Energy Efficiency Obligation Scheme

Guidance for the submission of residential and energy poor energy savings

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Guidance document for the calculation and submission of Residential and Energy Poor Energy Savings

2023

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V 1.0	27/01/2023	First published
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1. Introduction

1.1 This document provides guidance to obligated parties on how to calculate and submit Residential and Energy Poverty energy savings to the Energy Efficiency Obligation Scheme (EEOS).

1.2 All energy savings must have been subject to the obligated party's quality assurance before being submitted to SEAI. The procedures outlined will help satisfy a legal requirement for SEAI, set out at Paragraph 12A(6) of Statutory Instrument 634 of 2016:

The Sustainable Energy Authority of Ireland shall monitor, validate and audit a statistically significant proportion of the reported energy efficiency improvement measures carried out by an energy supplier or class of energy suppliers.

2. What you need

2.1. Before you begin, make sure you have access to the following:

a) Energy Credits Management System (ECMS): https://ecms.seai.ie/

b) The SEAI EEOS SharePoint folder for your company

3. Checks to ensure works meet scheme criteria

3.1. The below tables provide a summary of the criteria required for measures to be eligible under the relevant delivery sub-target.

3.2. This section outlines the criteria required for measures to be eligible under the Residential and Energy Poverty delivery sub-target and how obligated parties can check that the measures submitted meet these criteria.

Table 1: Eligibility criteria for energy savings submitted under the Residential sub-target

To achieve residential energy credits by delivering energy efficiency improvement measures, the works must EITHER:
1. For the first set of upgrades at a dwelling carried out and notified under these EEOS rules by an obligated party:
    a) Achieve the applicable minimum uplift requirement:
        (i) 100 kWh/m^2/yr; or
        (ii) 90 kWh/m^2/yr, where a domestic microgeneration measure is installed as part of the same package of works,
    b) **And** either:
        (i) Achieve a post-works BER of B2 (or better) for the dwelling, or
        (ii) Meet the B2 pathway requirements:
            • Move the dwelling closer to achieving a post-works BER of B2 or better, and
            • The advisory report relating to the relevant BER certificate is discussed with, and provided to, the owner or occupant of the dwelling
OR

2. For the second or subsequent set of upgrades at a dwelling carried out and notified under these EEOS rules by the same obligated party:
    a) Achieve a post-works BER of B2 (or better) for the dwelling.

Table 2: Eligibility criteria for energy savings submitted under the Energy Poverty sub-target

To achieve energy poverty credits by delivering energy efficiency improvement measures:
1. The **dwelling** must have:
   b) a pre-works BER of D2 or worse, and
   c) a post-works BER of B2 or better

AND

2. The **owner** must be either:
   a) a local authority or an approved housing body, or
   b) an owner-occupier, with at least one occupant in receipt of a welfare payment that is deemed eligible under a free energy upgrade scheme administered by SEAI from the Department of Social Protection.

The up-to-date list of eligible welfare payments for 2(b) above is available on the SEAI website. For illustrative purposes, the eligible welfare payments in December 2022 included:
   • Fuel Allowance as part of the National Fuel Scheme.
   • Job Seekers Allowance for over six months and have a child under seven years of age
   • Working Family Payment
   • One-Parent Family Payment
   • Domiciliary Care Allowance
   • Carers Allowance and live with the person you are caring for
   • Disability Allowance for over six months and have a child under seven years of age

4. Acceptable pre and post works BER reports

4.1 Each dwelling will be required to have a pre and post works BER assessment completed and published to qualify.

4.2 The pre-works BER must be completed at most 24 months prior to the date the post-works BER was completed.

4.3 All measures must be installed in dwellings built before 2011 unless otherwise stated.

5. How to calculate the minimum BER uplift

5.1 The minimum BER uplift is the difference in primary energy performance between the pre-works BER and the post-works BER and must be at least 100 kWh/m^2/yr or 90 KWh/m^2/yr when delivered in conjunction with a domestic microgeneration measure.

5.2 The key documents required to calculate a property's BER uplift include: (i) a pre-works BER dwelling report and (ii) post works BER dwelling report.

5.3 Locate the "**Results**" section in both reports.

5.4 Identify the "**Per m^2 floor area**" value for "**Primary energy (kWh/y)"** in both the pre-works BER Dwelling Report and post-works BER Dwelling Report. This value is highlighted by the red circle in Figure 1 and Figure 2.

