



# GreenStreet Africa

DISTRIBUTED POWER FOR PUBLIC BUILDINGS

ENDORSED BY



MANAGED BY



# Introduction

## What is GreenStreet Africa?

- An innovative platform, designed and managed by GreenMax Capital Advisors, to implement distributed solar generation for large portfolios of public health and education facilities.
- Acts as a DevCo to work with national governments via PPPs to select sites and prepare the projects to shovel ready state.
- Project portfolios tendered to private Distributed Energy Services Companies (DESCOs) which build, own and operate the energy systems, delivering energy to the public facilities in an Energy as a Service (EaaS) model.
- Financing via local currency private placement bond issues with 3rd party guarantees protecting bond holders.
- Offtaker payments are backstopped with several credit enhancement features.
- The GreenStreet Africa model is being piloted in Nigeria through a partnership with InfraCredit.
- Describes the GreenStreet Africa model, plans to launch in 3-5 countries across 5 years and projects ESG impacts

## This Presentation:

Goal of expanding reliable, affordable clean energy supply to:



Public healthcare facilities

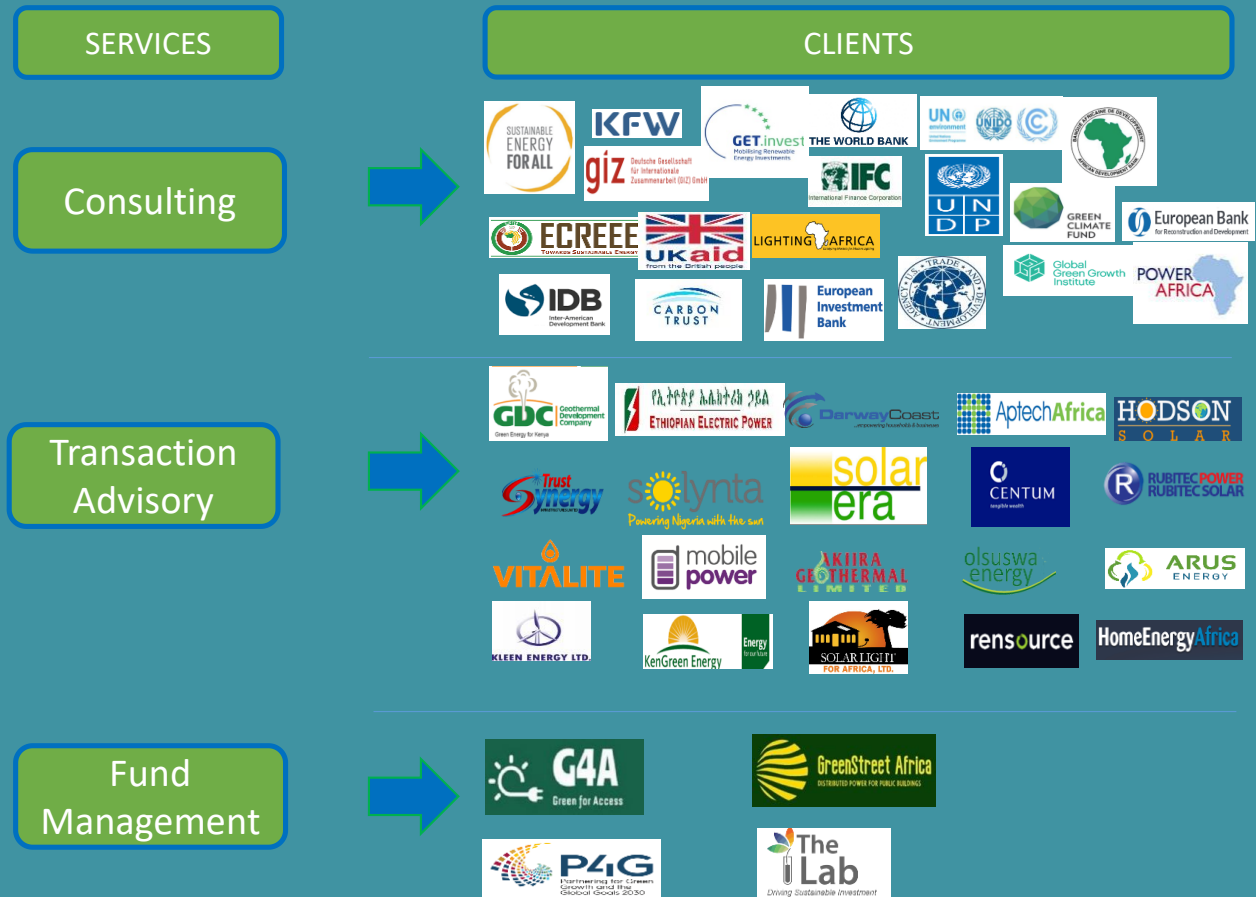


Public education facilities

# GreenStreet Africa - Structure, Proponents, Implementing team

## Why GreenMax?

- With 26 years of experience working on financing energy projects in 80+ countries, GreenMax is the ideally suited to implement the GreenStreet Africa model
- As far back as the last 1980s GreenMax principals helped pioneer the ESCO model in public school models in NY State, which served as the basis for the Federal Energy Management (FEMP) program, the largest EaaS/ESCO program on the planet.
- More recently, in the 2010s GreenMax has developed and launched EaaS models for the public sector in the West Balkans and Ukraine.
- Represented in 13 locations across Africa, Europe and the Americas, with largest footprint in Africa.
- Savvy team of energy and finance professionals located in Nigeria

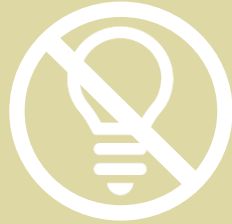


