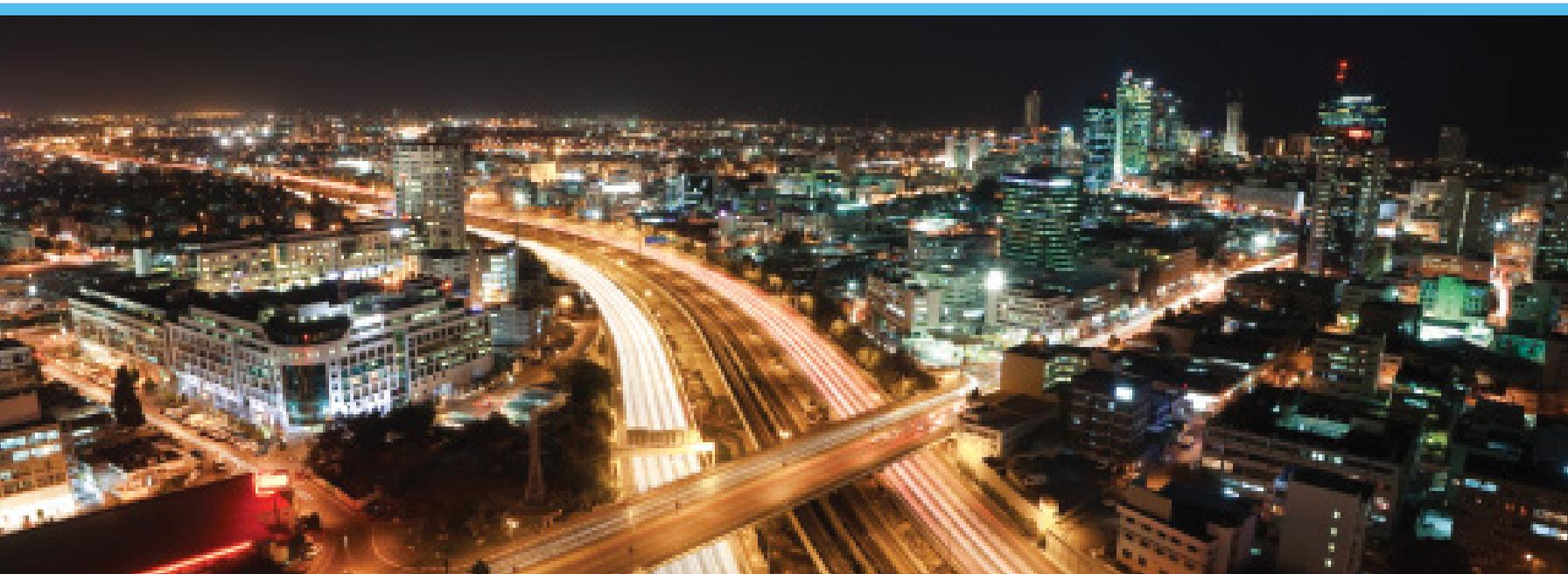




GUIDE TO ENERGY EFFICIENCY FINANCE IN SOUTH AFRICA



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Preface

This guide was funded and developed by the Private Sector Energy Efficiency (PSEE) Programme. The main objective of the PSEE Programme is to improve energy efficiency in industrial and commercial firms, involving business of all sizes in South Africa. It provides a variety of services to help companies identify and implement energy saving measures.

The PSEE Programme is implemented by the National Business Initiative (NBI). The NBI has been working with the private sector for close to nine years in the area of energy efficiency. Through the Energy Efficiency Accord and subsequently the Energy Leadership Network many large companies have appointed dedicated energy managers and sustainability teams and have invested significant money into metering, energy efficient equipment and energy efficiency or green buildings.

Please refer to the PSEE website (www.psee.org.za) for any updates to this guide.

Introduction

Energy costs are becoming a greater focus for many businesses in South Africa due to recent tariff increases, with domestic tariffs rising from 45 cents per kilowatt hour in January 2009 to 172 cents per kilowatt hour in July 2014, a 276% increase in five and a half years, and this trend will continue. Businesses which reduce their reliance on electricity and optimise their use of fuel and coal will enjoy significant cost savings, and will alleviate energy demand on the grid. This will promote greater energy security, which will directly affect their bottom line, as well as providing greater protection from risks of blackouts. Furthermore, reductions in the use of electricity generated from fossil fuels, such as coal, will reduce a company's carbon emissions.

A major challenge in pursuing energy efficiency projects is understanding where to find finance to help with the funding, as a subsidy can reduce the cost of an energy-efficiency project and make it economically viable. The purpose of this guide is to provide clear and useful information about

financial support available from the private sector, quasi-government and government organisations. If you can successfully win funding, you can cover or reduce the cost of your energy efficient project.



What is energy efficiency?

Efficient energy use, or energy efficiency, refers to using less energy for the same or greater levels of output.

It should be tackled by first looking at your behaviour, or the way you use energy, and then by ensuring that your processes optimise energy use.

Next you should look down the path of technology replacement by using more efficient versions of existing technology, or through wholesale changes of technology.

Generally, most companies prioritize technologies such as lighting, HVAC, controls and metering, motors, pumps and compressors, but this will be determined by the nature of your business.

Renewable energy should only be considered once all options to reduce energy consumption have been pursued.

“ Energy efficiency offers a powerful and cost-effective tool for achieving a sustainable energy future. Improvements in energy efficiency, can reduce the need for investment in energy infrastructure, cut energy bills, improve health, increase competitiveness and improve consumer welfare. ”

– The International Energy Agency

Company size, project size and ease of access

This guide aims to help direct you to the right sort of funding, based on the size of your company and the size of the project you are undertaking.

We follow the generally accepted company definitions:

Company size:

Small:	Annual turnover up to R50 million
Medium:	Annual Turnover between R50 million and R200 million
Large:	Annual turnover over R200 million

Project size:

Small:	Up to R1 million
Medium:	R1 million to R10 million
Large:	Above R10 million

Ease of access:

Easy: A company should be able to complete and submit an application without seeking help.



Medium: It is possible to complete and submit an application without a consultant, but the process is complicated or drawn out.



Difficult: In the absence of in house expertise or experience, you may need external expert help in preparing and submitting an application, but it is useful for companies in the long run to grow their internal capacity for managing energy efficiency financing.



How to use this guide

There are a number of sources of financing for energy efficiency projects, such as:

- **Commercial banks**, some of which offer or are conduits for special loans to fund energy efficiency and green costs, such as the money spent on equipment and other elements for a business to be more energy efficient and green focused. In many cases funds for these products come from government agencies or international development agencies.
- **Suppliers of energy-efficiency equipment**, who offer funding through financial institutions, similar to the financing used when buying a car.
- **Cash grants**, which reduce the overall cost of the energy efficiency project. These are mostly from government departments.
- **Tax incentives**, which reduce the tax paid on an energy efficiency project.

This guide has sections which cover all these sources of finance.

You also need to understand what type of costs may be incurred, so you can understand what type of finance is applicable. There are three main types of energy efficiency costs:

Capital costs on an energy efficiency project, such as new energy efficient equipment.

