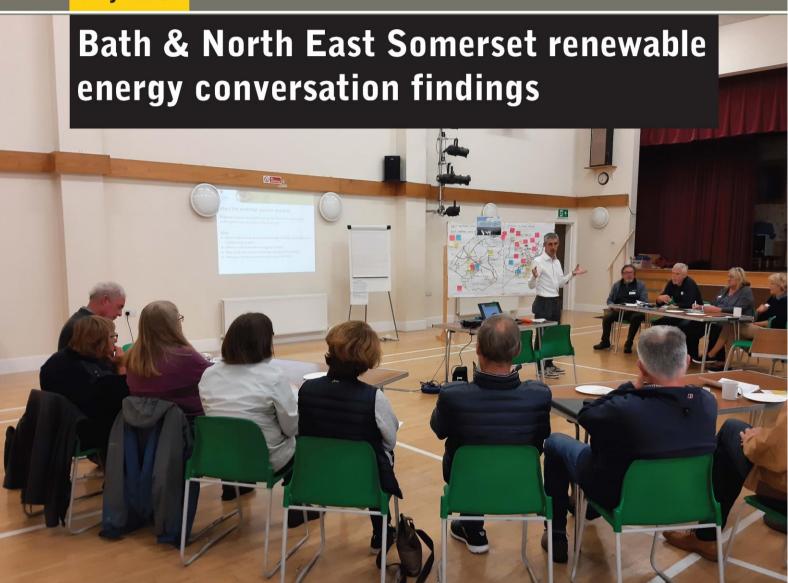
July 2023



By the Centre for Sustainable Energy, for Bath & North East Somerset Council



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Executive summary

Bath and North-East Somerset (BANES) council commissioned the <u>Centre for Sustainable Energy</u> (CSE) to carry out community engagement with three areas in BANES. The engagement aimed to start a conversation about renewable energy with local people in each area. The engagement was not in connection with a particular planning proposal or the council's planning policies. It was a hypothetical and exploratory project which aimed to understand the type, scale and location of renewable energy development which might be acceptable in the future. CSE also received funding from the MCS foundation to refine and improve our approach.

The three areas were: Stowey Sutton and East & West Harptree, Peasedown and Wellow, and Temple Cloud & Hinton Blewett. These areas were chosen based on their high potential for renewable energy generation. CSE ran a workshop for local people in each of the three areas. At these, participants considered which parts of the local area were special, liked or disliked. Following this, they explored which types of renewable energy could potentially be developed in the future. Residents considered the size and location of technologies including wind turbines, ground-based solar panels (solar farm) and anaerobic digestion.

After each workshop, there was follow-up online survey to collect wider opinion on what was discussed. The following is a high-level summary of the findings from the engagement process, along with CSE's recommendations. The technologies summarised in this report are initial suggestions, *not* concrete plans. If any of the suggestions were to be taken forward, they would be subject to further public consultation through the planning system.

General findings

Overall the workshops and surveys suggest that in the three target areas, there is strong potential support for renewable energy which could be harnessed to increase renewable energy generation. Within all parish clusters, the communities supported potential development of wind turbines, solar farms and identified possible locations for these. This is in addition to potential development of rooftop solar panels and domestic heat pumps. All three communities supported the development of anaerobic digestion in principle, though did not identify suitable locations. These findings suggest that overall public opinion about renewable energy in Bath and North-East Somerset broadly mirrors the strong support for all forms of renewable energy seen in national opinion polls¹.

While workshop participants and survey respondents valued their landscapes and wished to protect them, there was majority support for developing renewable energy projects even in designated areas like Areas of Outstanding Natural Beauty (AONB) or Green Belt. Most respondents were able to weigh up how the protection of their landscapes should be

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¹ BEIS Public Attitudes Tracker: Energy Infrastructure and Energy Sources, Spring 2022, UK

balanced against the need to generate renewable energy and didn't see policy or landscape designations as an absolute barrier to projects coming forward.

Across all areas, most respondents felt "very satisfied" about their area generating more electricity than it consumes locally. However in all cases this was subject to the community benefitting from hosting this infrastructure. Therefore, who develops, owns and benefits from a renewable energy project is likely to have a significant impact on how it is seen locally and whether it is supported through the planning process.

Across all workshops and surveys, a cross cutting theme was as sense of urgency to increase renewable energy capacity to address the climate emergency and energy crisis. There was also recognition of the potential for local renewable energy to offer financial savings to people, in a time when energy bills are high.

The framing of the workshop, around the extent to which these communities could become self-sufficient in terms of generating the energy, seemed to resonate with most participants and communities.

For some technologies there were some concerned comments over their visual impact, impact on wildlife such as bats and birds and loss of agricultural land to solar farms. However, as previously mentioned, there was overall satisfaction for suggested wind turbines, solar farms and other renewable technologies.

This table summarises the renewable technologies suggested in each parish cluster which received support. All three communities expressed support for sufficient renewable electricity generation to meet and substantially exceed their annual electricity demand. Further summaries and detailed information on findings for each parish cluster can be found in sections two to four of the main body of this report.

Table 1 – Renewable technology suggestions which received support in each parish cluster

Parish cluster	Renewable energy suggestions supported in workshop and online survey	% electricity generated by suggested technologies
Stowey Sutton and East & West Harptree	 Two small wind turbines Floating solar farm Ground-based solar farm Anaerobic digestor Domestic rooftop solar panels and heat pumps 	350%
Peasedown and Wellow	 Three large wind turbines Seven small wind turbines in various locations Five ground based solar farms in various 	397%

	Micro hydro powerMine water heatDomestic rooftop solar panels	
Temple Cloud and Hinton Blewett	 Three small wind turbines Two ground-based solar farms Anaerobic digestor Domestic rooftop solar panels and heat pumps 	750%

1. Introduction

Bath & North-East Somerset Council (BANES) declared a Climate Emergency in 2019. The area now has an ambition to <u>be carbon neutral by 2030</u>. One of the key solutions to reducing carbon emissions and tackling the climate crisis is to increase the amount of energy generated from renewable sources like wind or sun. Developing these resources can lower our fuel bills, reduce carbon emissions, and increase energy security.

While BANES aim to increase renewable energy generation, they want public input about how and where this is done – a bottom-up rather than top-down approach. They also want to support communities to get involved in owning their energy, having a say and a stake in renewables

Therefore, BANES commissioned the <u>Centre for Sustainable Energy (CSE)</u> to explore generating renewable energy in the area with local people. CSE is a charity supporting people and organisations across the UK to tackle the climate emergency and end the suffering caused by cold homes.

1.1 About the project

The project aimed to start a conversation about renewable energy with local people in BANES. The engagement was not in connection with a particular planning proposal or the council's planning policies. It was a hypothetical and exploratory project which aimed to understand the type, scale and location of renewable energy development which might be acceptable in the future.

The two core components of the project were a workshop and follow-up online survey. These aimed to:

- Create space for local people to have informed conversations about what renewable energy development could be suitable for their area.
- Help local people become better informed for future consultations on renewable energy policies, as part of the Local Plan (this is a document, prepared by the council in consultation with the community, which sets out planning policies and proposals for new development).
- Encourage community energy projects to emerge.
- Allow ambitious neighbourhood plans to develop. Communities can write neighbourhood plans to shape the development and growth of their area. Once adopted, the planning policies within them have the same weight as policies in the council's local plan.

1.2 Selecting the communities

Three areas were chosen by BANES and CSE as the focus for the project. This was based on a Renewable Energy Resource Assessment Report (RERAS) undertaken on behalf of the Council. The RERAS showed the areas likely to have significant potential for renewable energy development.

The three chosen areas were the parishes of:

- Stowey Sutton and East & West Harptree
- Peasedown and Wellow
- Temple Cloud with Cameley and Hinton Blewett

A team from CSE worked with BANES to run a workshop and follow-up online survey for each area to engage residents about renewable energy.

1.2.1 Publicising the workshops

For each area, CSE created a community engagement plan to publicise the workshops and ensure a diverse range of people attended. CSE identified and contacted a wide range of organisations which have access to different sections of the community, such as:

- Local news and events websites
- Local Facebook groups
- Parish Council and Councillors
- Sports clubs
- Churches and faith groups
- Libraries
- Societies and groups e.g., walking and wildlife groups, historical and archaeological associations
- Neighbourhood watch groups
- Senior Citizens' Lunch Club
- Women's institute and Rotary clubs

This work aimed to reach a broad range of people in the local community, to ensure a diverse range of voices were captured in each workshop.

CSE contacted people via email and phoned organisations to explain the relevance of the events to their members. CSE used social media, published articles in the local press and displayed physical posters around each parish.

