

## Overview of Local Energy Supply Contracts

### Introduction

This document provides an overview of Local Energy Supply Contracts (LESCs) and associated contract models. It also provides a comparison of the benefits of each model and examples of each approach for Biomass and CHP projects.

As part of the National Energy Services Framework (NESF), SEAI is developing a Handbook to Local Energy Supply Contracts (LESC) to support the development of Biomass and CHP projects. The work is currently underway and the handbook will be available later in the year. SEAI describes three contract models which are likely to make up the majority of LESCs and are called;

- LESO O&M
- LESO without Finance
- LESO with Finance

In this briefing note the proposed contract structure is explained together with the public procurement process and award criteria for tender evaluation.

This overview can be used for projects considering contract options having already decided that the replacement of boilers is necessary. SEAI strongly recommend the efficiency of the existing system is maximised to reduce demand before using LESO. See the Handbook on Energy Performance Contracting (EPC) for more information [www.seai.ie/Your\\_Business/National\\_Energy\\_Services\\_Framework/](http://www.seai.ie/Your_Business/National_Energy_Services_Framework/)

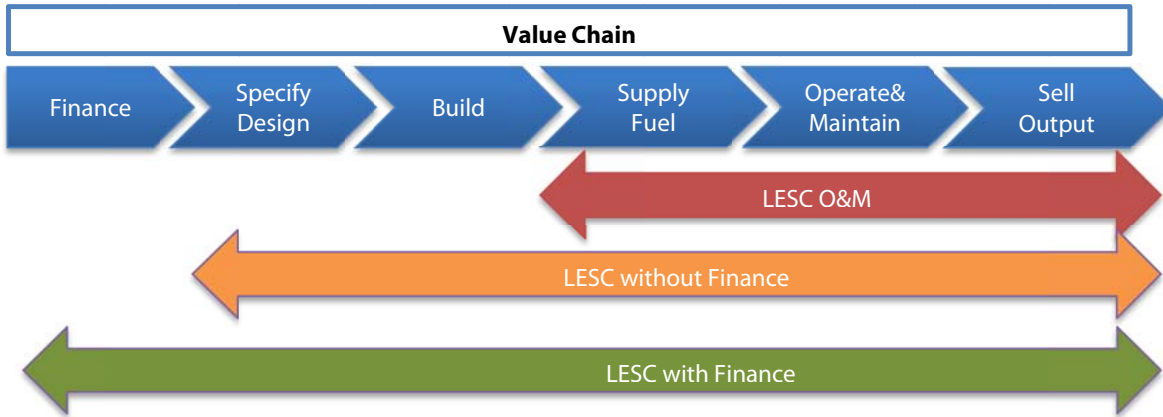
### What is a Local Energy Supply Contract (LESC)?

A Local Energy Supply Contract is an agreement between a client (or 'host') and an Energy Services Company (ESCO), whereby the ESCO undertakes installation works and supplies energy to a particular point at the client's facility and is paid for the quantity of energy supplied over the term of the contract. For example, the client may purchase the heat produced by a biomass boiler, or the heat and electricity from a combined heat and power (CHP) unit.

The term "energy" is generally taken to be electricity and heat (LTHW, DHW, Steam), but may also include other services such as compressed air. The characteristics of that energy, such as voltage, temperature or pressure, are specified in the contract. Peak or maximum capacity/demand is also specified. The point of supply is the "connection point". SEAI standard forms of contract involve a payment per unit supplied at an agreed price, and may also involve a fixed payment. Importantly, the LESO models presented here do not include minimum annual quantities. Typically LESO contracts have had minimal take off requirements however this has been removed. A separate payment stream for fixed and variable costs is included.

A fundamental difference between a LESO and an EPC is that the LESO ESCO's focus is to achieve efficiency from design to operation, rather than efficient energy use/consumption beyond the connection point.

The type of LESO depends on which parts of the value chain the ESCO takes responsibility for as illustrated below. In the full value chain the ESCO finances, designs, builds, supplies fuel, operates and maintains, and the ESCO receives payment for the energy supplied.

