SEIF

Sustainable Energy Investment Forums

Joint event SEI Forums & Operational Working Group PPP framework

GUARANTEE INSTRUMENTS AND REFINANCING SCHEMES FOR THE ENERGY EFFICIENCY MARKET FIRST LESSONS FROM THE H2020 PROJECT REFINE

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REFINEE

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Starting conditions – Potential EE clients

- Many studies confirm the existence of huge amounts of economically attractive, yet untapped potential for EE-projects.
- Many different barriers
  - lack of information on potential
  - lacking personnel resources
  - lacking trust in EE experts

→ Limited access to finance is just one of the barriers

Household clients will reconsider whether they can afford the thermal refurbishment of their home and may decide to postpone the EE investment because other funding needs are more urgent.

Corporate clients analyse the impact of the EE investment on the key credit figures and even if they are economically viable, they will usually give preference to core-business investment options.

Public clients (municipalities, regional and federal authorities, etc.) are tied by budgetary constraints and EE investments compete with other investment needs.

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Starting conditions – Financial institutions

Supply of financing:

- There are many financial institutions (FI) that have formulated **strategic focus areas around green and sustainable financing**
- But – in contrast to investments in the renewable energy sector – **FIs perceive serious shortcomings in EE investments**
    - EE investments are complex and integrated into other economic activities
    - EE investments are granular and comparably small
    - EE investments are “brain-driven”
    - Cash-flow comes from savings and not from sales on the market

→ Where can we find the right channels through which the supply with **additional** capital could really stimulate market growth (beyond ordinary company loans or mortgage loans)

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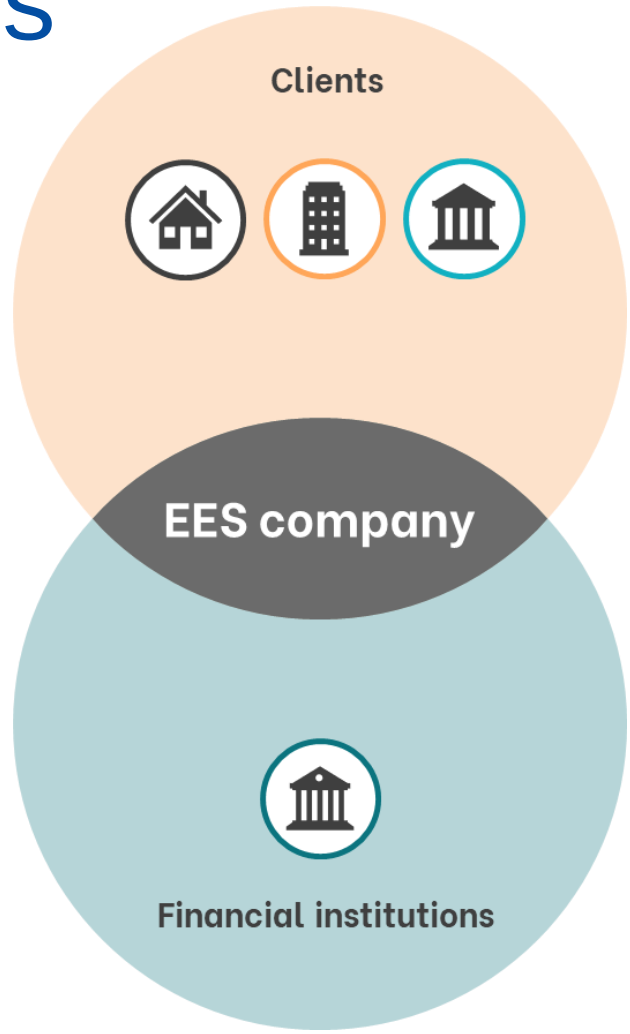
Starting conditions – EES providers

EES providers as „bridge“ between potential EE clients and financing institutions

- EES providers can prefinance the investment and get repaid through yearly remunerations which are dependent on the actual savings achieved (Third Party Financing)
- Either the client or the EES provider (ESCO) have the investments in their balance sheets.

