



Rialtas na hÉireann
Government of Ireland

Sustainable Energy Authority of Ireland (SEAI)

Follow-Up Information Requests

Public Accounts Committee 9 March 2023

Submitted Wednesday 19 April 2023

1. An annual breakdown of the number of EVs and home chargers has it approved grant aid for since the SEAI took charge of the programme (pg. 9).

Electric Vehicles Grant aided by SEAI:

Year	Grant Spend	Number of Grants
2011	€198,000	42
2012	€767,400	183
2013	€233,200	53
2014	€1,203,400	256
2015	€2,647,800	555
2016	€3,038,800	638
2017	€4,262,000	907
2018	€9,133,600	1,999
2019	€21,137,000	4,615
2020	€23,511,800	4,843
2021	€63,189,700	13,435
2022	€53,008,800	10,882
2023 to end of March	€15,139,400	3,094
Total	€197,470,900	41,502

EV Home Chargers Grant Aided by SEAI:

Year	Grant Spend	Number of Grants
2018	€621,000	1,034
2019	€1,528,828	2,548
2020	€2,114,000	3,523
2021	€5,019,380	8,379
2022	€9,780,000	16,299
2023 to end March	€1,371,000	2,286
Total	€20,434,208	34,069

2. The timeline for the delivery of the pilot retrofit scheme in the estate in Fingal County Council (pg. 13).

SEAI are at an early stage of the development of this joint pilot project with Fingal County Council. At current it is not possible to give a definitive timeline; however, this project is being prioritised by both organisations, SEAI and Fingal County Council, and will be progressed as quickly as possible.

3. A detailed note on the warmer homes scheme, in respect of what works can be facilitated during a revisit on a property in which works had been undertaken previously under the scheme or a previous scheme (pgs. 26, 27, 35).

Revisits on the Warmer Homes Scheme

The scheme targets the worst performing properties, by prioritising homes that were built and occupied before 1993 and have a pre-works BER of E, F or G. Homes which have received works under the scheme previously may be eligible for further works. Any potential applicant considering re-applying for additional works may contact SEAI's Customer Services to seek guidance on the likelihood of additional works prior to re-applying.

Since 2018, the scheme has significantly evolved from providing attic and cavity measures to deeper interventions such as solid wall insulation, heating systems and windows and doors in limited circumstances. Potential applicants should be mindful that if they have received works in the last 5 years, they most likely will not be eligible for further works at this time, as the range of measures remains as determined in 2018. Any homes eligible for a revisit will be surveyed to align with scheme rules in place. The survey is carried out by SEAI's Managing Agent and all measures relevant to the home will be determined at the time of the survey.

4. A note on CO₂ emissions from a gas boiler to heat a property, including how these emissions compare to those from solid fuels (pgs. 39-40).

SEAI sets out the emission factors for the most common fuel types on our website: <https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/>

Fuel type	Natural Gas	Kerosene	LPG	Solid Fuel		
				Coal	Peat Briquettes	Sod Peat
gCO ₂ /kWh (NCV)	202.9	257.0	229.3	340.6	355.9	374.4
% Relative to Natural Gas		26.7%	13.0%	67.9%	75.4%	84.5%

Table 1: Selected fuel emission factors

So, for example, combusting 1 unit (kWh) of natural gas emits 202.9 grammes of CO₂ compared to the 374.4 grammes of CO₂ emitted in producing 1 kWh from burning sod peat (i.e., turf). In other words, on a unit of energy basis, sod peat emits 84.5% more CO₂ than natural gas. Coal emits 67.9% more CO₂ and Kerosene emits 26.7% more CO₂.

However, there are losses when converting the energy contained in a fuel into useful heat that can be used by the dwelling. This is down to the efficiency of the heating system. For example, in order to deliver 1 kWh of useful heat (for space or hot water heating), a 90% efficient gas boiler will consume 1.11 units (kWh) of natural gas.