CSE also recruited people to the workshops through attending in-person events. Through attendance at the following events, CSE started a conversation with people about which parts of their area are special to them, as well as inviting people to workshops, and signing them up for projects news:

- Wellow Village Fete 3rd September 2022
- Chew Stoke Harvest Home 10th September 2022

- Chew Valley Library Bishop Sutton 22nd September 2022
- Temple Cloud primary School 10th October 2022

Following the workshop, CSE publicised the online surveys using the same methods.

1.2.2 Workshop format and structure

CSE hosted an engaging and participatory workshop for each of the three areas. This took place on a weekday evening with a maximum capacity of 20 people per workshop.

The workshop activities included:

- Adding notes to a blank map of the area for people to start thinking about areas that were special to them/liked/disliked.
- A series of short videos about renewable energy, giving participants objective information on the characteristics and impacts of different forms of renewable energy.
- Choosing from a of 'menu' renewable energy (e.g. solar panels, wind turbines) that could go in the area. The menu was based on what is technically possible and suitable from the RERAS study.
- Identifying areas on the map where different technologies could go e.g., wind turbine on Baggridge Hill.
- As technologies were chosen, CSE entered them into a spreadsheet. This showed everyone how much energy they would produce and how much carbon they would save.

The workshop outputs should be taken as high-level suggestions of the type, scale and location of renewable energy that local people could potentially support in the future. If any of the suggestions were to be taken forward, they would be subject to further public consultation as part of a planning application.

1.2.3 Online survey

While efforts were made to attract a diverse group of people to attend the workshops, they were necessarily limited in size. Therefore, they cannot be assumed to be representative of the full range of opinion in the local community.

To address this, CSE published the workshop outputs online via <u>a website for the project</u>.

This website summarised what was discussed in the workshop and collected feedback as to whether the views expressed at the workshop were shared by the wider community.

These outputs included:

- A digital version of the map, showing potential locations for renewable energy.
- A survey about the renewable energy suggested in the workshop including
 questions about the type, location, size, and ownership of each technology. The
 survey was also made available in paper format for those requiring that format.

The survey was open for six weeks for each area. The outputs from the workshop and follow-up survey are initial and high-level suggestions, not concrete plans.

1.4 About this report

This report summarises the renewable technologies suggested in the workshops and what the wider community thought of these suggestions through presenting the survey data. The main data presentation focuses on large, standalone technologies. The primary aim of the engagement process was to focus on technologies that have a visual impact and would require community consent and planning permission if they came to fruition.

While discussed briefly in the workshop, data for household level technologies including solar thermal and heat pumps is summarise in the appendices rather than main body of the report. Rooftop solar panels are discussed in the main body of the report as, while they are household level technologies, they were discussed in some depth in all workshops.

The technologies summarised in this report are initial suggestions, not concrete plans. If any of the suggestions were to be taken forward, they would be subject to further public consultation through the planning system.

Text in *italics* denotes a direct quote from the survey comments.

2. Stowey Sutton and East & West Harptree findings

2.1 Summary of workshop outputs – Stowey Sutton and East & West Harptree

During the workshop, participants supported the potential developments outlined below in table 3. Find out more about renewable energy in a visual guide in appendix D.

Table 2 – Summary of technologies suggested by Stowey Sutton and East & West Harptree workshop participants

Technology	Location	Details
Two small wind turbines, (each up to 500 kilowatts in energy output and 60 metres in height).	One located to the north of the Quarry in Bishop Sutton Near Smitham Hill to the south of East Harptree	Each 500-kilowatt turbine would provide power for about 316 homes per year, or 631 in total across the two turbines. Note for reference, the parishes of Stowey Sutton, East Harptree and West Harptree contain 1070 homes.
Floating solar farm, if it were found to be feasible, covering up to 10% of the lake surface, up to approximately 22.5 megawatts in output	Chew Valley Lake – no specific area identified.	A floating solar farm of this size would power 5220 home per year. Note for reference, the parishes of Stowey Sutton, East Harptree and West Harptree contain 1070 homes.

Technology	Location	Details
A ground-based solar farm located within, up to approximately 2.5 megawatts in output.	Disused Stowey Quarry to the south east of Bishop Sutton, adjacent to the existing solar farm on Stowey Road.	These ground-based solar panels would generate enough electricity for 650 homes per year. Note for reference, the parishes of Stowey Sutton, East Harptree and West Harptree contain 1070 homes.
One 500 kilowatt Anaerobic Digestor.	No location was discussed.	
Rooftop solar	Domestic roofs	Rooftop photovoltaic panels on 10% of homes, around 360 installations. Rooftop solar thermal panels: on 5% of homes, around 270 installations. Data for this is in appendix X.
Heat pumps	Domestic properties	Domestic air source heat pumps: on 10% of homes, around 107 installations. Domestic ground source heat pumps: on 5% of homes, around 54 installations. Data for this is in appendix X.

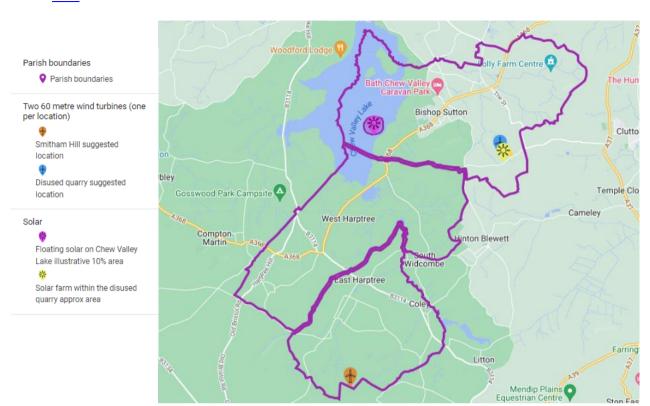


Figure 1 below show these technologies mapped out. The online map can also be <u>viewed</u> here.

Figure 1 – Location of suggested development from the Stowey Sutton and East & West Harptree workshop

2.2 Summary of online survey – Stowey Sutton and East & West Harptree

Response to the online survey for Stowey Sutton and East & West Harptree was broadly positive for most technologies. Wind turbines received a generally positive response, and the disused quarry on Stowey Road was seen as a preferable location to Smitham Hill. There were concerns about the visual impact of the turbines in an Area of Outstanding Natural Beauty (AONB) and their impact on bats.

The suggested floating solar farm on Chew Valley Lake ground-based solar farms also received a generally positive response, with the majority satisfied with the size and location. Some comments of support dependent on knowing more about the impact on lake wildlife and photo mock ups to understand what the visual impact would be. In comments about both wind turbines and solar farms, there were several reflecting on the need for renewables to reduce carbons emissions.

The suggested anaerobic digestor received a mixed response, with doubts raised about availability of feedstock, visual impact and potential increase in traffic moving waste

around. Sites for a digestor were suggested including the disused quarry or near a local farm.

Overall survey respondents felt positively about the area generating more renewable energy than it uses. However they were keen to see how the community could benefit from hosting renewables and suggested technology in areas part of the AONB needs careful consideration.

2.2.1 Two small wind turbines

Most respondents in the online survey felt broadly positive about the proposed wind turbines, with 72% of respondents satisfied with the suggestion overall (figure 2). However, around 1 in 5 (18%) were dissatisfied with the suggestion, and concerns around wind turbines are explored subsequently.

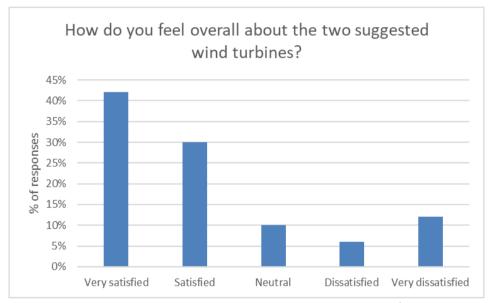


Figure 2 – Attitudes overall to the two suggested wind turbines (50 responses to this question).

More specifically, 68% of respondents felt either 'very satisfied' or 'satisfied' with the size of the suggested wind turbines and 68% of respondents felt either 'very satisfied' or 'satisfied' with the number of suggested wind turbines (figures 3 and 4).

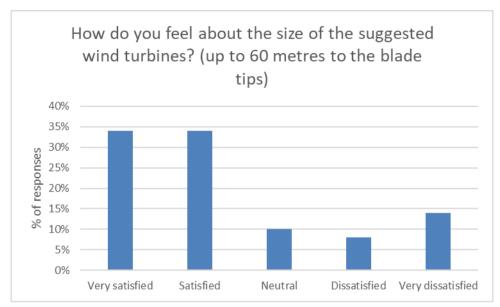


Figure 3 – Attitudes to the size of suggested wind turbines (50 responses to this question).