# The Need

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Only **47%** of the African population has access to electricity



~**1.75M** public health centers and schools lack a reliable electricity supply



Almost **60%** of health facilities have no power for life-saving equipment



Over **90 million** children attend schools without electricity



Unreliable grids force hospitals to rely on expensive diesel generators, which produce harmful pollution

- The World Bank estimates that \$1 billion/year is needed to solarize Africa's health clinics by 2030.
- Development partners are looking to the private sector for more market-led, service based models to ensure sustainability of electricity supply. Between 2010 and 2017, long-term, performance based service models electrified 73 million households containing ~ 360 million people.
- In service based models Government selects services provider (typically for 10 - 15 year period), who is responsible for raising investment capital and ensuring KPIs are met during contract period. Government pays provider on regular basis, with provider comforted through payment risk mitigation measures (e.g. guarantees). This alleviates burden of raising investment capital from government, which can turn to DFIs or other donors to help make regular payments.
- Interviews carried out by the World Bank in Nigeria, Niger and other Sub-Saharan African countries and confirmed by GreenMax's own surveys show the private sector is enthusiastic about participating in these types of business models.

# The Problem: Current Model is Not Working

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Bias toward procurement models:

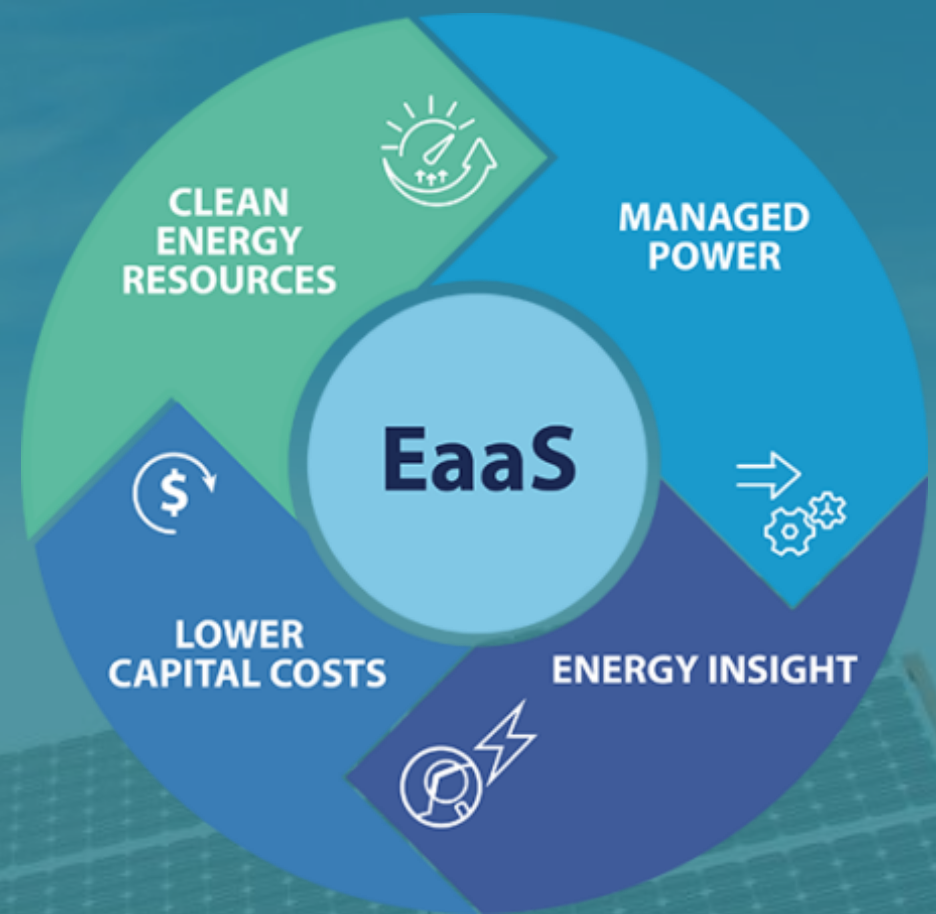
- To date, most public institution electrification efforts have been donor-supported projects. This creates a bias towards equipment ownership/procurement models, with funding focused on capex due to short project timeframes, at the expense of long-term O&M planning. This approach compromises the sustainability of solar systems since focus is on procurement of assets rather than service delivery.

