

Case Study

Energy 2050 pathways

A public dialogue with young people and community leaders

Vital statistics

Commissioning body:

Department of Energy and Climate Change (DECC)

Duration of process:

12 months:
December 2010 – December 2011

Number of public participants:

Youth Panel – approximately 20
(16 core members)
Deliberative Dialogues – 86
My2050 Simulation – 10,215
(March 2010)

Number of stakeholders involved:

12 experts at workshops

Cost of project: £163,000 total,
Sciencewise-ERC funding = £145,000

Key messages from the public

Key issues raised by public participants in the dialogue include:

Youth Panel

- It is important to think about how energy is used before working out plans to create more of it. One of the Panel's key recommendations is, therefore, that the Government supports measures to retrofit houses and offices to make them more energy efficient
- The Government must commit to keeping promises about making new houses zero carbon by 2016 – to ensure that new builds are significantly more energy efficient than they are currently
- The Government must continue to fund renewable energy technologies and incentivise others to invest in such technologies. Leading the way in

The UK is committed to reducing its greenhouse gas emissions by at least 80% by 2050, relative to 1990 levels. To do this, there will have to be major changes in how we use and generate energy while ensuring secure, low carbon energy supplies to 2050, and major choices will have to be faced. The Department of Energy and Climate Change (DECC) launched the 2050 public engagement programme to open a public dialogue on how the UK should meet its legally binding greenhouse gas emissions reduction target. The engagement programme comprised four strands: an advisory youth panel; three local deliberative dialogues; the accessible My2050¹ simulation aimed at a wider audience; and development of a dialogue toolkit for schools.

supporting this technology will illustrate to investors the importance of taking this progressive risk

- Unabated use of coal does not have a future in the energy mix from now until 2050 because it is the biggest carbon emitter. The technology that is being developed to keep coal as an option (carbon capture and storage (CCS)) is very expensive and is not set to be completed for commercial use for many years.

Detailed recommendations are also given on a range of other energy use and energy supply issues such as zero carbon new houses, smart grid technology, and the use of gas and nuclear power.

Deliberative Dialogues

- People engaged with the subject at the workshops and learned more about some of the less well-known technologies (such as electrification of transport), but they did not necessarily change their views or behaviour about more well-known technologies (e.g. nuclear) as a result of the workshops
- Participants' approaches to developing a pathway seemed to be driven by considerations about what we should be

doing, what seemed achievable and what was thought to be desirable. Nuclear technology, wind, electrification and bio-energy tended to be the technologies that evoked the strongest, and often negative, reaction and, as such, were often excluded. The absence of cost data meant some felt it was difficult to make an informed decision on the best strategy to pursue

- Not all participants bought into the 80% target, and others struggled to develop a pathway that hit the target.

My2050 Simulation

To meet the 80% emissions reduction target by 2050:

- Users focused effort on demand-side measures (e.g. business greenness, home efficiency) and on issues they were familiar with (i.e. issues related to their everyday life)
- The areas where views differed most widely were bio-fuel and manufacturing growth, followed by CCS, onshore wind and nuclear.

¹ The DECC My2050 simulation is available at: <http://my2050.decc.gov.uk/>

The more detailed 2050 Pathways Calculator and all supporting information, including the schools toolkit, are available at: <http://decc.gov.uk/2050>



Background

The 2008 Climate Change Act committed the UK to a greenhouse gas emissions reduction target of 80% by 2050, with 1990 as baseline. This legally binding emissions reduction target is unique and sets the UK on a highly ambitious decarbonisation path over the coming four decades. It is expected that this will involve dramatic changes to the way we consume our energy and live our lives – especially for the younger generation.

In the July 2009 White Paper 'The Low Carbon Transition Plan', the Government committed to publishing a roadmap setting out the path to an 80% emissions reduction in 2050, identifying pathways that allow the UK to meet the goals on emissions and energy security over the long term.

Historically, the debate about the next steps in this process has been at national and international levels, with an emphasis on business and academic input. To open up and encourage informed discussions among individuals and local communities, DECC, with its stakeholders, developed the 2050 Pathways Calculator, an accessible and interactive tool that can be used by experts and the public. The Calculator is a digital tool that assists the user to evaluate different energy and emissions pathways towards 2050. The approach allows the user to test and understand high-level trade-offs between, for instance, domestic energy efficiency savings and supply of renewables technologies or between different transport strategies and bio-fuel options. It is designed to support an informed debate on the twin challenges of climate change and energy security, and to seek feedback from users on preferred pathways.

