

Improving public involvement in reactor design assessments for new nuclear power stations - public dialogue

Project Evaluation – Final Report

Steve Smith, October 2015



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1. Executive Summary

This report is the final evaluation of the public dialogue that reviewed public involvement in reactor design assessments for new nuclear power stations. It presents the key learning points and the related evaluative evidence for the process, which took place between November 2014 and August 2015. The project was commissioned by the Environment Agency and co-funded by Sciencewise Expert Resource Centre (Sciencewise)¹. The dialogue project overall is a partnership project involving the Environment Agency, Office for Nuclear Regulation (ONR) and Natural Resources Wales (NRW). The Environment Agency being the lead partner.

1.1 Background to the dialogue process

The Environment Agency, ONR and NRW sought 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 joint Environment Agency / ONR / NRW Generic Design Assessment of new nuclear reactor designs.

The nuclear regulators are currently assessing Hitachi-GE's UK Advanced Boiling Water Reactor (UK ABWR) and the Environment Agency and NRW are due to consult on their findings, after detailed assessment, during 2016. The outputs of the public dialogue will help inform the public engagement.

1.2 Project objectives

The dialogue had five objectives.

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

1.3 Key delivery stages

3KQ were appointed to deliver the dialogue process. The process consisted of three main delivery elements.

¹ Sciencewise is funded by the Department for Business, Innovation and Skills (BIS). Sciencewise aims to improve policy making involving science and technology across Government by increasing the effectiveness with which public dialogue is used, and encouraging its wider use where appropriate. www.sciencewise-erc.org.uk

Online survey of public attitudes. A survey of 401 people in England and Wales informed the design of the local dialogue workshops, by building a picture of national attitudes to the regulation of nuclear power and the assessment of a new reactor design.

Round 1 dialogue workshops in two locations involved 41 members of the public (22 in Cheltenham on 17th January 2015 and 19 in Bangor on 31 January 2015). These workshops introduced the topic and context of GDA.

Round 2 dialogue workshop, with 18 participants from both locations, was held in Crewe on 21 March 2015. This workshop provided opportunities for deeper exploration of the key issues, sought responses to a range of communication and consultation materials and developed recommendations about future public engagement.

The Project Management Team considered how they could address the detailed dialogue findings at a workshop on 27th August 2015.

1.4 The approach to evaluation

This report draws on evaluative data and analysis from a number of sources.

- Observation of 2 of the 3 dialogue workshops – Bangor (31.1.15), Crewe (21.3.15).
- Collated feedback from the end of workshop evaluation sheets – all participants.
- Follow up phone interviews with a sample of participants from workshops (13 in total).
- Focus group with 5 Oversight Group members exploring their expectations for the project.
- Survey of PMT (Project Management Team) members exploring their expectations for the project.
- Phone interviews with key project stakeholders from the PMT, OG and facilitation team (7 in total).
- Written surveys from 2 additional project stakeholders.
- Review of key documentation.

An evaluation framework was developed and agreed with the Environment Agency and Sciencewise (see Appendix 2). This reflected the evaluation aims and objectives and provided guidance and structure for the evaluative methodology.

1.5 Summary of the key learning points

1.5.1 Impacts of the dialogue

Achievement of the project's objectives

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. There was less progress on objective 3 which aspired to develop and pilot consultation materials with the public. Consultation materials are now being developed, based on the guidance from the initiative, but there will not be further opportunities to pilot these with the public as part of this project.

Influencing the GDA engagement processes

There is genuine commitment to take the dialogue learning and feed this into approaches and materials. The dialogue findings and reporting are currently being appraised by the Project Manager and the PMT has met to consider the reporting and learning. A further PMT 'implementation

workshop' took place on 27th August 2015 to specifically agree what needs to be addressed. A number of initiatives are now being considered, subject to available resources. A document responding to the numerous questions and comments made by members of the public at the workshops is now being developed. This document is due to be published in late 2015.

The evaluation found that:

- The language, tone and style of engagement needs to be closely aligned with the needs of the public. There is a distinct difference between the style and language of internal organisational conversations to that which is needed when working with the public. For example the term 'generic' (the G in GDA) was freely used and yet was largely found to be confusing by the public.
- More and better use of infographics was widely supported.
- Face to face contact as part of the consultation is the best way to build trust and respect. Where this is not possible there needs to be consideration as to how communications and information can demonstrate the integrity of the process and the desire of regulators to respect the needs and opinions of the public.
- The consultation needs to provide clearly signposted opportunities for the public to ask questions and seek additional information and clarification.
- The careful design and management of information, considering how it is communicated, explaining the opportunities to comment and participate, how feedback will be used and how to see its influence on GDA will help to build trust in and manage the understanding of the parameters of influence.
- The consultation team must be committed to and enthusiastic about the benefits of public engagement and excellent communicators.

Benefits for the organisations involved

There have been a wide range of benefits identified across the organisations involved.

- In planning public engagement in future, the regulators recognised that there is a need to 'design in the round' considering not only the relevance and accessibility of the information and engagement questions but also approaches that will build public trust and confidence in what the regulators are doing and how the findings will be used.
- The dialogue provided excellent opportunities to demonstrate the benefits of public participation to staff who do not have a communications or engagement background.
- There was significant transferrable learning and benefits to other parts of the regulators' businesses.

GDA within the bigger picture

Given the complexity of the nuclear new build process as a whole there is a need for the public to be aware of the 'bigger picture', where GDA fits into this and the scope and opportunity for dialogue and consultation at key points.

Dissemination of the findings and wider influence

There is substantial scope for beneficial dissemination and use of the findings, not only within the GDA sector but also for any engagement process that is dealing with complex technical issues. An active dissemination plan has been developed and is regularly updated. Key findings have already been shared extensively within the regulators' businesses, with operators, other relevant areas of government, the Nuclear Communications and Engagement Liaison Group and the Nuclear Decommissioning Authority.

Impact on workshop participants

Feedback demonstrated that there was substantive learning about technical issues, the nuclear new build process, the role of the regulators and an increase in trust and confidence that the workshop findings will be used to inform the GDA consultation materials and process.

1.5.2 The dialogue process

Recruitment to the workshops

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

The design of the dialogue process

Public engagement with the workshop content exceeded expectations. Key factors included:

- An experienced facilitation team who created a comfortable and friendly environment, ensured participant opinions were valued, everyone could speak and participant views were recorded accurately.
- Carefully selected and briefed technical experts who successfully communicated complex technical issues to non-technical participants in a way which was respectful and built trust in the process. Information was provided in 'bite size' chunks, was not overwhelming and there was ample opportunity for participants to ask questions and seek clarifications. The use of analogies to everyday processes was highlighted as very useful in successfully communicating technical processes.
- The balance between information giving and dialogue was good.
- Demonstrable commitment to public dialogue across the whole team.
- An inclusive 'one team' approach with everyone working well together.

There were some process challenges and areas that could be improved. Further development of consultation materials in advance of the workshops would have enabled more progress to be made in terms of piloting materials with the public. The structure of the workshop days could have had a little more variety. More variation in group sizes, methods of interaction, recording and mixing of participants would help keep participants engaged. There is recognition however that this may have required additional facilitation and note taking resources to be in place.

Use of the Welsh language in the Bangor Workshop

For the majority who attended the Bangor workshop it was thought to have worked well and was useful and necessary.

1.5.3 Inputs to the dialogue process

The overall project budget was £112,840. This breaks down as follows:

- Funding from commissioning agent and others – cash, £15,000.
- Funding from commissioning agent and others – in-kind, £41,840.
- Co-funding from Sciencewise - £56,000.

Around 1000 hours were put into the initiative across the Project Management Team. The project also received additional Sciencewise Dialogue and Engagement Specialist time to facilitate two findings review and implementation workshops.

Overall there is a high level of satisfaction in terms of what has been achieved for the resources invested. The guidance will be useful and additional value will be achieved through wider dissemination of the learning across the broader nuclear industry and with other sectors who are dealing with complex technical issues that require consultative processes.

Project management and governance has been excellent with all parts of the team working well together. This has resulted from good project management, clear lines of communication and in supporting a whole team approach that has brought commitment, energy and positivity to the process which in turn has supported the achievement of project objectives.

2. Overview of the project and the approach to evaluation

This is the final evaluation report for the Generic Design Assessment Public Dialogue process which took place between November 2014 and September 2015. The project was commissioned by the Environment Agency and supported by Sciencewise². The dialogue project overall is a partnership project involving the Environment Agency, Office for Nuclear Regulation (ONR) and Natural Resources Wales (NRW). The Environment Agency being the lead partner.