→ EES providers soon reach their own credit limits and will have to reject further EE projects



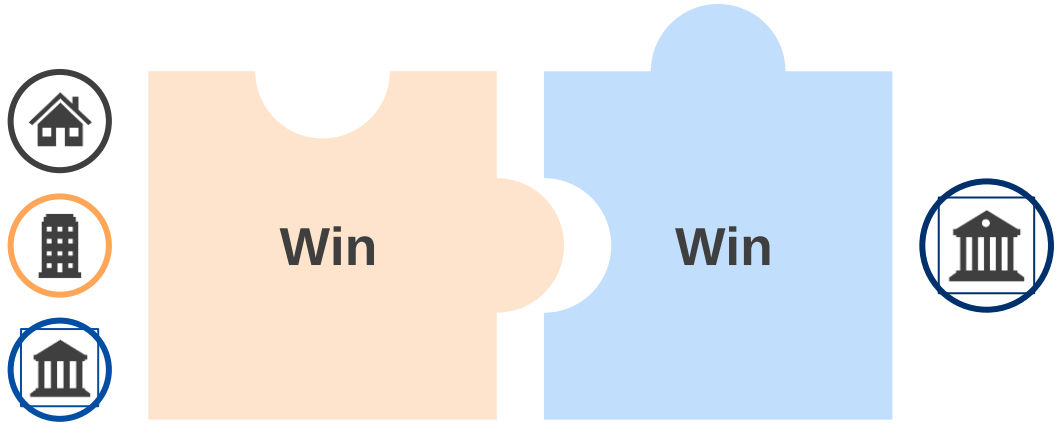
Refinancing as a solution

Refinancing models contain financing approaches that enable EES providers to clean up their balance sheet, thus gaining financial leeway for new projects and business growth.

› Sale of receivables

- EES provider sells, and a refinancing institution acquires receivables to be paid by an EES client. If the refinancing model is well established, the full technical risk – including the risk related to the actual generation of cash-flow through energy savings – remains with the EES provider, whereas the refinancing institution takes over the credit risk at the side of the client.

The client benefits from this financial instrument by accessing easier financing for performance-based EE investments.



A business opportunity with limited risk for financial institutions, since they only bear the credit risk on the client side (technical risks generally remains with the EES provider).