Resulting in poor design and failure

- As a result, systems tend to be undersized due to ease of installation and lower maintenance requirements. Many installations are poorly designed, and fail prematurely or underperform due to poor maintenance and lack of repair services. This leads to the perception that renewable technologies are too new and unreliable, reducing investor interest.

# GreenStreet Africa: a “Super ESCO”

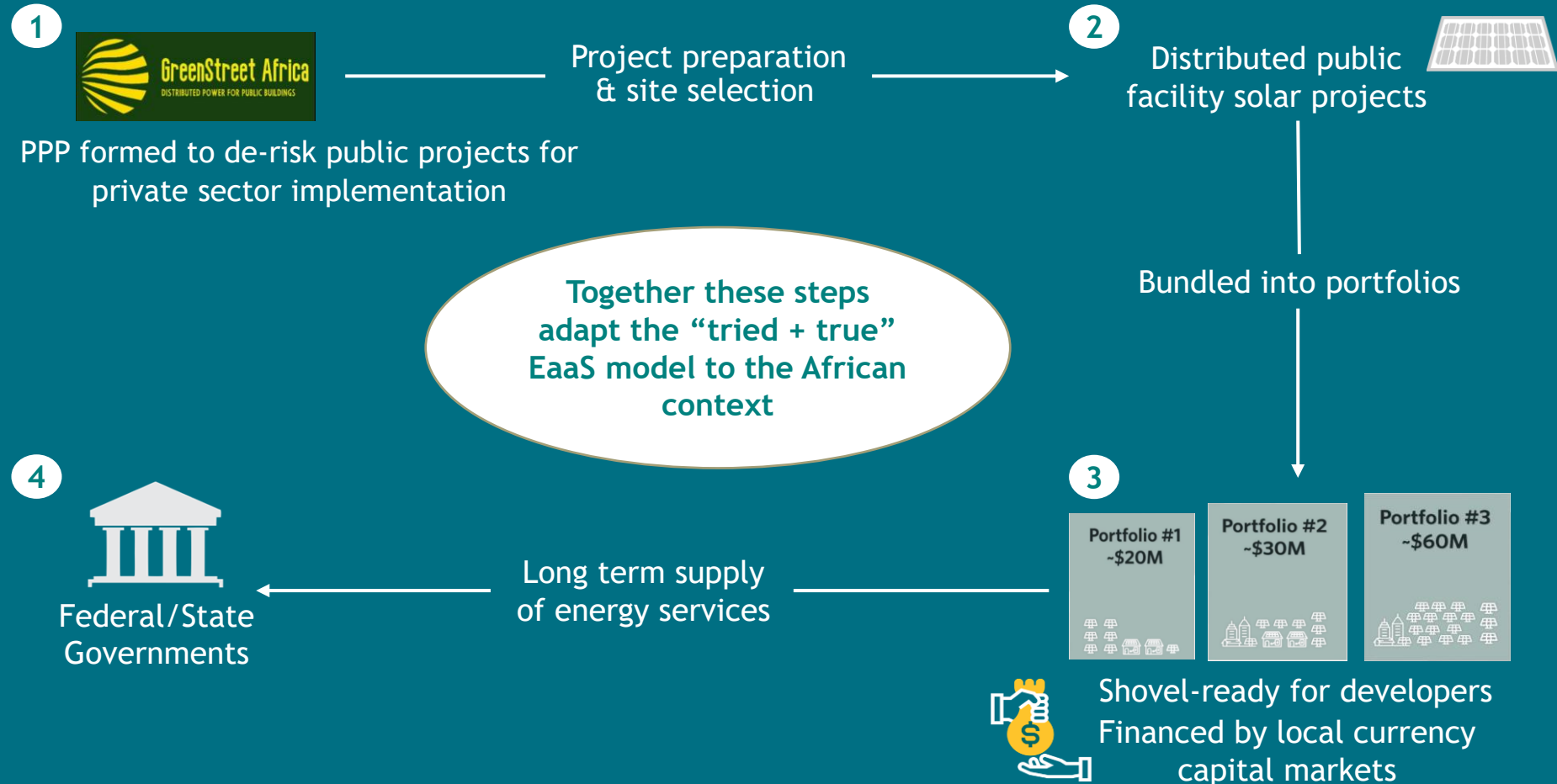
- **EaaS bundles all the elements of implementing and operating infrastructure**, which public procurement processes generally separate.
- EaaS packages engineering, construction, financing and O&M under a single service that is procured as one package, a practice often prohibited by procurement laws.
- **Implementing EaaS in emerging markets often requires tweaks to existing regulatory frameworks, policies, and processes** due to contract length and annual budget obligations.
- GreenStreet will function as a “Super ESCO” - **a PPP that prepares public sector energy services projects** for implementation by private companies.



