Standardised Contract Stipulations for Refinancing of Energy Efficiency Services

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REFINE

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REFINE GLOSSARY

Taking into account the fact that some of the terms that are important in the context of the REFINE-project are not used in a uniform way throughout Europe, we present the following list of definitions:

Energy efficiency (EE): The ratio of output of performance, service, goods or energy, to input of energy

Energy efficiency improvement (EEI): An increase in energy efficiency as a result of technological, behavioural and/or economic changes

Energy efficiency improvement action or **measure:** An action normally leading to a verifiable, measurable or estimable energy efficiency improvement

Energy efficiency improvement investment: An EEI measure that requires the use of upfront investments, usually through the involvement of a financial institution (FI), and regardless whether these investments are related to hardware installations or to services.

Energy efficiency service (EES): Agreed task or tasks designed to lead to an energy efficiency improvement and other agreed performance criteria. The EES shall include energy audits as well as identification, selection and implementation of actions and verification. A documented description of the proposed or agreed framework for the actions and the follow-up procedure shall be provided. The improvement of energy efficiency shall be measured and verified over a contractually defined period of time through contractually agreed methods [EN 15900:2010]. If the EES includes EEI investments, it may or may not include financing of these investments.

Partial services connected to EES: Services that just include parts ("components") of the EES value chain like design and implementation (excluding verification, for example), but are designed to directly or indirectly lead to an energy efficiency improvement. If the partial EES includes EEI investments, it may or may not include financing of these investments.

Energy efficiency service provider: A company that offers EES to its clients. Another term frequently used in this context is ESCO (Energy Service Company), but this term is mostly connected to the provision of energy performance contracting (EPC) or energy supply contracting (ESC), which are specific forms of EES.

Energy Performance Contracting (EPC): A comprehensive energy service package aiming at the guaranteed improvement of energy and cost efficiency of buildings or production processes. An external ESCO carries out an individually selectable cluster of services (planning, building, operation & maintenance, (pre-) financing, user motivation …) and takes over technical and economic performance risks and guarantees. Most projects include third party financing. The services are predominantly paid out of future saved energy costs (Graz Energy Agency Ltd, 2008).

Financing Models for Market Growth: Financing models that enable EES providers to clean up their balance sheet, thus gaining financial leeway for new projects. In many cases, these models contain a refinancing scheme.

Refinancing: A model, where an EES provider sells and a refinancing institution acquires receivables to be paid by an EES client, thus leading a restructuring of the initial financing set-up which may have been ensured through the EES provider's cash flow, credit financing, leasing financing or other financial means.

Sale of receivables or **sale of claims:** Umbrella term for any kind of receivables purchase agreements that allow a company (in our case an EES provider) to sell off the as-yet-unpaid bills or expected receivables from its customers.

Cession: In the REFINE-project, we understand cession as the legal term for the assignment of receivables.

Factoring: A specific form of receivables purchase agreements, where short-termed receivables are sold. The non-payment risk remains with the seller.

Forfaiting: The sale of longer-term account receivables usually without right of recourse. (widely used in export business)

Definitions of on-balance sheet types of financing

Debt financing: Situation in which investors lend a certain amount of money on credit in exchange for repayment plus interest. The most common EE financial product is a loan directly to the client (owner of the premises) or to the ESCO – this is known as third-party financing (TPF).

Equity financing: Situation in which investors lend a given amount of money in exchange for a stake in a project. The most common example of equity financing is private equity. With respect to energy efficiency businesses, equity investment can take the form of an ESCO issuing additional shares in the company's common ownership.

Mezzanine financing: Mezzanine financing is a hybrid form of financing that combines debt and equity financing. In most cases, debt will be ranked as a preferred equity share. Mezzanine debt financing is thus riskier than traditional debt financing but also more rewarding; it is associated with a higher yield. Mezzanine financing also allows a lender to convert debt capital into ownership or equity interest in the company if the loan is not paid back on time and in full.

Definitions of off-balance sheet types of financing and entities

Project financing: Project financing, by contrast to on-balance sheet financing (loans, debt and equity), bases its collateral on a project's cash flow expectations, not on individuals or institutions' creditworthiness. It is off-balance sheet financing. A typical project financing is divided between debt and equity financing.

Leasing: Leasing is the energy market's common way of dealing with initial cost barriers. It is a way of obtaining the right to use an asset. Finance leasing can be used for EE equipment, even when the equipment lacks collateral value. Leasing companies, often bank subsidiaries, have experience with vendor finance programs and other forms of equipment finance that are analogous to EE. Leasing is the most common form of equipment manufacturers' vendor financing, which is often applied in the case of combined heat and power (CHP) equipment. Leasing is often done as part of a Special Purpose Vehicle.

Special Purpose Vehicle (SPV) / Special Purpose Entity (SPE): A firm or other legal entity established to perform some narrowly-defined or temporary purpose, which facilitates off-balance sheet financing of projects. A standard approach is to form a SPV / SPE and place assets and liabilities on its balance sheet. The investors accomplish the purpose for which an SPV / SPE has been set up – for example implementing a large EE project – without having to carry any of the associated assets or liabilities on their own balance sheet.

1 INTRODUCTION

1.1 Background and starting points

This report was developed as part of the REFINE project, funded by the EU´s Horizon 2020 programme. The project aims to contribute to the supply of sufficient and attractive financing sources for EEI (Energy Efficiency Improvement) investments through the enhancement of **refinancing schemes,** which are important amplifiers of the market growth.

Within the REFINE project, a refinancing scheme is understood as an instrument where an EES (Energy Efficiency Service) provider sells the receivables to be paid by an EES client to a refinancing institution. This kind of scheme can help overcome certain financing barriers that frequently emerge in the EES business in general, but represent a barrier to EES markets in most Southern and Eastern European countries.

