



Guide to Completing the Technical Submission Form

Support Scheme for Renewable Heat (Tariff Scheme)

May 2019 Edition

Guide to Completing the Technical Submission Form Support Scheme for Renewable Heat (Tariff Scheme)

1. INTRODUCTION

- 1.1 This document is a guide to completing the Technical Submission Form for the Tariff component of the Support Scheme for Renewable Heat ("SSRH").
- 1.2 The Technical Submission Form is available on the SSRH page on the SEAI website. The duly completed Technical Submission Form must be uploaded to Share Point with the required documentation within 10 working days of the Application Form being submitted to SEAI. Access to Share Point will be provided to the applicant after submission of the online Application Form.
- 1.3 The purpose of the guide is to assist prospective applicants to complete the Technical Submission Form.
- 1.4 This guide relates solely to the application for the Tariff Scheme component of the SSRH Scheme.
- 1.5 Capitalised terms in this guide shall have the meaning given to them in the Tariff Scheme Operating Rules and Guidelines, unless the context otherwise admits. The Tariff Scheme Operating Rules and Guidelines are available on the SSRH page on the SEAI website.

2. DOCUMENTATION REQUIRED TO SUBMITTED WITH THE TECHNICAL SUBMISSION FORM

- 2.1 Each applicant will need to provide SEAI with the following documentation by uploading them to Share Point, within 10 working days of submitting the Application Form to SEAI:

No.	Document name	Document description
	Declaration of Solvency	Each applicant must complete and deliver a declaration of solvency in the form prescribed by SEAI confirming solvency of the applicant at the Application Stage and during the Payment Cycle. The declaration of solvency should be signed by the applicant or an authorised person of the applicant.
	Declaration of Funding	Each applicant must complete and deliver a declaration of funding in the form prescribed by SEAI at the Application Stage. The declaration of funding should be signed by the applicant or an authorised person of the applicant.
	Evidence of tax clearance	Each applicant must submit a tax reference number to SEAI.
	Declaration of Establishment	Each applicant must complete and deliver a declaration of establishment in the form prescribed by SEAI. This declaration of establishment should be signed by the applicant or an authorised person of the applicant.
	Eligible Building Declaration	Each applicant must submit a declaration to SEAI to confirm that the Eligible Building is an Eligible Building. This declaration should be completed by the applicant or an authorised person of the applicant.
	Block Diagram with basic flow directions	Each applicant must submit a labelled diagram of the Eligible Installation or proposed Eligible Installation. The diagram should identify (1) each heat source connected to the Eligible Installation, (2) the Eligible Installation and Related Ancillary Equipment for which the Tariff is sought, (3) each Eligible Building and Eligible Space (4) the location, function and type of metering equipment; and (5) any other information required to give a full understanding of the Eligible Installation and heat use. This is submitted as part of the Technical Submission Form.
	Industry Specific Benchmark	Each applicant must provide evidence of the efficiency of the heat use proposed through submission of the Industry Specific Benchmark. Each applicant will be required to submit information on accepted benchmarks in their sector or a comparative sector, as part of the Technical Submission Form. For each benchmark furnished to SEAI, an applicant should include (1) a reference to the source of the benchmark, (2) the publishing body or authority and (3) a copy of the publication in which the benchmark is issued. Further information on the Industry Specific Benchmark is detailed in section 13.7.1.3.

Site Map	Each applicant should provide a site map showing the Eligible Installation located within the wider site with all major components of the site and the Eligible Installation including meters clearly labelled. This is submitted as part of the Technical Submission Form.
Letter of Authorisation (Optional)	A letter of authorisation on the applicant's letterhead, authorising the Applicant Representative or the Nominated Project Contact to complete the Technical Submission Form on behalf of the applicant (if required the applicant nominates an Applicant Representative and/or a Nominated Project Contact).

3. GUIDE TO COMPLETING THE TECHNICAL SUBMISSION FORM

To assist applicants to complete the Technical Submission Form for the Tariff Scheme, contained in the **Annex 1** is a guide to answering the questions on the Technical Submission Form. The question numbers in Annex 1 match the question numbers in the Technical Submission Form.

4. QUERIES

Queries in relation to the Scheme can be e-mailed to ssrh@seai.ie. Alternatively, you can contact a member of the SSRH team on (01) 808 2100.