This report provides an overview of the extent to which the public dialogue process achieved its objectives, the impacts the project has had and is likely to have in future, and highlights the learning across different dimensions of the project.

2.1 Background to the dialogue process

The Environment Agency, Office for Nuclear Regulation (ONR) and Natural Resources Wales (NRW) sought 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 joint Environment Agency / ONR / NRW Generic Design Assessment of new nuclear reactor designs.

The nuclear regulators are currently assessing Hitachi-GE's UK Advanced Boiling Water Reactor (UK ABWR) and the Environment Agency and NRW are due to consult on their findings, after detailed assessment, during 2016. The outputs of the public dialogue were designed to help inform the public engagement.

2.2 The team involved in managing and guiding the project

Oversight Group

An independent oversight group was appointed to guide the dialogue and evaluation processes. Membership was as follows:

Prof Andrew Blowers – Emeritus Professor of Social Sciences at the Open University, Chair of the Blackwater Against New Nuclear Group, Member Nuclear Waste Advisory Associates, Member of Committee on Radioactive Waste Management (CoRWM1), Co-Chair DECC/NGO Nuclear Forum.

Kirsty Gogan – founder of Energy for Humanity, independent consultant, energy and climate communications specialist, visiting researcher at University of Manchester - Dalton Nuclear Institute, member of Nuclear Industry Council Public Understanding of Nuclear Energy sub group.

Dr Colette Grundy – Business Manager, Safety (Licensing), Security and Safeguards, Laboratory Fellow Nuclear Regulation, National Nuclear Laboratory.

² Sciencewise is funded by the Department for Business, Innovation and Skills (BIS). Sciencewise aims to improve policy making involving science and technology across Government by increasing the effectiveness with which public dialogue is used, and encouraging its wider use where appropriate. www.sciencewise-erc.org.uk

Alyn Jones – Officer Lead New Nuclear Local Authorities Group & Strategic Manager – Major Programmes, with Somerset County Council’s Economic & Community Infrastructure team

Dr John Idris Jones – Energy Island Programme Director and Head of Socio-Economic Development, Wylfa Magnox Ltd

Prof Lynda Warren – Emeritus Professor of Environmental Law at Aberystwyth University, member of Committee on Radioactive Waste Management, NRW Board member.

Project Management Team

Annabelle Lillycrop (Project Lead), **Alan McGoff**, **Caroline Richards**, **Saffron Price-Walter**: Environment Agency.

Nia Jeffreys, **Iwan Williams**: Natural Resources Wales.

Rebecca Kingston (for part of the project), **Michael Williams**: Office for Nuclear Regulation.

Steve Robinson: Sciencewise.

Other key contributors

Ioan Parry, **John Riley**, PhD students, University of Central Lancashire.

2.3 Project objectives

The dialogue had five objectives.

1. Inform the Environment Agency (EA), Office for Nuclear Regulation (ONR) and Natural Resources Wales’ (NRW) current and future public engagement, and EA and NRW’s consultation approach on GDA.
2. Identify approaches that will address issues and barriers to sharing complex technical information on the GDA with members of the public.
3. Develop and pilot materials on the GDA that are accessible to the public.
4. Identify potential public engagement process options for the GDA.
5. Help the nuclear regulators to pilot an effective public engagement and EA and NRW consultation approach, during the current assessment of Hitachi-GE’s UK Advanced Boiling Water Reactor (UK ABWR).

2.4 Key delivery stages

3KQ were appointed to deliver the dialogue process. The process consisted of three main delivery elements plus planning and review meetings with the Project Management Team and Oversight Group.

- **Online survey of public attitudes.** The survey of 401 people in England and Wales was the first step of the overall dialogue process. Its aim was 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 a new reactor design.
- **Round 1 dialogue workshops in two locations.** A total of 41 members of the public took part in the Round 1 workshops – 22 in Cheltenham on 17th January 2015 and 19 in Bangor on 31 January

2015. These workshops were designed to be an introduction to the topic and context of GDA, including the role of the regulatory system.

- **Round 2 dialogue workshop**, with participants from both locations. 18 participants (9 from the Bangor workshop and 9 from the Cheltenham workshop) took part and it was held in Crewe on 21 March 2015. This workshop was designed to provide opportunities for deeper exploration of key issues, responses to a range of communication and consultation materials, and development of recommendations about future public engagement.

The Project Management Team considered how they could address the detailed dialogue findings at a workshop on 27th August 2015. A document responding to the numerous questions and comments made by members of the public at the workshops is now being developed. This document, due to be published in late 2015, will inform future consultation plans for the UK ABWR.

2.5 The evaluation process

The aims of the evaluation are:

- To provide an independent assessment of the impacts and quality of the dialogue project to demonstrate the extent of the project's success, credibility and effectiveness against its objectives, covering both the outcomes of the project as a whole and the design, delivery and governance of the dialogue activities (including an assessment of impacts on approach and decisions, organisational learning and change, and on those involved).
- To contribute to increasing the wider effectiveness and use of public dialogue.

The objectives for the evaluation are:

- To gather and present objective and robust evidence of the nature and quality of the impacts, achievements and activities of the project in order to come to conclusions.
- To identify lessons from the project to support capacity building across Government, and the wider development of good practice in public dialogue.

The learning and evidence set out in this final report builds on two Evaluation Learning Bulletins that were presented to the PMT and OG during the dialogue process. This report draws on evaluative data and analysis from a number of sources.

- Observation of 2 of the 3 dialogue workshops – Bangor (31.1.15), Crewe (21.3.15).
- Collated feedback from the end of workshop evaluation sheets from all 3 events, summarised in Appendix 1 (59 forms representing 100% of participants).
- Follow up phone interviews with a sample of participants from first round workshops (8 in total) and reconvened workshop (5 in total).
- Focus group with 5 Oversight Group members exploring their expectations for the project.
- Survey of PMT members exploring their expectations for the project.
- Phone interviews with key project stakeholders from the PMT, Oversight Group and facilitation team (7 in total).
- Written surveys from 2 additional project stakeholders.
- Review of key documentation.

An evaluation framework was developed and agreed with the Environment Agency and Sciencewise (see Appendix 2). This reflected the evaluation aims and objectives set out above and Sciencewise's seven key evaluation questions. The framework provided the terms of reference for, and closely

guided and structured the evaluative questioning through the feedback forms, the workshop participant interviews, the observation of the workshops and stakeholder interviews and surveys.

2.6 How this report is structured

The evidence and learning is set out in sections 3 to 5; covering impacts, dialogue process and inputs to the project.

Section 3 relates to the impact, influence and changes that the public dialogue process has achieved or has aspirations to achieve. It considers the degree to which the project's objectives have been achieved, the benefits to those involved, the impact on the GDA consultation process itself and the project's wider and unplanned outcomes.

Section 4 addresses the dialogue process, looking at the recruitment of participants, the location and timings of workshops, the overall process design, on-going engagement with participants, use of the Welsh language and the analysis and reporting.

Section 5 considers the use of project resources and the management and governance of the initiative.

At the end of each of the main sections, 'learning points' are set out in shaded boxes to provide easy reference to the key learning from the evaluation. The PMT may find it useful to review these learning points and draw out any related actions.

3. Impacts of the GDA Public Dialogue Project

3.1 Extent to which the project's objectives were achieved

Set out below is a brief overview of the extent to which the project's objectives were achieved. Further, more detailed, evaluation is provided in sections 3.2 – 3.7 which address the specifics in the achievement of these objectives. It was generally agreed that these objectives were fit for purpose. There was perhaps some overlap between objective 3 and 5.

Objective 1. Inform the nuclear regulators' current and future public engagement and Environment Agency (EA) and Natural Resources Wales (NRW) consultation approach on GDAs.

The initiative has made considerable progress in achieving this objective. There are clear recommendations in a number of areas and a demonstrable commitment by the Project Manager, the PMT and across the regulators to apply the learning from the dialogue to the consultation process. Work is still on-going, the PMT considered how they could address the detailed dialogue findings at a workshop on 27th August 2015 (see 3.2.1 below).

Objective 2. Identify approaches that will address issues and barriers to sharing complex technical information on the GDA with members of the public.

There has been substantial learning across the regulators in relation to sharing complex technical information. There is an understanding that the approach needs to be as much about trust building, through the embedding of a respectful tone, attitude and way of communicating as it is about developing clear and accessible consultation materials.

Objective 3. Develop and pilot materials on the GDA that are accessible to the public.