5.5 The BER uplift achieved by the property can then be calculated by simply subtracting the two figures identified. For example, 271.07kWh/m^2/y (pre-works BER) – 80.77kWh/m^2/y (post BER) = 190.3kWh/m^2/y (BER uplift).

   5.4.1. Note, it is important to remember that the BER uplift should be thought of as an entry requirement, where it shows the eligibility for energy savings to be considered.

Results

	Delivered energy [kWh/y]	Primary energy [kWh/y]	CO_2 emissions [$kgCO_2$/y]
Main space heating system	15737	17311	5807
Secondary space heating system	0	0	0
Main water heating system	3178	3496	1173
Supplementary water heating system	526	1094	215
Pumps and fans	795	1653	325
Energy for lighting	650	1353	266
CHP input (individual heating systems only)	0	0	0
CHP electric output (individual heating systems only)	0	0	0
Renewable and energy saving technologies			
Energy produced and saved	0	0	0
Energy consumed by the technology	0	0	0
Total	20886	24906	7786
Per m² floor area	227.32	271.07	84.74
Energy Rating	D2		

Figure 1: Example "Results" section within a pre-works BER Dwelling Report

Results

	Delivered energy [kWh/y]	Primary energy [kWh/y]	CO_2 emissions [$kgCO_2$/y]
Main space heating system	1208	2514	494
Secondary space heating system	641	769	251
Main water heating system	1013	2107	414
Supplementary water heating system	0	0	0
Pumps and fans	756	1571	309
Energy for lighting	222	461	91
CHP input (individual heating systems only)	0	0	0
CHP electric output (individual heating systems only)	0	0	0
Renewable and energy saving technologies			
Energy produced and saved	0	0	0
Energy consumed by the technology	0	0	0
Total	3839	7422	1559
Per m² floor area	41.79	80.77	16.97
Energy Rating	B1		

Figure 2: Example "Results" section within a post-works BER Dwelling Report

6. How to calculate the final energy credits

6.1 Figure 3 presents the final energy credits formula and parameters.

Final Energy Credits = $([DE_{(pre)} + DEPS_{(pre)}] - [DE_{(post)} + DEPS_{(post)}]) \times CF$

Figure 3: Formula for calculating energy credits for Residential and Energy poverty targets

where:

DE$_{(pre)}$	is the Total value shown in the pre-works BER report for "Total Delivered Energy (kWh/y)";
DEPS$_{(pre)}$	is the value shown in the pre-works BER report for "Delivered Energy produced and saved (kWh/y)";
DE$_{(post)}$	is the Total value shown in the post-works BER report for "Total Delivered Energy (kWh/y)";
DEPS$_{(post)}$	is the value shown in the post-works BER report for "Delivered Energy produced and saved (kWh/y)"; and
CF	is the applicable correction factor, i.e. 0.91.

6.2 The key documents required to calculate the eligible final energy credits for a dwelling includes (i) the pre-works BER dwelling report and (ii) the post-BER dwelling report.

6.3 Locate the "**Results**" section in both of these reports.

6.4 Identify the "**Total Delivered energy (kWh/y)**" value in both the pre and post-works BER reports. This value is highlighted by the red circle in Figure 4 and Figure 5.

6.5 The ʻ**Energy produced and saved**ʼ value in the ʻ**Delivered energy (kWh/y)**ʼ column must be added to the ʻ**Total delivered energy (kWh/y)**ʼ value already identified at 6.4 above, for the respective BER report. The relevant value is highlighted by the green circle in Figure 4 and Figure 5, below.

6.6 The gross delivered energy savings can then be derived. For example, the gross delivered energy savings in Figures 4 and 5 can be calculated by:

[32,280 kWh/y + 0 kWh/y] – [4,666 kWh/y + 1,200 kWh/y]   =   26,414 kWh/y (gross delivered energy savings).

6.7 Finally, a correction factor must be applied to calculate the eligible final energy credits available for upload. To do this, simply multiply the "**gross delivered energy savings value**" by the correction factor i.e., 0.91. For example:

26,414 kWh/y * 0.91 = 24,037 kWh/y (final energy savings).

