

## ACCESS TO ENERGY FUND

Quarterly report Q4-2016

**In many fast-growing developing countries, the demand for electricity continues to rise whilst power infrastructure struggles to keep up. Our main fossil fuel sources – oil, coal and gas – are finite natural resources, and we are depleting them at a rapid rate. Climate change has become a reality and is changing our future. This is intensifying the race to come up with energy solutions that are affordable for all and produced in ways that can be sustained by the global economy and the planet.**

Today, a large part of the world is still covered in dark after nightfall. Especially Sub-Saharan Africa has some key issues regarding energy availability. Access to energy is low due to lacking infrastructure (connections to the grid) and/or insufficient generation capacity. According to the World Bank (2015) only 24% of the Sub-Saharan African population has access to electricity. At the same time, the area deals with poor reliability of the electricity available, especially impacting local African manufacturing enterprises. Power outages are on average experienced 56 days per year. The Access to Energy Fund is a €102 million fund jointly initiated by the Dutch government and FMO in 2003 to support private sector projects aimed at providing long-term access to energy services in Sub-Saharan Africa.



# 1. FUND OVERVIEW

## 1.1 FMO GOVERNMENT FUNDS MANAGEMENT

FMO is the Dutch development bank. FMO has invested in the private sector in developing countries and emerging markets for more than 45 years. Our mission is to empower entrepreneurs to build a better world. We invest in sectors where we believe our contribution can have the highest long-term impact: financial institutions, energy and agribusiness. Alongside partners, we invest in the infrastructure, manufacturing and services sectors. FMO has 3 active government funds under its management:

- Access to Energy Fund (AEF) – The AEF 'Energy for Growth' funds private sector projects that create sustainable access to energy services.
- Infrastructure Development Fund (IDF) – The IDF provides long-term financing for infrastructure projects in low-income countries.
- MASSIF: provides financing and technical assistance to microfinance institutions (MFIs), small banks, and private equity funds, supporting access to finance for micro-, small- and medium enterprises (MSMEs).

FMO Government Funds Management	Q4-2016
Assets under management	€ 913.7 mln
Total committed portfolio government funds	€ 1,212.1 mln
Active Funds	3
Active Portfolio companies	178

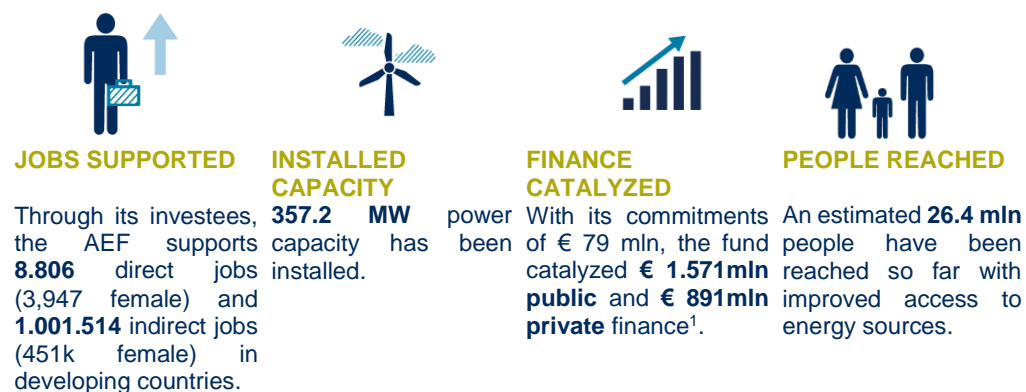
## 1.2 FUND KEY FACTS

The Access to Energy Fund (AEF) has been set up to actively support the creation of sustainable access to energy in developing countries by providing risk bearing funding; equity, subordinated loans, local currency loans and grants that fulfil the ODA-criteria and concessional requirements. The goal of the fund is to provide access to energy to at least 3 mln people. In order to reach this goal, € 102 mln funding has been made available by the Dutch Ministry of Foreign Affairs. Since December 2012, the fund is solely focusing on Sub-Saharan Africa, specifically targeting affordable, clean and renewable off-grid energy solutions (75% of the outcomes).