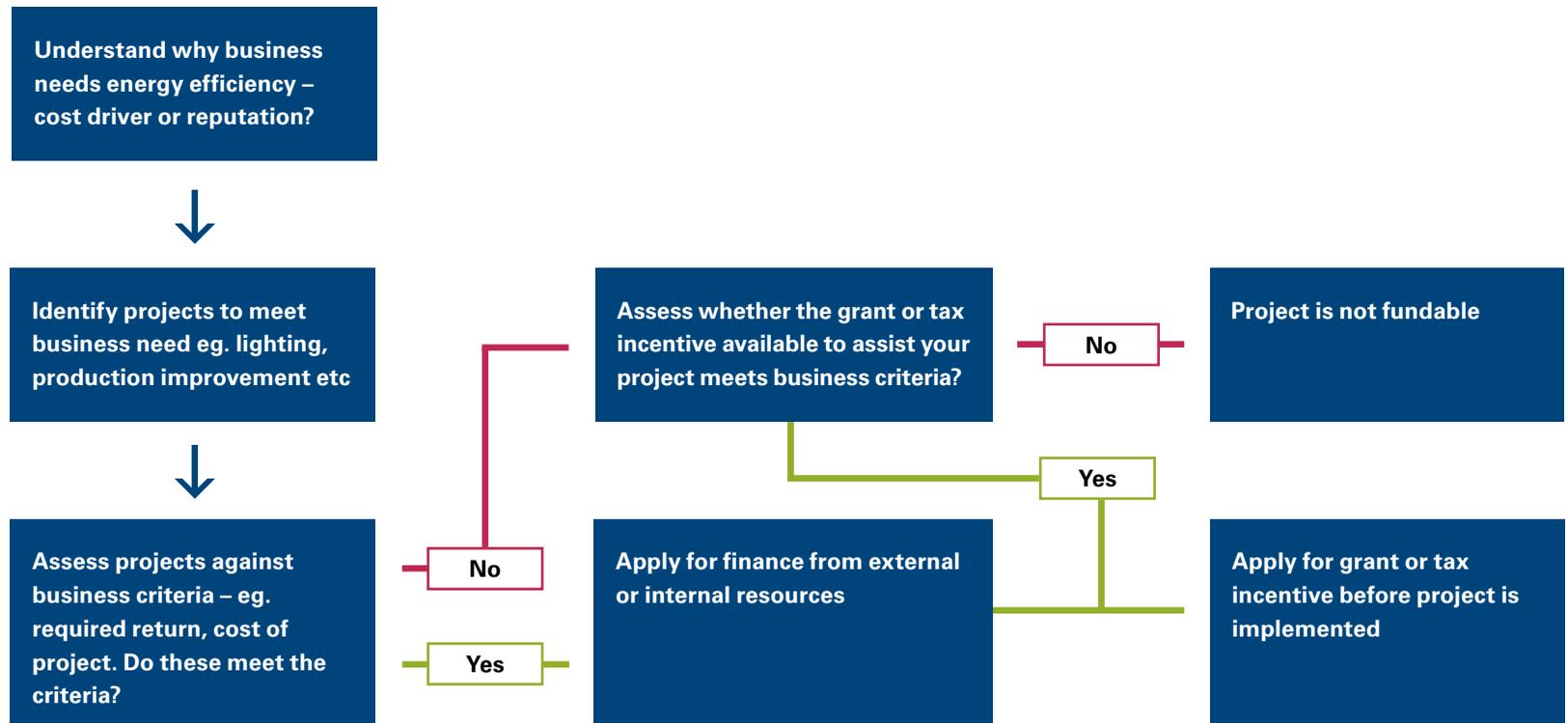
Operational costs on energy efficiency, such as energy audits and compliance costs.

Research and development on energy efficiency, to develop new products or make current processes more energy efficient.

Most of the finance available for energy efficient projects is for capital costs. Throughout this guide, we will highlight which of these three categories is covered by the finance, incentives or grants we are discussing. We will also aim to advise on which schemes best suit small, medium, and large firms, and the ease with which each type of funding can be accessed.

Financing offerings can change frequently, and specific schemes can expire. New offerings can also arise. So it is always worth keeping up to date with the latest news from your chosen source of funding, and from any other potential funders.

Summary process of assessing energy efficiency finance



Do you need a consultant?

A consultant is an expert, or team of experts, with day-to-day experience of dealing with government departments, agencies and banks - on behalf of firms who are seeking financial support.

One question to consider is whether you wish to use a consultant to help you with identifying and pursuing finance options.

Consultants who deal with investment incentives can be expected to offer advice on your eligibility for each incentive, the range of help which is on offer, the ease of application and how best to complete applications to ensure the best chances of success. An effective consultant will help you secure financing, but will also be able to advise if you are wasting your time.

There are consultants who specialise in assisting firms to obtain finance from the private and government bodies which support energy efficiency, and you may be unsure whether or not you should consider employing one to assist you.

You should be able to go through the application process on your own for all of the schemes which we discuss in this guide, although some are easier than others.

However, these can be complicated procedures to undertake without any outside help, particularly if the scheme is new to you.

You would therefore need to weigh up the cost of any outside help against the benefits you would be likely to gain from a successful application. And you should bear in mind that the consultant may know the ropes and be able to point out where an application can be changed to give it a greater chance of success.

Do also bear in mind that there can be benefits from a longer-term relationship with a consultant, who should be expected to spot new opportunities and to alert you to them.

Available funding

Funding option	Included sectors	Excluded sectors	Company size	Project size
FUNDING THROUGH LOANS				
Green Energy Efficiency Fund	All	None	Medium and Large	Medium and Large
Sasfin	All	None	Small and Medium	Small and Medium
Mercantile Bank		Activities which harm the environment or are considered immoral, such as tobacco and casinos	All	All
Investec	All	None	Medium and Large	All
Nedbank	All	None	All	All
Absa/Barclays Africa	All	None	All	All
First National Bank	All	None	All	All
Standard Bank	All	None	All	All
Anglo American Green Fund	All	None	Small and Medium	Small and Medium
Evolution One Fund	All	None	Small and Medium	Small and Medium
FUNDING THROUGH ENERGY SERVICE COMPANIES				
ESCOs	All	None	Medium and Large	Medium and Large

The data on company size and on project size, along with suggestions we give elsewhere on ease of access to funds, is the result of our own analysis and experience. It is subjective, and may not tie in exactly with the information provided by the funders themselves.

Available funding

Funding option	Included sectors	Excluded sectors	Company size	Project size
FUNDING THROUGH CASH GRANTS				
MCEP	Manufacturers, engineering companies and conformity assessment companies	Higher hurdle for pulp, paper and paperboard, petroleum refineries, nuclear fuel, basic chemicals, basic precious and non ferrous metals. Tobacco completely excluded and companies receiving other incentives. Certain government entities and trusts	All	Medium and Large
Eskom	Major Power Users	Companies which are not major power users, and no aggregators of smaller loads other than municipalities	Large	Large
REEEP	Varies depending on funding window	This focuses on cutting edge technology	Medium and Large	Medium and Large
The Green Fund	Varies depending on funding window	Varies depending on window	Large	Large
CIP	Manufacturing and mining	Retail and housing	Large	Large
FUNDING THROUGH TAX DEDUCTIONS				
12L of Income Tax Act	Most companies	Energy generated from renewable sources and co-generation other than waste heat recovery. Minimum size for captive power plants.	Large	Large
12I of Income Tax Act	Manufacturers	Alcohol, tobacco, arms and ammunition, biofuels if impacts food security	Large	Large

Available funding

Funding option	Included sectors	Excluded sectors	Company size	Project size
FUNDING THROUGH CARBON CREDITS				
Carbon Credits	Most industries	Industries which don't have methodology	Large	Large
FUNDING THROUGH RESEARCH AND DEVELOPMENT				
SPII	Manufacturing or related industrial fields, and software	Military projects and projects limited due to licensed technology	Medium and Large	All
11D of Income Tax Act	All industries	Oil & gas exploration, financial instruments and products	Medium and Large	Medium and Large

Funding through loans

Introduction

A common way to finance energy efficiency is through loans, often through banks, or through equipment suppliers themselves.

In the case of equipment suppliers, these will have relationships with specific banks. Once you have decided on the energy efficiency equipment you need, you should ask the supplier for details of their finance packages, and the details of the bank or banks which have financed their equipment before. The finance offerings linked to this equipment could be quite attractive, and you may need to look no further, although you should compare these to other options, such as a direct loan from your bank.

In terms of financing the opportunity through a bank, there are a number of considerations. The first step is always to speak to your own bank, and to your relationship manager, to understand what they can offer you. Secondly, it's important to be aware that many of the banks in the South African market have been given credit lines by international development agencies expressly for energy efficiency, and as such should be able to offer preferential products for your projects (i.e. they have lower than normal interest rates or other benefits). These banks often have specialised teams who understand the technology available, and so are well placed to understand the risk profile of the applicant and to assess applications.



In the subsequent pages, we have provided details of the specialised products that are on offer with the various banks. Where we have not given details on an individual bank, this is because we have been unable to find out if they indeed have specialist products. This does not mean, however, that they do not have any specific schemes of their own to finance energy efficiency projects, and you should nevertheless consider approaching them, especially if your

business already has a relationship with them. What it does mean is that you are unlikely to secure any special or additional terms or benefits because you are embarking on an energy efficiency project. However, as we suggested earlier, some of these banks do act as a channel for cheap funding from donor organisations, and therefore you should shop around for the best deal.

When applying for bank finance, it is vital to ensure that you first understand what the requirements are. It can be very frustrating if you do not properly research and prepare your application, as the bank may turn you down if it was given inadequate information.

Green finance, as with other loans, is subject to the National Credit Act rules and other banking regulations.



The Green Energy Efficiency Fund (GEEF)

Introduction

The Green Energy Efficiency Fund (GEEF) is a R500 million fund that supports the introduction of energy efficiency and self-use renewable energy technologies through cheap loans. The GEEF was launched by the Industrial Development Corporation (IDC) – which is a state institution which supports business development through discounted funding - and the German Development Bank (KfW). The aim is to encourage investments in energy efficiency and renewable energy projects to support SA's transition towards a low-carbon economy. Funding is in the form of a loan for the capital required for an energy-efficiency project.

Benefit

Loans are available from a minimum of R1 million to a maximum of R50 million, at a discounted interest rate of prime less 2%. Depending on the payback period of the investment, loans can be paid back for a period of up to 15 years. The fund aims to ensure that there are no out-of-pocket expenses for the applicant, and loan repayments are aligned as far as possible with the savings in operational expenses from reduced electricity consumption.

