

## Case Study

# New nuclear power stations – improving public involvement in reactor design assessments

## A public dialogue to improve public involvement in reactor design assessments for new nuclear power stations

### Vital statistics

**Commissioning body:**

Environment Agency,  
Office for Nuclear Regulation and  
Natural Resources Wales

**Duration of process:**

November 2014 – August 2015  
(10 months)

**Total public participants involved:**

442 (401 online survey, 41 dialogue  
workshops)

**Total stakeholders involved:**

Six stakeholders as part of the  
Oversight Group

**Total experts involved in events:**

Representatives from each regulator  
attended the workshops

**Cost of project:**

£112,840 total  
Sciencewise contribution = £56,000

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*In 2006, the Government asked the nuclear regulators – the Office for Nuclear Regulation (ONR) and the Environment Agency – to consider ‘pre-authorisation assessments’ of new nuclear power stations. The nuclear regulators developed their Generic Design Assessment (GDA) process in response to this request.*

*In 2014, the nuclear regulators (Environment Agency, ONR and Natural Resources Wales (NRW)) sought to engage members of the public in a dialogue to explore how public engagement in GDA might be improved.*

### Policy maker view

“*Personally, it’s an eye opener for me re. level of involvement of the public. When you are used to working with people from within the industry or academics, you can easily fall into the pitfalls of talking in detail. Eye opener in terms of the need to tailor the message to the audience.*”

### Regulator

### Influence on policy and policy makers

The outcomes from the dialogue project are used to inform approaches and materials going forward. In August 2015, at the end of the dialogue project, the results were considered at two implementation workshops where it was agreed, in detail, which of the dialogue results the project partners could implement and why, the features of a wider dissemination plan and what the project partners could put forward to developers.

Specific initiatives to take the results forward included:

- The development of new and improved public-facing content for the regulators’ websites and communications materials, including an infographic explaining the bigger picture to place GDA in context
- Acknowledging the importance of face-to-face engagement for building trust, consideration is also being given to pre-consultation local community engagement in the vicinity of the proposed sites



## Background

The Government has outlined its commitment to a significant expansion in new nuclear in the UK stating that nuclear power, alongside renewable energy sources, will ensure that the UK has enough low-carbon electricity in the future.

In 2006, the Government asked the nuclear regulators – ONR and the Environment Agency – to consider ‘pre-authorisation assessments’ of new nuclear power stations.

The nuclear regulators developed their GDA process in response to this request. GDA enables the regulators to begin assessing the acceptability of safety, security and environmental aspects of a nuclear power station design, at a generic level, before site-specific applications are made. It provides the regulators with early influence on the design of new nuclear power stations when it is most effective and efficient. It also helps to reduce project cost and time risks for developers as it enables regulatory concerns to be identified and addressed early.

The Environment Agency, ONR, and now NRW, support their GDA process with dedicated communications and engagement activities. In the Stakeholder Engagement Plan (on the ONR website dated June 2014), the regulators have clearly set out their approach to engagement. This includes developing the website, producing communications materials for a range of stakeholders and communities, publishing documents and leaflets, managing events, engaging with key stakeholders, producing e-bulletins, advertising and managing proactive/reactive media relations.

A suggestion from an independent evaluation of engagement and consultation in the previous GDA was that the regulators should seek to make information more accessible to local residents and groups who are among the target audience for such consultations. This Sciencewise dialogue project sought to help the regulators to address this in a systematic way.

The project also helped develop better understanding of how to build greater trust between the regulators and the public. The project has contributed to emerging thinking and learning about the importance of building the relationship between those who consult and those who are consulted. Public dialogues are demonstrating that the investment in processes that support the building of long-term trust and mutual understanding (in this case between the public and nuclear regulators) have the potential to support more considered decision-making in key areas, such as GDA. Trust cannot be adequately achieved by simply being open, responsive, transparent and providing good-quality information. It also requires an approach that is respectful of the public and engages in a way that recognises existing understanding, responds to their concerns, and enables them to feel part of and understand their role within the decision-making process.

This understanding fed through to recognition by the regulators that there was a need to ‘design in the round’. This considers the relevance and accessibility of the information and engagement questions, and the specific approaches to engagement that

would build public trust and confidence in what the regulators were doing and how the findings would be used.

