



Society of Actuaries in Ireland

Call for Expert Evidence- Climate Action Plan 2021

Response to Department of the Environment, Climate and Communications

May 2021

Preface

The Society of Actuaries in Ireland (“Society”) is the professional body representing the actuarial profession in Ireland.

We welcome the opportunity to be part of the national Climate Conversation, feeding into the development of the 2021 Climate Action Plan.

Actuaries design solutions to problems that involve risk or future uncertainty. The majority of the profession works in the financial services sector, including insurance, pensions, healthcare funding, investment and banking.

The [Call for Evidence](#) asks for input on carbon pricing, electricity, enterprise, the built environment, transport, agriculture, land use, forestry and marine, waste and the circular economy, the public sector leading by example and just transition. Most of these areas are outside the specific areas of expertise of the actuarial profession. However, the financial sector also has a key role to play in Ireland’s journey to net zero carbon emissions. Moreover, the Call for Evidence asks that, *“when answering the...questions set in relation to key cross-sectoral and sectoral issues, submissions should consider where we can find the necessary step changes across each of the following six areas of policy initiative:*

- *regulatory framework;*
- *adoption of known technologies;*
- *addressing market failure;*
- *driving change in business models;*
- *the public sector leading by example; and*
- *harnessing the citizen and community effort.”*

We have focused our effort on areas where our expertise and experience, especially in considering future uncertainty, are relevant to these initiatives.

We note also that sustainable finance is a critical component of the response to climate change and the low carbon transition. The Society is actively engaged with Sustainable Finance Ireland and, together with the international actuarial profession, is responding to the developments in insurance and finance, for example, relating to ESG investing, climate related disclosures and scenario planning for climate change.

In developing its Climate Action Plan, Government will need to consider not only the transition to a low carbon economy but also the impact of physical risks arising from climate change that cannot be offset by reducing future carbon emissions. In this context, the Society has previously [responded](#) to a 2019 consultation undertaken by the Department of Finance in relation to Climate Change and Insurance. <https://web.actuaries.ie/sites/default/files/story/2019/10/191015%20SAI%20Response%20to%20DoF%20Climate%20Change%20and%20Insurance.pdf>

We would be happy to respond to any questions on this response. Please contact Philip Shier, Head of Actuarial Practice, at philip.shier@actuaries.ie.

Carbon pricing and other cross-cutting issues

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?*

Consideration should be given to the discount rate applied to project assessment. Currently, the test discount rate to be used in cost-benefit and cost-effectiveness analyses of public sector projects is 4% (<https://www.gov.ie/en/policy-information/1a0dcb-project-discount-inflation-rates/>). A lower discount rate would give more weight to future benefits (or costs) in supporting transition. There is considerable debate about the appropriate social discounting rates to be used in relation to climate change. We note, for example, that the National Economic and Social Council (NESC) in 2018 (http://files.nesc.ie/nesc_secretariat_papers/No_15_CBA_Env_and_ClimateChange.pdf) has suggested that “a discount rate in the range 2.6% to 3.9% would be appropriate, preferably at the lower end of that range. In addition, a lower discount rate is proposed for GHG emissions and other enduring environmental damage, which in Ireland would be set at 1.7%. If dual discounting is not adopted, this reinforces the case for a general discount rate at the lower end of the proposed range. In addition, the use of declining discount rates is recommended so that some weight is placed on very long-term effects where these arise.”

We note that even these lower rates are significantly in excess of current interest rates on Irish Government bonds.

The following research paper, published in 2020 by the US Society of Actuaries, is also a useful reference in this regard: <https://www.soa.org/globalassets/assets/files/resources/research-report/2020/social-discounting-climate-change.pdf>.

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

The European Commission set out a renewed sustainable finance strategy in April 2021 which provides a framework for the Government to channel private sector investment.