Case study

- The IDC has funded a number of energy-efficiency projects.
- One project involved the installation of a biogas co-generation system to produce energy for electricity, heating and cooling at an abattoir in the Northern Cape. Energy is generated from the waste. Annual energy savings were determined to be 760MWh in power and 1,250MWh in heating.
- Another example is the installation of high-pressure solar water heaters to commercial and residential clients. In this case, energy savings were determined to be 1,578MWh per annum with a payback period of 4 years.

The Green Energy Efficiency Fund (GEEF)

Requirements

To be eligible, a company would be planning to implement an energy efficiency project, or to implement projects that offset electricity from the grid, through self-use renewable energy.

Companies are assessed on various criteria including their size, the local content in the project, and whether they are undertaking bundled projects or projects that can be replicated.

The GEEF application form is completed online. The eligibility of a project will be communicated within 10 business days. Eligible applicants will be requested to submit a detailed business plan to the IDC, accompanied by a financial model and past, present and projected cash flow statements. These are required for due diligence and the credit approval process.

Cost to access

The cost of accessing this incentive is the cost of drawing up a business plan and financial model.

Did you know?

The GEEF provides loans at preferential rates for energy efficiency projects.

Contact details

Industrial Development Corporation
 Email: callcentre@idc.co.za
 Telephone : 011 269 3000
 Website: www.idc.co.za

Coverage	Small	Medium	Large
Company		X	X
Project size		X	X

Funding for energy efficiency - financial institutions

Sasfin

Sasfin Bank offers finance options for both energy efficiency and renewable energy projects thanks to a \$10 million credit line extended to Sasfin from the International Finance Corporation (IFC) Climate Change Investment Program in Africa (CIPA) and the Swiss State Secretariat for Economic Affairs (SECO). In addition to the finance, Sasfin provides an advisory service to clients to provide technical and financial expertise to enable companies to implement the energy and cost saving projects. The offer is specifically tailored for small and medium sized companies, and Sasfin is able to finance projects from R100,000 up to R100,000,000, with the preferred project size in the region of R1,000,000 to R10,000,000.

Projects eligible for funding include photovoltaics (PV) and thermal solar solutions; lighting; heating; ventilation and cooling air conditioners; refrigeration; chillers; compressors; pumps; IT equipment including servers, desktops, laptops, printers, scanners; water heating including heat pumps, solar and gas; manufacturing equipment; and finally materials handling equipment.

Contact details

Candice Pretorius
Regional Manager:
Capital and Specialised Equipment Finance
Tel: 011 809 7681, Tel: 011 809 7500, candice.pretorius@sasfin.com

Ease of access: 

Nedbank

One of South Africa's top 4 banks, Nedbank has access to a credit line from the Agence Française de Développement (AFD - French Development Agency), allowing it to provide concessional financing for energy efficiency projects.

The benefit is essentially a 7% rebate that can be used to reduce the principal loan amount or to reduce the interest rate payable. Energy efficiency and renewable energy projects are eligible with a maximum project size of R150 million. Clients of Nedbank can also approach their relationship banker with an energy efficiency project.

Contact details

Duncan Abel
Senior Transactor:
Carbon Finance
Tel: 011 294 2388
duncana@nedbankcapital.co.za

Ease of access: 

Mercantile Bank

Mercantile is a niche business and commercial bank. It has a credit facility for energy efficiency from the World Bank's International Finance Corporation (IFC). Businesses banking with Mercantile should speak to their relationship manager. Excluded companies include those which harm the environment or which are involved in sectors such as tobacco and casinos.

Contact details

Mareli Muller
 Head: New Business
 Tel: 011 302 0522
 MMuller@mercantile.co.za
 Tel: 011 302 0300

Ease of access:



Investec

Investec is a business-focused bank which also caters for high net worth individuals. Investec does not have specific energy efficiency products developed, but businesses can approach their banker with an energy efficiency project. With the European Investment Bank (EIB) it has a €100 million renewable energy funding facility that aims to promote clean energy generation and energy efficiency initiatives in South Africa. Projects are funded over three years. The EIB also has a number of investment criteria which form part of the evaluation process.

Contact details

Contact an Investec banker
 Tel: 011 286 7000

Ease of access:



Absa

Absa is one of SA's top 4 banks. Together with the Agence Française de Développement (AFD - French Development Agency), Absa is providing funding for projects up to R100 million specifically aimed at driving energy efficiency or renewable energy. In addition, a 7% rebate of the total loan amount is available to qualifying projects. Loans are for a minimum of three years. The focus of the fund is retrofitting of existing installations, commercial energy efficiency in building, construction and design, and renewable energy investments, encompassing power generation for the applicant's own consumption or for sale to the national grid.

Contact details

Graeme Coetzee
 Tel: 011 895 6695 / 011 895 6999
 graeme.coetzee@absacapital.com

Ease of access:



Standard Bank

Standard Bank is one of South Africa's top 4 banks, and funds renewable energy and energy efficiency projects using project or asset finance, structured deals and unsecured lending. Standard Bank also provides finance for renewable projects and energy efficiency initiatives across Africa and has provided upfront funding to project developers for projects that meet Clean Development Mechanism (CDM) criteria.

Standard Bank insurance has for several years helped to enable customers to switch to solar water heaters. You should approach your relationship manager or the contacts given here.

Contact details

Large Projects

Rentia van Tonder, CIB

Email: rentia.vantonder@standardbank.co.za

Switchboard: 011 721 9000

Direct: 011 721 6416

Small Projects

Karin Ireton

Email: Karin.ireton@standardbank.co.za

Direct: 011 631 4586

Ease of access:



FNB

FNB is another of the top 4 banks, and it offers its business customers loans for energy efficiency, as long as they have an annual turnover of less than R40 million and intend to upgrade their premises with energy-efficient technology. Loans are offered over a term of 1-5 years, up to a maximum of R1 million. Applicants may request a 3-month capital holiday at the start of the loan, to give time for the new equipment to start delivering business benefits. FNB also offers medium to long term amortising Solar Energy loans, repayable monthly, over a 7 year period.

Contact details

Samora Stofile

Tel: 011 632 0027

samora.stofile@fnb.co.za

FNB website:

www.fnb.co.za

Business Service Desk: 087 575 9479

Your nearest FNB branch:

www.fnb.co.za/locators

Ease of access:



Anglo American Green Fund

Introduction

In addition to regular loan funds for energy efficient, there are also a number of so called 'Enterprise Development Funds' or ED Funds available in the market place. ED Funds are typically financed by large corporates and form part of their Corporate Social Responsibility commitments. The funds may be internally or externally managed, and are aimed at a wide range of social benefit areas, i.e. not all are targeted specifically at energy efficiency projects. However, many of these funds do target the development of small and medium-sized businesses as a way of targeting economic growth.

Anglo American's Green Fund

Anglo American has a Green Fund which targets investment opportunities that have a positive impact on the environment and reduce environmental risks. Energy efficiency projects qualify under this Fund.

The Fund provides a debt or a combination of loans and equity up to the value of R10 million. The Fund may take an equity stake in the project of between 10% and 49%. The support is offered to fund working capital and capital expenditure.

Requirements are:

Projects should ideally be focused on environmental sustainability within Anglo American value chain;

Projects must be at bankability stage;

Projects should contribute to transformation, job creation and community involvement; and

Projects must support the objectives of black economic empowerment.

Contact details

Tel: 0860 946 353

Fax: +27 (0)11 638 5321

Email: zimele@angloamerican.com

Coverage	Small	Medium	Large
Company		X	X
Project size		X	X

Ease of access: 

Evolution One Fund

The Evolution One Fund is managed by Inspired Evolution. The focus of the Fund is on clean energy and resource efficiency. The Fund makes equity investments in early stage, expansion and development stage and later stage projects. The Fund has been set up to make 10 to 15 investments over a 3 to 5 year period.

The Fund's minimum equity investment size is R10 million and the maximum investment is limited to no more than 15% of the fund's total capital commitments into any one enterprise at the time of investment. In terms of the return expectations, the Fund targets a return of 3 times the original investment within a period of 4 to 7 years.

Contact details

Ground Floor, 82 Maude Street
Sandton, Gauteng 2149, South Africa.

