



ENERGY SMART FUND

Financing Barbados' Energy Transition

Webinar for Businesses





Programme Overview





SMART ENERGY 2030

BARBADOS NATIONAL ENERGY POLICY



Barbados National Energy Policy (BNEP 2019-2030) proposes a 100% renewable energy and carbon neutral island- state transformational goal by 2030.

The objectives are:

- **To make Barbados energy independent through renewable energy**
- **To reduce the cost of energy for all Barbadians**

SPECIFIC GOALS INCLUDE:



Provision of reliable, safe, affordable, sustainable, modern and climate friendly energy services to all residents and visitors.



Zero domestic consumption of fossil fuels economy wide.



Export of all hydrocarbons produced both on land and offshore.



Maximising local participation (individual and corporate) in distributed renewable energy (RE) generation and storage (democratisation of energy).



Minimise the outflow of foreign exchange.



Creating a regional centre of excellence in RE research and development.

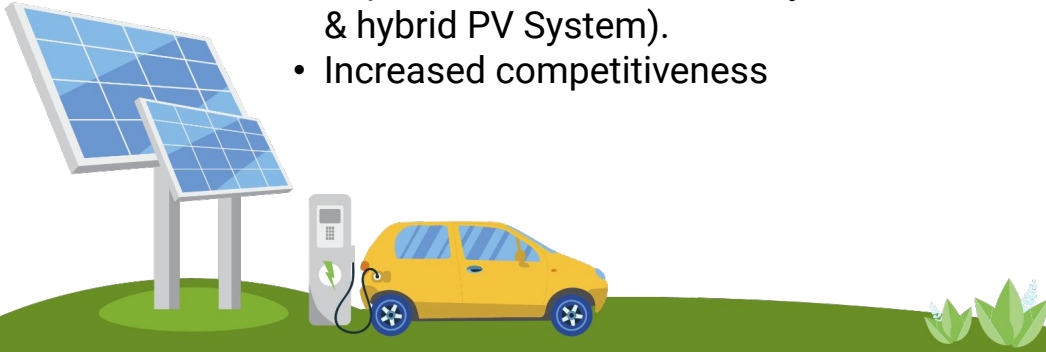


BUSINESS ENERGY CHAMPIONS

Anyone can be an Energy Champion, and in our website <https://smartenergybarbados.com/smart-business/> companies can find all types of energy efficiency tips for their business. Things like buying energy efficient appliances, using LED light bulbs, or even contracting an energy audit for your office can help you be the Energy Champion the country needs to achieve its goals.

Knowing how your business uses energy and how it can improve its energy use brings many benefits:

- Reduced energy cost
- Improve cash flow allows savings to go straight to the bottom line which can free up your capital for other things like business development.
- Improved business efficiency and resilience, especially in case of disaster (off-grid & hybrid PV System).
- Increased competitiveness



THE SUSTAINABLE ENERGY INVESTMENT PROGRAMME (SMART FUND II)



COMPONENT 1

Promoting Renewable Energy and Energy Efficiency in SMEs (Energy Smart Fund):

- Pre-investment studies and pilot projects for Small and Medium Enterprises (SMEs)
- Implementation of Electric Mobility, Renewable Energy and Energy Efficiency projects.
- Air-Conditioning Trade-In Rebate Facility.*

COMPONENT 2

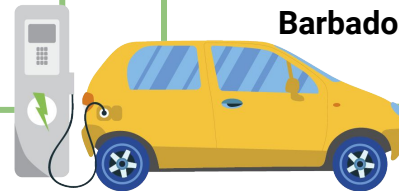
Promoting Renewable Energy and Energy Efficiency in the Public Sector:

- Pre-investment studies for Government Programmes.
- Implementation of Renewable Energy and Energy Efficiency projects for the public sector.
- Electric Mobility for the public sector.

COMPONENT 3

Capacity Building and Institutional Support:

- Training and Certification in Energy Efficiency and Renewable Energy
- Public awareness.
- Complementary Studies on sustainable energy and energy transition in Barbados.





ENERGY SMART FUND

Financing Barbados' Energy Transition

WHAT IS IT?

The Energy Smart Fund is being recapitalised with BBD \$26.2 Million from the Inter-American Development Bank and the Delegation of the European Union, under the Sustainable Energy Investment Programme (Smart Fund II). It provides loans, grants and rebates to make your business green and sustainable.