No.	Question	Response
-----	----------	----------

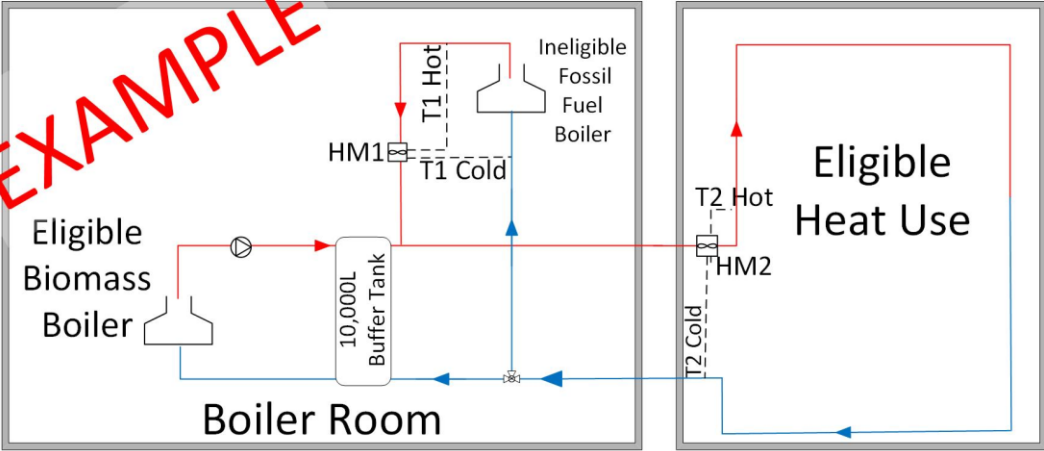
A. General Information

1	Provide one of the following documents to confirm that the Building is non-domestic: (1) planning permission issued by a local authority; or (2) rate receipts from the Local County or Town Council	Please upload either of the documents requested: (1) planning permission from the appropriate local authority; or (2) rate receipts from local authority. Alternately, a commercial water bill, a copy of a commercial lease (for a duration longer than that of the SSRH scheme, 15 years) or geotagged photo showing the Eligible Building.
---	--	--

1.1	Please provide a site map for the proposed Project site. Please ensure that the location of the equipment, meters and associated Buildings/structures to be heated are included and labelled accordingly.	 
-----	---	--

1.2	Please provide a design report by a Competent Person. The report should include the thermal demand profile and heat pump sizing/capacity along with the thermal design criteria and associated assumptions made.	This report will contain an assessment of the heat demand to be fulfilled by the Eligible Installation. The purpose of this report is to ensure that the equipment is not over or under sized to meet the demand or to identify unusual peaks in demand load that may need to be met by a parallel fossil fuel source. The report will also include an estimate of seasonal use divided into quarters as shown below.
-----	--	---

	Q1	Q2	Q3	Q4	Year
	Winter	Summer	Summer	Winter	Cap
	34%	16%	16%	34%	100%
Space heating	102 kWh	48 kWh	48 kWh	102 kWh	300 kWh
Other heat uses	175 kWh	175 kWh	175 kWh	175 kWh	700 kWh
Quarterly Caps	277 kWh	223 kWh	223 kWh	277 kWh	1000 kWh

No.	Question	Response
2	<p>Please provide schematic diagrams for the proposed Eligible Installation (including the proposed heat generating equipment and any additional heat sources, heat emitters, circulating pumps, and metering equipment).</p>	<p>Please insert a schematic diagram for the proposed Eligible Installation. This should include (1) the heat generator (2) all other heat sources (3) Appropriate Metering Equipment (4) heat emitters and (5) circulating pumps.</p> <p>A sample schematic diagram is below:</p> 
3	<p>What type of structure or structure(s) will benefit from the heat generated by the proposed Eligible Installation?</p>	<p>Please select the type of structure that will benefit from the Eligible Installation, from the drop down menu. Only Eligible Spaces in Eligible Buildings will receive Tariff funding. If you are not sure if you meet the Eligible Space and/or Eligible Building eligibility criteria please contact the SSRH Team.</p>
4	<p>What is the area of the structure in meters squared?</p>	<p>Please insert the area of the Eligible Space that will benefit from the Eligible Heat in metres squared.</p>
5	<p>Are you are installing the Eligible Installation in a new or existing Building?</p>	<p>Please submit "New" or "Existing" depending on the status of the Building that will benefit from the Eligible Heat.</p>