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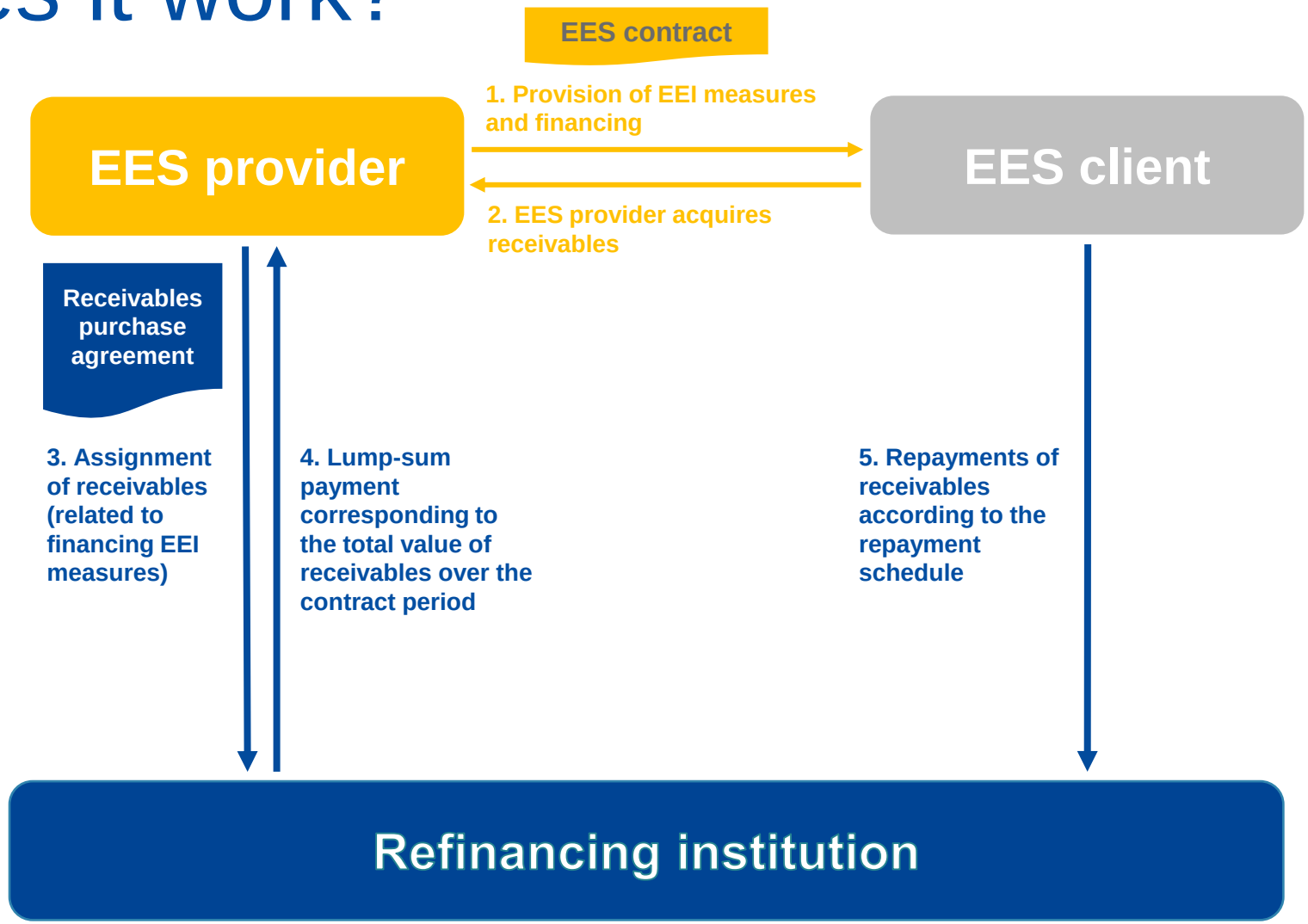
How does it work?



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Overview of refinancing schemes in selected EU MS

Sale of receivables

The scheme is **used for the implementation of technology measures** for Energy Efficiency Improvement in the field of building technologies, equipment etc. typically, under EPC contracts.

Contract duration is between 8 and 14 years.

Usually **oriented to** public clients or private clients with a very good reputation.

Building renovation as a service

The BEEF model is **centred on financing building renovation as a service** and it provides refinancing for **comprehensive building refurbishment** with EPC+ or EPC++ contracts.
BEEF is SPV managed by specialised fund managers.

Contract duration is between 20 and 30 years.

Oriented towards the residential building sector.

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Basic categorisation matrix of refinancing schemes

	Comprehensive refurbishment	EEI measures	ESC
Residential buildings (MFH)	A1	(B1)	C1
Public buildings / facilities	A2	B2	C2
Private non-residential buildings	A3	B3	C3
SMEs/industry	(A4)	B4	C4

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Use of collateralization

- Different instruments to **protect against non-payment of the EES client because of insolvency**
- The EES provider retains ownership title on investment till full payment (legal ownership) → refinancing institution (asset-based collateralization)
- Collateralization through third party
  - public guarantee
  - credit insurance
  - bank guarantee
  - various combinations

Frequently there is no collateralisation of EES investments and refinancing institutions accept this in their arrangements: In CZ case studies the **public client** provides formal acceptance of installations and the payment schedule, but the EES provider does not hold ownership title.

