



Energy Partnership  
Energiepartnerschaft  
South Africa - Deutschland

Supported by:



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by the German Bundestag

# Financing of Energy Projects and Activities of German and Local Companies in South Africa

*South African-German Energy Partnership*



Deutsche Industrie- und Handels-  
kammer für das südliche Afrika  
Southern African-German Chamber  
of Commerce and Industry

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

## Imprint

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[www.energypartnership.org.za](http://www.energypartnership.org.za)

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# Preface

South Africa and Germany have close economic ties which are also reflected in the energy sector. The Republic of South Africa is a long-established trading partner of Germany and the most important investment location for German companies in Africa.

As of now, German renewable energy companies alone provide more than 250 direct jobs in the renewable energy sector of South Africa. The number of indirect jobs that are created by German renewable energy companies is estimated to be around 4,100. As such, the German renewable energy industry makes a significant contribution to job creation in South Africa.

German renewable energy companies have been instrumental in creating a sustainable energy infrastructure in South Africa and in ensuring a greater use of renewable energies as well as energy efficiency technologies across the country. In this way they are doing their share to contribute to the 100 billion US-Dollar investment target postulated by President Cyril Ramaphosa in early 2018. All things considered, the German renewable energy companies that are in South Africa aspire to expand their activities in the country and into the rest of the African energy market from their South African base. In a bid to deepen economic cooperation between South Africa and Germany and to widen the footprint of German renewable energy companies that

are already present in South Africa, the South African-German Energy Partnership (EP) funded by the German Federal Ministry of Economic Affairs and Energy (BMWi) has been requested to provide more in-depth information and advice on the available support mechanisms in South Africa, especially financial and credit-based support mechanisms.

Thus, this brochure aims to pave the way for more private-sector involvement through providing German and South African companies with reliable and unbiased information on opportunities that they can exploit in the South African energy market. The brochure shall provide an overview of actual and eligible financing instruments for different projects along the renewable energy and energy efficiency value chains. Its focus is on German, international and South African specific financing and funding schemes. Additional information is provided by several links to financing institutions and relevant institutions as well as through additional annexures.

Essentially, the aim of this overview is to support German investors who wish to invest in a sustainable future for South Africa; in a manner that will drive the energy transition; create jobs; propel economic transformation and better the living conditions of all those who live in South Africa.



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# The South African – German Energy Partnership

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South Africa and Germany work together to enhance their roles as regional front-runners and role models for implementing their energy transitions and creating secure, environmentally friendly, and economically successful energy systems.

Both countries established the South African-German Energy Partnership in 2013 in order to join forces and mutually profit from each other's experiences, expertise and lessons learnt. The Energy Partnership complements the ongoing and successful cooperation programs in the energy sector between both countries which amongst others include the South African-German Energy Programme (SAGEN) ([www.sagen.org.za](http://www.sagen.org.za)).

Furthermore, the Partnership aims at developing sustainable and country-specific solutions for dealing with the opportunities and challenges involved in the transition to clean energy.

At its core stands the high-level intergovernmental dialogue focussing on strategic topics of energy policy. Building on the political dialogue, concrete cooperation projects are implemented using instruments such as expert workshops, dialogue formats, trainings, and delegation visits. In this context, the Energy Partnership also bears the responsibility of offering political support to private sector projects that contribute significantly to the energy transition in South Africa. The German Federal Ministry for Economic Affairs and Energy (BMWi) together with the South African Department of Energy (DoE) lead the Energy Partnership. Additional key stakeholders are governmental departments such as the South African Department of Trade and Industry (**the dti**), the Department of Environmental Affairs (DEA), the German Federal Department for Economic Cooperation and Development (BMZ) as well as the Federal Department for the Environment, Nature Conservation and Nuclear Safety (BMU). Additionally, private companies, business associations, research institutions, think tanks, municipalities, non-governmental organisations and regional governmental bodies also participate in the activities of the partnership.

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH runs the Secretariat of the Energy Partnership

from its Pretoria offices. The secretariat has a coordination function and follows-up the implementation plan of the partnership.

In addition to the services of the German Energy Solutions Initiative ([www.german-energy-solutions.de](http://www.german-energy-solutions.de)) and in collaboration with long-standing organizations that promote German foreign trade, such as the Southern African-German Chamber of Commerce and Industry (CCI) and the Germany Trade and Invest (GTAI), the Energy Partnership brings in the voice of Germany's private sector into the political cooperation of Germany and South Africa in the energy sector. In this context, in a business advisory council of the Energy Partnership, private sector representatives highlight topics that are of great concern to them, with the aim of contributing towards the development and betterment of the South African energy market. This is inclusive of organizing complementary thematic roundtables with the participation of German industry and key stakeholders of the South African energy market.

Against the backdrop of information-sharing, this brochure is being published for the purposes of providing German and South African energy companies with information on opportunities that are available in the South African energy market. It shall make available information on the eligible financing instruments for different projects along the renewable energy and energy efficiency value chains. By providing this information, the Energy Partnership endeavors to advance the energy transition; to create local prospects and employment as a way of contributing towards economic transformation and counteracting the causes of division and high inequality gaps in South Africa.

Further information on the bilateral South African German Energy Partnership is available at [www.energypartnership.org.za](http://www.energypartnership.org.za).



Energy Partnership  
Energiepartnerschaft  
South Africa - Deutschland

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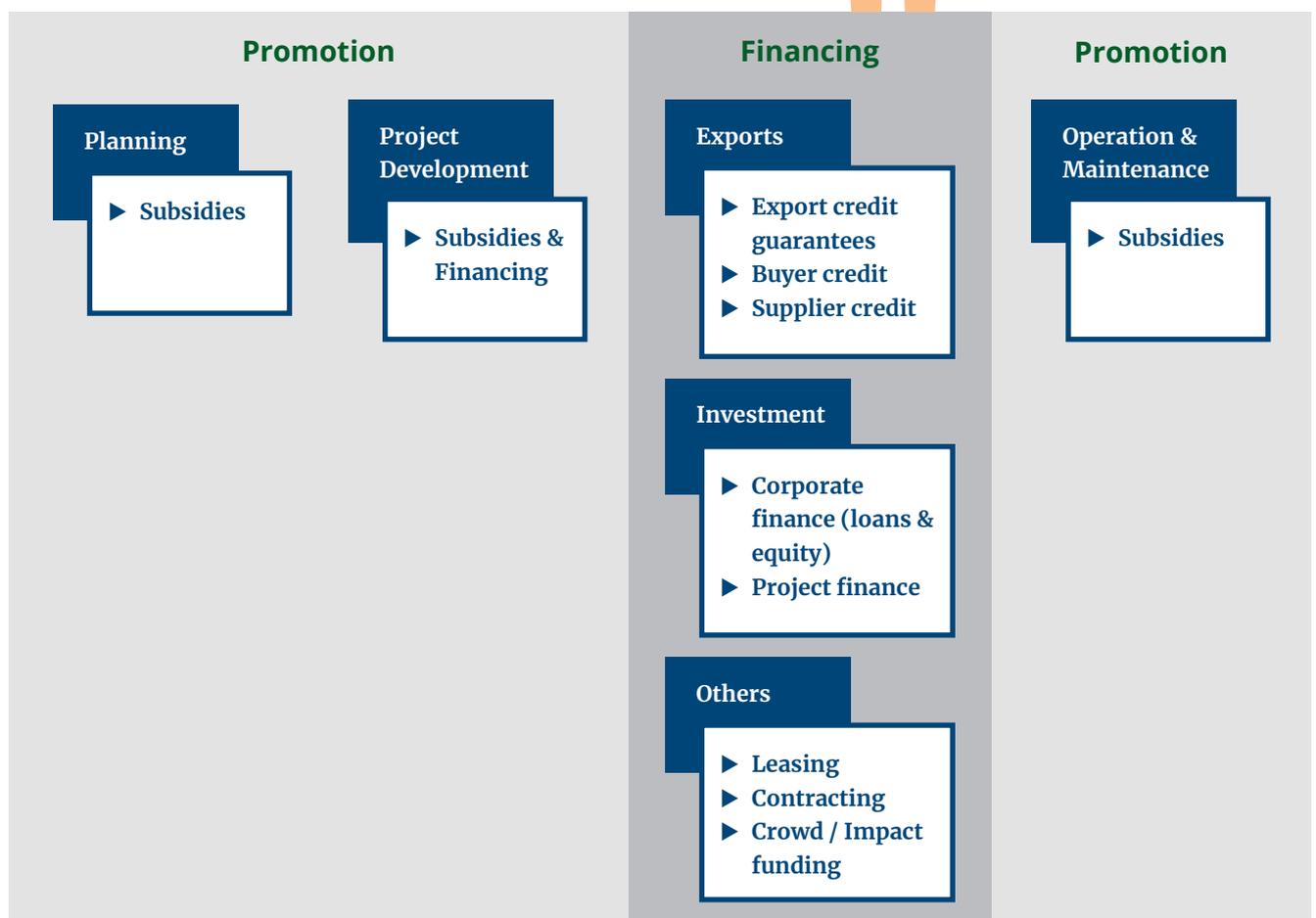
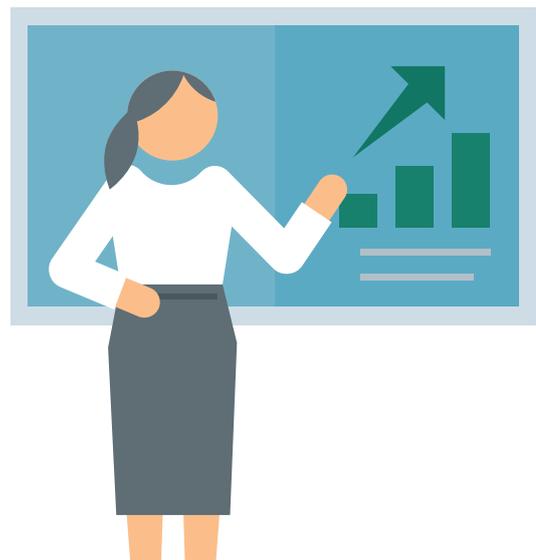
# Overview

