Financing Rooftop Solar PV
Unlocking the energy potential for your business through innovative green finance

Main insights
There are numerous financial mechanisms for commercial and industrial businesses to finance solar PV and other systems of under 1 MW.

Solar PV is affordable and financing these systems is possible.

Context
- A significant number of businesses are transitioning to solar PV because it is cheap, the market is technically mature and it is easy to implement.
  - In 2018 almost 200MW's worth of solar PV modules was sold or installed in South Africa.
  - With continued load shedding in 2019, South Africa could possibly exceed 1 GWp of rooftop PV installed.
- The payback period for most systems is between 3-8 years. Thereafter businesses are making savings on electrical costs. Well-installed systems can last 20 years.
- There are numerous financial mechanisms for commercial and industrial businesses to finance solar PV and other systems of under 1 MW.

The Challenge
The high upfront capital cost of rooftop solar PV limits its uptake by businesses.

Businesses are unaware of the financial mechanisms available that eliminate the upfront cost of installations.

The Solutions
Exciting innovative green financial mechanisms are being tested in the market. These include commercial bank funding, Property Assessed Clean Energy, Pay As You Save, power purchase agreements and online impact investing platforms.

This brief is written for industrial and commercial businesses who would like to benefit from grid-connected solar PV systems (or other renewable energy systems) of less than 1 MW. It outlines the different ways that systems can be funded and dispels the myth that it is impossible to finance renewable energy systems without incurring significant upfront costs.
### Solar PV in the C&I Sector: Chatting to the Banks

#### Absa
- **Main investment instrument for PV**
  - Depends on customer profile and their needs.
  - The main funding opportunities to date have been for customers installing solar PV and integrating energy production into their existing business. Therefore lending is against existing balance sheets (with a view of the cash flows from the installation). This change with growth in Absa lending to commercial and industrial power purchase agreements.
  - Asset finance, unsecured finance and property finance products are all potential financing solutions.

#### Investment size requirements
- Absa currently focuses on individual projects of up to 1.6 MW due to greater clarity around embedded generation and no licensing requirements, and have financed commercial and industrial installations as small as 30 kWp.

#### Investment period
- Up to 10 years
- Tenure up to 10 years per project.
- Debt tenures can go up to 10 years currently, negotiated - but this is case-specific and not the norm.

#### Security/ collateral requirement for debt
- Project specific and additional security might not be required.
- Absa takes the cash flows of the installation into account.
- The installation is seen as part of the collateral.

#### Security
- Project security can be taken against the asset.
- Asset finance, unsecured finance and property finance products are all potential financing solutions.

#### Risk reduction
- **Guarantees on debt**
  - No minimum size.
  - No maximum size.
  - Nedbank must be the sole primary banker to the obligor.

#### Debt solutions
- **Debt solutions are tailored to suit client needs and could include:**
  - Installation sale loans
  - Medium term loans

#### Collateral
- There is no real (freehold) for loans for solar PV installations; however, Standard Bank typically finances individual projects up to 999 kWp in size.
- Larger portfolios and investments are evaluated on a case-by-case basis.

#### Average interest rate
- Risk dependent
- The interest rate is based on risk-adjusted pricing principles and varies depending on the project and client, while striving to be competitive and market related.
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#### Contact details for more information
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### Solar PV in the C&I Sector: Chatting to the Banks

#### Nedbank
- **Typical payment structures in C&I sector**
  - Amortising debt at up to 100% loan-to-cost.
  - BIP with Special Purpose Vehicle (SPV)
  - Debit/40% Equity Baseline Finance
  - Term Loans up to 100% of project cost

#### Are you seeing more power purchase agreements being funded?
- Also have seen growth in commercial and industrial PPAs in recent years, and we expect significantly higher growth in 2020. We will continue to support the growth of this market segment as a funding partner.

#### Other things to note?
- Have had a team dedicated to Renewable Energy (with strong focus on C & I) for solar PV for a couple years and this remains a key focus sector.
- Focus on the sector is not only related to funding.
- Please email to attend any of our customer events or receive any of our industry research and quarterly newsletters.

#### Pay As You Save® (PAYS®)
- PAYS is a solution that allows businesses and homeowners to access the benefits of solar and PV, at no upfront cost, regardless of income, credit history, or renter status. The upgrades or systems are paid for by the municipality, and the costs are then recouped through a fixed charge on the customer’s monthly bill. This charge is less than the estimated savings generated by the upgrades/system. Until the investment is recovered, the tariff for the PAYS charge automatically transfers to future customers at that site.
Power purchase agreements and rooftop rental

Regulations legislated for in Schedule 2 of the Electricity Regulations Act, 2006 (Act no. 4 of 2006) now allow for legal power purchase agreements (PPAs) to proceed.

- PPAs are long-term contracts between developers and PV system buyers, for the buyer to purchase electricity at a predetermined rate.
- There are zero upfront costs and the developer absorbs the cost proposal, design, construction, operation, and maintenance of the system.
- PPAs are a hedge against future electricity costs; they protect customers against uncertain Eskom electricity hikes.
- The building roof must be leased for the duration of the solar PV system’s life span.

Online impact investing platforms

Businesses can also fund solar PV through local crowdfunding platforms like The Sun Exchange and FedGroup Ventures (Impact Farming). Such platforms usually allow anyone to buy solar PV panels or cells, which are rented to businesses at no upfront cost to the business. The owners of the panels/cells receive a rental or income for the lifetime of the panels/cells and businesses usually immediately start to save on their energy bill. Some platforms offer free insurance and maintenance.

Additional solar PV incentives

There are a number of incentives associated with solar PV that make them an attractive option for businesses. Some of these are summarised in the table below:

<table>
<thead>
<tr>
<th>Feed-in tariffs:</th>
<th>Tax benefit (12b):</th>
</tr>
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<tbody>
<tr>
<td>Customers are ‘paid’ for any electricity they feed onto the grid, through reductions in their energy bills.</td>
<td>100% accelerated depreciation in the first financial year. In effect, it equates to a 28% discount on the price of the solar system.</td>
</tr>
</tbody>
</table>

See – Small-Scale Embedded Generation (SSEG) Feed-In Tariff Map

<table>
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<tr>
<th>Tax benefit (12i):</th>
<th>Solar PV is VAT deductible.</th>
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<tr>
<td>Tax allowance incentive designed to support greenfield and brownfield investments through support for both capital investment and training.</td>
<td>VAT registered entities can deduct the VAT portion of the solar PV system.</td>
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<th>Pay less carbon tax.</th>
<th>Green Tourism Incentive Programme:</th>
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<tr>
<td>As a low carbon energy source, solar PV will reduce the impact of the impending national carbon tax on businesses</td>
<td>Small and micro tourism businesses can qualify for up to R1m in grants when they switch to renewable energy sources.</td>
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</tbody>
</table>

Next Steps

To find out more, contact GreenCape: energy@greencape.co.za, (021) 811 0250
For additional financing information visit GreenCape’s Green Finance webpage.

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