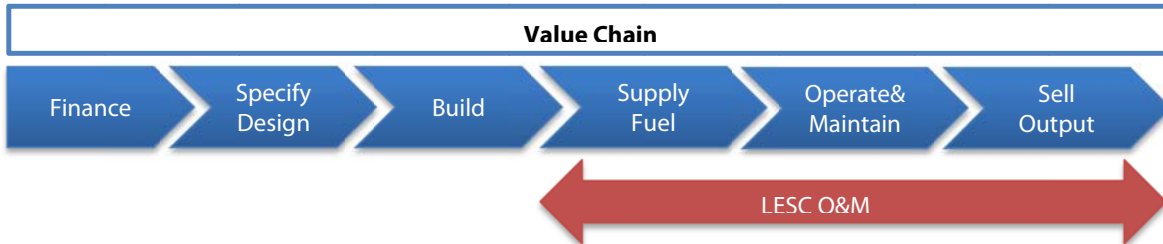


### LESC Contract Models

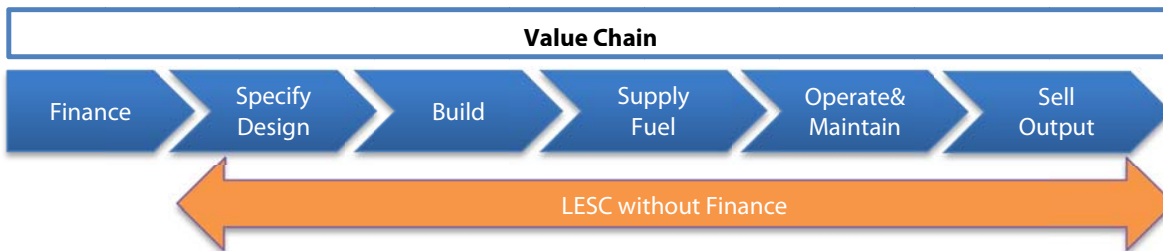
Three different contract models are discussed below which are likely to comprise the majority of LESCs:

1. **LESC Operate & Maintain (O&M) contract**– In this model the client develops the installation with one contractor and then outsources its operation to the same or a different contractor through an LESO O&M contract. Under this model, the financial risk is not transferred from the Customer to the ESCO

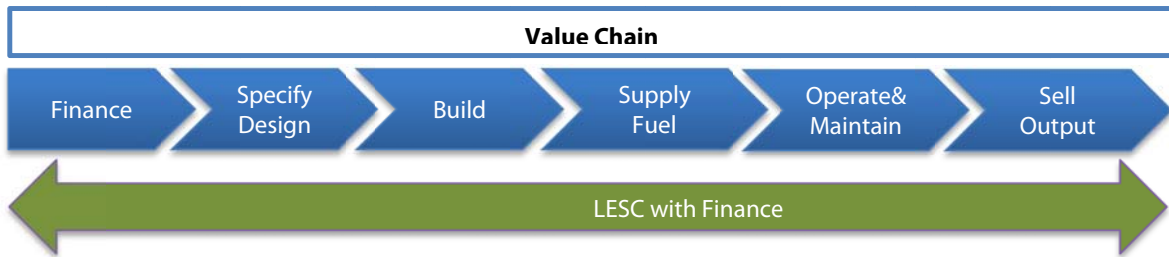
After the client has obtained finance, engaged consultants, specified the design parameters, and procured a contractor to supply, install and commission the installation, a separate LESO O&M contract is entered with a contractor to supply the energy. Typically two contracts are required, one for construction and one for O&M.



2. **LESC without Finance** – The client uses their own finance and does not require the ESCO to do so. Under this model, the financial risk is transferred from the Customer to the ESCO. There are two parts to this LESO:
  - The client procures an ESCO to design, build, supply fuel, operate and maintain the installation
  - The client also includes a back-to-back contract with the same ESCO to supply the fuel, and operate and maintain the installation. One contract covers both the construction and the O&M. A separate monthly invoice is issued for the O&M based on the quantity of energy consumed. The contract term can be different to the payback period.



3. **LESC with Finance** – In this instance the client needs the ESCO to finance the project and savings are required to repay the finance, which dictates the contract term. In this arrangement the entire value chain is integrated into a single contract. The clients procures an ESCO to finance, design, build, supply fuel, operate and maintain, and pays the ESCO for the energy supplied. One contract covers both and the full value chain.