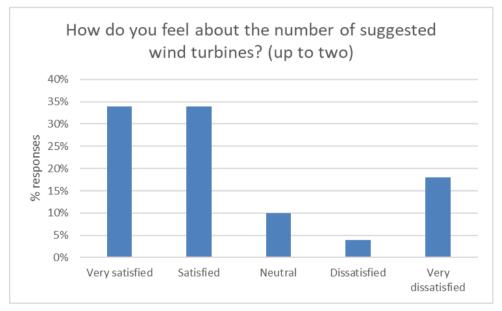


Figure 4 – Attitudes to suggested number of wind turbines (50 responses to this question).

While there was majority support for both proposals, the suggested turbine location north of the disused quarry on Stowey Road received more support than the Smitham Hill location (figure 5). 76% of respondents felt satisfied with the disused quarry location, whereas 51% felt satisfied with the Smitham Hill location. Additionally, nearly 1 in 3 (29%) were dissatisfied with Smitham Hill as a location compared to just 7% for the disused quarry.

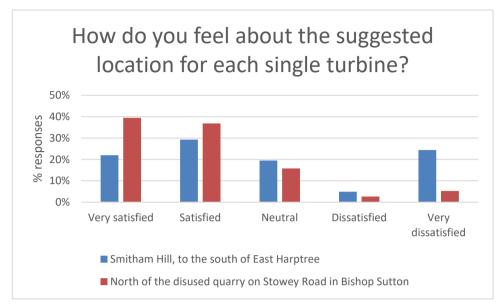


Figure 5 – Attitudes towards wind turbine locations (50 responses to this question).

In survey comments, the majority of comments were supportive but there were also concerned comments. There were several concerns raised about the location of wind turbines in an Area of Outstanding Natural Beauty (AONB) as the Smitham Hill location falls within the Mendip Hills AONB. There were also concerns about the impact on wildlife habitats as a couple of comments highlighted that it is a Bats Special Area of Conservation.

- They mustn't be put in an area where wildlife habitat is compromised.
- This area is in the AONB and also in the North Somerset Bats SAC foraging zone. It is highly unsuitable on both landscape and ecology grounds.
- The approach taken to community engagement has been potentially counterproductive. You will be aware that site-finding for any renewable energy
 technology is highly technical and tightly governed by exhaustive technical and
 statutory procedures. Inviting attendees and survey respondents to engage in
 detailed discussion of options for a single 0.5 megawatt/60 metres high wind
 turbine on Smitham's Hill was therefore misleading and liable to raise undeliverable
 expectations. On landscape sensitivity and biodiversity grounds alone installation
 of such a wind turbine at the site would be very challenging.

Other comments supported both turbines and said that they are an excellent alternative to solar in the winter. Some comments suggested more than two turbines could be deployed in the area to meet future energy demand from renewables.

- If two is optimum fine but I think we could be more ambitious in this area & add more why not power all homes in the area with wind resource if possible? Quiet. Beautiful. The future.
- Great idea, we need more renewable energy to address the climate crisis.

• Could we have more? It is a great idea. Would we be able to have 2 or 3 in each location pointing in different directions?

2.2.2 Solar

Floating solar farm on Chew Valley Lake

In the online consultation, 75% of respondents were 'very satisfied' or 'satisfied' with the suggested floating solar farm on Chew Valley Lake (figure 6). Generally, respondents were also positive about the size and location of the suggested floating solar farm. 61% were 'very satisfied' or 'satisfied' about the size and 65% 'very satisfied' or 'satisfied' about the size about the location (figures 7 and 8).

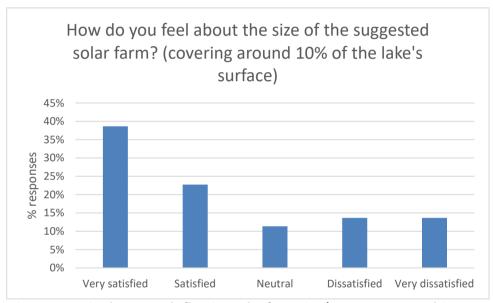


Figure 6 - Attitudes towards floating solar farm size (44 responses to this question).

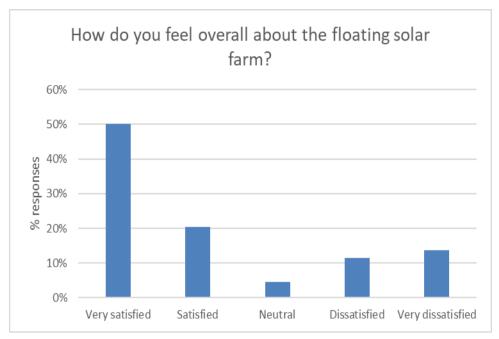


Figure 7 – Attitudes towards floating solar farm (44 responses to this question

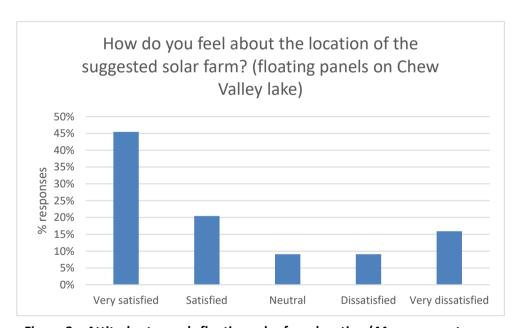


Figure 8 – Attitudes towards floating solar farm location (44 responses to this question)

Many online comments expressed initial support but stated a need to further understand the impact of floating solar panels on the landscape, wildlife, lake users and visual appearance of lake. One person suggested a photo mock up would help understand the visual impact:

• Would need coordination with Sailing Club & Fishing Lodge to ensure impact on those leisure activities was not adversely affected. Also as this would generate

- power for 5 x as many homes as in the 3 parishes, those parishes should share in some financial return (possibly by way of CIL contributions or some equivalent mechanism) to enable investment into other local infrastructure priorities.
- I would think a survey would need to be carried out to see how the installation might affect the wildlife living in the area. I would prefer the solar panels to be placed in areas which aren't so valuable to wildlife.

Supportive comments made about the floating solar farm included:

- Brilliant suggestion. We overlook the lake and would welcome a solar panel farm of this size supplying CO2 free energy for the area.
- Great idea. They look beautiful and will help our community to produce power. Nothing to object to.
- This is a really low hanging fruit I would think given that it is only10% of the lake so would not interrupt the needs of sailing, fishing, wildlife.

A couple of comments also mentioned that Bristol Water had previously looked into the option of floating solar panels on Chew Valley Lake but had determined the water depth as unsuitable for panels.

Rooftop solar panels

Rooftop solar panels received significant support in the survey, with 89% of respondents feeling satisfied with the suggestion (figure 9).

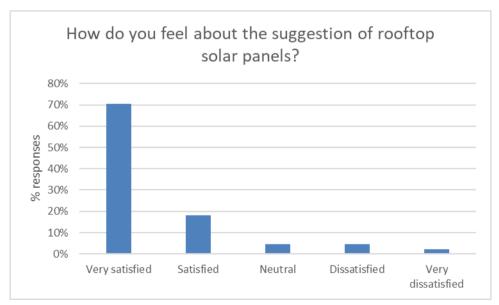


Figure 9 – Attitudes towards rooftop solar panels (44 responses to this question).

Comments about rooftop solar panels included reflection on the need for financial support and use of batteries alongside panels:

- Great idea if feasible, but I don't know the Stowey site in enough detail to offer any comment. Fully support rooftop deployment but opportunities are limited without financial incentives to home and business owners.
- I think it's important to couple solar power with batteries. Retaining the power generated is critical to lowering energy consumption and bills from the national grid.
- I would prefer to see rooftop panels rather than ground based solar panels on agricultural land (although the specific quarry site looks a sensible use of that land). It should be mandatory for all new residential and commercial builds. Also B&NES organised a competitive tender for mass installation of PV panels across B&NES in 2021/22. This seemed to be very successful...how many domestic PV installations arose from this tender and could it be repeated?

2.2.3 Anaerobic digestion

The online response to the suggested anaerobic digestor was a mixed picture. 45% were satisfied, while 38% were neutral and 16% felt dissatisfied (figure 10).

