissions trajectory range. South Africa's emissions by 2025 and 2030 will be in a range between 398 and 614 Mt CO₂eq as defined in its national policy.

The semi-arid areas in Southern Africa are characterized by seasonal and highly variable rainfall (inter-annually and intra-seasonally), frequent droughts and flash floods. Temperatures are predicted to increase in semi-arid areas in Southern Africa by between 1 and 4 degrees Celsius by 2050 and substantial multi-decadal variability in rainfall is predicted to continue into the future, without certainty in the direction of change in rainfall in any area.⁵ The main impacts of climate change are expected to include reduced water availability, increased occurrence of vector and water-borne diseases, reduced crop and livestock productivity and damage to transportation infrastructure and buildings. Water is considered to be the most critical factor associated with climate change impacts in South Africa, which will have secondary impacts on fossil fuel energy generation. Eskom is a large consumer of the scarce freshwater resources in South Africa, accounting for approximately 1.5% of the country's total water consumption annually as coal-power generation is water intensive. Investment in renewable energy effectively reduces the utilisation of South Africa's limited water resources for electricity generation.

The figure below indicates the committed emissions profile for South Africa.

⁵ Vulnerability and Adaptation to Climate Change in the Semi-Arid Regions of Southern Africa, Collaborative Adaptation Research Initiative in Africa and Asia.

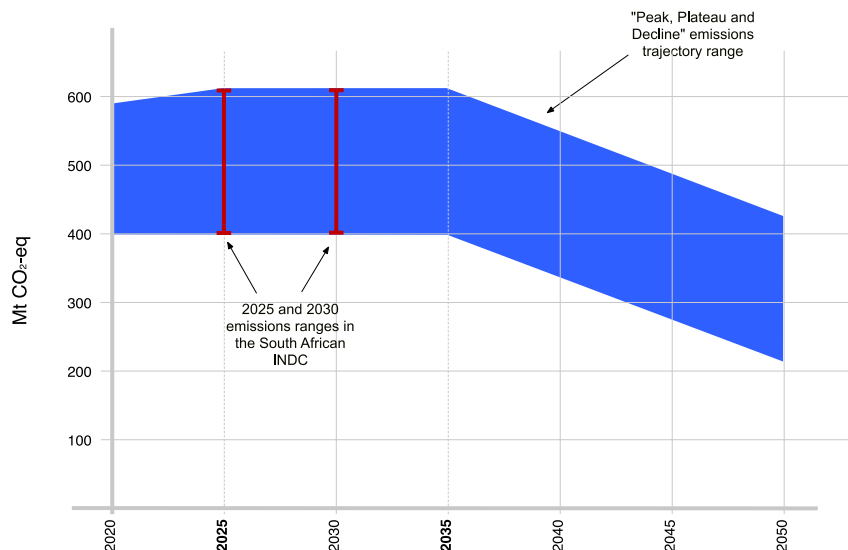


Figure 6: South Africa's committed emissions target

Source: Department of Environmental Affairs

Key climate policies

The National Climate Change Response White Paper presents the South Africa's vision for an effective change response and the long-term, just transition to a climate-resilient and lower-carbon economy and society. The country's climate response has two main objectives:

- *"Effectively manage inevitable climate change impacts through interventions that build and sustain South Africa's social, economic and environmental resilience and emergency response capacity; and*
- *Make a fair contribution to the global effort to stabilise GHG concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe that enables economic, social and environmental development to proceed in a sustainable manner."*

The climate change policies and response are guided by the Constitution, the Bill of Rights, the National Environmental Management Act ("NEMA"), the Millennium Declaration, the UNFCCC, the Kyoto Protocol and the Paris Agreement. Through these policies, South Africa already has existing international legally binding obligations towards climate change targets as indicated above.

Responses to climate change have been commonly categorised as either aimed at reducing the rate at which climate is changing to levels that occur naturally (and especially reducing the atmospheric concentrations of GHGs, so-called "mitigation") or responding to the adverse effects of climate change ("adaptation"). Mitigation is a national priority and South Africa's approach to mitigation is based on two contexts:

- *"It's contribution as a responsible global citizen to the international effort to curb global emissions; and*
- *It's successful management of the development and poverty eradication challenges it faces."*

Current actions proposed

South Africa has taken steps to formulate measures to mitigate and adapt to a changing climate. In this regard, on 6 December 2009, the President announced that South Africa will implement mitigation actions that will collectively result in 34% and 42% deviation below its "Business As Usual" emissions growth trajectory by 2020 and 2025, respectively. In 2015, South Africa submitted its Intended Nationally Determined Contribution ("INDC") and reaffirmed its commitment to making a fair contribution to global efforts to mitigate climate change through ratifying the Paris Agreement in November 2016. The country's INDC was formulated in the context of environmental rights set out in section 24 of the Constitution and the National Development Plan ("NDP") 2012 which provides a "2030 vision" to guide the sustainable development trajectory. The implementation of the 2030 vision is further elaborated in the 2011 National Climate Response Policy. South Africa's NDC contains a target to limit GHG emissions including land use, land use change and forestry to between 398 and 614 MtCO₂e over the period 2025–2030.

As the majority of South Africa's emissions arise from energy supply, large mitigation contributions will have to come from reduced emissions from energy generation and use. The main opportunities for mitigation consist of energy efficiency, demand-side management and moving to a less emissions-intensive energy mix. Up to 2016, demand-side management initiatives being implemented by Eskom have saved 58 935 GWh cumulative electrical energy from 2004, resulting in significant savings of natural resources and contributing to reduced carbon emissions. Although these initiatives are welcome, the biggest impact to climate change in South Africa is the movement to a less emissions-intensive energy mix. Through the renewable energy sector, the REIPPPP has made progress towards the country's climate change objectives. As the programme has stalled for reasons alluded to in B3 above, the proposed Programme will help to further advance the implementation of the country's prioritised mitigation programs through the addition of 330 MW of renewable energy capacity.

The REIPPPP is aligned with the National Development Plan's objective to protect and enhance South Africa's environmental assets and natural resources through the reduced total emissions. At the end of December 2017, the REIPPPP has added a cumulative renewable capacity of 3,781 MW to the grid (with 872 MW added in 2017).⁶ The energy produced by these projects in 2017 being 8,431 GWh. With a baseline emissions factor of the national grid approximately at 1.015 ton CO₂/MWh, the REIPPPP has helped the country to avoid 8,6 million ton CO₂ in 2017. This will continue to grow as more projects reach commercial operation and are added to the grid. It should be further noted that the promulgated Integrated Resource Plan (IRP) 2010–2030 imposed CO₂ emission limits on the electricity generation plan. As such, South Africa's power sector has to comply with CO₂ emissions constraints. The draft IRP also notes that the total emission reduction budget for the entire electricity sector up to 2050 must be 5470Mt CO₂ cumulatively.

Climate rationale of the EGIP and additionality

The global excitement at what South Africa had done with the REIPPPP noted above was palpable in delivering on the renewable energy objectives of the National Development Plan and South Africa's commitments to help fight climate change. While market confidence and investor interest in the renewable energy sector has been positive as a result of the successful implementation of the REIPPPP, there is a strong need for GCF support to unlock opportunities for Embedded Generation in South Africa which cannot proceed in the absence sovereign guarantees.

The REIPPPP has successfully channeled substantial private sector expertise and investment into grid-connected renewable energy in South Africa at competitive prices. Private sector investment totaling US\$14 billion has been committed, and these projects will generate 3922 megawatt (MW) of renewable power. Prices have dropped over the three bidding phases with average solar photovoltaic (PV) tariffs decreasing by 68 percent and wind dropping by 42 percent, in nominal terms.

To maintain market confidence, investors require an enabling investment environment and a line of sight into the roll-out of the procurement programme. However, struggling state enterprises' reliance on government guarantees as well as credit downgrades dampened South Africa's risk profile, as it struggled with rising borrowing requirements. South African Treasury's budget review towards the end of 2018 showed that there were grave concerns about the burden struggling state enterprises such as the national energy utility Eskom was putting on the fiscus and the government's contingent liabilities. Eskom, independent power producers account for the majority of government's contingent liabilities. Government guarantees, where the South African government commits to take responsibility for a loan in the event of default, dogged Treasury in 2017. While enabling state enterprises such as Eskom to access funding that would otherwise be unavailable, or to borrow at a lower cost, it created significant risks to the government as a high level of contingent liabilities can lead to a higher risk premium on sovereign debt. Therefore there is a new commitment from Treasury to reduce guarantees as part of its efforts to maintain prudent levels of liabilities. Eskom, SAA, the South African Post Office and Denel all required guarantees or recapitalisation during 2017/18, lessening South Africa's reserves.

Although the impact of the REIPPPP has been significant in contributing to the reduction in GHG emissions to date, it is apparent that fiscal constraints noted above will significantly limit the future of REIPPPP bidding rounds thus hampering the country's ability to address SA's NDC targets. The draft IRP also suggests a reduced pace of sovereign backed renewable energy programmes through imposing annual build limits on renewable energy. It is therefore important to

⁶ NERSA, MONITORING RENEWABLE ENERGY PERFORMANCE OF POWER PLANTS, Tracking progress of 2017 (Issue 11), March 2018
(file:///C:/Users/05652/Desktop/GCF%20documents/Monitoring%20Renewable%20Performance%20of%20Power%20Plants%20-%20Tracking%20progress%20of%202017%20-%20Issue%2011%20(March%202018).pdf)

maintain the momentum achieved by the implementation of the much lauded REIPPPP, but this is only possible by finding alternative mechanisms of supporting Independent Power Producers in the absence of sovereign guarantees.

The draft Integrated Resource Plan (IRP) issued in August 2018, if implemented, could constitute a first step moving to a zero-carbon energy system. However, additional action to phase out expensive and inefficient coal-based electricity generation, update the grid infrastructure, and ramp-up renewables deployment is needed to ensure a successful transition by 2050.

The implementation of EGIP is therefore critical to help SA achieve its climate targets. The successful testing of EGIP offers a way to accelerate SA's RE ramp up and lower emission pathway by implementing up to 330 MW of renewable energy capacity in the South African electricity sector, and thus mitigating up to 14,355,888 tCO₂. Furthermore, the Programme will demonstrate the bankability of non-sovereign backed PPAs in the market, crowding in funding from commercial lenders. It is understood that further RE capacities could be deployed under the REIPPPP but with large degree of "uncertainty". EGIP offers a procurement mechanisms to support RE projects that otherwise would not have materialized.

C.3. Project / Programme Description

The Programme's main objective is to pioneer a new market mechanism to further implement renewable energy projects outside of sovereign support in South Africa. Commercial lenders have not been able to bank embedded generation projects from a financing perspective as the perceived risk profile is higher than that of the sovereign backed REIPPPP. Some of the challenges faced by the lenders include:

- Inability to provide long debt tenors. Currently the tenor available is around 7 years, which is not ideal for projects that require at least 10-15 years tenors; and
- The majority of the offtakers have no credit rating by international credit ratings agencies. The lenders rely on their own internal credit ratings to assess the credit risk profile of the projects.

In recognition of the market constraint of implementing embedded generation projects and in order for the DBSA to play its crucial pioneering developmental role in new market development, the Programme, through GCF's support will assist in the proving of the commercial viability of this new market. The Programme is aligned with the National Development Plan's objective to protect and enhance South Africa's environmental assets and natural resources through the reduced total emissions.

The figure below illustrates the flow of Junior Debt from the DBSA into the sub-projects and the reflows of dividends from the project company to the DBSA and the local community trust. A similar flow of funds into the sub-projects will be used for the SMMEs.

The Equity Facility is injected into the Project through a special purpose vehicle whereby the DBSA takes cession of the shares and revenue account as part of the security package. When the project company declares dividends to the shareholders, the funds flow into the SPV's revenue account, where the Junior Debt is serviced prior to the remaining dividends flowing to the SMMEs and local community trusts.

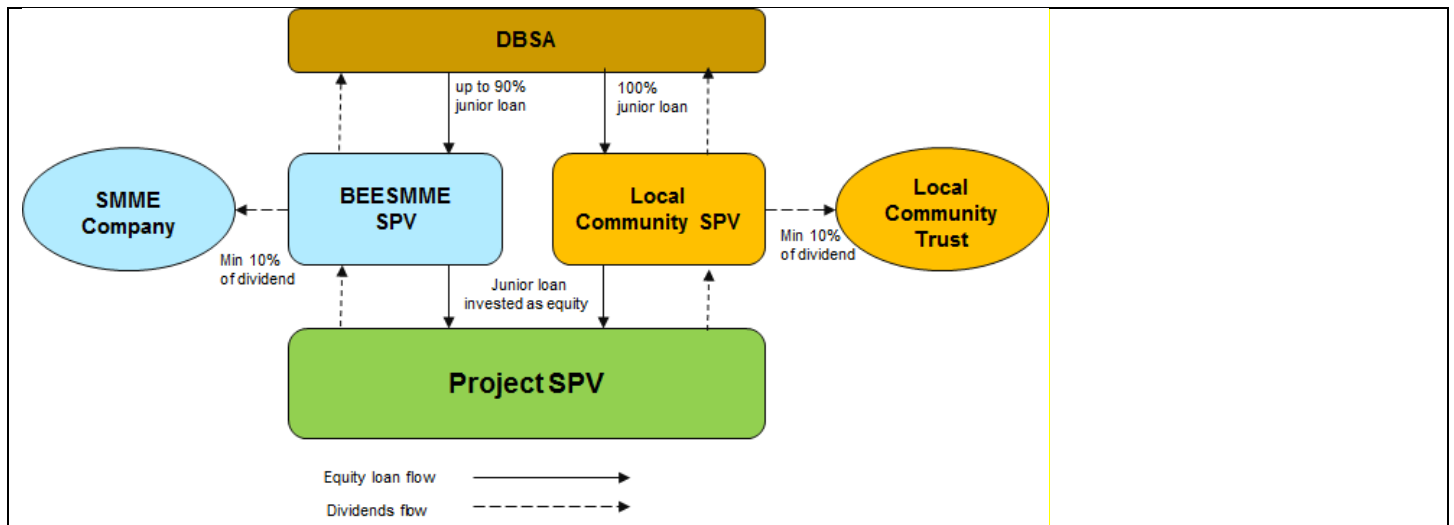


Figure 7: Flow of equity financing into the project

Description of the main activities under the programme

For both component 1 and 2, each sub-project will be screened and evaluated as per the existing DBSA deal approval process which includes:

- Deal origination and conceptualization;
- Deal screening;
- Deal structuring and due diligence;
- Credit approval;
- Contract negotiation; and
- Monitoring.

Communication and marketing of the approved facilities will be undertaken to the commercial lenders, developers, IPPs and off takers. Activities will include:

- Develop, manage, & maintain organizational brand and external presence of the EGIP and execute a communications and outreach effort that promotes the objectives of the EGIP working with the DBSA marketing team;
- Lead direct outreach to project developers, commercial banks, DFI's and other relevant stakeholders;
- Establish strategic partnerships with lenders, contractors, developers, government agencies, utilities, business and industry associations, and community groups.

This Programme will only consider projects with offtakers in the municipalities and commercial/industrial sectors. The DBSA will utilise this MS rating as a base upon which qualifying offtakers for the sub-projects will be selected.

Should the balance sheet deteriorate to the level that the offtaker defaults, the lenders will exercise their step in rights through their security arrangements. Upon stepping-in, lenders will have an option to introduce a replacement offtaker.

Eligible Investments

The programme may only provide Loans to Borrowers that are:

- Private-sector owned, operated and controlled;
- Incorporated in South Africa;
- Engaged in the financing, construction and operation of Renewable Energy generation activities of any name-plate capacity per Project;
- In compliance with all laws and regulations in terms of inter alia the required permits and licenses; and
- Financially sustainable.

Eligible technologies

Eligible technologies for investment are:

- Solar photovoltaic (PV); and

- Onshore wind.

