

Sustainable Energy for All Investor Forum 2016

DE-RISKING ENERGY ACCESS TRANSACTIONS

COY NAVARRO – Energy Access Specialist

Clean Energy Investment Gap

Energy Access: USD 49 Billion / Year

USD 9 B

USD 40 B

Renewable Energy: USD 650 Billion / Year

USD 258 B

USD 392 B

Energy Efficiency: USD 560 Billion / Year

USD 130 B

USD 430 B

How should development funding be used?

Energy Access: USD 49 Billion / Year

USD 9 B

USD 40 B

Renewable Energy: USD 650 Billion / Year

USD 258 B

USD 392 B

Energy Efficiency: USD 560 Billion / Year

USD 130 B

USD 430 B

PDF Status

INVESTOR FORUM
SOURCE

125

BUSINESS DEV WS
INCUBATE

70

CUSTOM MENTORING
ACCELERATE

14

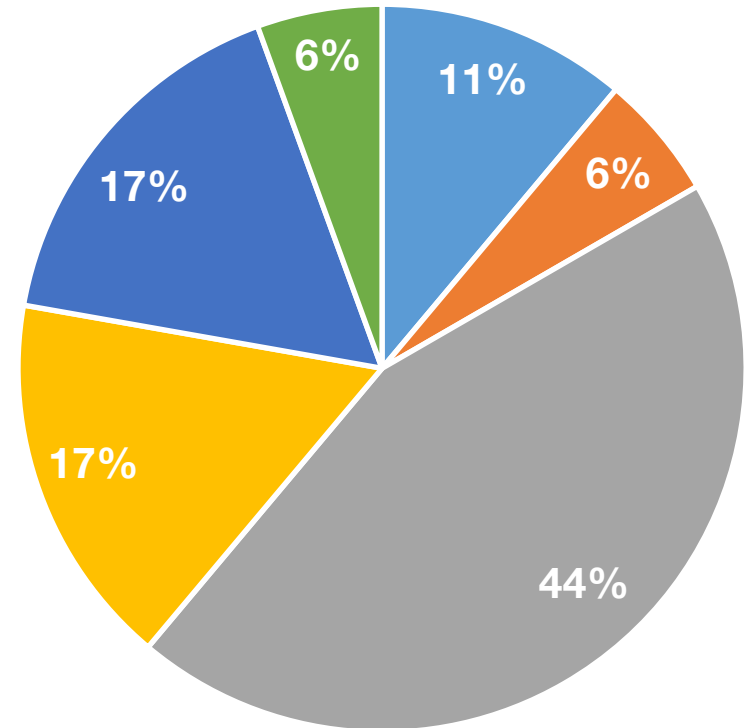
TARGETTED TA
REPLICATE

07

**DEALS
CLOSED**

18

Country Distribution



■ NEP ■ CAM ■ IND ■ PHI ■ BAN ■ MYA

TOTAL - USD 22M

Lessons Learned

1. Project Development Facility (PDF)

- **12/18** Closures
- Companies mature at different rates

2. Business Model Replication

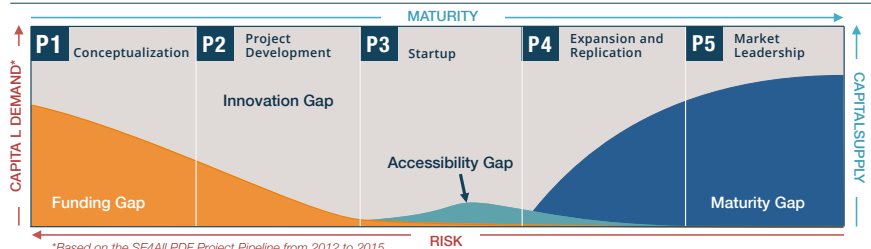
- 4/18 Deal Closures
- Deconstruct business models first

3. Ecosystem Enhancement

- 2/18 Closures
- Roles of Different Investor Types

Project Development Facility

A. VISUALIZING THE PROBLEM THE FOUR GAPS



- Funding Gap**
The number of clean energy companies that require development and feasibility funding far exceed the amount of capital available during the Conceptualization and Project Development Phases.
- Accessibility Gap**
Despite the availability of venture capital and private equity investors in Asia, they are mostly family offices and funds that operate under the radar. This makes them inaccessible to less-sophisticated startups.
- Maturity Gap**
The amount of funding locked in commercial banks and the capital markets far exceed the amount of clean energy deals that can satisfy their criteria.
- Innovation Gap**
The lack of innovation in the project development and investment space creates bottlenecks that stunt a company's development.

B. SERVICES FOR MEMBERS OF THE SE4ALL ASIA PACIFIC NETWORK

The services offered by the Sustainable Energy for All Project Development Facility (SE4All PDF) is divided into **Entrepreneur Services** and **Investor Services**. These suite of services are deployed to facilitate private sector investment in clean energy companies that reach a stage that can be considered investment ready (refer to Box 1).

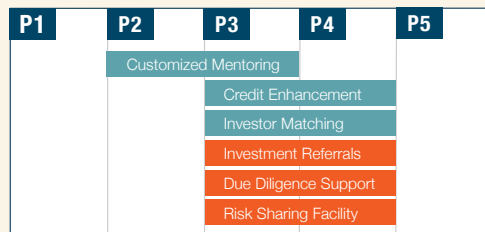
■ ENTREPRENEUR SERVICES

- 1] Customized Mentoring.** Entrepreneurs that are in the middle of investor negotiations may request for assistance from the SE4All PDF to satisfy due diligence requirements, such as technical designs and financial models.
- 2] Credit Enhancement.** The SE4All PDF may reduce the risk of an investment transaction by providing a credit guarantee or first loss facility.
- 3] Investor Matching.** Mature clean energy companies may be marketed by the SE4All PDF to its network of investors through investor forums, webinars or private deal flow sessions.