## Financing Options

Financing and promotion schemes should be considered along the value chain to identify suitable funding options for energy projects in South Africa.

The majority of energy related promotion schemes are available for the initial phase of market and project development. Financing options in narrower meaning are available for either the financing of exports (goods and/or services) or the financing of investments.

Alternatives to balance sheet or project cash-flow based financing for energy projects may be available through contracting (ESCO) models or, e.g. crowd or social impact funding. The following figure illustrates financing and funding options according to an energy projects' value chain.



## Which Financing Programmes for which Type of Companies

Financing and subsidy programmes are designed for different kind of projects and also differ regarding the eligibility of companies.

This brochure differentiates between 4 kinds of companies:

- ▶ Affiliation with larger German firm
  - ▷ Less than 250 staff
  - ▷ Turnover under 50 million EUR or balance sheet below 43 million EUR
- ▶ Affiliation with German SME
  - ▷ Minimum 3 years in business
  - ▷ More than 10 employees
  - ▷ More than 1 million turnover
- ▶ Affiliation with German SSME
  - ▷ Less than 3 years in business
  - ▷ Less than 10 employees
- ▶ No affiliation with German firm (South African single person or company).

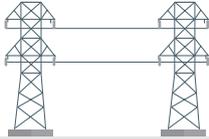


Affiliation with German firm	Affiliation with larger German firm (< 250 staff, turnover < EUR 50M. or balance sheet < EUR 43M.)	Affiliation with German SME (min. 3 y in business & 10 employees & 1M. turnover)	Affiliation with German SSME (less than 3 y in business, smaller 10 employees )	No affiliation with German firm (SA firm or person)
Programme				
Energy export initiative promotion (BMWi)	x	x	x	
Export promotion schemes (German States)	x	x	x	
Business support services (DEG)	x	x		
RES (dena)	x	x	x	
develoPPP.de (GIZ)	x	x		
Integrated PPP (GIZ)	x	x	x	x
Energy partnerships (BMWi)	x	x	x	x
Climate partnerships (DEG)	x	x		
Up-scaling promotion (DEG)		x		
Export financing schemes (different institutions)	x	x	case by case	
Feasibility studies promotion (DEG) (for multimillion investments)	x	x		
RE standard 270 (KfW)	x	x	x	
EE standard 292, 293 (KfW)	x	x	x	
Symbols	●	■	▲	◆

Project finance is open to all investors in a project company (SPV); see section Project Financing page 17 for further details. Export finance may include financing by the German exporters in relationship with German/European export credit guarantees from German/European institutions; see section Export Finance on page 14 for further details.

Programmes mentioned are presented in more detail in the following pages.

# Presentation of Key Programmes



## German Energy Solutions Initiative (BMW)

- ▶ In the fields of renewable energy, energy efficiency, smart grids and storage technologies, as well as new technologies such as power to gas or fuel cells
- ▶ Support measures include:
  - Access to market information (publications, events, etc.)
  - Participation in thematic business trips from the local Chamber of Commerce (AHK)
  - Marketing support ⇒ see also details on dena RES programme for reference projects in attractive target markets (page 8).

[www.german-energy-solutions.de](http://www.german-energy-solutions.de)



## Export Promotion Schemes (German States)

- ▶ Most federal states (“Bundesländer”) and their foreign trade or business promotion agencies or chambers of commerce offer participation in fairs and many advisory services
- ▶ Few federal states offer more specific market and project development subsidies or financing instruments, e.g.:
  - Brandenburg – funding of market development
  - Berlin – especially loans for innovation and working capital
  - North Rhine-Westphalia – especially guarantees.

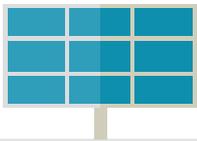




### Business Support Services (DEG)

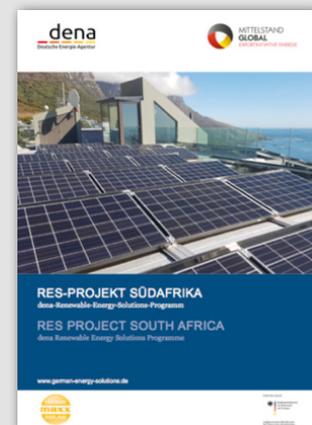
- ▶ Support for corporate governance, risk management, strategy, environmental and social management, resource and energy efficiency as well as training of staff or suppliers
- ▶ Only for DEG new or existing customers (German / European & local enterprises)
- ▶ Connection of companies with external experts to realize tailor-made advisory solutions and help customers to design coherent development projects
- ▶ 2 years max. duration of project
- ▶ Costs can be co-funded up to 50%
- ▶ Max. 50% of the costs, max. 200,000 EUR.

[www.deginvest.de/international-financing/DEG/Unsere-Lösungen/Begleitmaßnahmen](http://www.deginvest.de/international-financing/DEG/Unsere-Lösungen/Begleitmaßnahmen)



### Renewable-Energy-Solutions-Programme (dena)

- ▶ Subsidy programme by BMWi
- ▶ NEW: Open to all types of RE, combination with storage and EE technology is welcome:
  - Aims on „state of the art projects“ in attractive target markets
  - Highly visible RE or EE technology, prestigious institutions
- ▶ Co-financing of 235,000 EUR for project costs
  - Incentives of 45 % (company's share: 55 %)
  - RE installation (~95,000 EUR)
  - Qualification and training concept (~95,000 EUR)
- ▶ Accompanying PR and marketing activities (~45,000 EUR)
- ▶ Incentives totalling ~ 106,000 EUR
- ▶ Annual application takes place at the end of first quarter of each year.