Taking this into account by using the average efficiencies of heating systems listed in the BER database, we calculate the following figures:

Fuel type	Natural Gas	Kerosene	LPG	Coal	Peat Briquettes	Sod Peat
Efficiency	83.5%	82.8%	83.9%	52.9%	52.1%	52.1%
gCO ₂ /kWh (NCV)	242.9	310.5	273.2	644.5	683.1	718.6
% Relative to Natural Gas		27.9%	12.5%	165.3%	181.3%	195.9%

Table 2: Average efficiencies of heating systems in the BER database and associated emissions per kWh of heat delivered.

This means that for the same levels of heat demand, peat powered homes emit nearly 3 times as many carbon dioxide emissions as gas heated homes, and more than twice that of kerosene heated homes.

New appliances are generally more efficient, and replacing older units with new ones is one way to reduce the level of emissions. Taking the most efficient models from the national efficiency database, [HARP](#) shows that, even with new installations, solid fuel appliances will produce more than twice as many emissions as natural gas appliances.

Fuel type	Natural Gas	Kerosene	LPG	Mixed Solid Fuel
Efficiency	91.5%	97.4%	93.2%	75.3%
gCO ₂ /kWh (NCV)	221.7	263.9	246.0	452.3
% relative to Natural Gas		19.0%	10.9%	104.0%

Table 3: Efficiencies of new heating systems in the HARP database and associated emissions per kWh of heat delivered.

Emissions associated with electricity consumption are counted as being part of the generation sector. Consequently, this means that when a dwelling is heated by electricity (for example with a heat pump) the emissions associated with the electrical consumption are not counted in the residential sector. Over time, as the amount of renewables on the electricity grid increase, the emissions associated with electricity generation will come close to zero in any case, whereas the emissions associated with fossil fuels will not change.

However, if the emissions from consuming electricity were counted towards the dwelling instead of the generation sector, installing a new heat pump in a home today will halve the carbon dioxide emissions when compared to the installation of a new gas boiler¹.

5. A note outlining the timelines for the warmer homes scheme, including any background information on factors affecting these timelines, such as COVID-19 restrictions (pg. 44).

Restrictions on Warmer Homes and Warmth and Wellbeing Schemes delivery during Covid 19

During the COVID-19 pandemic SEAI considered the implications of Government rules and guidance and issued instructions in respect of all home energy upgrade schemes contractors and service providers. This guidance often differed between the individual measure schemes and the fully funded schemes for energy poor homes. The table below relates specifically to the fully funded schemes.

- At any time, when instructions to halt works were issued to the procured panel of contractors delivering the fully funded schemes, no further homes were allocated from waiting lists, and SEAI only paid for works completed to that point.

¹ Actual reduction over gas = 47.4% based on emission factor of electricity in 2021 = 347.8 gCO₂/kWh and efficiency of heat pump taken to be = 300%

- At all times the schemes remained open for applications throughout lockdown periods.