EES providers address the clients' reluctance to commit financial resources by including financing into their service packages. In this case, the EES provider (frequently called ESCO) prefinances the investment and gets repaid through yearly remunerations which are dependent on the actual savings achieved. This means not only that the EES provider has the investments in his balance sheets but also leads to a situation where the EES provider sooner or later reaches his own credit limits and has to reject further EES projects. Therefore, if remarkable market growth is intended, one major question is how the balance sheets of EES providers could be cleaned up in order to gain financial leeway to expand the EE business.

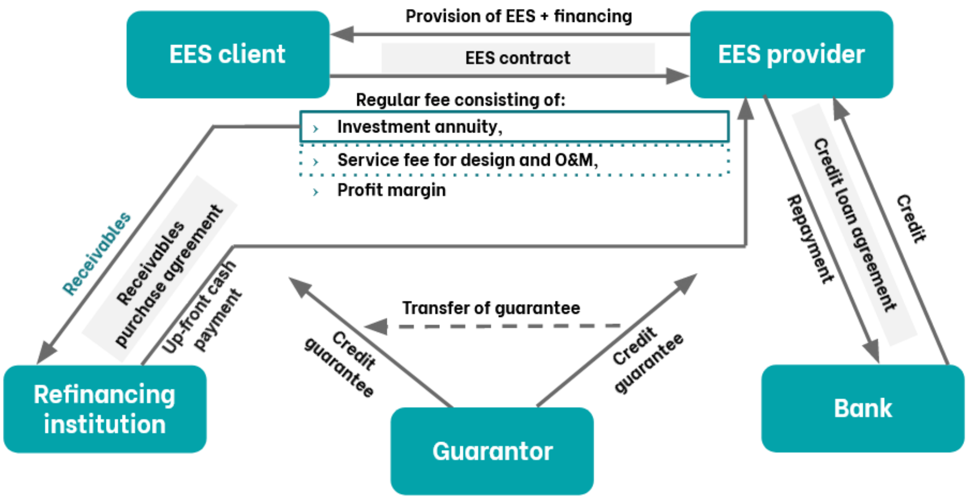

Figure 1 Overview refinancing of EES projects

Refinancing schemes – as schematically shown in Figure 1 - have the ability to **overcome the above-described financing barriers** in the EES business. In general, a refinancing scheme can be defined as an approach whereby an EES provider sells and a refinancing institution acquires receivables to be paid by an EES client. In a refinancing scheme, the EE project is financed initially through a corporate loan (e.g., overdraft) provided by a bank to an EES provider who is implementing the EE investment in the frame of an EES project. The client immediately profits from this approach, as he is generally not forced to burden his balance sheet while he takes advantage of the broad scale of benefits of the EE investment. A certain period after the investment has been implemented and performance of the investment has been demonstrated, the EES provider sells off the expected receivables to a refinancing institution and gets cash upfront for the receivables, while the buyer gets the right to collect the receivables. By this way, the EES provider clears his balance sheets and gains leeway for the financing of new projects which he could not realise otherwise. Therefore, the possibility of applying refinancing schemes is a major element supporting the growth of the EES provider.

In this context, it has to be underlined that EES providers, as companies that design and manage EES projects, are usually not prepared to face credit risk, nor are they interested in having the assets of an energy-saving project on their balance sheets, which is especially the case for SMEs. However, they can benefit from refinancing models by accessing easier financing for performance-based EE investments. Finally, refinancing presents 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).

1.2 Objectives of this report

Refinancing, as defined in the REFINE project, is not a common practice in most of the countries involved in the project. Therefore, with this document, the REFINE project intends to facilitate a standardised set of stipulations that, if incorporated in EES contracts, could increase the chance of projects being refinanced by a financial institution after they have been implemented.

These **stipulations are not meant to be contractual clauses**, since each European country has its own legal reality, but are meant to show which concepts are recommended to be incorporated in EES contracts signed between the EES provider and the client.

Furthermore, this report **does not capture all peculiarities of the different kinds of EES** offered on the European market, which are reflected in specific contractual details. Rather, the formulation of standardised contract stipulations is based on ideal-typical energy performance (EPC) or energy supply contracting (ESC).

In terms of the **client sectors addressed**, the recommended stipulations are “neutral”, i.e. the recommendations can be applied to different client sectors: residential buildings, public buildings, public lightning, commercial buildings, industrial premises, etc. A detailed description of the way, how refinancing schemes can be adapted to different application fields is included in a separate REFINE-report on generic concepts of refinancing schemes (Leutgöb et al., 2021).

1.3 Methodology

In providing standardised contractual stipulations, we distinguish between two stipulations in the main contracts in refinancing arrangements (cf. Figure 1):

- Stipulations whose incorporation is advisable **in energy efficiency service contracts** in order to facilitate their subsequent refinancing by a financial institution.
- Stipulations whose incorporation is advisable in **refinancing contracts** signed by a financial institution and an EES provider.

With regards to the **type of contract**, at first the distinction between EPC and ESC contracts has to be done, since some must-have-stipulations are only applicable for EPC-contracts. Such stipulations include guaranteed savings produced by the project in order to generate cash flows to cover the costs of the investment. For ESC-contracts these clauses cannot be applied, as the object of the contracts is an efficient supply of energy and not the realization of savings by implemented investments.

With respect to stipulations for **EES contracts**, a distinction has been made between:

- **Must-Have-Stipulations** deemed indispensable in order for the EES contract to be refinanced at a later date. Should they not be included, the chances of the operation not being refinanced at a later stage are high.
- **Nice-to-Have-Stipulations** that, if included in the EES contract, would increase the chances of it being refinanced at a later date, but which are not indispensable in order to get a refinancing operation arranged.