[www.dena.de/en/topics-projects/projects/renewable-energies/dena-renewable-energy-solutions-programme/](http://www.dena.de/en/topics-projects/projects/renewable-energies/dena-renewable-energy-solutions-programme/)



### develoPPP.de (DEG, GIZ, Sequa)

- ▶ Cofinancing of developmentally and economically sound projects, such as training centres, qualification of suppliers, improvement of water- and energy-supply systems, improvement of operational structures etc.
- ▶ Three institutions implement develoPPP.de projects: DEG, GIZ, Sequa
- ▶ Idea competitions four times a year (quarterly applications)
- ▶ Up to 50 % of costs (max. 200,000 EUR)
- ▶ For German/European companies
- ▶ Requirements:
  - Private partner would not implement the project without the public partner
  - The project implementation is not required by law.

[www.developpp.de/en](http://www.developpp.de/en)



### Integrated PPP (GIZ)

- ▶ Integrated development partnership for German / European or multinational companies located in South Africa
- ▶ Companies are invited to contact GIZ in order to check for potential contribution to GIZ cooperation programmes and local project implementation
- ▶ Energy and climate is one out of three thematic priorities of GIZ in South Africa
- ▶ Companies can thus benefit from project implementation
- ▶ Opportunities for cooperation on basis of a case by case decision.

[www.giz.de/wirtschaft/](http://www.giz.de/wirtschaft/)



### Energy Partnerships (BMWi)

- ▶ Supports the improvement of energy markets: creates High-Level Political Dialogue for discussing economic policies that govern mutual access, investments and corporate cooperation in the energy sector
- ▶ Offers political support to energy-related projects that contribute significantly to climate change mitigation and development cooperation
- ▶ Promotes trading with partner countries by improving opportunities for German firms to export energy-efficient products and innovative energy-related installations
- ▶ Advises partner countries on energy-related issues, on regulatory and technological aspects

[www.bmwi.de/Redaktion/EN/Artikel/Energy/internationale-energiepolitik-2.html](http://www.bmwi.de/Redaktion/EN/Artikel/Energy/internationale-energiepolitik-2.html)



### Climate Partnerships with Private Firms (DEG)

- ▶ Projects in the field of climate protection such as resource and energy efficiency measures
- ▶ Focus: German/European enterprises
- ▶ Funding focus: Technology and know-how transfer
- ▶ Up to 50% subsidy and max. 200,000 EUR
- ▶ Project duration: max 2.5 years
- ▶ Requirements same as develoPPP.de (see page 9)
- ▶ Support for projects which:
  - Act structurally in the country of destination
  - Would not be carried out without public support
  - Are not required by law
- ▶ Prerequisites for project content:
  - Introduction of new technologies (Innovation)
  - Adapting proven technologies to the destination country
  - Demonstrate application of innovative technologies.

[www.deginvest.de/klimapartnerschaften](http://www.deginvest.de/klimapartnerschaften)

**KfW** DEG

### Up-Scaling (DEG)

- ▶ Co-financing of innovative pioneering investments of SMEs on the brink of commercialisation (pilot phase)
- ▶ Focus: German and local SMEs in developing countries
- ▶ Max. 50% of the costs, max. 500,000 EUR, 25% own contributions as prerequisite
- ▶ Repayment within five years only in the event of success; no interest applies

[www.deginvest.de/Up-Scaling](http://www.deginvest.de/Up-Scaling)

**KfW** DEG

### Feasibility Studies (DEG)

- ▶ Verification of the economic technical and legal feasibility of investment plans (market studies, legal opinions and environmental studies, etc.) in preparation of a specific investment
- ▶ Max. 50% of the costs, max. 200,000 EUR
- ▶ German/ European companies with headquarters in the EU and annual turnover < 500 million EUR

[www.deginvest.de/Machbarkeitsstudien](http://www.deginvest.de/Machbarkeitsstudien)



### Renewable Energies Standards Credit 270 (KfW)

- ▶ Special loan program for German firms, German single persons, affiliated companies abroad
- ▶ German-South African joint ventures may apply
- ▶ Combination with other funding programs is possible except for subsidies
- ▶ Funded up to 100% of the eligible net investment cost
- ▶ Loans up to 50 million EUR
- ▶ Maturity up to 20 year, grace period as a function of maturity
- ▶ For loans with a maturity of up to 10 years, the interest rate is fixed for the entire loan term
- ▶ For loans longer than 10 years, the interest rate is fixed either for the first 10 years or the entire repayment term
- ▶ Interest rate starting at 1.26% (+ borrowers' bank individual risk premium); variable interest rates for terms > 10 years
- ▶ Max. interest rate for 20 years tenor is 9.68% (effective)
- ▶ The payment of the loan is 100% of the commitment amount.
- ▶ The call period is 12 months after loan approval. An extension can be agreed
- ▶ Issued via listed FI from Germany (who takes the financial risks)
- ▶ Project implementation requires compliance with EU environmental standards.

[www.kfw.de/270](http://www.kfw.de/270)



### Energy Efficiency Standard Credit 292 and 293 (KfW)

- ▶ Special loan program for German firms, German single persons, affiliated companies abroad
- ▶ German-South African joint ventures may apply
- ▶ Modernization investments must lead to a specific final energy saving of at least 10% (entry standard = program code 292) or at least 30% (premium standard = program code 293) measured by the average consumption of the last 3 years
- ▶ For new investments, a specific final energy saving of at least 10% (entry standard) or at least 30% (premium standard) compared to the industry average has to be achieved
- ▶ Combination with other public loans is possible, but not with subsidies
- ▶ Funded up to 100% of the eligible net investment cost
- ▶ Loans up to 25 million EUR, exceptions will be made in special cases
- ▶ Maturity up to 20 years, grace period as a function of maturity
- ▶ For loans with a maturity of up to 10 years, the interest rate is fixed for the entire loan term
- ▶ For loans longer than 10 years, the interest rate is fixed either for the first 10 years or the entire repayment term
- ▶ Interest rates are based on the development of the capital market, starting at 1.0%
- ▶ Max. effective interest rate for 20 years tenor is 9.04% for KfW 292 and 8.88% for KfW 293
- ▶ Issued via listed FI from Germany (who takes the financial risks)
- ▶ Project implementation requires compliance with EU environmental standards.

[www.kfw.de/292](http://www.kfw.de/292)

## Further Programmes



### Energy and Environment Partnership (EEP)

- ▶ In operation since 2010, the EEP transitions from a fixed term programme to an open-ended multi-donor trust fund and climate finance facility
- ▶ Managed by the Nordic Development Fund (NDF)
- ▶ Funding support from Austria, Finland, NDF and the United Kingdom
- ▶ The first open call for competing proposals to fund innovative clean energy projects, technologies and business models is now in planning to be launched in May 2018 during Africa Utility Week in Cape Town, South Africa ([www.eepafrica.org/news](http://www.eepafrica.org/news))
- ▶ Promotes renewable energy, energy efficiency and clean technology investments:
  - EEP Innovation – cofunding in the form of grants and repayable grants between 200,000 and 1 million EUR
  - EEP Catalyst - limited follow-on support up to EUR 2 million for selected projects (loans, guarantees or other risk sharing instruments)
- ▶ EEP organises annually an investor forum to support project developers in obtaining follow-on financing for their operations and scale-up and to gather together investors from impact investors to purely private investors.
- ▶ From January 2018, EEP Africa operates as an open, competitive challenge fund providing early stage grant and catalytic financing to innovative clean energy projects, technologies and business models.

[www.eepafrica.org](http://www.eepafrica.org)



### Private Sector Window (AfDB)

- ▶ For projects that involve the establishment, expansion, diversification, and/or modernization of production facilities in a variety of sectors, including energy
- ▶ For private entities as well as eligible public entities not requiring sovereign guarantees
- ▶ Loans for SMEs
- ▶ Technical and financial assistance instruments.