Key Facts AEF I & II	Q2 2016
Start of Investment period	2006
End of investment period (AEF I / AEF II)	2018
End of management period	2038
Total funds available according to "Beschikking"	€ 102.0 mln
Total funds received	€ 60.8 mln
Remaining funds available (beschikkingsruimte)	€ 41.2 mln
Total number of investments in both portfolios	19
Total number of countries in both portfolios	10

### 1.3 IMPACT

In the table below the 2015 impact results of the current portfolio are presented. The Impact results are updated once a year in the Annual Report. The definitions and assumptions underlying below reported numbers are subject to ongoing discussions with the State.



Two targets have been set regarding AEF impact results.

1. By 2018, AEF investments should have reached 3 million beneficiaries
2. By 2018, AEF investments should have a catalytic effect of 3.25, measured as average over the full portfolio.

Catalytic effect is calculated as follows: total amount invested by other parties with a higher security ranking than AEF's financing. Based on above numbers, catalytic effect as per YE 2015 is around 31.2.

Based on YTD cumulative impact measurements until YE 2015, we expect that both targets will be met by 2018. However, it is good to note that definitions applied to measure these (and other) impact targets are and have been subject to change over the life of the Fund.

Please be advised that the definition of "Beneficiaries reached" for AEF, as agreed with the Ministry of Foreign Affairs, has been adjusted in January 2016 and will yield significantly different results. Fund Management is aware that the currently reported number is overstated as the new definition has not yet been applied to currently reported numbers. It will be adjusted in the 2016 annual report.

In 2015 FMO and DGIS agreed on a revised version of the definitions of the impact indicators, creating more aligned and accurate data quality and reporting methodology. For a holistic overview of the impact so far created, the reporting shall include the cumulative impact over the 'lifetime' of the funds (of the total portfolio level). Please be referred to Annex 3 for a specification of the indicator definitions.

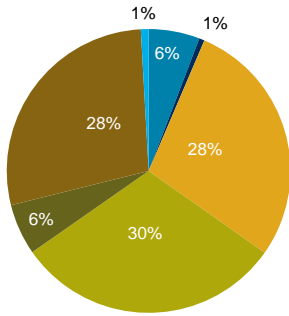
### 1.4 PORTFOLIO OVERVIEW

The AEF has a diverse sector break down in the energy industry. Solar, hydro and wind energy make up 42% of the total portfolio. 27% of total portfolio is invested in other/mixed renewable energy. The fund is predominantly active in Africa (88%), as the fund has been restricted to invest solely in Sub Sahara Africa since December 2012. A relatively large share of commitments is in equity (59%).

<sup>1</sup> Please note that these catalyzed amounts include all finance made available through public and commercial parties in the total project.

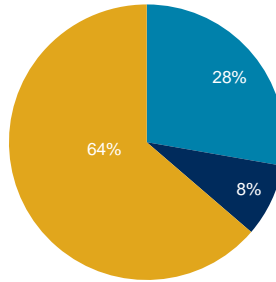
Current Portfolio breakdown AEF I and II (in € mln)		Q4-2016
Committed portfolio		€93.5 mln
Outstanding portfolio		€68.0 mln
Committed not disbursed		€25.5 mln
Value Adjustments and amortized costs		-€1.8 mln
Net Portfolio		€66.2 mln

### INDUSTRY



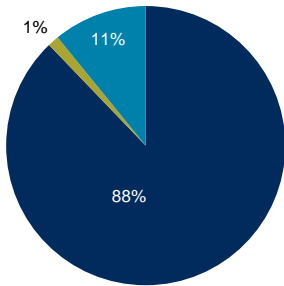
- Hydro Energy
- Microfinance
- Non Renewable Energy
- Other / Mixed Renewable
- Other FI
- Solar Energy
- Universal Banking

