

## Annex A: Dialogue and evaluation approach and methods

### Core management team

- Between April and September 2022 the core project management team included a 2-person BEIS team, a UKRI representative, Sciencewise Deliberation and Engagement Specialist (DES), the contractor project managers (NatCen and Eunomia) and the independent evaluator. Others from BEIS, NatCen and Eunomia attended as appropriate.
- NatCen led the design and delivery of the public dialogue, working with Eunomia who provided subject specialist expertise for the design and delivery of background information shared with participants in plenary. Participants were recruited via a specialist agency.
- BEIS contributed an estimate £36K worth of in-kind time through a full-time BEIS project manager responsible for overall coordination – including the Oversight Group - and a biomass specialist who also presented at the workshops. A further 6 members of the biomass team took part in a workshop with the contractors to develop stimulus materials on sustainability and BECCS. They also all attended at least one of the workshops as silent observers.

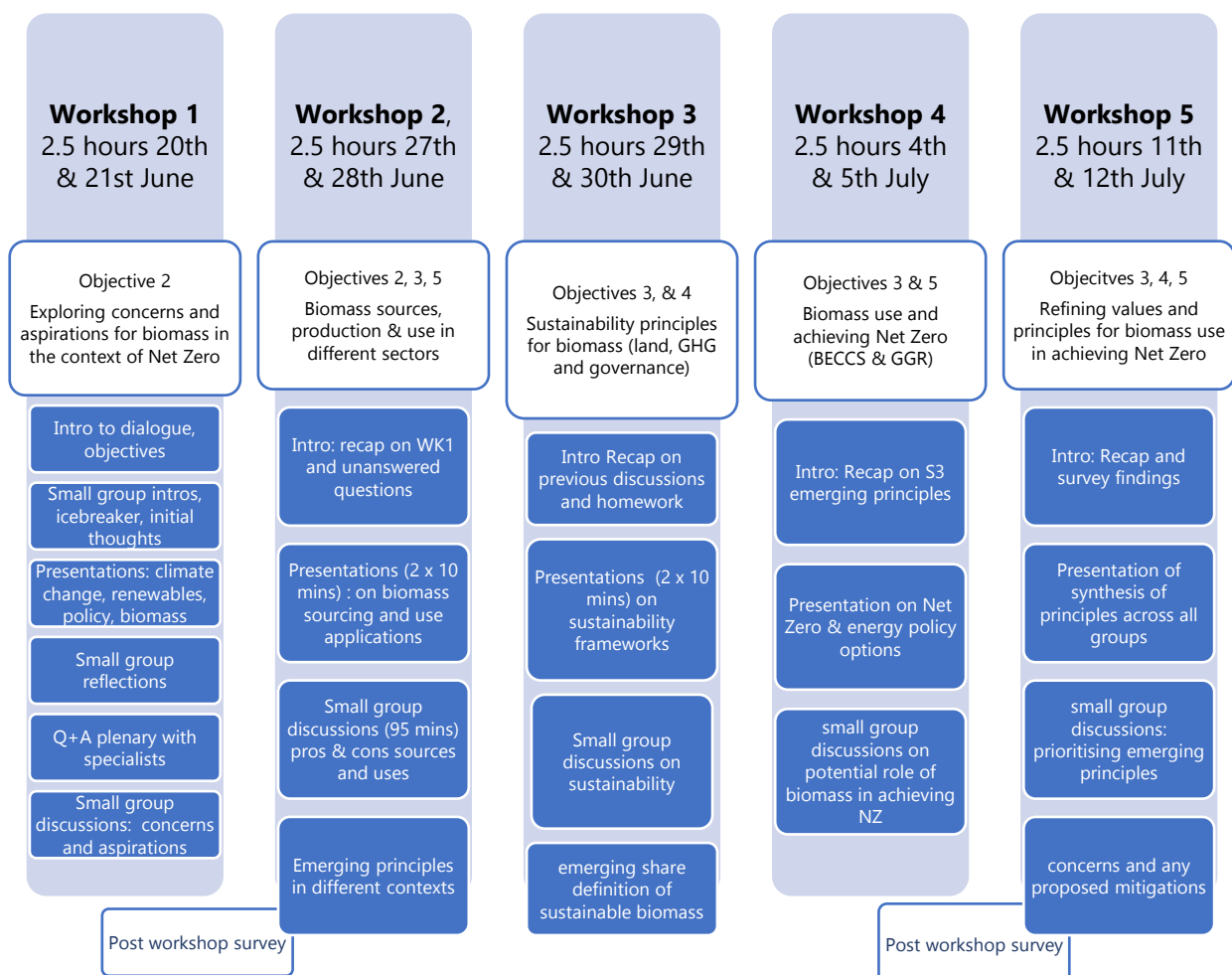
### Oversight Group

- A 10-person OG, Chaired by Mirjam Röder of Aston University, brought together a good mix of senior individuals including academics, environmental NGOs, those with renewable energy sector interests and a government department (Defra). The wide ranging perspectives on bioenergy and biomass represented contributed to lively conversations. Several individuals brought helpful experience with public dialogue and/or public engagement on biomass/bioenergy topics. Four members took part as specialists in the public workshops.
- Via four online meetings, the OG was able to help shape the dialogue at different stages:
  - OG1 – 4<sup>th</sup> April - 8 attendees discussed the terms of reference for the group, challenged the overall framing and how the findings would be used and made suggestions on key diversity characteristics they would like to see in the public participant sample.
  - OG2 – 18<sup>th</sup> May – 9 attendees reviewed the high level design for the five dialogue workshops and commented in detail on workshop 1 design and stimulus. The group's detailed comments on framing, balance and accuracy were logged by BEIS and a summary of how the design team responded was shared at OG3.
  - OG3 – 8<sup>th</sup> June – chaired by sub-chair, Naomi Vaughn of the Tyndall Centre, UEA. 5 attendees provided feedback on detailed designs for workshops 2, 3 and 4 and suggested topics for workshop 5. Careful pre-briefing meant this was a really constructive session providing many useful suggestions (including for diverse representation of specialists).
  - OG4 – 4<sup>th</sup> October – discussed the emerging findings (presentation and review of an early draft of the report and executive summary), how evaluation findings could be shared with the participants and OG members and how dialogue findings could be disseminated.

