SUSI Energy Efficiency Fund ("SEEF")

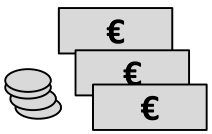
Standardization – A requirement to finance energy efficiency projects?

Madrid, June 2017

SUSI Partners: An independent leader in sustainable infrastructure financing

Addressing the three main pillars of future energy infrastructure

Institutional capital



The investor base mainly consists of:

- Pension funds from countries incl.:
  - Germany
  - Switzerland
  - Netherlands
- Supranational institutions incl.:[1]

European Investment Bank

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SUSI Partners (SUSI) is a specialist investment advisor focused on financing sustainable infrastructure projects.

SUSI's investment team is made up of investment professionals with experience in Project Finance, M&A, Banking and Asset Management.

Founded:	2009
Locations:	Zurich, Zug, Luxembourg, Frankfurt
Employees:	44
Total committed capital:	~ EUR 800 million
Total CO_2 savings:	~250,000 tons annually

Founders:

Dr. Tobias Reichmuth,
Otto von Troschke

President of the Board of Directors:

Kai-Uwe Ricke

Renewable Energy

Investments in solar and wind parks within Europe

- **SUSI Renewable Energy Fund I**
  EUR 60 M fully invested
- **SUSI Renewable Energy Fund II**
  EUR 380 M committed, currently investing

Energy Efficiency

Financing of energy efficiency measures in Europe

- **SUSI Energy Efficiency Fund (SEEF)**
  EUR 200 M committed, currently investing
  SEEF is Europe's largest fund dedicated to Energy Efficiency and is (re-)financing projects or project portfolios, among others, in the following areas:

Buildings	Industry	Public Infrastr.
HVAC	Electric motors	Street lighting
Building mgmt.	Waste heat recovery	Hospitals / Schools
Lighting (LED)	Plants and processes / Pumps	Swimming pools
Water treatment		Smart grids
PV self-consumption		

Energy Storage

Investing in storage capacity in OECD countries

- **SUSI Energy Storage Fund**
  After 1. closing EUR 66m, targeted at EUR 250 M

[1] http://www.eib.org/infocentre/press/releases/all/2016/2016-190-investment-plan-for-europe-eib-participates-in-susi-renewable-energy-fund-ii.htm

European energy efficiency market

Progress

- Primary energy consumption **1.6% above 2020 target**
- **New buildings** consume half the energy they did in the 1980
- Sale of **home appliances** with highest energy efficiency labelling classes increased dramatically

Targets (excerpt)

- Governments need to improve energy efficiency in buildings owned of **at least 3% per year**
- Annual **reduction of 1.5%** in national **energy sales**
- Rollout of close to **200 million smart meters** for electricity and 45 million for gas by 2020

To meet EU's 2020 Energy Efficiency targets, EUR 100 billion of investments need to be implemented per year (*)

EU-sponsored subsidies

- **Support** research, demonstration of EE technologies via H2020, Elena and Project Development Assistance (PDA)
- European Energy Efficiency Fund for regional and national public authorities (**EUR 265 million**)
- European Structural & Investment Funds: **EUR 27 billion** provided towards low-carbon economy

(*) https://ec.europa.eu/energy/node/1742

End-Customers: Current obstacles for implementation of further EE-projects

MAIN BARRIERS		"Excuses"		
		Public Entities	SMEs	Big Corporates
1	Capacity (man power)	✓	✓	✗
2	Know-how	✓	✓	✗
3	Capital Expenditure	✓	✓	✓
4	Trust / Standardization	✓	✓	✗
5	On- versus Off-balance sheet accounting	✓ (Maastricht)	✓	Less
6	Payback period is higher than 2-5 years	✓	✓	✗

Energy Efficiency is NOT a CORE business, neither for Public nor Private Entities

Financiers: How to make energy efficiency projects bankable

Risks

- End-customers: **credit quality**, future energy consumption
- ESCO/technology partner (TP): **start-up vs. established**, credit risk, installation and operational risk
- Technology: **proven** versus innovative
- **Performance**: technology does not perform as expected, ESCO/TP does not perform as scheduled
- Energy price: **volatility** of EUR-savings per year
- Market **fragmentation**: most EE-projects are relatively small and unique in its own (i.e. technology solution)

Risk Mitigation

- End-customers: careful credit risk analysis at financing and ongoing, additional **credit enhancement**, **change of control** clauses
- ESCO/technology partner: careful credit risk analysis at financing and ongoing, **step-in rights**
- Technology and performance risk: guarantees by ESCO/TP (if credit quality is acceptable) and/or **third party insurance**
- Consumption and energy price risk: **taken by** end-customer and/or ESCO/TP
- Extensive **due diligence** process, including careful drafting of financing agreements (i.e., assignability of future payment streams, termination rights, potential changing regulations/taxation issues)
- Fragmentation: be **creative**, but diligent

