

Mr William Walsh
CEO, Sustainable Energy Authority of Ireland
Opening address to the Public Accounts Committee
24 March 2022

Chairperson and Public accounts Committee members, thank you for the invitation to attend the meeting today to discuss the SEAI Financial Statements for 2020. I am joined today by my SEAI colleagues :

- Marion O'Brien , Director of Corporate Services
- Ciaran Byrne , Director of National Retrofit, and
- Declan Meally , Director of Business , Public Sector and Transport.

To assist the discussion today and in line with the Letter of Invitation, we have submitted some briefing material to the Committee earlier this week. Thank you for the opportunity for me to make my opening statement.

Introduction

The Sustainable Energy Authority of Ireland (SEAI) is at the forefront of delivering a low carbon economy through measures and activities focussed on the transition to a smarter and more sustainable energy future. SEAI is funded by the Government of Ireland, through its parent Department, the Department of Environment, Climate and Communications and the Department of Transport. In 2022 our budget allocation is more than €440 million.

SEAI operates to the highest standards of effective corporate governance. We were the first organisation in Europe, private or public, certified by NSAI to the SWIFT 3000 standard and maintain this governance certification annually. In an environment where accountability, transparency and probity are fundamental to SEAI's licence to operate, we work hard to apply best practice governance processes that deliver consistently high levels of assurance around compliance with relevant laws, regulations, and the Code of Practice for the Governance of State Bodies.

Like others, SEAI had to adapt to the unprecedented challenges posed by Covid-19. Our staff responded in an agile way, ensuring continuity of service while working remotely. Given the disruption to normal life, in 2020 fewer homeowners, communities and businesses availed of grants, such that expenditure across SEAI's various programmes decreased by around 15% year on year. Much of our work requires access to citizens homes, given the nature of Covid-19 access to homes was very restricted during 2020. Thankfully, with fewer restrictions, SEAI's support programmes rebounded strongly in 2021 resulting in the highest ever levels of

expenditure by SEAI. 2022 is set to be another year of significant growth in activity levels.

Track record of delivery

SEAI puts citizens, communities, suppliers, and other stakeholders at the heart of everything it delivers. We focus on developing collaborative partnerships, strong engagement, and smooth customer journeys for the public we serve.

We provide expert advice to drive positive change through our analysis, modelling and support for policymaking. We are catalysts for action through grant and incentive programmes we deliver and through our capacity-building processes with citizens, communities, and the business and public sectors. Pursuing our mission, we collaborate closely with a wide range of stakeholders including government departments and state agencies. We have had a major and transformative impact on the Irish economy. In the last decade our actions have underpinned more than €1.2 billion in energy savings.

Ireland now has even more ambitious targets and we have been scaling up our operations to meet the challenge. In the past three years we have added capacity to deliver capital expenditure programmes and enhance support to our parent department. Meeting Ireland's energy and climate targets will require further significant investment from Government and SEAI is playing a major part, alongside others, to get Ireland on the right track to meet our UNFCCC COP21 Paris Agreement commitment trajectory.

SEAI is at the heart of delivering the Government's Climate Action Plan 2021. The Plan sets ambitious goals for 2030, including: up to 80% renewable electricity; 600,000 heat pumps; 500,000 B2 home upgrades; almost 1 million electric vehicles; a new microgeneration scheme; large emission reductions in our public services and enterprise sectors; and increased investment in research and innovation.

A vision for the future

At SEAI, we have a unique vision for the role we will play in delivering Ireland's energy revolution. This requires fundamental change across all of Irish society. Since the Russian invasion of Ukraine, the security of supply and cost implications of Ireland's reliance on fossil fuel imports have become very real. This further underpins the urgency of our energy transition. We are collaborating with colleagues in our parent Department and other state agencies to mitigate the cost and security of supply impacts that will affect all of society. Through energy independence we can remove our reliance on imported fossil fuels, lower our carbon emissions and secure our future. The global pandemic had devastating impacts in Ireland and globally. But the resulting limitations demonstrated that collective and cohesive action can have significant impact on our energy consumption behaviours.

The way in which we live must change. But it will be a change for the better. This change will mean our buildings will be warm, comfortable, and not heated by oil or gas, our communities will be leading the generation of renewable energy, our transport fleet will be electrified charged by a renewable energy

powered electricity system. Sustainable energy needs to be the norm. The quicker we achieve this, the sooner the broad range of benefits will flow to Irish citizens and businesses in the form of cheaper to run, warmer and healthier buildings, improved air quality, increased competitiveness, improved security of energy supply and many others. At SEAI we are acutely aware that the energy transition must be a just transition. This is carefully considered across our programmes of delivery, our research, and our policy advice.

Conclusion

SEAI has a strong body of evidence to illustrate the costs and benefits of the sustainable energy transition. It is based on research and expertise from two decades of programme delivery. We are clear that, for much of what is needed, the benefits far outweigh the costs, especially when the multiple benefits (financial, economic, employment, health, security of supply, environmental) are considered.

We passionately believe clean energy transition must happen; and we stand ready to support all of Irish society on the journey. The demands on Ireland's energy and environment require us to work at pace and to deliver ever greater results, learnings, and improvements. This work is key to driving Ireland's contribution to reducing greenhouse gas emissions, securing a healthy planet for future generations.

In concluding, I want to thank our colleagues in the Department of Environment, Climate and Communications and the Department of Transport, for their ongoing support, particularly in the context of the actions assigned to SEAI under the Climate Action Plan 2021.

I want to acknowledge the strategic leadership provided by the Board members of SEAI, in particular, their support in developing a new Statement of Strategy for the organisation, which will be published shortly. I want to pay tribute to the staff of SEAI for their commitment and dedication, in particular their efforts and support as we addressed the significant challenges during the COVID-19 pandemic.

We are a strong and fully co-ordinated team, ready to embrace the next stage of our development. In collaboration with key stakeholders, we will co-ordinate and lead the efforts to achieve the ambitious targets set out in Climate Action Plan 2021 and the National Development Plan.

I welcome the discussion with the Committee, and I am happy to answer any questions you may wish to raise.

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An overview of the Sustainable Energy Authority of Ireland

Introduction

The Sustainable Energy Authority of Ireland (SEAI) is central to bringing about a low carbon economy through measures and activities focussed on the transition to a smarter and more sustainable energy future. SEAI is funded by the Government of Ireland, through the Department of Environment, Climate and Communications and the Department of Transport¹ and in 2022 our total budget allocation is €446 million.

SEAI is in a growth phase of its evolution, growing its core staff base to circa 200 employees this year, based in Dublin (headquarters), Dundalk, Cork, and Sligo. Our staff comprise a very broad range of skill sets including engineering, data analysis and modelling, economics, behavioural science, finance, marketing, legal and administration. This mix reflects the skills mix required to meet the needs of current and future energy systems.