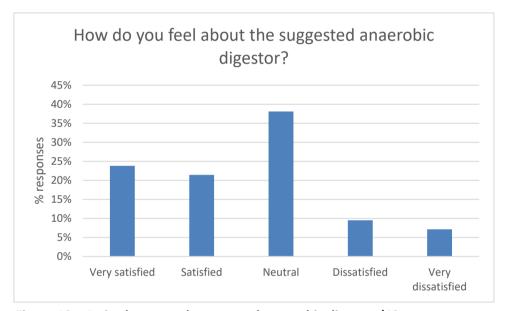


Figure 10 – Attitudes towards suggested anaerobic digestor (42 responses to this question)

Several comments raised concern around the smell of anaerobic digestion, as well as the visual impact and presence of lorries transporting waste in the area, particularly on smaller country roads.

Comments in support mentioned that the anaerobic digestor would need to be located a sufficient distance from residential and have screening from trees, or similar, to mitigate visual impact.

There were also questions within the comments about the availability or feedstock and how much greenhouse gas anaerobic digestion produces, suggesting these require further thought and explanation.

No location for the anaerobic digestor was discussed in the workshop. Respondents to the online survey suggested the following parameters on where such technology could be located

- Disused quarry.
- Near a local farm.
- Site near Temple Cloud where something similar already exists.
- Not near residential areas.

2.2.4 Overall energy generation

The renewable energy (wind turbines, solar panels, and anaerobic digestion) suggested in the workshop would result in Stowey Sutton and East & West Harptree generating over 3.5 times the amount of electricity used in the three parishes from renewable sources.

The majority of survey respondents felt positively about the area generating more energy than is used locally with 81% feeling 'very satisfied' or 'satisfied' (figure 11) about this.

Respondents were asked whether there was anything that would them more comfortable with the area generating more renewable electricity than it consumes. The majority of comments (13 out of 19) were positive. Ten comments said the community should benefit. Suggestions for this ranged from profit being invested into the community, residents getting to use the energy first, or have lower energy bills:

- I think it would be great if there were community owned schemes so that any benefits could be fed back into the area.
- What would happen to this surplus energy? If sold to the grid, could the money be used for other community projects or to subsidise solar/thermal panel installation for local community members?
- Electricity generation should be developed to provide local benefit. Ideally this could be via the establishment of local energy companies which would require policy changes to allow such local energy companies access to the local cable distribution system. This way the benefits of local generation can be directly fed back to local people via lower power costs. If this can't be done then there needs to be a direct link back to the local community via other mechanisms to provide local community benefit.
- If we are able to sell excess energy can this be put towards insulating homes?
- If things are done sympathetically within the landscape we are the countryside not a town.
- A mix of these technologies would be brilliant for the area-we should be ambitious like this-the cost of doing so is today but what about battery storage for the excess production?

Other comments reflected more caution:

- We do not want to spoil the beauty of the Mendips with more infrastructure than we need to
- In East Harptree we are in an area of high landscape value hence the AONB designation, and the whole study area is of national and international importance for its biodiversity. There are other areas better placed, certainly for wind power generation.

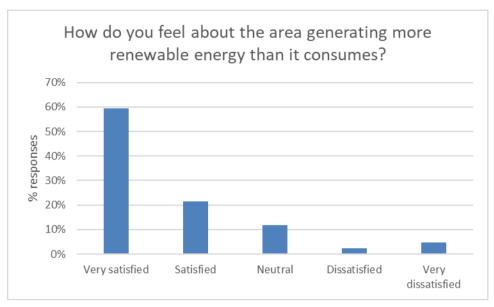


Figure 11 – Attitudes towards overall energy generation in Stowey Sutton and East & West Harptree (41 responses to this question).

2.2.5 Other comments about renewable energy in Stowey Sutton and East & West Harptree

Respondents were asked whether they had any other comments about renewable energy. The majority of responses (15 out 18 comments) were very positive, with nearly half of the respondents re-stating their strong support for the project and plans:

- We have to do this, for the sake of our children/grandchildren.
- Brilliant ideas keep the mix rather than just one. Incentivise households properly to install solar, make this area really innovative & ambitious. Why five years when all of this is quick & easy to build? We just need planning support to be straightforward-get it done sooner. Three years is more than achievable! We should lead the way & be ambitious!
- Fantastic to see small scale renewable projects finally being discussed in this area.
 We need to move quickly to realise benefits. Every parish in the CV should have similar projects.
- We need to be producing renewable energy rather than relying on fossil fuels.
- Let's do as much as possibly can to produce our own energy in a clean, safe way.
 The odd unnatural thing in the landscape is as nothing compared to keeping our energy needs supplied in a sustainable way.

A minority of the comments re-stated their opposition to the proposals tabled in the workshops:

- We should not be pursuing an ideal that is not practical or appropriate for the area.
- Does it make sense to try to enforce an energy parity is individual localities, particularly where AONB imposes lots of planning constraints?

2.2.6 Demographic data for respondents to online survey – Stowey Sutton and East & West Harptree

Full demographic data for the Stowey Sutton and East & West Harptree online survey is in appendix A. 57% of respondents were employed on either full or part time basis, and 30% of respondents were retired. The majority of respondents (61%) fell between 40-69 in age. There was a fairly even gender split among respondents with 59% identifying as a woman and 41% as a man. All respondents identified as either White-English (50%) or White-British (50%). All demographic data questions were anonymous and optional for survey respondents to complete.

Fifty-four people responded to the online survey.

3. Peasedown and Wellow findings

3.1 Summary of workshop outputs - Peasedown and Wellow

During this workshop, participants supported potential development the technologies outlined in table 2. <u>Find out more about renewable energy a visual guide in appendix D.</u>
Figure 12 (below the table) show these technologies mapped out. The online map can also be viewed here.

Table 3 – Summary of technologies suggested by Peasedown and Wellow workshop participants

Technology	Technology details	Location/s	Details
Wind turbines	One small wind turbine in each listed location (up to 60 metres tall to tips of blades)	 South of Combe Hay White Ox Mead South-west of Twinhoe North of Round Hill Near Woodborough Farm North of Peasedown Near covert woodland south of Stoney Littleton 	Each 500-kilowatt turbine would provide power for about 316 homes per year, or 2525 in total across all the turbines. Note for reference, the parishes of Peasedown and Wellow contain 2976 homes.
	Up to three large wind turbines (up to 140 metres tall to tips of blades)	Upper Baggridge Farm	Each large turbine would provide power for about 1600 homes per year, or 3,250 in total. Note for reference, the parishes of Peasedown and Wellow contain 2976 homes.
Ground-based solar farms	18 megawatts, 85 acres (64 football fields)	Between Peasedown and Shoscombe	The combined power output of these solar farms would power 5220 home per year.
	11 megawatts, 52 acres (39 football fields)	White Hill (within Peasedown)	Note for reference, the parishes of Peasedown and Wellow contain 2976 homes.
	14 megawatts, 65 acres (49 football fields)	Link Hill	wenow contain 2570 nomes.
	18 megawatts, 87.8 acres (66 football fields)	South of White Ox Mead	

Technology	Technology details	Location/s	Details
	14 megawatts, 65 acres (49 football fields)	Upper Baggridge	
Rooftop solar panels	N/A	On any suitable commercial buildings, in particular industrial buildings, barn and on suitable (non-listed) dwellings.	Data for this is provided in appendix B1.
Anaerobic digestion	One 500 kilowatt anaerobic digestor.	No location was discussed.	An anaerobic digestion could generate renewable electricity, providing feedstock such as animal manure could be found. This would provide electricity for around 715 homes. Note for reference, the parishes of Peasedown and Wellow contain 2976 homes.
Micro hydro	N/A	 Weir in Wellow Combe Hay Culverted streams along the road from Peasedown to Radstock 	Two 25-kilowatt micro hydro sites would supply electricity for 45 homes. Note for reference, the parishes of Peasedown and Wellow contain 2976 homes.
Mine water heat	Water within mines is warmed by natural processes and can, if sustainably managed, provide a continuous supply of heat. Mine water can be abstracted from boreholes or shafts. Heat exchangers and heat pumps are used to recover the heat and distribute, via district	Coal mines and mineshafts beneath Peasedown	Participants were supportive of this proposal in principle, but there is no data from which an estimate of the potential heat generation from mine water could be formed.

Technology	Technology details	Location/s	Details
	heating networks to		
	homes and buildings.		



Figure 12 - Locations of suggested renewable energy from the Peasedown and Wellow workshop

3.2 Summary of online survey - Peasedown and Wellow

Response to the online survey for Peasedown and Wellow was broadly positive for most technologies. Wind turbines received majority support and a generally positive response, but there were significant concerns and dissatisfaction over their visual impact, particularly in areas of Outstanding Natural Beauty. Whilst the suggested location of three large turbines at Upper Baggridge Farm received majority support, the response was somewhat polarised with some dissatisfaction expressed in the comments.