The distinction between Must-Have-Stipulations and Nice-to-Have-Stipulations is made exclusively from the point of view of refinanceability of an EES contract. For a good contractual relationship between the client and the EES provider, however, many of the Nice-to-Have-Stipulations can be seen as rather compulsory.

With respect to the **refinancing contracts**, we recommend only a few Nice-to-Have-Stipulations, because we assume that financing institutions will have their own routines in defining many of the terms and conditions of these kind of agreements.

To produce this document, the REFINE project partners have facilitated information of EES and, when possible, refinancing contract stipulations that are commonly used in their countries.

The aforementioned information has been integrated to identify the most relevant stipulations, whether or not they are commonly used in the different countries, and has been checked that the results and proposed stipulations are based on the minimum conditions established in Directive 2012/27/EU (regarding energy performance contracts), supplemented where necessary.

The European Code of Conduct for Energy Performance Contracts, where the values and principles that are considered fundamental for the successful and transparent preparation and implementation of EES projects in European countries are detailed, has also been considered, as well as results from preceding EU-projects in the EES business.

2 EES CONTRACT STIPULATIONS

This chapter details the most important contract stipulations required to make an EES contract refinanceable.

The distinction between EPC and ESC contract has to be done beforehand, as some clauses are only applicable to EPC-contracts (These clauses are defined in the following list with the remark: "*only applicable for EPC-contracts*").

Nevertheless, an ideal-typical EES contract is grouped in the following way:

1. **Object, duration and conditions of the contract.**

    1.1 Object of the contract

    1.2 Duration of the contract

2. **Energy efficiency measures and results**

    2.1 Energy efficiency measures (only applicable for EPC-contracts)

    2.2 Equipment / Installation

    2.3 Energy efficiency results (only applicable for EPC-contracts)

    2.4 Operation, maintenance and continuous improvement

3. **Key steps to implement the proposed measures and associated costs**

    3.1. Compliance with all laws and regulations

    3.2. Classification of project costs

    3.3. Clarification of milestones with third party

4. **Measurement and verification of savings** (only applicable for EPC-contracts)

5. **Performance-based remuneration and financial implications**

    5.1. Remuneration dependant on savings (only applicable for EPC-contracts)

    5.2. Project financing

6. **Key reference dates and milestones**

    6.1. Definition of reference dates in the process of installation

    6.2. Definition of dates and intermediate reference milestones

    6.3. Establishment of modifiable time limits for internal processes

7. **Client´s and provider's obligations**

    7.1. Client obligations

    7.1.1. Payments
    7.1.2. Access to equipment location
    7.1.3. Secure property or rental property
    7.1.4. Protection & care
    7.1.5. Operation & manipulation

7.2. EES provider obligations

7.2.1. *Operation & maintenance*
7.2.2. *Design, construction, installation & performance*
7.2.3. *Compensation for the client's possible excess payment in case of refinancing*

8. Savings, quality of controls and guarantees

8.1. *Verification of savings (only applicable for EPC-contracts)*
8.2. *Quality of controls*
8.3. *Guarantees of project operation*
8.4. *Public payment guarantees or credit insurance*

9. Contracts with third parties

9.1. *Preliminary Audit*
9.2. *Transfer of rights and obligations*
9.3. *Waiver of objection to payment rights cession (refinancing)*
9.4. *Third party insurance*
9.5. *Certification*
9.6. *Employment of subcontracting companies*

10. Liability and dispute resolution

10.1. *Force majeure and liability exemptions*
10.2. *Dispute Resolution Procedure*

11. Modifications of the framework conditions affecting the terms and conditions of the contract

12. Changes made throughout the project

12.1. *Design rectifications*
12.2. *Early termination*

This grouping does not claim to cover all topics that are relevant for EES contracts, but it is limited to those topics that are important with respect to refinanceability.

In all clarity, we would like to emphasise that the recommended stipulations are not formulated contractual modules, but rather descriptions of the important contractual content. The detailed formulations must be carried out by legal experts, taking into account the applicable national legal framework.

Must Have / Nice to Have	Stipulation
1. Object, duration and conditions of the contract	
1.1. Object of the contract	
Must Have	By signing the contract, the EES provider commits to carry out a set of technical measures, to increase a facility's energy efficiency, and to achieve guaranteed savings. The remuneration for the provided services shall be lower than the value of the initially calculated cash flow from (energy) cost savings, in accordance with the operation and improvement program of the installation and/or technological solution foreseen. *Remark: From a refinancing point of view, there needs to be a certain security margin, so that actual cash flows will be sufficient to cover the whole repayment.*
1.2. Duration of the contract	
Must Have	The contract will end when the object of the contract and its purpose are fulfilled in accordance with the execution schedule defined in the provision of the service. The duration of the contract may be extended subject to specific renegotiation of the economic benefits achieved and agreement between the parties.
2. Energy efficiency measures and results	
2.1. Energy efficiency measures (only applicable for EPC-contracts)	
Must Have	The EES provider must design a set of measures that are adapted to the needs of a particular installation with the purpose of achieving the savings foreseen between the parties (referred to as "savings plan" over the term of the contract). Energy savings calculations must be calculated by an officially recognized method, at best generally used in the country where the project is implemented, and the method must be made transparent. In addition, a base case that relates to the energy efficiency measure defined in the contract and serves as a reference for the client shall be included as an annex to the contract (see section 6. Key reference dates and milestones).
2.2. Equipment / Installation	
Must Have	Definition of the owner of the assets installed by the EES provider over the EES contract duration: The ownership of the assets that can be separated from the facility without causing material damages belongs to the EES provider until they have been fully paid by the client (retention of title).