## Research and design of information to be shared with participants

- Eunomia conducted a rapid evidence assessment (REA) and 10 stakeholder interviews with academics, NGOs and representatives of the biomass sector to get even wider views and to inform the development of dialogue information materials.
- A selection of the stimulus materials were piloted at a two-hour online stakeholder workshop (14 attendees – 7<sup>th</sup> June) to test the stimulus materials on sustainability criteria for biomass and BECCS as a GHG removal technology (expected to be the two most contentious areas) for accuracy, balance and accessibility. Views ranged from very pro to sceptical about the role of biomass in the context of net zero and stressed the need to explain the differences between local and imported supply chains and the carbon capture and storage aspects of BECCS.
- Outputs from both activities fed into a set of PowerPoint materials presented by Eunomia during plenary sessions in each workshop as summarised below. Participants were able to access all materials to review them via a microsite on the NatCen website.

## Workshop design to meet dialogue objectives



## Participant recruitment

- Participants were recruited by the specialist agency, Propeller, to quotas agreed with the core team and following comments from the Oversight Group. The target was to recruit 120 for 105 to complete all workshops. The quotas were to be broadly representative of the UK public (age, gender, ethnicity and political views based on recent voting patterns) with additional quotas for disabled participants and those experiencing fuel poverty. A screening questionnaire was also included on attitudes towards climate change and support for the use of biomass as a renewable energy source.
- In order to capture lived experience of 'affected' communities, about 30% of the sample was recruited from postcodes in the vicinity of major biomass production (growing of energy crops) or use sites (e.g. industrial heat or power, biofuels or BECCS power stations).

## Detailed workshop design

- Participants attended five 2.5-hour (12.5 hours in total) of online workshops (Zoom) on weekday evenings over a four week period. They each received a staggered incentive payment (£250 for attending all five workshops) so that no one who wished to take part would be excluded for financial reasons.

## Recruitment of specialists

- Eunomia staff presented introductory 'neutral' materials on biomass sources, uses and BECCS and OG, stakeholder group and BEIS biomass team made suggestions for additional areas/types of specialists needed. Eight specialists including BEIS staff, OG members (4) and other academics, biomass industry representatives and ENGO spokespeople presented at workshops 1, 3 and 4 (see Annex B).

## Dissemination event

- BEIS, Natcen and Eunomia hosted a 1-hour webinar in February for cross-Whitehall policy makers. A description of the process and the headline findings was shared with 38 attendees.

## Evaluation approach

The evaluation has combined a formative with a summative approach.

- The lead evaluator contributed formative inputs via: review of materials; participation in regular project team meetings; attending OG and stakeholder meetings; observing facilitator pre-briefings; feedback on observations at dialogue wash up meetings with the facilitation team and to the core team meeting following workshop sessions.
- For each of the 10 workshops, two URSUS evaluators took part as silent observers, sitting in a small group of 6-7 participants for the entire session. For workshops 1 and 5 we observed groups of 'affected' people. As groups were mixed up we were able to observe all 100+ individuals at least once over the course of the 5 sessions.
- We collected quantitative and qualitative evaluation feedback from participants at the beginning and end of the process including through formative questions after workshop 1 (111 responses) which informed minor amends to the design, and a summative survey emailed to participants by NatCen after the final workshop (104 responses).
- The final report has incorporated feedback from one-to-one discussions with members of the core team, desk review and responses to an online survey by OG members after the publication of the dialogue report.

## Annex B: Contributors to the public dialogue

### Oversight Group

Name	Organisation
<b>Mirjam Röder (Chair)</b>	Aston University
<b>Leanne Williams</b>	ADBA
<b>Jonathan Scurlock</b>	National Farmers Union (NFU)
<b>Mark Somerfield</b>	REA, Association For Renewable Energy and Clean Technology
<b>Emily Cox</b>	Cardiff University
<b>Naomi Vaughan (Vice Chair)</b>	East Anglia University
<b>Joanna Carew</b>	Dept for Environment Food and Rural Areas (Defra)
<b>Jo Furtado</b>	Worldwide Fund for nature (WWF)
<b>Duncan McClaren</b>	Lancaster University
<b>Mair Floyd-Bosley</b>	Royal Society for the Protection of Birds (RSPB)

### Stakeholder workshop attendees




Name	Organisation
<b>Mike Norton</b>	European Academies Science Advisory Council (EASAC)
<b>Christiane Scaldaferrri</b>	Committee on Climate Change (CCC)
<b>Imogen Cripps</b>	Wildlife and Countryside Link
<b>Karl Smyth</b>	Drax power station
<b>Laszlo Matthews</b>	Sustainable Biomass Program (SBP)
<b>Georgina Katzavos</b>	Carbon Capture and Storage Association (CCSA)
<b>Phil McDonald</b>	Ember (climate change think tank)
<b>Jack Rickard</b>	Bioenergy Infrastructure Group (BIG)
<b>Neil Watkins</b>	Energy Crops Consultancy
<b>James Saworth, James Reid</b>	Greencoat (renewables investors)
<b>Giulia Ceccarelli</b>	Anaerobic Digestion and Bioresources Association (ADBA)
<b>Patricia Thornley</b>	Aston University
<b>Matt Ball</b>	Ofgem

### Specialist contributors to the workshops

Name	Organisation	Topic covered
<b>Prof. Patricia Thornley</b>	Aston University	Biomass and Net Zero
<b>Dr Anna Mikis</b>	BEIS	Biomass sustainability criteria
<b>Dr Mirjam Röder Dan Taylor</b>	Aston University	Sustainability of biomass
<b>Mair Floyd-Bosley</b>	Royal Society for Protection of Birds	Environmental impacts of forestry based biomass
<b>László Máthé</b>	Sustainable Biomass Programme	Certification schemes for sustainable biomass
<b>Dr Nem Vaughan</b>	University of East Anglia	Potential role of BECCS in Net Zero
<b>Dr Nick Primmer</b>	Future Biogas	BECCS deployment to date
<b>Dr Doug Parr</b>	Greenpeace	Environmental impact of BECCS