[www.afdb.org/en/topics-and-sectors/sectors/private-sector/private-sector-services-contacts/](http://www.afdb.org/en/topics-and-sectors/sectors/private-sector/private-sector-services-contacts/)

# Export Finance

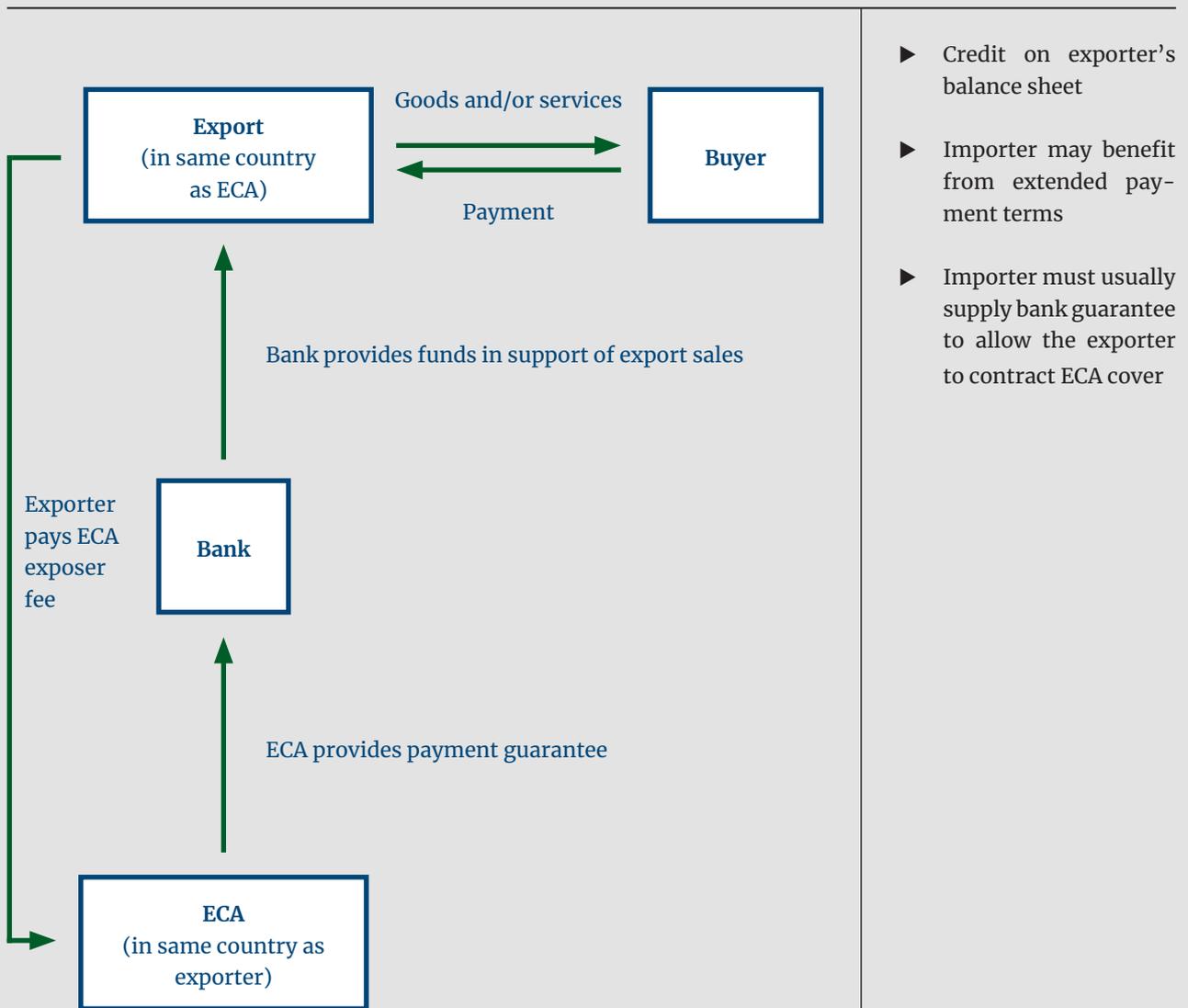
Even though many energy projects require investments and O&M activities the classical exporter quite often presents the first step for the South African market.

For companies from Germany where products are often rather expensive the provision of export finance is important.

Customers often appreciate if payment (or the letter of credit) can be deferred by one or two years. This can be done or prolonged through a seller’s credit or a buyers’ credit with the involvement of an Expert Credit Agency (ECA). See Appendix A - Export Finance and Credit Insurance for details on financing through suppliers’ and buyers’ credits.

Main characteristics of suppliers’ and buyers’ credit schemes for short to midterm export finance are presented below.

## Supplier Credit Scheme



- ▶ Credit on exporter’s balance sheet
- ▶ Importer may benefit from extended payment terms
- ▶ Importer must usually supply bank guarantee to allow the exporter to contract ECA cover

Details on important export credit insurance schemes are also presented in Appendix A - Export Finance and Credit Insurance.

Further support may be provided through so called trade finance or facilitation programmes by International / Development Finance Institutions (IFI / DFI). For South Africa, both the International Finance Corporation (IFC), member of the World Bank group, as well as the African Development Bank (AfDB) provide assistance through such programmes.

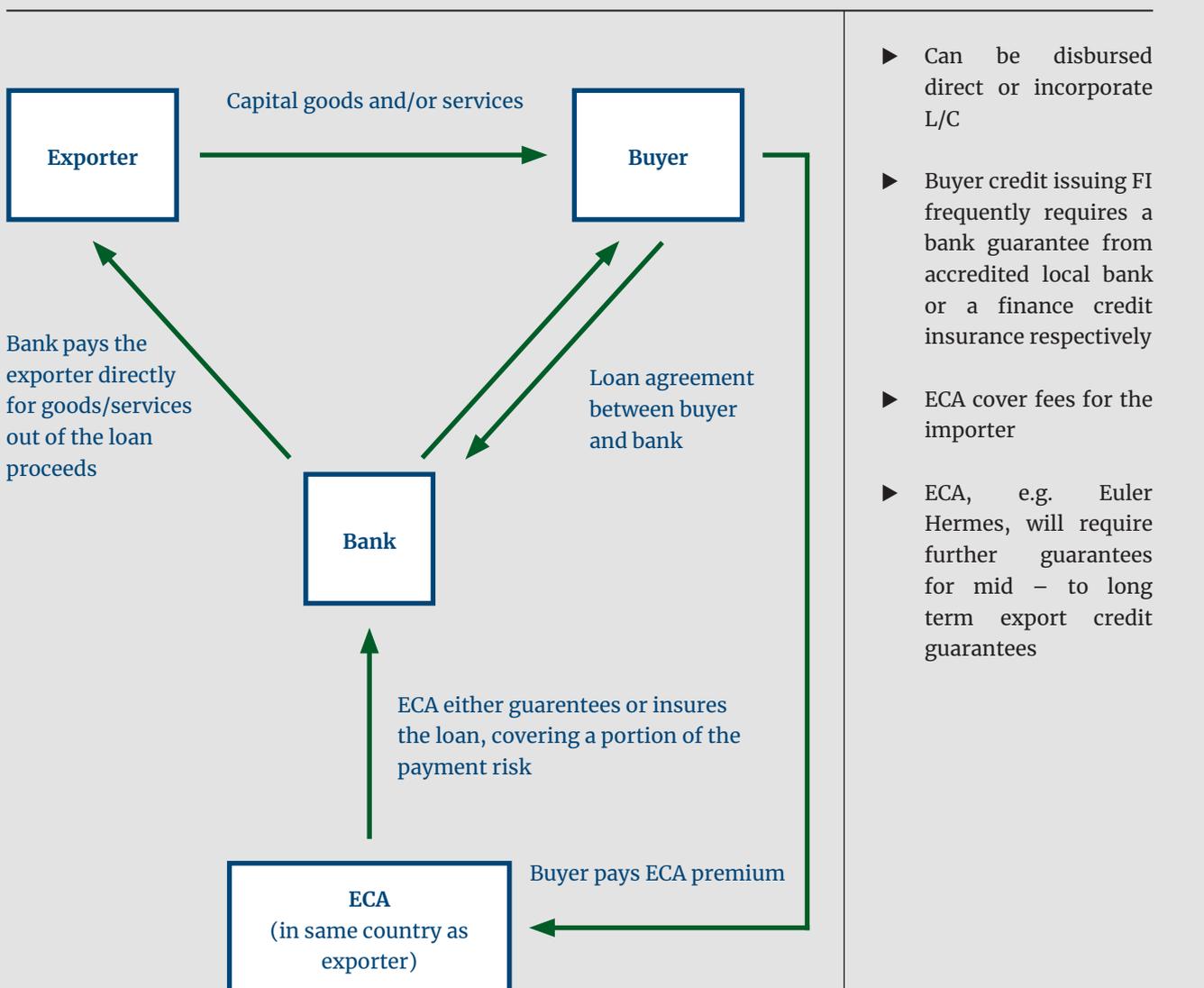
The IFC established the “Global Trade Finance Programme” (GTFP) under which partial or full IFC