## Comparison of Benefits of three LESC Contract Models

	<b>Features</b>	<b>Benefits</b>	<b>Drawbacks</b>
<b>LESC O&amp;M</b>	<p>The client designs the solution with the contractor.</p> <p>The Contractor is responsible for O&amp;M of installation.</p>	<p>The Contractor is motivated to ensure ongoing efficiency is maximised in operation.</p> <p>Contract term can be of any duration as the contract is financed by the client. The length of the contract not needed to repay the finance costs.</p>	<p>The designer and constructor are not financially motivated to maximise efficiency.</p> <p>This Contract reduces cost of operation only.</p> <p>No assurance that projects are properly commissioned for optimum performance</p> <p>There are two contractors with differing interests, which may potentially conflict.</p> <p>Financial risk is not transferred from Customer to the ESCO</p> <p>There is no Guarantee of Performance</p>
<b>LESC without Finance</b>	<p>The client self-finances or obtains finance directly, external to the ESCO.</p> <p>The ESCO is responsible for the design, build, supply of fuel, and the operation and maintenance the installation</p>	<p>The client may be able to provide lower cost finance.</p> <p>The ESCO is motivated to optimise plant size, and maximise efficiency in design, construction and operation.</p> <p>Provides an alternative to the traditional "low-bid" process by providing better designs, systems, equipment, and life-cycle performance</p> <p>Financial risk transferred from Customer to the ESCO</p> <p>Ensures that projects are properly commissioned for optimum performance</p> <p>Guaranteed Performance</p> <p>Less risk of non-performance as the ESCO is responsible for both construction and operation.</p>	<p>Two contracts are required to be procured by the public sector.</p>
<b>LESC with Finance</b>	<p>The ESCO finances the capital works and ensures there is a known cost/kw for the</p>	<p>The ESCO is motivated to ensure efficiency is maximised in design, construction and operation.</p>	<p>The ESCO may not be able to finance the works as cost-effectively as the client could</p>

	<p>duration of the contract.</p> <p>The ESCO is concerned with maximising the efficiency of the proposed design, installation and its operation; this includes selecting the optimum equipment size and commissioning is correct.</p> <p>The ESCO is concerned with balancing the installation costs with operation and maintenance costs over the term of the contract.</p> <p>For biomass installations, the ESCO must source and supply fuel of good quality.</p>	<p>Provides an alternative to the traditional “low-bid” process by providing better designs, systems, equipment, and life-cycle performance</p> <p>Financial risk transferred from Customer to the ESCO</p> <p>Ensures that projects are properly commissioned for optimum performance</p> <p>Guaranteed Performance</p> <p>The ESCO is providing a service that the client could not otherwise access.</p> <p>Certain installations may be treated as off balance sheet for private sector clients</p> <p>Operation and maintenance costs are reduced.</p> <p>Heat output is maximised.</p>	<p>have.</p> <p>More risk transfer to ESCO which may apply a premium.</p>
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## Some Examples

### Example of LESC O&M

A 3<sup>rd</sup> level college has sufficient funds to finance a biomass installation, and has an in house engineering team capable of briefing designers, procuring works and supervising the installation. However, it does not have sufficient staff to arrange fuel supply, address any operational issues, or maintain the installation; furthermore, it does not feel it has the skills to maximise the efficiency of the unit in operation.

It selects a LESC O&M because it can provide finance at low cost, wants to specify a quality installation and can ensure this is delivered in line with specification; the basic arrangement addresses only those parts of the value chain where it has insufficient experience and resources to operate and maintain the works.

### Example of LESC – without Finance

A leisure centre has an oil-fired boiler and wishes to arrange a new biomass boiler to supply lower cost heat. It knows that it can finance the works out of its existing capital and a small loan, but it is concerned about selecting the optimum boiler size and does not wish to operate or maintain the boiler.

It tenders for an ESCO to design and build the installation, with a 5 year back to back heat supply agreement. The winning ESCO design, supplies and installs the biomass installation and is paid in accordance with normal construction milestones; it then supplies fuel, operates and maintains the installation over the subsequent 5 years. Note: after the 5 year contract ends, the leisure centre may tender for a LESC O&M contract.

### Example of LESC with Finance

A public sector building has a high heat and electrical load, suited to a Combined Heat and Power installation.

It tenders for an ESCO to finance, design, build, operate and maintain the unit over the projected 15 year life of the unit; in return it will pay a fixed monthly fee (to cover repayment of capital) plus a variable fee based on the number of units of heat and electricity *consumed*.

The winning ESCO is motivated to select a unit that is sized so as to maximise the CHP opportunity but, as it will not be paid for unused heat, to avoid oversizing the unit; it is also motivated ensure an efficient installation of good quality, due to the long term of the contract. It includes the cost of major and minor overhauls during the contract term.