Policy influence

It is too early to assess long-term policy impacts of the four strands of this engagement programme. However, the pathways chosen by participants have been reported to and have informed Government decision-making. The outcomes have formed a key part of the debate around the options for achieving the UK's carbon targets and delivering the low carbon economy, and have been presented to senior decision-makers. In particular, the Youth Panel received significant exposure to Government Ministers and key advisers. DECC is interested in the results of which pathways, worlds and levers are chosen in the My2050 simulation, as well as the demographic, attitudinal and performance data collected from those who submitted pathways through the My2050 simulation. These data, plus the results of the deliberative dialogues, have provided useful evidence in support of the common themes identified via the 2050 Pathways Calculator². The engagement programme has increased DECC's understanding of public views on energy and climate change, and their levels of emotion and ownership over those views.

In general, the ideas generated through the range of debates have given all parties food for thought ahead of the next stage of engagement. There are a number of future options for DECC to take this engagement process forward and the experience gained through this programme will be invaluable to that work.

The dialogue activities

The aim of the dialogue was to empower young people and community leaders to understand the issues and make their opinions heard in Government on how the UK should reach its 80% emission reduction target by 2050.

The specific objectives of the project included:

1. To run a national Youth Panel dialogue and visioning process with 16-25 year old champions from key UK civil society organisations, representing a broad cross-section of interests and backgrounds
2. To engage local community leaders in an informed deliberative dialogue about the choices and trade-offs on the route to 2050 based on the Calculator in order to promote an informed debate within communities and investigate local attitudes to the climate change and energy challenge
3. To develop a front-end to the 2050 Calculator which engages, informs and consults the user about the twin challenges of climate change and energy security, and provides strategic energy and policy options for them to consider, in the form of the My2050 'serious game' interface for the 2050 Calculator
4. To develop a dialogue toolkit to promote engagement with 2050 issues in schools.

² For common messages see p48: <http://www.decc.gov.uk/assets/decc/Consultations/2050/1343-2050-pathways-analysis-response-pt1.pdf>

Youth Panel

- **Panel meetings:** Full day, monthly meetings over one year facilitated by an independent panel manager
- **Site visits:** A series of site visits (e.g. to power stations, wind farms, retrofit housing) to provide panel members with the knowledge and information needed to develop a youth pathway to meet the 2050 target
- **Report writing:** Panel members published a report 'Energy: how fair is it anyway?' which presented their views on different energy sources and outlined recommendations for future energy use.

Deliberative Dialogues and Toolkit

Three deliberative dialogue workshops were held in early 2011 in locations chosen to provide a range of rural, metropolitan and urban contexts. There were 40 participants at the London event, 27 in Cumbria and 19 in Nottingham. The three workshops differed in design or length, to determine which approach was most effective (e.g. varying the number of participants per computer and number of experts on hand (2 to 6)). Two workshops lasted for a whole day and one was held in the evening.

Each workshop included the following core sessions:

- Introductions including to the 2050 target and to how the 2050 Pathways Calculator works
- An opportunity for participants to explore the 2050 Pathways Calculator
- Introduction to and group discussion around the four 'Big Themes' to consider when creating a pathway to the 2050 target³
- A final session to create a pathway with which participants were happy and that they would like to see implemented.

There was independent facilitation of the sessions in each workshop and DECC representatives provided technical and expert support about the Calculator and energy and climate change issues.

Based on the workshops, a toolkit was developed for schools to enable further dialogue about climate change and the transition to a low-carbon economy. The My2050 Schools Toolkit is a curriculum-friendly resource to support students to use and learn from the My 2050 simulation. It is aimed at teachers, in particular those teaching geography, science, maths and citizenship, who wish to engage their students in the 2050 carbon emissions debate. It is most suited to students in Key Stages 3 and 4 (age 11 – 16 years old), but can be adapted to be used for students of different ages.

My2050 Simulation

The 'My2050' simulation is a new and visually attractive version of the 2050 Pathways Calculator aimed at a wider audience. My2050 is based on real-world data and enables users to develop their '2050 world', finding their preferred way of meeting the 80% emissions reduction target while keeping the lights on. It visualises the changes this may imply for our homes, our cities and our countryside. It has a function for users to share and compare their 2050 world with those of others. It also has a feedback function so that users can share their 2050 world with DECC, providing their opinions on the best way to meet the target.

³ The 4 Big Themes were: Growth and Mix of Low-Carbon Electricity Generation; Energy efficiency; Electrification of demand and Availability of Bio-Energy.

Summary of good practice and innovation

Youth Panel

- Panel members were able to contribute to the report, either by writing a section, by giving their opinions or by helping oversee the process through a central writing group
- This project, the first of its kind for the UK Government, enabled panel members to actively participate in working out for themselves what they think of energy issues in the UK. It was a practical example of integrating intergenerational equity in government decision-making.