Social and Economic Development Requirements

- All the Projects that receive GFC funding from DBSA will need to adhere, as a minimum to all the South African laws and regulations in respect of economic development, environmental, social, health and safety aspects.
- An environmental impact assessment must be prepared in accordance with the requirements set out in line with the Equator Principles as part of the due diligence process.
- An assessment of the integrity of the Project Sponsors must be an integral part of the due diligence process so as to ensure the support to the ultimate beneficiaries.

C.4. Background Information on Project / Programme Sponsor (Executing Entity)

DBSA Institutional Background

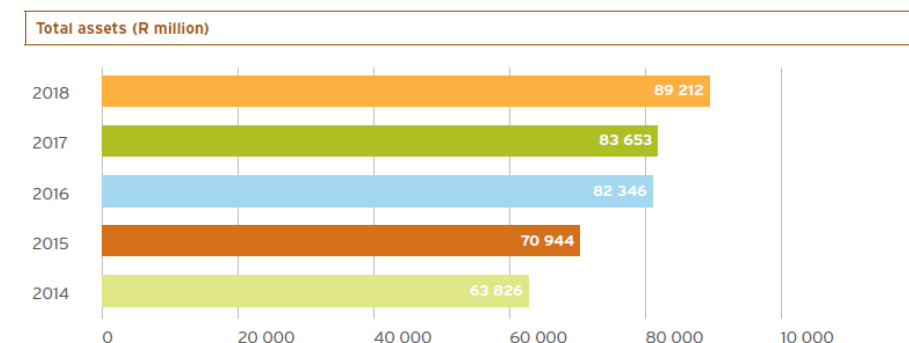
The DBSA was established in 1983 to perform a broad economic development function within the South African homeland constitutional dispensation that prevailed during the apartheid era. In 1994, the new constitutional and economic dispensation of South Africa resulted in the transformation of the role and function of the DBSA. Thus in 1997, the DBSA was reconstituted in terms of the Development Bank of Southern Africa Act (No. 13 of 1997) ("DBSA Act"), as a DFI. Following the adoption of the new bank's growth strategy in November 2012 by the DBSA Board, the strategy was refocused to provide sustainable infrastructure finance and implementation support in selected African markets to improve the quality of life, of people, in support of economic growth and regional integration.

The DBSA supports infrastructure development and creates value through the provision of a range of innovative services to South Africa and the broader region. To ensure its own sustainability, the DBSA business model takes into account its vision, mission and strategy, supported by robust governance structures and processes. The environments in which the DBSA operate, as well as the engagement with stakeholders, plays a critical role in identifying risks and opportunities. The DBSA's strategy strives to maximise these opportunities and mitigate the risks effectively and the management structure enables delivery of this strategy.

Financial Profile of DBSA

DBSA's financial capital comprises funds available for use in the business, including financing resources, such as debt and equity, as well as funds generated through operations and investments. Financial capital is generated through net interest income, services and investment returns, and conserved through cost-efficiency. It is distributed as expenses, such as salaries. It is also applied to improved socio-economic conditions, thereby making it a sustainably available capital.

The figure below indicates DBSA's financial performance from 2013 up to 2017.



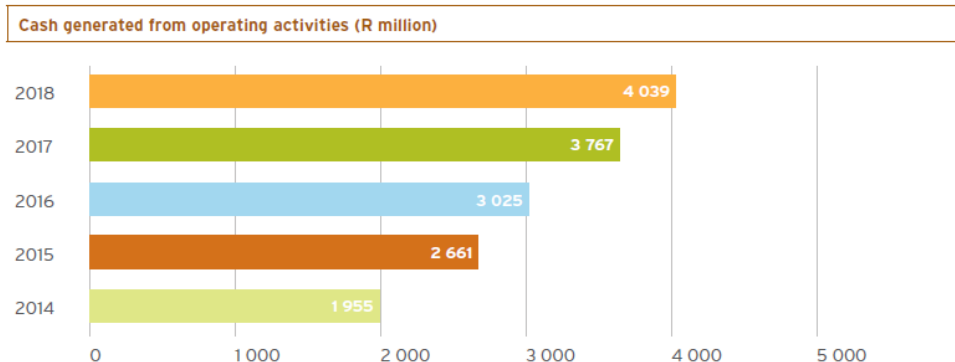
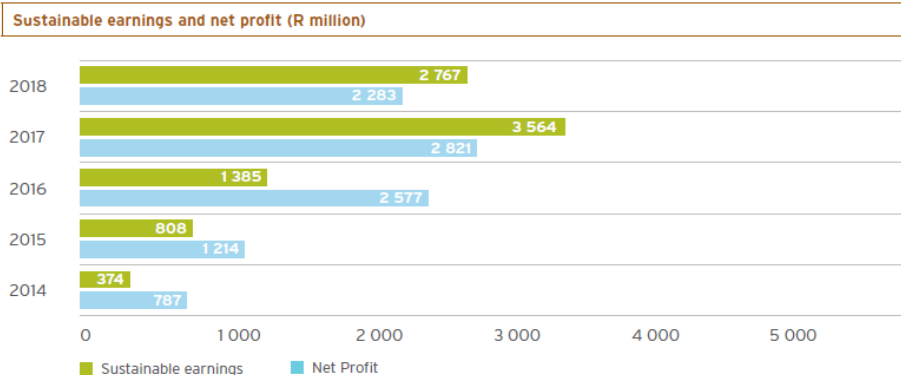


Figure 8: DBSA's financial performance 2013-2017

DBSA's Role in managing the Programme

The DBSA will be fulfilling the roles of both the accredited entity (AE) and the executing entity (EE) for the Programme.

The DBSA has shown consistent growth in total assets and cash generated from operating activities since 2013.

As the local DFI tasked with infrastructure delivery, the DBSA would like to also play a critical role in establishing renewable energy market driven solely by the private sector. GCF's support would assist in achieving this strategy.

The figure below provides the key units within the DBSA involved in GCF AE responsibilities and EE role. Annexure K shows the organogram of the DBSA which shows the reporting structure of these units.

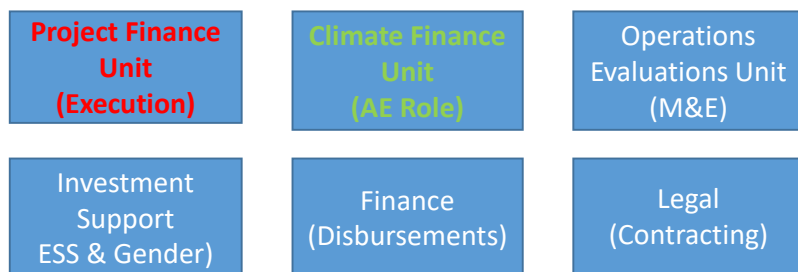


Figure 9: DBSA business units that will be involved in the management of the Programme

DBSA role as Accredited Entity

The DBSA is accredited under the Green Climate Fund ("GCF") and Global Environment Facility ("GEF"). The Climate Finance Unit ("CFU") within the DBSA manages all existing funds/projects under these mechanisms in terms of ensuring that the DBSA fulfills all its responsibilities as an accredited entity during the implementation of climate related projects either by the DBSA or other executing entities. As such, the CFU assumes the role of managing projects including the proposed Programme on behalf of entities such as the GCF. The objective role of the CFU is evidenced by the successful management of the National Green Fund by the DBSA on behalf of the National Department of Environmental Affairs since 2012.

The AE responsibilities will also be fulfilled by various units within the DBSA including the Operations and Evaluation Unit who will be supporting the CFU in conducting monitoring and evaluation. In the process of conducting evaluation exercises, the DBSA adheres to certain principles with the sole intention of ensuring the credibility of the process and the resultant evaluation reports. Five principles have been adopted for all DBSA evaluations, three of which are highlighted below:

- Independence

The evaluation team members should not, in person, have been involved with the planning and implementation activities of the evaluated development intervention. This is done to preserve their independence and to ensure that their judgment is not influenced in any way at the time of evaluation or continuous monitoring.

- Objectivity

Assessments must be clearly separated from factual statements, and be based on reliable data or observations. Monitoring and Evaluation conclusions should not be mere opinions of the evaluators but should rather be based on rigorous data collection and analysis. *“Objectivity implies that different angles are given due consideration to avoid any biases and this may result in conclusions that are positive and negative”.*

- Impartial

Evaluations must give a balanced presentation of strengths and weaknesses of an evaluation intervention and in cases where stakeholders have different views, these should be incorporated into the evaluation report. Evaluation should not be used as a fault-finding tool but rather as an instrument for reporting fairly on the intervention being evaluated.

DBSA role as executing entity

The execution of the Programme will be undertaken by the Project Finance Unit. Deals will be screened and evaluated as per the DBSA deal process. Although the Project Finance Unit will take the lead in sourcing and preparing Early Review and Appraisal reports for consideration by the relevant DBSA investment committees, objective input and support will be provided by environmental and gender specialists in the Investment Support Unit (“ISU”) of the bank and the CFU. Unit in order to ensure independence and objectivity with respect monitoring and evaluation of the programme.

C.5. Market Overview (if applicable)

Structure of the electricity industry in South Africa

The country's electricity industry supply remains vertically integrated, with the bulk of the power generation, transmission and distribution of electricity controlled by Eskom, the national power utility which is charged with the development of the electricity supply industry. Eskom generates 90% of the electricity consumed in the country and ca. 40% of the electricity used in the African continent, with the balance being generated by municipalities and IPPs. Eskom remains the dominant supplier in the Southern Africa Power Pool (“SAPP”), given its nominal generation capacity of 51,380 MW constitutes almost three quarters of the installed capacity of 61,859 MW in SAPP. Eskom currently has over 32,220 km of transmission lines spanning the entire country. Electricity distribution, which is the final stage in the delivery of electricity to end users, is currently undertaken by Eskom, together with 187 municipalities. Municipalities also have the executive authority for electricity distribution as per Schedule 4 of the Constitution As indicated in the table below, Municipalities distribute ca.42% of the country's electricity requirements. If Eskom's sales to the international market (ca. 7%) is removed from the calculation, the role of Eskom and Municipalities as distributors is almost equal.

Table 5: Summary of Eskom's electricity consumption by customer type

Customer type	GWh consumed			
	2017/18		2016/2017	
Distributors/ Municipalities	87,133	41.0%	89,718	41.9%
Residential	12,302	5.8%	11,863	5.5%
Commercial	10,539	5.0%	10,339	4.8%
Industrial	47,854	22.6%	48,295	22.6%
Mining	30,235	14.2%	30,559	14.3%

Agricultural	5,711	2.7%	5,405	2.5%
Rail	3,148	1.5%	2,849	1.3%
International	15,268	7.2%	15,093	7.0%
	212,190		214,121	

Source: Eskom Integrated Annual Financial Statement 2017/18

The figure below summarises the structure of the electricity industry in South Africa.

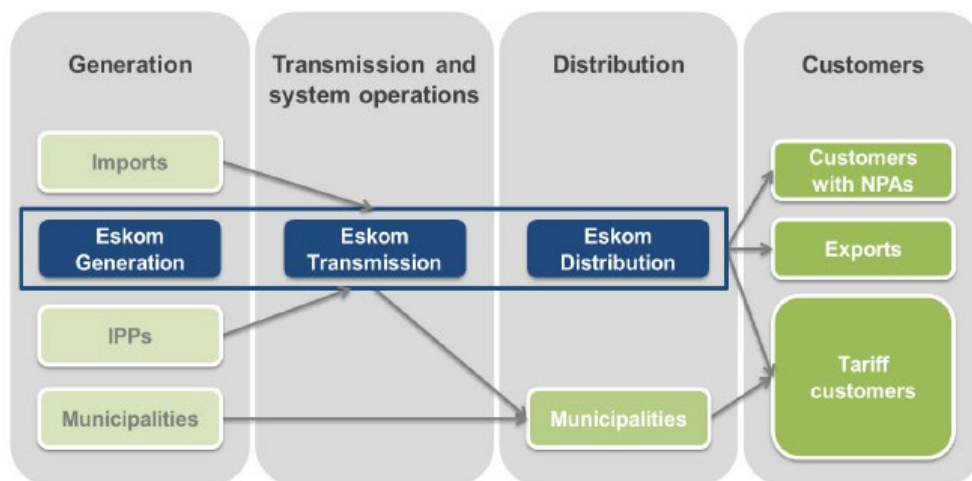


Figure 10: The structure of the electricity industry in South Africa

Source: Genesis Analytics

Note: NPA~ Negotiated Pricing Agreements (Industrial Heavy Electricity Users)

Tariff Customers~ Residential and Commercial Customers without NPAs.

South African generation mix

The total nominal generation capacity available to the grid as at March 2018 reported by Eskom is 54,058 MW as summarised in the table below.

Table 6: South Africa Electricity Nominal Capacity 2017/18

	Eskom Installed Capacity(MW)	REIPP Committed Capacity (MW)	Non-Eskom Supply Incl Imports(MW)	Total Capacity (MW)
Coal	37,868		885	38,753
Gas/Liquid fuel			565	565
Nuclear	1,860			1,860
Diesel / Gas Fired	2,409	1005		3,414
Pumped Storage	2,724			2,724
Hydropower	600	14	1805	2,419
Co-generation			140	140
Landfill		8		8
Biomass		-	318	318
Wind Energy	100	1,978	5	2,083
Solar Energy		1,474		1,474
Concentrating Solar Power		300		300
Total	45,561	4,779	3,718	54,058

Source: Eskom Integrated Report 31 March 2018

Note: Eskom installed capacity excludes Medupi and Kusile

Eskom's nominal capacity of 54,058 MW as indicated in the figure above mainly comprises of 38,753 MW coal-fired generation, 1,860 MW nuclear power, 565 MW gas-fired power, 2,724 MW pumped storage, 2,419 MW hydro power, 2,083 MW wind energy and 1,474 MW Solar PV. South Africa's energy output is dominated by coal-fired generation stations with a net output of 202,106 GWh, which represents over 90% of the country's total energy output of 221,936 GWh, followed by nuclear representing 6.40%. The energy output in GWh supplied by Eskom in 2017/18 financial year is graphically illustrated in the figure below.

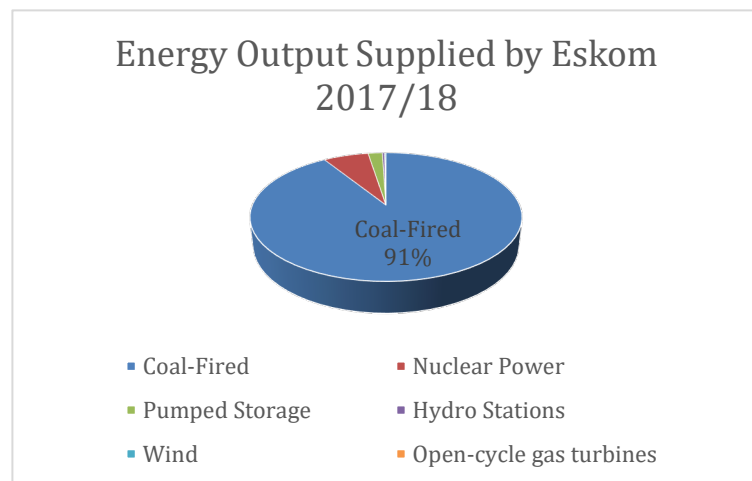


Figure 11: Energy output supplied by Eskom in 2017/18

Source: Eskom Integrated financial statements 2017/18

Electricity Consumption by the mining and manufacturing (industrial) sectors

South Africa's economy is energy-intensive with a strong emphasis on mining and minerals beneficiation. The Energy Intensive User's Group consists of 33 companies producing about 20% (the mining and manufacturing sectors contributed 8% and 14 % respectively towards the South African GDP in 2017) of the country's gross domestic product (GDP) and consuming approximately 37% of the electricity produced in the country as illustrated in the table below. These companies are invariably also large contributors to the fiscal authorities through various forms of taxes and are heavily burdened, even disregarding the price they pay for electricity. It is clear from the above that it is fundamentally important to keep electricity prices in the country affordable, particularly for these two energy intensive industries.