SEAI's vision is that Ireland's energy will be sustainable, secure, affordable and clean. To achieve this vision, Ireland must: use less energy, use clean energy and innovate.

SEAI is key to implementing Government energy policy. Our programmes have a major impact on the Irish economy through home and community energy upgrades, business supports, research and innovation funding, EV grants to name a few.

SEAI – The Authority

SEAI was first established under the **Sustainable Energy Act of 2002**. The Authority is a body corporate with functions and responsibilities as set out under Section 6 of the Act, which include *inter alia* promoting and assisting;

- environmentally and economically sustainable production, supply and use of energy,
- energy efficiency and renewable sources of energy,
- the reduction of greenhouse gas emissions,
- minimising of the impact on the environment of the production, supply and use of energy,
- research, development, and demonstration of relevant technologies.

The Authority also has a role to provide advice, information and guidance to the Minister, government departments and agencies, energy suppliers, and energy users.

Among the powers of the Authority necessary to the performance of its functions under this Act, are:

- initiation, development, administration, participation in and promotion of schemes and programmes of action,
- assessment of energy technologies and markets for the purpose of promoting best practice,
- provision of assistance in the co-ordination of activities carried out in the State related to sustainable energy,
- compilation, extraction and dissemination of information and projections relating to energy production and use
- promotion of and assistance with participation in international programmes,

¹ For Electric Vehicle programme only with effect from 2021

- representation of a Minister of the Government at meetings of international bodies where requested to do.

Public, Business, and Transport Sectors

The public sector comprises 350 public bodies and 3,700 schools spending almost €600m annually on energy. The sector has become an exemplar in relation to sustainable energy by achieving the target of 33% energy performance improvement by 2020 with SEAI delivering an extensive programme of support towards the achievement of that goal.

The Climate Action Plan 2021 (CAP21) now requires the Public Sector to take even greater steps and actively reduce emissions and decarbonise their energy use. CAP21 established new absolute emissions (51% reduction) and energy efficiency (50% improvement) targets to 2030.



From identifying opportunities through to the delivery of capital projects the SEAI's public sector programme is focussed on effective implementation of energy management practices in public bodies, decarbonisation pathways, building retrofit project capacity building, and ongoing monitoring of energy management practices. A key pillar of this work is leadership, technical stewardship, networking and best practice sharing. The programme engages at all levels within public sector organisations and provides tailored supports, delivered in partnership with organisations who demonstrate commitment to strategic energy management. SEAI provides the tools, training, and advice to integrate energy management into public sector organisations. SEAI administers the Monitoring and Reporting obligations for public bodies under the EU Energy Efficiency Directive.

The same principles underpin support provided to the business and industry sector with a similar emphasis on best practice sharing and targeted capital support. This sector is very large and diverse ranging from micro-business to large multinational corporations. SEAI's Large Industry Energy Network comprises almost 200 companies spending over €1bn annually on energy. Peer-to-peer sharing of developments and best practice has proved a powerful mechanism for the promotion of the sustainable energy agenda. SEAI also provides a suite of targeted supports to the SME sector, including the Energy Academy (providing free online training), Energy Management Training, and a €2000 support for high quality energy audits. Further SME supports such as for microgeneration are due to launch in mid-2022.

SEAI operates two complementary schemes addressing the lifecycle impact of energy and carbon related cost. The EXEED Certified programme and Support Scheme for Renewable Heat (SSRH) supports businesses to make the most appropriate investment in energy efficiency and alternative energy solutions. The SSRH supports investment in new renewable heat generation over a 15-year period, and capital grants for heat pumps. EXEED Certified is an SEAI asset certification scheme structured around the Energy Efficient Design (EED) management process. The scheme provides capital support across two project stages offering a maximum support of €1 million per project.

The full suite of programmes for the public and private sectors are aligned with and assist Ireland in meeting a wide range of the obligations under the EU Energy Efficiency Directive.

Article 7 of the EU Energy Efficiency Directive places a binding national energy saving obligation of 0.8 % of annual final energy consumption between 2021 and 2030. Ireland has opted to achieve this target using the combination of an Energy Supplier Obligation (administered by SEAI) and alternative energy policy measures. These obligations are likely to further increase as 2030 targets evolve .

The EU legislation for energy labels and eco-design is estimated to deliver energy savings of approximately 230 million tonnes of oil equivalent (Mtoe) by 2030. SEAI is shortly to be designated as Market Surveillance Authority monitoring retailers' compliance with energy labelling regulations and eco-design directive. The

objective of on-going market surveillance is to achieve the level of energy saving and emissions reduction through new technology standards by controlling non-compliant products being sold in the marketplace.

Transport is the largest contributor to energy related emissions in Ireland, with private vehicles making up a large portion of this. Reducing transport related emissions requires fewer private vehicle journeys, increased public and active transport and remote working practices, and the electrification of vehicles powered by renewable energy. SEAI provides a range of supports for private motorists and businesses to change to electric vehicles, notably grant support for battery electric cars and vans and support for home chargers. By the end of 2021 there were 46,500 electric vehicles on Irish roads. We will continue to drive the electrification of Ireland's transport system, capturing the system wide benefits that this will bring.

Citizens and Communities

SEAI provides advice and support to homeowners to reduce their energy use transition to renewable energy, and make their homes more comfortable, healthier, less costly to run and better for the environment. To date more than 400,000 homeowners have availed of energy upgrade grants from SEAI. This includes more than 140,000 energy poor homes and a pilot programme of upgrades for those living with respiratory disorders.

Supported through the NDP, the target is to upgrade on average 45,000 homes per annum to the year 2030. This will require hundreds of thousands of homeowners to make the decision to invest in decarbonising and making their properties more efficient. The State will play a central role through upgrading social homes. It will necessitate a larger retrofitting sector with the capacity to deliver much higher numbers of home upgrades to the requisite standard. It will also require new approaches to financing to fund the necessary work.

To achieve this step change in ambition the SEAI has been designated as the National Retrofit Delivery Body. SEAI's responsibilities include:

- driving delivery of our retrofit targets.
- promoting retrofit uptake through marketing campaigns.
- enhancing the appeal of the retrofit supports and improving the customer journey.
- setting standards for, and developing and registering, One Stop Shops.
- increasing the number of Building Energy Rating (BER) assessors.
- monitoring and managing the quantum and quality of retrofit service provision.
- and supporting the retrofit supply chain.

More citizen engagement and awareness will be required over the coming years to drive programme uptake. SEAI has four main programmes to support citizens and communities to make their homes and community buildings warmer and more energy efficient. The One Stop Shop service is for homeowners who want a complete home energy upgrade service, individual energy upgrade grants are for homeowners who wish to manage upgrades themselves, with the Free Energy Upgrade scheme available for homeowners with qualifying welfare criteria and the Community Energy Grant scheme supporting homes, communities, and business.