In Africa, where governments are under constant budgetary pressure, GreenStreet Africa has added several layers of third-party guarantee support to backstop payments for energy services by government offtakers

# GreenStreet's Solution: Adapting 'Energy as a Service' for Africa

The solution takes the following approach:



# Challenges Adapting EaaS to Emerging Markets

## Finance + Budgetary Barriers:

- Budgetary commitments planned annually, difficult for public institutions and municipalities to make commitment to pay for energy services beyond a year
- Developers and investors face risk of non-payment from public institutions, necessitating third party guarantees

## Public Procurement Policy Barriers:

- Procurement rules often require tenders to be evaluated on basis of least-cost equipment compelling public institutions to choose bid with lowest up-front costs rather than most cost-effective option
- Some jurisdictions prevent packaging of design, construction, finance and O&M under single procurement

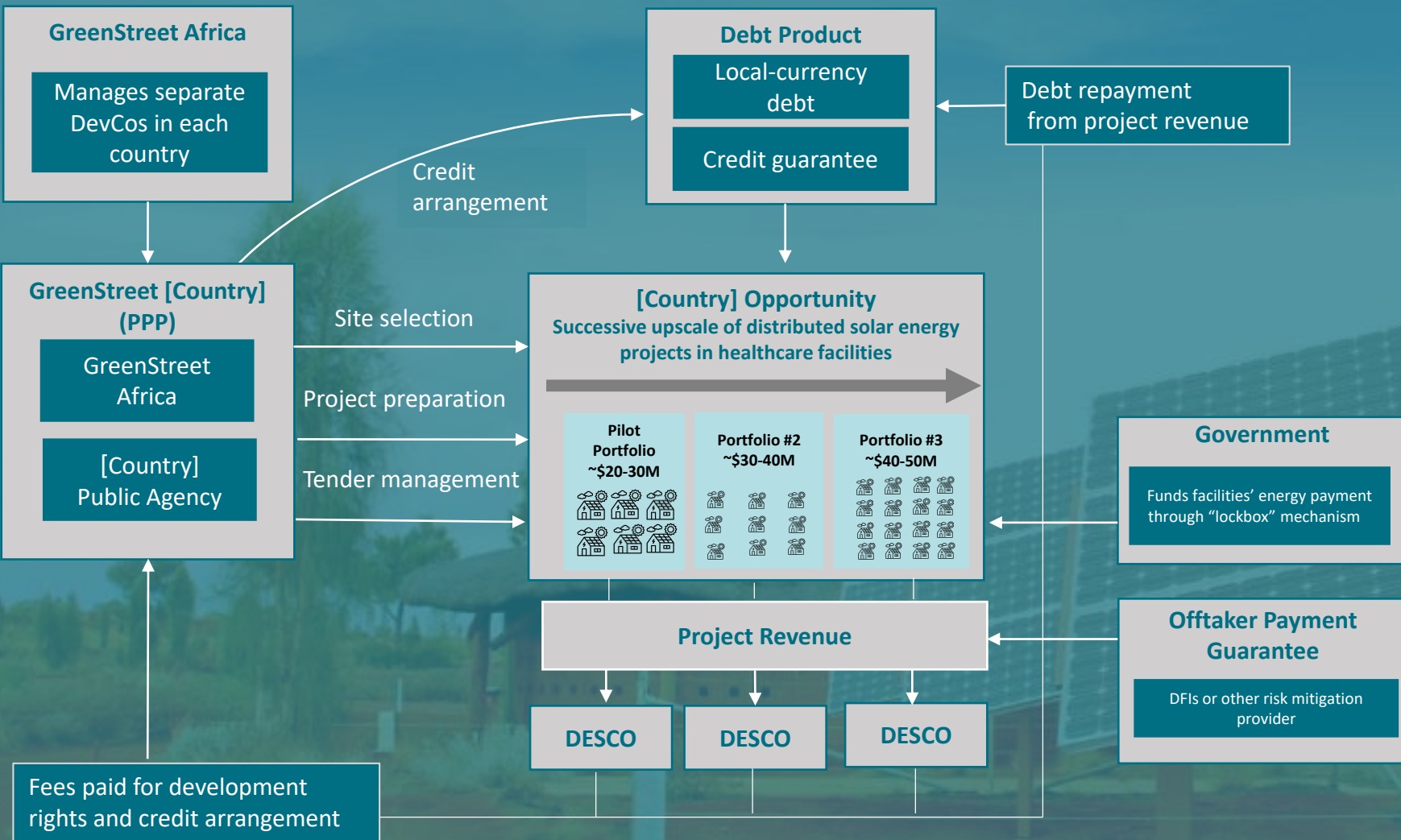
## Political Barriers:

- Change in governments poses large risk for energy sector investments, incoming administration may not agree with investments and financial commitments of previous administration