Electricity tariffs determination (Eskom)

Currently, the electricity tariffs that Eskom charges are set utilising the Multi-Year Price Determination ("MYPD") process which is used by NERSA to determine the price of electricity for the different customer categories that Eskom has, namely, residential, urban (which covers industrial, mining and commercial consumers), rural and municipalities. According to NERSA, the MYPD provides a regulatory methodology which consists of the principles of rate of return as well as incentives for efficient performance. The methodology ensures that each of Eskom's businesses is given efficient expenditure and compensated for the cost of providing services to the customers. The methodology consists of the allowed revenue requirement formulas for generation, transmission and distribution. These formulas are used to calculate the allowed revenue in each of these business units. In the MYPD, prices are determined for a five-year period and Eskom is required to make application to NERSA for approval. The figure below indicates the electricity price trend from 1970 - 2015 in real terms.

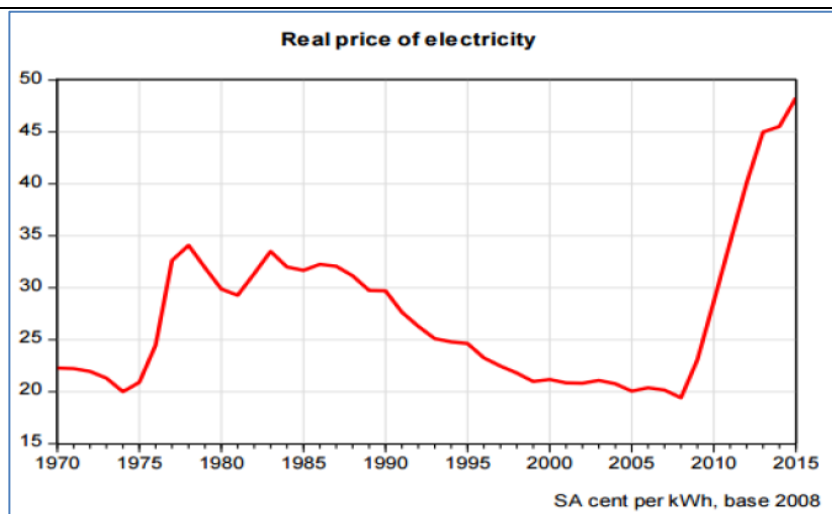


Figure 12: South Africa electricity Price trends

Source: Status and Opportunity Report of the Energy Sector in Southern Africa, DBSA, November 2017

Renewable energy potential

South Africa has a high level of renewable energy potential, particularly from the wind and the sun. South Africa's renewable energy resource maps have shown that the country has some of the most viable wind and solar resources in the world. The country also has some of the world's best winter sunshine areas and some of the best direct normal irradiation (DNI) levels. The highest DNI predicted in South Africa is 3 200 kWh/m² per annum, with an estimated long-term average DNI of 2 816 kWh/m² per annum in the Northern Cape. The figure below illustrates the solar resource map.

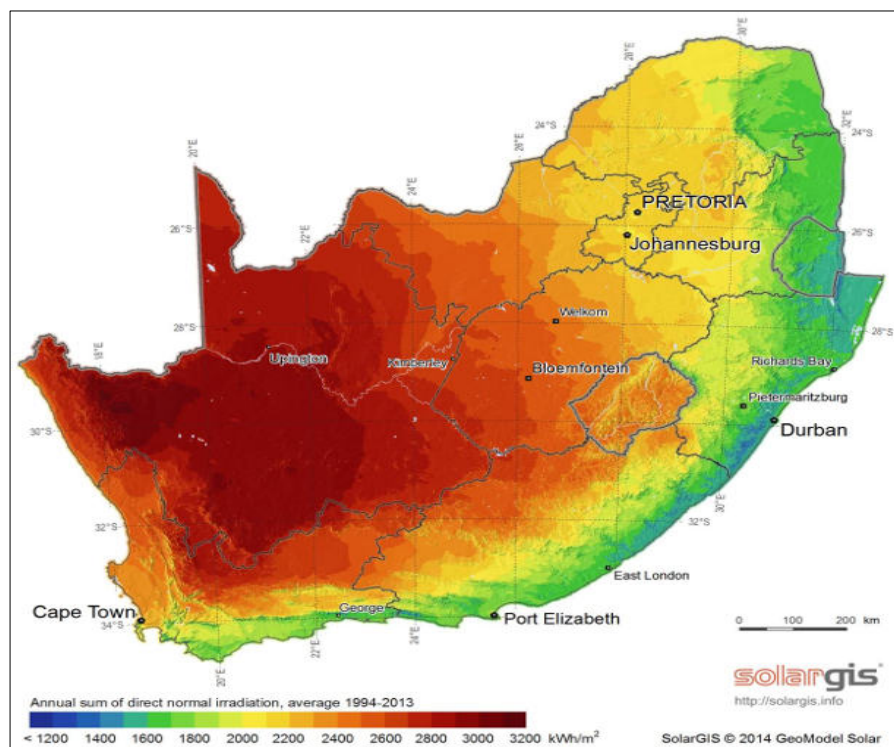


Figure 13: Direct Normal Irradiation (DNI) map of South Africa (Source: Solar GIS)

According to South African Wind Energy Association ("SAWEA") 2010, the country has an estimated technical wind energy capacity of 70,000 MW which could potentially contribute up to 20 per cent of the country's electricity needs by 2025. As indicated in the resource map below, wind is mostly confined to the coastal and some large inland areas in the Cape provinces of South Africa.

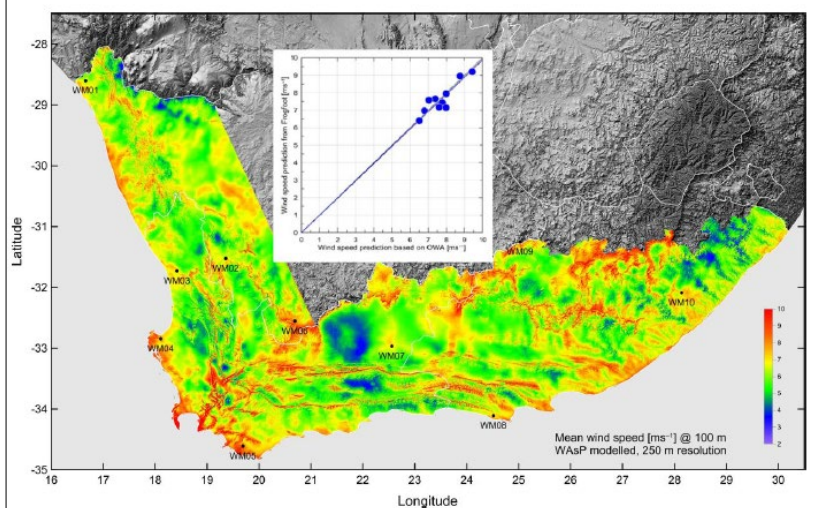


Figure 14: Wind Atlas for South Africa

Source: Report to the WASA Project Steering Committee, Sanedi 2014

The Renewable Energy Independent Power Producer Procurement Programme

In response to IRP 2010 generation mix under ERA, the DoE, NT and the DBSA established the IPP office for the specific purpose of delivering on the IPP procurement objectives. In November 2010, the DoE and NT entered into a memorandum of understanding with the DBSA to provide the necessary support to implement the REIPPPP and establish the IPP office. The REIPPPP was the result of this multi government department's cooperation. Eskom is the designated single buyer of electricity under the REIPPPP.

After investigating the then popular feed-in-tariff schemes, the South African government favoured a competitive tender approach. Since the inception of the REIPPPP in 2011, 6,323 MW has been procured from 92 large scale (i.e. greater than 5 MW capacity) renewable energy IPPs and 99 MW from 20 small IPPs (1-5 MW capacity)⁷. By June 2017, 3,162 MW of electricity generation capacity from 57 IPP projects had been connected to the grid, see figure below for the summary of capacity allocations per technology through each REIPPPP bidding rounds.

Table 7: Summary of the procured capacity under REIPPPP

	REIPPPP Procurement Timelines						
Bidding Round	BW 1	BW 2	BW 3	BW 3.5	BW 4	BW 1S	BW 2S
Request of Proposal (RFP)	3-Aug-11	3-Aug-11	3-May-13	3-May-13	26-May-14		18-Dec-15
Bid Submission	4-Nov-11	5-Mar-12	19-Aug-13	31-Mar-14	18-Aug-14	3-Nov-14	14-Jun-16
Bid announcement	6-Dec-11	21-May-12	29-Oct-13	15-Dec-14	16-Apr-15	4-Oct-15	8-Dec-16
Financial Close	5 Nov 201	9-May-13	11-Dec-14	9-May-16	4-Apr-2018	Awaiting DOE	
Technology:	REIPPPP Procured Capacity per Bidding Round (MW)						
Hydro	-	14	-	-	5	-	-
Biomass	-	-	17	-	25	10	-
Landfill	-	-	13	-	-	-	-
Concentrated Solar	150	50	200	200	-	-	-
Solar PV	627	417	435	-	813	30	50
Wind	649	559	786	-	1,363	9	-
Total	1,426	1,040	1,451	200	2,206	49	50
Total Number of Project	28	19	17	2	26	10	10
Total Large Projects	6,323		MW				
Total Small Projects	99		MW				

Source: Utility-Scale Renewable Energy -2017, Green Cape.

⁷ An Overview - Independent Power Producers Procurement Programme(IPPPP), 30 June 2017, DoE

The program has created 32,532 job years for South African citizens. Carbon emissions reductions of 17.25 Mton CO₂ had been realised by the programme from inception to date. The competitive nature of REIPPPP has also helped to aggressively drive the tariff downwards as the bidding rounds progressed as shown by the figure below.

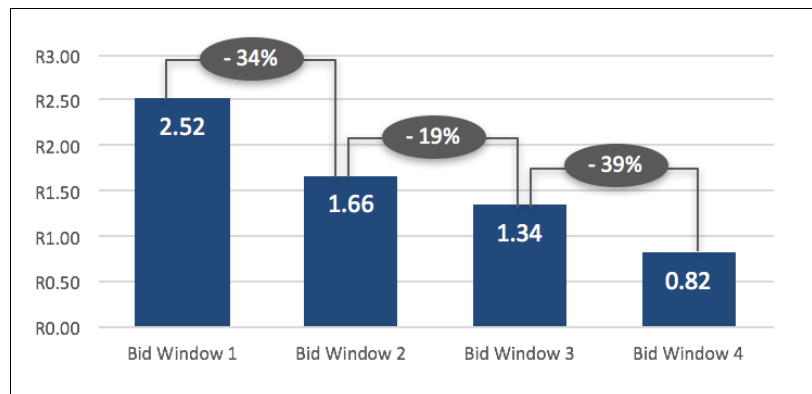


Figure 15: Aggregate Portfolio Price trend

Source: An Overview - Independent Power Producers Procurement Programme (IPPPP), 30 June 2017, DoE

The success of the REIPPPP was attributed to the proactive government guarantee support in procuring renewable energy capacity, increases in the electricity tariffs charged by Eskom, global technological advances which resulted in decreases of prices and a general global shift towards a low carbon and sustainable development.

Bids totaling 17.5 GW, from 305 bid submissions, have been received in the REIPPPP bidding process across the large-scale bid windows (not including the bid rounds for small renewable energy projects). From these, 6.3 GW have been selected for procurement as preferred bidders, resulting in ca 11.2 GW fully developed and available renewable energy opportunities in the country.

C.6. Regulation, Taxation and Insurance (if applicable)

Regulation

NERSA regulates the electricity market as mandated by the ERA and the NER Act, by providing licences, regulatory rules, guidelines and codes. There are two types of licences that will be required for the implementation of the Programme, namely:

- 1) Generation license for IPPs; and
- 2) Trading license for off-takers provided they are utilizing the national grid for the transportation of energy.

Electricity Generation Licence

A legal opinion drafted by Webber Wentzel summarizes the required government licenses for generation of electricity as follows:

The legal framework governing the generation of electricity in South Africa is the ERA. Section 7 of the ERA provides that no person may, without a license issued by NERSA, operate any generation facility, save in regard to the exceptions listed in Schedule 2 of the ERA

On 2 December 2016, the Minister of Energy published for public comment, the draft licensing exemption and registration notice in GN R 1482 Government Gazette 40464 (the "Draft Licensing Exemption Regulations"). The purpose of the Draft Licensing Exemption Regulations is to amend Schedule 2 of the ERA and exempt various categories of generation facilities and electricity resellers from the requirement to apply for and hold a license under the ERA, and to instead require that these activities be registered with NERSA.

Prior to the Draft Licensing Exemption Regulations, Schedule 2 provided, *inter alia*, for the following exceptions, namely:

- any generation plant constructed and operated for demonstration purposes only and not connected to an inter-connected power supply;
- any generation plant constructed and operated for own use; and
- Non-grid connected supply of electricity except for commercial use.

The Draft Licensing Exemption Regulations proposed that the following activities be exempt from licensing and will only require registration with NERSA:

- Embedded (captive) generation where no wheeling takes place;
- Facilities that wheel through the grid;
- Off-grid generation;
- Facilities used for demonstration purposes; and
- Back-up or standby generation.

Importantly, the first three categories of generation facilities are only exempt from the licensing requirement if their installed capacity does not exceed 1MW. In the case of the first two categories, a facility will also be eligible for exemption if the Minister has not published a ministerial determination in the Government Gazette stating that the amount of megawatts allocated in the IRP for embedded generation of this nature has been reached. If there is no capacity allocated to embedded generation by the Minister of Energy, a project can only be implemented subject to a special ministerial exemption issued by the Minister of Energy. It is only after the issuance of the ministerial determination or exemption that it can apply to NERSA for a Licence.

Electricity Trading Licence

ERA requires that the transmission, distribution and trading function of electricity supply be separately licensed and that the transmission or distribution function shall provide non-discriminatory network access to all users of the transmission or distribution system. Independent generators thus have the same non-discriminatory right of access to the network as a load. A connection agreement or wheeling agreement, where applicable, should be entered into by the generator and the Network Provider for the purpose of regulating the connection to and use of the network system. Use-of-system ("UOS") charges are tariff structures and rates that recover the costs associated with making capacity available on an electricity network.

To support this right provided in ERA, NERSA published the *"Regulatory Rules on Network Charges for Third-Party Transportation of Energy"* during March 2012. As the national grid operator, Eskom recognises the non-discriminatory right of access to the network for all generators. This is captured in the Information Brochure published during September 2012 – *"Process and pricing for the third party transportation of energy wheeling over Eskom networks due to a bilateral trade"*.

Integrated Resource Plan

The IRP is an electricity capacity plan which aims to provide an indication of the country's electricity demand, from which technology this demand will be supplied and at what cost. The IRP2010 was promulgated in March 2011 by the DoE in respect of South Africa's forecast energy demand for the 20 year period from 2010–2030. The IRP2010 was intended to be a living plan and was to be revised by the DoE every 2 years, however, this was never achieved. In line with South Africa's commitments to reduce emissions, the promulgated Integrated Resource Plan 2010–2030 imposed CO2 emission limits on the electricity generation plan. South Africa's power sector has to comply with CO2 emissions constraints: Peak-plateau-decline and a determined carbon budget for the entire sector to 2050

The DoE has to date implemented the IRP2010 by issuing Ministerial Determinations in line with section 34 of the ERA in order to give effect the procurement of new generation capacity. The table below shows the determinations the Minister of Energy has made thus far for the implementation of various renewable energy programmes since the promulgation of IRP 2010. It is important to note that no determination was made in respect of embedded generation projects.