6.8 Please round the figure to the nearest whole number before submission.

Results

	Delivered energy [kWh/y]	Primary energy [kWh/y]	CO_2 emissions [kgCO$_2$/y]
Main space heating system	21086	23195	4281
Secondary space heating system	7079	8495	2775
Main water heating system	3592	3951	729
Supplementary water heating system	0	0	0
Cooling	0	0	0
Pumps and fans	175	306	39
Energy for lighting	347	608	78
CHP input (individual heating systems only)	0	0	0
CHP electric output (individual heating systems only)	0	0	0
Renewable and energy saving technologies			
Energy produced and saved	0	0	0
Energy consumed by the technology	0	0	0
Total	32280	36555	7902
Per m^2 floor area	182.93	207.16	44.78
Energy Rating	C3		

Figure 4: Example "Results" section within a pre-works BER Dwelling Report

Results

	Delivered energy [kWh/y]	Primary energy [kWh/y]	CO_2 emissions [kgCO$_2$/y]
Main space heating system	3795	6641	850
Secondary space heating system	0	0	0
Main water heating system	1546	2706	346
Supplementary water heating system	0	0	0
Cooling	0	0	0
Pumps and fans	175	306	39
Energy for lighting	350	612	78
CHP input (individual heating systems only)	0	0	0
CHP electric output (individual heating systems only)	0	0	0
Renewable and energy saving technologies			
Energy produced and saved	1200	2100	269
Energy consumed by the technology	0	0	0
Total	4666	8165	1045
Per m^2 floor area	26.44	46.27	5.92
Energy Rating	A2		

Figure 5: Example "Results" section within a post BER Dwelling Report

7. How to upload work notifications

7.1 All works notifications must be subject to the obligated party's quality assurance before being submitted to the EEOS team through the Energy Credit Management System (ECMS) located at https://ecms.seai.ie/. Access can be gained by contacting EEOS Admin.

7.2 Work notifications can be submitted by use of the ECMS 'Works notifications' template. This template can be downloaded by clicking the "Help" button located in the ECMS home page (see Figure 6).
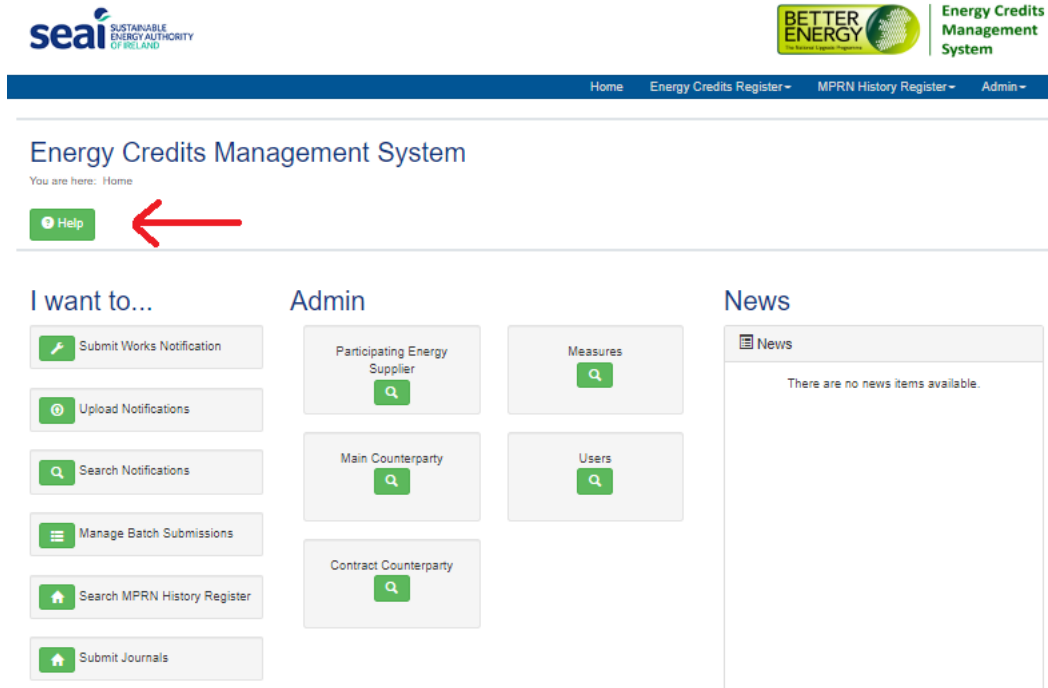

Figure 6: Example of completed ECMS Work Notification worksheet

7.3 Once the template is downloaded, save the file onto your computer.

7.4 Input the details regarding the associated measures installed as part of the uplift within the relevant property (see Figure 7). These inputs should follow the guidelines set out in Table 3.

- o Note, zero should be entered into the energy credits field for all associated measures.