The Fund is a partnership between the Ministry of Energy and Business with Enterprise Growth Fund Limited (EGFL) and FundAccess.



WHAT CAN YOU GET WITH THE FUND – TECHNICAL ASSISTANCE



Technical Assistance Grants (BBD\$50,000)

- For pre-investment studies -
 - Energy Efficiency (EE) audits - detailed assessments to determine technical and financial viability of installing EE equipment and material at business premises
 - Preliminary audits - walk-through audits for small businesses for EE and RE projects
- For Renewable Energy (RE) studies - these are defined as any study that prepares a project for generating electrical and/or thermal energy from renewable sources, under a technical, financial, or environmental point of view.



WHAT CAN YOU GET WITH THE FUND – TECHNICAL ASSISTANCE

Pilot projects are small projects to encourage micro businesses to experience first-hand what benefits can be obtained from small scale energy interventions, these pilots include:

- ✓ EE Lighting Retrofit projects replacing incandescent/other less efficient bulbs with LEDS and/or installing occupancy sensors
- ✓ EE A/C Retrofit projects replacing split systems with inverter technology.
- ✓ Energy Conservation projects installing power monitors
- ✓ Electric mobility projects including electric bicycle, motorcycles, and golf carts
- ✓ Distributed scale renewable energy projects including small solar photovoltaic (PV) systems: **no larger than 24 kw** (AC) and solar water heater systems

* Combination of grant for pre-feasibility study and pilot project **cannot exceed BBD \$50,000**

**A maximum of two (2) grants may be awarded to any business (one for pre-feasibility studies and one for pilot projects)



WHAT CAN YOU GET WITH THE FUND – LOAN FACILITY



Energy Efficiency and Renewable Energy subsidized loans

- Up to **BBD\$2,000,000** for larger projects through EGFL.
- Up to **BBD\$150,000** for small businesses through FundAccess.
It includes projects for:
 - energy efficiency and conservation projects, such as LED bulbs, air conditioners and appliances, occupancy sensors and power monitors and electric mobility.
 - electric mobility projects such as electric vehicles, buses and bikes and golf carts, as well as supporting charging station
 - distributed scale renewable energy projects, including solar water heaters, solar PV systems and small wind systems.
 - working capital for producers that manufacture/assemble approved Energy Efficiency and Renewable Energy technologies.



WHAT IS NOT INCLUDED IN THE FUND



1. Hybrid vehicles are not included in the Programme.
2. Start-up funding for new businesses.
3. Funding to set up a Solar Farm businesses.

Solar Farms may be considered for existing businesses at an offsite location due to limited roof space or insufficient land space at their current location. Solar PV system size should be limited to a maximum of 150% of the peak demand of the applicant's business operations, thereby creating a plausible link to the existing enterprise. Solar PV systems should stipulate that the PV system cannot be sold or assigned once the financing provided by the Fund is still outstanding.

4. Pilot Projects without energy audits and/or walk throughs.
5. Extensive roof repairs to support photovoltaic installations.



Energy Efficiency and Energy Conservation Snapshot



Energy Efficiency is using less energy to produce the same result.

Energy Conservation is the effort made to reduce the consumption of energy by using less of an energy service. This can be achieved either by using energy more efficiently or by reducing the amount of service used.

For more tips, check:

<https://smartenergybarbados.com/smart-homes/smart-tips/>



Energy Efficiency and Energy Conservation Snapshot

LED Light Bulbs

- if a business change out five 60 watt incandescent light bulbs with equivalent LEDs bulb = BBD \$52.10 per month in savings
- if a business change out five 18 watt CFL light bulbs with equivalent LEDs bulbs = \$9.20 per month in savings
- CFL's use 25-35% less energy than incandescent bulbs, Whereas LED's use 75% less energy than incandescent bulbs



Inverter Air Conditioning Units

- Consumes less power in comparison to a traditional AC.
- No voltage fluctuation.
- Keeps constant room temperature.
- Effective cooling.
- Suitable for both small and large spaces.
- Environment-friendly as they do not use harmful ozone depleting gasses
- Quieter
- Cost effective

Energy Efficiency and Energy Conservation Snapshot



Inverter Air Conditioning Unit Savings			
(12000 BTU/hr)			
	Inverter	Non-inverter	Savings BBD \$
Energy Consumption (kWh/12h)	6.66 kWh	10.14 kWh	\$49.96
(18000 BTU/hr)			
	Inverter	Non-inverter	Savings BBD \$
Energy Consumption (kWh/12h)	11.34 kWh	14.94 kWh	\$54.78
(24000 BTU/hr)			
	Inverter	Non-inverter	Savings BBD \$
Energy Consumption (kWh/12h)	15.54 kWh	19.8 kWh	\$64.83

Renewable Technology Considerations- Solar Photovoltaics



A **photovoltaic system**, also referred to as a PV system or solar power system, is an electric power system designed to supply usable solar power by means of photovoltaics.

