

SCSI Submission Climate Action Plan 2021

May 2021

Climate Action Plan 2021 – Consultation Submission

Details on consultation:

Consultation consists of a consultation questionnaire – the sections and questions that we are addressing in our submission are outlined below

(<https://climateconversations.citizenspace.com/decc/call-for-expert-evidence-cap-2021/consultation/>)

Section: [Carbon Pricing and Cross-Cutting Issues](#)

- 1. What further opportunities exist within our taxation system, beyond measures already implemented and planned, to promote emissions reductions, either on an economy-wide basis, or in specific sectors?**
 - Demolition Taxes to reflect embodied carbon in existing buildings and encourage reuse/renovation and creative adaptation.
 - Vat reduction for net zero new housing or housing built to Home Performance Index (HPI) standards
 - Tax incentives for net zero non-residential new buildings
 - Tax incentives for biodiversity initiatives in the built environment e.g. similar to Accelerated Capital Allowances for energy efficiency measures
 - Rates reductions for biodiversity initiatives on existing buildings/estates/campuses
- 2. What supporting policies might be required to offset the impact of any taxation changes on low-income households or those most at risk from fuel poverty?**
- 3. What further measures might be required in the planning system to realise the objectives of the National Planning Framework in respect of climate action?**
 - a. The objectives of the National Planning Framework (NPF) are to deliver more compact living in response to our changing demographics, growing population and in response to climate change. Compact growth and the greater emphasis on urban living removes the need for creating housing further and further from urban centres and therefore helps to promote sustainable growth.

- b. From a cultural perspective, Ireland is slow to transition to owner occupation of apartment units but prefer living within houses that generally has more space available to them and growing families. To help foster a behavioural change whereby owners and renters utilise apartment units for habitation, more careful and innovative ways are needed to address the day to day challenges that come with apartment design. Affordability of new apartments for owner occupation is another concern needing addressing.

Consideration should be given to providing incentives and/or regulating that future developments place sustainability considerations at the forefront of the design process including layout planning. When designing buildings, consideration should be given to the whole life cycle in terms of sustainability and the needs of the consumer. For example, apartment blocks could be designed to provide suitable storage facilities for bikes, electric scooters, prams etc. to encourage consumers to consider such alternative modes of transport knowing they have sufficient storage facilities to do so. It is important when providing these facilities that they are convenient to main access and egress from the building, both in terms of convenience, but also security for the eventual user. This consideration of the consumer and their needs in terms of choosing sustainable options is one that should be incorporated throughout the planning process via practical design solutions.

Government should consider adopting guidance for planners to have sustainable, efficient designs at the forefront of future planning projects.

- c. From a climate change perspective, the full use of existing building stock is imperative to control emissions and unnecessary pollution of the atmosphere. One way to do this is to utilise our vacant building stock and engage in a proactive and ambitious initiative to get these back to full use.

In line with Ireland's overall sustainability agenda, and to ensure the future prosperity of town centres, an active approach should be taken by the Government in examining barriers and opportunities to repurpose or adapt vacant commercial properties for social, economic and cultural benefits. According to the CSO, almost 1 in four settlements (23%) showed an increase in residential vacancies over the 2011-2016 period (study on residential occupancy across 845 settlements). According to Geo Directory, the national commercial vacancy rate was 13.5% in Q4 2020. Addressing vacancy rates by repurposing such premises for residential/commercial use would assist in realising the objectives of the national planning framework and also as outlined in the SCSi's *Rejuvenation of our Small Town Centres report* would assist with revitalising small town centres as central hubs in rural communities.

Local authorities must proactively address vacant buildings in towns to revitalise town centres. Vacant buildings impact on the vitality and image of Irish towns, discouraging future investment. It is imperative that local authorities work with owners and overcome issues of fragmented ownership to find new uses using a targeted and co-ordinated approach. The one-stop shop offering by local authorities is a welcome

support for building owners and should be resourced to ensure successful renovation of property. We welcome the commitment with the Programme for Government that aims to increase resourcing for Vacant Homes Officers across all local authorities. We believe that this will help bring more vacant units back to habitable and commercial use.

It is important that all stakeholders accept that town centres need to be repopulated as community hubs with a mixture of uses including housing, health and leisure, entertainment, and arts to enliven town centres and bring buildings back into use. New measures to simplify the process of conversion of commercial use to residential use must be communicated to building owners and other stakeholders to ensure awareness.