No.	Question	Response
6	Are you replacing an existing fossil fuel heat source with the proposed Eligible Installation?	Please select “yes” or “no” from the dropdown menu, to indicate whether or not the Eligible Installation will replace an existing fossil fuel heat source.
7	If YES, please include the make, model, capacity and fuel types of the existing heating source.	If you have selected “yes” to confirm that you are replacing an existing fossil fuel heat source, please provide (1) the make (2) gross efficiency (%) (3) model (4) age (5) heat output capacity and (6) the heat output capacity in the space provided in question 7 of the Technical Submission Form.
8	If you are not replacing an existing heat source, is this Building under construction or yet to be constructed?	Please select “yes” or “no” to indicate whether or not the heat pump will be installed in an Eligible Building that has yet to be constructed or is a recently built Eligible Building that has not yet been fitted with an Eligible Installation.
9	If you are not replacing an existing fossil fuel heat source and the Building or space is not a new build, please explain why the Eligible Installation is needed and what it will be used for	Our intent with this question is to find out if: <ul style="list-style-type: none"> 1. If the equipment, that heated the structure previously was fuelled by a renewable heat source. 2. Is being converted from a use that didn’t require any heating i.e. (dry storage warehouse) to a heated warehouse for furniture etc.
10	Select how the heat generated by your Eligible Installation will be used, from the dropdown menu. All three options can be applicable.	Please select one or more of the Eligible Purposes that the heat generated by the Eligible Installation will be used for. Please bear in mind, when completing this section of the Technical Submission Form that the heat used for the Eligible Purpose must be Eligible Heat. If the heat being used for any of purposes outlined below is not Eligible Heat, the Eligible Purpose should not be selected. The options available are (1) Space Heating (2) Water Heating (3) Process Heating. For more information on Space Heating, Water Heating, Process Heating and Useful Heat, please consult the Tariff Scheme Operating Rules and Guidelines.
11	Are you planning to install any back up or parallel heat	Please advise SEAI whether a backup or additional heat source will be operated, by selecting “yes” or “no” from the drop down menu. If a back-up or additional heat source will be connected to the Eligible Installation that the heat generating equipment is connected to, please

No.	Question	Response
	source in connection to the proposed Eligible Installation?	provide the (1) make (2) gross efficiency (%) (3) model (4) age (5) heat output capacity and (6) fuel type for each such heat source in the space provided at A,B and C in section 11. If further heat sources are connected to the Eligible Installation and there is not enough space in Section 11 to allow you to insert the relevant information, please submit with an annex with this information together with the Technical Submission Form.
12	Do you intend to supply heat to more than one structure?	Please advise whether or not you intend to supply Eligible Heat to more than one Eligible Building, by selecting yes or no from the drop down menu.
13	If NO, please provide a brief description of the structure, for example (Office Building)	If you select “no” in response to question 12 to indicate that Eligible Heat will be supplied to one Eligible Building only, please provide a brief description of the Eligible Building, which will receive the benefit of Eligible Heat. An example of a suitable response would be “Office Building”. Please bear in mind that domestic heat use, other than in connection with a District Heating Scheme, will not be eligible to receive Tariff funding.
14	If YES, please provide a description of the structures in which the heat will be used.	If you select “yes” in response to question 12 to indicate that Eligible Heat will be supplied to more than one Eligible Building, please provide a brief description of each Eligible Buildings, that will receive Eligible Heat, use. An example of a suitable response is “Building One - Office Building (heat generating equipment located in Building One)” “ Building Two – Doctors’ Surgery” . Please bear in mind that domestic heat use, other than in connection with a District Heating Scheme, will not be eligible to receive Tariff funding. If there is more than one Eligible Building or Eligible Space benefitting from Eligible Heat, please provide the location of each Eligible Building.
15	Is the structure fully enclosed on all sides?	Select “yes” to indicate that each Eligible Building(s) is/are wholly enclosed. Select “no” if each Eligible Building(s) is/are not wholly enclosed.
16	If the structure or structures are not fully enclosed please describe the temporary or permanent openings in each structure.	If the Eligible Building(s) are not fully enclosed, please describe each of the openings and advise whether each opening is temporarily or permanently open.
17	Answer only if you selected NO for question 14 above, What are the purpose that each opening serves?	Please indicate what purpose each opening identified in section 16 of this Technical Submission Form serves.