The scale of energy transition necessary in Ireland means that communities must become informed, empowered, and enabled. In response SEAI has established the nationwide community energy network, encouraging innovative partnerships and cross community action in which everyone works together to develop a sustainable energy system for the benefit of the community. The focus is threefold - to be as energy efficient as possible, use renewable energy where feasible and to adopt smart energy solutions.

There are now 632 communities representing an estimated 30,000 citizens in SEAI's network.

Member communities receive mentoring and information, participate in events and workshops, and share experiences with other communities with similar energy interests and goals. When communities enter a more formal partnership with SEAI they receive more learning supports and technical expertise, as well as funding towards developing a community energy plan. To date, 190 communities are in the process of, or have already completed an energy masterplan which identifies future energy opportunities for the benefit of their communities.



Once communities have identified priority projects, capital support is a key enabler. Since 2012, SEAI's community energy grants have provided €235million support towards 315 projects for the upgrade of 18,700 homes and 3,500 non-domestic buildings, saving 735 GWh of energy.

The SEAI communities programme will continue to support communities as they progress with their interest and action in renewables. The programme is designed to react to the needs of communities as they affirm their place in Ireland's energy transition.

Research and Policy Insights

Through its research, statistical analysis, and modelling, SEAI delivers national obligations on energy reporting, supports innovation, and provides key inputs and insights to inform sustainable energy policymaking. An example of this is the recently published National Heat Study (February 2022) by SEAI. The study is a comprehensive analysis of the options for reaching net zero emissions from the heating sector by 2050. Comprising a series of technical reports analysing heat supply and use across all sectors, the study provides key insights and proposed actions to decarbonise the sector. SEAI is working closely with Government to use the outputs from the study to inform climate action.

SEAI's statistics and modelling functions support and inform the development of energy policy in Ireland. SEAI coordinates Ireland's National Energy Modelling Framework and gathers historical data relating to energy use. This data feeds national energy policy development, national energy and emissions projections and informs several major periodical publications from SEAI. SEAI also completes Ireland's statutory reporting obligations to Eurostat and IEA.



SEAI undertakes energy policy analysis to advise Government in the context of EU and national energy targets, sustainability and economic goals. SEAI is supporting DECC in the ongoing development of Ireland's National Energy and Climate Plan, providing details on energy modelling outputs (including energy projections), statistics and research, innovation and competitiveness.

SEAI's behavioural economics team investigates behavioural aspects of Ireland's low carbon transition, engaging in innovative trials and testing new (non-technical) approaches for delivering on SEAI's mission.

SEAI operates Ireland's national energy RD&D fund which supports applied energy RD&D, energy research for policy and energy research for practice. It funds companies, research performing organisations and semi-state and public sector organisations. The programme invested €19.8 million in 2021, up from €12 million in the previous Call. This level of investment needs to grow substantially in the coming years to address challenges in energy RD&D by Ireland and to catalyse the innovation required for Ireland's low carbon transition.

Along with DECC, SEAI is responsible for Ireland's Energy Research and Innovation Policy co-ordination. SEAI also performs energy research policy coordination activities for Europe's Strategic Energy Technology Plan, is the National Contact Point on energy for EU Horizon Europe and technology delegate to the UNFCCC as well as interaction with the International Energy Agency. SEAI maintains the [National Energy Research](#)

Database, showcasing projects undertaken by companies, academic institutions, research institutes and researchers who work in energy research and innovation. which can be used to find details of energy research projects funded in Ireland and to find partners for potential collaborations.

SEAI's technology group provides energy / low carbon technology sector market support and technology-related policy support. It covers areas such as wind and electricity, heat, and bioenergy, ocean and offshore renewables, and smart grids. The group develops technology roadmaps, promotes critical supply chain development and growth. It develops guidance relevant to technology sub-sectors for suppliers, installers, manufacturers, and consumers.

Conclusion

SEAI has a strong body of evidence to illustrate the costs and benefits of the sustainable energy transition. It is based on research and on experience of two decades of programme delivery. We believe such a transition is critical to meeting our energy and climate targets. We are also clear that, for much of what is needed, the benefits far outweigh the costs, especially when the multiple benefits (financial, economic, employment health, security of supply, environmental) are considered.

SEAI is geared to deliver the step change needed.

Financial Review 2020

The 2020 financial year was dominated by the outbreak of the COVID-19 pandemic and subsequent measures to manage public health, which included suspension of non-essential construction work for a number of months.. In such circumstances, the demand for home energy grants fell and the number of upgrades to homes in fuel poverty, funded entirely by SEAI also dropped relative to the prior year

Key Highlights

Income Statement	2020 (€'000)	2019 (€'000)	% Change
State Grants	145,546	176,734	-17.6
Programme Expenditure	133,501	158,131	-15.6

- **State Grants Income** is driven by the drawdown requirement to fund monies disbursed under the various programmes the various programmes and schemes and general administration expenses. (-17.6%). As noted the impact of COVID-19 resulted in reduced demand in the domestic sector. Economic uncertainty and constraints because of managing pandemic impacts also led to reductions in expenditure across the business and public sector
- **Programme Expenditure, that is monies disbursed** was as noted lower than prior year (-15.6%) impacted by the COVID-19 pandemic. Grant programmes with a higher proportion of vulnerable homeowners were particularly affected. The key drivers of the decrease were:
 - **Better Energy Warmer Homes and Warmth & Wellbeing (-22.5m) Better Energy Homes (-5.5m)** and some less significant decreases across research, public sector, and business.
 - These reductions were partially offset by increases in **Solar PV (+3.2m), EV programmes (+3.5m)** and **Deep Retrofit (+2.2m)**. Although output increased in these areas the level of activity was also impacted by the pandemic.

Progress in 2021

Although impacts of COVID-19 were still felt throughout 2021, the construction sector did open up and there was some rebound. Programme expenditure per the unaudited financial statements grew to approximately €209m in 2021, reflective of more energy fuel homes being upgraded, higher expenditure in community programmes and public sector programmes and a significant uptake in deployment of electric vehicle technology and charging infrastructure. The organic growth of SEAI also continued in 2021 with a focus on new programmes and additional resources in key areas to support the organisation's development Total state grant income in 2021 per the unaudited accounts has grown to €225m

The following pages detail the organisation's achievements for the year 2021



2021 Achievements

CITIZENS AND COMMUNITIES

Home Energy Upgrades

- Grant support towards more than 11,300 home energy upgrades including 2,272 energy poor homes. There were also 4,089 solar PV installations supported. Total Government support of €100 million.
- 4,606 homes supported by SEAI grants achieved a B2 BER (Building Energy Rating) or higher.