\* Case studies of how these challenges have been overcome in Mexico, India and the West Balkans are available from GreenMax on request



# GreenStreet Africa at a Glance



- Provides **clean, reliable energy access** for African healthcare + education facilities
- Establishes public-private partnerships (PPPs) in African countries to **identify, develop and bundle distributed energy projects** to be tendered to DESCOs.
- **Includes prearranged local currency debt package** for the winning service provider (DESCO) bidder.
- **Combines credit and payment guarantees** to reduce risk to both investors and service providers.

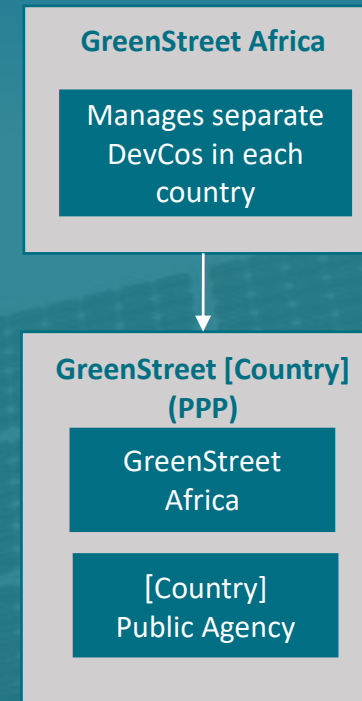
# Detailed Look at GreenStreet Business Model

## Step 1: The PPP

GreenStreet Africa will establish a public-private partnership with a government body or public agency in each country.

These PPPs will de-risk the project portfolios and ensure:

- Creation of the appropriate regulatory environment,
- Work together with the respective Health Ministry in order to pick an appropriate set of facilities from which to choose from
- Allow for a knowledge transfer in EaaS project development by the private sector to the public sector.