Types of Photovoltaics

● Off-grid

- completely independent from the Barbados Light and Power Company Ltd.
- building is connected to PV modules which is connected to an inverter
- inverter is connected to a battery bank
- battery bank is sized according to building requirements

● On-grid (Grid tied)

- predominately used in Barbados
- energy generated is fed directly to the grid
- grid tied inverters are used
- PV system is impacted by power outages by the Barbados Light and Power Company Ltd. No power is generated at this time.

● Hybrid

- combination of off-grid and a grid-tied system
- a grid connected system with a battery backup added
- PV system generates energy which is sent to the grid
- in the event of a power outage, energy goes through a charge controller then to a battery bank which then powers the building based on the necessary requirements



Photovoltaics Explained



Where could you mount your PV System?



Roof

- flush mounts
- ballasted system

Carport

- reasonable sized parking area

Ground mount

- plot of land

Photovoltaics Explained



SYSTEM SIZE kW (AC)	REQUIRED SIZE FOR 450W PANELS (ft^2)	TOTAL GENRATION MONTHLY kW (DC)	APPROXIMATE COST OF SYSTEM (ROOF MOUNTED)	APPROXIMATE COST OF SYSTEM (GROUND MOUNTED)	APPROXIMATE COST OF SYSTEM (CARPORT)	MONEY GENRATED MONTHLY
3	160	492.75	\$ 12,000.00	\$ 18,000.00	\$ 25,500.00	\$ 210.65
5	267	821.25	\$ 20,000.00	\$ 30,000.00	\$ 42,500.00	\$ 351.08
10	533	1642.5	\$ 40,000.00	\$ 60,000.00	\$ 85,000.00	\$ 702.17
15	800	2463.75	\$ 60,000.00	\$ 90,000.00	\$ 127,500.00	\$ 1,053.25
20	1067	3285	\$ 80,000.00	\$ 120,000.00	\$ 170,000.00	\$ 1,404.34



Environmental, Social, Health and Safety Plan

- Due to the interventions prescribed earlier, the Ministry must ensure environmentally and socially responsible disposal of inefficient technologies by all suppliers and contractors under the Programme.
- An Environmental, Social, Health and Safety Plan (ESHSP) was developed to address these issues.
- It will ensure that best practices and standards are being upheld throughout all stages of the project.



Environmental, Social, Health and Safety Plan



The ESHSP provides recommendations and guidelines to mitigate against potential risks. It will:

- Ensure waste is disposed of in accordance with the guidelines.
- Ensure that all relevant personnel are trained.
- Ensure that proper precautions are taken to avoid leaks and spills
- Ensure that the appropriate equipment is being used for recovery, recycling or disposal.
- Ensure that the inventories are regularly taken of all waste
- Ensure adherence to the appropriate health and safety procedures.



WHO CAN APPLY TO THE FUND?

Businesses from all sectors of the economy can apply to the Fund, for example:

- **Tourism**
- **Agroprocessing**
- **Transportation**
- **Small Business**
- **Retail**
- **Commercial**
- **Manufacturing**
- **Minimarts**
- **Car Rentals**

***All applications will be considered on a case-by-case basis.**



PHASE 1



During phase 1 of the Energy Smart Fund, there was an initial capitalization of the fund of a total of BBD\$20 million.

PHASE 2



During phase 2 the Fund was recapitalized with BBD\$26.2 million, this includes financing for pilot projects and electric mobility. Also a new Fund Manager was added to focus on Small and Micro Business.



**ENTERPRISE
GROWTH FUND
LIMITED**

Your Partner for Growth!

**Small, medium and large
businesses, up to BBD\$2,000,000**



**Small and micro businesses and
entrepreneurs, up to BBD\$150,000**





ENTERPRISE
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LIMITED

Your Partner for Growth!