Table 8: Ministerial Determinations of renewable energy and their capacities

Determination	Capacities (MW)
2011 Renewable IPP	3,800
2012 Renewable IPP	3,200
2015 Renewable IPP	6,300
2015 Solar Park	1,500
Total Capacity Determined	14800

Source: *Monitoring of Renewable Energy Performance of Power Plants, NERSA, October 2017*

Embedded generation is the production of electricity from smaller scale power stations, located in close proximity to the place of consumption that are usually directly connected to a distribution network. In South Africa, these includes projects

that lie outside of the formal government procurement programmes such as the REIPPPP and usually defined as projects that are planned for own use/consumption.

The draft IRP update was released on 27 August 2018 for public comment by the minister of energy. In formulating the vision for the energy sector, the National Development Plan based the updated IRP on least-cost supply and demand balance, taking into account security of electricity supply and the environment (minimise negative emissions and water usage). The table below provides a summary of the recommended draft IRP2018 allocations up to 2030.

Table 9: Proposed Updated Plan for the Period Ending 2030

	Coal	Nuclear	Hydro	Storage (Pumped Storage)	PV	Wind	CSP	Gas / Diesel	Other (CoGen, Biomass, Landfill)	Embedded Generation
2018	39 126	1 860	2 196	2 912	1 474	1 980	300	3 830	499	Unknown
2019	2 155					244	300			200
2020	1 433				114	300				200
2021	1 433				300	818				200
2022	711				400					200
2023	500									200
2024	500									200
2025					670	200				200
2026					1 000	1 500		2 250		200
2027					1 000	1 600		1 200		200
2028					1 000	1 600		1 800		200
2029					1 000	1 600		2 850		200
2030			2 500		1 000	1 600				200
TOTAL INSTALLED	33 847	1 860	4 696	2 912	7 958	11 442	600	11 930	499	2600
Installed Capacity Mix (%)	44.6	2.5	6.2	3.8	10.5	15.1	0.9	15.7	0.7	
<div> <div></div> Installed Capacity <div></div> Committed / Already Contracted Capacity <div></div> New Additional Capacity (IRP Update) <div></div> Embedded Generation Capacity (Generation for own use allocation) </div>										

Source: Integrated Resource Plan 2018, August 2018.

It is clear from the draft IRP plan that South Africa continues to focus on renewable energy sources, most importantly PV and wind, albeit at a reduced pace in comparison to what was experienced in the past 7 years through the REIPPPP. One of the most exciting addition to the IRP is the embedded generation allocation. The draft IRP update allocates 200 MW per annum for embedded generation for own-use of between 1 MW to 10 MW, starting in 2018. The total projected capacity allocation up to 2030 is 2,600 MW. This allocation is in-line with this proposal to GCF and promulgation thereof will remove the biggest regulatory hurdle that was identified at Concept Note stage. By introducing a predetermined embedded generation MW allocation in the IRP Update, an IPP will no longer have to obtain a Ministerial exemption prior to applying to NERSA for a generation license as mentioned above (under Electricity Generation Licence).

Legal Nature of Community Trust

A local community trust is a trust created for the benefit of a local community in terms of the Trust Property Control Act 57 of 1988. The founder of the trust is usually the Project SPV. Trustees are appointed by the Project SPV, the local community, the lender to the trust (where applicable) and independent trustees appointed by the board of trustees

The local community in the South African context is generally defined as Black People residing within the communities in the nearest residential areas or villages to the project site within a radius of namely 50km from the project site and in the event that there are no residential areas or villages within a radius of namely 50km from the project site, then communities in the nearest residential areas or villages to the project site.

Taxes and Foreign Exchange Regulations

The most significant tax legislation administered by the Commissioner for the South African Revenue Service (SARS) applicable to this Programme is:

- (i) **Value-Added Tax** - applies to all goods and services at a standard VAT tax rate of 15%;
- (ii) **Corporate Income Tax** - is a tax imposed on companies resident in the Republic of South Africa, at a rate of 28%;
- (iii) **Accelerated Capital Allowance (Accelerated Depreciation)** - Section 12B of the Income Tax Act provides for a accelerated capital allowances for assets used in the production of renewable energy. More specifically, it allows for a deduction of 50% (year 1), 30% (year 2) and 20% (year 3) basis over three years in respect of any renewable energy machinery, plant, implement, utensil or article (referred to as a qualifying asset) owned by the taxpayer. Section 12B thus provides for an accelerated capital allowance (as opposed to the five year write-off period in section 12C) on the cost of the asset;
- (iv) **Customs and Excise Tax** - Customs/import duties are imposed on some goods that are imported into South Africa, to protect local producers.

Foreign exchange regulations are applicable whereby some of the plant and equipment will be imported during implementation in foreign currency. The administration of exchange control is performed by the South African Reserve Bank. The Reserve Bank has delegated some of its powers to deal with exchange control related matters to commercial banks.

Insurances

In terms of insurance, the DBSA requirements to projects for insurance will be consistent with international best practice standard for project financing transactions. Specific policies will be required and reviewed for each sub-project during the due diligence stage. Such policies will be part of the security package for the project lenders, including GCF.

C.7. Institutional / Implementation Arrangements

DBSA Project Appraisal, Approval and Monitoring Procedures

The IPP projects that will be considered for funding under the proposed Programme will be subjected to standard DBSA project appraisal, approval and monitoring procedures (section F4 refers). The process entails a workflow of processes, and roles and responsibilities of various parties within the loan approval value chain beginning with the DBSA receiving a written application for assistance and ending when 100% of the DBSA's loans are drawdown and all amounts due are collected. As part of the DBSA's normal Due Diligence processes, relevant bodies/entities will be engaged to ensure alignment with AE and GCF requirements.

The IPP projects under this proposed Programme are envisaged to follow the above mapped out DBSA loan approval process. The sub-projects will be banked as typical project finance transactions, where credit approval is primarily based on the strength and experience of the project operators, cash flow profile, contractual support and risk mitigants.

C.8. Timetable of Project/Programme Implementation

Please provide a project/programme implementation timetable in [section I \(Annexes\)](#). The table below is for illustrative purposes. If the table format below is used, please refer to the activities as numbered in Section H. In the case of outputs, please mark when all the required activities will be completed.

	2019				2020				2021				2022				2023				2024			
TASK	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
COMPONENTS 1 (SUBORDINATED DEBT) AND 2 (EQUITY FINANCING)⁸																								
1. Communications and marketing of the approved facilities to the commercial lenders, developers, IPPs and off takers.																								
2. Deal origination																								
3. Deal screening																								
4. Deal structuring and due diligence																								
5. Contract negotiation																								
6. Monitoring Implementation and verifying IPP project completion																								
7. Terminal evaluation (DBSA) ⁹																								

⁸ Activities associated with both Components 1 and 2 would be similar and be undertaken at the same time.

⁹ The expectation is that all projects will be completed by mid-2024. In the event that the last approved projects are completed towards the end or after 2024, the terminal programme or fund evaluation may be delayed.

D.1. Value Added for GCF Involvement

The availability of local competitive commercial funding for renewable energy projects has been successfully demonstrated in the REIPPPP projects where full participation of DFIs, commercial lenders and institutional investors was evident. Outside of the REIPPPP backed by the government, the bankability of the renewable energy projects has been challenging. The Programme is critical as it would allow South Africa to continue to further diversify its energy mix by implementing renewable energy projects outside of government credit support whilst reducing its high carbon footprint and exploiting the vastly underutilised renewable energy resources. In addition, in the NDC commitments submitted to UNFCCC, mitigation through renewable energy strategies is core to the country achieving its commitments.

Value added for GCF Involvements

- The almost three-year delay in the signing of the PPAs for REIPPPP bidding round 4 by the DoE and Eskom has created a lot of uncertainty around the sustainability of the sovereign backed renewable energy market in South Africa. The 27 projects that were awarded preferred bidder status under bidding round 4 of the REIPPPP recently signed the PPAs (4 April 2018), however, no pronouncement on the continuance of the programme in the short term was made by the Minister of Energy. The implementation of the Programme by GCF and the DBSA will allow for the continuance of renewable energy capacity addition to the South African Grid.
- Commercial lenders are keen to support the Programme. Without sovereign support and the lack of track record of these Projects, they are concerned about the risks. Commercial lenders are thus structuring funding with short tenors and higher funding margins. The involvement of GCF will allow for the blending of commercial debt with longer tenor subordinated debt. The reduction in margins and longer tenors provided will contribute towards lower tariffs to the end user.
- The financial viability of Eskom/ government as an offtaker to procure further capacity under the REIPPPP is uncertain. The Programme will allow South Africa to add more low emission power to the grid without further burdening the fiscus, which will in turn have an impact on the poor citizens. In the 2018 National budget, South Africa increased its value added tax from 14% to 15% to help fund the growing debt burden in the midst of a low GDP growth scenario.
- The electricity price increases related to Eskom purchases is uncertain. This leaves bulk industrial and mining users, and municipalities exposed to electricity costs that cannot be forecasted in the medium to long term. Sourcing electricity from renewable energy IPPs will lessen the burden on the consumers and industries as bypassing Eskom to end consumers will allow for predictable price increases usually linked to CPI. The South African Reserve Bank targets CPI of 3-6% as a monetary control tool. This CPI level has historically been maintained in this band over a long-term period, and is forecasted to remain as such.
- The Programme supports the country's progress towards achieving the GHG emissions commitments and the electricity carbon budget as planned in the draft IRP 2018;
- The implementation of the Programme will serve as validation of a new renewable market for South Africa and the Southern Africa region as a whole.

The equity support for SMMEs and the local community will contribute to sustainable development of vulnerable communities and previously disadvantaged groups, economic emancipation, poverty alleviation. Refer to E.3.1. The successful implementation of this Programme will demonstrate the bankability IPP Projects with non-sovereign backed PPAs, thus opening up a potentially large market going forward independent of the Government.

D.2. Exit Strategy

The key element to ensure Programme sustainability is through off-takers entering into long-term PPAs with the IPPs. This will provide the basis for predictability of the revenue model that is key to bankability and long term financial sustainability. The DBSA will ensure that the tenor of the financing is shorter than the PPA term to ensure project sustainability throughout their lifetime.

The exit strategy for senior debt, subordinated debt and equity will be through the repayments from project's cash flows up to maturity.

In this section, the accredited entity is expected to provide a brief description of the expected performance of the proposed project/programme against each of the Fund's six investment criteria. Activity-specific sub-criteria and indicative assessment factors, which can be found in the Fund's [Investment Framework](#), should be addressed where relevant and applicable. This section should tie into any request for concessionality made in [section B.2](#).

E.1. Impact Potential

Potential of the project/programme to contribute to the achievement of the Fund's objectives and result areas

E.1.1. Mitigation / adaptation impact potential

Specify the mitigation and/or adaptation impact, taking into account the relevant and applicable sub-criteria and assessment factors in the Fund's [investment framework](#).

South Africa has the 2nd largest economy in Sub-Saharan Africa, after Nigeria and according to World Economic Forum Global Competitiveness Index. Eskom is South Africa's primary electricity supplier and generates ca. 90% of the electricity used in South Africa, and approximately 40% of the electricity used on the African continent. In terms of climate change, most of South Africa's electricity (ca 90%) is generated from coal-fired power stations. South Africa ranks amongst the top 20 energy intensive users in the world. The average CO₂ intensity for the national grid (grid emission factor, EF) is estimated at 1.015 tCO₂/ MWh¹⁰ for the South African grid.

In response to climate change, the REIPPPP that commenced in 2011 allowed the country to procure renewable capacity of up to 6,422 MW from 112 IPPs to date. There is uncertainty surrounding the continuance of the REIPPPP programme in its current form backed by a sovereign guarantees, in the present context of budgetary pressure on the government's finances. Development and financing of RE projects without government guarantee/support will be challenging not only for banks, but also for sponsors

The DBSA, in line with the Paris Agreement commitments wishes to support the development of an alternate mechanism for direct power procurement by the consumers in a cost effective manner, while leveraging / crowding in private sector investors / developers and banks.

The proposed credit enhancement mechanism under the Programme will provide the banks with a comfort while allowing for the continuation of the addition of renewable energy programs through the addition of 330 MW of new generating capacity, generating approx. 744,600 MWh of clean electricity annually, thereby directly avoiding emissions of more than 717,794 tCO₂e per annum.

E.1.2. Key impact potential indicator

Provide specific numerical values for the indicators below.

GCF core indicators	Expected tonnes of carbon dioxide equivalent (t CO ₂ eq) to be reduced or avoided (Mitigation only)	Annual	717,794 tCO ₂ eq (once all projects are in operation)
		Lifetime	14,355,888 tCO ₂ eq
	<ul style="list-style-type: none"> Expected total number of direct and indirect beneficiaries, disaggregated by gender (reduced vulnerability or increased resilience); Number of beneficiaries relative to total population, disaggregated by gender (adaptation only) 	Total	251,000 households will be provided with low-emission power Assumptions as per lessons learnt in REIPPPP: <ul style="list-style-type: none"> 1 MW Wind powers 1,100 households). 1 MW Solar PV powers 700 households

¹⁰ An Overview, Independent Power Producers Procurement Programme (IPPPP), 30 June 2017.

		Percentage (%)	N/A
Other relevant indicators	<ul style="list-style-type: none"> Proportion of low-emission power supply added in jurisdiction or market: additional 1.4% low-emission power to the national energy mix. The number of jobs that will be created through the implementation of the Programme are as follows: <ul style="list-style-type: none"> Construction Phase: 3,130 jobs Operation Phase: 6,078 for 20 years life of project (304 jobs on average per annum) 		
<p><i>Describe the detailed methodology used for calculating the indicators above.</i></p> <p>The DBSA used a harmonized approach for assessing the mitigation benefits, or net GHG emissions, of EGIP in accordance with the IFI Framework for a Harmonized Approach to Greenhouse Gas Accounting¹¹. A Technical Working Group ("TWG") of IFIs has agreed to use a common set of emission factors for GHG accounting of electricity production from Renewable Energy (RE) projects^{12,13}. The purpose is to harmonize GHG accounting through the application of common emission factors to RE GHG calculations.</p> <p>The main principles and assumptions for baseline emissions factors include:</p> <ul style="list-style-type: none"> Energy generated from renewable sources will avoid emissions that would otherwise be generated wholly or partly from more carbon-intensive sources. For the purpose of promoting greater harmonization, the IFI GHG Accounting TWG maintains a common dataset containing Baseline Emission Factors ("BEFs") for countries including South Africa and for sub-national and interconnected grids where applicable. The common dataset of BEFs is updated annually under responsibility of the TWG. Where an IFI has conducted its own country or project-related baseline study, the results of this study are submitted to the TWG for consideration of inclusion in the common dataset during future annual updates. <p>The available data sources for the common dataset used by Technical Working Group of IFIs comprises, where available, of UNFCCC standardized baselines (SBLs), which are based on the CDM Grid Tool6 or other approaches approved by the CDM Executive Board; and/or drawn from official country emission data sources developed by designated national authorities. The common dataset containing BEFs are constructed using a Combined Margin (CM) for the grid that is comprised of an Operating Margin (OM) and a Build Margin (BM). The OM represents the marginal generating capacity in the existing dispatch hierarchy that will most likely be displaced by the project. In this regard, the Emission Factor for South Africa is 980 gr CO₂/kwh which was used in calculating GHG emissions avoided.</p>			

¹¹http://www.worldbank.org/content/dam/Worldbank/document/IFI_Framework_for_Harmonized_Approach_to_Greenhouse_Gas_Accounting.pdf

¹² The TWG for this methodology includes technical specialists from ADB, AfDB, AFD, EBRD, EIB, GEF, GIB, NIB, NEFCO, IDB, IFC, and WB, with support from the UNFCCC secretariat; to be widened to include more IFIs as work progresses. This note will be reviewed and updated periodically by the TWG.

¹³ This approach is generally consistent with similar approaches to account for GHG emissions from a broader set of power generation projects.