guarantees offer further risk sharing options for participating confirming banks, e.g. for the economic or political default risks of letters of credit (L/Cs) with tenors up to 3 years. The Sasfin is registered as eligible issuing bank in South Africa [www.sasfin.com](http://www.sasfin.com).

The AfDB offers risk sharing instruments within its Trade Finance Programmes (TFP). AfDB guarantees are provided as “Risk Participation Agreements” (RPAs) and covering typically 50% of the default risk. Further information is available at [www.afdb.org](http://www.afdb.org).



### Buyer Credit Scheme



# Financing of Investments

Following major differentiation can be made between the corporate and project financing of investments:

Corporate financing	Project financing
Based on the balance sheet of the company	Foundation of a legally independent project company (SPV)
All tenors (short, medium, long term)	Long term non-recourse financing through the project company
Moderate transaction costs	(Very) high transaction costs
All project types	Suitable only for large projects with corresponding high investment volume

## Corporate Financing

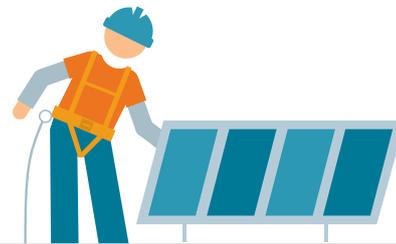
### Loans

Debt financing has to be differentiated between the financing of the German firm and the financing of a local South African firm (subsidiary).

For larger long-term loans, ideally of EUR 10 million and more, the private sector windows of IFI also offer various opportunities to finance investments into renewable energy projects directly. For smaller loans, due to their high transactions costs for due diligence etc., IFIs often

also support local banks and funds through dedicated refinancing lines / facilities.

Some criteria and characteristics for direct loans through the private sector departments of IFI are as follows:



### DEG

- ▶ Long-term loans
- ▶ Currency: EUR or USD, in certain cases local currency
- ▶ Term: in general between 4 and 15 years
- ▶ Collateral security: as fixed assets of the company in the country of investment, project-specific arrangement
- ▶ Interest rate: fixed or variable, market oriented according to project and country risks
- ▶ Volumes: up to approx. 30 million EUR per transaction
- ▶ Further support to project development and e.g. feasibility studies (see page 7 ff.)

[www.deginvest.de](http://www.deginvest.de)



### Austrian Development Bank

- ▶ Long-term loans and risk sub-participations
- ▶ Refinancing lines for financial institutions with a specific loan purpose (e.g. financing of small hydroelectric power plants, projects of small and medium-sized enterprises or projects in the energy efficiency sector)
- ▶ Volumes: up to approx. 25 million EUR per transaction
- ▶ Term: depending on the project, up to 15 year repayment period (incl. interest-only periods)
- ▶ Conditions: near-market (without interest relief) in EUR or USD
- ▶ Business Advisory Services funds for studies, training, etc. (allocation on a case-by-case basis).

[www.oe-eb.at](http://www.oe-eb.at)

### Equity

Strategic private investors or IFIs may engage directly or indirectly (e.g. through investment funds) in an established or newly established company with equity capital and thus become a shareholder – usually pursuing a defined exit-strategy.

Equity investments are often of crucial importance especially for project financing (see section Project Financing), where the project sponsors need to provide a certain equity share (usually about 20–30%) to qualify the project company / the special purpose vehicle (SPV) for receiving long term loans and thus successful project financing.

If investments are in line with important development and cooperation goals, e.g. as for sustainable energy projects, purely commercial investors may be publically backed by IFIs such as IFC, EIB, KfW, FMO and others. Some relevant examples for such initiatives to finance and support renewable IPPs in South Africa are:

- ▶ Evolution I and II Fund (investors amongst others: IFC, AfDB, GEEREF, IDC)
  - Evolution I: Equity and equity related investments in clean energy and environmental industries
  - Evolution II: development and project finance infrastructure type investments in clean energy as well as equity investments in resource efficiency companies
- ▶ Access to Energy Fund (AEF)
  - Minority shares in equity investments, e.g. in Lereko Metier Solafrika Fund I in South Africa

- Loans of up to EUR 7 million – in EUR, USD or local currencies
- Early stage equity to contribute to the high-risk, early stage project development phase.

[www.fmo.nl/aef](http://www.fmo.nl/aef)

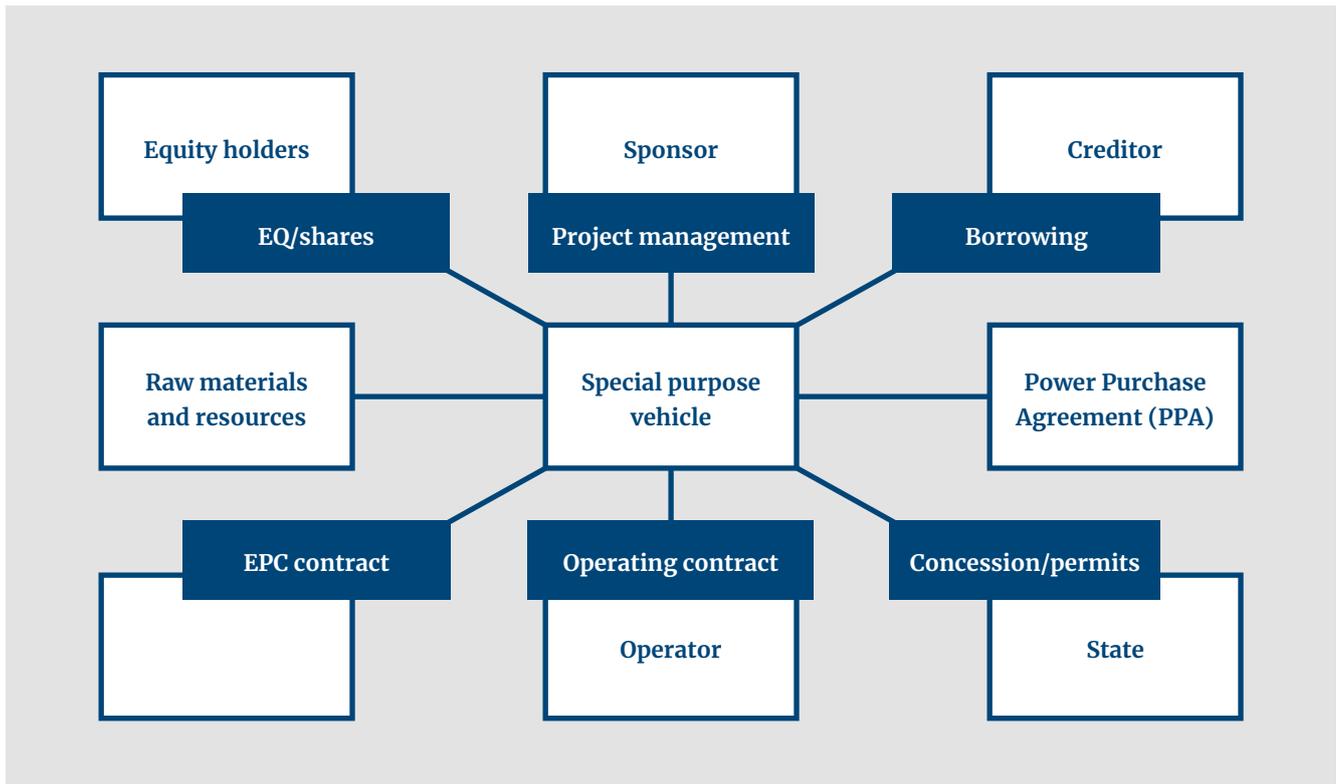
Further information on relevant private equity funds is provided in section South African financing sources (page 21). Further potential venture capital and private equity investors who are active in South Africa can be retrieved and searched from the member list of the Southern African Venture Capital and Private Equity Association (SAVCA) [www.savca.co.za](http://www.savca.co.za).