Must Have / Nice to Have	Stipulation
Nice to Have	It may be indicated, based on the characteristics and nature of the facility, whether it can be used as collateral in a future financing operation (based on the ownership structure of assets that are installed part of the project). *Remark: The various possibilities to set up collaterals in EES projects and to transfer them to the refinancing institution are described in detail in Leutgöb et al., 2021.*
2.3. Energy efficiency results (only applicable for EPC-contracts)	
Must Have	The EES provider must provide a guarantee that the savings produced in the project will be sufficient to cover the cost of financing the project during the lifetime defined in the contract ("Contract Duration").
Nice to Have	The EES provider provides a bank guarantee or third-party insurance covering (parts of) the risk of achieving the guaranteed savings (performance risk).
Nice to Have	Definition of the environmental objectives pursued by the project, so that the project results are aligned with the criteria defined in the EU-Taxonomy for sustainable economic activities. *Remark: (Re)financing institutions are going to get obliged to report on the sustainable share of their financing portfolio according to the technical screening criteria laid down in the EU-Taxonomy. Therefore, they are interested to get reliable information whether a project is compliant with the related requirements.*
2.4. Operation, maintenance and continuous improvement	
Nice to Have	The EES provider will have to supervise the energy efficiency measures and, if necessary, can improve them ensuring the correct functioning and functionality of all the elements, in order to maximize their energy efficiency. This can be outsourced to a third party, but is always at the EES provider's expense. The client does not pay in case such outsourcing occurs. *Remark: Although most EES include services related to O&M - since EES providers usually want to keep a hand on the performance over the whole project duration - from a refinancing point of view this is not a must. Mode detailed stipulations on this topic are recommended in section 7 below*
3. Key steps to implement the proposed measures and associated costs	
3.1. Compliance with all laws and regulations	
Must Have	The client and the EES provider are responsible for complying with all laws and regulations that apply to the project in the country

Must Have / Nice to Have	Stipulation
	where it is carried out and shall avoiding conflicts of interest related to the local legal framework of the country.
3.2. Classification of project costs	
Nice to Have	Project costs will be classified into the different stages ranging from design, reconstruction and/or modernization costs, operational testing and commissioning, to the costs of monitoring, measuring and verification of measures used throughout the life of the project.
3.3. Clarification of milestones with third party	
Nice to Have	The contracting parties may agree with a third party to certify the various milestones in the assembly and installation process during the installation period of the energy efficiency measures to serve as a reference as a guarantee.
4. Measurement and verification of savings (only applicable for EPC-contracts)	
Must Have	Energy savings calculations must be calculated by an officially recognized method. Among the aspects to be taken into account when measuring savings are: • Measurement procedures and methodology shall conform to the International Performance Measurement and Verification Protocol (IPMVP), or any other (national or international) standard accepted between the contracting parties. • Energy savings shall be established by measuring and verifying consumption before and after the implementation of one or more energy performance measures. • The time period for the calculation and computation of savings. • Facility-specific and total savings amount for heating and/or electrical energy costs. • Energy savings amounts, as well as energy consumptions, shall be calculated according to agreed specifications. • Corrections and/or variations of savings due to weather, usage and other factors outside the scope of the contractor (e.g., improvement or deterioration of the building envelope). • In order to mitigate the influence of increases or decreases in energy prices, savings shall be calculated with predefined prices (agreement on price adjustment) *Remark: A detailed description of quality criteria related to measurement and verification of energy savings is shown in Quality Criterion 4 of the QualitEE Technical Quality Criteria for EES (cf.*

Must Have / Nice to Have	Stipulation
	Leutgöb, Kuchar, 2020). Furthermore, for ESC projects the M&V-approach has to be adapted accordingly.
5. Performance-based remuneration and financial implications	
5.1. Remuneration dependent on savings (only applicable for EPC-contracts)	
Must Have	The contracting parties agree that, if guaranteed savings have not been achieved during a certain billing period due to reasons on the part of EES provider, the EES provider will compensate any financial loss of the client incurring from not achieving the savings previously guaranteed. Furthermore, they may agree that in such a case the client shall be entitled to charge the EES provider an additional penalty. Similarly, they may agree that if cost savings in a particular billing period are higher than the guaranteed savings for that billing period, the EES provider is entitled to a bonus from the customer for that billing period. In other words, such savings will be shared between the EES provider and the client as agreed in the EES contract.
Nice to Have	The contracting parties may agree that the stipulations regarding the distribution of savings between the client and the EES provider will be gradually modified over the course of the installation taking into account, among others, changes in the technical conditions of the installation (refunds and possible improvements in the equipment).
5.2. Project financing	
Must Have	In the event that the services of financial institutions are used (assignment of credits), the EES provider will maintain the execution, operation and management obligations.
Nice to Have	In cases where there is a refinancing of the EES contract, the financial institution and the client may transfer, under mutual consent, the ownership of the CO_2 savings achieved by the energy efficiency measures incorporated in the client's installations.
6. Key reference dates and milestones	
Nice to Have	Definition of reference dates in the process of installation of energy efficiency measures in the client's facilities by the EES provider and/or contractors. As an example: • Implementation deadlines by phases (receipt of equipment and installation). • Testing deadlines and performance guarantees. • Commissioning and acceptance between the parties. • Preventive/corrective maintenance of equipment.

<table>
<tr><th>Must Have / Nice to Have</th><th>Stipulation</th></tr>
<tr><td>Nice to Have</td><td>Definition of dates and intermediate reference milestones that allow (in reference to performance indicators and/or measurement of the achievement of “green targets”), through the use of different KPIs, to have an objective orientation and vision of the savings achieved, identifying possible deviations in relation to the previously established savings plan. In addition, for each of the defined KPIs, a reference threshold must be defined that allows for the graduation of its fulfilment.