There has been less progress on this objective. There has been the opportunity to test out and pilot some emerging consultation materials with dialogue participants however the final drafts of consultation materials are still being developed in light of the dialogue's findings and there will not be additional opportunities within this project for piloting these materials and approaches with participants.

Objective 4. Identify potential public engagement process options for the GDA.

The dialogue project has provided good learning and recommendations in relation to this objective. Particular insights in areas such as contextualisation of this consultation within the broader nuclear landscape, a focus on communicating through accessible language and concepts, providing clear feedback to participants and clearly identifying the parameters of influence for the public.

Objective 5. Help the nuclear regulators to be in a position where they can pilot an effective public engagement and EA and NRW consultation approach during the current assessment of Hitachi-GE's UK Advanced Boiling Water Reactor.

As in objective 3 above, there is no remaining scope for piloting within this initiative however the learning and recommendations are feeding directly into the design of the GDA consultation process.

3.2 Influencing and informing the GDA engagement processes

3.2.1 Direct influence

There is genuine commitment to take the dialogue learning and feed this into approaches and materials. The dialogue findings and reporting are currently being appraised by the Project Manager and the PMT has met to consider the reporting and learning. A further PMT 'implementation workshop' took place on 27th August 2015 to specifically agree what needs to be addressed. A number of initiatives are now being considered, subject to available resources. For example the development of new / improved public-facing content for the web 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 around the proposed sites. A document responding to the numerous questions and comments made by members of the public at the workshops is now being developed. This document, due to be published in late 2015, will inform future consultation plans for the UK ABWR.

Each regulator will take these proposals back to their own organisations' Programme Boards to appraise the resources available, recommend the parameters of the consultation and how it should take place in 2016 with respect to Hitachi-GE's ABWR. There are a few specific examples of influence to date. There is already a template circulating of the proposed consultation document updated in light of the dialogue findings. Given the public's interest in the broader nuclear new build processes the team are considering whether it is possible to make links through GDA to these wider issues and work streams.

3.2.2 Language, tone and style of engagement

The dialogue has influenced and is continuing to develop thinking regarding the style, tone and approach as well as the content of consultation materials themselves. The evaluation found that it is important that these two elements work hand in hand to develop a successful and cost effective

consultation process; clear understandable materials and a respectful approach to public engagement that helps build trust and confidence in the regulatory process.

More and better use of infographics (graphic visual representations of information, data or knowledge) was supported by the public and the PMT as a clearer way to communicate technical information. This method of information provision recognises the human visual system's ability to recognise and make sense of patterns and trends. Where technical language is used it was recognised that it will be important to share this in a way that is accessible to lay people. A number of PMT members expressed surprise that the term Generic Design Assessment was not immediately understandable by the public. Some regulators interviewed suggested that this demonstrated their lack of experience in public engagement and that careful work and thinking was still necessary to bridge this disconnect between internal and external use of language. Although the public was able to understand, discuss and feedback opinion in relation to complex technical matters they could only do this if the quality of explanation and interpretation was appropriate to their existing understanding of the GDA processes and related technical information. It was recognised as important to think through what language and approach will enable quality discussions rather than making assumptions that terms such as 'generic' are widely understood in this context.

"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 pit falls of talking in detail. Eye opener in terms of the need to tailor the message to the audience." **Regulator.**

It was also recognised to be very important to consider how the information is delivered, what interpretation may be needed and the tone and approach to communication that will build trust in both the regulator and the information provided. This would apply to face to face interactions as well as to other methods of consultation. Interestingly the National Scoping Survey found that almost half of respondents would prefer to interact with the consultation through a website rather than attend meetings.

The dialogue workshops clearly demonstrated that face to face contact builds interest and understanding and motivates people to be involved in the consultation process. Budgets, timescales and resources will limit the extent to which public meetings, workshops and conversations can be scheduled. Where this is wanted however, perhaps close to proposed sites, it could be appropriate and cost effective. It was recognised that there will be a need to explore where face to face approaches are needed and resource effective. Collaboration across the regulators and with support from developers, local authorities and community organisations could help to maximise the resource available.

3.2.3 The parameters of influence

Reflecting on the forthcoming consultation, regulators identified a key challenge in defining, honestly communicating and designing a process that provides the degree of influence that members of the public expect and can meaningfully engage with in relation to GDA. In principle, everything is open to comment and influence but the reality of GDA is that a huge amount of technical assessment work has already been undertaken by the regulators reviewing developers' proposals. The regulators have formed clear opinions based on this work, and the scale and technical nature of the work provides substantive barriers for engagement on the detail for people outside the sector or with limited understanding of the specific technical details that GDA addresses. One technical specialist from the Environment Agency framed the challenge.

“How do you consult with members of the public when you know all the work that’s gone in to it and it should be right? Everything is up for grabs but we don’t think it’s wrong, we think it’s right. How do you say that without coming across as being technically arrogant?”

Regulator.

The learning from the dialogue process has demonstrated to the regulators that constructive conversations and consultations can take place if key elements are put in place and work together. If the approach builds trust and information is communicated well then the parameters of influence will be easier to agree and be accepted. There does need to be openness and transparency in terms of access to information, but this is not enough. Indeed, just providing access to complex technical material and consultation documents could inhibit rather than encourage good consultation. There would be a risk of the consultation process merely going through the motions if time and effort is not put into understanding the needs of consultees, their relationship to the regulators and technical data and the influence they can realistically have. Distilling the learning from the public dialogue process would suggest that putting the following elements in place would support the design of an accessible and meaningful GDA consultation. Members of the public would be able to determine the level of engagement to match their interest and concerns.

- Clearly and widely communicating what GDA is and where it fits within the wider nuclear planning landscape.
- Providing essential but limited technical information and interpretation in a format that will be understandable and engaging. Consideration need to go into what to leave out as much as what to put in. Providing access to everything is counterproductive from a consultation perspective. The aim would be to design an ‘elicitative’ process where potential consultees can easily access the essential consultation information and then be able to determine the level of their own participation. This level could be across a spectrum, for example, simply having quality information about the GDA process and the regulators, leaving comments on suitably designed web pages, responding to surveys or face to face interaction. The National Scoping Survey indicated that around a quarter of people wouldn’t want any involvement, half would use an interactive web site, a quarter would respond to surveys, with only a sixth of respondents preferring face to face meetings. With quality communication the percentage of people preferring more interactive consultation options may rise but these findings gave regulators a good feel for where resources may need to be deployed.
- Signposting and facilitating easy access from the essential information to more detailed consultative material and opportunities need to be put in place. It may be necessary to develop and have available more detailed (but accessible) follow up information/consultative opportunities in relation to a number of key strands of the GDA consultation.
- Building in the capacity and facility to encourage and respond to comments and questions that are generated from the essential and additional information.

3.2.4 Building trust

The process 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 (points made in 3.2.3 above). 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

people to feel part of and understand their role within the decision making process. One participant framed this neatly, commenting that *“You can’t judge sincerity from a piece of paper”*. In designing dialogue processes there is a need not just to consider how to share information effectively but also how it is possible to use the available budget and resources in a way that maximises the building of trust.

Building trust in the integrity of the process and the organisations involved is complex. Much was gained in the dialogue workshops through the positive and friendly atmosphere created, the way in which the team engaged with participants, the expert facilitation and the care and attention put into explaining, interpreting and listening. These trust building mechanisms are more difficult to put in place in a broader consultation across a wider raft of approaches and levels of participation. The regulators did recognise however that it is still possible to design a process that has the potential to build trust in the process and regulators through an attention to detail. Evaluation feedback has identified a range of factors that could help build trust in the process that could be translated to the broader process.

- Ensure the team and individuals involved are enthusiastic about and committed to the benefits of participation and consultation. This will be communicated to potential respondents in any dealings they have with the regulator.
- In any face to face meetings or presentations ensure that there is a considered design process and any technical input is delivered by people who have the ability to communicate and respond to questions in a clear and respectful manner.
- It will be important that people hear about the consultation in good time and know the options they have to take part and over what period.
- It will be important to communicate the findings of the consultation and the influence they have had.