Different ways to handle performance risks

- Safeguards to ensure that full **performance risk remains with the EES provider**
  - Refinancing only after 1-2 years of verified performance
  - Only the receivables connected with the assets are purchased
  - Only a share of the total amount of receivables is purchased (50-80%)
  - Non-recourse clause in the refinancing contract – complemented by related provisions in the EES contract
  - Step-in rights of refinancing institution in case of serious under-performance of EES-provider
  - Bank guarantee to be provided by the EES provider to the refinancing institution covering delayed/reduced payments from the client due to under-performance

Other distinguishing features

- Responsibility in **collecting payments** from the clients
  - Invoicing and collection of payments by EES provider
  - (Kind of) on-bill financing, e.g. as part of regular payments collected by property manager related to the statement of operating costs (may contain also energy cost billing)
- Ensuring **off-balance sheet financing** from private clients' perspective
  - Economic ownership is decisive
  - Formal acceptance and invoicing of installations leads to activation of investments in the balance sheet of the client
- Ensuring **non-public-debt financing** for public clients
  - Full economic risk needs to remain with the EES provider → flexible, performance-based payments
  - Other requirements (mainly warranty period over the whole project duration)
- **Organisational set-up**
  - Ad-hoc set-up
  - Long-term collaboration between EES provider and refinancing institution
  - Institutional set-up (e.g. SPV, real estate investment trust)

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Scheme A2: Comprehensive public building refurbishment (Example)

	Comprehensive refurbishment	EEI measures	ESC
Residential buildings (MFH)			
Public buildings / facilities	A2		
Private non-residential buildings			
SMEs/industry			

Element	Description
Application field	Comprehensive refurbishment of public buildings
Market opportunities	Generally, we observe that public building owners tend to implement comprehensive refurbishment projects in a conventional way by “self-implementation” as long as they can afford. Therefore, we assume that an EES targeting at this application field is attractive mainly to smaller public authorities (municipalities) that lack proffessional real estate management. For larger portfolios, an EES may lead to a pull-forward effect, i.e. the number of comprensive investment projects per year may increase.
Collateralisation	The need for collateralisation may be low, depending on the creditworthiness of the public authority. A public guarantee to cover credit risks would be the easiest and probaly most cost-efficient way to safeguard payments to the refinancing institution.
Handling of performance risks	Long-term collaboration with EES provider Refinancing only after 1-2 years of verified performance Only up to 80% of the recievables are purchased Step-in rights of refinancing institution
Collection of payments	EES provider will be responsible for invoicing – a certain part of the invoiced amount is payable directly to the refinancing institution
Off-balance sheet financing	(Most probably) not relevant
Non-public debt financing	It would be an attractive driver for public authorities to get offers that fulfil the EUROSTAT requirements without causing high extra-cost, but according to our understanding this seems to be difficult given the current framework conditions
Organisational set-up	Institutional set-up with predefined roles, responsibilities and work processes is recommended because of high capital investments.