Enterprise Growth Fund Limited





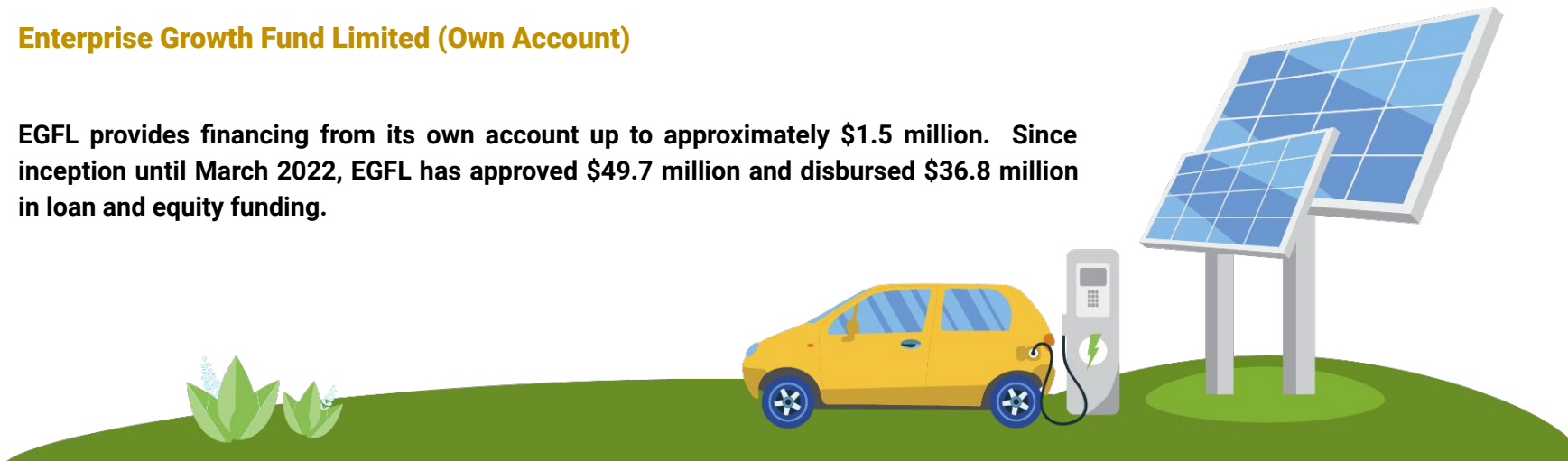
ENTERPRISE GROWTH FUND OVERVIEW

On January 2, 1998, Enterprise Growth Fund Limited (EGFL) commenced operations as a limited liability, private sector driven financial institution with a mandate to provide venture capital, advisory services, and technical assistance to the Small and Medium-size Enterprise (SME) Sector.

Since that time, the company has evolved to be the manager of various sector specific Funds which provide concessionary financing to businesses in agriculture, manufacturing, tourism and renewable energy with foreign exchange earning or saving potential.

Enterprise Growth Fund Limited (Own Account)

EGFL provides financing from its own account up to approximately \$1.5 million. Since inception until March 2022, EGFL has approved \$49.7 million and disbursed \$36.8 million in loan and equity funding.



Lessons from Energy Smart Fund (ESF) I

- Since inception until March 2022, the Fund has approved BBD\$29.5 million and disbursed BBD\$28.0 million in loan and grant funding. This was possible due to reflows from the early clients of the Fund.
- The sectors which have seen the most significant share of the approved PV capacity in terms of kW are agriculture, 27%, manufacturing, 19%, and real estate, 19%. Tourism accounted for 5% of the approved PV capacity.



Smart Fund Partners



- Smart Fund Partners (SFPs) have an important role assisting clients with the applications.
- SFPs are qualified experts who act as intermediaries between the Energy Smart Fund and those businesses that need qualified assistance.
- The purpose of SFPs is to help mobilize the Energy Smart Fund's money, and prevent unused funds



Performing Audits



Implementing EE
and RE projects



Providing Support

Terms and Conditions of the Facilities

Grants:

- Maximum grant size is BBD \$50,000
- Deposit is mandatory (Range 2%-50% of project cost)

Loans:

- The maximum loan size is BBD \$2 million
- Interest rate is 3.75% per annum variable
- The maximum loan term is 10 years



SUCCESS STORIES



CLIENT 1

A hotel with more than 50 rooms

- Total kWh used from January 2019 to December 2019: 666323
- Amount of kWh supplied by 150 kW system from January 2019 to December 2019 : 108323
- The PV system generated 16% of the kWh used by the property

CLIENT 2

Office building for a group of companies

- Total electricity bill for the period January 2021 to December 2021: \$23,474.91
- Total renewable energy credits for the period January 2021 to December 2021: \$15,896.18
- The PV system covered 68% of the charges

CONTACT DETAILS



**ENTERPRISE
GROWTH FUND**
L I M I T E D

Your Partner for Growth!