The suggested ground-based solar farms also received a generally positive response. Similarly to the wind turbines, there was concern over the visual impact of them in an AONB. There were also comments expressing a preference for rooftop solar than fields potentially useful for agriculture.

In comments about both wind turbines and solar farms, there were several acknowledging the urgency of taking action on the climate crisis and that renewable technologies are a significant way of taking action.

The suggested anaerobic digestor received the most mixed response, with doubts raised about its environmental benefit, visual impact, potential for smell and potential impact on traffic. Micro hydro also had a mixed response, although with a majority in support. There were concerns over impact on wildlife, visual impact, and viability. Mine water heat received a particularly positive response, with respondents reflecting that it would be good to existing infrastructure to decarbonise heat.

Overall survey respondents felt positively about the area generating more renewable energy than it uses. However they were keen to see how the community could benefit from hosting renewables and suggested technology in areas part of the AONB needs careful consideration.

3.2.1 Wind turbines

Overall, survey respondents felt positively about wind turbines in Peasedown and Wellow, with 75% either 'very satisfied' or 'satisfied' (figure 13). However, one in five respondents felt 'very dissatisfied' with the suggestion and this will be furthered explored.

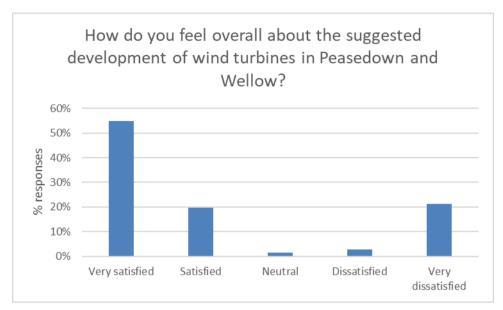


Figure 13 - Attitudes towards wind turbines in Peasedown and Wellow (71 responses to this question)

In terms of the specific aspects of the suggest turbines, figure 14 shows survey respondents' feelings about each of the suggested locations. All the proposed turbine locations were supported by the majority of residents with a minimum of 63% of respondents saying they were very satisfied or satisfied. The turbine location which received the highest number of dissatisfied responses was Upper Baggridge Farm at 24% dissatisfaction.

Turbine locations which received the most support were:

- North of Peasedown (one small turbine)
- Near Woodborough Farm (one small turbine)

Turbine locations which received the most dissatisfied responses were:

- Upper Baggridge Farm (three tall turbines)
- South of Combe Hay (one small turbine)
- Near covert woodland south of Stoney Littleton (one small turbine)

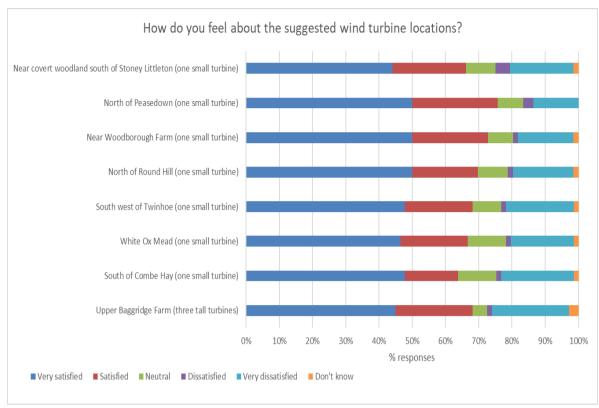


Figure 14 - Attitudes towards wind turbines locations (69 responses to this question).

For the quantity of wind turbines, figure 15 shows survey respondents' feelings on this.

A minimum of 59% of respondents were satisfied with the number of turbines proposed in the workshops, across all locations. The turbine which received the highest number of dissatisfied responses was at 23% and this was Upper Baggridge Farm. However Upper Baggridge Farm received a polarised reaction, and it also received the highest number of satisfied responses at 66%.

Survey comments on wind turbine locations included:

- Reflection that wind turbines can be ugly and disfigure landscape so use of urban or brownfield sites would be better location.
- Link Hill suggestion is acceptable but would be dependent on where exactly around Link Hill it would go.
- There could be more turbines at the Peasedown site
- That White Ox Mead has an Airstrip in regular use East/West but with circuit traffic to South and has been in use for 40 years.



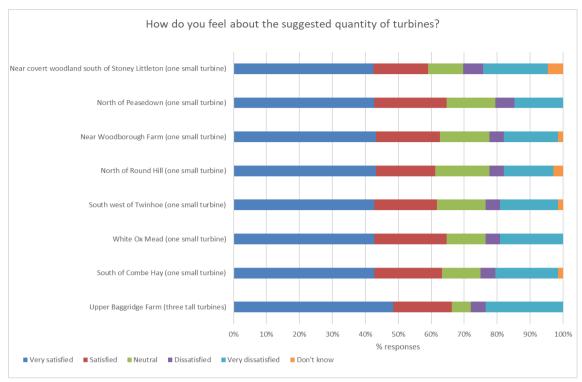


Figure 15 – Attitudes towards wind turbine quantity (69 responses to this

For the quantity of wind turbines, figure 15 shows survey respondents' feelings on this. Across all suggested turbines locations, a minimum of 59% responses were very satisfied or satisfied with the number of turbines proposed. The turbine which received the highest number of dissatisfied responses was at 23% and this was Upper Baggridge Farm. However Upper Baggridge Farm received a polarised reaction and it also received the highest number of satisfied responses at 66%. Among the rest of the turbines, there was a consistent attitude with no particular clear turbine quantities that received a clear weighted positive or negative response. Overall there seemed to be an average feeling of satisfaction among all the suggested wind turbine quantities.

Figure 16 shows survey respondents' feelings on the size of the proposed turbines. Across all suggested turbines locations, a minimum of 56% responses were very satisfied or satisfied with the size of the turbines proposed.

The suggestion of three tall turbines (up to 140 metres) at Upper Baggridge received the most dissatisfied responses with 31% responding negatively to it. All other turbine sizes received less than 25% dissatisfied responses. The turbine size suggestion which received the most support, and least dissatisfaction was the one small wind turbine (up to 60 metres) north of Peasedown.

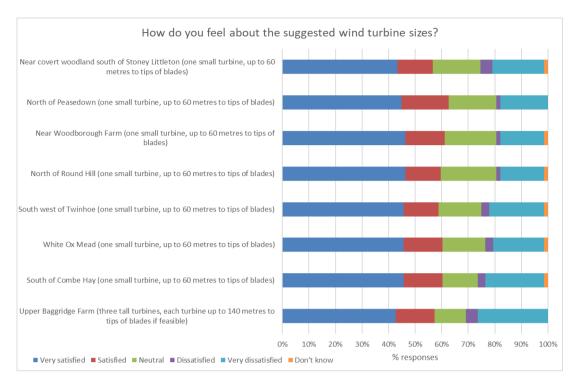


Figure 16 – Attitudes towards wind turbine sizes (69 responses to this

Workshop participants agreed that fewer larger turbines would be preferable (in terms of energy output) than many small turbines. Taller turbines have a substantially greater output than smaller turbines. One large wind turbine of around 140 metres in height will generally generate about five times as much more power as a small turbine of 60 metres in height. Figure 17 shows among survey respondents, there wasn't a clear consensus on turbine height. 37% were in favour of fewer, taller turbines and 18% in favour of a greater number of small turbines. However, 45% responded with no preference.

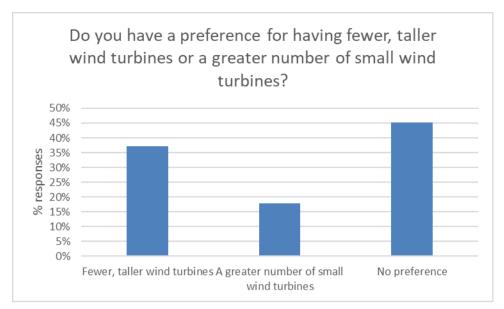


Figure 17 – Attitudes towards wind turbine size preference (62 responses to this question).

Survey comments on wind turbine quantity included:

Concern over large turbines due to their visual impact on the landscape and a
feeling that some areas should be protected. A particular example of what should
be a protected area is the vicinity of the Stony Littleton long barrow, which is a
5000 year old site.

Larger turbines in hilly, more remote locations seem a sensible way to go. Peasedown is on a hill and has green field areas that would be suitable.