### Project Financing

Companies have limited possibilities and appetite for corporate finance of investment of projects meaning taking the risks on their balance sheets.

For the generation of electricity from renewable energy, financing the project based on its cash flow presents a well-established option (see South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPP) at [www.ipp-renewables.co.za](http://www.ipp-renewables.co.za)). Critical element for project finance is the raising of equity (see section Equity above).

The complexity of project financing is indicated through the following typical stakeholder structure and indication of required (sub)contracts.



Due to the large number of variables and contracts the transaction costs are very high and project finance can only be undertaken for larger projects, e.g. investments larger than 30 million EUR. For project financing examples see also the case studies on page 24.

### Public Funding Schemes

There is a large number of international public funding schemes especially for the financing of climate mitigation. These public climate and development funding programmes are normally not open to private firms.

The publicly funded programmes are arranged with government authorities such as Department of Environmental Affairs for all climate programmes and Department of Energy for energy co-operation programmes. Access for private companies is available through

- ▶ Local banks
- ▶ Direct tendering of project through implementing agencies.

Among those funds are the following (see footer for available direct investments project & corporate):

- ▶ Sustainable Energy Fund for Africa (SEFA)
- ▶ Electrification Financing Initiative (ElectriFI)<sup>1</sup>
- ▶ Global Climate Partnership Fund (GCPF)<sup>2</sup>
- ▶ Emerging Africa Infrastructure Fund (EAIF)<sup>3</sup>
- ▶ Global Environment Facility (GEF)
- ▶ EF-Small Grants Programme (GEF-SP)
- ▶ Least Developed Countries Fund (LDCF)
- ▶ Special Climate Change Fund (SCCF)
- ▶ Adaptation Fund (UN)
- ▶ Green Climate Fund (GCF).
- ▶ EU-ACP Energy Facility
- ▶ Instrument for Development Cooperation (DCI)
- ▶ Africa Climate Change Fund (ACCF)
- ▶ Climate for Development in Africa (ClimDev-Africa) Programme
- ▶ IRENA ADFD Project Facility.

<sup>1</sup> Debt, equity, guarantees from 0.5-10 million USD, tenors of max. 7 years

<sup>2</sup> Loans from 5-15 million USD, tenors up to 15 years

<sup>3</sup> EAIF investments in S.A. limited to poorest regions and groups. Loans from 10-50 million USD, tenors up to 20 years

## Other Forms of Finance

### ESCO Models as a Financing Model for South Africa

Energy Service Companies (ESCO) or contracting models may represent alternatives to the above presented financing options.

- ▶ Contracting models include the financing function
- ▶ Energy Supply Contracting e.g. rooftop PV
- ▶ Energy Performance Contracting: e.g. shared savings.

In South Africa the term ESCo is generally not used investive (see case I in following figure). To include the investive aspect one speaks of “financing ESCos” (see case II in figure on the right).

South Africa has obtained substantial support for Energy Efficiency in the public sector through the NAMA facility which shall exclusively be implemented by private ESCos. The project includes project preparation as well as partial guarantees to banks such as IDC which will facilitate lending for ESCos.

### Leasing

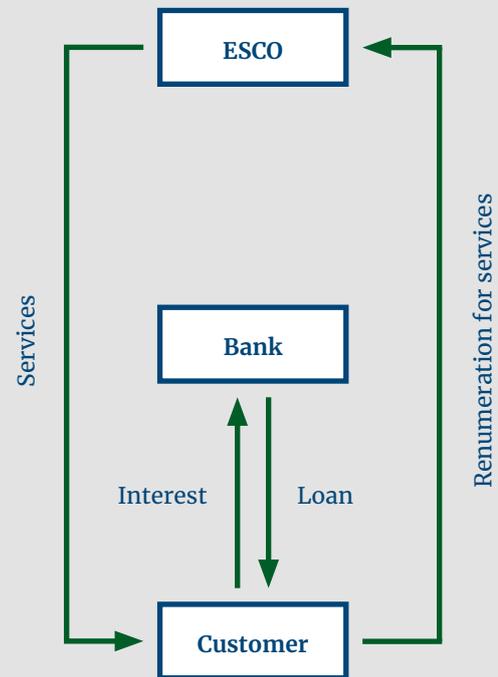
Leasing models for renewable energy projects are increasingly implemented and becoming an alternative to the above presented financing models for both, ground- as well as rooftop-mounted PV plants. Besides some larger commercial banks, specialized agents and manufacturers offer PV rental and leasing models in South Africa, amongst others e.g. [www.pvpowerway.com](http://www.pvpowerway.com) or [www.camcocleanenergy.com](http://www.camcocleanenergy.com).

#### Leasing of Rooftop PV Plants

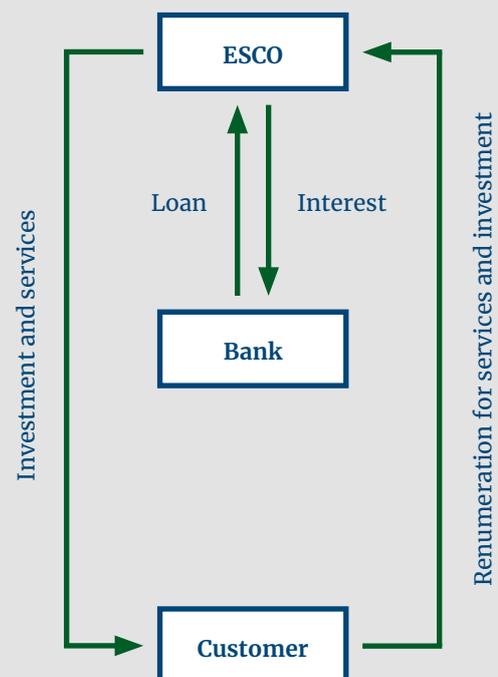
Within the framework of the dena Renewable Energy Solutions (RES) Programme, maxx-solar energy PTY Ltd. has set up two PV renting pilot projects in Cape Town, a 20 kWp system at the Grimley School in Hout Bay and a 14 kWp system at the Atlantic Gold Guest House in Camps Bay demonstrating the financial viability of PV renting in South Africa.

[www.dena.de](http://www.dena.de)

#### I. Financing by project owner / energy user- DBO (Design, Build, Operate) by project developer



#### II. Financing + DBO by project developer - (full) ESC option



## Crowd Funding

Bettervest, Oikocredit International, responsibility Investments AG are some of the relevant crowd funding platforms which are also open to renewable energy projects in South Africa. In general, crowd funding schemes always incorporate the risk that the project's

capital / funding requirements are not fully achieved (or not achieved on time). However, it can be an attractive alternative especially for popular and/or social impact investments. Some exemplary characteristics for crowd funding financing schemes are provided at the example of bettervest.