## Annex C: Assessment of how the dialogue has met its objectives (✓extent achieved)

Objective		Comments
<p><b>1. To engage a diverse group of participants, broadly reflective of the UK public, in topic areas relating to the development of the Biomass Strategy.</b></p>	<p>✓✓✓</p>	<ul style="list-style-type: none"> <li>• <b>The mix of participants broadly reflected UK demographics for gender, age groups and ethnicity.</b> We also observed a good mix of starting attitudes towards climate change and support for the use of biomass as a renewable energy source which appeared to reflect latest <a href="#">BEIS PAT survey findings</a>.</li> <li>• <b>People with lived experience.</b> Reflecting literature review which showed that those living closest to biomass sites may have different attitudes from others, a third of the sample was recruited from 'affected' communities (defined by postcodes close to existing large-scale sources or uses of biomass). 31 'affected' people attended all 5 sessions. During workshops 1 and 5, 'affected' people were clustered in 5 small breakout groups so that their views could be disaggregated in transcripts. Their responses were also flagged in pre- and post-dialogue surveys so that they could be analysed separately. Other participants benefitted from hearing their views as they were mixed with other participants for workshops 2, 3 and 4. They enriched the discussions raising some concerns (air pollution, smell, and blight) and benefits (jobs) that others may not have considered, but in most respects their views by the end of the dialogue were not discernibly (quantitatively or qualitatively) different from other participants. Many participants commented on the value of being part of such a rich group: a few would have liked to hear more from those with lived experience.</li> </ul>
<p><b>2. To explore and understand participants' aspirations and concerns in relation to biomass sourcing (both domestic and imports), production and use across the economy.</b></p>	<p>✓✓✓</p>	<ul style="list-style-type: none"> <li>• Prioritisation exercises in small groups using coins helped each participant express a clear hierarchy of preferences for sources (and highlighted a marked preference for using waste/by-products with increasing concerns about more complex and international supply chains). Similar exercises explored aspirations and concerns around different biomass applications but with slightly less success: participants were keen to see biomass used for energy security but were less clear about non-domestic, transport or industrial uses.</li> <li>• Survey results (after workshops 1 and 4) confirmed qualitative discussions that, although participants saw some role for biomass in reaching net zero, their concerns mounted as they learnt more and explored the issues with each other and specialists. This trajectory was also confirmed in evaluation feedback: <i>"[I'm] more concerned about biomass in NZ than at the outset."</i> These findings mirror those from other qualitative research.</li> <li>• The dialogue report richly describes these findings evidenced by participant quotes and this is expected to be reflected in the chapter on public engagement in the Biomass Strategy.</li> </ul>

<p><b>3. To understand what values and perspectives inform participants' views in order to inform and help refine any future communications and engagement.</b></p>		<ul style="list-style-type: none"> <li>• From the introductory framing in the context of net zero, participants were almost unanimous in agreeing that strong action was needed on NZ. Many participants were hopeful that biomass could play a significant role. However, views were shaped by the prevailing economic and political context: war in Ukraine, energy security and rising prices, and turmoil in the Government. This translated into a scepticism about: the concept; costs/implementation; and whether biomass could contribute to NZ at the necessary scale which emerged as strong themes throughout the dialogue.</li> <li>• Despite a dedicated session in the final workshop, it proved difficult for participants to make strong recommendations to BEIS for future comms and engagement (Chapter 8) other than to highlight that the topic is not conducive to simple messaging and does need to be set in a wider energy systems and net zero context, with greater transparency about how biomass performs relative to other renewables (e.g. on sustainability, costs and carbon performance). Given BEIS's current focus on comparing BECCS to other carbon removal technologies, this suggests more work may be needed</li> </ul>
<p><b>4. To define conditions of use in relation to sustainability frameworks (including land, biodiversity, environmental impacts, ecosystem services, emissions and social criteria) to help shape policy development in this space.</b></p>		<ul style="list-style-type: none"> <li>• Workshop 3 was designed to build from thinking about sustainability issues in general to focusing in on the BEIS sustainability framework. Many of the participants' concerns had already surfaced in workshops 1 and 2 (environmental impact, biodiversity, ecosystem services etc.) and also came up in discussions about BECCS (workshop 4). Social and local economic issues also surfaced, aided in some groups by the presence of 'affected' participants (who had experienced air quality, smell, blight etc.). Small group facilitators were able to pull out key themes on an interactive whiteboard which were then analysed to identify six broad principles played back to participants during workshop 5. Participants were happy to interrogate and endorse them with some minor amendments to clarify meanings. These principles are likely to be reported on and woven through the Biomass Strategy.</li> <li>• However, carbon accounting proved more complex: presentations by government and industry specialists were too technical and most participants found the ENGO contributions more accessible/compelling. Although participants were not able to input in detail, as BEIS had initially hoped, they did reach general conclusions, with many expressing concerns that carbon accounting was not comprehensive or enforceable.</li> </ul>
<p><b>5. To determine participants' views of using biomass, particularly through BECCS, as a negative emissions technology in achieving net zero, to inform policy development.</b></p>		<ul style="list-style-type: none"> <li>• A whole workshop (Session 4) was dedicated to BECCS allowing participants to hear a range of perspectives, including from sceptical NGOs. Nevertheless, discussions of both the GGR performance of woody biomass and concerns about CCS could have benefitted from more time so that participants could discuss the wider NZ context and GGR alternatives, as many wanted to. Findings generally chimed with those found in the DESNZ PAT survey and concerns and scepticisms are cited in the biomass strategy and its commitments to only supporting biomass power with CCS.</li> <li>• Participants appreciated the breadth of viewpoints from informants, advocates, scientist and lived experience experts and explored some CCS-related questions around safety (pipelines, explosions) and environmental impact (leaks and risks to marine life), but their key concerns remained those of the environmental/carbon sustainability of imported feedstocks and the implementation issues around what they expected to be major projects to develop unproven infrastructure.</li> </ul>

**6. To help shape other aspects of Government policy and guidance as part of the Biomass Strategy and inform future engagement.**



- The Biomass report explicitly cites the public dialogue, describes the overall process and what participants discussed in relation to specific aspects of biomass and their hopes and concerns. It reports on the underlying framings and principles for taking biomass forwards. The strategy also suggests how DESNZ will fill some of the information gaps identified by participants and commits to develop a strengthened sustainability framework with public consultation to be held in 2024. There is limited evidence that the dialogue has informed policy or research priorities outside Government yet.

