

**Inishowen  
Sustainable Energy Community**

**Request for Quotation**

**Energy Master Plan  
Baseline Report**

**July 2019**

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**Request for Quotation (RFQ):**

Request Issued	15/07/2019
Closing date for receipt of quotation	19th August 2019 by 5 pm
Contracting Organisation	Inishowen SEC C/0 Inishowen Co-Op/Inishowen Development Partnership
Queries via the eTenders portal	

# 1. Introduction

## 1.1. Inishowen SEC

Inishowen Sustainable Energy Community (SEC) has developed from engagement between Inishowen Development Partnership (IDP), Inishowen Co-Op, Inishowen Credit Union and a variety of stakeholders within the community. IDP has partnered with the Inishowen Co-op to explore and support implementation of best practice solutions focused on sustainability and to communicate learning to members and the wider community as part of the SEAI Sustainable Energy Communities Programme. The SEC has engaged with the wider community via information sessions and workshops whereby the output has been used to develop a Community Charter and inform this Energy Masterplan design.

Inishowen Co-Operative Society Ltd was founded in 1963. The Society has over 2000 members and its operations are overseen by a voluntary board of management. The Inishowen Co-op ethos is to work closely with the farming community to assist farmers seek alternative sources of income through diversification and development. The Society works closely with Inishowen Development Partnership on numerous community initiatives, it also works with local government agencies such as Teagasc bringing together local farmers to improve farming methods. The Society also supports local charitable organisations.

Inishowen Development Partnership (IDP) is a community led local development company that has successfully delivered rural development and social inclusion programmes and initiatives in Donegal since 1996 on behalf of the European Union and the Irish Government through the National Development Plan. IDP also collaborates on several County-wide and Cross-border Initiatives. We provide services to the Unemployed; Enterprise & start-up support for your new businesses; Community Development support; Training and Education; Youth Development; Development Education and Family Support programmes. IDP works in partnership with a range of groups and agencies to bring about real change in the situation of those who are most excluded in our community. IDP promote and act as the contact point for members of the community seeking information about the Warmer Homes Scheme.

## 1.2. Sustainable Energy Communities

The Sustainable Energy Authority of Ireland (SEAI) has established a dedicated Sustainable Energy Communities (SEC) Network. The **SEC Network** is a support framework designed to enable a better understanding of how communities use energy and to save energy across all sectors. The Network's core purpose is to catalyse and support a national movement of SECs operating in every part of the country.

A SEC is a community in which everyone works together to develop a sustainable energy system. To do so, they aim as far as possible to be energy efficient, to use renewable energy where feasible and to develop smart energy solutions. An SEC can include all the different energy users in the community including homes, sports clubs, community centres, churches and businesses. The SEC process aims to help communities to:

- Achieve financial and energy savings
- Improve public wellbeing through enhanced comfort from energy efficient buildings
- Boost local employment
- Promote community building through partnership approach
- Build capacity and leverage funding
- Contribute to national energy reduction target

SECs, such as Inishowen, are now entering into a Partnership Agreement with SEAI. Over the timeframe, SECs will have access to SEAI technical supports to help to establish an **Energy Master Plan (EMP)**, identify energy project opportunities, implement a tailored programme of activities for the community, monitor the programme's progress and review accordingly.

Further information on the SEAI's SEC programme can be found at [www.seai.ie/SEC/](http://www.seai.ie/SEC/)

## 2. Objective of the Request for Quotation

The objective of this Request for Quotation is to identify a suitably qualified and experienced consultant to carry out the necessary analysis and prepare an Energy Master Plan and Register of Opportunities for Inishowen SEC as per the requirements outlined in Section 3 below.

### 3. Specification

The appointed consultant will be required to develop an **Energy Master Plan (EMP) and Register of Opportunities (RoO)** for the community, in direct collaboration with the SEC, as per the requirements of SEAI's SEC Programme and this Specification. The EMP & RoO should be developed to do the following:

1. Quantify the current energy consumption of Inishowen SEC – Baseline of electrical, thermal and transport energy demand.
2. Create a Register of Opportunities (RoO)
  - Identifying projects that can avail of the Communities Energy Grant *and*
  - Identifying projects that can avail of the Better Energy Homes grant
  - Propose actions, based on baseline figures, to achieve >10% reduction in energy usage over a 3 & 4- & 5-year period.
3. Carry out Energy Audits of at least 20 domestic and 11 non-domestic buildings.
4. Identify where electric car (eCars) charger points needs to be in Inishowen and costings.
5. Identify additional/potential energy reductions or alternative energy options.
6. Identify Key Project Partners for project delivery and funding options.

#### 3.1. EMP Scope

The geographic area for the study is outlined in Fig 3.1. This area has been defined and agreed by Inishowen SEC.