# Detailed Look at GreenStreets Business Model

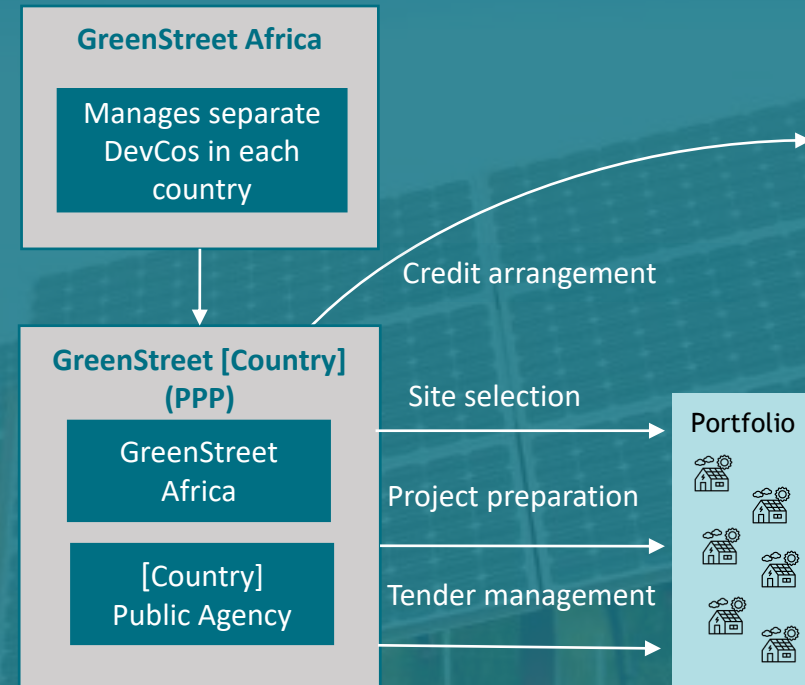
## Step 2: Project preparation and Portfolio creation

The GreenStreet Africa PPPs in each country will evaluate, select facilities to prepare large portfolios of solar projects at public healthcare and education facilities to shovel ready stage. Activities specifically include:

- Selection of sites to include in each portfolio
- Project preparation
- Arranging financing and credit support
- Lead and manage tender process

### Project preparation tasks consist of:

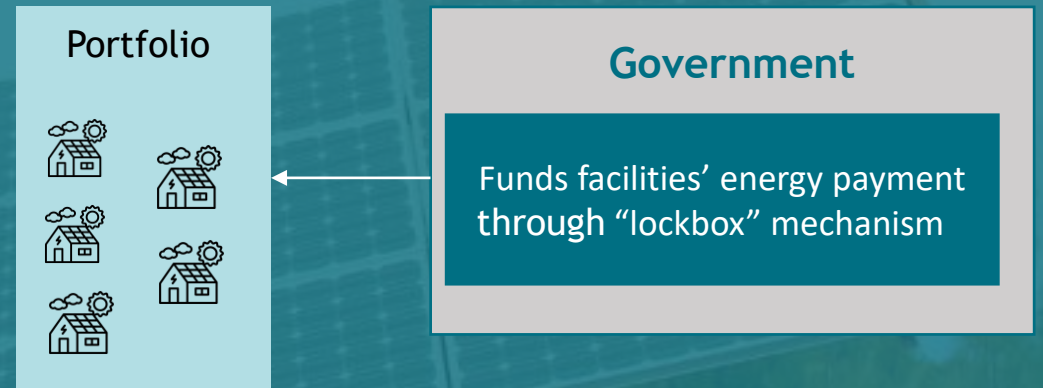
- Energy surveys, system sizing + technical configuration, conceptual design
- Environmental and all other licenses + permits required
- Finalizing offtake agreements with public facilities
- Preparation of tender documents for selection of private DESCO to build, own and operate the projects