## Annex D: Assessment of good practice in design and delivery

Good practice area	Assessment of design and delivery on basis of observation, participant and OG feedback
<p><b>The dialogue objectives were clearly understood</b></p>	<ul style="list-style-type: none"> <li>The overall objective - understanding what the public thinks about the role of biomass in the context of net zero and influencing the Biomass Strategy – was clearly expressed in each workshop. BEIS described the overall context in the introduction to Workshop 1 so that participants were clear that this included biomass in general (and not just bioenergy) and how they intended to take participants’ views into account.</li> <li>The majority (98, 88% of 111 respondents) reported they understood the objective and how BEIS would use the findings</li> <li>Most seemed to find this a satisfying sphere of influence – as BEIS made clear that no targets have been set for biomass share in NZ or as a % of energy generation yet.</li> </ul>
<p><b>Structure over five sessions allowed time to meet the objectives with enough time for deliberation in small groups</b></p>	<ul style="list-style-type: none"> <li>Reflecting the OG’s advice, the structure and design achieved a good balance between self-discovery, sharing information in small portions in plenary, and small group deliberations. Most participants felt this struck the right balance between hearing from specialists and discussions within small groups.</li> <li>The amount of time spent on the same prioritisation exercises within each small group cut into time available to discuss the wider context that many participants wanted to discuss. All small groups (about 16 across the two cohorts) carried out the same exercises in the same order. While this worked well to surface hopes and concerns, many participants struggled with prioritisation (partly because they lacked comparative information on costs and GHG performance). Some participants also noted “A lot of repetition in the questions in the breakouts.”</li> <li>In retrospect different groups could have looked at a smaller sub-set of options in detail (and the remainder on Engagement HQ site for those that were interested). This would have created more space in the workshops for wider contextual conversations, while still generating sufficient insights about priorities across the wider group.</li> </ul>
<p><b>Fair and balanced framing and information presented</b></p>	<ul style="list-style-type: none"> <li><b>The scope was ambitious with a great deal of ground to cover.</b> Participants generally seemed happy with the framing in terms of net zero, but many would have liked to be able to discuss biomass and BECCS alongside other renewables. As one participant pointed out: “Expert summaries of cost, risk, pros, cons etc plus potential to make a big impact on net zero should have been provided for biomass, nuclear, tidal, solar, wind, fossil fuel (with carbon capture and storage).”</li> <li><b>Most participants found the (mainly PowerPoint) information shared by the contractors clear, accurate, comprehensive and as neutral as possible.</b> Information had been prepared and presented by Eunomia, and reviewed by BEIS, OG members and stakeholders for accuracy and balance. After the first workshop almost all participants agreed (92, 83%) that the information shared was clear and easy to understand). A sizeable minority described feeling overwhelmed at different stages – particularly by the amount and technical detail presented by specialists.</li> <li>However materials lacked variety (partly due to tight deadlines for signing off content) and would have benefitted from using different formats such as videos (e.g. talking heads or images of existing biomass facilities), cartoons (e.g. taken from a graphic novel shared by an OG member) or simple animations to describe complex concepts such as carbon neutral/negative and carbon capture and storage would have been helpful.</li> </ul> <p><b>The Engagement HQ microsite proved a useful repository of information but could have added more value</b></p> <ul style="list-style-type: none"> <li>The majority of participants reported it had been a useful means of reviewing materials after workshops, but about a third cited access difficulties or lack of time between sessions as limiting factors.</li> </ul>



- Since each workshop was repeated on consecutive evenings, it would also have been useful to pre-record the presentations. This would have ensured consistency in what both groups heard and been a useful resource for participants to review in their own time if they wished to.
- Participants could also have been asked to carry out some homework tasks between sessions (e.g. splitting the prioritization exercises between small groups and individual deliberation). This may have required a slightly higher financial incentive payment, but most participants seemed sufficiently motivated to have completed tasks anyway.

**Many participants still had unanswered questions by the end of the process and would have like more detail in areas where they perceived gaps or that answers had been vague.**

- There may have been scope as one participant suggested for case studies since biomass technology already exists. With more time and budget this could have included video from existing plants or at least more photos.
- The microsite could have been used to share answers collated between workshops. *"More of the research participants questions and requests for information could have been answered (perhaps between the weekly sessions) to enable us to be better informed of pros, cons, cost, risk, benefits etc when asked (often) for our views on whether biomass should be used etc."*
- Eunomia and/or BEIS officers attending as observers could perhaps have played a more active role in answering technical questions raised in their small groups.

**Diversity of backgrounds in the group helped to enrich discussions and findings**

- **Participants appreciated the exposure to many others within the wider group:** *"Good sharing views and challenging and clarifying one another's."*
- **People with lived experience were able to introduce different perspectives.** We observed some 'affected' individuals able to share their experiences and others who were unaware that they lived near biomass sites. When 'affected' people met as a group (in the first workshop) some talked of personal experiences of pros (jobs) and cons (air, smell and noise pollution, economic blight) of living near biomass sites. As these individuals mixed in with other groups (workshops 2, 3 and 4) their concerns and hopes fed into the conversations. However, not all groups got to hear such views and some interviewees would have liked to see more made of the contribution (e.g. as specialists): some participants also identified this as a gap: *"[More] lived experience: Hearing from members of the public who live near Biomass plants."*
- **And their experiences and views were reflected in the overall principles/conditions about social and economic impacts co-developed during workshop 5.** By the end of the process, affected people's views (evidenced in small group discussions and quantitative survey responses) were not easily distinguishable from the overall group.

**Sufficient time for deliberation**

- For most participants, the overall amount of time and length of individual sessions felt about right. Most participants felt that the balance in time spent hearing from specialists and discussing issues in small groups felt about right (86, 82% of 104 respondents agreed).
- A sizeable minority of participants (7) commented that the 2.5 hour sessions on a weekday evening were too long: several suggested either the same time spread over an additional (sixth) workshop or to have one slightly longer session.
- One commented that, given the technical nature of the information, they would have preferred sessions to be more compressed – feeling that with a gap of a week between sessions they lost momentum.