Table 10: Mitigation impact indicators for the Programme

Technology	Unit Installed Capacity (MW)	Capacity Factor	Annual Electricity Generation (MWh)	Grid Intensity	Annual emissions avoided (tCO ₂)	Lifetime (Yr)	Lifetime emissions avoided (tCO ₂)
Wind	50	30%	131,400	1.015	126,6701	20	2,533,392
Solar PV	280	25%	613, 200	1.015	591,125	20	11,822,496
Total	330		744,600		717,794		14,355,888

Note: * Assumed capacity factors based on the current operational performance of projects under REIPPPP.

** Estimated maximum lifetime of the plant is years.

The Programme's investment costs and the mitigation costs (US\$7.0 per ton CO₂ mitigated over 20 years) are in line with those achieved in the REIPPPP.

E.2. Paradigm Shift Potential

Degree to which the proposed activity can catalyze impact beyond a one-off project/programme investment

E.2.1. Potential for scaling up and replication (Provide a numerical multiple and supporting rationale)

Describe how the proposed project/programme expected contributions to global low-carbon and/or climate-resilient development pathways could be scaled-up and replicated including a description of the steps necessary to accomplish it.

The energy sector remains the single largest contributor to South Africa's total GHG emissions (82.6% in 2012) and any large mitigation contributions will have to come from reduced emissions from energy generation and use. The main opportunities for mitigation consist of energy efficiency, demand- side management and moving to a less emissions-intensive energy mix. Through the NDC, renewable energy sector was identified as the largest contributor to climate change mitigation. The current economic climate is challenging for government to further encumber the country and this presents uncertainty on the sustainability of the REIPPPP. Private-sector driven generation projects will be core in making further in-roads at achieving the ambitious climate change targets.

The figure below indicates the evolution of renewable energy policies in South Africa.

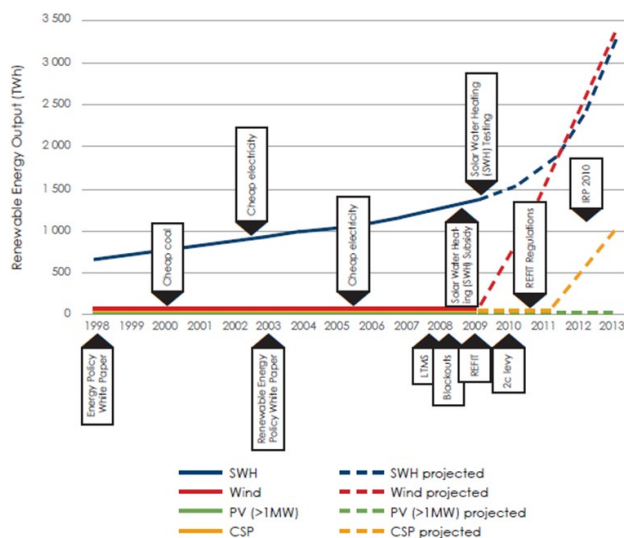


Figure 16: The impact of major policy drivers on renewable energy deployment in South Africa

Source: DoE, State of Renewable Energy in South Africa, 2015 (<http://www.energy.gov.za/files/media/Pub/State-of-Renewable-Energy-in-South-Africa.pdf>).

South Africa's discussions and policy on renewable energy commenced in 1998 with the Energy Policy White Paper, followed by the Renewable energy Policy White Paper in 2003. A REFIT framework was introduced in 2009, with other smaller initiatives, however, the country saw no tangible implementation of renewable energy projects in the country. For the industry to takeoff, it required renewable energy to be included in the IRP and the initiation of the government-led procurement programme, REIPPPP, to create market conditions that invited large scale renewable energy development. This South Africa's experience echoes that of international energy and climate change initiatives - that a combination of policy tools are most effective in fact, essential – to unlock market potential and achieve national clean energy objectives. The inclusion of 2600 MW for embedded generation in the draft updated IRP 2018 is viewed as a step in the right direction, as it too, will lead to the large scale implementation of such projects.

The Programme, supported by a credit enhancement mechanism will act as a model for structuring non-sovereign backed renewable energy projects, whilst adding up to 600 MW of renewable energy capacity. This will help catalyse the market for these types of projects, with a huge scaling-up and replication potential on how to structure similar projects. The Programme will be used to crowd-in funding from other DFIs, commercial lenders and institutional investors. As demonstrated by the success of the REIPPPP, once the viability of these projects is demonstrated, it will revitalise the currently stagnant green economy in the country.

The DBSA's financing mandate extends to the entire Sub-Saharan Africa region. The Programme will be scalable and replicable across other countries in the region.

Theory of CHANGE: Embedded Generation Investment Programme

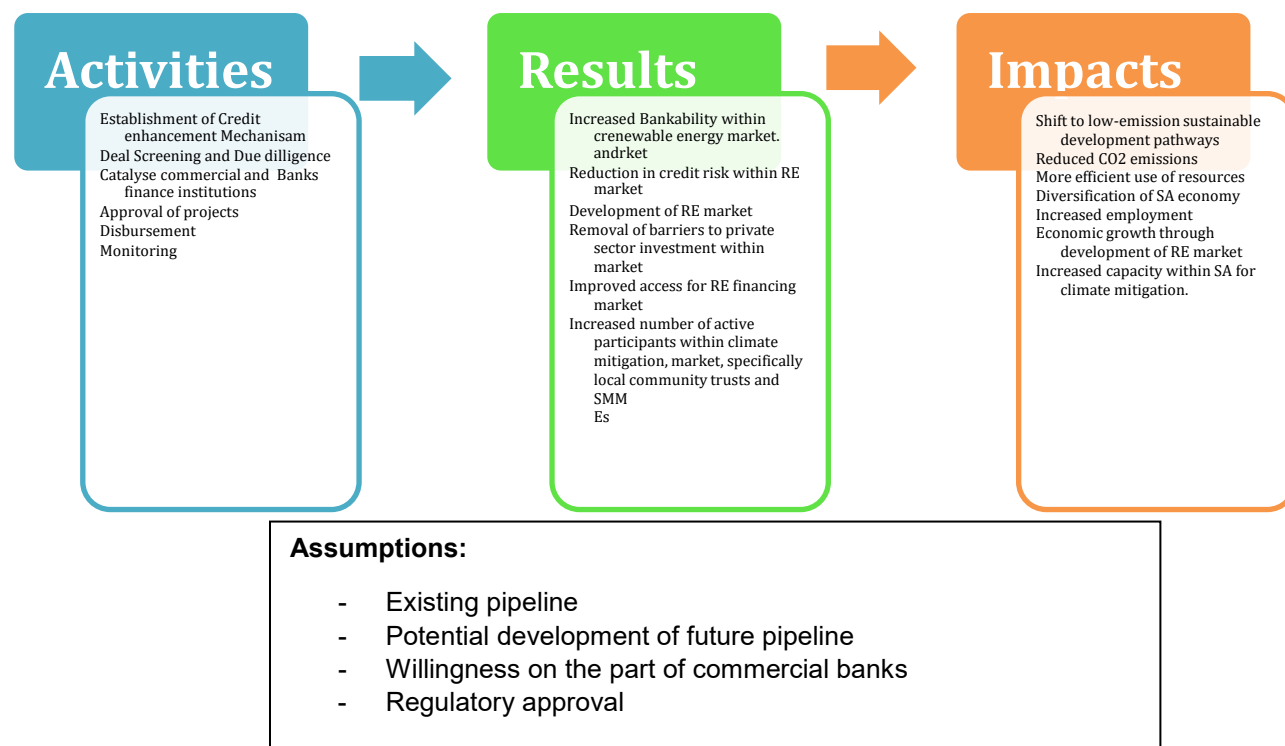


Figure 17: Embedded Generation Investment Programme Theory of Change

E.2.2. Potential for knowledge and learning

Describe how the project/programme contributes to the creation or strengthening of knowledge, collective learning processes, or institutions.

Private sector-led renewable energy projects PPAs commercial viability is challenging in the absence of a credit enhancement mechanism. The implementation of the Programme thereof will provide a great platform for knowledge and learning for the financiers, government in terms of legislation framework, developers and other stakeholders. In addition, the DBSA participates in knowledge sharing platforms such as the Association of Development Finance Institutions, SAPP and industry Brown Bag information sharing sessions held at the DBSA, at least every month.

The regulatory framework for the sovereign-backed projects is well established and understood in the market. Although the regulatory framework is available for non-sovereign backed PPAs, it has been tested only on a few captive power projects. A case study of one of the few projects implemented in South Africa outside of the REIPPPP is provided in the table below. The development of a Programme at this scale would allow the framework to be used and tested on a much larger scale. This will allow the government to build-up on lessons learnt and potentially standardise the process countrywide.

A draft knowledge sharing plan has been developed which will be finalised before the first disbursement. Considering that there is most likely going to be new developments from now until the time of first disbursement, the final detailed plan including implementation dates will be completed and reported to the GCF in the annual performance reporting.

Please refer to Annexure J for the details of the Jasper Project that was funded by the DBSA bidding window of the REIPPPP.

E.2.3. Contribution to the creation of an enabling environment

Describe how proposed measures will create conditions that are conducive to effective and sustained participation of private and public sector actors in low-carbon and/or resilient development that go beyond the program.

.Describe how the proposal contributes to innovation, market development and transformation. Examples include:

- *Introducing and demonstrating a new market or a new technology in a country or a region*
- *Using innovative funding scheme such as initial public offerings and/or bond markets for projects/programme*

The viability of the renewable energy sectors has been successfully demonstrated through the REIPPPP. The fundamental purpose of the Programme is to provide a credit enhancement mechanism for non-sovereign backed renewable energy Projects to ensure the long-term viability of the renewable energy sector in South Africa.

The Programme contributes to demonstrating the viability of a new market, and supports the uptake of clean, low-emission renewable energy. Working with developers and experts to bring the projects to financial close will help in establishing a track-record for successfully implementing these types of projects, thus lowering the perceived risk and increase the interest of both private developers and Financiers. The Programme will also help foster regulatory clarity on the issuance of licences for embedded generation Projects.

E.2.4. Contribution to regulatory framework and policies

Describe how the project/programme strengthens the national / local regulatory or legal frameworks to systematically drive investment in low-emission technologies or activities, promote development of additional low-emission policies, and/or improve climate-responsive planning and development.

The Programme will provide, through detailed technical and legal due diligence processes, valuable insight into potential weaknesses of the regulatory framework, including on the potential impact of some contractual parameters on the bankability or financial cost of the projects. Such insight will be fed back to the Ministry of Energy, DoE, NERSA and Eskom, in its capacity as transmission and distribution owner and operator, to help improve the regulatory framework. This iterative process was experienced during the implementation of the REIPPPP whereby the IPP office involved the financiers to comment on the bankability of the PPA and other project documents. As the various bidding rounds were implemented, there was continuous learning and project documents were improved from time to time.

The success of the Programme will also act as validation to the government that private sector can be used to achieve government objectives whilst freeing up the fiscus for other priorities. This will lead to further allocation for embedded generation and possibly open up discussion of unbundling the electricity sector as a whole.

E.3. Sustainable Development Potential

Wider benefits and priorities

E.3.1. Environmental, social and economic co-benefits, including gender-sensitive development impact

In addition to adding renewable energy capacity and reducing reliance on fossil-fuel for energy generation, thus contributing to the country's climate change goals, the Programme will also deliver wider environmental and socio-economic benefits including:

- **Provision of clean energy to households:** 251,000 households will be provided with low-emission power upon the full implementation of the Programme.
- **Socio-economic co-benefits through job creation:** Socio economic benefits through employment from construction (ca. 1,732 jobs) and operation (ca. 167 long-term jobs per annum), in poor and underdeveloped areas of South Africa. The table provides the detailed breakdown of jobs created.

Table 11: Breakdown of jobs to be created

Solar PV	280 MW
Job Creation: Construction (Citizens)	1,562
Job Creation: Operations (Citizens)	2,955
Onshore Wind	50 MW
Job Creation: Construction (Citizens)	170
Job Creation: Operations (Citizens)	401
Total Onshore Wind & Solar PV	330 MW
Total Job Creation: Construction (Citizens)	1,732
Total Job Creation: Operations (Citizens)	3,356

Notes: 1. The jobs created were extrapolated from data of the four Bid Window periods

2. Jobs created are based on person months

3. 12 person months = 1 job

4. Construction period differs for each window period (from 24 months to 40 months for wind projects) and (from 18 months to 28 months for Solar PV)

5. Operations jobs are accounted for over a 20 year period

- **Socio-economic benefits through lower electricity costs:** One of the main undertakings to the GCF funding will be that the DBSA will ensure that funded projects have initial starting point tariffs that are equal or lower than Eskom's tariffs with predictable annual escalations linked to inflation.

- **Cumulative effects on climate change:** Over 90% of electricity in South Africa is generated from coal fired power stations. The implementation of this Programme will have positive effects on climate change through reduction of GHGs and decrease of air emissions and other environmental pollutants. In addition, in a water-scarce country like South Africa, the projects will result in the reduction in water abstraction and consumption for electricity generation purposes.
- **Socio-economic through the inclusion of women:** The Programme will highlight the importance of women inclusion in the sub-projects and thus create opportunities for employment and upskilling of women in the green sector. Gender inclusivity activities include the following:
 - Ensure increased participation of women owned enterprises in the Programme - Review eligibility/ funding criteria of the programme to target participation of both men and women owned companies to ensure gender balance in benefits
 - Emphasize on the hiring of women at project level, for the implementation of project objectives - Review employment criteria to allow for gender sensitivity and inclusion of women.
 - Provide technical training and capacity building to improve long-term employability of women. Develop gender sensitive training programmes and capacity building programmes. The training programmes should be recognized by the relevant authorities.

Gender Mainstreaming and Inclusivity

Gender mainstreaming and inclusivity are key to the DBSA's commitment to gender equality in development and is in line with the DBSA's gender requirements described in the Environmental and Social Safeguard Standards and Gender Policy. Renewable energy development in South Africa is a priority sector for the DBSA as it is in line with energy access, and local economic development while also allowing for participation of women, through employment and ownership opportunities. The DBSA is guided by national legislation and policies which have helped to progressively redress previous imbalances and inequalities in a manner that promotes inclusive and equal growth opportunities for all.

The World Bank's South Africa Economic outlook report (2016), revealed that South Africa remains one of the most unequal societies in the world. The last decade has witnessed a marked increase in the number of people who are classified as poor across the world, including South Africa, where three –quarters or 71% of the rural households were found to be poor. Statistics South Africa in its Vulnerability Indicator report (2016) indicates that approximately 10.3% of males in South Africa are vulnerable to hunger, as compared with 13.8% of females. Inequalities still exist among men and women, even though the South African national government has put in place some measures and programmes to allow for the empowerment of women. According to Statistics South Africa, more men than women participate in the South African labour force, and this disparity is in both the formal and informal employment sectors.

At an international scale, the South African Government ratified the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW). The South African Government also recognises the Beijing Declaration and Platform of Action, and of the areas of concern under the Beijing Declaration, South Africa has prioritised the following:

- Women and poverty;
- Women and education;
- Women and economic empowerment;
- Women in power and decision-making; and
- Improving the conditions and situation of the girl child.

The Programme shall apply a gender mainstreaming approach in line with the DBSA gender requirements described in the Environmental and Social Safeguard Standards and Gender Policy. In addition the Programme shall apply a gender mainstreaming approach in line with the GCF requirements for gender mainstreaming. Each sub-project would be expected to devise and submit its own gender mainstreaming plan to be evaluated and should be to the satisfaction of the DBS

E.4. Needs of the Recipient

Vulnerability and financing needs of the beneficiary country and population

E.4.1. Vulnerability of country and beneficiary groups (Adaptation only)

N/A

E.4.2. Financial, economic, social and institutional needs

Describe how the project/programme addresses the following needs:

- *Economic and social development level of the country and the affected population*
- *Absence of alternative sources of financing (e.g. fiscal or balance of payment gap that prevents from addressing the needs of the country; and lack of depth and history in the local capital market)*
- *Need for strengthening institutions and implementation capacity.*

Absence of alternative sources of financing

According to the OECD, South Africa's government debt has increased steadily in the past years to 51% of GDP in 2016, which prompted a moderate consolidation to stabilise the debt level. Literature on sustainability levels of public debt in emerging market economies tends to limit prudent debt targets to 40-55% of GDP, depending on ability to raise revenue, growth potential and the types of fiscal risks a country faces. Debt sustainability depends on growth, inflation, interest rates and fiscal policy. The main risks to debt sustainability arise from the ratings downgrades in early 2017 and the rising contingent liabilities in state-owned enterprises (parastatals). South Africa currently faces challenges of low economic growth, negative credit rating outlook with potential downgrade to junk status and challenges to sustainability of parastatals. In response to the tight fiscal challenges, in the 2018 budget speech, the Minister of Energy announced the increase of VAT by 1% and increases to personal income tax as a form of fiscal consolidation.