There is a growing appetite amongst private investors for investment strategies that meet ESG (Environmental, Social and Governance) criteria, with investor demand potentially exceeding the available supply. Government should therefore explore public/private financing initiatives to take advantage of this demand.

As outlined in our recent [submission](#) to the Department of Social Protection, we believe that all long-term investors should adopt a sustainable investment strategy which meets appropriate ESG criteria. Government policy should support and encourage this trend, including in the auto enrolment pension scheme.

<https://web.actuaries.ie/sites/default/files/story/2021/04/210401%20Investment%20Approaches%20to%20AE.pdf>

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

Two key cross-cutting considerations are data and demographics.

Government needs to ensure that there is a good flow of information and data to the public (as for the Covid-19 pandemic, a clear and consistent public communications campaign is needed), with regular updates to develop public buy-in and encourage individual and corporate adaptation. Key metrics should be developed and used consistently to educate, inform and motivate citizens and enterprise.

In considering measures to be taken to support the transition, it is important to assess the demographics of the populations affected, at a sectoral and regional level, and to factor in demographic change that is already underway. For example, there is a demographic transition underway in agriculture with over 45% of those working in crop and animal production aged 56 and over¹; this will impact the choice of policies that are best placed to support the transition. Demographic shifts resulting from the pandemic should also be considered, for example people relocating to take advantage of hybrid working policies.

Finally, we note that the low carbon transition should be an integral feature that is embedded into all Government policy and spending plans, including education, health, social welfare etc. to ensure that policy development and financing is holistic and aligned.

Enterprise

7. What measures should be taken to address the risks that climate change poses for enterprise?

As previously noted, clear and regular information flows are critical to enable planning and adaptation. Government should provide a concise, “off-the-shelf” roadmap for businesses that is easy to understand and translate into action, so that individual businesses, whatever their scale, can plan their own transition to net zero.

Government agencies should plan to help different business sectors pivot as needed, both to mitigate risks and avail of opportunities that arise due to the transition, for example, potential changing trends in eating habits and tourism, as individuals make their own climate adaptation choices. Scenario planning has a useful role to play in considering the potential impacts at sectoral and regional level. For example, if a low carbon aviation fuel is developed, the implications may be different for tourism than if flying becomes prohibitively expensive.

Transport

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

Although it may not be an opportunity, per se, it is important – and urgent - to understand the potential impact of the shift to hybrid working models that are anticipated following the pandemic. This could see workers wanting to live rurally and commute long distances into urban areas for the days they need to be in the office, particularly if housing costs continue to rise. However, this may have a negative impact on the decarbonisation of the transport sector; policy action may be needed

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to steer the development of such working models in a direction that aligns with national climate action goals.

In considering policy measures, such as congestion charges, to support the decarbonisation of the transport sector, the cost-benefit analysis should look at the long term impact and allow for expected and potential demographic changes.

Agriculture, Land Use, Forestry and Marine

10. What other opportunities exist to support the decarbonisation of the agriculture, land-use and marine sectors?

As noted previously, the demographic profile of the agricultural sector should be factored into initiatives designed to support decarbonisation.

Of course, efforts to increase best practice farm management and to promote ongoing research and development to minimise methane emissions are vital. However, consumer preferences are also changing, with a shift towards plant-based diets, due to both health and climate concerns. Again, forecasting and scenario planning can help the agricultural and food sectors to adapt to changes in demand.

Public sector leading by example

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

Clear communication – with consistent and timely data - is key to educate, inform and motivate citizens and enterprise.

As noted previously, Government should provide an “off-the-shelf” roadmap for businesses to enable their journey to net zero.

Consideration should be given to including environmental criteria in the public procurement process.

The public sector can also support wider society to change by demonstrating how end-to-end supply chains can be managed on a sustainable basis.

Just transition

1. Which regions, sectors, or industries do you believe will be most adversely affected by climate policy in Ireland and over what timeframe?