### Respect for and engagement of public participants

- From the outset the logistics of welcoming people into the plenary and moving them into small groups worked well, leaving facilitators free to focus on creating a warm and welcoming environment.
- Almost all participants reported after workshop 1 that they felt comfortable and heard in their small groups (104, 93% agreed, 6, 6% neither agreed nor disagreed). They also almost all felt (101, 97% after workshop 1) that everyone had been treated with respect.
- Provision had been made to support those that needed help getting online but was not needed. As the topic was not expected to be emotionally triggering, no provision was made for participants to take time out or seek external support but we observed none was needed.
- Facilitators mainly managed to bring in quieter individuals and encourage a few more dominant personalities (often with quite a lot of knowledge of the energy sector) to step back.
- About 18-20 participants in each cohort brought lived experiences (living near or working with biomass). In the first session they were concentrated in 3 small groups and then mixed in with other groups for workshops 2, 3 and 4. Some participants would have welcomed hearing a bit more about the experiences of these individuals.

### Quality and depth of facilitation

- **Overall the facilitation of small groups (8-9 groups of 6-7 participants per facilitator in each cohort) was very good.** Team briefings before each workshop ensured that most facilitators had a good grasp of key concepts (NZ, carbon neutrality, sustainability etc.) and were able to use backchannels to ask questions or address technical issues when needed. Their role was clear (not expected to answer technical questions, and taking some visible notes but not simultaneous) and many had prior experience of Sciencewise dialogues. Participants almost unanimously agreed (98, 94%) that the facilitation had been independent.
- **Facilitation was effective but a few participants would have liked it to be more fun.** Although there was a lot to cover in each session, as participants became more familiar with the process conversations became more natural, building on each other's points and correcting notes taken on Miro where facilitators shared their screens. *"For quite a dry subject many of the facilitators could have been more skilled in getting the best out of the groups. There was only one over the course of the 5 sessions (a young girl) who really made it enjoyable."*
- **Notes made by each small group facilitator via a shared interactive whiteboard (Mural) created a useful pool of evidence to inform the detailed design of workshop 5.** The pooled notes gave an instant picture across each cohort of the areas of consensus and disagreement and in total over 500 individual benefits, concerns, questions and values were logged and analysed. Condensing these insights into six themes which were interrogated during the final workshop proved a very effective way of codeveloping principles/conditions that almost all participants recognised and felt comfortable with.
- **The whiteboard notes could also have been a useful resource for the lead designer (who did not rotate around all the small groups) to sum up what had been said and to pick out key themes in the final plenary of each workshop.** , to help participants to understand what others in the room were thinking and to identify some of the unanswered questions. In retrospect this could have been a good opportunity to acknowledge some of the issues facing participants (volume of information, conflicting views presented by specialists, perceived gaps in information) and to reinforce the important contribution they were making.

**Role of specialists worked well to introduce different perspectives, less well to share technical information**

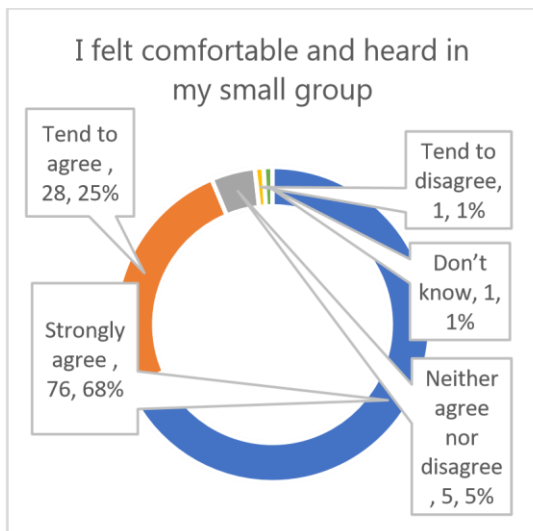
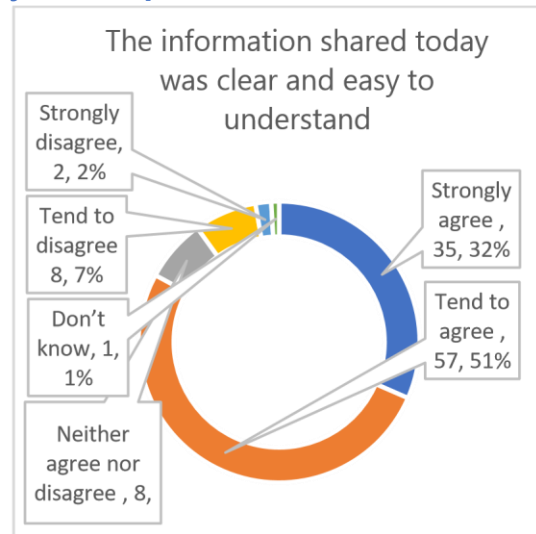
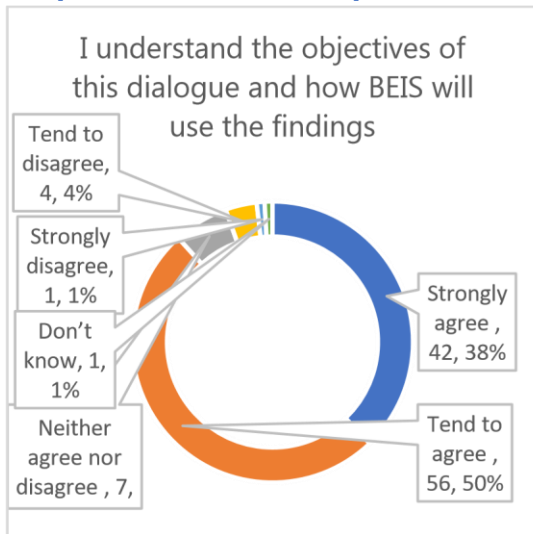
- **The attention paid to inviting a mix of carefully chosen individuals able to fill key gaps/missing perspectives (sessions 3 and 4) paid off. Initial invitations sent by BEIS helped ensure a good turnout.** Their role was to provide a range of perspectives, answer questions in a way that helped unlock discussions and to highlight where there were live debates.
- Participants felt they had heard a good range of views which they considered on an equal footing: most also felt that specialists had answered their questions in an open way without lecturing or selling their point of view. In evaluation feedback, many cited the variety of the views they'd heard as a highlight of the process: *".. session 4 when we heard both positives and negatives from experts from the scientific community as it was nice to hear different perspectives and opinions."* And *"Loved all the talks from the experts, especially Greenpeace."* And *"Hearing from the representative from the RSPB."*
- **Specialists had been pre-briefed, and some presentations were clear and easy to follow but others were too dense, relied on jargon and tried to convey more detail than participants needed.** We observed and participants shared evaluation feedback that these sessions often felt rushed and overwhelming. A large minority of participants commented that it would have been useful for specialists to have more time, more accessible materials (*"A few too many acronyms to navigate."*) and time to share and answer questions. During the workshops *"that's gone straight over my head."* Was a frequent refrain. And many felt they had tried to share too much information, too quickly. *"I did feel overwhelmed frequently by the amount of information we were having to take on."* *"At times there was too much information in a short amount of time – the presentations by the specialists felt rushed."* *"Some of the specialists' presentations were quite hard to take-in information from."*
- **Despite this, the majority (66, 63%) found specialists had answered questions in a balanced way and helped them feel more informed.** The small minority of participants did not feel fully confident that they had all the background information, and these tended to be the ones who felt overwhelmed with the information shared with them: regardless, evaluators saw these individuals making intuitive contributions to the overall principles during the last workshops.