The survey asked whether respondents had any other comments about the development of wind turbines in Peasedown and Wellow. In total 34 people left comments, the majority of which (19 comments) were supportive. Eight people left negative comments, raising concerns about specific aspects of the proposed turbines, but not objecting overall. These quotes illustrate these sentiments:

- White Ox Mead has an Airstrip in regular use East/West but with circuit traffic to South. It's been in use for 40 years.
- I would be more concerned by large turbines and their far-reaching impact on the landscape. I believe a small number of areas should be protected from these impositions, particularly in the vicinity of the Stony Littleton long barrow, which is a 5000-year-old site and should not be spoilt by these turbines.
- Three large turbines at Upper Baggeridge is too much and seems unnecessary if the plans, as is, generate 387% of local need. It seems there is scope to scale this back. These will be seen from many homes in Wellow. One large one should suffice.
- I'm worried about the noise a large turbine might make.

Seven people left very negative comments objecting to the principle of development, predominantly on the grounds of visual impact and noise. These quotes illustrate these sentiments:

- It's outrageous that an Area of Outstanding Natural Beauty should be
 destroyed in this way. Turbines disfigure the landscape. Create noise and are
 harmful to wildlife. Why would her put commercial power generation in such an
 area. This is madness.
- Wind turbines should be sited offshore, not in Areas of Outstanding Natural Beauty!
- This is disgraceful and environmentally damaging in-fact vandalism Have any of you actually lived near a wind turbine? Constant mechanical noise reverberating across the valley. These should be installed offshore not in the countryside near homes. Disgraceful
- Not acceptable to have any wind turbines in this ecologically sensitive area including an Area of Outstanding Natural Beauty

The positive comments reflected on the need to increase renewable energy capacity to address the climate emergency and energy crisis, as well as conveying a sense of urgency to do this. These quotes illustrate these sentiments:

- Love the project! Happy to have them in my backyard!
- I would like to see as much renewable energy capacity as possible within the area. So more and larger turbines. We face a climate emergency and energy crisis, alongside a cost-of-living crisis, and renewable wind energy is an important way to help solve these issues.
- I think wind turbines are beautiful and an amazing way to generate power. Put as many as you can in!
- Each site needs to be looked at from an environmental and physical residential view but really soon people need to be a secondary consideration as we are ultimately the problem; as sad as that makes me feel. The time is now. The number one issue is not humans but the impact on wildlife and natural rich habitats over our own.
- I have lived in Peasedown for 20 years and I'm very enthusiastic about the prospect of the village generating its own power in a sustainable manner. This is tremendously important both in combatting climate change and providing energy security and energy price confidence.
- I think that at this time of ecological and fuel crisis it's really important we invest in alternative energy solutions in the area.

3.2.2 Solar

Ground-based solar farms

Survey respondents were asked about the suggested location and size of each ground-based solar farm. Figure 18 shows survey respondents' feelings about each of the suggested locations. A minimum of 60% of respondents were satisfied with the locations proposed in the workshops, across all locations. The suggested solar farm locations which received the most support were Link Hill and South of White Ox Mead, both receiving 64% satisfaction. The suggested solar farm location with the least support, although only by a small amount, was Upper Baggridge which received 60% satisfaction and the most dissatisfied responses of all locations at 28%.

Survey comments on solar farm locations included:

- Concern over having solar farms in an Area of Outstanding Natural Beauty (AONB) and that unproductive land should be used for them.
- Several suggestions that putting solar on roofs would be better, rather than using farming/AONB land. E.g.
 - I also believe these installations have a significant negative visual impact and would not support them over other options. I would strongly support greater rooftop solar installation that minimises both visual impact and loss of farming land."
 - Solar farms on fields desecrates the countryside. They should be on top of every possible building and certainly not in AONBs.
- Solar farms would be most acceptable where they can be hidden from view.
- A couple of comments on specific locations:
 - The area south of White Ox mead would be a visual eyesore given that some of the best views in this area are from The Knoll.
 - The Link ill proposal depends upon the extent of the area. It should not extend over the brow of the hill in order to be visible from village properties.

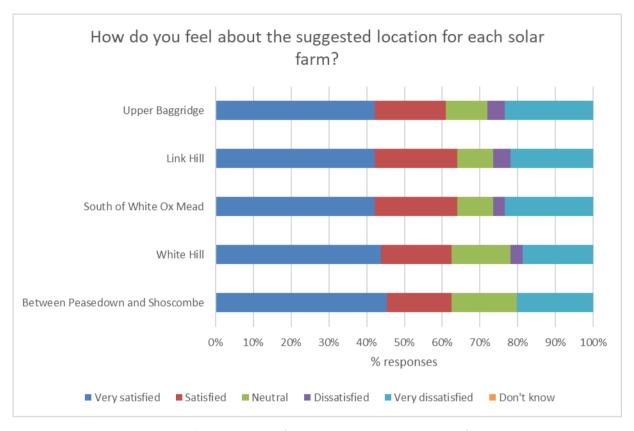


Figure 18 – Attitudes to solar farm locations (64 responses to this question).

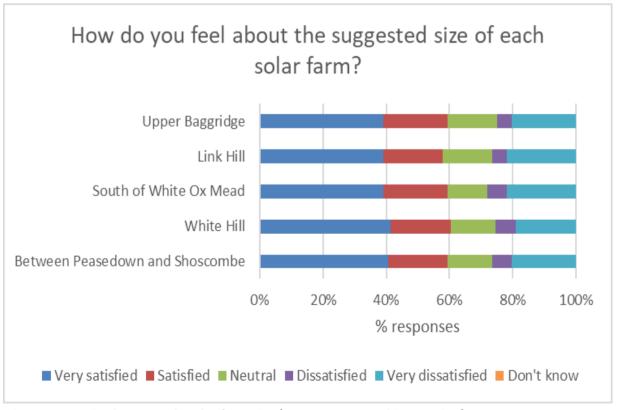


Figure 19 - Attitudes towards solar farm size (64 responses to this question).

Figure 19 shows survey respondents' feelings about each of the suggested solar farm sizes. A minimum of 57% of respondents were satisfied with the locations suggested in the workshops, across all locations. The suggested solar farm size which received the most support was South of White Ox Mead at 60% satisfaction. However it also received the most dissatisfied reactions at 28% dissatisfaction. However, across the board, there was no particular solar farm size which received significantly more or less support and each size received over half satisfaction.

One comment on solar farm size reflected:

• I am very enthusiastic about solar farms. They can provide one of the cheapest forms of electricity generation, and they need be one part of a mixed solution to generate enough renewable electricity for us. It is more efficient to build larger solar farms. There are other considerations when considering locations - such as grid capacity, grid connection and the amount of demand - and these considerations should take precedence over the things like the appearance / visual impact of the installations. We urgently need to generate more renewable electricity.

Figure 20 shows that 60% of survey respondents were satisfied with the idea of putting ground-based solar panels around the base of wind turbines. 1 in 4 however felt dissatisfied with this suggestion.

Many comments related to having solar farms around the base of wind turbines supported the idea, stating it made sense. These quotes reflect the mixture of respondents' feelings:

- The visual impact of these installations is magnified, but if the panels are going to be installed anywhere it would make more sense to limit widespread visual impact by placing them at the bottom of turbines.
- Good idea to maximise the space that's allocated to this kind of use.
- Find better, more remote locations. Preferably offshore for wind farms and remote farmland for solar arrays.

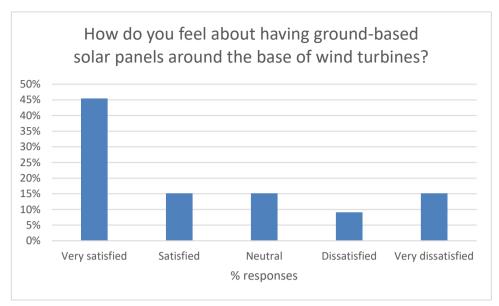


Figure 20 – Attitudes towards ground-based solar panels around base of wind turbines (66 responses to this question)

Other comments made about solar farms included:

- Solar farms are needed in the current energy crisis and provide refuge for plants and wildlife as they provide corridors of untilled land.
- I feel like solar farms take up more space that could be used for other things, so wind turbines are preferable but very happy about the push for renewable energy. Curious as to whether the solar farms allow for wild flower to grow around and wildlife to pass through? That would be great for the local wildlife populations.
- As long as it benefits villagers with cheaper electricity and not just the landowner.

Rooftop solar panels

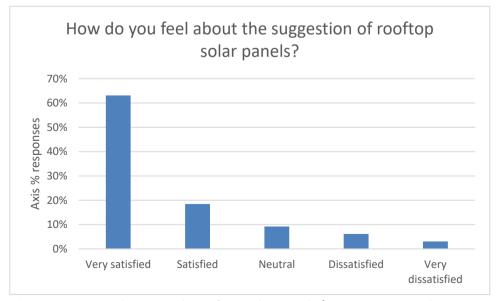


Figure 21 – Attitudes towards rooftop solar panels (65 responses to this question).