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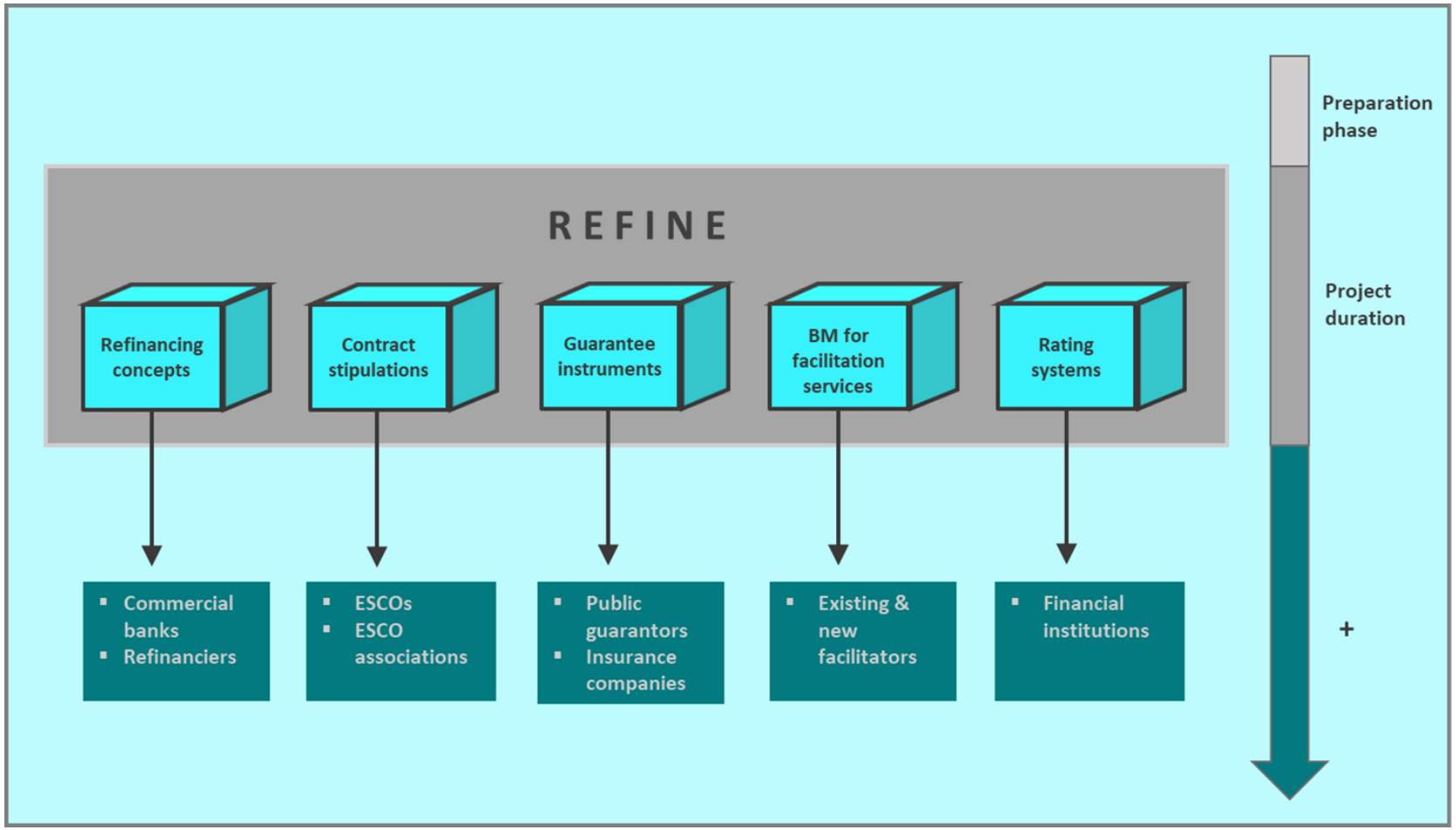
Instruments to promote market diffusion



Standardised contract stipulations

- Required stipulations in the **EES contract** to ensure refinanceability
  - Mandatory stipulations, such as
    - Guaranteed Savings & Handling of performance Risk
    - Client Obligations
    - Early termination
    - Dispute mechanisms
    - etc.
  - Enhancing stipulations
- Recommended stipulations in the **refinancing agreement**
  - Correspondence, legitimate and not otherwise compromised
  - Non–recourse clause
  - EES provider´s liability for underperformance
  - Title to equipment
  - Financial information
  - Step in Rights
  - etc.