**Recording the dialogue and capturing agreement, disagreement, and uncertainty**

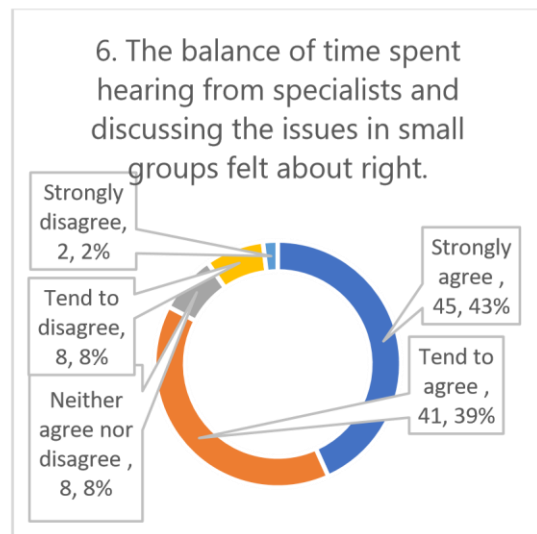
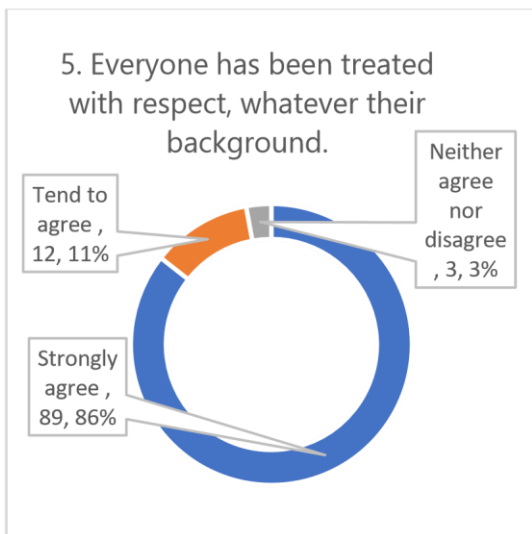
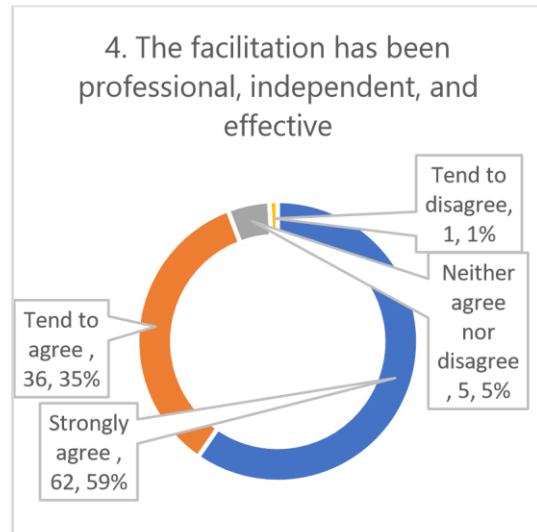
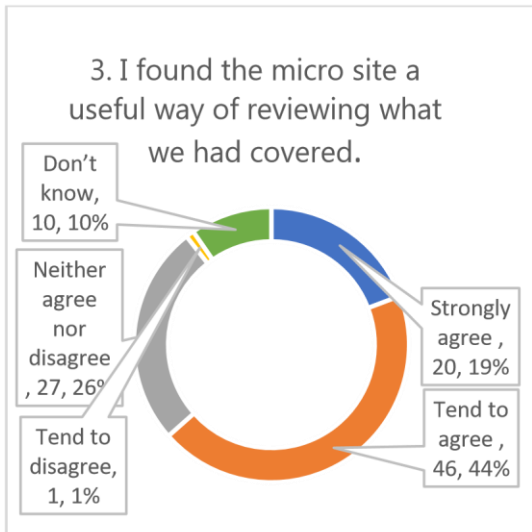
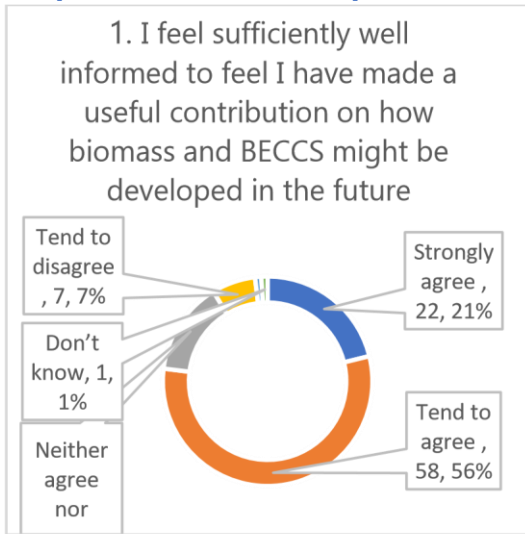
- All sessions were audio recorded and transcribed. Facilitators took notes on an interactive whiteboard (Miro) and in a spreadsheet for some sessions. This allowed the lead facilitator to get an overview of what was being said in each small group.
- There were few opportunities for participants to hear what other small groups or the overall group were thinking: this could have been done by summing up what facilitators had noted during sessions.
- The first draft dialogue report was a bit flat and descriptive rather than analytical and read more like a qualitative research report than a dialogue report. The chance to stand back from the analysis and pick out underlying values to help structure the report and findings added a greater sense of the dialogue as a dynamic process where participants' views developed in the light of information provided and through negotiating with others in their groups.
- The draft final report (November) is well-written, nicely designed and with a richness of findings that BEIS is likely to find useful in drafting the Biomass Strategy.