Deliberative Dialogues

- Workshop participants were very positive about the group discussions and rated discussions between participants as one of the best aspects of the workshop they attended
- Participants were also very positive about using the Calculator and engaged with it well. The 2050 Calculator helped to stimulate thinking about energy and climate change issues, and the options and trade-offs required to meet the 2050 target
- The information provided to participants about the issues was of a very high quality – particularly that contributed by experts. Participants described expert help as "knowledgeable", "professional", "essential" and "diplomatic".

My2050 Simulation

- My2050 has been extremely successful. Over 10,000 pathways were submitted in 26 days in March 2011 and there were 50,000 users in total
- My2050 gives users the opportunity to reach a considered conclusion on the issues in the tool by presenting information in a way that is visually engaging and easy to understand
- The people who submitted worlds were younger than average, which suggests the simulation succeeded in engaging a younger audience.

Lessons for future practice include

Youth Panel

- Successful operation of a youth panel requires clarity of purpose overall and of the specific purpose of each of the different activities in which members were involved to ensure they are able to use their time efficiently and maximise the value gained from different activities
- There was also a lack of clarity from panel members about the extent to which the work of the panel would have an impact on DECC's decision-making. It is important to ensure panel members have a clear understanding of how their contribution is going to be used.

Deliberative Dialogues

- Many participants felt they would have liked more information and the opportunity to prepare before workshops. Giving participants the opportunity to prepare may have helped them to feel less rushed when completing activities during the workshop
- Participants also commented about the level of knowledge they felt they needed to have to participate in the workshops. It seems that a challenge in the design of the workshops was pitching them at a level which suited most participants' level of knowledge
- Some people had incomplete knowledge or misperceptions about some technologies, which they strongly believed to be based on facts and felt strongly about. As the Calculator assumes a rational discussion based on facts, this provided challenges in interpreting the results of the pathways as well as for the wider use of the Calculator

“ I enjoyed having high-level discussions with very interesting people from around the country, liked having the opportunity to talk to people in the know. ”

Youth Panel participant

“ The end product is exactly the product that we were hoping to have. A 5-10 minute introduction to the topic, with some magnetic visuals which keep people on-side and get some early data back and the My2050 is performing all that and all the numbers of people who have played it and have submitted it are testament to that. ”

DECC

- Many of the shortcomings stem directly from an initial lack of clarity about the purpose of the workshops and the breadth of the objectives. It seems that the tension between the need to test the Calculator and to engage in rich deliberative dialogue about the issues was not properly resolved.

My2050 Simulation

- My2050 provides limited opportunity for participants to listen to others, or share and develop their views
- People completed the simulation as a game or a challenge, but results could potentially have been different if this had been used as a policy consultation exercise
- The simulation could be a very useful tool for a wider deliberative process, either through prompting people to use it in a collaborative way or by embedding it within a workshop.

Impacts

Policy impacts are covered on the first page of this summary. This section examines the impacts on all the participants in the process.

Impacts on public participants

Youth Panel

Panel members identified a range of ways in which involvement in the panel has had a positive impact on them:

- They felt that their knowledge about the UK energy infrastructure had vastly increased which, in turn, has made them feel more confident about discussing and leading debates on energy related issues with their peers
- As a result of the dialogue, they also felt inspired to stay involved with, and do more in the way of, campaigning for low carbon alternatives
- They felt valued and part of something important
- They felt they really benefited from time spent learning from ‘like-minded people’, which included each other and representatives from DECC.

Deliberative Dialogues

- For some participants, taking part in the workshops made them realise the ‘scale of the challenge’: they came away with a greater understanding of what achieving 80% carbon reduction

“ Views did develop as hadn’t thought about it before. Came away with more nuanced views...made me aware of different options. Felt a bit more enthusiastic about geothermal energy. ”

Deliberative dialogue participant

“ I enjoyed the village in Wales the most (because it involved) hearing from people who are doing stuff on the ground at the moment, the stuff we campaign on is actually happening on the ground. ”

Youth Panel participant on site visit

target would entail and an understanding of what the impact would be on public life and society

- Participants described how attending the workshops raised their awareness and knowledge of energy issues and the options available for meeting the 2050 target
- For some participants, the workshops motivated them to use the 2050 Pathways Calculator within their communities.

Contacts and links

Commissioning body

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Full project and evaluation reports available from the

Sciencewise-ERC website (www.sciencewise-erc.org.uk/cms/energy-2050-pathways-a-public-dialogue/)