Date of Notification	Government Announcement / Instruction Issued	Impact on Fully Funded Energy Poor Schemes
18 March 2020	Government Announcement: 12 March 2020 Effectively prohibited ALL retrofit works across ALL grant schemes Instruction: <ul style="list-style-type: none"> Postpone ALL new works on energy poor homes, make safe existing works. 	<ul style="list-style-type: none"> No works on Warmer Homes Scheme No works on Warmth and Wellbeing scheme
30 March 2020	Government Announcement: 22 March 2020 Instruction: <ul style="list-style-type: none"> Continuation of above instruction until further notice 	<ul style="list-style-type: none"> No works on Warmer Homes Scheme No works on Warmth and Wellbeing scheme
18 May 2020	Government Announcement: 18 May 2020 Permitted phased return of OUTDOOR construction. Instruction: <ul style="list-style-type: none"> Retrofit works could not be completed in compliance with guidelines, prohibition across all schemes continued 	<ul style="list-style-type: none"> No works on Warmer Homes Scheme No works on Warmth and Wellbeing scheme
8 June 2020	Government Announcement: Phased roadmap for reopening society and business Instruction: <ul style="list-style-type: none"> Wider construction sector reopening, retrofits in non-energy poor homes resumed subject to full risk assessment by contractors. Retrofits in energy poor schemes remained prohibited. Commenced consultation with Warmer Homes contractors to develop full safety protocols 	<ul style="list-style-type: none"> No works on Warmer Homes Scheme No works on Warmth and Wellbeing scheme
30 June 2020	Government Announcement: Phased roadmap for reopening society and business Instruction: <ul style="list-style-type: none"> Protocols agreed allowing for phased recommencement of Warmer Homes works <u>subject to risk assessment and wishes of homeowner.</u> Warmth and Wellbeing scheme remained suspended due to high-risk nature of clients 	<ul style="list-style-type: none"> Limited works on Warmer Homes Scheme No works on Warmth and Wellbeing scheme
29 October 2020	Government Announcement: 22 October 2020, country moves to Level 5 Restrictions Instruction: <ul style="list-style-type: none"> Warmer Homes works continue to be permitted <u>subject to risk assessment and wishes of homeowner.</u> Warmth and Wellbeing scheme now permitted but only <u>where homes can be fully vacated for duration of works.</u> 	<ul style="list-style-type: none"> Limited works on Warmer Homes Scheme Limited works on Warmth and Wellbeing scheme

Date of Notification	Government Announcement / Instruction Issued	Impact on Fully Funded Energy Poor Schemes
8 January 2021	Government Announcement: Direction to construction to cease from 8 January 2021 Instruction: <ul style="list-style-type: none"> ALL retrofit activity prohibited. Energy poor schemes suspended for works. 	<ul style="list-style-type: none"> No works on Warmer Homes Scheme No works Warmth and Wellbeing scheme
7 April 2021	Government Announcement: 30 March 2021, permitting recommencement of construction sector Instruction: <ul style="list-style-type: none"> All retrofit works now permitted. Warmer Homes and Warmth and Wellbeing works permitted <u>subject to full risk assessment and wishes of homeowner.</u> 	<ul style="list-style-type: none"> Works permitted on Warmer Homes Scheme Works permitted Warmth and Wellbeing scheme (subject to wishes of the homeowner, this continues to be the case to today)

In summary:

- 18 March 2020 to 30 June 2020 NO works permitted on either energy poor scheme
- 30 June 2020 to 8 January 2021 NO or LIMITED works permitted on energy poor schemes
- 8 January 2021 to 7 April 2021 NO works permitted on either energy poor scheme
- 7 April 2021 Works permitted on both energy poor schemes, subject to the wishes of the client homeowner

6. The energy costs in 2021 for the SEAI's office, and the expenditure on measures to reduce energy consumption in the office in 2022 (pgs. 44- 45).

The energy costs for consumption of energy in 2021 for SEAI offices amounted to €63,797. The cost was offset by a credit received in 2021 in respect of consumption in 2020, which amounted to €96,596, given that occupancy of the offices was significantly reduced due to the Covid-19 pandemic during 2020.

SEAI have a Green Team in place internally who are actively implementing energy saving initiatives. This has been managed in house and as such no significant additional costs have been incurred. In 2022 some costs were incurred relating to monitoring and reporting on energy use, Building Management system adjustments, and putting in place energy improvements in line with the Reduce Your Use Winter Campaign. These costs amounted to €4,020 excluding VAT (or €4,944 including VAT).

7. A breakdown, by county, of the number of EVs that are being bought, and the number thereof that were grant-aided by the SEAI, and the number of public charging points, detailing the owners of same (pgs. 51-52)

