And What About Your Grandchildren?

One of the challenges in tackling a long-term fundamental issue like climate change is to ensure that the approach taken is "fair" between current and future generations. To help us think about this we commissioned Frontier Economics on a pro bono basis to provide a framework for analysing the issue of intergenerational equity.

This Viewpoint summarises the key messages from that work as we see them, provides some of our own reflections building on the Frontier report and highlights where further work is required.

Ethical considerations

As a starting point for looking at these issues, Frontier highlight the ethical considerations that apply in relation to climate change. The risk of tipping points arising (for example, through the melting of the tundra releasing methane) and leading to irreversible impacts on a global scale mean that conventional analytical tools fall short in judging the case for action. An ethical perspective can help fill that gap.

Sustainability First's view is that **we have an absolute duty to future generations to ensure the planet is habitable and that we are not setting humanity on a path to destruction**. Going further we would support a view that each generation should leave the planet in no worse a condition than they found it. **Sustainable development** was defined in the World Commission on Environment and Development's 1987 Brundtland report as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.

The Frontier report argues that there are different ethical perspectives that can be taken and suggests that policy makers need to be clear what their duty is to future generations and nature. Sustainability First supports the fundamental point made in the Dasgupta Review that **nature is more than an economic good and has intrinsic worth.** As Dasgupta said: *"If we care about our common future and the common future of our descendants, we should all in part be naturalists."*

Sustainability First believes that **elected representatives** have a responsibility to provide this framing for people and planet. **Citizen's assemblies** are a route through which society's views on such complex moral questions can be tested and we would encourage government to build on the example of Climate Assembly UK to inform such decisions.

We also note that in Wales the **Well-being of Future Generations Act** makes clear that public bodies must consider the impacts of their decisions on future generations. Sustainability First has supported the calls for equivalent legislation in Westminster. However, even without that legislation, the reference to "future consumers" in energy legislation, for example, provides a clear steer to Ofgem and the Secretary of State that those interest need to be given due weight.

While an ethical lens does not provide a formal basis for policy appraisal it can point to principles that should be adopted. Sustainability First has set out some initial thinking on a set of sustainability principles on which it will be doing further work over the coming year. These include a principle around inter-generational equity.

The **Environment Bill** currently going through Parliament sets out the principles that public bodies should employ including "polluter pays".

While we continue to emit carbon dioxide then this principle places an onus on the current generation to undertake the investment needed to reset the course.

This ethical lens is helpful as well in addressing one of the other challenges with a conventional policy appraisal approach which is that the benefits of our actions on climate change do not accrue directly to the UK but **globally**. We benefit from action by others and we hope that by taking action and showing leadership we can encourage such action.

Parliament's decision to commit to net zero emissions in legislation reflected not the results of a cost-benefit analysis for the UK but a clear sense that this was the right thing to do (with a sanity check that it was affordable). As such it is **ethical considerations** that **underpin the net zero commitment,** and which can also inform some of the choices about the pathways - albeit with more scope for an analytical assessment when the question is about the particular options to be pursued.

Economic inputs – policy design and key parameters

In evaluating policy levers and potential investments policy makers are looking for the best pathway to meet that net zero commitment. Ofgem talks about its goal being to meet net zero at least cost to consumers. Given the other challenges we face around affordability of essential services, this makes sense provided one can be confident that lower cost approaches will indeed still enable us to meet net zero. **We should not be passing on to future generations the risk we will not meet the net zero target**.

The Frontier report identifies the **key policy choices** as being around technology (including whether we should be a leader or a follower), policy levers and financing (through taxation or debt – or indeed through energy bills).

Policy makers compare options using a **social discount rate** to trade-off between costs and benefits for current and future customers. A key message from the report is that the standard social discount rate that is used by government, and set by Treasury (HMT), reflects an assumption that future generations will be better off and that we will continue to find new and better ways of doing things.

However, as Frontier point out, these assumptions may well not hold when we are looking at climate change. Having to deal with the devastating impacts of climate change may mean that future generations are not richer and some of the changes may be irreversible – even with more money and more innovation.

One way of adjusting for this difference would be to set a lower discount rate – so that future costs and benefits carry a weight more similar to their value today. This is already done for decisions in relation to healthcare, for example, where the view is taken that the value of health remains the same even as we get richer. Frontier suggest this might also apply to climate change policy and HMT have committed to an expert review of the issue. Sustainability First would support such a view and encourage HMT to consider the case for **a lower social discount rate** in its approach to net zero.

Frontier also touch briefly on questions around technology choices and the timing of investment. Investing too early can result in **assets being stranded** (i.e. built but not used) with concerns about future customers paying for assets that are redundant. On the other hand, delaying investment can increase the **risk that targets will not be met** or will only be able to be met at a significantly higher cost. This applies in particular

in relation to enabling technology, without which other developments may be held back. In thinking about strategic investments and inter-generational equity it is important that policy makers **think about both sides of the coin.**