Although sovereign support was provided under the REIPPPP, the current challenges of fiscal debt sustainability prevents the government from making further contingent liabilities into renewable energy programmes. The Programme will reduce the financial burden on the government for a further and continued implementation of renewable energy capacity outside of government support.

Need for strengthening institutions and implementation capacity

The Programme's main contributions will be towards the strengthening of the regulatory framework. The Programme will provide, through the detailed technical and legal due diligence process, valuable insight into potential weaknesses of the regulatory framework, including on the potential impact of some contractual parameters on the bankability or financial cost of the projects. Such insight will be fed back to the Ministry of Energy, DoE, NERSA and Eskom, in its capacity as transmission and distribution owner and operator, to help improve the regulatory framework. This iterative process was experienced during the implementation of the REIPPPP whereby the IPP office involved the financiers to comment on the bankability of the PPA and other project documents. As the various bidding rounds were implemented, there was continuous learning and project documents were improved from time to time.

The REIPPPP also targeted broader economic and socio-economic developmental benefits for local companies. Bid obligations and minimum thresholds for preferential procurement, employment equity and socio-economic development contributions were utilized as mechanisms to capture a share of the value/prosperity from the programme for South Africans and local communities. This has allowed for the development of local skills base for the construction as well as the operation phase of projects under the REIPPPP. This is evidenced in the manner in which the private sector is successfully constructing projects timeously and operating the REIPPPP projects.

In line with South Africa's commitments to reduce emissions, the promulgated Integrated Resource Plan 2010–2030 imposed CO₂ emission limits on the electricity generation plan. South Africa's power sector has to comply with CO₂ emissions constraints: Peak-plateau-decline and a determined carbon budget for the entire sector p to 2050.

Economic and social development level of the country and the affected population

The World Bank's South Africa Economic outlook report (2016), revealed that South Africa remains one of the most unequal societies in the world, and that currently there is insufficient economic growth. The share of national consumption between the richest and poorest remains stubbornly stable: 20% of the richest population accounted for

over 61% in consumption in 2011 down from a high of 64% in 2006. Meanwhile, the bottom 20% have been seen remaining fairly constant at below 4.5% (Statistics South Africa, 2014).

According to the 2017 OECD Economic Survey of South Africa overview, over the last two decades, South Africa has accomplished enormous social progress by bringing to millions of citizens access to key public services, notably education, health, housing and electricity. Enrolment in primary school is universal for both boys and girls. Almost 90% of households have access to piped water and 84% have access to electricity (Statistics South Africa, 2016). An ambitious policy of redistributive grants has also been put in place, lifting a large share of the population out of poverty. Its legal framework is well regarded and its judiciary is perceived as independent. The advanced banking system and deep financial markets have made South Africa a regional hub for financial services. Nevertheless, growth has trended down markedly since 2011 due to constraints on the supply side, in particular electricity shortages and falling commodity prices, and policy uncertainty. The unemployment rate in South Africa increased to 27.2% in the second quarter of 2018 majority being the youth at 59.3% in 2018. Persistent low growth has led to the stagnation of GDP per capita compared to other fast-growing emerging market economies.

The Programme will address the economic and social needs of the country through provision of electricity, especially in rural areas where majority of the projects will be located. Furthermore, skills development and job creation in the green economy will be achieved in the needy areas of South Africa. The Programme will also attract the much needed FDI that will contribute to the growth of South Africa and subsequently to the economic upliftment of some of its citizens.

E.5. Country Ownership

Beneficiary country (ies) ownership of, and capacity to implement, a funded project or programme

E.5.1. Existence of a national climate strategy and coherence with existing plans and policies, including NAMAs, NAPAs and NAPs

Please describe how the project/programme contributes to country's identified priorities for low-emission and climate-resilient development, and the degree to which the activity is supported by a country's enabling policy and institutional framework, or includes policy or institutional changes.

The National Climate Change Response White Paper presents the South Africa's vision for an effective change response and the long-term, just transition to a climate-resilient and lower-carbon economy and society.¹⁴ The country's climate response has two main objectives:

- "Effectively manage inevitable climate change impacts through interventions that build and sustain South Africa's social, economic and environmental resilience and emergency response capacity; and
- Make a fair contribution to the global effort to stabilise GHG concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe that enables economic, social and environmental development to proceed in a sustainable manner."

The climate change policies and response are guided by the Constitution, the Bill of Rights, NEMA, the Millennium Declaration, the UNFCCC, the Kyoto Protocol and the Paris Agreement. Through these policies, South Africa already has existing international legally binding obligations towards climate change targets as indicated above.

The energy sector remains the single largest contributor to the South Africa's total GHG emissions (81.7% in 2012) and any large mitigation contributions will have to come through reduced emissions from energy generation and use. The main opportunities for mitigation consist of energy efficiency, demand- side management and moving to a less emissions-intensive energy mix. Through the NDC, renewable energy sector was identified as the largest contributor to climate change mitigation. South Africa has a high level of renewable energy potential and has revised its targets to about 17,800 MW, adopted by the Government in 2013 as part of the policy adjusted IRP, a blueprint for the energy mix in the period up to 2030.

As a responsible global citizen and as a global citizen with moral as well as legal obligations under the UNFCCC and its Kyoto Protocol, South Africa is committed to contributing its fair share to global GHG mitigation efforts in order to keep

¹⁴ National Climate Change Response White Paper

the temperature increase well below 2°C. In this regard, on 6 December 2009, the President announced that South Africa will implement mitigation actions that will collectively result in 34% and 42% deviation below its "Business As Usual" emissions growth trajectory by 2020 and 2025, respectively.

In accordance with Article 4.7 of the UNFCCC, the extent to which this outcome can be achieved depends on the extent to which developed countries meet their commitment to provide financial, capacity-building, technology development and technology transfer support to developing countries. With financial, technology and capacity-building support, this level of effort will enable South Africa's GHG emissions to peak between 2020 and 2025, plateau for approximately a decade and decline in absolute terms thereafter.

This Programme is therefore fully consistent with South Africa's National Climate Change Response White Paper priorities where the renewable energy is listed as a key contributor. The DBSA held consultations with the NT as well as the DEA in its role as the national designated authority on the proposed Programme. The Programme support by the relevant government authorities evidenced the letter of support from NT and the non-objection letter from the DEA

E.5.2. Capacity of accredited entities and executing entities to deliver (C4)

Please describe experience and track record of the accredited entity and executing entities with respect to the activities that they are expected to undertake in the proposed project/programme.

The DBSA has extensive experience in renewable energy in South Africa through its pioneering role of assisting the government in setting up the IPPPP office that subsequently implemented the REIPPPP. As a financier, DBSA participated in the financing of projects from bidding round 1 through to the current bidding round 4. The detailed project reference track record is reflected in section B3.

E.5.3. Engagement with NDAs, civil society organizations and other relevant stakeholders

Please provide a full description of the steps taken to ensure country ownership, including the engagement with NDAs on the funding proposal and the non-objection letter.

Identified Stakeholders

The main groups of stakeholders are listed below.

- Department of Environmental Affairs (DEA);
- National Treasury (NT);
- Project Developers/Independent Power Producers (IPPs)
- Department of Water and Forestry Affairs (DWA);
- National Energy Regulator of South Africa (NERSA);
- Local Communities;
- Local/Provincial Municipalities;
- Local Organised Labour;
- Non-Government Organisations (NGOs);
- Local Communities within the vicinity of the projects;
- Eskom Holdings Limited SOC;
- Land Owners;
- Interested and Affected Parties;
- SMMEs; and
- Financiers.

Stakeholder Engagement Strategy

The Embedded Generation Investment Programme will bring together multiple stakeholders, mentioned above.

In its role as an accredited entity in South Africa, DBSA has regular meetings with DEA as the NDA to discuss potential pipeline for submissions to GCF. This project was presented to DEA in 2017 and where in support of the concept note

submission. In a letter to GCF in November 2017, the DEA indicated that this submission is in-line with government objectives and as such, is supported. This engagement with government also included engagement with the NT on how the Programme will fit with national objectives and assist the country towards its sustainable development agenda.

The DBSA has also undertaken a stakeholder engagement process with commercial lenders and other DFIs to obtain inputs, gauge their appetite and buy-in in the Programme.

The Stakeholder Engagement Plan (SEP) outlines a systematic approach for stakeholder engagement that will help the projects build and maintain over time a constructive relationship with all stakeholders. The SEP is a live document which will be updated during the Programme's preparation and implementation.

Additionally, the individual projects will have a wide range of stakeholders ranging from national government and other bodies involved in the permitting and EIA process in addition to communities within the area of Influence, of the projects. As such stakeholders have been identified at all geographic levels, including national, regional and local levels.

In order to define a communication process in line with the EIA Regulation, several stakeholder groups that may be interested and/or affected by the project development and implementation have been identified. There are a number of groups of people and social groups who are interested in the individual projects on different levels. These may be described as following:

- People and social groups who will be directly or indirectly benefited/affected by the Projects,
- People and social groups who may participate in the implementation of the projects;
- People and social groups who may have a possibility to influence and make decisions on implementation of the projects and/or may have an interest in the Projects; and
- Stakeholders who may be interested in the projects.

For each of the stakeholder groups the specific communication methods and tools are identified in addition to the objective for interaction with each stakeholder group in order to ensure easy, transparent, direct, open and interactive communication with all stakeholders and to obtain as soon as possible their feedback in the different phases of implementation.

Under the Programme, there are multi-stakeholder engagements at project level throughout the project lifecycle, from planning to implementation. Some of the engagements are incorporated in the various permitting and authorizations processes that needs to be in place for a successful financial close. As part of the DBSA's due diligence undertaken, the individual projects will have to demonstrate that they have the necessary permits and authorisations. Some of these are needed to reach financial close, while others are needed for construction and operation and maintenance of the projects.

Stakeholder Engagement and Market Sounding on Embedded Generation Projects

The general feedback from the market was that South Africa could not afford to solely rely on government backed renewable energy Projects and the development of embedded generation projects was gaining momentum. Some of the main challenges raised during the market sounding are:

- The then IRP2010 did not provide an explicit allocation for these types of projects which presented a regulatory hurdle. With the publishing of the draft IRP2018, government clarity has been obtained and a shift towards embedded generation is evidently clear;
- The bankability of these projects was still questionable due to the higher perceived risk in comparison to the REIPPPP. The financiers were proposing shorter debt tenors and higher interest rates, which meant that minimum covenants cannot be achieved;

It was evident that the development financiers needed to play a role to crow-in commercial lenders to prove the viability of the initial market. The projects are generally fully developed and could be implemented within a reasonably shorter timeframe should the correct type of financing be available.

E.6. Efficiency and Effectiveness

Economic and, if appropriate, financial soundness of the project/programme

E.6.1. Cost-effectiveness and efficiency

Describe how the financial structure is adequate and reasonable in order to achieve the proposal's objectives, including addressing existing bottlenecks and/or barriers; providing the least concessionality; and without crowding out private and other public investment.

Efficiency of the financial structure: The REIPPPP projects financing structure was used as a starting point for determining the most workable and efficient financing structure for the embedded generation projects. In light of the difficulty in replicating the financing structure for the REIPPPP projects in the embedded generation projects, an optimal financing structure was determined following the stakeholder engagement and market sounding. This optimal structure will enable the participation of commercial and other DFI lenders in the embedded generation projects. The sub-project costs for the embedded generation projects will be bench marked with the recent REIPPPP projects in order to assess reasonability. The project costs under this Programme have been benchmarked against the REIPPPP projects in order to ensure reasonable soundness of the project costs.

Reasonable cost of funding and cost of electricity: Based on DBSA market analysis and information from financiers, without the GCF concessional subordinated loan facility, the projects under consideration will not be in a position to attract reasonable cost of funding. The GCF facility will enable DBSA and commercial banks to reduce the cost of senior debt financing to an acceptable level. This will as a consequence have a positive influence on the tariffs and cost of electricity to consumers.

Crowding-in of commercial banks and institutional investors: The GCF facility will assist with the crowding-in of private sector funding and as part of its corporate strategy 2016, the DBSA committed to "unlocking R100 billion" (US\$6.6 billion) in infrastructure, through catalysing third party funding.

Please describe the efficiency and effectiveness, taking into account the total project financing and the mitigation/adaptation impact that the project/programme aims to achieve, and explain how this compares to an appropriate benchmark. For mitigation, please make a reference to [E.6.5 \(core indicator for the cost per tCO₂eq\)](#).

The analysis shows that the Programme will add up to 744,600 MWh of low emission power to the national grid whilst helping to avoid emissions of 7,177,944 tCO₂ annually. This is achieved at the estimated cost per tCO₂eq of 37.4 US\$ and GCF funding facility at 7.0 US\$/tCO₂eq.

E.6.2. Co-financing, leveraging and mobilized long-term investments (mitigation only)

Please provide the co-financing ratio (total amount of co-financing divided by the Fund's investment in the project/programme) and/or the potential to catalyze indirect/long-term low emission investment.

The Programme will support the development of embedded generation projects totalling up to US\$ 1.07 billion (the estimated total investment cost under this Programme includes approximately 280 MW solar PV projects and 50 MW wind projects). The GCF and the DBSA will finance the subordinated loan facility on a matching basis sized at a maximum of up to 30% of the total project cost of the Programme. The GCF and DBSA will furthermore finance 100% of the equity requirements for the local community trust and up to 90% of the equity requirements of the local SMMEs in the form of Junior debt. The provision of the subordinated loan facility will assist will the bankability in terms of interest rate margin and loan tenors, thus help to catalyse the commercial lenders for this Programme. The market potential for these types of projects is large, with a scaling-up and replication potential if the viability thereof is proven.

The DBSA will assume the role of a MLA and by virtue of having ensured the projects are bankable through the proposed credit enhancement mechanism, it will catalyse third party senior debt funding from Commercial Banks, DFIs and other financial institutions to co-finance alongside it.

E.6.3. Financial viability

Please specify the expected economic and financial rate of return with and without the Fund's support, based on the analysis conducted in [E.1](#).

The DBSA has produced a solar PV and a wind projects financial models for the Programme in order to assess its financial viability. The financial viability of the projects were considered taking into account the following factors:

- P50 energy generation for solar PV projects;
- P90 energy generation for wind projects;
- Acceptable cost of funding and tariffs to end consumers;
- Acceptable debt covenants for lenders i.e. base case, default and distribution lock-up DSCRs and LLCRs;
- Acceptable loan tenors and financing tail;
- Acceptable sponsor returns (IRRs); and
- Robust security package for lenders inclusive of DSRA and a liquidity reserve account.

Without the GCF funding, the projects are not financially viable as the key factors above are not achieved. For example, without GCF support, the tariffs will need to increase substantially for acceptable debt covenants and sponsor returns to be achieved. With GCF funding, the Programme is financially viable as demonstrated in the DBSA's financial models, without the needs to increase tariffs payable by consumers.

E.6.4. Application of best practices

Please explain how best available technologies and practices are considered and applied. If applicable, specify the innovations/modifications/adjustments that are made based on industry best practices.