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Refinanceability Rating System

- **3 different risk levels** involved in the assessment of an EES project when a FI assigns an overall rating from a **payment default point of view**
  - L1 Standard Financial Institution Default Risk Evaluation
  - L2 EES Project Risk Evaluation
  - L3 Assessment of Refinanceability (Availability of required contract stipulations)
- **Expert Rating System**
  - Qualitative levels (Low-Medium-High)
  - Weighted, descriptive risk items
  - Mitigant incorporation
  - Final Score – Global Score

EE PROJECT RATING **3,16**

The following template lists a series of items that impact in the Energy Efficiency Project Rating.
For each of those items, the user must pick wether a "Low", "Medium" or "High" Risk applies. If a Mitigant (factor that decreases the risk level) applies in any item, it should be described in order to modify the Item Final Risk Score. (*The cells selected in the example are remarked in a grey color*).
The risk relative weight assigned to any of the categories, and to the risk items within, may be changed based on the expert criteria of the valuator.

Risk Item	Weight	Description	Low Risk (5)	Medium Risk (3)	High Risk (1)	Initial Score	Mitigants	Final Score	EES Clause (L4)
EES Provider	**30%**							**4,6**	
Experience as an EES provider / in Energy Efficiency Services	30%	It refers to how experienced is the company in the energy services sector.	Experienced	Not very experienced	No experience	5		5	N/A
The EES provider is experienced in the segment in which the EEP is implemented and projects of that size	20%	It refers to how experienced is the company in the sector in which the energy efficiency project is implemented (buildings, lighting, mobility, etc.) and in the management of projects of similar size.	Experienced	Not very experienced	No experience	3		3	N/A
The EES provider has experience with the applied technology	20%	It refers to how experienced is the company with the technology used to implement the EES contract	Experienced	Not very experienced	No experience	5		5	N/A
EES provider incentive level	30%	It refers to the level of incentive of the EES provider to actually achieve the promised savings	Remuneration of EES provider fully adheres with saving guarantee and is safeguarded by an additional bonus for over-performance and an extra penalty for underperformance	Remuneration of EES provider fully adheres with saving guarantee (but no extra safeguards)	Shared savings model	5		5	N/A
PROJECT	**60%**							**2,4**	
Instalation - Protection	10%	It refers to the extent in which the equipment or installation is protected and maintained in order to obtain the project's energy savings.	Equipment Insurance/Warranty - provided for 90% of period.	Equipment Insurance/Warranty - provided for just the first years of the project.	Equipment Insurance/Warranty - not provided.	5		5	7, 9, 10
Instalation - Collateralization	5%	It refers to the extent in which the equipment can be used as a guarantee or collateral in a refinancing operation.	Equipment can be collateralized totally	Equipment can be collateralized partially	Equipment can't be collateralized	1		1	8
Instalation - Technology	15%	It refers to the extent in which the best available technology is applied in the project.	The technology used in the project is widely applicable/tested	The technology used in the project is fairly new	The technology used in the project is completely new	1		1	N/A
Reliability of savings calculation	30%	It refers to the existence of a M&V plan according to accepted standards (timing, calculation algorithms, stakeholder responsible, etc.)	A detailed state-of-the-art M&V Plan is in place from the beginning of the project	The cornerstones of M&V are mutually agreed, but details need to be agreed during project operation	There is no M&V Plan in place	3	Third independent expert party verification of the savings calculation / Savings Guaranteed	1	1, 2, 11, 23
Operation and Maintenance	15%	It refers to who is the company that will perform the Operation and Management of the installation throughout the EES contract duration.	The EES provider that made the installation or a subsidiary or a related company.	A different company, with a good track record in Energy Efficiency project O&M	A different company, with no track record, or the end client itself	3		3	4, 5, 12
Cash flow / Credit Ratio	10%	It refers to the cash flow generated by the savings being able to cover the payments throughout the EES contract live duration.	Cash flow covers 120% or more of the payments due	Cash flow covers between 100% and 120% of the payments due	Cash flow covers less than 100% of the payments due	3		3	3, 18, 24