### Bettervest

- ▶ World's first investment platform, through which citizens can invest money together from 50 EUR in energy efficiency projects of established companies, municipalities, associations and institutions and in turn participate financially in the savings achieved
- ▶ The bettervest platform thus makes the energy efficiency market accessible to private investors
- ▶ These earmarked project funds implement ecologically and economically sensible energy efficiency measures that lead to cost, energy and CO<sub>2</sub> savings
- ▶ Subordinated loan - credit line remains open
- ▶ The bettervest loan can only be used to finance equity in conjunction with bank financing
- ▶ 100% financing of all costs
- ▶ The project owners commit to repay the majority of the annual cost savings over a set contract period to the citizen investors until the investment amount plus the return is paid
- ▶ At the end of the contract period, the savings are then left to the project owner.

[www.bettervest.com](http://www.bettervest.com)



# South African Financing Sources

The South African National Energy Development Institute (SANEDI) is a state owned entity that was established as a successor to the previously created South African National Energy Research Institute (SANERI) and the National Energy Efficiency Agency (NEEA). With the Green Financing Tool, SANEDI provides a comprehensive overview of financing options involving venture capital and private equity investors, commercial loans as well as public financing options in South Africa.

[www.sanedi.org.za](http://www.sanedi.org.za)

## Grants and Subsidies

### ► Manufacturing Competitiveness Enhancement Programme (MCEP)

The department of trade and industry's tailored programme to make existing SA companies more competitive

[www.investmentincentives.co.za/mcep](http://www.investmentincentives.co.za/mcep)

### ► Eskom Development Foundation

The Foundation provides ad hoc financial support and donations to other organisations for disaster relief and support to a particular challenge or issue that a South African community is facing.

[www.eskom.co.za/OurCompany/CSI](http://www.eskom.co.za/OurCompany/CSI)

### ► The Green Fund

The Green Fund is a unique, newly established national fund that seeks to support green initiatives to assist South Africa's transition to a low carbon, resource efficient and climate resilient development path delivering high impact economic, environmental and social benefits.

The Fund is managed by the Development of Bank of South Africa (DBSA) on behalf of Department of Environmental Affairs.

[www.sagreenfund.org.za](http://www.sagreenfund.org.za)

### ► CIP

Cost-sharing incentive available to the approved applicant/s or infrastructure projects to support infrastructure that is deemed to be critical

[www.thedti.gov.za](http://www.thedti.gov.za)

## Funding through Tax Deductions

### ► 12L of Income Tax Act

Energy efficiency savings allow for tax deduction of R 90 c/kWh saved on energy consumption. This includes cogeneration and the burning of biomass whereas other electricity production from other renewable energies is excluded.

[www.sanedi.org.za](http://www.sanedi.org.za)

### ► 11D of Income Tax Act

Allows a deduction of expenditure and an accelerated depreciation deduction

[www.sars.gov.za](http://www.sars.gov.za)

## Funding through Research and Development

### ► Support Programme for Industrial Innovation (SPII)

Financial assistance for the development of innovative products and/or processes.

[www.thedti.gov.za](http://www.thedti.gov.za)

## Funding through Loans

### ► Sustainable Use of Natural Resources and Energy Finance (SUNREF)

The Agence Française de Développement (AFD) is financing green growth through local partner banks. The programme applies to EE as well as to RE (also small scale)

[www.sunref.org](http://www.sunref.org)

### ► Anglo American Zimele Green Fund

Funding of up to ZAR 10 million, either in the form of a loan or a blend of debt and equity is available. Equity stakes can range between 10% and 49% with commercial grounds for both entry and exit.

[www.esdsa.com/anglo-american-zimele-green-fund.html](http://www.esdsa.com/anglo-american-zimele-green-fund.html)

[www.angloamerican.co.za](http://www.angloamerican.co.za)

# Appendix

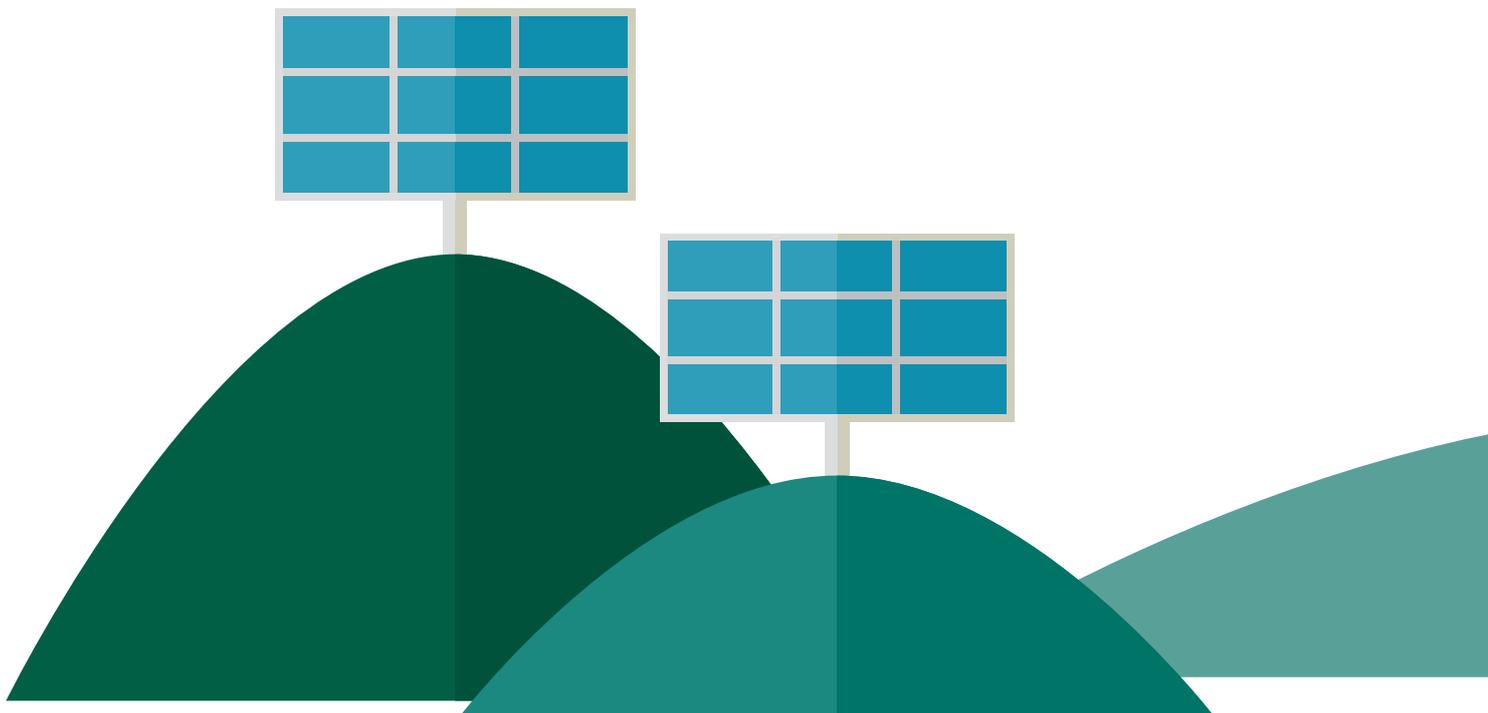
## Appendix A - Export Finance and Credit Insurance

### Export Finance

One of the rather scarce standardized and ECA backed opportunities for loans in between 1-5 million EUR for buyer credits is the Northstar Europe (NSE) programme. German companies can apply for this financing small export projects programme at the KfW IPEX Bank.