# Detailed Look at GreenStreet's Business Model

## Step 3: Long Term Contracts

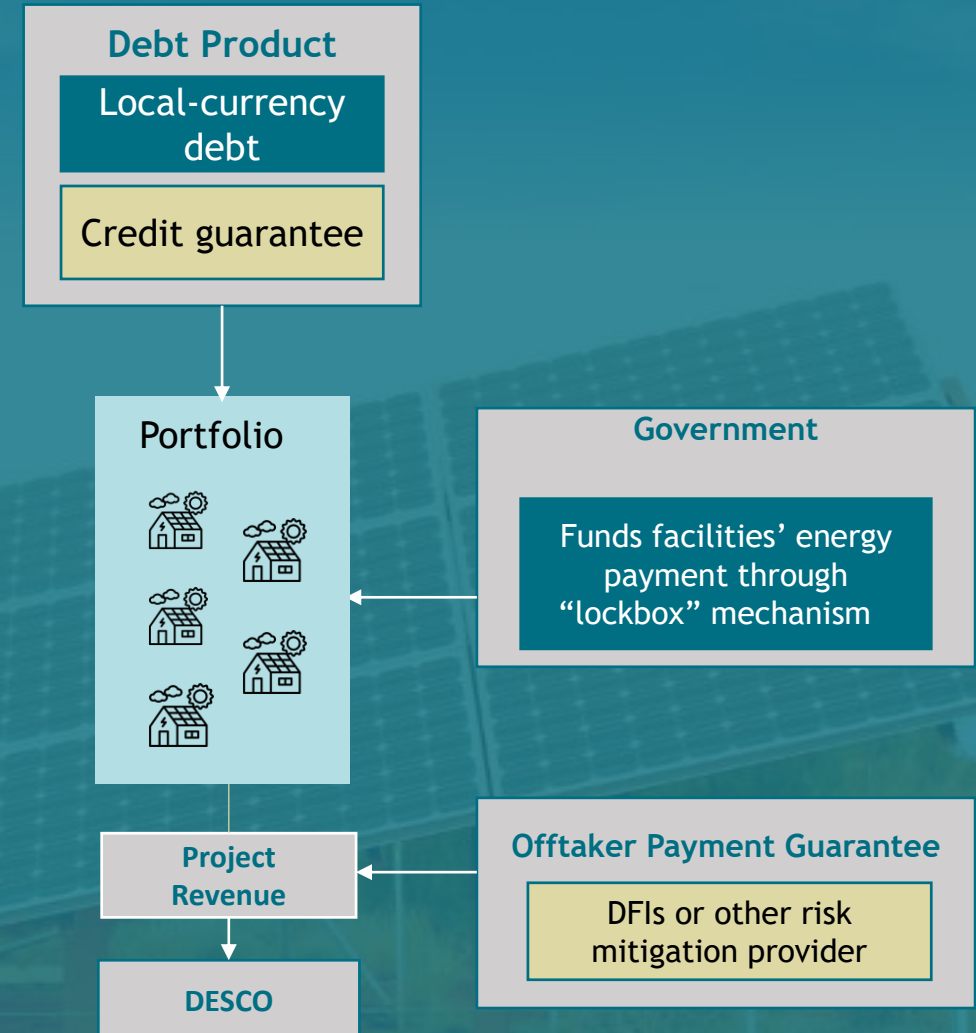
- The selected distributed generation projects will be bundled and legally owned by an SPV formed by the PPP. This SPV will hold the portfolio.
- Each facility will serve as offtaker for each specific project. Payments come from the respective government institution's allocated electricity budget. Generally this is the Ministry of Health.
- The electricity budget for the hospitals is a component of their allocated budget and is used to pay for electricity from diesel generators and the unreliable grid.
- The PPP will lobby that a portion of the gov't agency's budget be used to pay for electricity through a "lockbox" mechanism and thus ensure available funds to pay for the electricity provided by the GreenStreet Pilot Portfolio.
- The contracts include operations and maintenance in facilities' energy supply contracts, ensuring that projects are sustainable, creating long-term value for both the developer and the public facility off-taker.