Local authorities should use compulsory purchase orders (CPOs) for strategic reasons where the benefit is realisable to the wider plan for the high street or town – the wider benefit for the local community should be of consideration.

4. What specific additional measures might be required to promote sustainable growth in our urban centres, including to realise the potential of a “15-minute city”?

Transport plays a key role in achieving 15-minute city. Accessibility and storage are two key factors of consideration. As mentioned in the above answer, ensuring that future developments provide suitable means of storing bikes, electric scooters etc. in a convenient and secure manner makes the choice more appealing for the consumer knowing that they can safely store such equipment in their accommodation. In addition, in commercial facilities, facilities for showering and storing/drying wet weather gear are essential. Not all places of work can provide these, good practice could be established through review of building regulations and perhaps, public facilities could be provided.

Consideration should be given to ensure that public transport throughout the city can cater for people who wish to travel with their bike etc. with them such as through having double doors on public transport to allow for commuters to hop on and off easily with their bikes. Having ample bike hire and electric car hire points throughout the city is also important so that commuters can access these without needing to go out of their way or altering their journey.

The pedestrian should be prioritized, cyclist and public transport second and private car transport third. Car sharing schemes should be encouraged with preferential car parking provided for car sharers.

European cities such as Utrecht and Helsinki can be seen as examples of benchmarks/best in class in this regard. Such cities have incorporated providing ample facilities for bike hiring and storage with safety measures such as traffic regulation systems and ‘car free zones.’

Country-wide bike-share schemes such as OV-fiets provides convenient rental bicycles for the last leg of public transport journeys. The rental works in tandem with the pre-paid transport ticket for the train or bus, allowing customers to cycle to their end destination appointment.

Financial incentives and tax break opportunities should be explored to encourage the take up of consumers in choosing alternative modes of transport to cars etc. to move around city centres.

Gated communities should be prohibited in future planning legislation/development plans, as such developments inhibit the permeable nature of cities, towns and villages, and result in long transit times around such communities rather than through them. All new development should be assessed for its connectivity, location and linkage.

Pocket parks should be developed and urban landscape gradually “greened” including some elements of edible landscape, to reduce urban heat island effects, create more pleasant transit routes for walking and cycling and generally improve streetscape.

5. What specific additional measures might be required to promote sustainable growth in rural areas?

Training hubs for retrofitting and renewable energy in all parts of the country to allow for training of people who may then choose to remain in the local area to implement such works.

Greater incentives for biodiversity and soil health measures on farms through the Common Agricultural Policy.

Consider rural tourism supports such as those that exist across Europe. Agroturismo in Portugal and Italy link up various farm based accommodation with for example gastronomy routes and wine routes. Rewilding Europe partners with providers of “European Safari” experiences. Both models could be readily rolled out across many parts of Ireland.

Focus on areas with Dark Sky potential and develop sustainable tourism around dark skies.

Peatland and bogs also offer a unique potential tourism development focused around restoration and carbon storage.

Widespread community engagement programme required to change hearts and minds.

6. Are there further measures that the Government should take to channel private finance into low-carbon investments in Ireland?

7. Are any changes required in Ireland’s research policy to channel research funding into climate action-related topics?

The recent SEAI research funding call is an excellent first step in broadening the research into the many new areas which need to be understood.

8. Is there any additional information you would like to submit in relation to Carbon Pricing and Cross-Cutting Issues?

Section: [Built Environment](#)

1. Can Ireland exceed the target of retrofitting 500,000 homes by 2030? If so, how?

It is possible to meet and exceed the target of 500,000 homes, however, to do so would require consideration and planning across a number of areas as outlined below.