■ INVESTOR SERVICES

- 4] Investment Referrals.** Registered investors will have access to the SE4All PDF's database of clean energy companies.
- 5] Due Diligence Support.** Investors may request support from SE4All PDF Mentors to conduct due diligence on clean energy companies.
- 6] Risk Sharing Facility.** Investors who are diversifying to the clean energy space may receive concessional funding from the SE4All PDF to reduce their risk and make the terms of their financing products more accessible to entrepreneurs.

BOX 1. FIVE STAGES OF MATURITY



PHASE 1 | Conceptualization. The company is in the research and development stage, or in the process of putting together a business plan.

PHASE 2 | Project Development. The company has a business plan, and is in the process of validating the assumptions behind their financial model through actual market surveys or pilot operations.

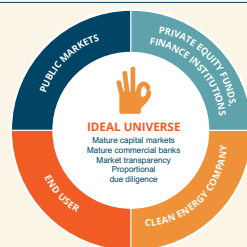
PHASE 3 | Startup. The company has been operating for less than 3 years and has a validated record of revenue.

PHASE 4 | Expansion Phase. The company has successfully established their core operations and is expanding to new markets.

PHASE 5 | Market Leadership. The company has a defensible position in the market and does not require SE4All PDF support.

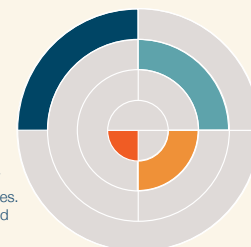
SUSTAINABLE ENERGY FOR ALL PROJECT DEVELOPMENT FACILITY

BOX 2. IDEAL UNIVERSE VERSUS FRACTURED UNIVERSE



OUR GOAL. In an **Ideal Universe** capital flows freely between Capital Markets, Private Equity Funds, Finance Institutions, Clean Energy Companies and End-Users.

REALITY. However, we live in a **Fractured Universe** where private sector players have different interests and priorities. As a result, capital does not flow freely and clean energy solutions don't get funded.



C. OUTCOMES CASE STUDIES OF SUCCESSFUL DEPLOYMENT OF THE SE4All PDF

CASE 1 | BRIDGING THE GAP BETWEEN CLEAN ENERGY COMPANIES AND END-USERS

SE4All PDF SUPPORT. The SE4All PDF featured Simpa Networks in a regional investor forum last June 2013, which resulted in a direct investment by the ADB Private Sector Operations Department.

IMPACT. Simpa Networks developed a Pay-As-You-Go system that lowers the initial acquisition cost of energy products for rural households.

INNOVATION. The capital cost of the solar home system is priced into the energy credits that end-users need to purchase to unlock their system on a daily basis.

BEST PRACTICE DISSEMINATION



CASE 2 | BRIDGING THE GAP BETWEEN CLEAN ENERGY COMPANIES AND INVESTORS

SE4All PDF SUPPORT. The SE4All PDF deployed its Mentors to assist Gham Power Nepal design its first mini-grid venture. This marks the start of Gham Power's transition from a retailer to an energy service company.

IMPACT. Mini-grids have the potential to go beyond household electrification to power small businesses and enhance rural economies.

INNOVATION. By hand-holding entrepreneurs as they adopt new business models and technologies, the SE4All PDF is able help them avoid mistakes made by their predecessors and increase the likelihood of their success.

CUSTOMIZED MENTORING



CASE 3 | BRIDGING THE GAP BETWEEN INVESTORS AND CLEAN ENERGY COMPANIES

SE4All PDF SUPPORT. The SE4All PDF assisted ERM Low Carbon Enterprise Fund to conduct due diligence on E-Hands Energy, mini-grid company based in India.

IMPACT. The additional manpower provided by the SE4All PDF enabled ERM to expedite their due diligence process and secure board approval for the investment in E-Hands.

INNOVATION. Some impact funds have limited manpower to process all the investment proposals that come their way. The SE4All PDF's team of qualified Mentors can be deployed as a support team to assist investors during the due diligence phase.

DUE DILIGENCE SUPPORT



CASE 4 | BRIDGING THE GAP BETWEEN INVESTORS AND CAPITAL MARKETS

SE4All PDF SUPPORT. The SE4All PDF implemented a credit enhancement scheme to assist Maanaveeya, the India office of OIKO Credit International, in developing a portfolio of energy access companies.

IMPACT. Maanaveeya has disbursed working capital loans to two energy access companies as of June 2016. If these investments prove successful, Maanaveeya can refinance these loans with cheaper capital that can be rolled over to fund more energy access deals.

INNOVATION. Through targeted deployment of development funds, the SE4All PDF is able to de-risk clean energy investments and encourage investors to fund clean energy companies.

CREDIT ENHANCEMENT



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Business Model Replication

CORE PROCESSES

Procurement

Construction

Energy
Generation &
Distribution

Operation &
Maintenance

KEY PARTNERS

Engineering
Consulting
Firm

SUBCONTRACTED PROCESSES

Energy Demand
Assessment

Engineering
Design

VALUE PROPOSITION

Reliable
Electricity

Increased
Productivity

High Power
Quality

Guaranteed
System
Performance

KEY CONTRACTS

Long-term
Power Sales
Agreement

Engineering
Subcontract

CHANNELS

Cooperative

CUSTOMER SEGMENTS

Households

Micro
Businesses

COST CENTERS

Solar PV
System

Energy
Storage

Monitoring
System

Power Control
System

Manpower
Overhead

Distribution
Lines

REVENUE STREAMS

Operation &
Maintenance

Electricity
Sales

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Contact Information

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