### CURRENCY



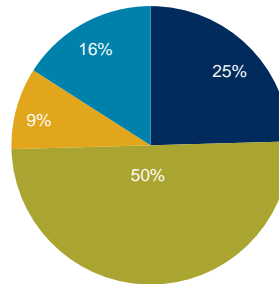
- EUR
- LOCAL
- USD

### REGION



- AFRICA
- ASIA
- EUROPE & CENTRAL ASIA
- LATIN AMERICA & THE CARIBBEAN
- GLOBAL

### PRODUCTS



- Loans
- Equity - direct
- Equity - funds
- Mezzanine

## 1.5 PERFORMANCE AND REVOLVABILITY

As per end of Q4-2016, 59.6% of the two AEF funds have been drawn from DGIS. AEF has a revolvability target of 75%, meaning that every €1 invested should generate sufficient interest income and principal repayments to allow € 0.75 to be reinvested.

The funds have a Residual Value over Total Funds received from investors ("RVPI") of 130.3%. The RVPI sets off the total outstandings against total funds received from DGIS. This is a measure of revolvability and implies AEF can take more risk. FMO is actively seeking high impact transactions for AEF and allowing higher risk or earlier stage investments, especially in the off-grid space.

Performance and Revolvability	
Total Funds received from DGIS to Committed Capital by DGIS	59.6%
Residual Value over Total Funds received from investors <sup>2</sup>	130.3%

<sup>2</sup> This ratio benchmarks the current net value of the fund to the total funds placed in the fund over time. Any value above 100% indicates that the fund is revolvable. This ratio is calculated by dividing the net asset value of the fund by the cumulative capital placed in the fund.

## 2. CLIENT CASE

# GIGAWATT GLOBAL RWANDA LTD.

FINANCING A FIRST SUB-SAHARAN SOLAR PARK OUTSIDE SOUTH AFRICA



**“THROUGH THIS PROJECT WE WILL DEMONSTRATE THAT WITH THE COMBINED EFFORTS OF EXPERIENCED PARTNERS AND NATIONAL AUTHORITIES, SOLAR ENERGY IS FAST AND COST EFFECTIVE TO BUILD.”**

**RAYMOND CARLSEN, CEO SCATEC SOLAR**

### AN EFFECTIVE GOVERNMENT REMOVING BARRIERS TO GROWTH

One of the fastest growing economies in the region, enabled by exceptionally low government corruption

Rwandan access to energy is very low, with only 100MW installed capacity and reliance on emergency generators

Government priority is expanding production capacity

### RISING TO THE CHALLENGE OF INCREASING CLEAN CAPACITY

FMO's experience investing in renewable energy projects in emerging markets allowed us to mobilize financing within 3 months of being mandated.

Operations commenced in July of the same year, adding additional capacity to the grid

Solar park also eases reliance on emergency generators and non-renewable energy sources

Solar park is built on land leased from the Agahozo-Shalom Youth Village, which houses children orphaned before and after the 1994 genocide

Rent from the land significantly increases the income of this vulnerable group

### THE FIRST SOLAR PARK IN SUB-SAHARAN AFRICA

Gigawatt established to build an 8.5MW solar park 60km from Kigali, the capital

Company was able to negotiate a strong offtake agreement, on the condition that construction start within 6 months

FMO was able to arrange financing quickly, also mobilizing Emerging Africa Infrastructure Fund to invest

## COMPANY INFORMATION

### NAME

Gigawatt global Rwanda Ltd.

### COUNTRY

Rwanda

### SECTOR

Renewable Energy

### TYPE OF BUSINESS

Off-grid solar power

### FMO INVESTMENT

USD 8.9 mln Investment AEF

### TOTAL PROJECT SIZE

USD 23.7mln

### FINANCIAL PRODUCTS USED

Senior Loan Facility

## IMPACT INFORMATION



28360 solar panels



8.5 MW



Jobs supported: 280 during construction, 15 during operations



9.800 mt CO2 avoided p.a.



Annual electricity production: 15GWh/year



## ABOUT FMO

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