- a. Future proofed funding – Avoid grants or a 'lending only' approach to retrofits and seek to adopt a 'tax back' option for applicants

461 homes have completed deep retrofits under SEAI's pilot programme to date. The average total capital cost to upgrade a home from an average BER rating of F rating to an average A3 rating is €58,7221. Therefore, the overall budget required to meet Ireland's target could be as much as €2.9 billion per year over the next 10 year. There are many funding mechanisms available to homeowners along with SEAI grants to retrofit homes. The most recent finance entrant is An Post who has announced the launch of a new "green hub" providing end-to-end project management and money-saving advice for all levels of home retrofitting, along with a low-cost loan rate. The state-owned company said that this one-stop-shop approach will cover loan-only or full retrofit services, from initial home assessments to completed works, along with SEAI grant application and payment process. Similarly, some energy providers are also providing supports to homeowners to upgrade homes in tandem with SEAI grants. However, during particularly difficult economic circumstances, such as the onset of COVID 19 and the overall cost to our economy, many homeowners do not wish to take on additional debt to upgrade their homes. Consideration could be given to funding mechanisms such as tax incentives e.g. the Ecobonus 110 is a tax reduction for domestic renovation works in Italy and Interest Free loans. Achieving quantum is critical to the success of our retrofits plan. To meet this target, we need to retrofit more than 4000 homes per month. So how can government facilitate a scheme that can achieve mass roll out of retrofits and ensure quality of service? One way would be where communities and housing estates would all agree to a plan of systematic retrofits and repay any shortfall from grants by way of interest free loans over an appropriate period of time.

- b. Standards & Education – Adequate education of professionals and trades (including apprentices) for panels to protect our built heritage

Some of the most difficult buildings to tackle are those considered as historic or protected structures, however, all buildings are unique and have their individual challenges so it is important that a proper evaluation is undertaken by appropriate professionals or teams to ensure that the correct decisions are made at the outset for every case. By having a reasonable volume of skilled contractors who are able to undertake the work is also important to prevent potential price inflation for construction services.

There are a number of considerations here as to how best incentivise industry to branch into this area which offers good opportunity over the coming years. One consideration is to use the IGBC's Renovation Advisor Register as a way to identify retrofitting experts to undertake projects.

- c. Balanced approach – Depending on the building condition, it may well be prudent to carry out shallow retrofit rather than a deep retrofit

In some instances, a shallow retrofit may be sufficient for a household, this would eliminate the need to move out of a property while works are being undertaken. A deep retrofit is a process which involves the complete energy overhaul of a home through a range of high-impact measures which lead to a high-performing home and significant energy savings over time. There are technical challenges in getting deep retrofit right, and many documented large-scale failures on already completed projects. For many properties, similar reductions in greenhouse gas emissions and improvements in occupier satisfaction can be achieved in a shorter period of time with shallow retrofit combined with the installation of renewables. A shallow retrofit usually involves an energy upgrade by undertaking a number of energy saving measures in the home e.g. heating system upgrades and cavity wall insulation. Many property values may not be high enough to make economic sense to carry out a 'deep' retrofit and therefore other options are required to improve thermal performance and should be considered using a 'shallow' retrofit. The Energiesprong "energy jump" model which originated in the Netherlands is amongst the most successful European NZEB projects. As an exterior insulation system, the retrofitting does not require the resident to move out and is generally completed within one week. The process uses prefabrication as much as possible and created prefabricated panels which are then installed over existing external walls and roofs. 3D scanning techniques are employed for each property, measuring all relevant dimensions. They are then fed into a BIM model that generates drawings for factory manufacture. This framework of custom factory production and short on-site periods would prove appealing to homeowners who would not be in a position to move out of their homes, even temporarily. This approach would be highly desirable; it would require technological innovation in Ireland to make it achievable. Finally, it is worth noting here that houses and apartment blocks will present different challenges when undertaking retrofitting and these need to be accounted for during initial planning stages. Apartments in particular can cause difficulties. It may be prudent to initially focus on individual housing units (single and two storey properties, whether terraced, semi-detached or detached).

d. Future proof planning

Retrofitting works should generally be considered within wider spatial planning considerations from a sustainability perspective in terms of planning for the future and achieving other goals such as the 15 minute city.

2. How should Ireland's training and education system scale to meet the skills requirements to achieve this target?

All buildings are unique and have their individual challenges, so it is important that a proper evaluation is undertaken by appropriate professionals or teams to ensure that the correct decisions are made at the outset for every case. Having a reasonable volume of skilled contractors who are able to undertake the work is also important to prevent potential price inflation for construction services.

There are a number of considerations here as to how best incentivise industry to branch into this area which offers good opportunity over the coming years. One consideration is to use the IGBC's Renovation Advisor Register as a way to identify retrofitting experts to undertake projects.

To achieve the necessary education and standards, the onboarding of trainers and educative providers is a key consideration to provide the necessary upskilling/retraining required for the workforce. Without the necessary numbers of educative providers and course providers, it will be impossible to scale retrofitting training to the level that is required.