Communities

- 39 community energy projects were funded with grant support of €26.5 million towards total investment of over €86 million.
- SEAI community energy network now has over 600 member organisations nationwide, comprising more than 30,000 citizens. SEAI and nine local authorities co-funded €700,000 in support to 44 communities to undertake energy master plans.
- Published the first four modules of the Community Energy Resource Toolkit, providing practical guidance for communities on wind, solar PV, grid connections and the planning process.

Building Energy Rating

- More than 95,000 BERs were published through SEAI systems.
- Launched the updated BER Advisory report which will provide homeowners with valuable information on home energy retrofits.
- Launched pilot BER API Service with three home upgrade supply-chain actors, providing digital transaction level BER data streamlining home energy services, reducing homeowner burden.

Schools and Education

- 185 school workshops as part of our education programme where over 4,600 students participated.
- SEAI published Guzzler's Party an illustrated story book for younger primary school children on energy and climate action.

BUSINESS, PUBLIC AND TRANSPORT

Electric Vehicles

- €63 million support towards purchase of 13,432 electric vehicles (EVs). This represents almost a threefold increase on 2020.
- €5 million support towards the installation of 8,379 EV home chargers.
- Completed mystery shopper research on almost 180 EV dealerships to evaluate EV salesperson competence and performance.
- Launched the inaugural award scheme for Dealership Excellence in Electric Vehicles. Award winners to be announced in Q1 2022.
- Significant stakeholder consultation on forthcoming public charging and apartment charging support schemes.

Public Sector

- SEAI supported and monitored the public sector to achieve 29% energy efficiency continuing good progress towards its 33% target, relative to 2009.
- More than 900 delegates attended SEAI's online public sector conference with keynote speaker Dr Tara Shine.
- Delivered further ISO50001 training with 35 public bodies now certified. Over 1,000 public service personnel trained in range of energy technologies and practices.
- Building on almost two years of work from SEAI's public sector team the new methodology for tracking public sector energy related CO₂ was published in the Climate Action Plan 2021.
- €14.5 million support provided towards 54 public building retrofit projects in schools, higher education, and health government. Total project value of €29 million.
- Supported Department of Housing Planning and Local Government with Energy Efficiency in Traditional Buildings guide and Building Automation and Control Systems.
- Established a Non-Domestic Retrofit framework to support the Public Sector Pathfinders and Commercial Retrofit scheme.

Business Supports

- Relunched EXEED Certified as an emissions-based Scheme and developing a strong pipeline of projects. 73 new company engagements supported through SEAI Stage-1 grant, 20 companies offered Stage-2 capital grants. Energy Efficient Design (EED) expert training provided to over 250 supply-chain professionals. Irish Standard I.S.399 Energy Efficient Design relaunched by NSAI.
- Increased registration for Energy Academy to almost 3,300, increased module count by 8 to 24 and issued over 1,000 course certificates.
- Launched the Support Scheme for Energy Audits, a business-friendly scheme supporting high quality SME audits. 70 auditors signed up to participate in the scheme, over 400 SMEs registered, and more than 170 vouchers have been issued to date.
- Trained over 60 SMEs in new online Energy Management training. More than 300 delegates attended business briefing events throughout the year.
- More than 700 delegates participated in workshops on SEAI grants, solar photovoltaic (PV), energy efficiency in traditional buildings, achieving a BER B, thermal bridging, and learnings from Pathfinder.
- Ran project accelerator for solar PV and published solar PV guidance document.
- Provided significant support to Departments of Enterprise, Trade and Employment and Environment, Climate and Communications in the development of a new online Climate Toolkit 4 Business, launched in December 2021.
- Participated in SOLAS working group for programme design of Level 5 QQI programme "Sustainability in the workplace" to be rolled out through ETBs.
- Supported Fáilte Ireland with the development of their new 2022 sustainability programme for the hospitality industry.
- Supported 17 businesses and public bodies with feasibility studies, audits, and Energy Performance Contracting implementation through Project Assistance Grants.
- Triple-E product register updated to remove all fossil fuel driven products from Accelerated Capital Allowances eligibility. Completed public consultation on full category and technology review ahead of register relaunch in 2022.

Large Industry

- Supported and monitored the large industry energy network (LIEN) in delivering 1,843 GWh in energy savings.
- Delivered nine targeted knowledge sharing and training events to network members including topics such as ISO50001, energy auditing, energy performance indices and decarbonisation of Industry. Convened two new Special Working Groups on future fuels and digital energy data management.
- Commenced study into a LIEN buying group Corporate Power Purchase Agreement.
- Ongoing mandatory audit compliance programme, including communication with over 2000 commercial and 350 public organisations. Issued "SEAI Guide to Energy Audit Compliance".

- Support Scheme for Renewable Heat has to-date offered 15-year contracts to 73 installations, amounting to 78 GWh of renewable heat annually.

Energy Efficiency Obligations Scheme

- Formal closure and reporting of energy credit allocations to Obligated Parties, delivering additional 5,236 GWh primary energy saving, equivalent to an offset in emissions of 1.2MT CO₂e, over the period of EEOS (2014-2020) Scheme.
- Transitioning Supplier Obligation to new policy design for period 2021-2030.

Market Surveillance Authority

- Delivered the comprehensive market surveillance compliance programme for energy labelling and eco-design, consisting of 190 retailer inspections, 150 product technical compliance validations, 16 company head office engagements and seven industry/stakeholder meetings.
- Delivered major campaign on new rescaling of energy label through webinar, animation, point of sale information and an advertising guide for retailers.
- Published a guide for tyre retailers and manufacturers regarding new labelling requirements.

RESEARCH, POLICY, AND INSIGHTS

Energy Modelling

- Developed modelling and analysis for Ireland's National Heat Study. Provided initial briefing material to DECC to support development of Climate Action Plan 2021 and presented initial findings to key stakeholders including the Climate Change Advisory Council.
- Expanded the SEAI energy modelling team and undertook a detailed review and upgrade of Ireland's National Energy Modelling Framework (NEMF). Outputs informed various aspects and actions in the 2021 Climate Action Plan.
- Contributed modelling and analysis to inform renewable electricity targets for Ireland's 2030 electricity grid.
- Provided analysis through the National Energy Modelling Framework to fulfil on Ireland's National Comprehensive Assessment of the potential for efficient heating and cooling in Ireland under the EU Energy Efficiency Directive.

Wind Energy

- Continued to develop the Irish Wind Energy Research Network to promote Irish wind energy research to national stakeholders – 2 webinars with 90 participants at December meeting.
- Published wind farm asset management paper: Asset Management and ISO 5500: A Guidance Document for the Wind Sector in Ireland, in collaboration with Wind Energy Ireland.
- Executed Wind Energy Resource spatial analysis supporting DECC in deciding final Wind Energy Development Guidelines.
- Update Analysis of LCOE of onshore wind energy in Ireland to contribute to IEA Wind Task 26 Report on the International Cost of Wind Energy.
- Conducted public consultation of Ireland's Renewable Electricity Corporate Power Purchase Agreements, bringing assessment of results to DECC and RECPP Steering Group.