SUSI EE model: Cooperative business relationship and sensible risk allocation

Origination strategy & risk allocation

End Customers (public/private)

Know-how

Service Contracts

Financing & Structuring

Technology Partner

Risk Sharing Operational / Financing

SUSTAINABLE SÀRL
FINANCING ENERGY TRANSITION

- *Planning and Design*
- *Installation*
- *Operation and Service*

- *Financing*
- *Off-balance Structuring*

Key features of SEEF financing

- **100% financing**: any costs associated to an energy efficiency
- **Financing until June 2027**: especially useful for private entities
- **Structuring expertise**: our team has substantial experience in structuring complex financing solutions
- **No commitment fee**: available financing for projects during the fund's investment period without charging a commitment fee
- **Availability of funds**: SEEF can deploy its financing within 6-10 weeks

Long-term financing for measures, targeting improved efficiency

Our primary financing criteria

- **Technology:** Proven tangible and intangible EE retrofit solutions
- **Counterparty:** Solid overall risk profile
- **Financing term:** from 6 years up to June 2027
- **Geographic focus:** European Union
- **Financing quantum:** € 2 million to € 20 million per transaction, euro denominated
- **Qualitative selection:** Quantifiable CO_2 impact

What we can finance

Energy Efficiency

Increased Energy Savings

- Redesigned processes
- Upgraded equipment efficiency
- Building infrastructure retrofit/upgrade

Improved Energy Supply

- Optimised energy supply
- Intelligent demand/response management
- Waste recovery

In competition (?) to

- Bank financing: hurdles are project size, existing corporate exposure, term, requirement of equity
- Leasing companies: 100% financing, limited term
- Funds: limitations due to national restrictions for direct lending, leasing, etc.

SEEF is currently active in all major EUR markets, including Spain

Markets

Transaction closed   Transaction in execution

Track record in Energy Efficiency

Country	Project	Financing structure	ESCO
Spain	**Street Lighting retrofit**	**Sale of receivables**	3e
Italy	LED portfolio	Off-Balance sale of receivables from an EE lighting player	Beghelli
Italy	Street lighting in six municipalities	Off-Balance financing for a portfolio of municipalities	GEMMO
Italy	LED retrofit	True sale of receivables	TerniEnergia TERNI Green Company
Finland	Portfolio of LED projects	Notes subscription	GREENLED
Germany	School campus retrofit	Energy Performance Contracting	Undisclosed
Germany	Retrofit of glass manufacturer	Off-Balance-Leasing solution	Undisclosed
Germany	Public buildings	Sale of receivables	engie
Germany	Utility portfolio	Sale and lease back solution	Undisclosed
Ireland	LED portfolio	Sale of receivables via a facility	URBANVOLT
Slovenia	Portfolio of EE projects	Sale of receivables	gge

Case Study (I/IV): With Mejorada, SEEF entered the Spanish market in 2016

Key Facts

Country	▪ Spain
Financing Volume	▪ Undisclosed
CO_2-Savings	▪ 750 Tons of CO_2 p.a.
Contract Type	▪ Supply-service contract
Financing Tenor	▪ 10.5 Years

Project Overview

ESCO	▪ Energìa Eléctrica Eficiente (3E). A Madrid-based ESCO specialized in LED luminaires design and installation.
End Customer	▪ A Spanish municipality located about 20 km from Madrid. It belongs to the broader autonomous community of Madrid and its population is 17'195 inhabitants.
Measures	▪ Existing lighting is replaced by energy-saving equipment; enabling remote monitoring and smart maintenance, including both street and inner lighting.
Financing Structure	▪ "Sale of Receivables" structure allows SEEF to purchase the receivables arising from the component P1 of the contract.
Advantages	▪ SUSI completely assumes the credit risk of the municipality, with a non-recourse purchase of the receivables. ▪ The ESCO successfully terminated the leasing contract it had in place, in favour of SUSI financing that is characterized by an higher financing quantum, with a no-recourse nature, at a comparable return.