The dialogue project also provided excellent opportunities to demonstrate the benefits of public participation to the regulators’ staff who did not have a communications or engagement background and provided significant learning that was transferable to other parts of the regulators’ activities. In particular, the dialogue demonstrated to the regulators that constructive conversations and consultations could take place if key elements are put in place and work together.

It is expected that the dialogue results will continue to influence policy and planning over time. An active dissemination plan has been developed (called ‘Sharing the Findings’). Key findings have already been shared extensively at senior levels within the regulators’ organisations and with developers and reactor designers, other relevant areas of government, the Nuclear Communications and Engagement Liaison Group, and the Nuclear Decommissioning Authority.

## Key messages from the participants:

The dialogue was centred on three key questions:

- How do members of the public want to be involved in the GDA process?
- What do people need to know (what are their concerns/interests?) and how can the nuclear regulators address their concerns/interests as part of the GDA process?
- What can the nuclear regulators do to help improve people's trust in them and confidence in their decisions (as regulators)?

The key questions raised by participants in the dialogue were:

- **Why involve?** The purpose of each engagement activity should be clear from the outset
- **Who to involve?** Involving people closest to the sites was a priority, but other members of the public in and beyond England and Wales should also have the opportunity to be involved
- **How to involve?** Workshop participants favoured face-to-face engagement while survey respondents favoured communication methods (e.g. a website). Specific principles proposed for all these methods included simple language, consistent messaging, graphics and methods tailored to particular audiences

Other points made by participants included:

- **The language barrier.** The complexity of the often technical language around GDA (whether in English or Welsh) was a key issue for participants, including the phrase and acronym itself
- **Need for context.** There was an apparently low awareness of the topic of new nuclear power and desire was expressed by workshop participants for more contextual information about GDA and nuclear power
- **Desire for detail.** People wanted more information on a range of topics such as safety. In addition, perceived personal relevance was a strong motivating factor for getting involved – participants wanted to know how it related to their everyday lives
- **GDA as part of a story, not an isolated chapter.** There was a dilemma surrounding the needs of people wanting more contextual information and those wanting more detail on local implications, rather than generic concepts. Both of these indicated the need to clearly show the pathway from decisions about building nuclear power stations to the local implications of new reactors, with GDA as a pivotal point in that process. It also suggests the need to be very clear about what kind of input is being sought from members of the public, and what the scope of the topic does and does not cover.
- **Improving trust and confidence in the decisions of the regulators.** Initially, relatively low levels of knowledge and trust (at the beginning of the workshops – also reflected in the national scoping survey) were noticeably increased by the end of the first workshop. This highlights the importance of familiarity – in terms of knowledge and face-to-face contact – as a contributor to trust. For many participants, clarity over the roles and responsibilities of the regulators also seemed to contribute to their levels of understanding and trust.
- **Reducing barriers to public engagement.** Participants made a range of suggestions for reducing barriers to public engagement including keep it simple; innovate; use a range of methods; tap into local resources; drip feed information; ensure accessibility of online information; be aware of context, history

and preconceptions; make it personal; reconsider the use of language; clarify what kind of input is being sought and listen to people's views; make it personable; and raise the profile of the regulators and their role.

## The dialogue activities

The overall aim of this project was to engage members of the public in a dialogue to identify the needs of the wider public in relation to engagement (including the Environment Agency's and NRW's consultations) in the regulators' GDA of new nuclear reactor designs.

The specific objectives for the public dialogue project were to:

- Identify approaches that will address issues and barriers to sharing complex technical information on the GDA with members of the public
- Inform the Environment Agency's, ONR's and NRW's current and future public engagement, and the Environment Agency and NRW's consultation approach on GDA
- Develop and pilot materials on the GDA that are accessible to the public
- Identify potential public engagement process options for the GDA
- Help the nuclear regulators to pilot an effective public engagement, and Environment Agency and NRW consultation approach during the current assessment of Hitachi-GE's UK Advanced Boiling Water Reactor (UK ABWR)

An independent Oversight Group of six academic, civil society, local government, regulatory and industry representatives was established to guide the dialogue and evaluation activities. There was also a Project Management Team (PMT) of the partners and Sciencewise that was responsible for day-to-day decision-making about the design and delivery of the process. Two PhD students were also involved. As well as involvement throughout, the PMT and Oversight Group held two separate workshops at the end of the process to consider in detail and within their group how to take forward the dialogue results.