Learning points

- There is a need to test any information to be provided as part of the consultation in terms of its appropriateness for members of the public who are likely not to have a technical background and not be familiar with the language of GDA.
- Face to face contact, as part of the consultation, is the best way to build trust and respect. Where this is not possible there needs to be consideration as to how communications and information can demonstrate the integrity of the process and the desire of regulators to respect the needs and opinions of the public.
- It will be important, as part of the consultation, to provide clearly signposted opportunities for the public to ask questions and seek additional information and clarification.
- The careful design and management of information is crucial. Future engagement plans need to consider how it is communicated, explain the opportunities to comment and participate, feedback how it will be used and how to see its influence on GDA. This will all help to explain, build trust in and manage the parameters of influence.
- Select a consultation team who are committed to and enthusiastic about the benefits of public engagement. Committed individuals make a big difference.
- In face to face meetings it is important to have technical experts who are excellent communicators.
- The PMT ‘implementing the findings’ workshop (27th August 2015) ensured that the dialogue findings were systematically assessed and formally fed into the GDA consultation design process. Convening such a workshop makes sure the findings of the process are used to best

effect and is good practice.

- Processes that build trust and respect with the public are more likely to maximise engagement and consultation outcomes. When designing public dialogue /engagement processes it is important to consider how to best use the resources available. There will be a need to 'design in the round' considering not only the relevance and accessibility of the information and engagement questions but also approaches that will build public trust and confidence in what regulators are doing and how the findings will be used.

3.3 The benefits to the organisations involved

There have been a wide range of benefits identified across the organisations involved.

The process enabled the **regulators** to think about their approach in the round, not just the design and content of materials but their overall interaction and engagement with the public. The **Environment Agency, NRW and ONR** all highlighted the importance and benefits of enabling colleagues to experience public engagement first hand. Indeed, the attitude of some members of staff noticeably shifted from scepticism and low expectations to positivity as the project progressed and staff engaged with the process. There was less experience of public engagement within NRW and ONR and some of that experience had been negative, through poorly designed public meetings. This process demonstrated the benefit of a well-designed process that created a conducive and non-combative environment where the public could engage with and provide intelligent comments on complex technical issues.

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

“Some colleagues won’t have experienced public dialogue before and they won’t know what it looks like, feels like and the benefits it can bring in providing insight; I think that is really valuable.” Regulator.

There was also learning for other parts of the regulators’ businesses, both in relation to broader nuclear new build processes and other unrelated issues. For example, NRW are currently undertaking phone interviews with members of public about regulatory issues in relation to the Wylfa site on Anglesey. This process has provided a lot of confidence and ideas for this public consultation work.

A good example of the benefits accrued by an **Oversight Group** member is the experience of Colette Grundy who represented the **National Nuclear Laboratory** (NNL). The process has been very useful for NNL both in terms of making connections with others in the field and learning a great deal about the potential of public dialogue. Indeed the process has directly informed the development by NNL of a proposal focusing on public understanding of nuclear energy. An additional and important benefit for Colette has been the invitation and inclusion in the PMT of two PhD students she is supervising. This has supported their studies by providing access to an innovative project and they have reciprocated by providing useful external input from a different and knowledgeable perspective.

For **Sciencewise** there has been useful generic learning for public engagement processes that are dealing with highly complex technologies. In particular there is transferable learning to other areas within the nuclear sector, for example Small Modular Reactors, which will also need to go through a GDA.

Learning points

- Well designed and delivered public dialogue / engagement processes provide excellent opportunities to demonstrate the benefits of this way of working to staff who do not have a communications or engagement background and perhaps have had previous negative experiences of public engagement.
- It is important to consider the potential for transferrable learning and benefits to other parts of the business.

3.4 GDA within the bigger picture

A key finding from the evaluation was that the public needs to know where GDA fits into the wider nuclear new build picture and where, within this overall picture, there are opportunities for consultation and influence. This will cover a range of dimensions; the national policy position, site selection, design, planning issues, operation, waste management and decommissioning. There is ongoing work in developing an overview of this 'participation landscape' which will support regulators as well as the public to identify and scope the parameters of engagement.

Learning points

- Given the complexity of the nuclear new build process as a whole there is a need for everyone involved to be aware of the 'big picture' where GDA fits into this and the scope and need for dialogue and consultation at key points.

3.5 Dissemination of the dialogue findings and wider influence

The Environment Agency's project manager, Annabelle Lillycrop, has worked with Oversight Group member, Kirsty Gogan, to produce a short dissemination action plan called 'Sharing the findings'. This two page document sets out the stakeholder sectors who need to hear about the findings of the dialogue. Sciencewise is also committed to signpost other policy development initiatives across government where they feel the learning will have resonance. The fact that this is happening indicates a commitment to make best use of the learning from the process. Although the findings have been circulated wider within the regulators' organisations and to a number of key bodies in the nuclear sector it is as yet too early to appraise the impact or have any significant feedback from this broader dissemination.

The 'Sharing the findings' action plan indicates that the findings have been shared as follows:

Already shared with:

- Hitachi-GE discussed relevant findings at a Level 4 PPM meeting on 15th September 2015 and at a further meeting on 30th September 2015.
- Westinghouse (initial overview at a 6 October 2015 meeting but a presentation is planned at a future meeting).
- Potential operators: Horizon, NuGen, EDF.
- New Nuclear Local Authorities Group.
- NuLeAf (Nuclear Legacy Advisory Forum).
- DECC NGO (Nuclear) Forum.
- Nuclear Free Local Authorities.

- DECC, in relation to their broader policy remit with regard to other energy work streams and geological disposal of nuclear waste.
- Defra Communications Team.
- The Nuclear Communications and Engagement Liaison Group which brings together representatives from DECC, the Nuclear Decommissioning Authority (NDA), Radioactive Waste Management Ltd, ONR, Natural Resources Wales and the Environment Agency.
- The National Nuclear Laboratory has put a news item on their website about their participation in the dialogue process and a link to the dialogue report, <http://www.nnl.co.uk/news-media-centre/latest-news/>.
- The ONR Senior Leadership Team, Board and staff through ONR intranet and staff bulletin.
- EA internal ebulletins aimed at all EA staff.

Dissemination actions pending:

- Local Authorities.
- Local Government Association.
- The Government Communications Service.
- The National Coordinating Centre for Public Engagement in relation to their work on the Concordat for Public Engagement on Nuclear Energy and Society. The dialogue process could potentially provide a good practice case study for researchers in the nuclear field.
- EA Director of Industry Regulation (e.g. links with fracking work).
- The 'Working With Others' network within the Environment Agency.
- Non-nuclear parts of the business within The Environment Agency and NRW where colleagues are working on other engagement projects involving technical issues such as flood risk, water quality, fisheries etc.
- Natural England communications team.
- The Nuclear Industry Association's External Relations Working Group.
- GDA ebulletin subscribers.
- ONR NGO Forum.
- The Institutes of Mechanical Engineering and Chemistry.
- Project Oversight Group members' networks.

This list is still under development and additions may be made.

There is clear evidence that there is a thoughtful strategy being developed to maximise the impact of the learning and findings of the dialogue. This is being helped by the wider links and contacts that members of the PMT and the Oversight Group have both within the nuclear sector and beyond. It is already evident that the learning from the dialogue is being used productively within the regulatory teams responsible for GDA and it is likely to support and provide useful insights for any public engagement process that is addressing complex technical issues.

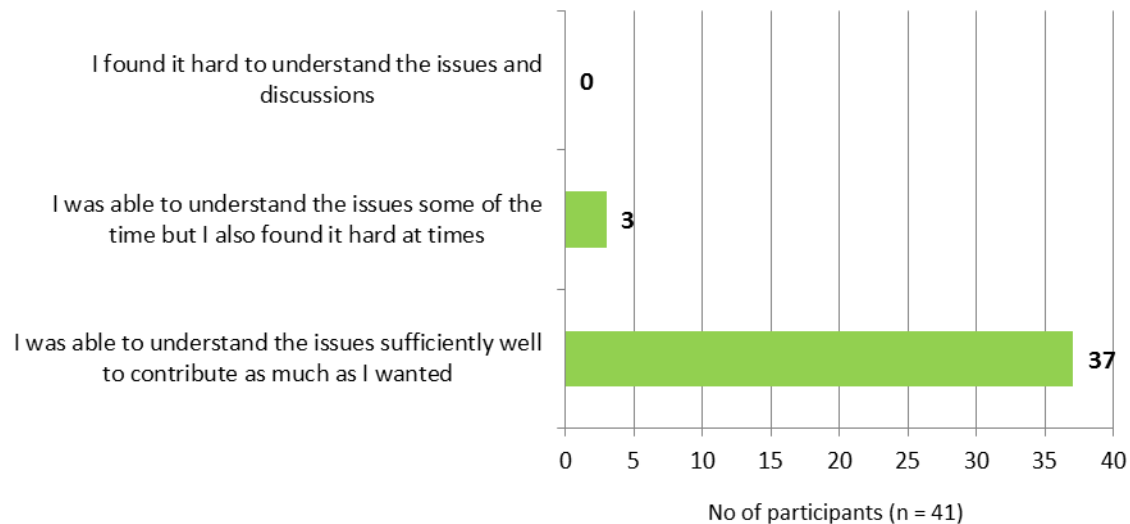
3.6 Impact on workshop participants

Overall, participant feedback was positive in terms of what they gained from taking part. Among the areas where feedback was sought included technical issues, understanding of GDA and regulators, developing trust and the impact of the consultation. The full summary of workshop feedback is set out in Appendix 1.