Research and Development

- Awarded 50 new energy research, development and demonstration projects, €19.5 million in funding.
- Grew Ireland's International Energy Agency Technology Collaboration Programme activity, adding 26 new Irish experts.
- Facilitated discussion on the role of energy research through the 2021 National Energy Research and Policy Conference: Decarbonising Transport, reaching 560 delegates.
- Represented Ireland at UNFCCC's COP26 in Glasgow as a National Delegate, contributing directly to the Climate Technology Centre Network and part of the EU negotiation team for technology.

- Commenced evaluation of community measures mandated in the Renewable Electricity Support Scheme (RESS), to satisfy EU DG Comp requirements.

Energy Statistics and Policy Insights

- Published updates to key statistical publications including Energy in Ireland, Energy prices reports, Renewable Energy and Energy Related CO₂ Emissions in Ireland.
- Upgraded SEAI's Energy Data Portal to include a new dashboard on energy related CO₂ emissions.
- Published updates to wind and solar GIS data sets to enable potential for these technologies to be more accurately estimated.
- Increased the number of energy data sets on the Irish Government's Open Data Portal to 42 – new data sets include average wind speeds (on- and off-shore), geothermal modelling of Ireland, updated National Energy Balances, and others (data.gov.ie).
- Provided enhanced monthly data reporting for electricity, gas and oil use via the SEAI website.

Behavioural Economics

- Progressed trials and pilots to test consumer behaviour including studies on consumers ability to use heat pumps, progressing Community Based Social Marketing (CBSM) and working to promote electric vehicle uptake.
- Continued engagement with the International Energy Agency (IEA) on the Users TCP to mainstream behavioural insights into policy practice.
- A number of presentations were delivered on the international stage. These included at Behavioural transformations for a more sustainable world (OECD) conference, Consumer & Behavioural Insights, Accelerating the Energy Transition Conference (with Ofgem at COP26).

CORPORATE

- Served 195,000 voice, email, and webchat transactions across all programmes through our contact centre.
- Hosted SEAI's first ever virtual Energy Show with more than 2,000 participants across 23 sessions.
- Delivered a successful virtual Energy Awards cycle and ceremony.
- More than 1.2 million web sessions on www.seai.ie
- Prepared a new SEAI five-year IT Strategy (2021-2025) to support projected operational growth and capability needs.

Government grants and supports available from SEAI

Homeowner Grants

One Stop Shop service: A registered One Stop Shop offers homeowners all the services required for a complete home energy upgrade to B2 energy performance. They manage the entire process, from the initial home assessment, to managing all the works through to the final BER as well as all the grant administration.

Individual home energy grants: Contributing to the costs of attic and wall insulation, heat pumps, heating controls, solar thermal and solar PV upgrades, where the homeowner wishes to manage the upgrade themselves.

Free upgrades for eligible homes: A nationwide scheme delivering free energy efficiency improvements to qualifying homeowners in receipt of certain welfare payments

Electric vehicles

Electric Vehicles: Grants of up to €5,000 to make it more affordable to switch to an electric vehicle. Also available for business van purchases.

Home charger: Grant of €600 to purchase and install a home charger unit for new and second-hand cars

Communities

Community energy grants: A new scheme to assist community energy projects through capital funding, partnerships, and technical support to deliver energy savings to homeowners, communities, and private sector organisations will be launched by the end of March 2022.

Business

Support Scheme for Energy Audits: A €2,000 voucher towards the cost of a high-quality energy audit, including a renewable energy assessment, is available to SMEs via the SEAI Support Scheme for Energy Audits

Microgeneration Support Scheme: A €2,400 grant towards the cost of a solar PV system up to 6kW for businesses, farms, schools, public bodies and other non-domestic will be launched in [Summer 2022](#)

EXEED grant scheme: For organisations who are planning a major energy investment project. Grant support of up to €1,000,000 is available for projects which meet the requirements of EXEED Certification.

Support Scheme for Renewable Heat: The scheme incentivises switching from fossil fuelled heating systems to renewable alternatives in commercial, industrial, agricultural, public and other non-domestic sectors. The scheme includes grant aid and tariff payment support mechanisms.

Accelerated Capital Allowance: This tax incentive from the Revenue Commissioners encourages investment in energy saving technology. Organisations can deduct the full cost of eligible energy efficient equipment from their profits in the year of purchase. SEAI maintains a register of eligible products.

Research and Innovation

National Energy Research, Development and Demonstration Funding Programme: Investment in innovative energy projects which contribute to Ireland's transition to a clean and secure energy future. The 2022 RD&D Call is [due to be launched in Q2 2022](#), with funding available up to €1 million and four years for individual projects.

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Response to matters raised by members of the Public Accounts Committee on 24 March 2022

The matters raised below are those as advised by the Committee Secretariat by letter dated 13th April 2022.

1. The modelling undertaken by SEAI on retrofitting local authority homes and associated costs.

The following pages detail five examples of actual costs from a selection of homes upgraded last year under our National Home Retrofit Scheme. Local Authorities are responsible for their own housing stock, and for preparing cost estimates for their homes; however, SEAI has shared cost data from some of the relevant schemes, sharing learnings on retrofit.

To help calculate the appropriate levels of grant support to be provided for each measure, an assessment of home energy upgrade measures and costs was carried out. The assessment was based on actual costs incurred on upgrades supported through existing SEAI schemes (such as the National Home Retrofit scheme/OSS Development Call, Community Energy Grant scheme, and Better Energy Homes scheme/individual grants scheme). In addition, an external independent review of costs in the wider retrofit market was carried out in October 2021. The data provided an assessment for costs on various measures and technologies.

Homeowner views were taken into account through a longitudinal survey of consumer preferences. This survey sought to examine attitudes to energy upgrades and financing and was carried out during summer 2021. A series of focus groups representing urban and rural homeowners across representative demographics was also held in November 2021.

In parallel, a series of workshops and individual consultations were held with One Stop Shops to facilitate feedback on the proposed grant scheme structure and its operations.

Each measure was assessed in terms of costs, benefits, and suitability for support. All of the above informed the range of supports for home energy upgrades.