Increase funding to universities (schools of architecture, engineering and planning) to for research in innovative approaches to climate adaptation and mitigation

3. Should Government consider bringing forward a phase out of the installation of fossil fuel boilers?

The European Commission estimates that a 40% reduction in gas heating emissions is needed to achieve the EU's 2030 climate goals.

In line with this, we strongly recommend the Government brings forward the phasing out of the installation of fossil fuel boilers to achieve this goal and consider utilising some of the below mechanisms:

- a. Carry out assessment of current distribution of fossil fuel boilers, ensuring optional supply alternatives do not exacerbate fuel / energy poverty.
- b. Consider tax incentives to a profile of homeowner unable to service loans for retrofitting.
- c. Move to invest in supporting heat pumps and other low-carbon solutions in new residential and commercial buildings as alternative to fossil fuel boilers.

4. Should further specific changes be made to Ireland's building standards be introduced to support the decarbonisation of Ireland's private and commercial building stock?

- a. The sector relies heavily on technical guidance documents (TGDs) and due to this heavy reliance to ensure compliance with regulations. The TGDs require updating to ensure that they facilitate new and refurbished development to support decarbonisation of building stock. There is a concern that TGD details are simply replicated during the design process without a full assessment undertaken, or a holistic understanding, of the requirement to create healthy, secure and sustainable homes at an affordable cost. This may possibly be attributed to an unease to technically innovate where this is a perception of risk if one deviates from government 'guidance'.
- b. In terms of certification, we need to move from certifying buildings at construction and commissioning stage (BCAR and BER) to measuring ongoing performance as our main method of categorising sustainability. This requires investment in Smart building technology by the state but also changing the standards used. This applies to both new and existing buildings. This can be achieved by adopting Lifecycle

Costing to deliver Whole Life Carbon Assessments and categorising buildings on this basis. Valuers are increasingly looking at capturing this data as part the valuation process.

- c. As referenced previously, all buildings should be considered in terms of accessibility, and convenience for the end user during the planning process. To facilitate this, good infrastructure in the form of safe streets and a safe and convenient place to park is necessary. In the Netherlands people mostly have their bicycles readily available as it is catered for in Dutch Building Regulations.
- d. Sustainable design should be a forefront in the design process e.g. the use of green roofs for rainwater capture. The metering of water usage and recycled water equals overall cost savings & reduced service charges for tenants.
- e. Approach to heating should be researched and understood further, Ireland has an overall mild climate yet statistics demonstrates average homeowners heat their living rooms to around 21 degrees.

5. What emerging technologies (e.g. in relation to heating, lighting, and/or building fabric) should be considered for use in Ireland's construction industry to promote further decarbonisation?

- a. Energy surveys for retrofitting
- b. Develop specific operating procedures around data capture (energy / waste / water etc.) in relation to non-domestic buildings, retaining and dissemination of this information for use in modelling and enabling efficiency improvements of these buildings.
- c. District heating
- d. Self managing buildings/technology. Human error/failure results in large excess energy use across the building stock
- e. Electrification of construction activities. Sourcing adequate alternatives to using diesel generators, diesel and petrol plant on site.
- f. Fabric first approach
- g. 3d printing

6. What supports can we provide to assist the greater use of low-carbon building materials? How much consideration should be given to embodied carbon in construction materials?

- a. Continued/further support of Environmental Performance Certificates (EPC's) and consideration of these within the relevant guidance documents as best practice in material selection
- b. Education of clients, building contractors, professional advisors, in terms of greater use of low-carbon building materials – identify main professional bodies and

introduce learning modules around low-carbon building materials to develop as standard practice

- c. Regulate market, particularly targeting major consumers, to restructure procurement policies to factor in embodied carbon
 - i. Government should also work with insurers to confirm that clients who specify novel materials are not constrained by unnecessarily high insurance rates.
 - ii. Starting with RICS whole-life carbon assessment guidance and go further and mandate whole-life-cycle carbon assessments for projects over a certain size. This would increase data gathering but to be truly effective it would require a standardized approach to carrying out such assessments (RICS WLCA as above)
- d. Further research should be undertaken in the area of recycled materials throughout industry. Contractors require certainty of quality when signing off on materials so continued research in this area and ensuring high quality materials is important. Following research, initiatives such as allocating a certain percentage of materials use to the use of recycled aggregates in Government projects could be investigated.
- e. Requirement for LCA (Life Cycle Assessment) as part of planning process to ensure it is considered at the earliest stages of project feasibility and planning
- f. Public data base of information for use in preparing LCA's

7. Are there specific technologies that should now be prohibited?

Comprehensive studies are an important requirement to understand new technologies and their effect on the environment and buildings specially in an Irish context.