As an example, the use of the following KPIs is suggested (with measures, among others, of evolution over time, savings in terms of energy consumption or emissions reduction):
Energy savings / different reference values (e.g., per sqm).
Percentage reduction in consumption (%) with respect to the initial installation (considering, among others, factors such as seasonality).
GHG emissions avoided.
Achievement of comfort standards.
Savings in operation and maintenance costs.
Coverage ratio (e.g., savings generated / debt payments).
Ratio between savings obtained and investment made.
Establishment of modifiable time limits for internal processes, such as submission of reports, payments or repairs.</td></tr>
<tr><td colspan="2">7. Client’s and providers's obligations</td></tr>
<tr><td colspan="2">7.1. Client obligations</td></tr>
<tr><td colspan="2">7.1.1. Payments</td></tr>
<tr><td>Must Have</td><td>Settling payments for services:
The client is solely responsible for the payment on the agreed date of the costs and fees.
Frequency of payments for contractually guaranteed energy savings will be established, as well as the first payment period after the certification of the installed energy efficiency measures.
In case of subsequent refinancing of the contract, the client’s payment will include two items:
Amortization of the installation/equipment: This will be a constant payment throughout the life of the contract and in the amount associated with the refinancing of the operation. It will be paid to the financial entity directly or through the EES provider.
Operation and maintenance services: It will be paid to the EES provider and will be the one that compensates the possible penalties for not achieving the guaranteed savings (underperformance).</td></tr>
</table>

Must Have / Nice to Have	Stipulation
	• The number of days the client will be allocated to review the bill will be specified. In the event that the client disagrees with certain items on the invoice, the client will be obliged to pay the undisputed amount of the invoice in the manner and within the deadlines established for payment, and to state the client´s position on the disputed amount within the same period. • In the event of late payment, the client shall pay default interest in the amount of the statutory interest for late payment. *Remark: The stipulations as described above divide the total payment due to the EES provider in "fixed part" which has to be paid in any case – i.e., receivables that can be sold without right of recourse – and a "flexible part" which depends on the savings achieved, i.e., performance-based remuneration. Although frequently applied, the distinction between amortization of the installations and operation and maintenance services has not necessarily be made as described above. One alternative could be that the distinction is made between undisputed regular payments (e.g., quarterly pre-payments covering 50-70% of the envisaged payments) and one yearly balance payment based on the evaluation of the achieved savings. In any case, there is a need for a stipulation ensuring that the EES provider compensates the client if due total remuneration to the EES provider is lower than the "fixed part" of the payment due to the refinancing institution (cf. 7.2.3 and Leutgöb et al., 2021, chapter 2.4).*
7.1.2. Access to equipment location	
Must Have	The client must provide the EES provider as well as its subcontractors with access to the contractual facility for planning and execution of works, arrangements, inspection and monitoring of operation during working days and hours, provided that its proper operation is not affected. Access may also be provided outside of business hours upon a reasoned request from the EES provider.
7.1.3. Secure property or rental property	
Must Have	It must be confirmed that the client owns the site where the energy efficiency project will be carried out. If this is not the case, prior to installation, the client shall make the corresponding arrangements and agreements with any person having rights over the site where the project is to be carried out.

Must Have / Nice to Have	Stipulation
7.1.4. Protection & care	
Must Have	The client shall take special care with the EES provider's property and shall be responsible for any damage caused to such property by the improper actions of personnel of the client having access to and operating such installation.
7.1.5. Operation & Manipulation	
Must Have	The client shall not make any changes or alter any settings to the installations without prior written consent and authorization of the EES provider, for example: • Changes in the use of the installation • Changes in the operating hours of the installation • Restructuring / renovations in the installation • Misuse of installation equipment • Closure of the installation • Failure to perform maintenance and repairs of equipment • Change of supplier or method of energy pricing • Changes of / additions to the equipment • Removal of the installation and/or installation of new equipment
7.2. EES provider obligations	
7.2.1. Operation & maintenance	
Must Have	The EES provider guarantees the proper functioning and functionality of all elements, parts and equipment installed. Should the elements, parts or equipment be dysfunctional or defective (luminaries etc.) and not in line with the technical requirements (e.g., as specified in the tender), the provider shall replace them with functioning ones which satisfy all the aforementioned conditions. *Remark: The duration of this guarantee is subject of negotiation between client and EES provider. In many cases, it turns out to be too costly if the EES provider gives a full technology guarantee over the whole project duration. However, for public clients this may be very relevant, since the EUROSTAT note on reporting of debt in EPC contracts requires full technology guarantee over the whole project duration.*
7.2.2. Design, construction, installation & performance	
Must Have	The EES provider is responsible for the risks associated with the design, construction, installation and performance phase: • Risks related to the technical and functional parameters of all the elements on the date of signing of the contract.