Case Study (II/IV): Re-financing a Project Portfolio (Italy)

Key Facts

Product Status	▪ All projects are running
Financing Volume	▪ EUR 32.9 million
CO_2- Savings	▪ 17,700 tons CO_2/ p.a.
Contract Type	▪ Energy Savings
Financing Term	▪ 12 years

Project Overview

ESCO	▪ Leading company with international presence in the area of engineering, procurement, production and sales of LED lighting systems.
End Customer	▪ More than 300 customers out of a contracting portfolio of the ESCO. The portfolio consists of clients of private and public sector.
Measures	▪ Replacement of existing lighting installations by more efficient measures, as well as subsequent monitoring and maintenance of the measure.
Structuring	▪ By the "true sale of receivables" according to IFRS the portfolio's receivables are transferred to SUSI.
Benefits	▪ SUSI assumes the credit risk of the portfolio whereof a certain amount of first losses are covered due an agreed «First Loss Piece Mechanism» ▪ Due the expertise of SUSI the transaction could have been structured in a way that despite a partial risk underwriting of the ESCO the financing is considered as («First Loss Piece Mechanism») off-balance.

Case Studies (III/IV) – Re-financing of a waste heat utilization site (Germany)

Key Facts

Product Status	▪ All projects are running
Financing Volume	▪ EUR 4.9 million
CO_2- Savings	▪ 4,200 tons CO_2/ p.a.
Contract Type	▪ Energy Savings
Financing Term	▪ 10 years

Project Overview

ESCO	▪ French company with international presence in energy efficiency, specialized in the planning and realization of contracting projects.
End Customer	▪ Germany based, international manufacturer of glass and glass products with three production sites as well as four distribution locations in Germany.
Measures	▪ Building and maintenance of a waste heat utilization site and a block heating station at two locations.
Structuring	▪ Sale & Lease Back (under IFRS): installed equipment of ESCO is purchased by SEEF. The ESCO transfers a part of its receivables to SEEF in the form of a leasing contract. The ESCO receives the right to use the equipment in return.
Benefits	▪ SEEF assumes the credit risk of the customer. ▪ As a result of the asset transfer and off-balance sheet treatment, the balance sheet key ratios of the ESCO have improved.

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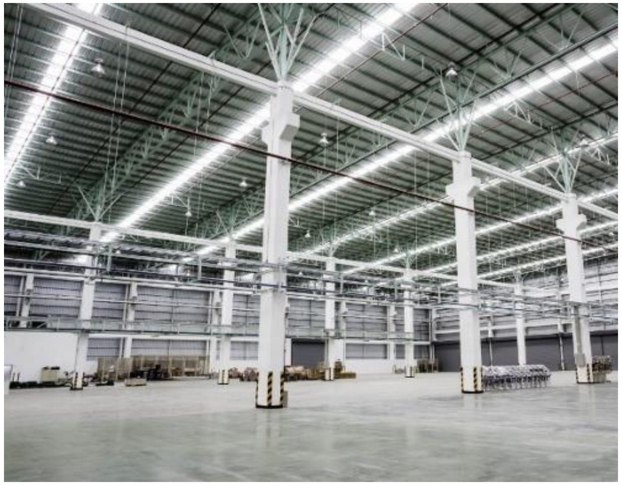
Case Studies (IV/IV) – Re-financing of contracting portfolio (Germany)

Key Facts

Product Status	▪ All projects are running
Financing Volume	▪ EUR 11.1 million
CO_2- Savings	▪ 11,700 tons CO_2/ p.a.
Contract Type	▪ Energy Delivery
Financing Term	▪ 11.5 years



Project Overview

ESCO	▪ One of the largest regional utilities in North Rhine-Westphalia with a dedicated contracting subsidiary.
End Customer	▪ The portfolio consist of more than 20 large industrial and public customers plus more than 30 smaller end customers.
Measures	▪ Replacement of lighting, heating and compressed air assets with more efficient equipment.
Structuring	▪ A Sale & Lease Back (under IFRS) structure allows SEEF to purchase a portfolio of assets and ensure that the transaction is off-balance for the ESCO.
Benefits	▪ SEEF assumes the credit risk of the portfolio, whereby initial losses are covered via a “First Loss Piece Mechanism”. ▪ The transaction was successfully structured as off-balance for the ESCO allowing a significant reduction of its net debt.

How to "promote" implementation of EE-Projects

Energy Efficiency - crucial for Energy Transition

Major Obstacles

3% Maastricht requirements for public entities

On-balance sheet treatment of investments in energy efficiency for public and private entities

Fragmentation and size of EE-projects

End customer

How to incentivize Public & Private Entities

- Off-balance sheet treatment for public entities
- Incentives for private entities, especially for SMEs, in the form of tax breaks / off-balance sheet treatment
- **Standardization** will help, but not drive investments

Financing institutions

Being creative & flexible

- The market is what it is – can not change it at the moment
- Even tough fragmentation (contracts, technology, lending restrictions) exists, financing solutions can be found
- **Standardization** will help, but not drive investments

*Investment model brings benefits for the equipment providers, **energy service companies**, the **end customers**, and the **environment***

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