Phasing out of Oil-fired boilers

Burning of coal and wet wood nationwide

8. What trade-offs between decarbonisation and air quality may need to be further considered in policy design?

9. Are there specific household behaviour changes that should be considered? Should such changes be mandated by way of regulatory changes?

Behaviour is a key consideration. We need to show how we are impacting negatively on the environment by burning too much fuel including electricity. Temperatures are mild in Ireland, yet statistics show that we put are heating up way beyond 21 degrees in our living rooms and way beyond 18 in the other rooms of the house. Where outside temperatures are low more energy is required to crank up the heat. Unlike countries of extremes, we should not have the same demand on energy in Ireland. If our buildings are well insulated and airtight, there may be less need for mechanical regulators to make our homes comfortable. Public awareness around this issue is key in terms of retrofitting works and the benefits of same.

Waste: Segregation of household waste. Ireland is considerably behind leading European nations in recycling. Shopping and purchasing behaviours and reducing or eliminating waste eg plastic bag use vs bag for life. Disposal of products which may not be at end of life – making available to others for free rather than binning or skipping.

For new houses – the design and build of the next phase of housing has to consider the full range of opportunities to be nZEB. This includes use of solar power/ PV/ additional battery storage/ grey water use/ water metering/ etc. Biodiversity in all designs to make full use of open spaces in apartment/ new housing schemes with particular planting mandated. This can also be applied to the commercial sector.

10. What specific further measures should be considered to promote decarbonisation of Ireland's existing commercial buildings?

It is recommended that the State needs to look to commercial sector retrofitting also; EU Directives on Disclosure and Taxonomy affecting commercial business who are now considering approaches to implementing retrofitting measures to ensure asset performance (clients under pressure to reduce energy emissions).

Incentives for micro generation eg rooftop solar pv for business

Elimination of current barriers for micro generation for multi unit developments etc

11. Is there scope to further develop and deploy district heating opportunities in Ireland?

Yes. This can be employed across many schemes and districts retrospectively at an infrastructural level (similar to broadband/ road schemes).

There are massive opportunities in this sector which are currently not being given sufficient focus, particularly in retrofit. Existing business parks can be successfully retrofitted with District Heating, but given complex ownership and management structures, there are no current incentives to do this.

12. What specific approaches should be taken to accelerate decarbonisation of Ireland's public sector building stock?

The review of public sector buildings should be approached to create a public sector building stock which acts as living examples of sustainable buildings and utilises best practices in energy usage, design, biodiversity, retrofitting etc. This can be seen as the leading methodology and approach for the built environment at large. There is scope to do this as a next step. Education and training for the sector can be incorporated in this and employment post covid can be boosted with this sector.

In the first instance, all public buildings should be mapped onto a common database to allow clear picture of the best and worst and allow a roadmap for improvement to be created. Eg similar to Retrofit approach to domestic buildings.

13. What other opportunities exist to support the decarbonisation of the Ireland's building sector?

We have to end the belief that “growth” is the pre-requisite for a successful and thriving economy/society and find other metrics by which this can be measured.

Looking at materials used / timber etc can be seen as a creative way to endorse products that would not have been considered prior to this action plan. An energy and life cycle audit on all schemes to be submitted with any building renovations and plans. A mandate for all materials / methods to be fully examined before building permits are confirmed. The government has huge powers to support this transition. There is a duty to care for the environment on behalf of the state. There is support from the sector as evidenced by the various declaration campaigns established to date.

The recent ‘Building Collaboration for Climate Action’ conference held between the SCSi and other construction/property industry bodies (April 2021) showed how collaboration between different sectors of the wider industry is an opportunity in which significant gains/progress could be made, as many decarbonisation problems are common to us all.