Must Have / Nice to Have	Stipulation
	• Risks related to the drafting of the necessary design documentation, analyses and calculations of the technical and functional parameters of the equipment. • Risks related to the deadlines and costs in relation to works and activities of designing, reconstruction and/or modernization of the equipment, in other words, measures for improving energy efficiency of the equipment and the starting of its operation. • Risks related to the functionality and proper functioning of all elements, parts and equipment installed by the supplier under the contract and as part of the energy efficiency improvement measures during the entire term of the contract. (cf. remark in section 7.1) • Risks related to compatibility/compliance of the measures for improving energy efficiency with supply cables, connections, equipment and technical and other rules and requirements of the electricity distributor. • Risks related to the proper functioning of management & control (in particular, including the risk associated with the information systems involved - cyber risk management or intrusion). • Risks related to ensuring financing for all project costs in all phases during the whole project period, as well as verification of the measures and financing of budget overruns related thereto. In addition, the EES provider is responsible for supporting activities to be carried out, such as: • The elaboration of a feasibility study, preliminary to the design, with technical-economic analysis and the choice of the most advantageous solutions in terms of energy efficiency and economic convenience. • The preparation of periodic reports to the client that allow a homogeneous comparison of consumption and the savings. • The provision of user training and information activities.
7.2.3. Compensation for the client's possible excess payment in case of refinancing	
Must Have	If an EES provider fails to achieve the performance as specified in the contract, the EES provider is obligated to compensate to the client savings shortfalls that occur over the life of the contract. This means, the EES provider has to repay to the client the gap between the forfeiting instalment which the client has been obliged to pay to the refinancing institution and the amount which he would have obliged to pay to the EES provider, if no refinancing arrangement had been made. *Remark: This stipulation is a safeguard for the client and enables him to accept a "fixed part" of the payment to the EES provider,*

Must Have / Nice to Have	Stipulation
	which in turn enables the EES provider to include a non-recourse clause in a refinancing agreement. The recommended stipulation is therefore closely linked with the ones recommended in 5.1., 7.1.1 and 9.3.
8. Savings, quality of controls and guarantees	
8.1. Verification of savings (only applicable for EPC-contracts)	
Must Have	The EES contract shall define the guaranteed energy performance for the duration of the contract, as well as the frequency and schedule of planned verification. The guaranteed energy efficiency improvement shall specify, among others: • The unit of measurement and the absolute and/or percentage improvement figures compared to the base installation without incorporating the energy efficiency measures. Guaranteed values are defined. • The adjustment/normalization factors. • Meters used for the savings measurement and/or verification plan. • Reporting procedures (schedule, report format, etc.). • The grace period for achieving energy efficiency. • In the case of aggregating different savings, the methodology for their aggregation. • If applicable, the methodology for modifying the energy efficiency improvement guarantee. • The economic savings compared to the base installation without incorporating the energy efficiency measures, including adjustment/normalization factors and pricing mechanism. *Remark: The verified savings serve as basis for the determination of due remuneration to the EES provider (cf. stipulation recommended in 5.1). In addition, a monitoring of monthly savings may be established to compare good months with months in which the expected results are not obtained.*
8.2. Quality of controls	
Must Have	The EES provider is responsible for quality control of the measures throughout their implementation. The EES provider must inspect and control any work performed to meet the requirements established. This work may be subject to certification by an independent third party to ensure proper function for the parties. For this reason, EES providers must guarantee, through the installation of approved and audited measurement and control elements, the truthfulness of the reported information related to

Must Have / Nice to Have	Stipulation
	obtained energy savings, thus reducing the risk of fraud throughout the service.
8.3. Guarantees of project operation	
Must Have	The EES provider must undertake a series of obligations that guarantee the correct operation of the project: • Exercise due diligence throughout the term of the agreement to ensure that it acquires all necessary authorizations, consents, certificates, and other deeds issued by national authority. • Ensure that all prescribed records are kept and that relevant information is submitted to the competent institutions • Obtain or submit suitable insurance policies concerning the performance of the activity. • Take into consideration technical, health, and other norms and standards related to the performance of activity • Ensure throughout the term of the agreement the fulfilment of the conditions and requirements referred in this agreement. • Guarantee, throughout the contract term, the security and non-vulnerability of the information shared with the client on mobile devices (displays that show, for example, energy consumption by time slots). • Guarantee the integrity of the information throughout the contract term by installing measurement and control equipment to mitigate the risk of fraud.
8.4. Public payment guarantee or credit insurance	
Nice to Have	The contract should indicate whether there is any type of public guarantee or credit insurance covering the client's non-payment, in which scenarios it would be activated and what payment percentage it would cover. *Remark: A public guarantee that covers - under certain conditions - non-payment of the client facilitates refinancing arrangements because it reduces the credit risk of the refinancing institution. A detailed assessment of various guarantee instruments can be found in a separate REFINE-report (Braumann et al., 2021).*
9. Contracts with third parties	
9.1. Preliminary audit	
Nice to Have	The services of an independent third party may be contracted to audit and validate the energy efficiency project (including the estimated energy savings based on the installation as well as the control and measurement instruments used to measure energy consumption).

Must Have / Nice to Have	Stipulation
9.2. Transfer of rights and obligations	
Must Have	The client shall not assign any of the rights and duties of the contract without the prior express written consent of the EES provider.
9.3. Waiver of objection to payment rights cession (refinancing)	
Must Have	Should the EES Provider conclude a contract with a financing institution on the transfer of claims arising from this EES contract, the client shall not have any objections thereon and shall act in accordance with the validly stipulated agreements. *Remark: With this stipulation the client explicitly consents to a refinancing arrangement to be concluded by the EES provider and a refinancing institution. The explicit acceptance may be waived if the EES provider holds a title vis-à-vis the client which is generally enforceable and which he can transfer to the refinancing institution, e.g. retention of title on the installed assets (cf. Leutgöb et al., 2021, chapters 2.3 and 2.4).*
9.4 Third party insurance	
Must Have	The EES provider shall ensure that, during the whole term of the contract, it has valid insurance policies (civil liability for damages to third parties, employees and collaborators, material and property damage, etc.). The client shall provide insurance cover for the facilities in which the project is implemented.
Nice to Have	By way of example, third party insurance policies should cover the following: • All damage arising from all risks, e.g. shall include damage caused by: fire, lightning strikes (direct and indirect), explosions, earthquakes, floods, torrents, high water, underground water, storms, hail, events and demonstrations, water overflow, crash of the insured´s own motor vehicle and own movable working machine and unknown motor machine into insured objects, smoke, supersonic shock wave, aircraft fall and crash, frost, snow, ice, avalanches, rain, freezing rain, landslides, soil erosion, land subsidence, burglaries, breaking glass (bulbs/lamps) and violence by third parties or vandalism. • Expenses related to cleaning up, demolition, fire extinction, removal, dismantling, second installation, protection, isolation and cleaning, as well as expenses of transport to the nearest allowed landfill.
9.5 Certification	