Rooftop solar panels received significant support in the survey, with 82% of respondents feeling satisfied with the suggestion (figure 21).

Comments about rooftop solar panels included some concern over visual impact, a call for more information as well as reflection on the financial barriers:

- Should not be permitted on Listed Buildings, historic buildings or roofs facing the High Street in Wellow.
- As a local homeowner I want to install solar panels on our roof (our building is not listed/ historic). However, I am reluctant to make an application to do so because I am concerned planners will not support this in a conservation area... Support and information for residents about the process and likelihood of approval would be useful.
- I strongly support rooftop solar over any other form of renewable generation as it has the lowest negative impact on the landscape and farmland.
- Would love some but not for the costs involved etc. If they were provided for free for all suitable houses for a discount on electricity bills then great.

3.2.3 Anaerobic digestion

Survey respondents were asked about their overall attitude towards anaerobic digestion (figure 22). The largest proportion of respondents (40%) were neutral towards this technology. There was an fairly even split among respondents who felt satisfied (32%) and dissatisfied (28%) with the suggestion.

Respondents' comments about anaerobic digestion included:

- Concern about having one in an Area of Outstanding Natural Beauty (AONB).
- Concern over the negative visual impact.
- If it used manure from local farms, it could be an effective use of waste and offset agricultural emissions.
- The emissions from transporting waste to the plant and infrastructure costs would negate/limit the benefits.
- Specific locations suggested were:
 - Maybe a previous coal mine such as Writhlington pit.
 - Not in the Parish of Wellow. Potentially in a commercial or industrial area of Peasedown St John.
 - At the old council yard at Braysdown (two people suggested this).
 - o In White Ox Mead.
 - o Potentially next to or on the landfill site at Wellow.
 - On the edge of an existing urban town like Radstock or Peasedown. NOT in the greenbelt or AONBs.

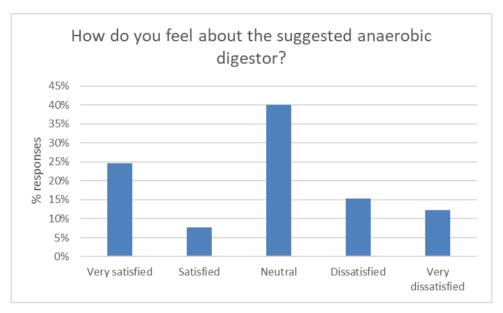


Figure 22 - Attitudes towards suggested anaerobic digestor (65 responses to this question).

3.2.4 Micro hydro power

Participants at the workshop expressed support for the possible development micro hydro power, if found to be feasible. In the online survey, 59% of respondents were satisfied with the suggestion and 22% were dissatisfied (figure 23).

Survey comments about micro hydro power included:

- Concern that it would be too small to generate enough energy to make a difference/justify the expense.
- Concern over the impact on wildlife e.g. fish.
- Support dependent on its visual impact ensuring it would be well hidden.
- Support over the fact it has minor impact on the landscape and suggestion that the weir in Wellow is already impacted visually by the concrete weir so it would make absolute sense to use this resource.
- A comment said there was a previous application for Wellow Brook but this was turned down.
- Uncertainty over having culverted streams along the road from Peasedown to Radstock.

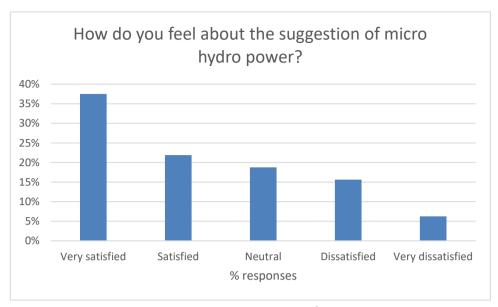


Figure 23 – Attitudes towards micro hydro power (64 responses to this question)

3.2.5 Mine water heat

Mine water heat received a positive response in the survey. 73% of respondents felt satisfied about the suggestion. Over half (54%) felt 'very satisfied' (figure 24).

Survey comments about mine water heat included:

- In favour if it didn't have a negative visual or noise impact.
- Many who think it's a good idea to use infrastructure that's already in existence and that it wouldn't have impact on the landscape in the same way as other big technologies).
- Reflection the experience of Bath Abbey with the spa waters has been positive.
- It would be a significant way to decarbonise heat in the area.
- Need more information for residents if it were found to be viable.

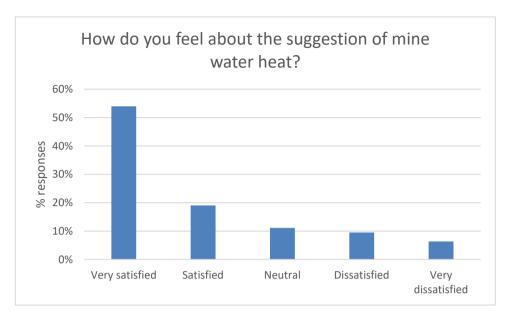


Figure 24 – Attitudes towards mine water heat (63 responses to this question)

3.2.6 Overall energy generation

The renewable energy suggested in the workshop would result in the parishes of Peasedown and Wellow generating over 3.5 times (397%) the amount of electricity used from renewable sources.

The majority of survey respondents felt positively about the area generating more energy than is used locally with 15% feeling satisfied about this, and over half (60%) feeling 'very satisfied' (figure 25).

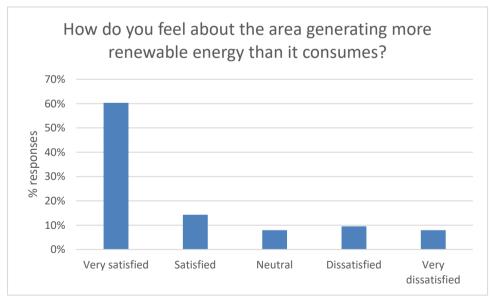


Figure 25 – Attitudes towards overall energy generation in Peasedown and Wellow (63 responses to this question)

Respondents were asked whether there anything that would them more comfortable with the area generating more renewable electricity than it consumes. The majority of responses (14 out of 20 responses) were positive with eight comments saying the community should benefit. Suggestions for this ranged from profit being invested into the community, residents getting to use the energy first, or have lower energy bills. Four responses commented on being able to support other communities with fewer renewable energy resources:

- This level of generation is good and there is an element in me that thinks that 387% is excessive given that other areas may be doing the same. I would rather that we installed capacity to meet say 150% of demand and leave other areas un-developed
- I have no issue with this as any area that can over generate in a manner acceptable to the community should do so as not all areas will be able to do this. Energy generation is a national problem and we should contribute where we can
- The financial benefit of exporting energy must be shared by the community, and not just make the "financiers" rich. The best way to do this is to create Community Benefit Societies to own the electricity generating infrastructure.
- This is a particularly beautiful area. The residents of this area will be taking the 'hit' of these solutions in terms of their views, potential falls in house prices for example, for the benefit of people elsewhere. I'd prefer it if the solutions were limited to what's required for this area.
- Surely the solutions could be spread out so that each area benefitted from their own windmills etc rather than one area such as ours carry the can for lots of others too.

Conditions of support included:

- A clear idea of who profits from the proposals and how this may fit into a nationwide assessment of suitable options.
- Depending on the economic benefits to the inhabitants of the two parishes

3.2.7 Other comments about renewable energy in Peasedown and Wellow

Survey participants were asked whether they had any other comments about renewable energy in Peasedown and Wellow. The majority of responses (13 out 22 comments) were very positive, with nearly half of the respondents re-stating their strong support for the project and plans:

- Be bold.
- We very urgently need to install large amounts of renewable energy generation here.
- Fully support the development of infrastructure to provide more renewable energy.
- Let's go faster!!
- Let's create as much energy as we can!

A minority of the comments re-stated their opposition to the proposals tabled in the workshops:

 Large parts of the Parish of Wellow are within a conservation area and an Area of Outstanding Beauty so no structures which could impact negatively on the natural beauty of the Parish and it's environment A strong theme in the remainder of the responses, even in some of the negative responses, was the need for the community to benefit from hosting renewable energy:

- There is nothing to be gained from level renewable initiatives unless the benefit of such schemes goes to the residents either through reduced tariffs or royalties on power generated. This is our environment. We won't see it destroyed to generate power for the grid and to the benefit of a few landowners.
- There should be a discounted energy rate to get people on board.
- It is not clear in the report how the community could benefit from the generation of renewable energy apart from the reduction of carbon. I would like to see further outlines of local energy tariffs or other financial opportunities that benefit local consumers.
- How will this help with individuals' energy costs?