Section: [Transport](#)

1. What other opportunities exist to support the decarbonisation of the Transport sector?

- As mentioned previously in this submission, through initiatives such as the 15-minute city and also in other regional locations, alternative modes of transport to cars (e.g. bikes, walking and scooters) should be made as accessible as possible to people. This should be complemented by building design to allow for storage for such modes of transport, sufficient ports or hubs to hire or store vehicles and safe travel paths to utilise these.

2. What specific measures could be undertaken in transport infrastructure to address existing and future locked-in climate change impacts?

- Continue to work towards implementing an integrated, connected public transport system which is accessible for all.
e.g. Amsterdam public transport system has one public transport chip card which is used for travel on across all trams, buses and metros.

Section: [Waste and the Circular Economy](#)

1. How can we ensure that measures support sustainable economic models (for example by supporting the use of recycled over virgin materials)?

- Support the implementation of the DoE Waste Action Plan for a Circular Economy 2020-2025

- Provide clarity for end-of-waste criteria to facilitate the processing and reuse of recycled aggregates in the construction chain. Some initial consideration to this has been outlined in “A Waste Action Plan for a Circular Economy – Ireland’s National Policy 2020-2025”.

2. What other opportunities exist to support the decarbonisation of the waste sector and through the circular economy

- Every existing building should be treated as a Material Bank and protected as such by legislation. No waste to landfill, either from demolition, construction or ongoing fitting-out works. The certification of materials for reuse should also be considered.
- Development of a market or central repository for second-hand building materials e.g. windows, steel beams, partition systems etc. as another way to reduce waste.
- 90% of traditional type housing construction cannot be recycled - the construction waste regulations restrict recycling and focus on remanufacturing which is not CBE friendly and often requires more energy than is saved.
- Greater emphasis is needed on increasing recycling of construction & demolition waste streams in urban areas. According to the EPA, just over 6.2 million tonnes of C&D waste was generated in Ireland in 2018. Of the concrete, bricks, tiles & gypsum that received final treatment in Ireland, only 23% was recycled and 77% was backfilled. (<http://www.epa.ie/nationalwastestatistics/constructiondemolition/>)
- Promote better legislation and material that promotes recycling without unsustainable added carbon penalties.
- Integrate this consideration at town, village and community level as to how community projects can work to put energy back into the grid
- Education sector –research & development which is undertaken in the education sector should be harnessed and used to feed into overall national goals

Section: [Public Sector Leading by Example](#)

1. What opportunities exist for the public sector to step up its climate ambition?

In all matters related to investment in built environment and training up the sector - the public sector has an opportunity to be a leader. There is scope to leverage their powers by making it possible to support thorough exploration of all matters relating to the delivery of a more energy efficient sector (see above in section 5)

- Review of Technical Guidance documents to support industry in this area (as per previous response on this topic).

- Investment in Smart technology to measure the ongoing performance of buildings as our main method of categorising sustainability and reviewing standards for sustainability in both new and existing buildings.
- Undertake review of public sector building portfolio with the goal of upgrading buildings in line with national sustainability agenda.

2. What sort of practical changes would you expect the public sector to make in leading and delivering Ireland's climate ambition?

- For Government to have a review undertaken of the public sector building portfolio with the view for public sector buildings to ultimately become living examples of sustainable buildings in Ireland and provide an example of best in class in terms of energy usage, practical design, retrofitting with consideration given to biodiversity as part of this.
- Where building stock is rented, to engage with landlords to achieve same.

3. How can the public sector support wider society to change? In the short-term, medium-term, long-term?

- Short-term – Capturing data and sharing this with industry on best practice and outcomes of own research
Reviewing and switching to more sustainable practices across the sector
Undertake analysis of Government asset portfolio to develop KPIs to achieving more sustainable buildings across all asset types.
- Medium term & long term –Continual improvement at asset level (in line with identified KPIs) including in the construction/retrofit of own building using best in class design & functions with minimum net zero carbon as overall goal.

4. What are the biggest barriers for the public sector in reducing greenhouse gas emissions and how can they be overcome?

- Capturing information and implementing plan
- This can be overcome by data capturing and sharing of projects and utilising best in class examples from other jurisdictions where relevant.
- The development of KPIs as overall objective to reduce overall emissions.

5. What other opportunities exist to support the decarbonisation of the public sector?

- Utilising information and best in class examples from other jurisdictions to inform how decarbonisation might be achieved in the public sector in an Irish context.