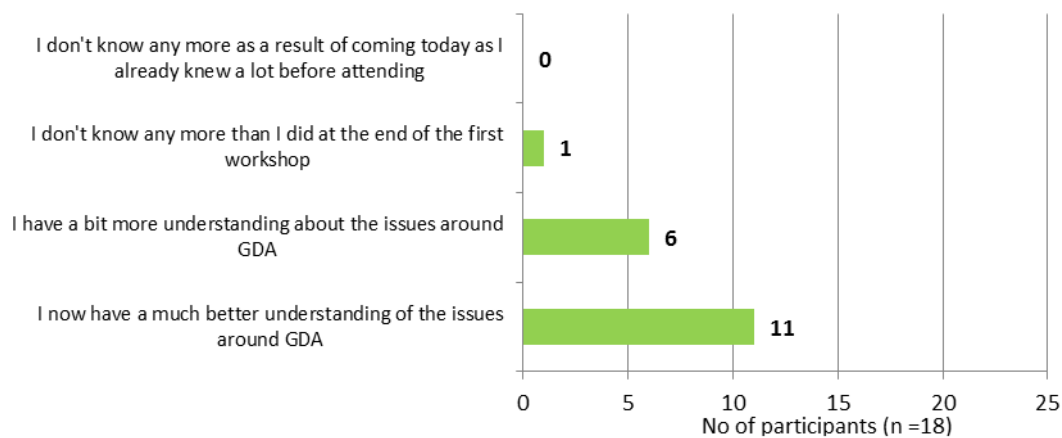
3.6.1 Technical issues.

Participants were asked whether they were able to make sense of the technical issues and contribute their views about them.

Combined first round workshops



Reconvened workshop



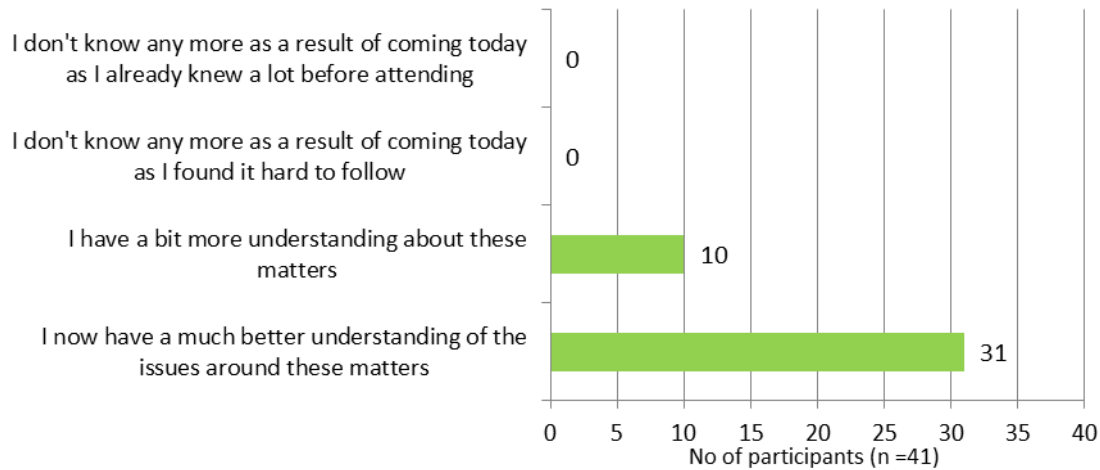
"The knowledge of the EA and ONR was excellent and gave me a complete understanding of all subjects covered." **Participant.**

"Alan was excellent at explaining nuclear fission." **Participant.**

3.6.2 Knowing more about the GDA process and the three regulatory organisations

Participants were asked whether the workshop had increased their knowledge or understanding of the issues around the development and regulation of nuclear power stations, the design of the UK ABWR and where the GDA process fits in.

Combined first round workshops



Interestingly, a number of participants had undertaken additional research between the 1st round workshops and the reconvened meeting demonstrating that they were enthusiastic to learn more. Two participants interviewed after the workshops indicated that they would welcome a continued involvement with the consultation process and would help out locally in disseminating information and canvassing views.

3.6.3 Developing trust in the regulators and GDA process

The final reporting from 3KQ demonstrated the benefit of participation in the workshop in terms of building trust in the three regulators. Each of the first round workshops showed a clear positive shift in the levels of trust from that recorded at the beginning of the day when compared to the findings from the same questions at the end of the workshop. It is likely that knowing more about the organisations helped but certainly meeting representatives from the regulators face to face and being able to interact and ask questions in a friendly supporting atmosphere was important.

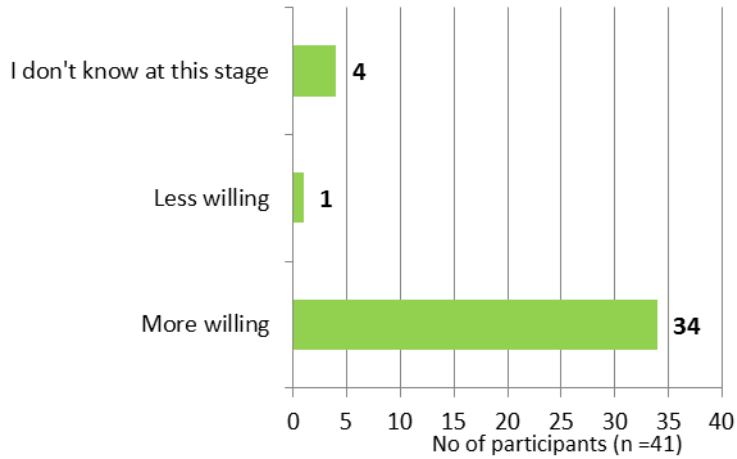
“Alan’s face just fits, jovial and personable. His humanity came across hugely, he’s not just doing a job.” Participant.

“Nice to have two humans from the regulators.” Participant.

3.6.4 Building confidence in the process of consultation

Participants were asked to reflect on the workshop and indicate if they were more willing or less willing to come to an event like it in future; to respond to public consultations on nuclear power issues.

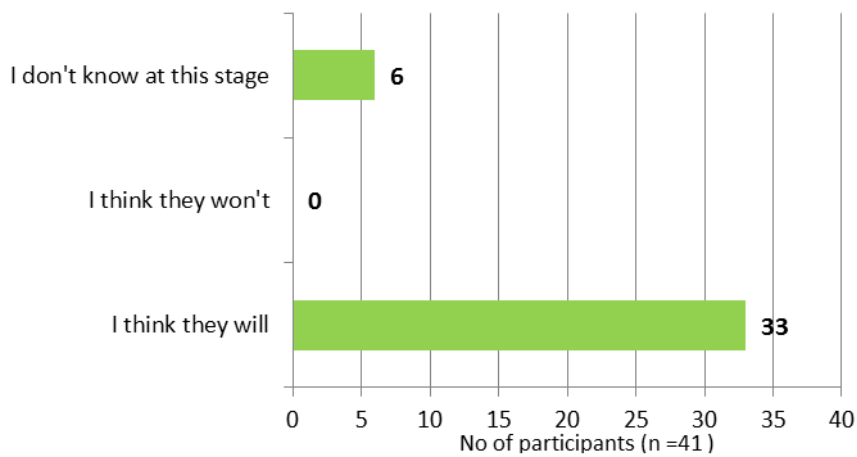
Combined first round workshops



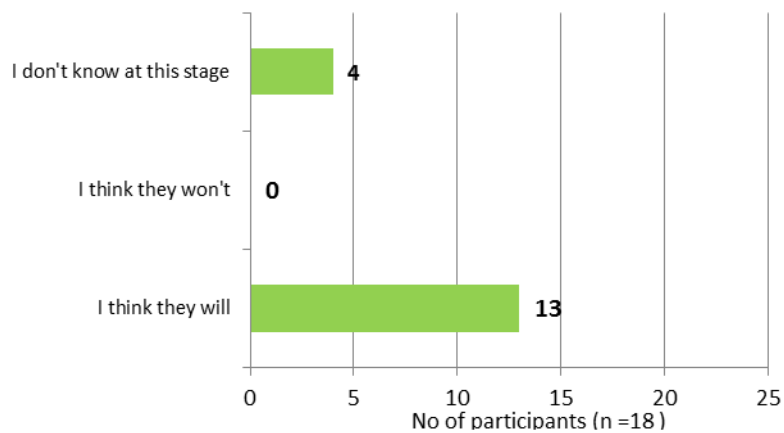
3.6.5 Impact of the findings

Participants were asked whether they thought the Environment Agency or NRW would take account of their views in the future planning around Nuclear Power Station design and regulation.