Examples of costings for typical homes by dwelling type:

1. Detached Rural Home

- Two Storey
- 194sqm
- Built 1975



Measures	Cost of Install	Grant	Net Cost	Energy Savings p/a
External Wall Insulation, Airtightness and Windows, Heat Pump & Heating System	€50,000	€23,500	€26,500	€1,000 €83 p/mth

	10 year loan @ 3%	15 year loan @ 2%	20 year loan @ 2%
Net Cost of Upgrade	€26,500		
Loan Monthly Repayments	€253	€169	€133
Monthly Savings on energy bills	-€83	-€83	-€83
Net Cost per month	€170	€86	€50

2. Detached bungalow

- Cavity walls
- Built 1989
- BER – D2



Measures	Cost of Install	Grant	Net Cost	Energy Savings p/a
Roof & Internal Wall Insulation, Airtightness, Windows & Doors, Heat Pump and Heating System, Mechanical Ventilation	€49,500	€24,600	€24,900	€1,200 €100 p/mth

	10 year loan @ 3%	15 year loan @ 2%	20 year loan @ 2%
Net Cost of Upgrade	€24,900		
Loan Monthly Repayments	€240	€160	€126
Monthly Savings on energy bills	-€100	-€100	-€100
Net Cost per month	€140	€60	€26

3. Semi-detached

- Cavity Wall
- BER - E2



Measures	Cost of Install	Grant	Net Cost	Energy Savings p/a
Cavity Wall Insulation, Airtightness and Windows, Heat Pump Install	€30,254	€15,600	€14,654	€700 €58 p/mth

	7year loan @ 5%	10 year loan @ 3%	20 year loan @ 2%
Net Cost of Upgrade	€14,654		
Loan Monthly Repayments	€207	€141	€74
Monthly Savings on energy bills	-€58	-€58	-€58
Net Cost per month	€149	€83	€16

4. Terraced house

- Mass concrete
- Built 1930
- BER - F



Measures	Cost of Install	Grant	Net Cost	Energy Savings p/a
Roof & External Wall Insulation, Windows & Doors , Heat Pump and Heating System	€36,000	€18,600	€17,400	€800 €67 p/mth

	7 year loan@ 5%	10 year loan @ 3%	15 year loan @ 2%	20 year loan @ 2%
Net Cost of Upgrade	€17,400			
Loan Monthly Repayments	€246	€168	€112	€88
Monthly Savings on energy bills	-€67	-€67	-€67	-€67
Net Cost per month	€179	€101	€45	€21

5. Terraced house

- Cavity wall
- Built 1990s
- BER - D



Measures	Cost of Install	Grant	Net Cost	Energy Savings p/a
Roof & Cavity Wall Insulation	€2,500	€2,000	€500	€300 €25 p/mth

	1 year loan @ 7%	2 year loan @ 7%
Net Cost of Upgrade	€500	
Loan Monthly Repayments	€43	€22
Monthly Savings on energy bills	-€25	-€25
Net Cost per month	€18	-€3

Please see Appendix A for a full breakdown of grant amounts available to “can pay” Private Homes.

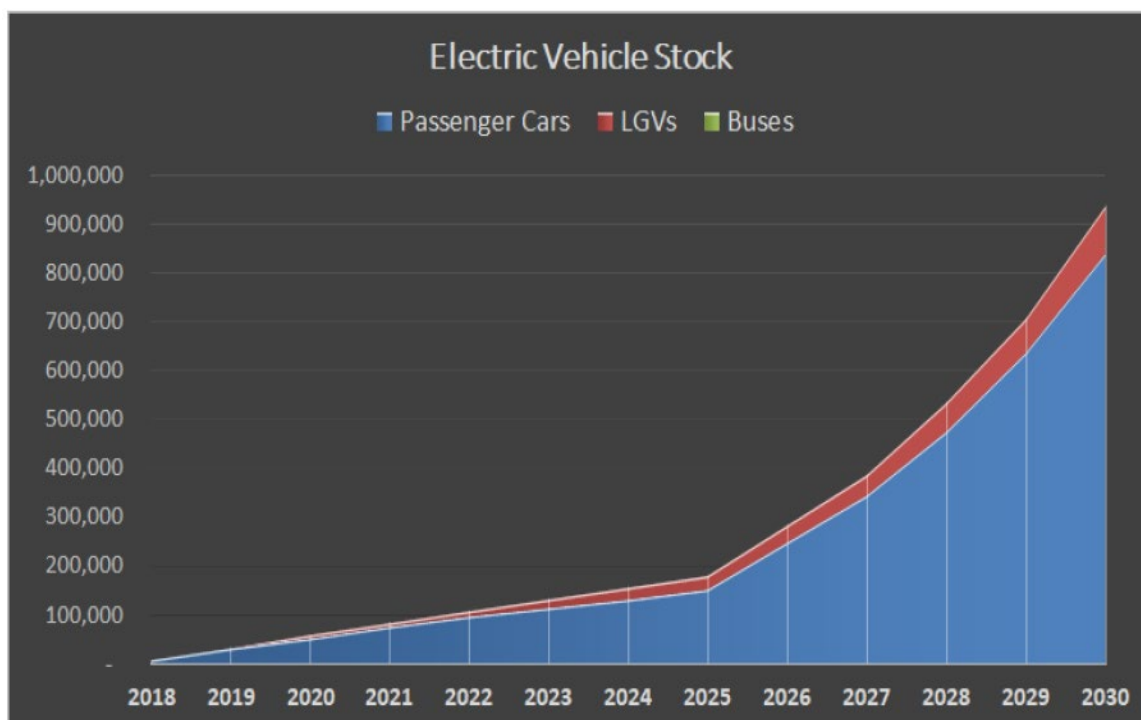
2. SEAI’s projections on how many electric vehicles it is targeting to be on the road year-on-year up to 2030.

The table below sets out the climate action plan mid-point ambition for 2025 and the 2030 target. This table is contained in the Climate Action Plan which was published in 2021.

CAP21 Vehicle Targets for EVs (i.e. Battery Electric Vehicles (BEVs) plus Plugin Hybrid Electric Vehicles (PHEVs))

Vehicle Category	2025	2030
EV Passenger Cars	175,000	845,000*
EV Vans	20,000	95,000*
EV Buses	300	1,500

* with a stated focus on BEVs



Modelled trajectory of cumulative EV purchases to meet the Climate Action Plan 2030 target

Source: <https://www.seai.ie/publications/Driving-Purchases-of-Electric-Vehicles-in-Ireland.pdf>

Note the original modelling for the Climate Action Plan target (840,000 electric passenger cars) was carried out by McKinsey and was based on average new passenger car sales of 127,000 per annum and an additional 92,000 imports.

Note the stepped increase from 2025 is based on the forecast that EV’s reach price parity with internal combustion engine (petrol and diesel) from 2025

3. Any reports or further information on the issue of tenants that were evicted after being charged an increased rent as a result of the Deep Retrofit Grant Scheme

SEAI does not have any reports of tenants who were evicted after being charged increased rent as a result of the Deep Retrofit Grant scheme. In the vast majority of cases retrofitting works do not require the person to move out of their own homes. This typically only occurs where the homeowner is undertaking energy upgrades in association with other substantial building or renovation works. The PRTB is the agency which monitors the private rental sector.