The number of EVs that are being bought

Combined BEV & PHEV registrations per year per county													
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Carlow	0	1	1	4	2	3	10	20	47	53	169	197	120
Cavan	0	1	1	1	3	5	10	16	39	38	111	145	97
Clare	2	3	2	3	12	19	19	33	75	89	267	383	235
Cork	1	12	0	23	75	66	100	193	543	676	1798	2417	1501
Donegal	0	0	0	1	6	5	12	23	49	98	336	430	238
Dublin	16	56	30	116	238	360	430	1027	2339	3350	8059	11083	6725
Galway	4	6	0	9	24	29	45	63	150	200	531	909	552
Kerry	2	2	1	3	19	8	8	32	63	101	222	362	211
Kildare	1	10	3	15	43	25	49	92	246	343	903	1287	699
Kilkenny	1	0	0	3	11	10	14	17	65	88	224	350	176
Laois	2	1	0	1	5	7	5	18	52	58	159	223	139
Leitrim	0	0	0	1	2	2	3	2	14	12	28	60	38
Limerick	2	10	0	7	10	21	30	39	115	145	436	642	392
Longford	0	0	0	0	1	0	6	10	19	25	40	60	32
Louth	0	8	1	2	16	6	13	47	102	109	332	390	253
Meath	0	4	1	21	23	26	31	60	182	247	570	959	544
Mayo	1	0	0	0	7	8	12	17	43	54	179	283	144
Monaghan	0	0	1	2	6	2	5	8	23	16	61	93	59
Offaly	0	0	1	1	2	3	6	9	40	47	125	192	97
Roscommon	0	0	0	0	1	1	7	10	20	26	67	134	83
Sligo	1	1	1	0	1	5	2	11	28	45	152	207	113
Tipperary	0	1	2	4	11	15	26	35	73	125	319	465	269
Waterford	2	3	1	10	16	12	13	27	83	95	323	471	279
Westmeath	1	10	0	2	5	8	19	38	83	80	230	279	157
Wexford	5	0	2	9	17	14	26	46	80	142	365	512	330
Wicklow	5	8	1	18	27	30	47	79	187	243	531	823	450

Source: SIMI

The number thereof that were grant-aided by the SEAI

	Registered	Grant Aided	% Grant Aided
2011	46	42	91%
2012	137	183	134%
2013	49	53	108%
2014	256	256	100%
2015	583	555	95%
2016	690	638	92%
2017	948	907	96%
2018	1972	1999	101%
2019	4760	4615	97%
2020	6505	4843	74%
2021	16537	13435	81%
2022	23356	10882	47%
2023	13933	3094	22%
Total	69772	41502	59%

**A number of early demo car fleets were grant aided prior to registration*

The number of public charging points, detailing the owners of same (pgs. 51-52)

The Department of Transport and ZEVl recently launched the Electric Vehicle Charging Infrastructure Strategy 2022-2025 which contained the following breakdown of existing publicly accessible EV chargers:

	Neighbourhood (On street)	Destination / EnRoute	Total number of publicly accessible chargers nationwide	Total Charging Power Nationwide
	0-22kw	22kw - 350kw		
Existing	1,349	374	1,723	67,237

The following links provide access to a live map of the majority of the public charge points and their availability. This map can be filtered by operator: <https://www.zap-map.com/live/>

In the Republic of Ireland the main operators currently are:

- ESB eCars (approx. 80% of the market share operating over 1350 public charge points): <https://esb.ie/what-we-do/ecars/charge-point-map>
- Ionity
- Tesla
- EasyGo
- Circle K

If the Committee requires a further breakdown of ownership please be advised more information may be provided by ZEVl.

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Rialtas na hÉireann
Government of Ireland

Eoin Seery

From: Hughes Helena [REDACTED]
Sent: Friday 21 April 2023 15:52
To: Public Accounts Committee
Subject: RE: Correspondence from the Committee of Public Accounts

Categories: Correspondence for future meetings

Hi Sam,

Hope you are well! Thanks for calling me back yesterday, really appreciated the clarification.

I wanted to let you know that information on Public Chargers is best directed to ZEVI, I understand they would be able to revert on the query regarding the number of public charging points, detailing the owners of same. On the other query, I am happy to advise that my colleagues will be able to revert with a breakdown on domestic chargers. We will be in touch with this information next week.

Hope that is helpful and happy to touch base Monday if you wish to discuss further, have a lovely weekend!