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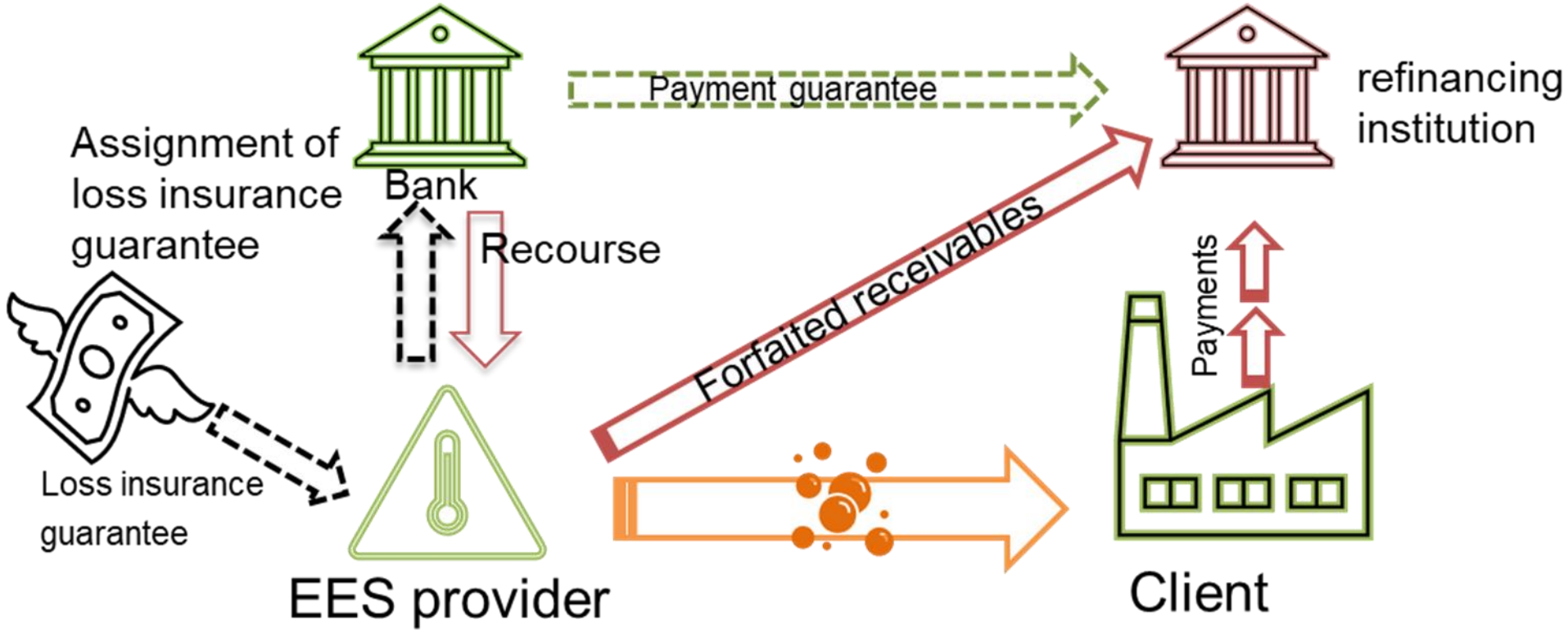
Coverage of credit risks by public guarantee instruments



With the back-up of a public guarantee structured like an export guarantee a bank could act as „fronting guarantor“ relying on a public guarantee for credit risk instead on the recourse against the EES provider

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Key take-aways

- Refinancing schemes are an **important market** booster to realize the well-known huge potential of cost-efficient EE investments
- Refinancing schemes support the **role of EES providers as enablers for EE inves**tments
- **No one-fits-all approach** – need to adapt the schemes to the requirements of the specific application fields
  - residential buildings
  - public buildings
  - commercial buildings
  - SMEs, industry etc.
- Major challenge is to **keep transaction cost and risks low trough standardization** of tools and processes

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