# Inishowen, Co. Donegal



**Fig 3.1 – Study area<sup>1</sup>**

The sectors, extents of each, and level of detail to be included in the EMP are set out in the following sections: 3.1.1/2/3

### 3.1.1. Residential Sector

A key objective of the SEC is to improve the energy efficiency of the housing stock in the area. The EMP shall include an assessment of spatial energy use in the residential sector based on the following:

- Central Statistics Office (CSO) Small Area data from Census 2016
- BER database for Co. Donegal

The assessment should detail a profile of the housing sector in Inishowen and identify:

- House type, i.e. detached, semi-detached, terraced, apartments etc
- Year of construction by age band
- Approximate/ estimated BER
- Ownership, i.e. Local Authority, Social Housing, Private estates, private houses etc

The appointed consultant will work with Inishowen SEC to identify a minimum of 20 house types that represent a cross section of the housing sector based on the above assessment. The successful consultant will directly survey the residents and housing owners and shall include the following:

- Visual inspection of the dwelling
- BER assessment including certificate and advisory report
- Provision of a Residential Retrofit Menu
  - Recommendations to achieve a 150 kWh/m<sup>2</sup>/year uplift
  - Recommendations to achieve a 250 kWh/m<sup>2</sup>/year uplift
  - Recommendations to achieve a minimum A3 rating

#### 3.1.1.1. Categorise key house types

These house types will be categorised as follows:

Table 3.1 - House type categorisation	
Parameter	Detail
Construction age	<ul style="list-style-type: none"><li>• Year of construction to within 5 years</li><li>• Building Regulations in place at time of construction</li></ul>
Configuration	<ul style="list-style-type: none"><li>• Detached, Semi-detached, End of terrace, Mid terrace</li><li>• Bungalow, 2-storey</li></ul>
Floor area	<ul style="list-style-type: none"><li>• Total floor area to within 25m<sup>2</sup></li></ul>
Construction type	<ul style="list-style-type: none"><li>• Building envelope details: walls, floors, roof type, glazing</li></ul>
Heating system	<ul style="list-style-type: none"><li>• Main heating system</li><li>• Secondary/back-up heating</li></ul>

<b>Table 3.1 - House type categorisation</b>	
<b>Parameter</b>	<b>Detail</b>
BER	<ul style="list-style-type: none"> <li>Estimate of typical BER for each house type, assuming no upgrades since construction</li> </ul>
Energy profile	<ul style="list-style-type: none"> <li>Calculated energy consumption profile for electricity and thermal use. Include all assumptions e.g. family size, daily occupancy</li> <li>Associated energy costs</li> </ul>

### 3.1.1.2. *Retrofit options for each house type*

The consultant shall develop a menu of retrofit options and costings for each house type in accordance with the parameters in Table 3.2.

<b>Table 3.2 - Retrofit menu parameters for each house type</b>	
<b>Retrofit measure</b>	<b>Detail/notes</b>
Insulation upgrades	<ul style="list-style-type: none"> <li>External wall insulation</li> <li>Internal wall insulation</li> <li>Roof/attic insulation</li> <li>Floor insulation where applicable</li> </ul>
Glazing	<ul style="list-style-type: none"> <li>Upgrade options to double/triple/e-glass</li> </ul>
Air tightness	<ul style="list-style-type: none"> <li>Draught proofing</li> <li>Chimney blockers</li> <li>Door/window refurb</li> <li>Draught lobby</li> </ul>
Heating system	<ul style="list-style-type: none"> <li>System upgrades</li> <li>Fuel conversion</li> <li>Control upgrades</li> </ul>
Lighting	<ul style="list-style-type: none"> <li>Lighting and control upgrades</li> </ul>
Renewable energy	<ul style="list-style-type: none"> <li>Solar Thermal</li> <li>Heat pumps</li> <li>Biomass heating</li> </ul>
BER	<ul style="list-style-type: none"> <li>Estimate of typical BER uplift for each retrofit measure in units of kWh/m<sup>2</sup>/year</li> </ul>
Costs	<ul style="list-style-type: none"> <li>Cost estimates for each retrofit measure</li> </ul>
Energy savings	<ul style="list-style-type: none"> <li>Energy savings estimates for each retrofit measure</li> <li>Associated cost savings</li> </ul>
Ranking	<ul style="list-style-type: none"> <li>Ranking of retrofit options</li> </ul>

### 3.1.2. **Private Sector / Commercial Buildings**

The EMP consultant shall carry out energy audits of the private facilities listed in Table 3.3 that are current members of Inishowen SEC. The audits for all non-residential elements shall be to

ASHRAE Level I (or similar) detail, suitable to support project applications for SEAI grant schemes. (Expressions of Interest from homeowners will be provided by SEC).

<b>A minimum of 20 private homes to include the following Facility types</b>	<b>Notes</b>
Detached Rural	Full audit
Semi-detached	Full audit
Bungalow	Full audit
Two-Storey (attached & detached)	Full audit
Dormer	Full audit
Cottage	Full audit

### 3.1.3. Public / Community Sector

The EMP consultant shall carry out energy audits on facilities listed in table 3.4. The audits for all non-residential elements shall be to ASHRAE Level I (or similar) detail, suitable to support project applications for SEAI grant schemes.