# Detailed Look at GreenStreet's Business Model

## Step 4: Portfolio Financing

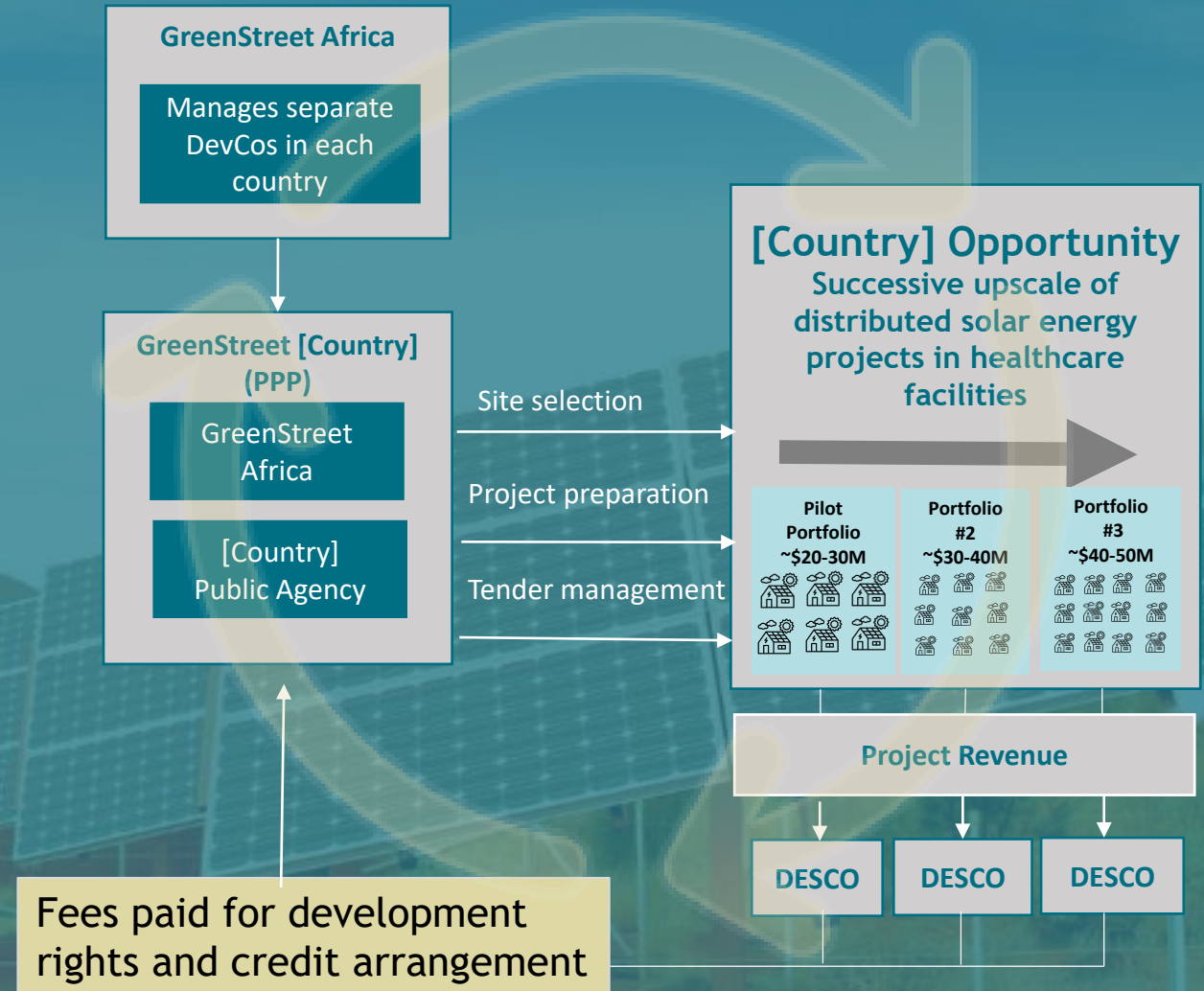
- By creating portfolios large enough to appeal to institutional investors, this bundled model will drive the development of distributed generation (DG) projects that would otherwise struggle to access affordable funding.
- GreenStreet Africa or one of its partners will organize a private placement bond issue in the local capital market to finance the installation of the new distributed power systems by the winning DESCO.
- In addition to a local currency guarantee, a guarantee structure will be put in place to backstop the payments for energy services by the government off-taker.



# Detailed Look at GreenStreet's Business Model

## Step 5: Self-sustaining Operations

- The winning DESCO will pay a developer fee to GreenStreet Africa for transferring the shovel ready project documentation housed in an SPV (the portfolio). The developer fee will be transparently included in the public tender.
- GreenStreet will then “recycle” a large portion of the fee paid in to development of new portfolios.
- GreenStreet’s development model becomes more efficient over time, allowing subsequent portfolios to be developed larger and with less time and money.



THANK YOU

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