The Programme will seek to improve upon the globally renowned REIPPPP best practices from a technical, social, legal and environmental point of view. It is the intention of the DBSA to standardise project and finance legal documentation across all projects under the Programme in order to reduce lending transaction costs and facilitate financial close. The Programme will also encourage the use of the latest technologies in the PV and wind markets in order to achieve the highest efficiencies at the lowest levelised cost of electricity.

E.6.5. Key efficiency and effectiveness indicators

GCF core indicators	Estimated cost per t CO ₂ eq, defined as total investment cost / expected lifetime emission reductions (mitigation only)		
	(a) Total project financing	537 000 000	USD
	(b) Request GCF amount	100 000 000	USD
	(C) Expected lifetime emission reduction	14 355 888	tCO ₂ eq
	(d) Estimated cost per tCO₂eq (d=a/c)	37.4	USD/ tCO₂eq
	(e) Estimated GCF cost per tCO₂eq removed (e=d/c)	7.0	USD/ tCO₂eq
	<i>Describe the detailed methodology used for calculating the indicators (d) and (e) above.</i>		
	<i>Assumptions:</i>		
<ul style="list-style-type: none">• 330 MW (280 MW Solar PV and 50 MW Wind);• 717,794 tCO₂ annual emissions avoided;• 20 years operational life; and• South Africa Emission factor (based on IFI Task Group data set): 0.964 tCO₂/MWh.			
Detailed calculations cab be found in Section E.1.2			

	The Programme's cost of mitigation is similar with other renewable energy projects in South Africa.	
Expected co-financing ratio (DBSA: Commercial lenders)	2.5	
Other relevant indicators (e.g. estimated cost per co-benefit generated as a result of the project/programme)	N/A	

** The information can be drawn from the project/programme appraisal document.*

F.1. Economic and Financial Analysis

Please provide the narrative and rationale for the detailed economic and financial analysis (including the financial model, taking into consideration the information provided in [section E.6.3](#)).

Based on the above analysis, please provide economic and financial justification (both qualitative and quantitative) for the concessionality that GCF provides, with a reference to the financial structure proposed in section B.2.

One of the main objectives of the Programme is to crowd-in the private sector investment from commercial banks and other financial institutions into funding non-sovereign backed renewable energy projects. The proposed financing structure will reduce the risk premium that the commercial banks and other financial institutions would have potentially charged to these renewable energy projects. Non-sovereign backed renewable energy projects have been met with much resistance in the South African market thus highlighting the importance of the GCF funding for unlocking the financial feasibility of the first wave of these projects through the blending of the proposed credit enhancing mechanism with financing from commercial banks and other financial institutions (including development financial institutions).

As indicated in the table above, it is evident that without GCF funding, the projects do not meet the required covenants making them unbankable. With the GCF funding, the projects are able to meet the lenders required covenants.

Overall, through this Programme, DBSA financing (and commercial banks and other financial institutions financing) will demonstrate and scale up commercially viable non-sovereign backed renewable energy projects in South Africa while catalysing a paradigm shift not only within the energy sector in the country but also within the local financial markets.

F.2. Technical Evaluation

The pipeline projects are wind and solar PV projects. This selection is based on South Africa's abundant wind and solar resources thus making wind and solar PV projects the most cost effective options. Technical quality and compliance with minimum technical requirements will be an important part of the evaluation criteria during the selection and due diligence process. Detailed technical assessment will be conducted by independent third-party specialists for each individual project with due consideration of the following:

- Technology: Only proven renewable energy technologies will be considered for DBSA funding under the Programme to ensure a reasonable certainty on outcomes. Untested technologies will not be considered.
- EPC Contractors: It is a critical consideration that the construction companies that are selected to engineer & construct the project should have (i) a credible track record; and (ii) financial strength to back up their EPC contract obligations (such as performance guarantees and liquidated damages).
- O&M Contractors: Considerations similar to EPC contract arrangements. The important issue is that the structuring should be set up in such a way that the recourse of lenders (where required) can be competently honoured by the counterparty.
- Offtakers.

The selection of a qualifying offtaker for the Programme has been outlined in Section C.3.

F.3. Environmental, Social Assessment, including Gender Considerations

Describe the main outcome of the environment and social impact assessment. Specify the Environmental and Social Management Plan, and how the project/programme will avoid or mitigate negative impacts at each stage (e.g. preparation, implementation and operation), in accordance with the Fund's Environmental and Social Safeguard (ESS) standard. Also describe how the gender aspect is considered in accordance with the Fund's Gender Policy and Action Plan.

Environmental and Social considerations

As an IA of the GCF the DBSA has noted its responsibility to ensure compliance with the GCF interim Environmental and Social Safeguards ("ESS"), and has designed its own ESS that will ensure compliance with the GCF policies and standards and South African National legislation. Projects that are supported by the DBSA will be carefully designed to

benefit local communities, with a particular focus on women and vulnerable groups, and the environment in their focal areas, with no anticipated adverse social or environmental impacts.

Solar PV and wind technologies will dominate the Programme. All energy sources have some impact on the environment but the exact type and intensity of environmental impacts varies depending on the specific technology used, the geographic location, and a number of other factors. In order to address all environmental impacts from projects that need funding, the DBSA has developed a comprehensive Environmental and Social Safeguard Standards ("ESSS"). The ESSS is in line with the IFC's (consequently GCF's interim) Performance Standards on Environmental and Social Sustainability (ESS). All projects funded by the DBSA will, therefore, comply with the DBSA's ESSS and the IFC's ESS.

The implementation of the actions necessary to meet the requirements of DBSA Safeguards will be managed through the client's Environmental and Social Management System ("ESMS"), the elements of which are outlined in the DBSA Environmental Appraisal Framework (EA Framework). The principles underpinning the development of the EA Framework are set out of the South African overarching legislation on environment, the NEMA. The purpose of the EA Framework is to ensure that the DBSA's environmental appraisals are applied in a consistent manner that supports and enhances the DBSA's decision-making processes for sustainable socio-economic development in the region.

Under the DBSA's EA Framework each project will be subject to full project and sponsor-specific environmental and social due diligence with the support of an independent consultant. A similar approach is supported by the IFC's Environmental and Social ("E&S") Policy and associated Performance Standards and therefore GCF's requirements. The DBSA anticipates that all projects under this Programme will fall under Category B. On the basis of this, each project will be individually reviewed and categorised and due diligence will be undertaken accordingly.

No projects under high risk category, Category A, (where the environmental risks and impacts may be significant, unprecedented, and irreversible) will be considered. The projects to be considered will fall under Categories B, C and FI. For Category B projects, the DBSA will require the proponents to carry out a detailed Environmental and Social Impact Assessment ("ESIA") or other appropriate environmental and social assessment that would also include environmental and social management plans ("ESMP") to avoid and mitigate the potential and social impacts (see Annexure D).

Some of the environmental benefits under E.3 include:

- Additional capacity from renewable energy sources will avoid the need to build new fossil fuel electricity production capacity which would have negative local environmental impacts.
- There will be a reduction in GHG that are leading to global climate change compared fossil fuel plants.
- There will be a reduction in local air pollutants such as PM, SO₂, and NO_x compared to fossil fuel plants.
- Renewable energy sources tend to be more labour-intensive than fossil fuel sources of energy, thus creating more jobs.

Gender considerations

The Programme shall apply a gender mainstreaming approach in line with the DBSA gender requirements described in the Environmental and Social Safeguard Standards and Gender Policy. In addition the Programme shall apply a gender mainstreaming approach in line with the GCF requirements for gender mainstreaming. Each sub-project would be expected to devise and submit its own gender mainstreaming plan to be evaluated and should be to the satisfaction of the DBSA.

F.4. Financial Management and Procurement

Describe the project/programme's financial management and procurement, including financial accounting, disbursement methods and auditing.

Pricing and Credit Assessment

All funding from the DBSA will be competitively priced and take the following into account:

- The risk of the Project;
- The market pricing for similar transactions;
- The market pricing for similar products offered; and
- The facilities provided by GCF.

Know Your Client Procedures

Know your client procedures are completed during the due diligence stage. This will include:

- Compliance with the Financial Intelligence Control Act ("FICA");
- Credit checks on the borrower;
- Identification of sanctioned persons and entities; and
- Identification of Politically Exposed Persons ("PEPs").

Financial Management

The program will apply AE's financial management policies and guidelines. The Financial Management of disbursements made is primarily managed under the DBSA Loan Management unit. Loan Management forms part of the broader discipline of portfolio management. The primary objective of portfolio management is to ensure that the DBSA's assets perform at the level required to ensure the sustainability of the organisation. Its purpose is to ensure the continuous monitoring of all relevant covenants throughout the lifetime of the facility. This relates to both financial and non-financial covenants.

Once the Loan or Facility has been disbursed in full, Loan Management unit becomes the first point of contact and is accountable for the administration of the loan; and also monitors borrower compliance and performance. Loan Management may if necessary, also consult with Legal, to ensure that the full implications of any deviation from conditions or breach of covenant are understood by the DBSA and appropriate mitigation measures are initiated.

The above discussed is expected to be followed for the projects that will be funded under the proposed Programme.

Disbursement

Conditions Precedent (CPs) stipulated in the legal agreements must be fulfilled by the borrower before disbursement. If and when CPs have been fulfilled, the borrower will commence drawdown. Disbursement of funds will take place either through one drawdown or on a staged basis, depending inter alia on considerations such as the project timetable and achievement of construction milestones.

Supervision, and Portfolio management

Over the life of the loan, the responsible Investment Officer, Credit Analyst and Loan Monitoring Specialist are all required to be involved in monitoring the operational and financial performance and position of the borrower and the project. There may also be continued or ad hoc involvement by the relevant sector specialist(s) on a needs basis. This is a continuous process, but also requires an annual review, carried out by the responsible Credit Analyst, in consultation with the Investment Officer and Loan Monitoring Specialist. The Loan Management Unit together with the Operation Evaluations Unit (shown in the figure 10) falls under portfolio and credit management of the DBSA.

The role of the LMU is to maintain financial sustainability through effective financial administration and management of the DBSA portfolio. This is achieved through:

- Accurate and relevant financial data of agreements on SAP
- Obtaining required documentation from clients as and when required
- Registering and processing disbursements with correct checks and balances within the specified timeframe

- Managing repayments and defaulters
- Closing off the loan book on a monthly basis with balanced transactions
- Assisting with impairment/mark-to-market valuation calculations and posting

Audit

The responsibility for providing assurance to the DBSA Audit and Risk Committee is assigned to line management, as well as to internal and external assurance providers, in accordance with the Bank's combined assurance model. Assurance activities must include self-assessments of the effectiveness of the internal controls that are in place to manage operational risks inherent in their day-to-day activities. The implementation of the combined assurance activities will be coordinated by DBSA's Internal Audit and facilitated through the institution of a combined assurance working group. The projects funded under the Programme will thus be subject to the DBSA's normal internal audit policies and procedures, and will also be included as part of the annually audit conducted by DBSA's external auditors. The individual funded project companies will also be subject to an annual external audit. The cost of audit services shall be incorporated into the cost estimates for each approved project. The EGIP programme will be audited as part of the general DBSA annual audit. The DBSA as a state owned entity is audited by the State's Auditor General. The sub-projects will be audited by their own appointed auditors who must be a reputable and duly registered with the appropriate body.

Financial Reporting

The funds to be received from GCF under the Programme will be treated similar to other lines of credit until disbursed to individual projects. When the funds are disbursed to a project, a financial asset will be recognized and accounted for as a development loan. This follows the reporting framework of existing of lines of credit within DBSA. The monitoring and accounting system recording will be carried by the Loans Management Unit (LMU).

Procurement

Sub projects to procure through own internal procurement departments based on own procurement policies. The DBSA will ensure that their procurement policies are aligned to DBSA. Procurement at DBSA level to comply with DBSA procurement policy as discussed. The custodian of procurement is the Supply Chain Management Department of the DBSA.

DBSA undertakes procurement in line with applicable regulatory requirements and best practice that is fair, equitable, transparent, cost-effective and competitive. DBSA will use its own procurement policies for Projects that receive financing from this Programme.

A general DBSA sourcing process is summarized below as an example:

- The DBSA procurement process is subject to the DBSA's Procurement Policy and Procedure document and code of conduct.
- Specifications are requested when a business need arises by internal business units.
- An appointment Specification Committee compiles the specification or scope of service covering the specific requirement by drafting a Terms of Reference Document.
- Once approval have been granted by the Procurement Committee the tender is published on the DBSA website or advertised in a National newspaper.
- The Procurement Unit or business unit (For professional services only) will obtain the necessary requests for bid/proposal/information or quotation.
- All responses are subject to the DBSA's:
 - Tender conditions
 - Responses to be aligned to the Terms of Reference
 - The DBSA's purchase order and quotation/bid terms of conditions
 - The Procurement Unit or business unit (For professional services only) will obtain the necessary requests for bid/proposal/information or quotation.
- On the closing time all responses are opened verified for compliance.
- The next step is for the appointed evaluation team to evaluate the proposals received.

- Once the successful vendor/ supplier have been evaluated, rated and ranked the evaluation committee will obtain the necessary approval from the Procurement Committee to award and appoint the successful vendor/supplier.
- The successful vendor/supplier provider will then be registered as a DBSA vendor.
- Either a contract or SLA will be entered into between the DBSA and the successful vendor/supplier.
- A purchase order will be faxed or emailed to confirm the DBSA's requirements.

Exposure Limits

The exposure limits will be tested every time the DBSA's Investment Committees make a binding commitment to a Project.

G.1. Risk Assessment Summary

Please provide a summary of main risk factors. Detailed description of risk factors and mitigation measures can be elaborated in G.2.

1. Repayment/ default risk by the off-taker (s)
2. Regulatory
3. Foreign exchange risk
4. Energy resource risk
5. Completion, operational and technology risk

G.2. Risk Factors and Mitigation Measures

Please describe financial, technical and operational, social and environmental and other risks that might prevent the project/programme objectives from being achieved. Also describe the proposed risk mitigation measures.

Selected Risk Factor 1

Description	Risk category	Level of impact	Probability of risk occurring
Repayment/ Default Risk by the Off-taker (s)	Financial	Medium (5.1-20% of project value)	Medium

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

The credibility and credit worthiness of the off-taker(s) to be assessed in detail during due diligence stage. PPA direct agreements are to be concluded in order to afford lenders step in rights in the eventuality of a default. The security package to be negotiated is to be robust, typical of project finance projects of a similar nature. In addition, the financing plan will include a debt service reserve account of no less than 6 months of project debt service, which will be used to pay debt in the event of any cash shortfall from the Borrower.

Selected Risk Factor 2

Description	Risk category	Level of impact	Probability of risk occurring
Regulatory	Other	Low (<5% of project value)	Low

Mitigation Measure(s)

This risk is mitigated by the South Africa's strong regulatory framework that enables the implementation of renewable energy. NERSA is strongly supportive of the entrance of the private sector in the electricity market. The Programme will provide valuable insights into any potential weaknesses of the regulatory framework to further strengthen the development of the renewable energy sector in South Africa.

Selected Risk Factor 3

Description	Risk category	Level of impact	Probability of risk occurring
Foreign exchange risk	Financial	Low (<5% of project value)	Low

Mitigation Measure(s)

- 1) Hedging: DBSA shall enter into appropriate hedging arrangements, to cover the entire tenor of the relevant Programme Loan, including currency swapping arrangements with commercial banks on behalf of the Sub-

Borrowers. The hedging arrangements will ensure that any ZAR amounts received from the relevant Sub-Borrower for the GCF-funded portion of the Programme Loans, on the respective due dates, are converted back to USD pursuant to such hedging arrangements, such that payment obligations of DBSA to GCF in USD are fully met. DBSA shall ensure that the Sub-Borrowers are contractually obligated to cover any insufficiency in the amounts (in USD) owed to GCF, in the event that the hedging arrangements for any reason are inadequate.