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The Barbados Agency for Micro Enterprise Development Ltd. (FundAccess)



BACKGROUND

The Barbados Agency for Micro Enterprise Development Ltd. was established to fill the void in development finance for micro enterprises arising from the closure of the Barbados Development Bank. It was incorporated under the Companies Act of Barbados on December 23, 1997 and trades under the name of FundAccess. FundAccess opened its doors to the public of Barbados on January 2, 1998.



LOAN PACKAGES



FundAccess' loans range from \$1,000.00 to \$150,000.00 and provides credit for the following categories of business



Agriculture



Manufacturing



Retail and Distribution



S.T.E.M.



ICT



Service and Trade



Tourism



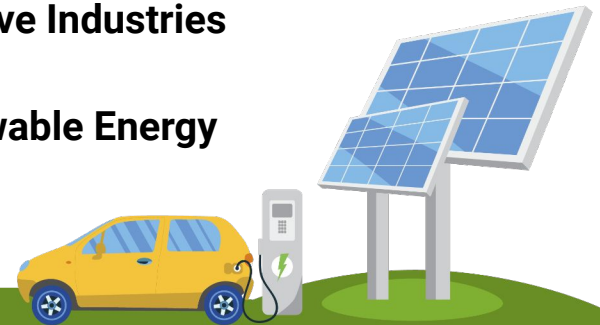
Business Transport



Creative Industries



Renewable Energy





OUR SERVICES



ENTERPRISE TRAINING

In order to access credit, every client must agree to participate in a two-day micro enterprise training programme. The core topics covered in training are cash management, record keeping, costing and pricing, marketing, honouring commitment, motivation for success and goal setting.



BUSINESS DEVELOPMENT SEMINARS

The Business Development Department also hosts informative seminars facilitated by external consultants. At these seminars, clients are further trained in areas such as labour laws, cash flow management and customer service.



TECHNICAL ASSISTANCE

Is a programme designed to provide technical support to loan beneficiaries.

This technical assistance provides support generally to ensure the success of the project, and may include further training and support from external consultants as deemed necessary.





OUR SERVICES



WORKSHOPS

In conjunction with the present training programme, the Business Development Department has also developed “internal workshops” to focus on special areas where clients lack knowledge or require additional training for example, in cash management and record keeping.



Why Choose Fund Access?

- FundAccess is solely a small business financing company and understands the unique challenges and needs of entrepreneurs
- FundAccess provides free business development and support services for entrepreneurs and these services will be available to businesses that access funding through the Energy Smart Fund
- FundAccess will assist clients with their application process and will be guided by the requirements and standards set out by the Programme
- Flexible security options and loan terms that can be tailored to the entrepreneur's individual needs.



