

Climate change decision tools

Hampshire County Council, UK100

Thursday 25 March 2021

Summary

To help Hampshire County Council (HCC) meet its targets to be carbon neutral by 2050 and resilient to a 2°C rise in temperature, HCC has developed two innovative climate change decision tools, in partnership with the Carbon Trust. The tools have been designed to help assess all key decisions against the two targets and to raise awareness of climate change across all departments of the County Council - with the aim of embedding climate change thinking into every aspect of the Council's activities. The tools were approved by Hampshire County Council's Cabinet in September 2020.

Our problem

To meet the carbon-neutral target and thrive as a community going forwards, Hampshire is going to have to reduce emissions and build resilience to the impacts of a 2°C rise in temperature across the county. The authority unanimously agreed in January 2020 that it has a critical role to play in ensuring that our service capacity, infrastructure, environments, and communities are prepared to meet the challenges ahead. These Climate Change Decision tools are designed to support the Action Plan and Climate Change Strategy already in place to help put mitigation and resilience at the core of Hampshire's climate response.

Overview

There are two tools:

The Adaptation Tool will assess how multiple climate variables, such as extreme weather and flooding, might impact the management and finance of Council projects. These variables were based on the Met Office's [UKCP18 climate projections](#), which highlighted the key climate variables most likely to impact the southeast of the UK.

The Mitigation Tool will assess direct and associated carbon emissions, providing information on the sources of emissions and how they could be reduced

The fundamental purpose of both is to help officers to build their knowledge and understanding of how climate change can be addressed and what can be done to help meet the targets. Both take the form of Excel spreadsheets to make them as intuitive and easy-to-use as possible. We've purposely built them so that the user doesn't have to be an expert on climate change; all they need to be familiar with is their own projects. Before using the tools, they'll be asked to complete a decision tree to answer certain questions which will ascertain whether their project needs to be assessed by the tool.

If used at the initiation stage of a project, officers will be able to identify where projects might be vulnerable to climate change and/or produce high carbon emissions. These tools could then be used to test different options to improve the outcomes in terms of project aims and climate change impact. Both can be used at various points over the lifetime of a project; by returning to them, users can see how outputs from the tools have made improvements to the projects. One good example of how these tools can improve outcomes is a local school building and infrastructure project. It was only when these tools were used that it was found that extreme heat was a high risk to the future resilience of the school buildings - something that hadn't previously been considered as a high-risk priority. Subsequently, the potential heat risk to the site was included in future work on the project.

Timeline / project progress

The tools were approved by Hampshire County Council's Cabinet in September 2020 and are currently being used by staff members.

Stakeholders

These tools are being used and supported by all staff at all levels across Hampshire County Council. They're being championed by all Members who have been engaged throughout the development phase and were co-created by the County Council's Climate Change team with the Carbon Trust, based on a concept developed by the Strategic Manager for Climate Change.

Whole systems approach

These tools are just one part of our [Climate Change Strategy](#). The strategy hinges on one of our seven key principles, which is to apply the Carbon Hierarchy:

1. Avoid: avoiding carbon-intensive activities
2. Reduce: doing everyday activities more efficiently
3. Replace: switching high-carbon energy sources with low-carbon energy alternatives
4. Offset: offset any emissions that cannot be eliminated by the above

Our plans and policies are set against a framework that was set out in the Hampshire 2050 Commission of Inquiry which ran from May 2018 to October 2019 and in January 2020. We recently published our first [Annual Hampshire 2050 report](#) that showed the significant amount of progress we have made in responding to climate change, despite the challenges faced in 2020. We have also published a [State of Natural Environment report](#) that looks into various elements of Hampshire's environment, including air quality, biodiversity and water. One key finding from that report is that Hampshire has 22 locations where NO2 limits are being breached, with the primary source being vehicle emissions. The decision tools can work alongside these reports by identifying ways that we can work on these kinds of issues.

Impact

While the long-term impact of these tools is yet to be assessed, their implementation has been fully supported by the staff at Hampshire County Council, which highlights our clear understanding of the need to consider climate change in everything that we do. Project leads have been highly motivated to use the tools and despite the additional time commitment, are seeing them as a way of adding value to their projects.

Feedback from the pilot suggests that the project has enabled Members to develop a deeper understanding of how climate change can be embedded into our thinking and included as a factor for decision-making in all future projects. Going forward, these tools will be used to help departments build in resilience and carbon mitigation into future opportunities.

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The biggest challenge was the need for the tools to be a 'one-size-fits-all' solution that could assess climate impacts across all of the County Council's diverse services, ranging from Highways to Adults' Health and Care.

For the Adaptation Tool, this meant using broad questions about how projects would be affected by climate variables, encouraging analysis and deeper consideration of how projects might be vulnerable to climate impacts. Simple 'yes/no' answers kept the tool user-friendly without requiring the user to have expertise in climate science.

The Mitigation Tool posed a slightly different challenge, due to the potential for an infinite number of different projects requiring carbon emission calculations. To overcome this, we ensured that all emissions calculations were based on the Strategic Priorities as set out in our Climate Change Strategy. We identified the key sectors that would contribute the most significant carbon reductions, which allowed us to highlight the projects within those sectors that would value from being assessed.

The IP for the carbon tool is owned by the Carbon Trust so we can only share this with all Hampshire Districts and Boroughs. We have been exploring arrangements for sharing the Adaptation Tool but unfortunately, as the IP also belongs to the Carbon Trust, we are no longer able to do so with other Authorities outside of Hampshire

(Image: [Javier Allegue Barros/Unsplash](#))

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