Contact: Kholofelo Molewa
Email: Kholofelo@inspiredevolution.co.za

Coverage	Small	Medium	Large
Company		X	X
Project size		X	X

Ease of access: 

Funding through energy services companies and other partnerships

Energy services companies

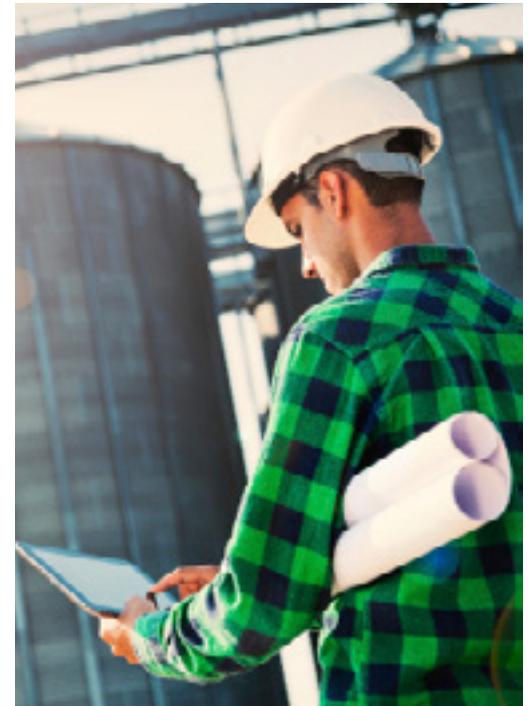
Where you have a large number of energy saving opportunities available to you, especially on building related technologies (e.g. lighting, HVAC, etc), it may be interesting to finance the projects through what's known as an Energy Performance Contract (EPC), through an Energy Services Company (ESCO).

Energy performance contracts are essentially contracts which link the payments to contractors to the project's energy savings, i.e. the cost of an investment in energy efficiency is paid back through the savings it generates.

The projects must be sized such that the savings offset the cost of financing, installing, operating and operating that technology. By definition, the future savings must be greater than the sum of the costs.

In performance contracting, a third-party contractor designs, installs, finances and, if required, operates a new technology. The contractor is then paid according to the savings achieved.

EPCs are almost always provided by ESCOs, or energy service companies, also known as 'contract energy management companies' or 'energy management companies'. ESCOs are companies which provide a range of energy services, ranging from simple identification, to supply, installation, and operation of assets. In some cases ESCOs may even supply energy (e.g. providing heat and electricity through a CHP engine).



Their defining feature is their acceptance of an element of risk with the service provision, as opposed to an energy service provider or typical contractors, who will not assume any on-going performance risk. By virtue of this acceptance of risk, ESCos will usually retain an on-going operational role in measuring and verifying savings.

The first ESCos in South Africa were introduced following Eskom's Demand Side Management Programme (now called the IDM Programme). The ESCos implement energy-saving technologies for customers, and finance this implementation through incentives offered by Eskom.

Case study

There are many models for structuring finance for energy efficiency and renewable energy. One example is the installation of solar panels on empty roof space.

The solar panels are owned and operated by an external third party that sells the electricity generated to the occupant of the building at a reduced tariff.

A similar model is when the external third party rents the roof space from the occupant and sells the electricity to the occupant, or when the electricity is used by the occupant, but sold as green electricity to a third party.



Finance benefits

The measures installed under performance contracts may be financed either by the business itself, or more often as a loan from a financial institution (bank) or by the performance contractor itself.

If the performance contractor provides the financing, it is termed 'off balance sheet', meaning that the business has no debt, and its only obligation is to pay the contractor a share of the savings during the contract period. If the business finances the investment, it will nevertheless have debt.

In both cases however, the advantage of an EPC is that the contractor guarantees that the savings will provide enough cash flow to repay the loan as well as to cover fees and costs. Note that in some cases the energy savings may exceed the contracted amount, and then the business will see benefit from day one.

Contact details

There are a number of ESCOs in South Africa. It is not possible to list them all in this guide. ESCOs can be found on the South African Association of Energy Services Companies' website:

www.esco.org.za



Funding through cash grants

Introduction

Various government departments offer some form of grant to cover the costs involved in energy efficiency projects. It is vital for you to assess your project against the criteria of the grant programme before you start to run up costs.

Programmes have different rules about when a business needs to submit its application. For example, this may need to be 60 days before an asset which is being funded is to be used, or it might be 60 days before the asset is ordered.

Most of the grants are paid as a rebate, which means that a business will need to pay for the costs upfront - and then put a claim into the government department to get the costs reimbursed.



Manufacturing Competitiveness Enhancement Programme (MCEP)

The Manufacturing Competitiveness Enhancement Programme (MCEP), involves grants which are offered by the Trade and Industry Department (dti). It has been very successful, so is potentially oversubscribed, which may result in approval delays, or a tightening of the eligibility criteria in the future. It aims to make businesses more competitive and to preserve employment. Grants are paid based on a set of components, and applicants can apply for a grant on the basis of these. Energy-efficiency projects can qualify under the following components:

Capital investment: The objective of the Capital Investment Component is to support capital investment in upgrading and expanding equipment if it creates new jobs or the retention of existing jobs.

Green technology and resource efficiency improvement: This component covers projects that support the green economy - with green technology upgrades and business development activities and services that will lead to cleaner production and resource efficiency. In other words, it covers energy-efficiency costs.

Feasibility studies: Feasibility studies are likely to lead to bankable business or project plans for projects with a minimum capital value of R30 million. The intention is to see investment in new components, or products or processes not currently manufactured or performed by the applicant, or the creation of new markets. The desire is to see a substantial increase in manufactured products and conformity assessment services not currently available in South Africa.

Benefits for capital investment

The grant is worth up to R30 million, and involves cost-sharing of between 30% and 50%. An additional 10% bonus grant of up to R5 million may be awarded for additional job creation or local procurement.

Qualifying costs:

- Machinery and Equipment (including energy efficient equipment)
- Certain building or leasehold Improvements
- Forklifts, tools, jigs and dies

Manufacturing Competitiveness Enhancement Programme (MCEP)

Benefits for green technology and resource efficiency

It offers a cost-sharing grant of up to R20 million, covering between 30% and 50% of costs, and is payable at implementation. An additional 10% bonus grant - not exceeding R5 million - may be awarded for additional job creation or local procurement. Qualifying categories include:

- Cleaner production
- Waste management
- Energy efficiency
- Water use efficiency
- Renewable energy
- Conformity assessment

Benefits of feasibility studies

A cost-sharing grant of between 50% and 70% is offered. The grant is limited to R8 million for manufacturing enterprises and to R1 million for conformity assessment studies.

Did you know?

The MCEP offers a cost-sharing grant for capital investment and investment in green technology and resource efficiency improvement

Manufacturing Competitiveness Enhancement Programme (MCEP)

Maximum and minimum grant

Despite the amounts detailed in the individual components, there is a cap for applicants. The maximum grant payable by the MCEP is calculated as a percentage of the applicant's average manufacturing value-add (MVA) over the prior two years. The minimum grant is R1 million.

The MVA is equivalent to gross profit, and is calculated by taking sales or turnover, and then deducting the sales value of imported goods, the sales value of other bought-in finished goods, and material input costs used in the manufacturing (salaries or wages for service enterprises).

The grant is capped on the basis of the applicant's historical asset cost (HAC). Applicants with an historical asset cost (HAC) below R5 million qualify for a 50:50 cost-sharing

grant. Applicants should note that turnaround times are long - generally from 6 to 12 months.

Grants are limited as follows:

- 25% of MVA for applicants with a 100% black shareholding;
- 25% of MVA for applicants with a HAC of at least R5 million but less than R30 million;
- 20% of MVA for applicants with a HAC of at least R30 million but less than R200 million; and
- 10% of MVA for applicants with a HAC of R200 million and above.

Requirements

The programme is administered by the dti. One application is allowed in each two-year period, and applicants must have a level-4 B-BBEE contributor status within 2 years of submission.

An application with the required supporting documentation must be submitted to the dti 60 days before the start of the activities. An adjudication board will consider the application. The first claim must be submitted to the dti within 6 months of the start of production or of activities for which support was requested. The MCEP is available to SA-registered manufacturers, engineering services that support manufacturing, and to conformity assessment bodies that service the manufacturing sector. Tobacco producers are excluded, as are companies receiving other government incentives, as well as certain government entities and trusts. There is a higher hurdle rate for pulp, paper and paperboard, petroleum refineries, nuclear fuel, basic chemicals and basic precious and non-ferrous metals.

Manufacturing Competitiveness Enhancement Programme (MCEP)

Case study

A company is expanding its manufacturing operations to cope with increased market demand. It will invest R50 million in a new manufacturing line. In an attempt to save on electricity costs, it will also invest R10 million in solar energy panels which will be placed on the manufacturing facility's roof.

The company has a HAC of R250 million, and its average MVA is R300 million. Based on the HAC of the entity, the company will be eligible for an overall MCEP incentive of R30 million (R300 million x 10%) which the company can collect through the different components of MCEP.

Under the capital component, Company D will qualify for an incentive of R15 million (R50 million x 30%) for the new manufacturing line. Under the green technology component, it will qualify for an incentive of R3 million (R10 million x 30%).

Total cash grant is therefore R18 million (R15 million plus R3 million).