Combined first round workshops



Reconvened workshop



Learning points

- The respectful approach of facilitators and the wider team to participants (e.g. providing appropriate information in an understandable format, listening to comments and questions and responding thoroughly, good communication outside meetings) helped build commitment to, confidence in and engagement with the dialogue process.

3.7 The wider context

The process has clearly demonstrated that there is an appetite to see the bigger picture in relation to the new nuclear programme and to understand how it all fits together. Important work is being undertaken by the team to address this in terms of the materials developed for the 2016 GDA consultation. DECC will also have a role to play in designing and delivering engagement processes in relation to broader energy policy in general and nuclear power in particular. The team recognise that there is a need to explore linkages and synergies between the GDA consultation and wider participation in the development of nuclear policy that is led by DECC.

There is also a feeling that there will be considerable interest at ministerial level in any work that builds public confidence in the nuclear regulators. There is a role for Sciencewise to disseminate key findings to appropriate parts of government.

3.8 Unplanned impacts

There were a number of project impacts highlighted that were unplanned or unexpected.

The Wylfa (Anglesey) site proposals are much more advanced than the proposed Oldbury site therefore there was a much higher level of awareness and engagement with specific site related issues at the Bangor workshop compared to Cheltenham. Feedback suggested that the conversations at the Bangor workshop were inevitably more site specific than generic. The design of engagement processes need to take this into account. The further developed the local site plans the more site specific will be the focus of the engagement.

The involvement of the two PhD students from University of Central Lancashire worked out well. Their studies concern public and stakeholder engagement within the nuclear sector and it was widely agreed that their observations and challenges to the process have been helpful as part of the planning process. They are also currently working on a project to map the wider 'nuclear consultation landscape' that will provide a tool to support public and stakeholders understanding of the bigger picture and the participation and consultation opportunities available. They also gained good project experience and support for their studies. In this instance the opportunity worked out well for all concerned and clearly there may be similar possibilities for future initiatives however there's no guarantee that the same dynamic and relationships would be replicated.

There was **genuine enthusiasm** for the process from all involved in the PMT and OG. The team worked well together and will leave a positive legacy in terms of support for public dialogue in other areas of the regulators' businesses.

It was surprising and welcome for some of the regulators that a sample of **the public**, with no previous connection to the nuclear industry, could be **so interested and engaged** in the issues and, within a very short period of time, be asking pertinent questions and making useful comments on the GDA consultation process.

Learning points

- There is a need to explore linkages and synergies between the GDA consultation and wider participation in the development of nuclear policy that is led by DECC.
- It is challenging to maintain dialogue at a generic level if the communities being consulted will be affected by plans for site development close to where they live.

4. The dialogue process

This section considers the work involved in designing, delivering and reporting on the dialogue process.

4.1 Recruitment to the workshops

Feedback from PMT members suggested that recruitment could have been improved for the round 1 workshops. In Cheltenham some concerns were expressed that a small number of participants lived/worked too far away from the proposed new nuclear power station site at Oldbury and this was not in line with the agreed criteria of within 25 miles of each proposed site. The geographical spread of participants was also limited.

There was also some concern expressed from a number of respondents about the selection process for participants who attended the Bangor workshop. These included the low number of Welsh speakers when compared to the percentage that would be expected if the selection had reflected the local population. Other feedback suggested that there were too few 'local people' (although length of residency was not a selection criteria), no farmers and that the sample over emphasised younger and older people with fewer middle aged working people.

The sample size for all workshops was good and worked well in a dialogue workshop setting.

Learning points

- The recruitment process was generally good, enabling a broad sample of non-aligned members of the public to be selected for the workshops. This is however, an area that could be improved, for example, there was some concern expressed about the low number of Welsh speakers at the Bangor workshop in relation to the percentage of Welsh speakers in the local population and concerns about the geographical spread of participants for the Cheltenham workshop.
- Specific sampling requirements (e.g. percentage Welsh speaking, specific occupational sectors, specific geographical locations, length of residency etc.) need to be agreed by PMT and included as clear recruitment criteria.

4.2 Location and timings of the workshops

The location and timings of the workshops worked well and there were no significant issues. Some feedback suggested that the venue in Crewe for the reconvened session could have been better if it had been more of a dedicated workshop space rather than a hotel function room. There was also

some miscommunication about the start time for the Crewe workshop which resulted in participants arriving an hour early.

Learning points

- The workshop venue can make a significant contribution to the ease of set up and facilitation and should be chosen carefully in collaboration with the facilitation team.

4.3 The design of the dialogue process

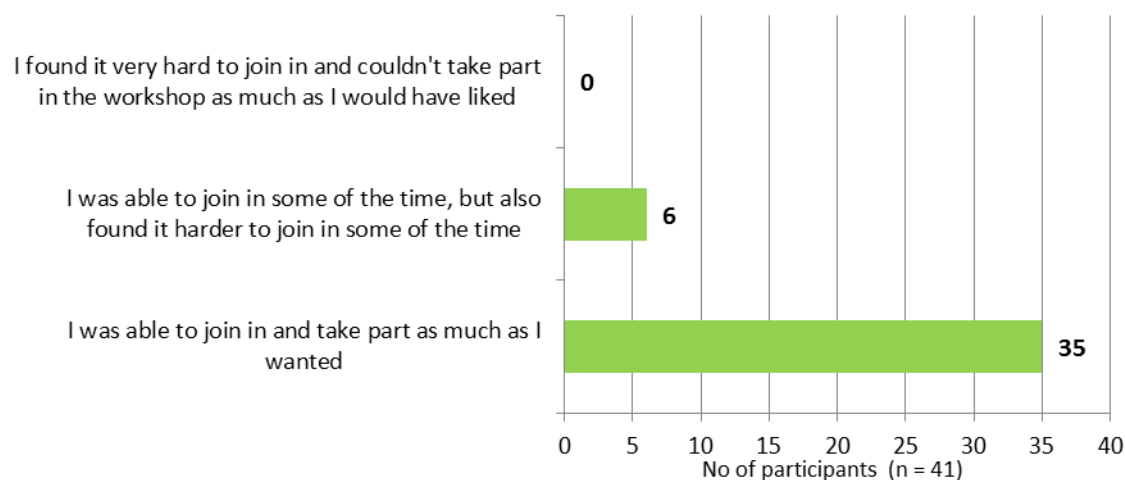
There was broad agreement across the PMT, OG, facilitators and the participants that the ability of participants to engage with the topic exceeded expectations. The success of this engagement was largely due to careful process design and management which exhibited a number of key elements.

- **An experienced facilitation team** who understood the brief, communicated well with the Project Manager, PMT and OG and designed a clear structure and progression from first to second round workshops. The facilitation overall was of a high standard and created a friendly and constructive atmosphere. The facilitators were demonstrably independent of the regulators and OG representatives (they were clearly running the workshop) while bringing in specialists and experts from the regulators to provide technical content.
- **Carefully selected 'experts'** who were well briefed in terms of the style, tone and content of their input.
- **Demonstrable commitment** to the process of dialogue across the team. The meetings felt positive and the 'team' wanted to be there.
- **One team approach.** Annabelle Lillycrop, as Project Manager, was very good at creating an inclusive feel to planning meetings and delivery.

4.4 The ability to take part

The majority of participants indicated that they could take part and contribute as much as they wanted. Those interviewed specifically liked the time allowed and the ease with which they could ask questions and get responses pitched at the right level.

Combined first round workshops



“The facilitators made sure that everyone had a voice. We also worked in small groups and wrote down ideas which made sure all points were covered. The Regulators were keen to answer our questions.” Participant.

“Everyone was wearing name tags so people were spoken to directly.” Participant.

“The facilitators were very good at drawing people out and completely non-judgemental so there was no barrier to expressing one’s opinion/showing one’s ignorance.” Participant.