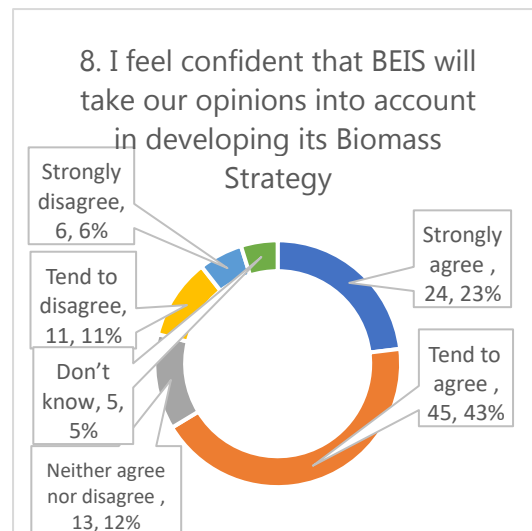
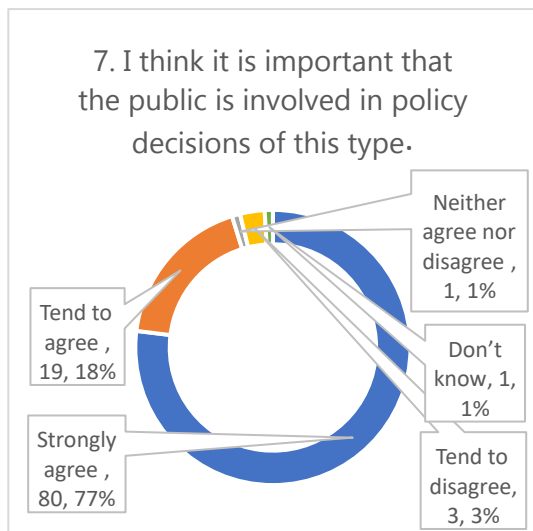
## Annex E: Evaluation feedback from participants

### Responses after workshop 1 via NatCen survey (111 respondents)



Responses after workshop 5 via NatCen emailed survey (104 respondents)





**What, if anything, was most valuable about the public dialogue?**

**Almost all those providing views appreciated the chance to learn about net zero and biomass – a topic that most people felt they had little prior knowledge of – hearing from a range of specialists and most of all from each other. Half a dozen particularly highlighted how important it felt to be part of a deliberative democratic process.**

**Being part of a deliberative democratic process**

- The opportunity to be involved and to offer consultation. Moving forwards I would advocate that this is a requisite course of action.
- That a cross section of people and ages were able to give their views on something that will affect them.
- I am very pleased I was selected for the project.
- Feeling heard and that my opinions mattered and would be taken into account.
- The honesty brought forth [through] this method should work but may not, it was appreciated and seeing vulnerability is a positive.

**Opportunity to learn more about net zero and biomass specifically but also having learnt something new and developed new perspectives**

- Being able to take part meant I now understand a lot more about biomass, climate change and net zero and the different complications involved.
- To be given the chance to learn about how biomass can help to achieve zero admissions in 2050.
- Understanding how biomass can contribute to achieving net zero.
- Learning something new (biomass) and seeing how new ideas/plans are discussed with the public.
- I feel I can now continue the discussion surrounding net zero with my circle of friends. This will impact us all!
- Being educated about biomass, and its value in achieving net zero.
- It gave me some useful knowledge and helped me understand the subject of which I knew little.
- I'm more educated and felt able to make informed comments and questions
- Learning new information and sharing opinions.

- It was very informative and I feel myself informed on the topic.
- The comments on sea life
- Learning about something I had never heard of.
- Made me think about the issue & look up information on the internet, etc.
- Learning about biomass and how it is used.
- Views on the role of specialists:
- To have the ability to listen to and scrutinise experts in the field.
- Hearing from the representative from the RSPB. I would have liked to hear from other experts who disagree that biomass is a good idea.
- The amount of information given by experts in different sectors.
- Learning more about biomass, including opinions and data from both the proposing and opposing sides.
- The experts seemed to appreciate our [input].
- Loved all the talks from the experts, especially Greenpeace.
- I think session 4 when we heard both positive and negatives from experts from the scientific community as it was nice to hear different perspectives and opinions.
- Range of different views from experts in the field.

**Many participants particularly stressed how much they had valued the opportunity to hear a variety of opinions from other members of the public.**

- I liked how small the breakout groups were as everyone could have their voice heard.
- Hearing others' opinions helped me shape my own.
- Exchange with other, like-minded people about a topic that affects us all • Ability to reach people you can't usually
- I enjoyed hearing other people's opinions
- The chance to hear other's points of view and learn from independent experts • That we were given free rein to discuss
- Hearing the views of other members of the public
- Hear the other participants' opinions
- Being able to hear a diverse set of opinions and being able to respectfully disagree and sometimes finding a middle ground within the breakout rooms and also hearing from the experts and academics involved in biomass. • Hearing different views from members of the public
- Everyone got their say.
- Hearing different views.
- Hearing other people's views about what they thought of biomass.
- Hearing people's views from around the country.
- The different point of views that you could hear from the other participants.
- Hearing other people's views, and listening to the independent presenters.
- Listening to different views.

#### **What, if anything, might have been done differently?**

**More detail in some of the areas where people frequently asked questions and felt the answers were too vague for them to come to informed decisions. A number of participants felt that**

- "Many questions raised during the workshop that are still not answered fully."
  - More of the research participants questions and requests for information could have been answered (perhaps between the weekly sessions) to enable us to be better informed of pros,

cons, cost, risk, benefits etc when asked (often) for our views on whether biomass should be used etc.