Cost to access

The only cost incurred is for the completion of a green report, which is necessary to access the green components of MCEP. This report defines the outcomes of the energy efficiency scheme, and includes projections. **The PSEE's audit is an example of an acceptable green report.**

Contact details

Department of Trade and Industry

Contact: Minah Mohlala

Email: mmohlala@thedti.gov.za

Tel: 012 394 1087, www.thedti.gov.za

Applicable to	Small	Medium	Large
Company	X	X	X
Project size		X	X

Eskom's Integrated Demand Management

Introduction

Power utility Eskom offers energy efficiency incentives under its Integrated Demand Management (IDM) Programme. Funding is through rebates or cash grants for the installation of energy efficient technology. The IDM scheme aims to promote and implement more energy efficient technology, processes and behaviour by all electricity consumers,

NB: Due to finance constraints a number of Eskom schemes have been put on hold. These will be included in later editions of this guide, if they are restored or replaced, and in the meantime you are advised to keep an eye on the Eskom website for any additional opportunities which may arise.

Benefits

At present, Eskom offers the Demand Response Programme, and funding for projects must be approved before launch.

Demand response

Companies are paid to reduce load in order to balance demand and supply. A payment of R1.20/kWh is offered for energy not consumed. The minimum manageable demand which Eskom is seeking is 1 megawatt. It is facing a number of funding challenges and there is an expectation that it may lower this threshold once this is affordable, opening up the possibility for smaller projects to be considered. Eskom focuses on large mining and manufacturing customers who are most likely to be able to meet its requirements for demand reduction. It will deal with municipalities who can control geysers centrally but no aggregators of smaller loads.

Requirements

Any company wishing to participate must contact Eskom via email for more information. An Eskom representative will conduct a site visit. A legal contract will be signed with Eskom and the company will register as a vendor. Monitoring of reductions in consumption will be conducted to verify savings.

Cost to access

The company is responsible for all costs incurred in the application process and for financing the capital requirements of the project (energy-efficient technology). Eskom will pay for measurement and verification services.

According to Eskom, the programme is very easy to access, and applications are processed in a few weeks.

Eskom's Integrated Demand Management

Key features of the performance contracting programme

- A maximum payment will be agreed upon in a contract between Eskom and the successful applicant.
- Payments will only be made for energy savings verified by an independent, accredited Measurement and Verification (M&V) expert.
- Components of a project which are too costly or complex to measure and verify in relation to the value of the energy savings will not be included in the contracted savings.

Energy service managers:

Central	Arend Louw	011 711 2659
Northern	Victor Martins	012 421 3225
Southern	Rene de Kock	043 703 5100
Eastern	Colin Openshaw	031 204 5852
North Western	Pannetjie Rossouw	051 404 2648
Western	Wayne Fortuin	021 524 2034

Case study

Demand Response

A company is switching from electric boilers, which are currently used in its change houses, to heat pumps. The heat pumps will be used to heat water for the showers in the change rooms. The heat pumps will cost R2 million and will save the company an estimated 655 000kWh per year (demand reduction of 106.9kW) which translates into a saving in electricity costs of R500 000 per year.

This company will qualify for a rebate of R417 000 for the heat pump project. This translates into an effective rate of 63 cents per kWh saved.

Did you know?

Eskom provides a number of grants and incentives for energy efficiency through its Integrated Demand Management Programme. A number of Eskom's incentive programmes are on hold until additional financing can be secured. The developments can be monitored on the Eskom IDM website. Once financing has been secured, it may be possible to access additional funding for energy efficiency projects through the programmes which have been on hold.

Eskom contact details

Tel: 011 800 4744

IDMHelpdesk@eskom.co.za

Website: www.eskom.co.za

	Small	Medium	Large
Company			X
Project size			X

Ease of access:



Renewable Energy and Energy Efficiency Partnership (REEEP)

REEEP is an environmental, non-profit organisation which provides grants to promote clean energy business models in developing countries. It focuses on cutting-edge technology. It acts as a funder, an information provider and a connector for up-scaling clean energy business models. A call for proposals is made annually. The 10th funding cycle was in 2014 and was a closed Call for Proposals sponsored by the Government of Austria and the OPEC Fund for International Development. The 11th call will be in 2015.

Benefit

This comes in the form of a non-repayable grant.

Requirements

Eligible projects will: scale-up business models for renewable energy and energy efficient technologies to ensure growth in existing markets and new market penetration.

Support decentralised and/or off-grid generation to extend access to energy and its related opportunities.

Harness the benefits of clean energy in food production and the efficient use of energy in agricultural applications.

Employ clean energy in providing reliable water supply.

Support communication, and provide and open up energy data and information to assist with informed decision making and planning, as energy systems change.

NB: The application process can be a challenge, as you will be competing for support against other applicants, which reduces the chances of success.

Cost to access

The cost of preparing the proposal is borne by the applicant. Some funding cycles require co-funding by the applicant.

The REEEP provides funding in the form of a grant for renewable energy and energy efficiency.

Renewable Energy and Energy Efficiency Partnership (REEEP)

Case study

One funded project in the Ekurhuleni Municipality aims to develop a local renewables initiative, and to facilitate the adoption of similar initiatives in other South African cities. The budget was €150 326, including co-funding from Ekurhuleni city.

Another example of a funded project is aimed at establishing energy efficiency funding for municipalities in South Africa. The budget was €81,000, including co-funding from Municipalities and Department of Energy.

Contact details

REEEP

Contact: Jason Schäffler

Phone: +27 (0) 72 444 3445

Switchboard: 010 201 4785

Email: Jason@reeep.org

Website: www.reeep.org

	Small	Medium	Large
Company		X	X
Project size		X	X

The Green Fund

South Africa's Department of Environmental Affairs (DEA) initiated the Green Fund (the Fund) in 2012. The Development Bank of Southern Africa, which is a state owned development finance institution mainly focusing on large infrastructure projects, manages the Fund on behalf of the DEA. Excluded and included sectors vary, depending on the funding window.

It provides catalytic finance for investment to support South Africa's transition to a green economy. Funding takes the form of grants, loans or equity.

The fund aims to promote the development of the green economy by:

- Promoting innovative and high-impact green programmes and projects;
- Reinforcing climate and sustainable development policy objectives through green interventions;
- Building an evidence base for the expansion of the green economy; and

- Attracting additional resources to support South Africa's green economy development.

Benefit

Funding for initiatives which promote a green economy.

Requirements

The Fund has three funding areas which reflect national policy priorities and focus on sectors with high potential. The focus areas and eligibility criteria differ for each.

1. Green Cities and Towns: focus areas include the greening of municipal infrastructure, sustainable built environment and integrated planning for climate-resilient cities;
2. Low Carbon Economy: including cleaner production, energy efficiency, renewable energy and alternative fuels; and

3. Environmental and Natural Resource Management, focusing on investment in ecosystem services, land use management and rural adaptation models.

Funding opportunities have been made available through public requests for proposals. Two public calls have already happened. The website should be monitored for any future calls. In addition, the Fund also actively seeks out and supports initiatives which meet its selection criteria.

Cost to access

The company is responsible for the cost of preparing an application.

Did you know?

The Green Fund offers grants, loans or equity to projects that support the development of the green economy

The Green Fund

Funding opportunities have been made available through public requests for proposals. Three public calls have already happened with the last one closing on 31 October 2014. In addition, the Fund also actively seeks out and supports initiatives which meet its selection criteria. Please continue to monitor the website for further calls.

Case study

The fund has supported a variety of initiatives to date.

One example is the waste beneficiation centre in Hammersdale in Durban. The centre is expected to generate 150 long-term jobs in recycling and processing glass, plastic and electronic waste.

Another example is a R22 million grant that was awarded by the Green Fund to two game reserves in KwaZulu-Natal to fund conservation and ecotourism ventures.

Contact details

Green Fund
The Development Bank of Southern Africa
Tel: 011 313 5237/3611
Email: enquiries@sagreenfund.org.za
Website: www.sagreenfund.org.za

	Small	Medium	Large
Company			X
Project size			X

Critical Infrastructure Programme (CIP)

The Critical Infrastructure Programme (CIP) is designed to lower the cost of an investment by funding bulk infrastructure costs to encourage private investment by companies. Funding takes the form of a cash grant from the Trade and Industry Department (dti) for infrastructure projects – covering the bulk infrastructure. Retail and housing are excluded.

Benefit

The grant offers between 10% and 30% of total infrastructural development costs. The grant is limited to R30 million per project. Infrastructure is defined as:

- Bulk infrastructure which will be accessible to other investors or the general public, such as roads, rail, bridges, electricity transmission lines and telecommunication networks.
- Infrastructure for power co-generation.

Requirements

Applicants must apply to the dti three months before infrastructure construction starts. The applicant must be a SA registered legal entity and at least a level 4 B-BBEE contributor. The project must achieve a minimum score for contribution to industrial policy objectives. The score is calculated on the following elements: B-BBEE compliance, investment in a priority sector, investment value and location of the project.