#### Northstar Europe

- ▶ Financing solutions for smaller export transactions up to 5 million EUR - in special cases beyond, but not over 10 million EUR
- ▶ Delivery-related order credit
- ▶ Tenors of two to five years (repayment principal with 8 or 10 equal installments)
- ▶ Financing of max. 85% of the order value
- ▶ Requirement: Cover for export credit insurance (Export Credit Agency / ECA, for German exports: Euler Hermes)
- ▶ Application and further information: [www.kfw-ipex-bank.de](http://www.kfw-ipex-bank.de)



## Export Credit Insurances and Guarantees

### Euler Hermes

- ▶ “Hermes cover” on behalf of the German federal government
- ▶ Specializing in cover options for developing and emerging countries
- ▶ Special SME product “Financial Credit Cover (FKD)-express”
  - For standardized export transactions
  - Up to max. 5 million EUR contract value
  - Term of payment up to max. 5 years
  - 5% excess.

### MIGA

- ▶ The Multilateral Investment Guarantee Agency (MIGA) is part of the World Bank Group
- ▶ Specializes in hedging export business in the private sector
- ▶ Investment Guarantees as Small Investment Program (SIP) for SMEs:
  - Exemption from application fees
  - Reduced insurance premium (depending on buyer and project risks) for short-term hedging typically in the range of ~ 0.45 - 1.75% of the order value
  - Up to 7.5 million EUR contract value
  - Tenors: 3 - 10 (max. 15) years
  - Confirmation: 6 - 8 weeks after submission of the complete documents.

### Forfaiting

- ▶ With the instrument of forfaiting, exporters can gain liquidity and thus financial flexibility by selling receivables from goods deliveries and services due to a later date at a bank or specialized forfaiting institution
- ▶ Forfaiting is as a difference to factoring usually available for
  - longer terms (from months to 5 years – in exemptions up to 10 years)
  - larger project volumes (starting at about 50,000 EUR)
  - for goods and services as well
- ▶ The forfaiting bank assumes the full economic and political risk. Another advantage is that the purchase by the buyer of the receivables usually takes place without recourse.

## Appendix B - Project Finance

### Examples of Project Finance

#### Example 1 – Innovative Financing package for two concentrated solar power (CSP) projects, South Africa

The PPP KaXu Solar One as well as Khi Solar One are jointly owned by Abengoa Solar (51%), the Industrial Development Corporation (29%), and a KaXu community trust (20%). Both, the KaXu project consisting of a 100 MW parabolic trough CSP plant as well as the Khi, a 50 MW steam receiver power tower, are in operation in the Northern Cape province. Both plants implemented under the REIPP (bid window 1) sell electricity to the state owned utility Eskom under 20-year power purchase agreements (PPA). Important project finance details are as follows ([www.ifc.org](http://www.ifc.org)):

- ▶ 145 million USD in IFC senior “A” loans at market interest rates and long tenors
- ▶ IFC mobilized US\$224 million – “B” loans from other lenders (AfDB etc.)
- ▶ Mobilized US\$41.5 million in concessional loan funds from the World Bank – administered CTF
- ▶ Funds to meet project costs of > 1.3 billion USD fully committed.



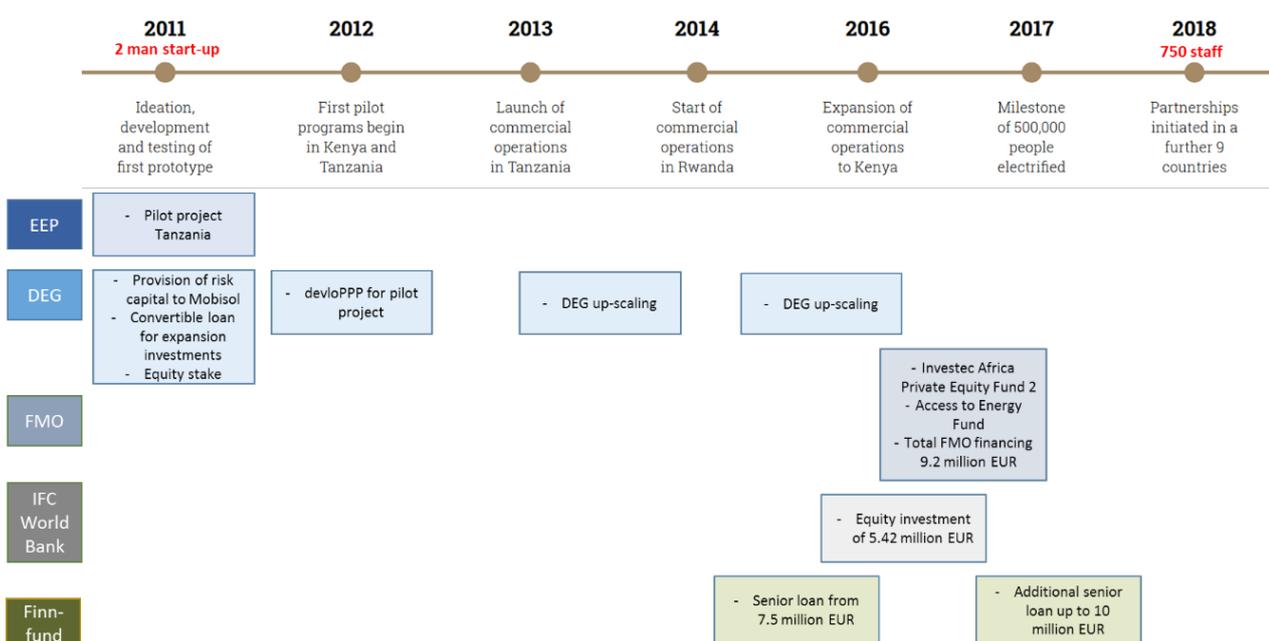
KaXu parabolic CSP plant © GIZ / Glenn Mc Creath



Khi Power Tower © GIZ / Glenn Mc Creath

#### Example 2 – Mobisol off-grid solar home systems

Mobisol is a supplier of off-grid solar home systems to households in rural areas linked to a micro-finance model via mobile banking. Mobisol develops projects in East Africa.



## Appendix C - Abbreviations

<b>ACCF</b>	Africa Climate Change Fund
<b>AFD</b>	Agence Française de Développement
<b>ClimDev-Africa</b>	Climate for Development in Africa Programme
<b>DCI</b>	Instrument for Development Cooperation
<b>DFI</b>	Development Finance Institution
<b>EAIF</b>	Emerging Africa Infrastructure Fund
<b>ECA</b>	Export Credit Agency
<b>EE</b>	Energy Efficiency
<b>EEP</b>	Energy and Environment Partnership
<b>ElectriFI</b>	Electrification Financing Initiative
<b>ESCo</b>	Energy Service Company
<b>EU</b>	European Union
<b>EU-AIFT</b>	European Union Africa Infrastructure Trust Fund
<b>FKD</b>	Financial Credit Cover
<b>GCPF</b>	Global Climate Partnership Fund
<b>GCF</b>	Green Climate Fund
<b>GEF</b>	Global Environment Facility
<b>GEF-SP</b>	Global Environment Facility-Small Grants Programme
<b>IDC</b>	Industrial Development Corporation
<b>IFI</b>	International Finance Institution
<b>IPP</b>	Independent Power Producers
<b>L/C</b>	Letter of Credit
<b>LDCE</b>	Least Developed Countries Fund
<b>M.</b>	Million
<b>MCEP</b>	Manufacturing Competitiveness Enhancement Programme
<b>MIGA</b>	Multilateral Investment Guarantee Agency
<b>NAMA</b>	Nationally Appropriate Mitigation Actions
<b>NDF</b>	Nordic Development Fund
<b>PPA</b>	Power Purchase Agreement
<b>PPP</b>	Public Private Partnership
<b>RE</b>	Renewable Energy
<b>REIPP</b>	Renewable Energy Independent Power Producers
<b>RES</b>	Renewable-Energy-Solutions-Programm
<b>SCCF</b>	Special Climate Change Fund
<b>SEFA</b>	Sustainable Energy Fund for Africa
<b>SME</b>	Small and Medium Enterprises
<b>SPII</b>	Support Programme for Industrial Innovation
<b>SUNREF</b>	Sustainable Use of Natural Resources and Energy Finance

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