No.	Question	Response
19	Enter the gross efficiency (or the system efficiency) of your Eligible Installation (if it is a boiler) as a percentage.	Please insert the gross efficiency as a % is available from the supplier/manufacturer. This should match the Gross efficiency % value on the Type test certificate that you will be required to provide at the point of completion. Beware not to confuse this with Net efficiency. If Net Efficiency is all you have available state that you have submitted Net efficiency %.

21. Evaluation of Energy Efficiency – Baseline Heat Energy Performance

21	List your entire heating fuel consumption either through metering or compilation of fuel bills? Where metering is unavailable or historical data does not exist because the site is new or has recently received a major renovation, Estimate your potential fuel for heat consumption?	<p>Describe the amount of heat fuel that you consume in your business over the period of one year. For systems without sub-metering installed, this would be most commonly achieved by compiling data from your fuel bills. The applicant must retain copies of the fuel bills used in the event of a further inspection from SEAI for the duration of the scheme. Once you know how many litres of oil or gas you have purchased for your process or Building you have to convert that figure into kWh by using the energy conversion rates available from SEAI.</p> <p>https://www.seai.ie/resources/seai-statistics/conversion-factors/ https://www.seai.ie/resources/publications/Commercial-Fuel-Cost-Comparison.pdf</p> <p>The Technical Submission Form provides a fuel consumption calculator to aid in this step.</p>
----	--	--

22. Evaluation of Energy Efficiency – Energy Management

22A	Describe your energy management plan/statement	All applicants are required to identify their energy management planning. An energy management plan is as individual as each site that it will be applied to. If you already have an energy management plan describe it to us. If you don't have an energy management plan yet, create one with the help of an outside expert if necessary.
22B	What type of heat energy measurement tools do you use?	Nearly all energy management plans consist of an element of energy use measurement that allows the operator to see the positive or negative effects that Energy Performance Improvement Actions ("EPIA") will have on the process or Building's heat energy efficiency.
22C	Energy Improvement Plan and list your EPIAs	EPIA are clear and quantified improvement actions that will positively impact on the efficiency of the whole Eligible Installation. This could include improvements to the Building fabric above the minimum required U-values. A low-cost EPIA could be achieved by simply getting a specialist to service your heat emitting equipment to improve its efficiency, or even by acting to lower your heat requirement by one degree. We want the applicant to list EPIAs and investigate the cost and effort required for each, compared to the benefit to heat energy efficiency they

No.	Question	Response																														
		will bring.																														
22D	Demonstrate that you have access to the necessary expertise to design the energy management plan? (did you use an energy efficiency professional or in-house expertise?)	If you have any qualification or experience in energy management you can list them here, alternatively if you had access to an energy efficiency professional or in house expertise.																														
	Have you or are you receiving support from an obligated party?	<p>Select from the dropbox if applicable to you, leave blank if you are not receiving support, the aim of this question is to ensure energy credits are distributed to the obligated party if any are generated.</p> <table border="1"> <tr> <td></td> <td>Will the applicant be supported by an obligated party?</td> <td></td> </tr> <tr> <td></td> <td>If yes, which one?</td> <td>Please Select</td> </tr> <tr> <td>Question Number</td> <td>Question</td> <td>Please Select</td> </tr> <tr> <td>Section</td> <td>EVALUATION OF ENERGY EFFICIENCY</td> <td>SSE Airtricity</td> </tr> <tr> <td>23</td> <td>Carry out an energy efficiency evaluation.</td> <td>BGE</td> </tr> <tr> <td>23A</td> <td>Energy Balance Study</td> <td>Bord na Mona</td> </tr> <tr> <td></td> <td>Please fill the following to create your Energy Balance Study</td> <td>Calor Gas</td> </tr> <tr> <td></td> <td></td> <td>Electric Ireland</td> </tr> <tr> <td></td> <td></td> <td>Energia</td> </tr> <tr> <td></td> <td></td> <td>Flogas</td> </tr> </table>		Will the applicant be supported by an obligated party?			If yes, which one?	Please Select	Question Number	Question	Please Select	Section	EVALUATION OF ENERGY EFFICIENCY	SSE Airtricity	23	Carry out an energy efficiency evaluation.	BGE	23A	Energy Balance Study	Bord na Mona		Please fill the following to create your Energy Balance Study	Calor Gas			Electric Ireland			Energia			Flogas
	Will the applicant be supported by an obligated party?																															
	If yes, which one?	Please Select																														
Question Number	Question	Please Select																														
Section	EVALUATION OF ENERGY EFFICIENCY	SSE Airtricity																														
23	Carry out an energy efficiency evaluation.	BGE																														
23A	Energy Balance Study	Bord na Mona																														
	Please fill the following to create your Energy Balance Study	Calor Gas																														
		Electric Ireland																														
		Energia																														
		Flogas																														