An application with the required supporting documentation must be submitted to the dti, and it will go before an adjudication board.

Cost to access

The costs incurred in preparing the application. The process is well structured, but you will need to complete a detailed application form.

CIP supports investments in solar and wind farms. If at least 60% of the investment is sourced locally, the full investment will qualify for the CIP grant

Critical Infrastructure Programme (CIP)

Case study

A company is setting up a new manufacturing facility in Tubatse. It will be powered by solar panels which will be manufactured in South Africa. Excess electricity generated by the solar panels will be supplied to the surrounding community. Company B will invest R10 million in solar panels, R30 million in a new substation and transformer and R10 million in transmission lines.

Depending on the points scored under the CIP, the company may be eligible for a cash incentive of between 10% and 30% of the cost of infrastructure. Therefore, Company B may receive a maximum cash incentive of R15m (R50 million x 30% = R15 million) towards the cost of the solar panels, the substation, transformer and transmission lines.



	Small	Medium	Large
Company			X
Project size			X

Funding through tax deductions

Introduction

Various government departments offer some form of tax incentive to cover the costs involved in energy efficiency projects. It is vital for you to study the rules of any tax incentive programme before you start to run up costs.

Programmes have different rules about when a business needs to submit its application. This may be required 60 days before you use the asset, or you may need to apply before assets are ordered.

As the benefit comes in the form of an additional tax allowance, the incentive will only bring a return if your business is actually incurring income tax.



Section 12L of the Income Tax Act

Section 12L is administered by the South African National Energy Development Institute (SANEDI), which is a state company set up in 2012 to help accelerate green energy projects. It offers tax deductions to all taxpayers for energy efficiency or conservation initiatives. It is applicable to all energy carriers and to both greenfield and brownfield projects. The objective is to encourage South African businesses to use energy more efficiently and to conserve energy.

Funding is in the form of a tax deduction based on energy savings (kWh of energy saved).

Benefit

A tax deduction of 95c per kWh of energy saved. It is available for energy saved over the period of 12 consecutive months from any qualifying energy efficiency initiative implemented.

Requirements

A company must identify a qualifying energy efficiency project. An energy baseline must be determined and submitted to SANEDI for approval. Once the project and baseline have been approved, the project can be implemented. In order to claim the tax deduction, the energy savings must be determined over 12 consecutive months. SANEDI will evaluate the energy savings and issue a certificate to the company. The company can then claim the tax deduction for the relevant tax year. A company can register on a SANEDI website to check if a project qualifies for section 12L:

www.saneditax.org.za

Cost to access

The baseline and energy savings must be measured and determined by a Measurement and Verification Body accredited by the South African National Accreditation System (SANAS). The company will need to pay this entity to complete the requirements to access this incentive. The Private Sector Energy Efficiency Programme of the National Business Initiative PSEE offers this service to its clients free of charge. The incentive is accessed through an on-line application process. This involves a complicated measurement process. Since this is a new incentive and one that has the full backing of the Department of Energy and Treasury, companies are encouraged to explore this option recognising that through its uptake, continuous efforts will be made by SANEDI to improve accessibility.

Section 12L of the Income Tax Act

Exclusions

The incentive is not accessible for projects that:

- Generate energy from renewable sources, other than waste heat recovery.
- Generate energy from a captive power plant, unless the kilowatt hours of energy output is more than 35% of the kilowatt hours of energy input in the year of assessment.

Section 12L provides a tax deduction for projects that improve energy efficiency or reduce energy consumption

Case study

A company is planning an energy-efficient lighting project – the replacement of traditional incandescent bulbs with compact fluorescent light (CFL) bulbs. A CFL is 80% more energy efficient than an incandescent bulb.

The project is expected to save 24,000kWh per year. This is equivalent to a before-tax benefit of R10,800 and an after-tax benefit of R3,024 (using a company tax rate of 28%).

The benefit must be weighted up against the cost of accessing the incentive.

Contact details

SANEDI

Contact: Barry Bredenkamp

Email: barryb@sanedi.org.za

Tel: 010 201 4800

Website: www.sanedi.org.za

	Small	Medium	Large
Company			X
Project size			X

Section 12I of the Income Tax Act

The 12I incentive programme is administered by the Department of Trade and Industry (dti). It supports investment in manufacturing assets, and aims to improve the productivity of SA manufacturing. It takes the form of an additional tax allowance, focused on projects in the manufacturing industry with an investment value of at least R200 million for greenfield projects or R30 million for brownfield projects. So it would not cover very small businesses. Funding is through a tax deduction for the capital invested in new manufacturing assets. Excluded sectors include alcohol, tobacco, arms and ammunition, and biofuels if it impacts on food security.

Benefit

The incentive is a tax benefit of between 35% and 100% of costs incurred on new or expansion projects. The level of benefit is determined by a scoring system, with points for:

- Innovative processes
- Improved energy efficiency with an emphasis on cleaner production technology
- General business linkages
- Acquiring goods from SMMEs
- Direct employment creation
- Skills development
- Location in an Industrial Development Zone (IDZ) for greenfields projects only

The additional tax allowance is limited to the following:

- R900 million on new, or greenfield, projects
- R550 million on expansion, or brownfield, projects

Requirements

An application with the required supporting documentation must be submitted to the dti. The application must be approved before the company contracts for or acquires any assets. Annual progress reports must be submitted to the adjudication committee within 12 months of the financial year end.

Energy efficiency is a mandatory and point-scoring criteria for this incentive.

Energy efficiency requirements

A greenfield project must use modern, viable, energy efficient equipment and processes, when compared to current practices. A brownfield project must achieve a minimum of 10% energy savings from the baseline.

Section 12I has a requirement that the manufacturing assets to be incentivised are demonstrated to be energy efficient

Section 12I of the Income Tax Act

Case study

A company has decided to invest R200 million in a new greenfield paint manufacturing facility. Assets which will be used in the new manufacturing facility will be acquired in the future. The project will use new innovative energy-efficient technology. The project may be eligible for a Section 12I benefit of between R19.6 million (R200 million x 35% x 28% tax rate) to R56 million (R200 million x 100% x 28%).

To secure this, Company A must:

- Apply for and receive approval from the dti before assets are acquired;
- Score 2 points for skills development or employment creation;
- Be energy-efficient; and
- Score a minimum of 5 points under the Section 12I criteria.

Cost to access

The cost to access the incentive is the amount incurred in preparing the application. The rules are complicated, and this generally means that you would need professional assistance in preparing an application for the incentive.

Contact details

Department of Trade and Industry
Andre Potgieter
Email: Andre@thedti.gov.za
Tel: 012 394 1427

	Small	Medium	Large
Company			X
Project size			X

Funding in the form of carbon credits or offsets

The carbon credit market should be approached with caution because it is dependent on international regulations, some of which have been dismantled recently. Prices have also shown high levels of volatility, which has led to some players incurring losses.

So what are carbon credits?

They are financial instruments which take the form of tradable permits or certificates - which allow a country or organisation to emit one ton of carbon dioxide.

Many institutions fund energy efficiency and renewable energy through carbon credits, which can be traded on the carbon markets. Funding is based on greenhouse gas emission reductions achieved after the project has been implemented and is operational. The credits can be sold before they are issued, or forward sold, to fund the capital requirements of the project. Excluded sectors are those which don't have methodology. Offsets are expected to become a

factor in the South African market with the introduction of the planned Carbon Tax. There are two carbon markets for trading carbon credits:

The compliance market

South Africa participates in this market through the Clean Development Mechanism (CDM) which was established to allow developing countries to implement emission reduction projects. These projects can be funded through the sale of carbon credits to developed countries. Developed countries that are subject to legislation limiting their greenhouse gas emissions, can purchase carbon credits as a means of meeting their legal obligations. The CDM is administered by the United Nations Framework Convention on Climate Change (UNFCCC).

The voluntary market

This market is less regulated than the compliance market. There are a number of

different voluntary standards and schemes. It is a willing seller-willing buyer arrangement.

Benefits

The compliance market: The carbon price was 12 Euro cents when this was written. This meant that one carbon credit was worth about 12 Euro cents - depending on the project type, when was sold, and the buyer. One carbon credit is equivalent to reducing electricity consumption by approximately 1MWh.

The voluntary market: The price depends on the appetite of the buyer, and is negotiated between the seller and buyer.

Requirements

In the compliance market, those running eligible projects must follow the following process:

- First assess if the project qualifies and if there is a methodology available which will allow for the development of the project. This incentive is applicable to large companies and very large projects.