The following helped participation across the 3 workshops:

- A comfortable, relaxed, welcoming and safe environment created; no pressure to comment but plenty of opportunity to do so.
- Participants' views were confirmed and written down. This built confidence in the process.
- Technical aspects of the nuclear power process and GDA were explained well. There was particular praise for the Environment Agency’s input.
- The structure provided an opportunity for everyone to speak. No question or comment was deemed too basic or irrelevant.
- The facilitators enabled everyone to have a voice.
- The wearing of name tags was useful so that everyone could be spoken to by name.
- There was a non-judgemental approach by facilitators and presenters.
- Questions were perceived to be answered openly and honestly.
- Facilitators had a good structure to move things on but were not pushy or intimidating.

4.5 The balance between information and dialogue

It was a significant process design challenge to achieve the optimum balance between providing the necessary information about nuclear reactor design and the process of GDA while retaining sufficient time and opportunity for meaningful dialogue and comments from participants. There was wide agreement that this balance was handled well in terms of judging the necessary content and quantity of the technical input, how it was communicated and the time and structure allowed for dialogue and feedback.

There were a number of key design elements that helped:

- Good communication, planning and briefing between the regulators’ technical presenters and 3KQ. Presenters from the Environment Agency and ONR knew what was expected from them and the required style and tone of presentation.
- The role of each of the organisations involved was clearly explained to participants. It could have been overwhelming with representatives of the three regulators, evaluators and members of the OG attending.
- Considerable work was put into the presentations by the technical experts to ensure the information to be communicated was relevant and could be clearly understood. Good, large diagrammatic representations were particularly successful.
- Short focussed sessions throughout the day so that interest was maintained.
- The risk of providing too much technical information was recognised and a more ‘elicitive’ approach was used to good effect. Participants were encouraged to ask questions that then identified the areas where they needed to know more.

- Specific requests for more information at the reconvened workshop were handled well; for example, participants were keen to know more about the management of nuclear waste and security issues.
- Analogies were an excellent way of communicating technical processes and concepts. In particular there was positive feedback from participants about the way in which Alan McGoff (Environment Agency) used easily understandable analogies and comparisons with everyday processes such as a boiling kettle to explain technical details (see 4.6.1 below).
- Personable people who could communicate well with the public were crucially important. Participants fed back very positively about the whole team involved and the way in which they treated the group with respect and created an open and friendly atmosphere.

“Alan was excellent at explaining nuclear fission.” Participant.

“The knowledge of the EA and ONR was excellent and gave me a complete understanding of all subjects covered.” Participant.

“Brilliant, it was very enlightening, the approach was very friendly. A lot of information, was accessible and freely given.” Participant.

There was very positive feedback about understanding of the issues with the majority of participants having enough information at the right level to contribute effectively. No one indicated that they didn’t understand the issues and related discussions. Particular mention was made of the large amount of knowledge gained from the start to the end of the workshops. The presentations in general went down very well and they were considered thorough, clear and pitched at the right level. The presentation about the process of ABWR was very successful. Some participants fed back that they would have liked more technical information but accepted that the balance was about right given the different levels of understanding and experience of participants.

There was a suggestion from the facilitation team that they could have asked participants to do some preparatory reading in advance of the reconvened workshop to reduce the amount of information that needed to be communicated within the workshop. This may have helped but there would have been no guarantee that everyone would have had time to do this in advance of the session.

Learning points

- Selecting technical experts who are committed to participation, can communicate with non-technical participants and are prepared to invest time in thinking through and preparing appropriate materials is crucial to the success of workshops such as this.
- Do not overwhelm participants with technical information. Better to cover the key issues but make sure there is time allowed and encouraging mechanisms put in place for discussion and questions. Participants can then find the level of understanding they need.

4.6 Specific techniques and approaches used during the workshops

4.6.1 What worked well

Analogies - Participants liked the analogies and relating technical information to things that were easily understandable – like a kettle, as big as a bus, the same as a banana (re. emission of radiation). It is a simple device but requires some thought and planning to adapt presentations for lay participants. Alan McGoff fed back that to help ensure that his presentation style was casual and the content was user friendly a lot of thought went into developing this approach; selecting appropriate analogies and deciding what technical information to present and importantly what to leave out. What was fun and casual took considerable time and effort to prepare. Communicating basic technical and GDA process information was crucial in these workshops as any blockages in understanding waste precious dialogue time or leave a proportion of people behind and effectively lose their participation and input.

The degree of trust exercise - In the 1st round workshops participants were asked to ‘dot’ a chart to indicate the level of trust they had in the institutions involved in regulation and GDA. They were then asked to repeat the same exercise at the end of the workshop. This was felt to be an excellent method to demonstrate the impact of the dialogue process on levels of trust. Feedback suggested it would be good to replicate this exercise in other dialogue processes using the same scales of trust so that findings could be aggregated across projects.

4.6.2 Process challenges

Focussing on GDA - As already noted a significant process challenge was in keeping participants focussed on GDA consultation issues while communicating where GDA fitted into the wider ‘nuclear landscape’. It was a fine balance to tread with the risk of getting side-tracked by much broader questions and challenges about the nuclear new build programme and nuclear power in general. This was managed successfully in large part however there was feedback from some participants and PMT members suggesting that inviting any questions at the start of the first round workshops was counterproductive.

“It was pointless to invite questions at the beginning and then go through them at the end when they had already stated they probably couldn’t answer them as it was not their area of responsibility. This meant the day dragged on, and could have been shorter.” **Participant.**

“Opening up the meeting with any questions opened a can of worms, once opened up we couldn’t put them back in.” **PMT member.**

It may have been more time efficient to have had prepared a ‘big picture’ map of nuclear new build to show where GDA fitted in and the scope of this dialogue. Questions could have been taken but immediately sorted into different categories of relevance. If there was limited time to address the wider issues, outstanding responses could then have been fed back after the first round of workshops.

The ONR ‘talking heads’ video clips - The intended purpose was to give some insight into the roles of staff within a regulatory organisation and to test whether similar methods may be appropriate for the GDA consultation. Feedback indicated however that participants thought this method of communication didn’t work particularly well. The clips were not made specifically for the workshop, the people talking on film were not directly addressing the participants. Overall participants couldn’t see the relevance of using this tool within a workshop setting.

Development of materials to pilot in advance of the workshops - The facilitation team fed back that they were surprised that there were not more worked up drafts of consultation materials available

in advance of the dialogue process. This, they felt, would have allowed more to be achieved within the workshops by providing an advanced starting point to test out ideas and changes to materials, informed by the experience and evaluation of the previous GDA.

Managing group interaction - During the workshops there was a good balance between whole group presentation, plenary and smaller group working supported by a facilitator (generally splitting the group in two). There was no substantive swapping of people out of the groups that they were allocated to during the morning session (apart from briefly for the e-communications discussion in the reconvened workshop). The energy and focus could have been improved (especially after lunch) with a re mix of people and/or a change of format. People were generally in the same seat, next to the same people all day. Even having split the whole group into two, the smaller groups were still fairly large and some people did drift out of the conversation for periods. Although facilitator and note takers would have been stretched, a little more variation in group sizes and mix of participants could have kept engagement higher and more energised during the afternoons. It may have been possible, for a few short sessions, to split groups down to smaller numbers with very specific questions to address and self-record.

“Generally the presentations and then smaller groups of around 10 worked well. You could have perhaps split the groups down further into groups of 5 to get more participation out of those not participating as there were fairly large tables. The more confident could be seen to be participating more with the quieter not contributing so much”. **PMT member.**

Recording of the workshop discussions and comments - Recording was detailed, accurate and well done by 3KQ. The majority of this recording was undertaken through two scribes making notes on lap tops in both the plenary and discussion sessions. Although thorough, this way of working does have some challenges associated with it, in that participants can't see what is recorded so don't necessarily have the confidence that their point was captured. The visual prompt of having key points displayed is lost and so it is more difficult to refer back to and build on previous ideas. Flip chart recording of key points and the displaying of sheets addresses these points but may lose the detail of the conversation if used in isolation.

“The Flip chart record is particularly of value when you're trying to seed ideas. When people are working creatively they see their idea written down and then it is there as a point of reference and people can build on it.” **PMT member.**

This recording challenge was recognised in advance by the facilitators and, due to resources available, a decision was made to collect the majority of feedback through the lap top recording method.

Learning points

- Make sure that all participants understand the minimum necessary before moving on. If there are any individuals who have a gap in understanding it will reduce their ability to participate.
- The 'levels of trust' exercise could be used across dialogues to provide aggregated data to demonstrate impact of dialogue processes.
- Use 'talking heads' video clips with caution. If used they need to be directly relevant, address the specific participants and be deemed to be a better method than others available (e.g. using the people in the room to present information). They may be useful in online consultations.