23. Evaluation of Energy Efficiency – Energy Efficiency Evaluation

23A	Combine the Baseline Heat Energy Performance and compare it to a list of all heat energy uses to create an energy balance study	<p>Energy balance study combines the Baseline Heat Energy Performance and compares it to a list of all heat energy uses. An Energy Efficiency Evaluation should also include an annual energy consumption profile for the proposed Project making assumptions of annual heat energy consumption costs. This is a good place to list potential/future energy efficiency actions and collate them into a Project execution plan.</p> <p>Continuing the same hotel example, the management’s designated individual could identify and rate the heat emitters in each room and any heat emitters in the common areas. An example would be if they have 50 radiators in the entire hotel and each emits and average of 1 kilowatt of heat per hour. With 50kWh per hour to keep things simple, imagine that all of the radiators are on half the time. 50kWhs X 12 hours X 365 days a year = 219,000kWhs or 70% of baseline heat energy performance 313,378kWhs. The hotel manager can compare the hotel’s baseline heat energy performance to the following year and to other hotels of similar size using them as a benchmark. Once the baseline is prepared and</p>
-----	--	---

No.	Question	Response
		<p>the number of kWhs consumed per year has been calculated it is possible to compare output to any number of key performance indicators.</p>
23B	<p>Please provide a benchmark in respect of heat use in your sector. Provide the existing heat use per product (or per sqm) in your present installation and the estimated heat use per product (per sqm) for the proposed installation.</p>	<p>Where available and appropriate, it is recommended that the proposed heat use compares favourably with benchmarks, best practice and/or key performance indicators appropriate to your application. A benchmark could be the amount of heat consumed, per unit output or unit area. Your businesses performance in this method of comparison should aim to rate as favourably as possible with similar industry participants, best practice and or key energy performance indicators.</p> <p>Applicants should ideally compare their own business where possible with identical businesses using identical equipment and producing identical amounts of product and seeing if they have used more or less energy to produce the same amount of product. In plain language if your business is squeezing oranges to make orange juice and your next-door neighbour has an identical factory using identical machines to make the same amount of orange juice per day, you can compare your key performance indicator which could be kWhs of energy consumed per litre of orange juice produced.</p> <p>In the absence of available published benchmarks that you feel are comparable to your business there are still options available. An applicant can find the closest relevant published benchmark and argue in their application why their business is different or at a disadvantage to the average competitor and make adjustments to your key performance indicator to more accurately compare it to a closely related benchmark. If you squeeze lemons instead of oranges for example, they require the same amount of handling and effort but produce 33% less juice so it could be argued that the same kWhs for one litre of orange juice is comparable to 670ml of lemon juice.</p>
24	<p>In the absence of SSRH support what alternative heating solution would (or could) be implemented?</p>	<p>Applicants must describe the situation without the aid, i.e. a situation that is referred to as the counterfactual scenario, or the alternative scenario or Project. If the SSRH was not available and you were making the decision to install heat generating equipment what equipment or scenario would you invest in.</p> <p>Example one: My current fossil fuel boiler is still relatively young compared to the lifespan of the brand and it can with a normal service continue to satisfy my heat requirements for the foreseeable future.</p> <p>Example two: My current fossil fuel boiler is near the end of its service life and I will need either to completely over haul it, or replace it with a new boiler with the same heat output capacity.</p>