Funding in the form of carbon credits or offsets

A carbon credit project must:

- Result in real, permanent and measurable reductions in emissions
- Reduce emissions below a baseline. The methodology typically guides the company in terms of what the baseline should be. Setting the baseline can be complex.
- Only be viable with the revenue from the carbon credits. This is termed 'additionality.' The project is additional in that it would not have happened without the carbon credits. Demonstration of additionality is complex, and it is the main reason why projects are rejected.

Cost to access

The costs of accessing carbon credits through the CDM include:

- Completion of the application form
- Paying the auditor to assess the application form
- Purchasing and installing monitoring equipment
- Paying the auditor to assess the project on an annual basis, to verify the number of carbon credits

Costs for this exercise can be in excess of R1 million, given the complexity of the CDM. The benefit needs to be weighed up against the costs incurred.

Both Nedbank and Standard Bank have specialised teams which deal with carbon credits.

Contact details

Nedbank
Duncan Abel
Senior Transactor: Carbon Finance
011 294 2388
duncana@nedbankcapital.co.za
011 295 8535

Standard Bank
Rentia van Tonder, CIB
Email: rentia.vantonder@standardbank.co.za
Switchboard: 011 721 9000
Direct: 011 721 6416

	Small	Medium	Large
Company			X
Project size			X

Funding in the form of carbon credits or offsets

Case study

Corporate Energy Efficient Lighting Open Access Carbon Project.

During 2012, Standard Bank launched the Corporate Energy Efficient Lighting Open Access Carbon Project. This allows companies undertaking energy-efficient lighting retrofits to earn additional revenue from carbon credits. The first project was the installation of energy-efficient lighting in Standard Bank's Johannesburg head office buildings, covering 177 000 square metres.

Savings of between 50% and 80% of the lighting bill can be achieved in this way. These changes offer big opportunities, but do require organisations to fund upfront costs. Standard Bank's programme is designed to offset these costs through revenue from carbon credits.

The programme is open to all organisations, including lighting suppliers. As lighting projects are often not big enough to justify registering for carbon credits on a standalone basis, Standard Bank acts as the project sponsor for clusters of smaller companies.

Standard Bank has also developed a lighting retrofit finance product where repayments kick in when power is saved.

Contact details

To find out more about the CDM:

<http://cdm.unfccc.int/>

To find out more about the VCS:

<http://www.v-c-s.org/>

To find out more about how South Africa participates in the carbon markets:

www.energy.gov.za/files/esources/kyoto/kyoto_frame.html

Research and development incentives

Introduction

For this guide, we have separated out the research and development tax and grant incentives from the rest of the finance available.

This is because of the limited number of potential users of these incentives for energy efficiency projects.

As the name implies, this incentive is available to businesses which need to undertake research and development.

Some companies need to undertake research and development to develop new products and processes so they can become energy efficient.

Therefore we have included this section for these businesses which wish to be at the leading edge in pursuing a green agenda.



Support Programme for Industrial Innovation (SPII)

The Support Programme for Industrial Innovation (SPII) grant is a cash incentive to promote technology development and commercialisation in South Africa. SPII is administered by a state's industrial promotion funding institution: the Industrial Development Corporation (IDC). It provides financial assistance for the development of commercially viable, innovative products and processes and facilitates commercialisation of such technologies. Excluded sectors are military projects and projects which are limited due to licensed technology.

Benefits

The SPII programme has a choice of three schemes:

- The Product Process Development (PPD) Scheme offers financial assistance of up to R2 million. It targets SMMEs - firms with assets below R5 million and turnover less than R13 million. Tax free, non-repayable grants are given. The BEE shareholding will determine what share of costs are covered, within a 50% to 85% band.

- The Matching Scheme offers companies a tax-free, non-repayable grant of between 50% and 75% of costs, depending on the BEE shareholding of the company, of up to R5 million.
- The Partnership Scheme targets large-scale development, and gives the State a stake in a project's risks and returns. The grant covers 50% of costs, with a minimum grant of R10 million. Repayment is over a number of years, through a levy on sales, beginning once the project is successful.

***The SPII programme was placed under a moratorium in November 2015, but according to recent budget announcements will be reintroduced in April 2015.**

Support Programme for Industrial Innovation (SPII)

Case study

A company is developing a new smart metering solution to be sold to local municipalities around South Africa, and to Eskom. Significant R&D needs to be done to ensure the existing technologies will work in the South African environment. The company's own engineers will spend R2 million worth of their own time, consumables of R500 000 will be used in testing. Additional external testing to get the prototype ready will cost R1 million. The potential grant on offer is 50% of R3.5 million: R 1.75 million.

Requirements

An application form with supporting documentation is submitted to the IDC which will appoint a specialist to assess the project. A site visit may be required by the specialist. The application is then referred to the SPII Evaluation Panel for approval. The project is assessed on the completion of targets, and payment will be made once each target has been reached.

Cost to access

The only costs incurred are the costs of preparing the application. Applications must include due diligence and a detailed contract.

SPII was created to promote innovation and technological development. This support is essential to stimulate the creation of energy-efficient products and processes

Contact details

Industrial Development Corporation Contact:
Nikki Gwaze
Email: nikkig@idc.co.za, spii@idc.co.za
Tel: 011 269 3073

	Small	Medium	Large
Company		X	X
Project size	X	X	X

Section 11D of the Income Tax Act, 1962

The research and development (R&D) tax incentive is run by the Department of Science and Technology. It promotes scientific and technological advancement through innovation. This helps companies to be more competitive in local and global markets. R&D is defined as the development of new products, processes, services, materials or software or the improvement of existing products, processes, services, materials or software. Funding is in the form of a tax deduction for costs incurred in research and development. Excluded sectors are oil and gas exploration, financial instruments and products.

Benefit

The incentive is a tax deduction of 150% of qualifying R&D costs incurred in South Africa. The benefit is equivalent to a net 14% (extra 50% over normal 100% tax deduction X 28% tax rate) tax saving on eligible R&D expenditure

Requirements

A company must apply for support before the R&D costs are incurred. It needs to submit a pre-approval application form to the Department of Science and Technology (DST), which manages the Scheme. Once the request has been approved, the company will need to submit an annual progress report to the DST. Eligible R&D expenditure is then claimed in the company's tax return.

Cost to access

The only cost to access this incentive is the cost incurred in completing the application. The application form is relatively simple, but the criteria to secure the incentive are complex, and there is a slow turnaround time. This means it is advisable to use a consultant.

A company that is developing and / or implementing an energy efficient or renewable energy product or process into their business may be eligible for the R&D tax incentive

Section 11D of the Income Tax Act, 1962

Case study

LotsaWind has launched a new R&D project to develop a new software product to more efficiently model and predict noise from wind farms. LotsaWind will conduct a number of R&D activities, namely;

- Computer modelling;
- Physical model development;
- New software development; and
- Field testing.

It will incur internal engineering costs of R1 million and external testing costs of R500 000 on this project. All these costs will be incurred in South Africa.

LotsaWind is aiming for a 40-70 per cent improvement in the predictive accuracy of its low-frequency aerodynamic noise modelling software, when compared to existing noise prediction software and methods.

The project may be eligible for the R&D tax incentive and if approved by the DST, expenditure incurred by LotsaWind in conducting the above activities will be eligible for a 11D deduction of 150% of qualifying R&D costs of R1.5 million. This would mean an additional tax saving of R210 000.

Contact details

The Department of Science and Technology
 Dimakatso Mokone
 dimakatso.mokone@dst.gov.za
 Email: tax@dst.gov.za
 Tel: 012 843 6300