Must Have / Nice to Have	Stipulation
Nice to Have	An independent third party may be contracted to certify, during the installation period of the energy efficiency measures, the different milestones in the assembly and installation process.
9.6 Employment of subcontracting companies	
Nice to Have	The employment of a subcontracting company is only allowed with the approvement of the client. The subcontractor has to cover all warranty claims and services against the EES provider, which are ensured to the client.
10. Liability and dispute resolution	
10.1. Force majeure and liability exemptions	
Must Have	A definition and stipulation of the situations considered as "force majeure" must be reflected in the contract. It shall not be considered under the alleged cases of "force majeure" that one of the contracting parties has failed to comply with its contractual obligations. Force majeure implies any unforeseeable exceptional situations or events which are out of the contracting parties' control, which took place during the term of the contract, which prevent the contracting parties to fulfil their contractual obligations and which cannot derive from their own errors or negligence. These circumstances include natural disasters (earthquakes, avalanches/landslides, floods, hurricanes, or other extraordinary weather conditions recognised by the government as natural disasters), international disputes, war, acts of terrorism and pandemics (COVID-19)) If circumstances that constitute force majeure arise, the parties shall notify one another and agree on the performance of the activities under such conditions. The written notification shall contain data concerning the occurrence and the nature of the event and its potential consequences. If a party is unable to fulfil its obligations hereunder due to force majeure and fails to notify the other party thereof, it shall lose the right to use force majeure as justification, excuse, or grounds for enforcing other rights that it would otherwise have due to force majeure.
10.2. Dispute resolution procedure	
Must Have	In order to solve conflicts throughout the term of the contract: • The contracting parties agree that throughout the term of the contract they will cooperate honestly and in good faith, with the sole aim of implementing the contract. • The contracting parties shall try to resolve amicably all disputes arising from or in relation to the contract.

Must Have / Nice to Have	Stipulation
	• In case that the contracting parties cannot resolve disputes of technical nature by themselves, such disputes shall be forwarded to a third party for resolution or, if applicable, to a competent body. The third party or a competent body shall be jointly appointed by the EES provider and the contracting entity by their unanimous decision • The decision of the third party or of the competent body shall be final and binding for the contracting parties and the fee for the third party's or the competent body's work shall be borne by the contracting party which loses the case. *Remark: In detail, the defined dispute resolution procedure may differ depending on the country and the given context. But the clear definition of such a procedure is a must-have.*
11. Modifications of the framework conditions affecting the terms and conditions of the contract	
Must Have	If any need occurs in the course of the implementation of energy efficiency measures to perform any activities not included in the specifications of measures, the EES provider may require from the client an adequate increase in the price for the implementation of this activity. However, this increase shall only apply if: (i) such activities could not have been foreseen at the time of the execution of the contract and (ii) the activity performed is documented as an addendum to the contract signed by the parties. *Remark: This stipulation is only required if the "fixed part" of the remuneration is related to the assets installed by the EES provider (cf. explanations given in section 7.1.1 and in Leutgöb et al., 2021, chapter 2.4)*
12. Changes made throughout the project	
12.1. Design rectifications	
Must Have	If, during the period of validity of the performance guarantee, deficiencies or imperfections are found in the performed works or in the installed equipment, the EES provider is responsible to solve them.
12.2. Early termination	
Must Have	If, during the execution of a work, it becomes obvious that it is not performed properly, the client has the right to request from the EES provider the correction of the deficiencies and imperfections by setting a reasonable time period for this, and, in case of non-fulfilment by the EES provider of this claim, to terminate the contract unilaterally and to demand compensation. Reasons for early termination of the contract:

Must Have / Nice to Have	Stipulation
	• Breach of essential terms of the contract. • Systematic delays by the EES provider in the execution of the project in relation to the schedule, without any fault on the part of the client. • Inability to secure the necessary permits and approvals for the execution of the project. • Systemic inability of the EES provider to comply with the specifications and quality requirements of the project. • The liquidation or bankruptcy of one of the contracting parties. • If, after the conclusion of the contract, it is discovered that misleading or false information was provided or relevant information was not provided. • The unjustified non-payment of a number of contract fees. • If there are delays in the performance of a contracted service despite a reasonable period of time having been agreed upon in writing. • If insolvency proceedings are initiated against the assets of one of the contracting parties. • Change of ownership of the facility that is the subject to the EES project. *Remark: The stipulation limits the possibility of early termination by either party to a number of predefined cases and to a persistent and severe breach of contractual duties by one of the parties.*
Must Have	In those cases where either party breaches a provision of this agreement and indemnification for breach is required, such indemnification shall consider, among others: • Final valuation (e.g., by an independent third party) of the residual value of the equipment, in those cases where it cannot be removed. • Defects caused by the EES provider in the installation where the energy efficiency measures were incorporated. • Valuation of the services finally not provided by EES provider. • Valuation by discounting future cash flows associated with the guaranteed savings of the facility. • Interest rate to be applied (for example, the legal interest rate on money). *Remark: This implies that in any situation that leads to the early termination of the EES contract (client's or provider's bankruptcy, force majeure, commercial dispute, change of ownership of the facility, commercial dispute or discontinuation of the project), the impact on the future financial flows that were committed in the contract and that will remain pending at the date of termination of the contract must be determined, as well as a solution has to be defined, on how the parties will be compensated related to the items described above.*

3 REFINANCING CONTRACT STIPULATIONS

It belongs to the core competence of financing institutions to draw up financing contracts. Therefore, we assume that financing institutions will have their own routines in defining many of the terms and conditions of refinancing contracts.