- 2) Conversion to ZAR: The respective USD amount of the GCF Proceeds in relation to the relevant amounts committed by DBSA under a Programme Loan shall be converted into ZAR (South Africa Rand) at the prevailing exchange spot rate available at the Standard Bank of South Africa (or, if not available there, at other local commercial banks acceptable to DBSA), under a hedging mechanism to be arranged by DBSA along appropriate documentation, including but not limited to International Swaps and Derivatives Association Agreements, collectively referred to as the "Hedging Mechanism". DBSA will then transfer and hold such converted amount of GCF Proceeds in the - ZAR-Loan Account (as defined in the term sheet) until such proceeds are on-lent and disbursed to the Sub-Borrower in accordance with the relevant Programme Loan.

Selected Risk Factor 4

Description	Risk category	Level of impact	Probability of risk occurring
Energy resource risk	Technical and operational	Low (<5% of project value)	Low

Mitigation Measure(s)

Lower wind availability or solar irradiation presents a risk for the Project due to its uncertainty and potential impact on the capacity of the Project to generate revenues. The energy resources will be independently verified by the Lenders Technical Advisor(s) to confirm P90 and P50 energy yields. According to the IPP quarterly report June 2017, 44 projects, which have been operational for longer than one year, generated energy equalling 90% of their P50 projections. Important to note that the DBSA uses the more conservative P90 prediction to assess the renewable energy projects. 24 of the 44 projects have exceeded the P50 projections. This mitigates to a certain extent the energy resource risk in the country.

Selected Risk Factor 5

Description	Risk category	Level of impact	Probability of risk occurring
Completion, Operational and technology risk	Technical and operational	Low (<5% of project value)	Low

Mitigation Measure(s)

The completion risk is to be mitigated for each project through the use of fixed price turnkey EPC Contract including appropriate contingencies and liquidated damages. For operations, suitable qualified O&M contactors with a solid track record, technical expertise and financial strength will be selected for each project. Lenders Technical Advisors will also be required to opine and sign off on the said characteristics. The Programme will only utilise commercially proven technologies that have a solid track record in the market.

Other Potential Risks in the Horizon

Please describe other potential issues which will be monitored as "emerging risks" during the life of the projects (i.e., issues that have not yet raised to the level of "risk factor" but which will need monitoring). This could include issues related to external stakeholders such as project beneficiaries or the pool of potential contractors.

The risks will be evaluated on an individual project basis. Final approval for financing for individual sub-projects will be subject to DBSA project-specific risk screening and stringent approval processes.

** Please expand this sub-section when needed to address all potential material and relevant risks.*

H.1. Logic Framework.

Please specify the logic framework in accordance with the GCF's [Performance Measurement Framework](#) under the [Results Management Framework](#).

H.1.1. Paradigm Shift Objectives and Impacts at the Fund level¹⁵

Paradigm shift objectives

<p><i>Shift to low-emission sustainable development pathways</i></p>	<p>The Programme will support the development of embedded generation IPP projects totalling up to US\$537 million (i.e. the estimated total investment cost under this Programme which include approximately 280 MW solar PV projects and 50 MW wind projects). The GCF and the DBSA will participate on a matching basis on the subordinated debt and a portion of the Junior Debt targeted at financing equity for the local communities in and around the various sub-projects and SMMEs. The provision of a subordinated debt (i.e. the first-loss facility) to the projects will enable the creation of a model on how to structure embedded generation projects successfully, whilst adding up to 330MW in renewable energy capacity to the national grid. This will help catalyse the market for these types of projects, with a huge scaling-up and replication potential.</p> <p>In response to climate change, the sovereign guarantee backed REIPPPP that commenced in 2011 allowed the country to rapidly add renewable capacity of up to 6,422 MW from 102 IPPs to date. Due to financial constraints, the REIPPPP has stalled since 2015, halting progress towards the country's climate strategies and commitments.</p> <p>The provision of the facilities under the Programme will allow for the continuation of the addition of renewable energy programs through the addition of 330 MW of new generating capacity (280 MW Solar PV and 50 MW Wind), generating approx. 744,600 MWh of clean electricity annually, thereby directly avoiding emissions of more than 717,794 tCO₂e per annum. The average CO₂ intensity for the national grid (grid emission factor, EF) is estimated at 1,015 tCO₂/ MWh for the South African grid. However, for the purposes of the GHG calculation in this proposal, a Baseline Emission Factor (BEF) of 0.964 tCO₂/MWh was used based on a harmonized approach for assessing the mitigation benefits, or net greenhouse gas (GHG) emissions, of renewable energy (RE) projects in accordance with the International Financial Institution (IFI) Framework for a Harmonized Approach to Greenhouse Gas Accounting. The common dataset containing BEFs are constructed using a Combined Margin (CM) for the grid that is comprised of an Operating Margin (OM) and a Build Margin (BM). The OM represents the marginal generating capacity in the existing dispatch hierarchy that will most likely be displaced by the project. In addition, implementation of further renewable energy capacity will accelerate progress towards achieving the country's ambitious climate change targets and will help improve access to financing through crowding-in of commercial banks, other DFIs and other financial institutions with the proposed first-loss mechanism.</p>
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¹⁵ Information on the Fund's expected results and indicators can be found in its Performance Measurement Frameworks available at the following link (Please note that some indicators are under refinement): http://www.gcfund.org/fileadmin/00_customer/documents/Operations/5.3_Initial_PMF.pdf

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
Fund-level impacts						
M1.0 Reduced emissions through increased low-emission energy access and power generation	M.1.1 Tonnes of carbon dioxide equivalent (t CO2eq) reduced or avoided from energy access and power generation	Programme monitoring reports	0	7,177,940 tCO2 eq	14,355,888 tCO2 eq	<p>The DBSA uses a harmonized approach for assessing the mitigation benefits, or net greenhouse gas (GHG) emissions, of EGIP in accordance with the International Financial Institution (IFI) Framework for a Harmonized Approach to Greenhouse Gas Accounting</p> <p>Baseline assumed as zero since the programme is new added generation.</p>

H.1.2. Outcomes, Outputs, Activities and Inputs at Project/Programme level

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
Project/programme Outcomes	Outcomes that contribute to Fund-level impacts as a result of implementing components 1 and 2					
M6.0 Increased number of small, medium and large low-emission power suppliers	6.3 MWs of low-emission energy capacity installed, generated and/or rehabilitated	Reports from project sponsors; Regular reporting from DBSA to GCF as agreed in the AMA	0 MW	140 MW Solar PV 25 MW Wind	280 MW Solar PV 50 MW Wind	Baseline assumed as zero since the programme is new added generation.
Project/programme outputs	Outputs that contribute to outcomes					
1. Programme Outputs	Number of Projects approved under the programme	Monitoring reports	0		33	Based on average size of 10MW per project anticipated which is aligned to the draft IRP.
	Number of Projects approved under the programme (Solar PV)	Monitoring reports	0		28	Based on average size of 10MW per project anticipated which is aligned to the draft IRP. Solar accounts for 280 MW of programme portfolio
	Number of Projects approved under the programme (Wind)	Monitoring reports	0		5	Wind accounts for 50 MW of the programme portfolio
	Total value of Funding Approved for the Programme (excluding GCF)	Monitoring reports	0		USD 438 M	

	Value of Funding Approved for the Programme, Solar PV (excluding GCF)	Monitoring reports	0		USD 372 M	Solar cost is USD 1.62 per MW
	Value of Funding Approved for the Programme, Wind (excluding GCF)	Monitoring reports	0		USD 66 M	Wind cost is USD 1.70 per MW
	Financing leveraged through the facilities	Monitoring reports	0	USD 150 million	USD 300 million	
	Value of subordinated debt provided to sub-projects (including GCF) – Component 1	Monitoring reports	0	USD 58 million	USD 116 million	
	Value of Junior Debt to Local community trust and SMMEs (including GCF) – Component 2	Monitoring reports	0	USD 42 million	USD 84 million	
2. Economic Benefits	Number of households with improved access to low-emission energy sources	Monitoring reports	0	125,500 households	251,000 households	<p>1. The jobs created were extrapolated from data of the four Bid Window periods</p> <p>2. Jobs created are based on person months</p> <p>3. 12 person months = 1 job</p> <p>4. Construction period differs for each window period (from 24 months to 40 months for wind projects) and (from 18 months to 28 months for Solar PV)</p> <p>5. Operations jobs are accounted for over a 20 year period</p>
	Number of Jobs created: construction	Monitoring reports	0	866	1732	
	Number of Jobs created: operation	Monitoring reports	0		152	

	Diversification of SA energy mix	Monitoring reports	RE sources less than 12.5% of the national energy mix 0	RE sources 12.9% of the national energy mix	RE sources 13.3% of the national energy mix	
Activities	Description		Inputs		Description	
1. Communications and marketing	Communicating and Marketing of the approved facilities to the commercial lenders, developers, IPPs and off takers.		<ul style="list-style-type: none"> Market Sounding on Embedded Generation Projects Project developers, commercial banks, DFI's and other relevant stakeholders; 		<ul style="list-style-type: none"> Develop, manage, & maintain organizational brand and external presence of the EGIP and execute a communications and outreach effort that promotes the objectives of the EGIP working with the DBSA marketing team; DBSA to Lead direct outreach to project developers, commercial banks, DFI's and other relevant stakeholders; <p>DBSA to establish strategic partnerships with lenders, contractors, developers, government agencies, utilities, business and industry associations, and community groups.</p>	
2. Deal Origination	3. Identification of potential projects <ul style="list-style-type: none"> Project pipeline development from existing embedded generation pipeline that have approached the bank for financing and interface with DBSA deal origination team. 		<ul style="list-style-type: none"> Further development of existing pipeline Proposals Meetings with commercial banks Meetings with sector stakeholders Meetings with project developers 		Identification of potential projects to enter the internal DBSA pipeline development.	
4. Deal screening	Assessment of projects using the DBSA project appraisal process		<ul style="list-style-type: none"> Meetings with project team/ client Early review report (ERR) DBSA Investment Committee (IC) 		ERR developed by DBSA project team and submitted to IC for review, comment and or recommendation/ rejection.	

		recommend to proceed with project appraisal	
5. Deal Structuring and Due Diligence process	<ul style="list-style-type: none"> Appraisal of project by DBSA project team and specialists Recommendation/ rejection of project Structure deals for approved projects 	<ul style="list-style-type: none"> Meetings with project team/ client Project plan, information, technical plans, financial model, log frame etc. Site meetings 	DBSA appraisal process undertaken. Includes review and assessment of project based on financial, institutional, technical and ESS safeguards and guidelines.
6. Contract negotiation	<ul style="list-style-type: none"> Review of records of decision from DBSA IC Negotiation of contract Agreement of contract terms 	<ul style="list-style-type: none"> Record of decision/ approval Legal services 	Development of contractual agreements based on records of approval requirements. Agreement of the terms of the contract and sign off.
7. Monitoring Implementation and verifying IPP project completion	<ul style="list-style-type: none"> Project initiation Monitoring as per log frame Disbursements as per the contractual agreements Completion of construction and implementation phase Final disbursement based on acceptance of completion report 	<ul style="list-style-type: none"> Project Initiation report Log frame Funds Project completion report Funds 	Client implements project based on contractual agreement. Project completion report triggers completion process and final disbursement
8. Terminal evaluation (DBSA)	<ul style="list-style-type: none"> Project completion reports of sub-projects provides development impact and results information which is fed back to CFF. Identification of lessons learnt for knowledge sharing, capacity development and depending on development effectiveness within fund and sector. 	<ul style="list-style-type: none"> Project completion report Monitoring reports Project implementation reports and documentation Project log frame. 	Information provided during project appraisal, implementation and completion will be used by Independent consultant to undertake the terminal evaluation

H.2. Arrangements for Monitoring, Reporting and Evaluation

Monitoring and Evaluation of the mechanism will be aligned to the DBSA Development Results Reporting Framework and the requirements of GCF as detailed GCF master accreditation agreement. The DBSA Operations and Evaluation Unit will be responsible for the Monitoring and Reporting of the EGIP. The OEU provides a framework for the monitoring and evaluation of all the DBSA's operations.

The broad monitoring and reporting arrangements and requirements are as follows :

Monitoring of Projects by DBSA

The sub-projects will have an obligation in the finance documents to submit quarterly progress reports during the construction phase and semi-annual performance reports during operations. The DBSA operation evaluation department and the loans management department use these reports as a monitoring tool. In addition, site visits will be conducted annually to physically monitor progress and performance of the Projects. The DBSA Credit Risk department compiles annual reviews of each project, evaluating the marketing, technical and financial aspects, which is submitted to Investment Committee for approval. In addition, each sub-project is required to submit Audited Financials annually for review. Please refer to section H for more details on the M&E process.

Fund-level reporting from DBSA to GCF

- Fund level monitoring from DBSA to the GCF and reporting requirements will be submitted to the GCF in line with the Monitoring and Accountability Framework and the Accreditation Master Agreement between GCF and DBSA
 - Information from projects will be collated into the APR and submitted to GCF at the end of the calendar year. This will include the semi-annual performance and financial monitoring. und level evaluation submitted to the GCF
 - A mid-term evaluation will be undertaken on the performance of the mechanism as per the indicators identified in log frame.
 - A terminal evaluation will be undertaken on the performance of the mechanism as per the log frame indicators and other qualitative information.
 - The mid-term and terminal evaluations will be undertaken by an independent consultant.

In addition the DBSA independent evaluation function, the Operations Evaluation Unit will provide advisory and oversight services to the programme. The OEU provides a framework for the monitoring and evaluation of all the DBSA's operations.

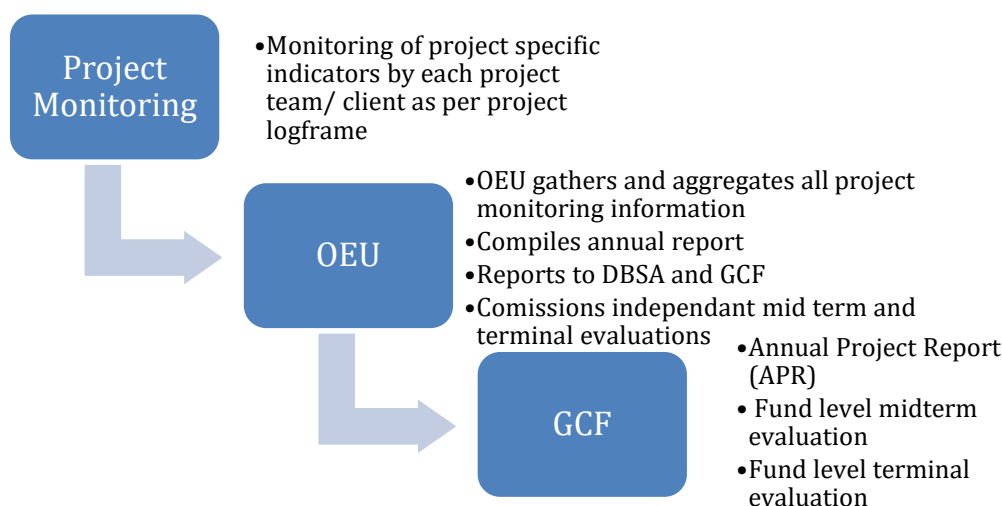


Figure 18: DBSA Framework for monitoring and evaluation

I. Supporting Documents for Funding Proposal

- ☒ NDA No-objection Letter
- ☐ Market Study
- ☐ Integrated Financial Model that provides sensitivity analysis of critical elements (xls format, if applicable)
- ☐ Confirmation letter or letter of commitment for co-financing commitment (If applicable)
- ☐ Project/Programme Confirmation/Term Sheet (including cost/budget breakdown, disbursement schedule, etc.) – *see the Accreditation Master Agreement, Annex I*
- ☒ Environmental and Social Impact Assessment (ESIA) or Environmental and Social Management Plan (If applicable)
- ☐ Appraisal Report or Due Diligence Report with recommendations (If applicable)
- ☐ Evaluation Report of the baseline project (If applicable)
- ☒ Map indicating the location of the project/programme
- ☒ Timetable of project/programme implementation (included in section C8)

** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*