- o Multiple properties may be uploaded using a single template.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Date Completed	Period	Measure	MPRN	Customer Ref	Dwelling Type	Project ID	Public Sector	Contractor	Energy Credits	Project Name	Eircode	BER
2	01/03/2022	2023	Domestic Dwelling Upgrade	12345678901	free text	House	House 1	N	contractor	12,355	DDU19010		
3	01/03/2022	2023	DDU Floor Insulation	12345678901	free text	House	House 1	n	contractor	0	DDU19010		
4	01/03/2022	2023	DDU External Wall Insulation	12345678901	free text	House	House 1	n	contractor	0	DDU19010		
5	01/03/2022	2023	DDU Heat Pump Systems	12345678901	free text	House	House 1	n	contractor	0	DDU19010		
6	01/03/2022	2023	Domestic Dwelling Upgrade	12345678902	free text	House	House 2	N	contractor	9,058	DDU19010		
7	01/03/2022	2023	DDU Internal Wall Insulation	12345678902	free text	House	House 2	n	contractor	0	DDU19010		
8	01/03/2022	2023	DDU Floor Insulation	12345678902	free text	House	House 2	n	contractor	0	DDU19010		
9	01/03/2022	2023	DDU External Wall Insulation	12345678902	free text	House	House 2	n	contractor	0	DDU19010		
10	01/03/2022	2023	DDU Boiler Upgrade	12345678902	free text	House	House 2	n	contractor	0	DDU19010		
11													

For all associated measures enter zero energy credits

Enter the dwellings final energy credits using the "Domestic Dwelling Upgrade" measure

Figure 7: Example of completed ECMS Work Notification worksheet

Table 3: Notes on individual fields for ECMS Work Notification worksheet

Field name	Note	Mandatory
Date completed	Enter the date the works were completed. Must be a valid date (cannot be in the future)	Y
Period	Optional. Format = YYYY. It defaults to either the year of Date Completed or, if that is before the Current Accounting Period, the year of the Current Accounting period.	N
Measure	Identifies the measure undertaken. Select from dropdown list. Determines rules governing MPRN, Customer Ref, Project ID, Energy Credits	Y
MPRN	Identifies the building where works were carried out. Mandatory if required for Measure.	Y
Customer Ref	Required if Measure requires MPRN and PES exempts MPRN	N
Dwelling Type	Must be House or Apartment	N
Project ID	Required if required by Measure. Insert the SEAI project number in this field.	N
Public Sector	Use Y or N. Default is N.	Y
Contractor	Non-Mandatory field, used to record the name of the contractor who carried out the work.	N
Energy Credits	Only required for "Domestic Dwelling Upgrade" measure. Leave blank for all other associated measure types.	N
Project Name	Optional. Maximum 100 characters	N
Eircode	Optional. Exact Eircode for property	N
BER	Optional. Exact BER cert number	N

7.5 To capture the final energy savings achieved, a "**Domestic Dwelling Upgrade**" measure must be uploaded for each dwelling submitted. To do this:

    7.5.1 Select the "Domestic Dwelling Upgrade" measure type from the "Measure" field.

    7.5.2 Input the final energy credits calculated for the dwelling into the "Energy Credits" field (see Figure 7). For guidance, please refer to the "How to calculate the final energy credits" section of this document.

7.6 Once completed, the file should be uploaded to ECMS via the '**Upload works notifications**" window, located at https://ecms.seai.ie/Notifications/Upload. See Figure 8 below.

Upload Works Notifications

You are here: Home / Energy Credits Register / Upload Notifications

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Notification Common Details

Contract Counterparty:

Please select a Contract Counterparty ⌄

PES:

Please select a PES ⌄

Programme Type:

Please select a Programme Type ⌄

Main Counterparty:

Please select a Main Counterparty ⌄

Sector:

Please select a Sector ⌄

Import Notifications

[Choose Spreadsheet]   Choose Spreadsheet   [Upload Spreadsheet]

Figure 8: Work notification page within ECMS

7.7 Under Programme type, select the relevant programme, either Non Grant Residential, Better Energy Homes, or BEC – Communities.

7.8 Under Sector, select the relevant sector either "**Residential**" or "**Energy poverty**"

7.9 Finally, select "**Choose Spreadsheet**" to attach the template and then select "**Upload Spreadsheet**".

7.1 Finally, select "**Choose Spreadsheet**" to attach the template and then select "**Upload Spreadsheet**".

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