The ESCO continues to be responsible for the operation and maintenance of the unit for the remaining 15 years, and is paid the agreed variable fee in return for energy consumed.

Note: The client can limit the contract term to the time taken for savings to payback the project costs.

The contract structure for LESC with finance is discussed in below.

## LESC with Finance - Contract Structure

The draft template Local Energy Supply Contract with Finance has been prepared in such a way so as to incorporate all of the elements of the energy supply value chain. Where certain elements of the value chain are not required by the client (for example the LESG without finance model) then the relevant clauses from the contract are deleted.

The template contract does not currently deal with scenarios where combined heat and power (“CHP”) is being used. SEAI is currently consulting with the market on the considerations for CHP which will be incorporated into the next draft of the contract.

The LESG is divided into four sections. These can be summarised as follows;

### 1. The Works

This section of the contract is only to be used where the ESCO is specifying the design parameters and supplying, installing and commissioning the energy supply equipment to be installed at the client’s premises. Where the client is financing the works, the ESCO should be paid for the works in regular instalments which will be set out in a schedule to the contract. Where the ESCO is providing finance, it will recoup its fixed costs (capital and financing) throughout the term of the contract.

Where the client is financing the project it will hold title to the equipment being installed. Where the ESCO is financing the project, the equipment shall remain vested in the ESCO until the termination and expiry of the contract at which time the client shall have the option to purchase the equipment at its then market value or at a figure to be agreed by the parties negotiating in good faith. SEAI are seeking feedback on the most appropriate method of asset transfer in the specific response items on the comment form.

### 2. Energy Supply

This section of the contract contains the core provisions of the agreement between the parties. It sets out how the supply is to be connected to the client’s facility and the ESCO’s obligation to provide the supply and keep the supply connected to the client’s facility. It also sets out the ESCO’s obligation to operate and maintain the ‘energy system’. The energy system will be specified on a project by project basis and can include the existing equipment as well as the new equipment being installed by the ESCO as well as the energy meters and other energy related equipment at the premises.

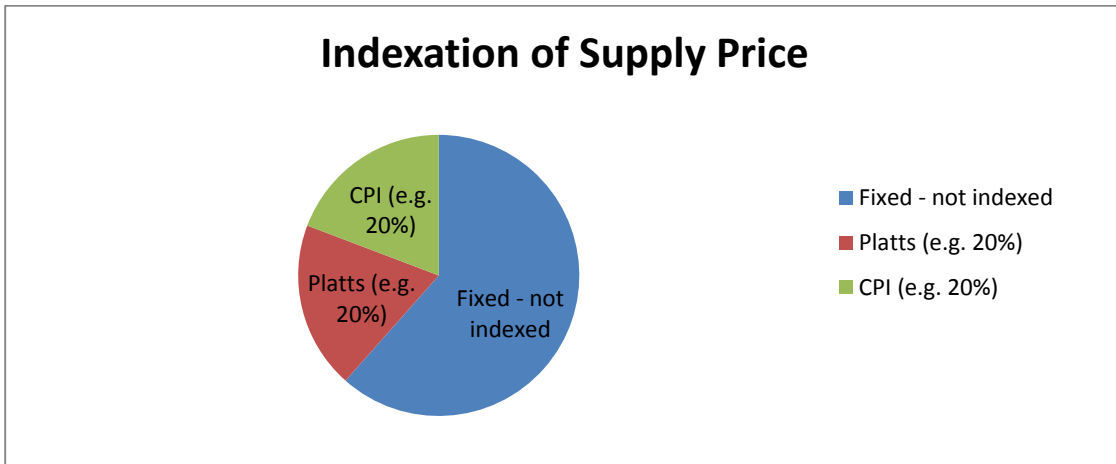
The provisions of the contract also address scenarios of unplanned outages of supply as well as planned maintenance requiring scheduled de-energisation of the supply during the term.

### 3. Payment

The provisions in this part of the contract deal with the commercial agreement between the parties. If the agreement is a simple heat supply contract (e.g. biomass) then the payment to be made to the ESCO on a monthly basis shall be based on the client’s actual consumption of energy applied against the agreed supply price. In addition there is a fixed monthly payment to allow the ESCO to recover its capital expenditure and finance costs – this will not be required where the client is financing the project.