- A little more variation in group sizes, methods of interaction, recording and mixing of participants would keep people engaged. There is recognition that this would require certain facilitation and note taking resources to be in place.

4.7 Continued engagement

There was enthusiasm from some participants to continue their involvement in the process beyond the workshops and to help disseminate the findings and information to others in their communities.

Learning points

- It is worth considering in advance whether there are opportunities for participants to continue to be meaningfully involved in the consultation process if they have indicated a willingness to support the dissemination of information within their own communities.

4.8 Using the Welsh language in the Bangor workshop

For the majority who attended the Bangor workshop it was thought to have worked well and was useful and necessary.

“It was fine, as a Welsh speaker I was concerned the technical content would be challenging but I used the headphones once, and it was fine. The facilitator who spoke in Welsh was very clear and used plain and simple language which was easy to understand”.

“Would have liked the presenter to give a warning...‘I’m going to speak Welsh now’, to allow for time to put the headphones on, as by the time I had found my head set and got it on, I had missed some of it. The translation was excellent and clear, just needed a bit more time to get the kit sorted each time”.

4.9 The National Scoping Survey

This survey was undertaken at the start of the dialogue process, aiming to inform and support the design of the local dialogue workshops. The sample of respondents was generated to match as closely as possible the quotas within national census data from 2011 regarding geography, age and gender. The one exception was Welsh respondents, which were purposefully over-sampled to ensure a good representation. The findings from 401 respondents developed an overview of national attitudes to the regulation of nuclear power and the assessment of a new reactor design.

It was widely seen as a cost effective and useful exercise by the PMT and OG and gave an insight into dimensions of GDA and engagement on nuclear energy more generally by engaging with respondents beyond the 25 mile radius of a proposed site. Of particular interest to PMT and OG members was the question relating to how respondents would most like to be involved in the assessment of a new reactor design. Interestingly, a majority were either not interested (just over 25%) or would prefer just to look at a website for information about GDA (nearly half). It showed that a wide spectrum of approaches will be needed in the GDA consultation from interactive face to face (most probably within the communities close to proposed sites) to the use of engaging web based information and surveying. It also provided a useful attitudinal baseline should regulators ever repeat the exercise.

One improvement suggested that survey question 11 could have explained more clearly what is meant by 'management arrangements'.

4.10 Analysis and reporting

It was widely agreed that the analysis and reporting of the workshops was useful, complete and of a high quality and was completed quickly and efficiently by 3KQ. The final 'wash up' meeting in September 2015 provided an additional opportunity for discussion and comments on the final reporting from across the team.

Learning points

- Ensure that the language used in survey questions is clear and meaningful to people who may be unfamiliar with the topic.

5. Inputs to the dialogue process

5.1 Project resources

The overall project budget was £112,840. This breaks down as follows:

- Funding from commissioning agent and others – cash, £15,000.
- Funding from commissioning agent and others – in-kind, £41,840.
- Co-funding from Sciencewise - £56,000.

The project manager estimates that across the Project Management Team around 1000 hours was put into the initiative. The project also received additional Sciencewise Dialogue and Engagement Specialist time to facilitate two findings review and implementation workshops.

Overall, feedback from across key stakeholders, indicates a high level of satisfaction in terms of what has been achieved for the time and resources invested. The guidance provided for the GDA consultation has been very useful and significant additional value is likely to be generated through the wider learning that is being disseminated to the broader nuclear industry and other sectors that have the challenge of complex and technical engagement patterns.

An unsuccessful application was submitted to Sciencewise to extend the initiative by one further public workshop with the intention of 'road testing' the emerging consultation materials. This would have helped to fully satisfy the third project objective which aspired to develop and pilot consultation materials. Although this did not take place, the PMT feel confident that they have sufficient insight into public opinion to produce effective consultation materials. This process of analysis and development is currently underway, directly informed by the PMT 'implementation workshop' that took place on 27th August 2015 (see 3.2.1 above).

The project has also gained considerable value from the input of expertise through the Oversight Group who have given considerable time and expertise at minimal cost to the project. Significant benefits have also accrued through the involvement and advice from two PhD students (see 3.7 above).

5.2 Project management and governance

There is strong agreement that the inputs to the project provided by the different strands of management and governance have worked extremely well together and to good effect. There is significant praise for Annabelle Lillycrop as Project Manager for her expertise in keeping all the different project elements and people working well together and the positive and enthusiastic way in which this was done. She has enabled the PMT (and the three regulators represented), OG, facilitation team, Sciencewise and evaluators to work as a cohesive whole, each drawing on their own strengths. All feedback indicates that communications have been excellent and everyone involved has been kept well informed of progress, tasks and deadlines. In addition, an important 'line of sight' has been maintained to the Environment Agency's Nuclear New Build Programme Board that has representation from all the regulatory partners.

"It was exemplary in terms of the way things were held together by Annabelle." **PMT member.**

Across the PMT and OG there was enthusiasm (or at least an open mind and a willingness to contribute) for the project and the potential value of public consultation. It was also pointed out that attention was paid to making the process enjoyable with opportunities to get to know other people across the wider team. The process of management went beyond the transactional and managerial and very much benefitted from this approach. This inclusive behaviour clearly spilled over into a positive feeling within the workshops themselves and helped create the inclusive and friendly feeling described by participants.

"Very well managed, a tough task. Everything aligned. A good balance between achieving the objectives and the process of the public feeling involved. It was light hearted, open, interpersonal. Not just boffins giving talks – excellent management." **PMT member.**

"We made the process, the dialogues and meetings, as much fun as we could. For example, meeting for dinner before dialogue meetings all good to build a positive culture and make sure that the positivity and willingness to make it work flows into the dialogues themselves. This spill over helps delivery and everyone feels part of it; the participants too." **PMT member.**

Just a couple of management changes were suggested for future reference. The Project Manager suggested that representatives from ONR and NRW should attend the OG meeting so that all partners would hear their views first hand rather than just the Environment Agency as lead partner. A tighter PMT focussed just on this project may be useful from the facilitators' perspective as the existing PMT was addressing wider issues than the Sciencewise dialogue project which put time pressure on the interaction and decision making that the facilitation team needed.

Learning points

- Looking after the people involved in the project has been an important principle that has been paid attention to throughout the process, not only with regard to the public participants but also in maximising the opportunities for the PMT, OG, facilitators and evaluators to work well together. This has paid dividends and certainly helped bring commitment, energy and a positivity to the process which in turn has supported the achievement of project objectives.

5.3 Evaluative input

Feedback suggests that the interim evaluative reporting has been useful in a number of ways.

- Providing a summary of participant feedback sheets immediately after each event.
- The two Evaluation Learning Bulletins have provided more formative analysis and learning.
- It is important for Sciencewise to have each dialogue independently evaluated as it provides learning and value across all their projects and credibility to each initiative.

Challenges identified included:

- Aligning formative reporting with PMT and OG meetings. The timescale for evaluation data analysis, participant interviews and reporting has been very tight in terms of providing interim dialogue bulletins for consideration at key management meetings. These bulletins have been circulated before key meetings but with limited time for PMT and OG members to appraise the reporting.
- The overall process was relatively short and so a more formative evaluation approach had limitations in terms of the ability of the PMT and facilitators to make significant adjustments as the project proceeded.
- Due to budget limitations the external evaluator has only been able to attend one of the PMT/OG meetings. Attendance at a mid-point management meeting to present interim evaluative findings may have been helpful in supporting on-going planning and decision making. There would have been a better opportunity to explain, discuss and contextualise evaluative input.

Learning points

- Consider the timing needed for better alignment of formative evaluation input with key management meetings.
- Consider how best to feed in and discuss interim evaluative findings at an appropriate project mid-point.

6. Conclusion

This has been a successful initiative; well-designed, delivered and managed, generating a substantial amount of learning which is currently being assessed and applied to the design of the GDA consultation process due to take place in 2016. There is also substantial potential for wider application and learning across both the nuclear industry and wider sectors where there is the need to engage with the public and other stakeholders in relation to complex technical issues.

Key areas of learning include the importance of carefully designing and managing the relationship between the process elements that provide accessible introductory information, build trust and respect between the public and regulators and offer the opportunity of a flexible approach that enables the public to determine the level and parameters of their participation in the decision making process.

It will now be the task of the PMT to draw on the findings and learning from the public dialogue and, within the resources available, design and manage the consultation on their assessment of the design of Hitachi-GE's UK Advanced Boiling Water Reactor.