The dialogue process with the public involved the following activities:



In more detail, the activities with the public involved:

- **Online survey of public attitudes.** A survey of 401 people in England and Wales was the first step of the overall dialogue process. The survey results were used to inform the design of the local dialogue workshops by building a picture of national attitudes to the regulation of nuclear power and the assessment of new reactor designs
- **Round 1 dialogue workshops in two locations.** In total, 41 members of the public (unrelated to those taking part in the online survey) took part in these workshops in January 2015 (22 in Cheltenham and 19 in Bangor). The workshops were designed to be an introduction to the topic and context of GDA, including the role of the regulators
- **A single Round 2 dialogue workshop.** This workshop was held in Crewe in March 2015 and was attended by participants from both locations (nine from the Bangor workshop and nine from the Cheltenham workshop). It was designed to provide opportunities for deeper exploration of key issues, develop responses to a range of communication and consultation materials, and develop recommendations about future public engagement.

### What worked especially well

The project's objectives were largely achieved, with clear insights and recommendations emerging from the dialogue that will inform the nuclear regulators' current and future public engagement initiatives and process options.

The strength of the governance of the whole project, through an effective PMT and Oversight Group, led to genuine shared commitment to taking the results of the dialogue forward into new approaches and materials for future engagement. The final Implementation Workshop in August 2015 was particularly valuable in ensuring the use of the dialogue results by a range of organisations.

The ability of the participants to engage with the topic exceeded expectations. The success of this engagement was largely due to careful process design, delivery and management which exhibited a number of key elements, including:

- An experienced and effective facilitation team - the facilitation overall was of a high standard and created a friendly and constructive atmosphere
- Carefully selected experts who were well briefed in terms of the style, tone and content of their input – participants fed back that they had enough information at the right level to contribute effectively and presentations were thorough, clear and pitched at the right level
- Very effective project management creating one team with commitment to the process

*“Very important that colleagues hear first-hand the opinions, comments, observations and intelligent questions of ordinary members of the public.”*

**Regulator**

Specific techniques and approaches that worked well during the workshops were the use of analogies (e.g. like a kettle, as big as a bus) and the 'degree of trust' exercise. This exercise was run

at the start and the end of the workshops, and was an excellent method of demonstrating the impact of the dialogue process on levels of trust.

### What worked less well

A significant process challenge was in keeping participants focused on GDA consultation issues while communicating where GDA fitted into the wider nuclear policy and decision-making landscape. This was managed successfully in large part, but inviting any questions at the start was seen to be counterproductive by some of the participants and some members of the PMT.

The 'talking heads' video clips used to test the medium of talking heads videos did not work particularly well. The clips were not made specifically for the workshop, the people in the clips were not addressing those in the workshop and participants did not find this method of communication effective.

The recruitment process was generally good, enabling a broad sample of non-aligned members of the public to be selected for the workshops. However, there was some concern about the low number of Welsh speakers at the Bangor workshop in relation to the percentage of Welsh speakers in the local population and some concerns about the geographical spread of participants for the Cheltenham workshop.

Recording workshop discussions was detailed, accurate and well done. The majority of recording was done by two scribes making notes on laptops in plenary and small group sessions. Although thorough, this way of working does have challenges in that participants cannot see what is being recorded, so do not necessarily have confidence that their point was captured.

### Contact details

#### Commissioning bodies

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#### Reports

Full project and evaluation reports available from Sciencewise on [www.sciencewise-erc.org.uk/cms/new-nuclear-power-stations-reviewing-how-to-engage-with-members-of-the-public-in-reactor-design-assessments-known-as-the-generic-design-assessment-or-gda](http://www.sciencewise-erc.org.uk/cms/new-nuclear-power-stations-reviewing-how-to-engage-with-members-of-the-public-in-reactor-design-assessments-known-as-the-generic-design-assessment-or-gda)