	Small	Medium	Large
Company		X	X
Project size		X	X

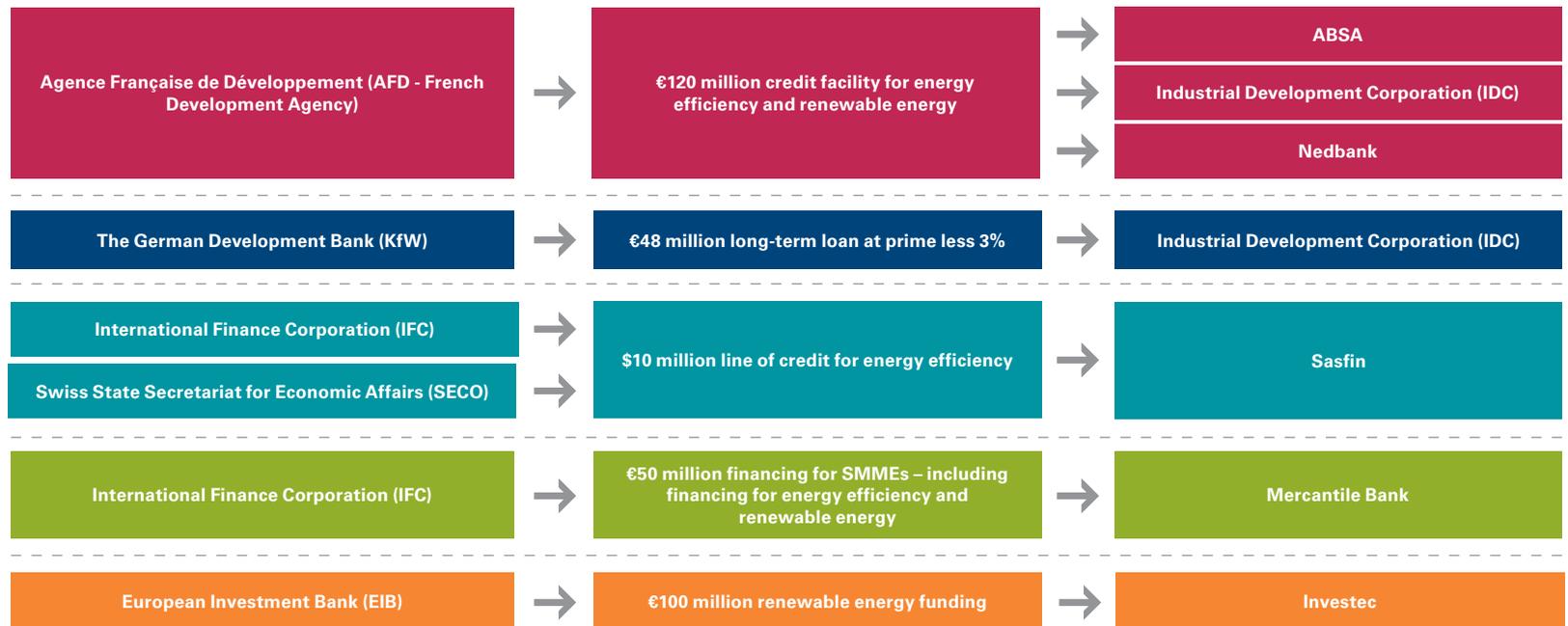
Ease of access:



Foreign agencies present in South Africa

Energy efficiency landscape in South Africa

The following section has been included for the sake of completeness to explain where banks are accessing energy efficiency finance. Businesses generally need to apply through one of the commercial banks to access the foreign agency finance. Only on very large projects will the agency deal directly with the business



Funding for energy efficiency - foreign financial institutions

International Finance Corporation

The International Finance Corporation (IFC), a member of the World Bank Group, has provided credit lines to SASFIN Bank and Mercantile Bank to fund lending to local SMEs to finance energy efficiency and renewable energy projects. Besides these two investment projects, IFC also has an advisory services project called Climate Change Investments in Africa Project (CIPA) in South Africa. CIPA provides technical assistance to local financial institutions to help strengthen their capacity to finance clean energy projects.

Deutsche Gesellschaft für Internationale

Zusammenarbeit (GIZ) GmbH (German Sustainable Development Agency).

The GIZ, which is a German government agency, has launched a South African-German Energy Programme (SAGEN). This is being conducted in cooperation with the South African Department of Energy (DoE) and the South African National Energy Development Institute (SANEDI). The programme aims to boost investment in energy efficiency, for instance through the development of a market for energy efficiency service providers (ESCOs).

To support the establishment of this market, GIZ assists with the development of regulations and capacity building for ESCOs. A further key focus is the development of cogeneration, and the introduction of energy efficient technology in the commercial and industrial sectors in South Africa.

To date, several activities have been undertaken as part of the programme. These include national workshops on 12L, Cogeneration and ESCo best practices, the development of ESCo and Cogen demonstration projects, the development and publication of a Cogen Good Practice Guide and the development and publication of ESCo model contracts.

Funding for energy efficiency - foreign financial institutions

German Development Bank (KfW)



The German Development Bank (KfW), which is owned by the German government, has partnered with the Industrial Development Corporation to establish a R500 million facility for energy efficiency and small-scale renewable energy projects.

Agence Française de Développement (AFD - French Development Agency)



The French Development Agency, which is the French bilateral development finance institution, has provided a €120 million discounted credit facility to two banks - Absa and Nedbank - and also to the SA government's industrial support agency, the Industrial Development Corporation (IDC). This is for the financing of renewable energy and energy efficiency projects.

The loans provided by the banks to their clients can either offer:

- An investment grant to improve the return of the project and/or to finance studies (feasibility, approval, measurement and verification)
- A lower interest rate to support the project's development

The AFD has also set up a technical assistance facility within the South African National Energy Development Institute (SANEDI) to support the banks in their renewable energy and energy efficiency strategy and operations.

Glossary

Acronyms which are used in this guide:

AFD:	Agence Française de Développement (French Development Agency)	DOE	Department of Energy
B-BBEE	Broad-Based Black Economic Empowerment	DST	Department of Science and Technology
CDM	Clean Development Mechanism	EIB	European Investment Bank
CFL	Compact Fluorescent Light	EPC	Energy Performance Contracts
CHP	Combined Heat and Power	ESCO	Energy Service Company
CIP	Conservation Improvement Programme	GEEF	Green Energy Efficiency Fund
CIPA	International Finance Corporation's Climate Change Investment Program in Africa	GIZ	German Federal Enterprise for International Cooperation
dti	Department of Trade & Industry	HAC	Historical Asset Cost
DBSA	Development Bank of Southern Africa	HVAC	Heating, Ventilation and Air-conditioning
DEA	Department of Environmental Affairs	IDC	Industrial Development Corporation
DEG	German Investment and Development Corporation	IDZ	Industrial Development Zone
		IDM	Integrated Demand Management
		IFC	International Finance Corporation

Glossary

Acronyms which are used in this guide:

KfW	German Development Bank	SAGEN	South African-German Energy Programme
kWh	Kilowatt Hours	SANAS	South African National Accreditation System
M&V	Measurement and Verification	SANEDI	South African National Energy Development Institute
MCEP	Manufacturing Competitiveness Enhancement Programme	SARS	South African Revenue Service
MVA	Manufacturing Value-Add	SECO	Swiss State Secretariat for Economic Affairs
MWh	Megawatt Hours	SMME	Small, Medium and Micro Enterprises
NBI	National Business Initiative	SPII	Support Programme for Industrial Innovation
NCA	National Credit Act	TAF	Technical Assistance Facility
OPEC	Organisation of the Petroleum Exporting Countries	UN	United Nations
PDD	Project Design Document	UNFCCC	United Nations Framework Convention on Climate Change
PSEE	Private Sector Energy Efficiency Programme	USAid	United States Agency for International Development
R&D	Research and Development		
REEEP	Renewable Energy and Energy Efficiency Partnership		

Next steps

Start with the following easy low and no-cost options to help save money and improve the energy performance of your site:

Step 1 Understand your energy use

Look at your site and identify the major areas of energy consumption. Check the condition and operation of equipment and monitor the power consumption over one week to obtain a base figure against which energy improvements can be measured.

Step 2 Identify opportunities

Compile an energy checklist. Walk around your site and complete the checklist at different times of day (including after hours) to identify where energy savings can be made.

Step 3 Prioritise your actions

Draw up an action plan detailing a schedule of improvements that need to be made and when, along with who will be responsible for them. Improvements can be measured.

Step 4 Seek specialist help

It may be possible to implement some energy saving measures in-house but others may require specialist help. Discuss the more complex or expensive options with a qualified technician.

Step 5 Make the changes and measure the savings

Implement your energy saving actions and measure against original consumption figures. This will assist future management decisions regarding your energy priorities.

Step 6 Continue managing energy efficiency

Enforce policies, systems and procedures to ensure your centre operates efficiently and that savings are maintained in the future.

Plug into energy efficiency with PSEE

The Private Sector Energy Efficiency (PSEE) programme aims to improve energy efficiency in industrial and commercial sectors across South Africa. PSEE offers a variety of services to help companies plug in to energy efficiency:

Website – Visit us at www.psee.org.za for our full range of advice and services.

➔ www.psee.org.za

Publications – We have a library of publications detailing energy saving techniques for a range of sectors and technologies.

➔ www.psee.org.za/Resources

Case Studies – Our case studies show that it's often easier and less expensive than you might think to bring about real change.

➔ www.psee.org.za/Resources



Remote advice – Call us on 0801 113 943 or visit www.psee.org.za to access independent, authoritative advice and our publications and tools.

Survey-based support – Review of energy use for medium-sized companies to identify energy savings opportunities and develop a suggested implementation plan.

➔ www.psee.org.za/Services/Medium-Companies

Strategic energy management – Holistic engagements for large companies to help improve operational energy efficiency and support the development of a comprehensive energy and carbon strategy.

➔ www.psee.org.za/Services/Large-Companies



The Private Sector Energy Efficiency (PSEE) programme aims to improve energy efficiency in commercial and industrial companies in South Africa through the provision of various services to assist companies in identifying and implementing energy saving measures. The PSEE programme is implemented by the National Business Initiative (NBI), supported by the Department of Energy, and funded by the UK Department for International Development (DFID).

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