Against this background, the following stipulations focus on the specific case of refinancing an EES project. They are grouped in the following way:

1. **Credit cession**
   1.1 *Legitimate and not otherwise compromised*
   1.2 *Correspondence*
2. **Duration**
3. **Non-recourse**
4. **EES provider's liability for underperformance**
5. **Purchase price**
6. **Title to equipment / facilities**
7. **Default interest rate**
8. **Financial information**
9. **Environmental information**
10. **Contract resolution**
11. **Step in rights**
12. **Assignment of emission savings**

Must Have / Nice to Have	Stipulation
1. Credit cession	
1.1. Legitimate and not otherwise compromised	
Must Have	The creditor (EES provider) assigns a title or right to a third party called assignee (refinancing institution). The forfeited receivables will be those compromised in an EES contract between the EES provider and the client. They will be due to the EES provider and not otherwise compromised in a prior operation. The EES provider will perform for the financial institution all the tasks necessary to satisfactorily implement the services and measures covered by the EES contract. For the fulfilment of such obligations, the EES provider will negotiate, if necessary, with other suppliers in order to comply with the EES contract. In the event of any modification of any supplier or of any operational aspect related to the services and measures of the EES contract, the EES provider shall notify the financial institution in order to obtain its consent. The EES provider will also assume the fulfilment of the guarantees of good performance committed in the EES contract with the client.
1.2. Correspondence	
Must Have	Indication of whether the assigned payments correspond to all or part of the implemented project (the facility/equipment, the operation or the management of the EES contract). The client declares and confirms that the measures according to the EES contract have been implemented and delivered on time, in the required quality, without defects and unfinished work. *Remark: Usually, financial institutions will prefer to refinance the receivables related to the equipment/installation, so that the client pays the EES provider for the operation and management of the installation and compensates in said payment any underperformance of the EES contract.*
2. Duration	
Must Have	The term of the refinancing contract will be established according to the term of the EES contract to which it refers, under the terms agreed by the parties.
3. Non-recourse	
Must Have	In the contract, the EES provider assigns its contractual position to the financial entity, completely and without exception, under the same conditions and with the same commitments contained in the EES Contract.

Must Have / Nice to Have	Stipulation
	Nonetheless, specifications on when the financial institution may recourse to the EES provider in case of non-payment by the client must be established. The EES provider may be called upon if the client does not comply with the proposed payments, unless guarantees to mitigate the risk have been established. To this end, the EES provider must take out insurance to ensure that the financial entity will have a backup for the collection in the event that the client does not comply with the entire payment,.
4. EES provider's liability for underperformance	
Must Have	In the event that the EES provider breaches the terms and conditions of the EES contract, it shall hold the financial institution harmless against any damage, loss or claim, whether direct or indirect. In this case, the liability shall be borne by the EES provider. If the client reduces payments to the refinancing institution due to underperformance by the EES provider, this would give rise to a sanction against the EES provider by the refinancing institution. Accordingly, the refinancing institution would require the EES provider to return a proportion of the previously paid payment for the assigned receivable.
5. Purchase price	
Must Have	The refinancing contract shall indicate the price and the point in time at which the financial institution must pay the EES provider.
6. Title to equipment / facilities	
Must Have	The contract will indicate whether the ownership of the equipment installed by the EES provider becomes a guarantee of the refinancing, by transferring, if applicable, the design, guarantee or coverage rights.
7. Default interest rate	
Must Have	In the case that the client does not pay, the bank will apply a late payment interest rate on the interest rate agreed in the refinancing contract. *Remark: The default interest rate has to be in accordance with similar regulations in the EES contract (right of the EES provider to apply a default interest rate for delayed payment).*
8. Financial information	
Must Have	The EES provider undertakes to regularly submit both financial information (leverage level, external financing, etc.) and non-financial information (experience, projects carried out, etc.) relevant to provide sufficient guarantees.

Must Have / Nice to Have	Stipulation
9. Environmental information	
Nice to Have	A sustainability rating/scoring study of the project and sustainability measures may be included as an annex to the refinancing contract. *Remark: Since most financing institutions have ESG reporting obligations a clear categorisation of the financing arrangement in this respect is useful, mainly related to compliance with the sustainability criteria of the EU-Taxonomy.*
10. Contract resolution	
Must Have	The contract may be terminated for any of the following reasons: • For breach by the EES provider of its contractual obligations. • For breach of the contractual obligations of the financial institution. • At the will of the EES provider, in which case it must give the advance notice agreed in the refinancing contract or pay the financial institution as a "penalty" the amount agreed at the signing of the contract.
11. Step in rights	
Nice to Have	In the case that the EES provider does not comply with its obligations and may affect the achievement of the objectives of the EES contract, the refinancing institution may replace the EES provider with a different one, ensuring at all times the fulfilment of the tasks and measures defined in the EES contract with the client. *Remark: A step in right of the refinancing institution has to correspond with a related stipulation in the EES contract, according to which the client agrees to this right of the refinancing institution (possibly joint decision-making process).*
12. Assignment of emission savings	
Nice to Have	The financial institution and the client may transfer, under mutual consent, the ownership of the CO_2 savings achieved by the energy efficiency measures incorporated in the client's facilities. *Remark: Through the EES contract and the subsequent refinancing contract it has to be clear, who is the "owner" of the achieved CO_2 savings, since they may represent a value in the context of various climate protection policy instruments.*

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