Many thanks,
 Helena

Helena Hughes
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From: Public Accounts Committee <PAC@oireachtas.ie>
Sent: Wednesday 19 April 2023 17:51
To: Hughes Helena [REDACTED]
Cc: Public Accounts Committee <PAC@oireachtas.ie>
Subject: FW: Correspondence from the Committee of Public Accounts

Hi Helena,

Thank you for forwarding the SEAI's responses to the Committee's requests arising from its meeting on 9th March.

Item 7 of the Committee's correspondence was as follows:

7. A breakdown, by county, of the number of EVs that are being bought, and the number thereof that were grant-aided by the SEAI, and the number of public charging points, detailing the owners of same (pgs. 51-52)

A helpful breakdown by county is provided for the number of EVs bought. Can the SEAI please provide a breakdown, by county and if possible by owner, of the number of EV charging points available nationwide?

I would be grateful if you could let me know if it is possible for the SEAI to provide that breakdown, and if so, for the additional breakdown to be provided within 5 working days.

Kind regards,
Sam

Sam Keenan

Oifigeach Riaracháin | Administrative Officer
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Cuireann Seirbhís Thithe an Oireachtais fáilte roimh chomhfhreagras i nGaeilge

From: Hughes Helena [REDACTED]
Sent: Wednesday 19 April 2023 17:13
To: Public Accounts Committee <PAC@oireachtas.ie>
Subject: RE: Correspondence from the Committee of Public Accounts

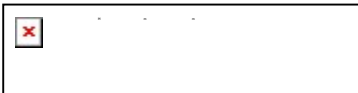
Hi Pat,

Hope you are well! Please see attached our response to the request from the Committee of Public Accounts dated 30th March 2023.


Appreciate if you can please confirm receipt, if you need any further information just let me know.

Have a lovely evening,
Many thanks,
Helena

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Follow-Up Information Requests

Public Accounts Committee 9 March 2023

A breakdown of the number of domestic EV chargers by county

SEAI publish localised insights on our website into energy and investment to support Local Authorities in the development of their Climate Action Plans, this includes a breakdown of the number of domestic EV chargers by county.

The dashboard currently provides information at the local authority level under themes that include grants for electric vehicle technologies, domestic BER ratings, and sectoral heat demand. Development of the dashboard will continue in an engagement-led manner with planned future additions to include data on home energy upgrades as well as public sector building energy efficiency.

The Local Authority Climate Action Plan Dashboard can be viewed here: [Local Authority Climate Action Plan Dashboard | Statistics | SEAI](#)

This data is also available to download.

Electric Vehicle Chargers Grant aided by SEAI by county:

County Council	Number of Domestic Charger Grants by county	Value of Domestic Charger Grant-aid by county
Carlow County Council	297	177,392
Cavan County Council	324	193,907
Clare County Council	670	401,662
Cork City Council	541	323,633
Cork County Council	3,223	1,927,795
Donegal County Council	556	333,059
Dublin City Council	2,489	1,491,793
Dun Laoghaire-Rathdown County Council	3,193	1,915,185
Fingal County Council	3,211	1,931,656
Galway City Council	426	255,120
Galway County Council	1,085	650,649
Kerry County Council	575	345,315
Kildare County Council	2,362	1,415,483
Kilkenny County Council	532	319,156

Laois County Council	422	252,134
Leitrim County Council	119	71,400
Limerick City And County Council	936	560,763
Longford County Council	126	75,487
Louth County Council	695	416,555
Mayo County Council	456	273,089
Meath County Council	1,888	1,133,835
Monaghan County Council	172	102,760
Offaly County Council	340	203,474
Roscommon County Council	260	155,534
Sligo County Council	344	206,400
South Dublin County Council	2,349	1,408,599
Tipperary County Council	634	379,735
Waterford City And County Council	654	391,997
Westmeath County Council	481	288,320
Wexford County Council	865	517,841
Wicklow County Council	1,521	910,953
Grand Total	31,746	19,030,684

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