CONTACT DETAILS



Michael Callender

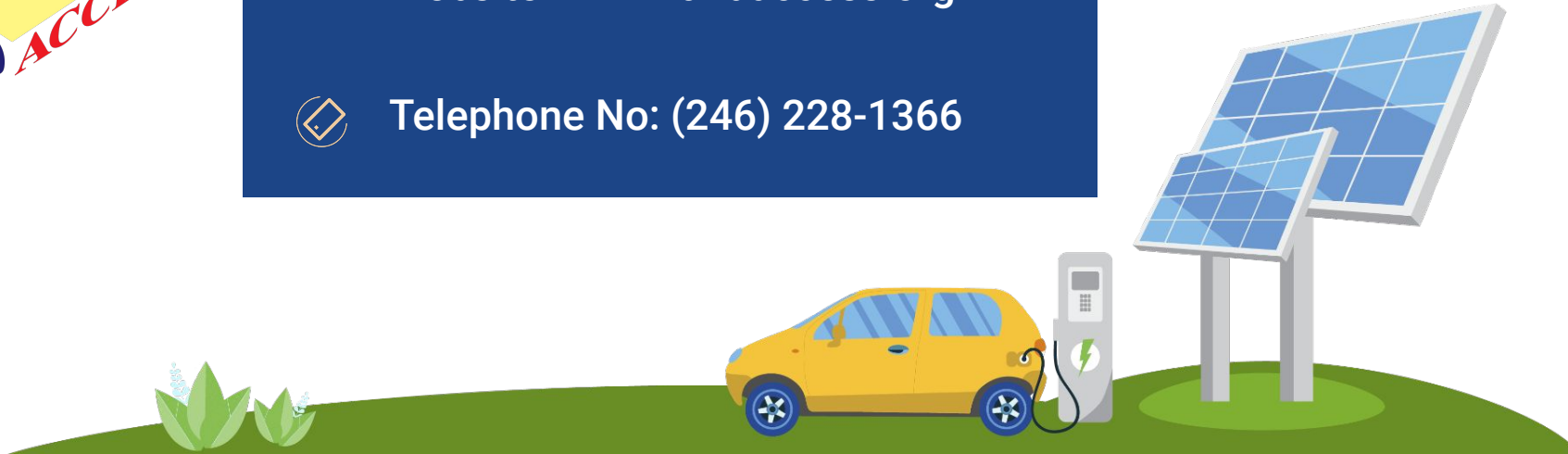
"City Building" Pinfold Street
Bridgetown. Barbados BB11127



Email: info@fundaccess.org
Website: www.fundaccess.org



Telephone No: (246) 228-1366



HOW TO APPLY FOR THE ENERGY SMART FUND

Fill out the form in our website and a specialist will contact you according to your type of business or project.

Contact Name	Potential Loan Amount
Name of business	Category/type
E-mail	Phone number

Project general idea

Questions

Interested in:

☐ Loan ☐ Grant ☐ Both

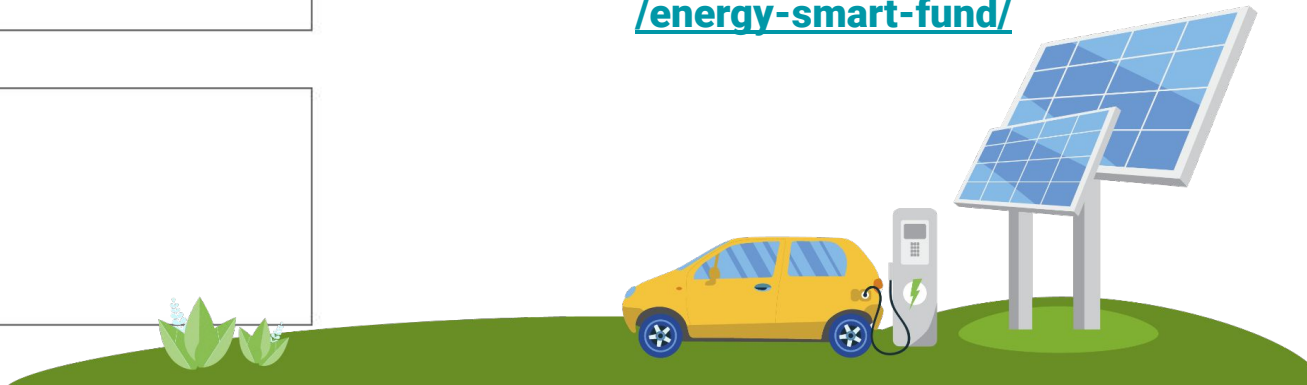
Interested in:

☐ Solar PV project ☐ pre-investment EE audit ☐ Electric mobility project ☐ EE technology project ☐ Energy storage technology ☐ Solar water heaters

* Available only for existing businesses operating in Barbados.

* Not available for households, individuals or State-Owned Enterprises and Government Entities.

www.smartenergybarbados.com/energy-division/energy-smart-fund/



Conclusion

Why choose the Fund over current competitors?

- **Experienced Fund Manager in EGFL**
- **Dedicated Fund Manager in FundAccess for small and micro businesses**
- **Competitive interest rate over a competitive time period**
- **Flexible arrangements**
- **Experienced cadre of professionals through Smart Fund Partners**
- **Wide range of technologies which can be implemented**
- **Recognized as an Energy Champion**





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Thank you!!