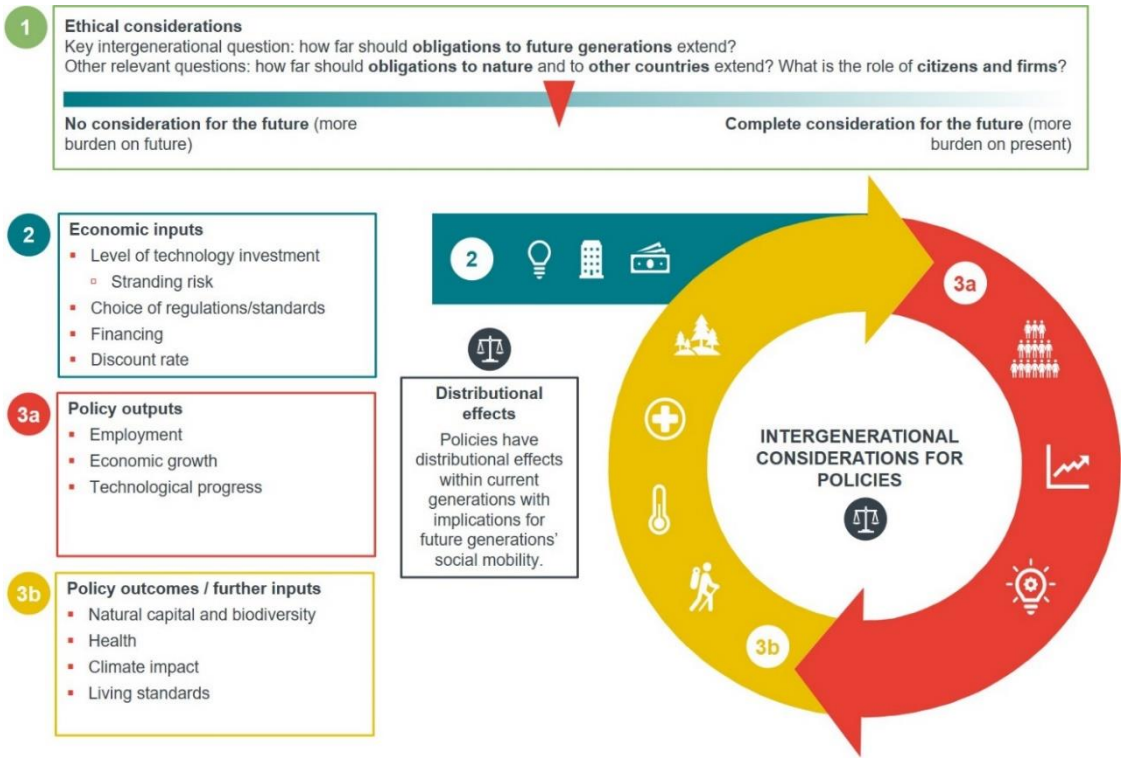
Where there is a risk of assets being stranded – as for example on the gas networks – there are additional questions about how the costs should be spread between current and future consumers, as well as the precise nature of the stranding risk. This is an area that Sustainability First believes needs more work[1].

Policy outputs and outcomes – an analytical framework

Another feature of the sorts of investments and behavioural changes that are needed to tackle climate change is that, by their nature, they will have much broader costs and benefits than simply those relating to climate. Energy infrastructure investment or changes in transport can have implications for jobs and economic growth, air quality and health. Economists refer to these as **co-benefits** and HMT in their update on net zero made clear that these need to be considered when assessing potential pathways to net zero.

Looking explicitly at the climate impacts, the report highlights the potential significant costs that could fall on future generations if not addressed. These include the **impacts of more extreme weather** – floods, heatwaves, fires and food insecurity. They highlight the natural capital and biodiversity impacts of climate change, explored in depth in the Dasgupta Review, which have a particular intergenerational impact with the risk of irreversible damage being done.

Frontier build on this to present a **framework** that could be used for assessing different pathways and for understanding the inter-generational impacts:



[1] The issue of asset stranding is being considered by the CMA as part of the current gas distribution price control (RIIO GD2) appeals but needs to be debated more openly than a legal appeal allows.

Source: Frontier Economics

As well as emphasising the importance of reflecting on these wider benefits they also highlight the dynamic and iterative nature of these issues:

- the circularity of the process – as decisions are taken this creates new options;
- that other things will not stay the same and that for these longer-term decisions one cannot ignore the impacts of technology and AI, demographic shifts and wider societal changes;
- that these changes can be non-linear with the risk of "tipping points" beyond which there will be irreversible changes to the climate and domino effects;
- that the impacts of climate change will be felt differently by different groups and that distributional impacts and climate adaptation needs to be a part of the debate;
- more generally, in reflecting on the distributional impacts between socio-economic groups, there is a need to take account of existing disparities and how these are changing over time;
- that behaviour change and nature based solutions have potentially important roles to play.

Conclusions

Inter-generational equity is a fundamental aspect of fairness that needs to be addressed as a part of a just transition. However, it is also one where we currently lack an agreed framework for how to make trade-offs.

Based on the Frontier work, Sustainability First believes there are a number of steps that need to be taken:

- for government to provide further clarity to policy makers about the imperative to consider the interests of future generations (for example in an equivalent of the Well-being of Future Generations Act);
- for government to move to a measure of "inclusive wealth" including natural capital, as advocated by the Dasgupta Review;
- for guidance to be provided by HMT on the use of a lower social discount rate in considering climate impacts;
- for explicit consideration to be given to the risk of under-investing as well as the risk of asset stranding;
- to build consensus around how to consider intergenerational equity in policy and regulation, including through deliberative engagement with citizens; and
- for Ofgem, working with government, to explicitly take account of wider co-benefits in its assessments of potential actions to support net zero, building on the framework proposed by Frontier.

In his speech at the Ofgem COP26 event in May 2021 Jonathan Brearley said: "*with such a long-term project there are questions about fairness between generations and the need for this generation to avoid placing a financial cost on our own children and grandchildren not only through climate change itself but also through the costs of the new energy system*".

This is a message we would support and hope that the Frontier work, including the extensive resources and evidence they have assembled, will provide the beginnings of a roadmap for how that might be achieved.