- More clear information rather than vague statements.
- Given expected timeline and costs of the projects. Possible solutions to flaws in the project.
- Expert summaries of cost, risk, pros, cons etc plus potential to make a big impact on net zero should have been provided for biomass, nuclear, tidal, solar, wind, fossil fuel (with carbon capture and storage).
- More balanced presentations including the downsides of biomass, risks, costs etc. • More clarity, more reliable facts as there were lots of 'not sure but,' 'I think' etc
- Seeing models of how things will work.

#### **Hearing from a greater range of specialists and giving them more time to share information**

- Lived experience: Hearing from members of the public who live near biomass plants.
- More varied speakers, both positive and negative.
- Have more opposing views , details on costing , case studies.
- More independent charity viewpoints would have been helpful I think.
- We needed to hear more from environmental type groups about their views but also their proposed alternative solutions.
- Perhaps more input from people like Greenpeace and the RSPB. They had less input.
- There should have been more experts who opposed biomass energy to speak to us.

#### **Less information overload from presentations and a little more time for specialists to share it**

- Some of the specialists' presentations were quite hard to take in information from.
- At times there was too much information in a short amount of time - the presentations by the specialists felt rushed.
- Having speakers speak for longer duration and not rush through SO MUCH information in a short space of time.
- A little more time with some of the field professionals and the guest speakers on the matter. What respective politicians think of biomass too.
- Longer talks from specialists, sending questions to specialists before sessions for them to answer.
- So much information that many would have appreciated a chance to view materials in advance so they could read along, and to review afterwards.
- Towards the end of the sessions I had an information overload and perhaps a little drained.
- There was far too much information to digest.
- Maybe a longer time to digest the information. A lot of information was given over a short period of time and each speaker was straight after the next so felt a bit rushed.
- Some of the sessions were quite long and tiring. Maybe I would spread some of the information by sending some reading material before the discussions.
- Less of experts reading PowerPoint screen: More pre reading.
- [if] we were given presentations before sessions to follow along with as the level of detail and technical info was hard to digest and with not much time after presentations to go into discussions it was very demanding and sometimes overwhelming.
- Links provided to materials from each session.
- Simplify the messages that you are giving to the public.

**A substantial minority commented that the 2.5 hour sessions felt too long – some would have preferred more shorter sessions, or more breaks.**



- The sessions were too long ,and there was way too much information shared in each session which sometimes was hard to absorb.
- The sessions were far too long in one go. I'd prefer several x1 hour sessions OR an intensive all day session.
- 'Meetings' were overlong especially the last one was not needed as people just rehearsed what they'd said previously.
- The sessions were very long - 6 might have been better than 5.
- I think the sessions were a little too long and could have been slightly shorter as sometimes the conversations dragged in the group chats, when they could have been ended earlier.
- The sessions could have been slightly shorter or had longer breaks.
- Maybe cut down to 2 hours would be better.

#### **Opportunities to be part of a longer process**

- A more continuous dialogue beyond the 5 sessions which should serve as an introduction to everyone, but the hard work should start now and must involve the public, not government.
- The opportunity to remain involved by signing-up to a bulletin or newsletter (with links).

#### **Way small groups were run**

- For quite a dry subject many of the facilitators could have been more skilled in getting the best out of the groups. There was only one over the course of the 5 sessions (a young girl) who really made it enjoyable.
- Talks a bit more fun.
- Different people in each of the rooms, rather than seeing some of the same people each time.
- The use of the raised hand emoji in the chat room to prevent people talking across each other.

#### **About half a dozen had no suggestions for improvements:**

- Nothing easily comes to mind.
- Can't really fault what I experienced.
- At this stage, and for the level of subject knowledge held by all participants, I think the format was ideal.
- Nothing I can add.
- Nothing.

#### **Overall, how do you feel about having taken part in this public dialogue? Anything else you would like to add?**

- Pleased to have taken part
- I enjoyed the process. It felt like an important discussion to be part of.
- I'm pleased to be more well informed on this subject
- It was really interesting and important for the public to be somewhat involved in the decision making process
- Very pleased. I now realise how little I knew about the subject.
- I look forward to seeing more public debate on the subject of achieving net zero in general.
- I got really into it and so interested that I was researching on my own time.
- I feel as though I've given my opinion on an incredibly important issue.
- Overall I really enjoyed it, it was very stimulating.

- Positive - happy I was able to contribute as well as learn something new.
- Very pleased to have been selected, I would do it again, absolutely!!!!
- It was interesting and I'm glad I took part. I feel much more informed.
- It has been an informative process and the moderators were all very professional.
- Glad to have taken part and had the opportunity to learn and give my viewpoints as well as learn from others, experts and otherwise.
- I feel honoured.
- I'm grateful to have been invited and to have been accorded a platform from which to voice a range of opinions on these extremely important and challenging themes.
- I'm really pleased to have been involved. I've certainly learnt a lot more about biomass, that's for sure!
- It was great to have been selected to enable me to air my views and find out about biomass. I would be willing to help with a follow up project.
- Privileged to have an opinion on something I was pretty ignorant about.
- Happy to have been involved.
- Privileged & interested.
- I feel positive.
- Very informed.
- More workshops and information.
- I really enjoyed it, it felt good to be involved in something this important and I really loved being informed on the pros and cons of biomass, it was a really interesting discussion.
- I feel opportune.
- I feel like it was interesting to learn more about the subject and contribute to the dialogue somehow.
- I have enjoyed the experience.
- Great - a pleasure to have taken part - very useful.
- I'm happy to have taken part in/share my opinion on a large scale project.
- More concerned about biomass in NZ than at the outset.
- At the beginning of the process I was open to the concept but having heard more about it I am less likely to support it. I have serious concerns as to the impact it will have not only on us as individuals but plant and animal life.
- Enjoyed it. Hope the concerns of many others and I that were raised will be addressed going forward. Thanks.
- Good, though I did feel overwhelmed frequently by the amount of information we were having to take on.
- Good. I think because the area of discussion is so technical I would have preferred for the sessions to be closer together - the gap of a week made retaining the info hard and for it to be partially in person with drinks and refreshments.
- I'm really happy to have participated and learned more (the pay also good). However, I'm also sad that the government will not be using our opinions to alter their decision.
- I do think that the sessions/breaks should have been a bit longer as they were always during dinner time!