In addition to those directly affected - transport, agriculture, energy - there is a need to consider those that will potentially be affected by society’s behavioural changes as concerned individuals adapt their behaviours to reduce their carbon footprint. For example, as noted previously, tourism may potentially be affected, which would have a significant impact on both cities and coastal regions.

2. What types of supporting interventions should be considered by the Government to address the specific areas identified?

At an overarching level, research, planning and active steering will be needed to facilitate the transition. Training and education initiatives will also be essential, to enable affected workers to re-skill and communities to adapt. Financial supports and investment in replacement low carbon jobs will of course be needed. The social protection system may need changes to address the needs of impacted workers in specific sectors.

3. *What specific further measures should Government undertake in order to realise the benefits of the low carbon transition, including in relation to supporting the development of low carbon sectors of the economy, including employment in these sectors?*

The measures needed may include economic incentives (grants, low interest loans, tax incentives). Regulatory simplifications and incentives may also help. Government should support green research and development and innovation programmes to support Irish enterprise in availing of opportunities arising from the low carbon transition. An environmentally friendly public procurement process should also be implemented.

Government can raise awareness and provide information on how businesses can access national and international funds supporting green innovation, as well as providing technical guidance to new and emerging industries.

As previously mentioned, skills development is key. Government should also seek to identify the new employment opportunities that will arise in a low carbon future and ensure that further education programmes are in place to leverage these opportunities.

4. *What specific investments should be considered to support a just transition in Ireland?*

We do not have views as to the specific investments that are needed to support a just transition in Ireland but rather advocate that these need to be assessed using an evidence-based approach that considers the transition over its full time horizon, factoring in demographic change and regional needs.

5. *How should the State finance just transition initiatives and investments?*

We do not have specific views on the way in which the transition should be financed but we highlight the importance of considering inter-generational equity in designing finance and investment mechanisms.

6. *What changes should be considered in Ireland's social welfare system to support population cohorts that might be more adversely affected by the low carbon transition?*

System design changes should be developed based on demographic analysis at national and local level. As an example, there could be a need to consider targeted early retirement programmes for particular sectors where reskilling is not a realistic option for older workers.

7. *Are there specific issues for consideration in Ireland's further education, training and skills system?*

We suggest that primary and secondary education programmes are developed to ensure that future citizens are equipped for a net zero future. There will also be general training and education needs in industry and finance to facilitate the transition.

As noted previously, specific reskilling support will be needed for those who lose their jobs due to the low carbon transition; the Springboard programme provides a platform for this.

Government should also seek to identify the new employment opportunities that will arise in a low carbon future and ensure that further education programmes are in place to leverage these opportunities.

8. *What other issues should be considered by the Government to inform just transition policy in the 2021 Climate Action Plan?*

Individuals' adaptive capacity will be influenced by demographic characteristics (e.g. age, family status), health status (including pre-existing illnesses), access to resources, support and information. There is no "one size fits all".

Government needs to generate a culture of environmental awareness and influence positive behavioural change by supporting businesses, communities and individuals to become more resource efficient.

Just transition issues arise not only in relation to the transition to a low carbon economy but also due to the impact of climate change that is already "baked in".

9. *What additional supports could be considered for regions that are most at risk from the physical impacts of climate change?*

Public/private initiatives for insurance may be needed in order to provide sufficient protection for the physical impacts of climate change e.g. flood risk. We previously submitted our [views](#) to a consultation undertaken by the Department of Finance in 2019 in relation to Climate Change and Insurance.

Additional information

The health implications of climate change should be considered, although these may be less significant than in many parts of the world due to Ireland's baseline temperate climate. There may be potential for a "green dividend" due a reduction in air pollution and the shift towards plant-based diets but the need for mental health supports for those particularly impacted should be considered.

Finally, Ireland must also consider its global role and play its part in supporting the transition in developing countries. Climate change and the low carbon transition do not stop at national borders, no more than the pandemic does.

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