<b>Facility No.</b>	<b>Facility name</b>	<b>Business / facility type</b>	<b>Notes</b>
1	Greencastle Community Centre	Community Centre	Full audit
2	Spraioi agus Sport, Carndonagh	Community Based Company	Full audit
3	Buncrana Youth Community Centre / Sports Hall	Community Centre	Full audit
4	Sliabh Sneacht, Drumfries	Community Centre	Full audit
5	Scoil Newtowncunningham Cholmcille,	Primary School	Full audit
6	St Aengus NS Bridgend	Primary School	Full audit
7	Scoil Naomh Treasa, Urris	Primary School	Full audit
8	Inishowen Engineering, Drumfries	Commercial Business	Full audit
9	Centra Supermarket, Buncrana	Commercial Business	Full audit
10	Doherty's Newsagents Carndonagh	Business	Full audit
11	Ferryport Bar Greencastle	Business	Full audit

## 3.2. EMP report & format

The EMP report should include:

- Executive Summary of the findings of the overall EMP and recommendations
- All assessments and audits included in clearly identified and structured annexes
- RoO – see section 3.3

The EMP is to be developed as a working tool rather than simply a ‘finished’ report. The format should facilitate the following:

- Maintaining records
- Setting targets against the baseline
- Periodic updating of energy consumption/generation
- Measuring progress against targets

All documents and drawings shall be provided to the SEC in an editable format, e.g. MS Word, MS Excel, CAD files.

The appointed consultant will provide a short (2-3hr) presentation/workshop of the above to a stakeholder meeting organised by Inishowen SEC.

### 3.3. Register of Opportunities

The RoO is an integral part of the EMP and should list all appropriate energy efficiency and renewable energy opportunities identified in the development of the EMP. The RoO shall include behavioural/awareness opportunities as well as capital investment project opportunities. Table 3.5 sets out ranking categories for the RoO.

<b>Table 3.5 - RoO categories and ranking</b>				
<b>Type</b>	<b>Cost</b>	<b>Impact - energy &amp; cost reduction</b>	<b>Impact - CO<sub>2</sub> reduction</b>	<b>Delivery time frame</b>
Behavioural	Low	Low	Low	Estimate
Process	Medium	Medium	Medium	
Building upgrade	High	High	High	
	Estimates to be included	Estimate (calculation to be included)		

## 4. Role provided by SEC team

The Baseline Energy Balance analysis and the development of the Register of Opportunity specified above are to be informed and guided by Inishowen SEC, under the leadership of its SEC steering committee. It is expected that an appropriate level of engagement and consultation with key stakeholders will take place at key stages of the study, to help understand the needs and

capabilities of Inishowen SEC. The study should both leverage local knowledge as well as facilitate knowledge development for Inishowen SEC.

## 5. Schedule

### Milestones and Reports

Two reports are to be delivered as part of the study, to coincide with key milestones:

- Milestone 1: Baseline Energy Balance
- Milestone 2: Register of Opportunity

*The reports should be reader-friendly, concise and accessible to a wide audience. Use of good quality illustrations and infographics is strongly encouraged. Proposals shall include for the preparation of a set of PowerPoint slides summarising the findings of the study and their presentation to the study area community and relevant stakeholders at the end of the project.*

Milestone dates will be agreed upon signing of contracts, but it is envisaged that this project will begin in August 2019 and be completed within a 3-month window.

## 6. Information required in response to RFQ

The response to this RFQ shall be as outlined in Table 4.1.

Table 4.1 - Information required in response to RfQ	
Item	Notes
Price	<p><b>Maximum Budget of €20,000 (excluding Vat)</b> (All Quotes must be in Euro currency)            VAT shall be quoted separately. The price breakdown should include the following:</p> <ul style="list-style-type: none"> <li>• Average price per domestic home assessment as per 3.1.1</li> <li>• Separate price for each non-domestic audit listed in Tables 3.1.2 &amp; 3.1.3</li> <li>• Other costs e.g. analysis, EMP Report and ROO, workshop/presentation</li> </ul>
Delivery plan	<p>Outline of methodology and deliverables to demonstrate understanding of the requirements.            Programme for delivery set out according to the deliverables.</p>
Evidence of suitable skills	Outline of proposed personnel and/or similar projects
Tax clearance Access Number (TCAN) and insurance levels	

## 7. Evaluation Criteria

Any consultant being considered for appointment will be required to have valid tax clearance access number (TCAN) and evidence of sufficient relevant insurance cover required to perform the works required by this specification. The Evaluation Criteria is set out in Table 5.1.

<b>Table 5.1 – Evaluation Criteria &amp; Scoring</b>	
<b>Criteria</b>	<b>Maximum Evaluation Points</b>
Demonstrated understanding of the requirements	20
Demonstrated skills and experience of delivering similar services	25
Proposed methodology and demonstrated ability to deliver the specific required services within stated timeframe	35
Price / Value for money	20
<b>Total Evaluation Points Available</b>	<b>100</b>

**Inishoven SEC is not bound to accept any quotation that they receive and may terminate the selection process at any time.**