4. The percentage of vehicles in use by government departments, local authorities, and public bodies and agencies that are electric.

SEAI do not currently record the percentage of electric vehicles in public transport fleets, and are not aware of any central record of same. While our understanding is that the overall % of electric vehicle remains relatively small, there has been a significant increase in recent years in numerous local authority fleets, An Post, An Garda Síochána and other public bodies. There will be a requirement to significantly increase the electrification of public sector fleets to achieve the 2030 targets in the public sector. In line with the Clean Vehicle Directive, SEAI's new Monitoring and Reporting system will track the purchase of all new public sector vehicles, including information on the fuel type, from 2023.

5. A detailed note providing information on the following matters relating to electric vehicle (EV) charging points:

- **The number of EV charging points planned for construction in 2022, and in the coming years,**
- **Details of the Electric Vehicle Public Charge Point Grant, including information on which local authorities have applied for same, and**
- **any projections SEAI has on the number of EV charging points required**

SEAI currently administers the Public Charger Grant Scheme available to Local Authorities ("LA"). The Scheme is aimed at supporting LA in installing EV Chargers in residential locations where there is no off street parking. The uptake of grants to date has been low as the LAs are currently assessing suitable business models and technical solutions that best suit the requirements in Ireland.

The table below details the public EV chargers directly owned by the Local Authorities. Note, the majority of chargers which have been installed to date in public locations are owned and operated by the following companies: ESB Ecars, Easygo, Tesla and Ionity. This data is not included in the table below. SEAI understands that a preferred business model has yet to be selected for the operation of the planned or future requirements for public EV charges. For instance, a LA may choose to provide a site and grant a concession to a private company to operate from that site for a number of years.

Number of Local Authority Publicly Accessible Charge Points – Installed, Planned, Required

Local Authority	No of Public Access Charge Points Installed	No of Public Access Charge Points Planned	Required by 2030**
Dublin City Council	0	9* 75**	1,562
Fingal	6	75**	1,562
Dún Laoghaire Rathdown	3	75**	1,562
South Dublin	0	75**	1,562
Louth	0	20*	
Tipperary	0	4*	
Laois	20		
Cork City		76	

**Current applications with SEAI for public charge points*

*** Plan to install 300 charge points across 4 Dublin LAs, distribution figure not available so even distribution assumed. Study by Element Energy Consultants for the 4 Dublin LAs estimates that 6,250 chargers will be required for the Dublin area by 2030*

The draft Electric Vehicle Charging Infrastructure Strategy 2022-2025¹ sets out the Government's ambition regarding the delivery of a public electric vehicle charging network to support up to 194,000 electric cars and vans on Irish roads by 2025. The Department of Transport is inviting views on the draft strategy to be submitted to evinfrastructure@transport.gov.ie

A formal public consultation will be run by the Department in May consisting of an online survey and stakeholder workshops.

6. A note on SEAI's role in the context of facilitating and/or drawing down European Funding.

Since 2018/19 SEAI has been involved in seven EU funded projects. SEAI has been a partner in the AFLOWT (Accelerating market uptake of Floating Offshore Wind Technology) project since 2018 and is eligible to receive a total of €1.043 million for its part in this project.

SEAI is currently participating in the Energy Performance of Buildings Directive (EPBD) Concerted Action V project as a central team lead. This project is due to be completed in October 2022 and SEAI is already preparing to apply as a partner in the EPBD Concerted Action VI project later this year. The overall SEAI project budget is €221k.

SEAI has been involved the EEPLIANT3 Concerted Action project since 2019. This aims to help deliver the intended economic and environment benefits of the Energy Labelling and Ecodesign Directives by increasing the rates of compliance with them. SEAI applied for funding for the JA-HARP project as part of a consortium with market surveillance authorities from 24 EU member states which is led by Prosafe. This application was approved for funding in December 2021. Total SEAI funding is €129k.

The OceanSET project has been completed and is currently being formally closed out. The original SEAI budget was €331k.

SEAI is also part of a consortium that successfully applied to Horizon Europe for funding for the SEETIP Ocean project under the CSA to provide support to SET Plan Implementation Working

¹ <https://www.gov.ie/en/publication/9ae6e-electric-vehicle-charging-infrastructure-strategy-2022-2025/>

Group and European Technology and Innovation Platform for Ocean Energy. SEAI is a partner in this consortium and is eligible to receive €60k of EU funding for its role in the project. *(this project is not included in the table below as not yet active)*

The current phase of the Odyssee Mure project was completed in December 2021 and SEAI was part of the consortium that submitted an application in January 2022 for the next phase of the Odyssee Mure project. We are awaiting the results of the evaluation of this application under the LIFE programme.

We are currently drawing down funding for the OPIN (Ocean Power Innovation Network) project under the Interreg Northwest Europe Fund; however, this project will be completed in September 2022. SEAI is eligible to receive a total of €426k under this project.

SEAI has been involved in the REACT project since early 2019. This is a four-year research project which is funded by the Horizon 2020 programme and SEAI is eligible for €174k of funding for its role in the project. The objective of this project is to achieve island energy independence through renewable energy generation and storage, a demand response platform, and promoting user engagement in a local energy community.

Table 1. SEAI's EU funded projects:

Project Name	Source of Funding	SEAI Role	Start Date	End Date	SEAI Budget	EU Funding	% EU Funding
AFLOWT	Interreg	Partner	Oct'18	Dec'23	€2,087k	€1,043k	50%
CAV_EPBD	Horizon 2020	Partner	May'18	Oct'22	€221k	€221k	100%
EEPLIANT3	Horizon 2020	Partner	Mar'19	Feb'23	€129k	€129k	100%
OceanSET	Horizon 2020	Lead	Mar'19	Mar'22	€331k	€331k	100%
Odyssee-Mure	Horizon 2020	Partner	Jun'19	Dec'21	€24k	€24k	100%
OPIN	Interreg	Lead	Oct'18	Sep'22	€710k	€426k	60%
REACT	Horizon 2020	Partner	Jan'19	Dec'22	€174k	€174k	100%

SEAI has also applied, and has been approved, for funding under the Clean Energy Transition Partnership (CETP) co-funding programme. The CETP is a transnational initiative on joint Research, Technological Development, and Innovation (RTDI) programming to boost and accelerate the energy transition, building upon regional and national RTDI funding programmes. SEAI is eligible for €428,571 of EU funding under this co-funding programme.