The contract also contains provisions for indexation of the agreed supply price(s). It is proposed that a certain agreed fixed percentage of the supply price (e.g. 15% - 25%) be indexed against a consumer price index with a further agreed fixed percentage (e.g. 15% - 25%) indexed against the Platts market data index. These fixed percentages can be set by the client at the outset but would most likely be agreed by the parties during any pre-contract dialogue.

**Pie Chart showing proposed indexation of supply price**



The contract also provides for an annual discount where the ESCO will grant the client a discount where the client's consumption exceeds a certain agreed threshold amount.

#### **4. Miscellaneous**

The final section of the contract contains many of the "boiler plate" standard contractual provisions. Amongst other things, it contains provisions addressing variations to the contract as well as accommodating value engineering to allow the ESCO to propose the installation of new and improved equipment during the term of the contract.

The contract also deals with the termination of the agreement as well as the consequences of such termination and the compensation that will be payable to the ESCO in the event that the contract is terminated at the client's election or due to a breach of contract by the ESCO.

#### **5. Contract Schedules**

The schedules to the contract contain the technical information to be documented for the purposes of the agreement. This includes the number of agreed connection points and their locations as well as the design documents prepared by the ESCO and the client. The specification and standards of performance required from the ESCO are also set out as well as the schedules of works, services and maintenance obligations of the ESCO.



## Public Procurement Process

For public bodies awarding LESC contracts, there will be a requirement to award the contract following a public procurement process.

The first question to be addressed is whether the contract is a contract for supply of services or for works. This can be an important decision if the contract is deemed a works contract, then it is only covered by the European Public Procurement regime if the value over the total life of the contract is estimated as being in excess of € 5,186,000. .

However, if it is considered to be a services contract, for the supply of heat, it will be covered by the European Procurement Directives in most instances since the threshold for supply contracts for non-central government bodies is €207,000 over the life of the contract.

The distinction between works and supply will depend on whether the contract transfers ownership of the plant to the public body. If that transfer is provided explicitly in the contract then it is public works as it includes the installation of electrical heating systems, plumbing and heat equipment in buildings. However, if on the other hand if the purchase of the plant is not the main objective of the arrangement, then the contract would be considered a supply/services contract.

## Award Criteria / Tender Evaluation

### Biomass Heat Contracts

Appropriate award criteria for a biomass heat contract would include price, quality of the equipment including length of warranties and security of supply of fuel. Evidence of contracts assuring the ESCO that there was an available supply at a pre-agreed price for the duration of the LESC contract and the project team to design, install, maintain and operate the boiler would be sought.

In relation to price, the tender documentation will require that the fuel pricing is transparent and not below cost. This is to ensure that "*gaming*" cannot take place in the bidding process whereby, a bidder would offer a very high price for the monthly payments covering the plant and a marginal price for the cost of the heat provided.

## Areas on Which Consultation Was Requested

The LESC Contract was issued to market operators in April 2014 and consultation was sought on a number of specific areas outlined below. The responses from the consultation have been integrated into the current draft of the contract.

Initially only one form of contract has been developed for Local Energy Supply Contracts (LESCs) with Finance, from which the contracts for the other two models can be derived by removing the irrelevant clauses. The draft Contract for LESC with Finance is presented in Appendix 1. This contract is for Biomass projects only.

## Specific Questions Which Were Asked Regarding the LESC Contract

- Guaranteed standards of performance – what might we expect to see included in the schedule relating to these (by way of examples from those being consulted) and how should they tie in with the failed service payment?
- Equipment value at end of contract/handover – how should this be calculated – can a figure be determined 'up front' at the start of the contract or can the market value of the equipment be negotiated or calculated at the end of the contract?

- Indexation – the contract currently provides that certain agreed percentage of the supply price is indexed against CPI with a further agreed percentage indexed against Platt's market data – some feedback on this mechanism or any alternative indexation mechanisms would be welcome from those being consulted.
- The payment structure that incentivises high efficiency CHP is presented in Appendix 3 attached. Specific feedback would be appreciated on this approach including answers to the questions.
- How are guarantees going to be provided by ESCOs for products in the market (warranties, insurance)?
- Specific questions were also asked about CHP however the responses indicated that further work is required to develop a contract with CHP. A workshop is planned for the 26<sup>th</sup> of May to develop the CHP aspects further. The current draft of the contract is for Biomass only.

## Appendices

### ➤ **Appendix 1 Draft Contract LESC with Finance**