ERDF funding on WHS

The Warmer Homes Scheme is co-funded by the European Regional Development Fund (ERDF). This funding is not paid directly to SEAI but is claimed by Central Government on behalf of the Exchequer. SEAI supports its parent Department and the Regional Assemblies in making claims from the ERDF for expenditure incurred on the scheme. In the last reporting period from 2014 – 2020 a total of €57.38m has been received to date from the ERDF. The next reporting period is for the period from 2021 -2027. It is intended to claim approximately €111m in this period. However, this figure is currently provisional and subject to ongoing negotiation between the relevant parties and is further dependent on scheme output. No claims have been submitted for funding to date against this reporting period.

7. A note on SEAI's oversight and governance of the significant increase in its budget, including details of any training provided for new staff to assist in managing the additional funding.

Roles and Responsibilities

SEAI staff roles and responsibilities are defined through the Candidate Information Booklet published for all new direct roles. New staff are subject to a probationary period during which their line manager must closely oversee their work and ensure they are provided with any necessary on-the-job training either by their manager or wider team as required. During the probationary period their direct line manager must conduct a mid-term and final probationary review.

Due to the significant increase in staff numbers, SEAI have recently appointed a Learning & Development Manager (yet to start) who will manage all aspects of learning and development within SEAI e.g. Performance Growth Planning Reviews, induction training, career development, personal development, management of probationary framework, etc.

Staff Induction

A formal induction process is completed for all new staff which includes the following:

- Introduction to SEAI including its role, organisational structure and strategy
- Overview of facilities
- HR Policies and Procedures: Staff are directed to the Employee Handbook which includes all HR Policies and Procedures relevant for staff (e.g. Code of Business Conduct, Dignity & Respect at Work Policy etc) and requested to read, review and revert with any questions they have to HR.
- IT Induction training: IT services and support, cyber security training, Document Management etc
- Data Protection training – all new starters receive Data Protection training

Staff Training /Further Education

Training for all staff includes:

- Annual IT security training
- Refresher Data Protection Training is provided every 2 years.
- Procurement Training
- Finance System Training – specific to particular roles.
- Specific training/further education: identified through Staff-Manager engagement and explored as part of Performance Growth Planning (PGP) process. Line manager will liaise with HR on options.

Procedures

All departments have procedures for all key business processes. Programme reviews are conducted periodically and processes updated/amended as appropriate. Staff are required to follow agreed procedures. Policies and Procedures are in place to prevent material losses or frauds e.g. Financial Procedures / Anti-Fraud Policy / Protected Disclosures Policy / Disclosures Policy and reporting of same.

Financial controls

- Delegated authority: Delegated powers are assigned by the Board to the CEO and the wider management team. All these responsibilities and delegated authorities are formally documented within the Code of Governance Framework reviewed annually.
- Procurement: SEAI complies with competitive tendering, as outlined in State Body & Government Public Procurement guidelines, as the basis of its Procurement Policy and the Code of Practice for the Governance of State Bodies. All Staff with purchasing responsibility

are obliged to follow the Procurement procedures, which are based on State and EU Guidelines and Directives. Security measures are in place to ensure each staff member can only raise requisitions under their own ID.

- Financial Approval limits and workflow are built into the system covering requisitioning, invoices, expenses and contract approvals. Any set up of, or amendment to, bank account information is subject to system enforced review and approval.
- Segregation of duties: Appropriate segregation of duties across grant evaluation, grant processing, grant compliance and inspections, payment approval and payment processing.
- Manager review: Appropriate manager reviews incorporated into life-cycle of Grants Process (Evaluation through to payment processing).
- Bank & Balance Sheet Reconciliations – reconciliations are carried out and reviewed by the Financial Controller on a weekly/monthly basis.

System Controls

- SEAI has an Information Security Management System (ISMS) aligned to ISO27001 and IT Services alignment with ISO20000.
- User access rights are delivered via defined function-based access using department units. IT access requests must be approved by relevant line manager for every new starter, signed off by HR and the relevant system owners. Each system to be accessed must be requested as part of this process. Any change requests are subject to the same approval process. An automated monthly account check is circulated to management for review. Corrective action is delivered via standard IT service delivery process.

Oversight

- SEAI Management are responsible for the development, implementation and review of the effectiveness of SEAI's internal controls and risk management framework.
- SEAI's Internal Auditors perform an annual review of the System of Internal Controls. The audit results for 2021 indicated that Substantial Assurance can be placed on the adequacy and operating effectiveness of internal controls.
- In accordance with Section 7.5 of The Code of Practice for the Governance of State Bodies (August 2016), SEAI's Audit and Risk Committee and Board perform annual reviews of the System of Internal Control.

8. A note outlining the number of staff that can be accommodated in SEAI's new premises, and whether a working from home or hybrid working model is being factored into same

Remote and hybrid working

- Up to 250 staff can be accommodated in SEAI offices on a full time basis.
- We are committed to implementing a progressive and climate-friendly approach to flexible working which supports SEAI's next steps into the future. Any such approach would potentially increase the capacity of current office accommodation.
- We are working on a flexible hybrid work policy that supports a typical working pattern option of 2-3 days in the office; the remainder working remotely. However our focus is on ensuring that we attract and retain high performing talent with the appropriate expertise and in this regard we intend to be as flexible as possible whilst retaining the need for all staff to remain connected.
- We are considering other options within Ireland, to facilitate further flexibility but this at a very early stage.
- In all scenarios we recognise that situations will likely arise where we will need all staff to attend offices for essential training or business purposes, at least a certain number of days per year.

- We envisage that this approach will future proof the organisation, helping us deliver on SEAI's mission.

Appendix A: Grant Amounts – Private Homes

	Private Homes			
Measures * note all measures have a minimum specification	Detached	Semi-Detached/ End Terrace	Mid Terrace	Apartment
Heat Pump-Air to Water	€6,500			€4,500
Central Heating System for a Heat Pump	€2,000			€1,000
Heat Pump -Air to Air	€3,500			
Heating controls only	€700			
Ceiling Insulation	€1,500	€1,300	€1,200	€800
Rafter Insulation	€3,000	€3,000	€2,000	€1,500
Cavity Wall Insulation	€1,700	€1,200	€800	€700
External Wall Insulation	€8,000	€6,000	€3,500	€3,000
Internal Dry Lining Insulation	€4,500	€3,500	€2,000	€1,500
Windows	€4,000	€3,000	€1,800	€1,500
External Doors (max 2)	€800 per door			
Floor Insulation	€3,500			
Solar Hot Water	€1,200			
Solar PV	0 to 2kWp €900/kWp 2 to 4kWp €300/kWp			
Mechanical Ventilation	€1,500			
Air tightness	€1,000			
Home Energy Assessment	€350			
Project Management	€2,000	€1,600	€1,200	€800
OSS Scheme launch bonus for B2 with a Heat Pump	€2,000			