3.2.8 Demographic data for respondents to online survey – Peasedown and Wellow

Full demographic data for the Peasedown and Wellow online survey is in appendix B. 41% of respondents were employed on either full or part time basis, and 42% of respondents were retired. Most respondents (67%) fell between 40 - 69 in age. There was a fairly even gender split among respondents with 48% identifying as a woman and 50% as a man. Most respondents identified as White (96%). All demographic data questions were anonymous and optional for survey respondents to complete.

Seventy-three people responded to the online survey.

4. Temple Cloud and Hinton Blewett findings

4.2 Summary of workshop outputs – Temple Cloud and Hinton Blewett

During this workshop, participants supported potential development the technologies outlined in table 3. <u>Find out more about renewable energy a visual guide in appendix D.</u> Figure 26 (below the table) shows these suggested technologies mapped out. The online map can also be <u>viewed here</u>.

Table 4 – Summary of technologies suggested by Temple Cloud and Hinton Blewett workshop participants

Technology	Technology details	Location	Details
Wind turbines	One large wind turbine (up to 140 meters to the tips of the blades) – 2.5-megawatt output	East of Hinton Blewett Village and south of Cameley.	This would power 316 homes per year. Note for reference, the parishes of Temple Cloud with Cameley and Hinton Blewett contain 566 homes.
	Two small wind turbines (up to 60 meters to the tip of the blades), 500 kilowatt output.	In the same location as above, to be located alongside the one large wind turbine.	These would power 632 homes per year. Note for reference, the parishes of Temple Cloud with Cameley and Hinton Blewett contain 566 homes.
	One small wind turbine (up to 60 meters to the tip of the blades), 500-kilowatt output.	At the glassworks site.	The 500-kilowatt turbine would provide power for about 316 homes per year. Note for reference, the parishes of Temple Cloud with Cameley and Hinton Blewett contain 566 homes.

Technology	Technology details	Location	Details
Solar	Two ground-based solar panels (solar farm). Each solar farm is 20 megawatts or 48 acres, the equivalent of 36 football fields.	One to be located west of Clutton. The other would be in the same location as the one large and two small wind turbines, east of Hinton Blewett village and south of Cameley.	The output of each solar farm would power 2610 homes per year. Note for reference Temple Cloud with Cameley and Hinton Blewett contain 566 homes.
	Rooftop panels – both solar thermal and solar photovoltaic panels	Industrial buildings with large flat roofs as well as domestic buildings.	
Anaerobic digestion	Anaerobic digestor – 500 kilowatts	No specific location identified. Preference for it being located in an already industrial area or spoiled landscape e.g., by a road.	This would provide electricity for around 715 homes. Note for reference Temple Cloud with Cameley and Hinton Blewett contain 566 homes.
Heat pumps	Air source and ground source heat pumps	Domestic buildings.	There was support for installation of air source and ground source heat pumps in 50% of domestic buildings.

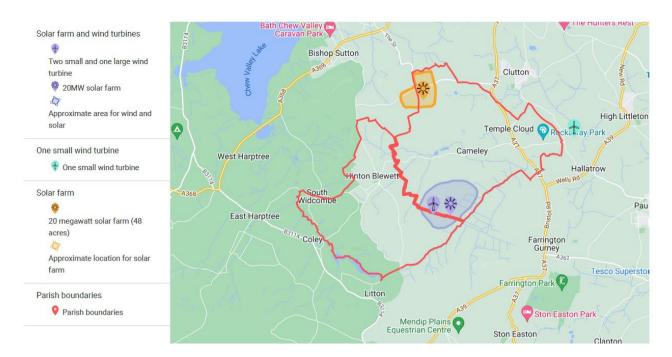


Figure 26 - Location of suggested renewable energy from the Temple Cloud and Hinton Blewett workshop.

4.3 Summary of online survey – Temple Cloud and Hinton Blewett

Response to the online survey for Temple Cloud and Hinton Blewett was broadly positive for most technologies. The suggested one small wind turbine received a generally positive although there was dissatisfaction and concern about its impact on wildlife and whether it would be a sufficiently windy location.

The suggested solar farm west of Clutton also received a majority positive response with suggestions that although there was dissatisfaction and concern about potential loss of agricultural land to solar panels, suggestions that it could be smaller to mitigate the visual impact. Rooftop solar panels received significant support.

The combined area of wind and solar received was more mixed. While there was overall satisfaction, there was significant concern over the size and location of the technologies on local wildlife and footpaths in the area. Response to the one large wind turbine received more dissatisfaction than positive responses.

The suggested anaerobic digestor received a mixed response, although respondents suggested potential locations for one.

Overall survey respondents felt positively about the area generating more renewable energy than it uses. However, they were keen to see how the community could benefit from hosting renewables and ensuring that their area was best placed to host the technology from a technical standpoint.

4.3.1 One small wind turbine

Overall, survey respondents felt positively about the suggested small wind turbine, with 66% feeling satisfied overall (figure 27).

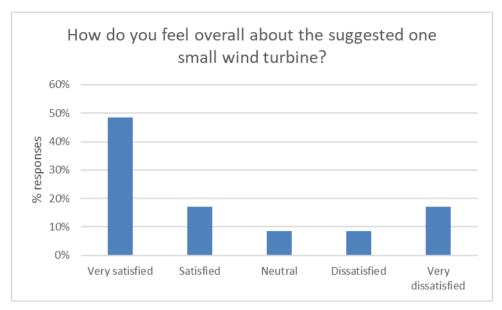


Figure 27 – Attitudes towards one small wind turbine (35 responses to this question).

In terms of the specific aspects of the suggest turbine, figures 28 and 29 shows survey respondents' feelings about the size and location of the turbine. The majority in each instance felt positively with 60% satisfied about the size (up to 60 metres) and 69% satisfied with the location (East of Hinton Blewett Village and south of Cameley).

However, around 1 in 4 respondents did feel dissatisfied with the suggestion overall, as well as the suggested turbine's size and location. Comments in the survey suggested reasons for dissatisfaction included concern about wind turbine impact on wildlife concern that the chosen location is in a valley and might not be windy enough. For example: across the field at the end of Goldney Way would impact less on local houses and be at the end of the plateau away from as many trees and bird and bat flight paths. Plus receive the prevailing winds uninterrupted.

Other survey comments about the suggested wind turbine included:

- Add more than just one if you can, wind turbines are not unsightly when you consider what they represent.
- Renewable energy is the way forward for our energy needs. I do wonder whether
 there would be enough wind for a windmill on Marsh Lane near Greyfields wood?
 It's a valley? Wouldn't there be more wind on the hills the other side of the A37?
 That's my only thought on positioning.
- As long as it would have no effect on the wildlife at the nearby nature reserve.
- Road access for construction and ongoing maintenance visits likely to be better than other suggested locations perhaps.

• Difficult to visualise how this will appear on the landscape. A picture would help. Show the whole circle the blades will fill as well as the tower.

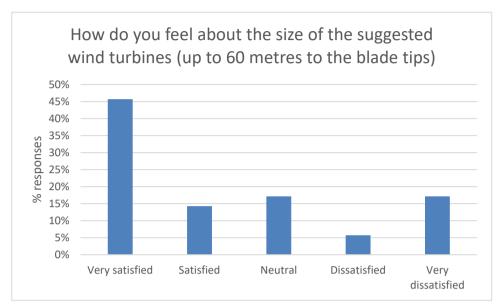


Figure 29 – Attitudes towards the wind turbine size (35 responses to this question).

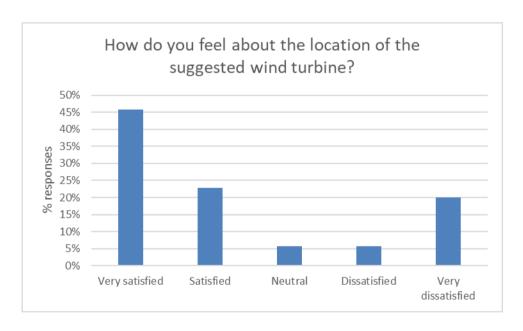


Figure 28 - Attitudes towards the location of the wind turbine (35 responses to this question).

4.3.2 Solar

Solar farm

Overall, survey respondents felt positively about the suggested solar farm west of Clutton, with 63% feeling satisfied overall (figure 30). However nearly a third felt dissatisfied and reasons for this will be explored in the survey comments analysis.

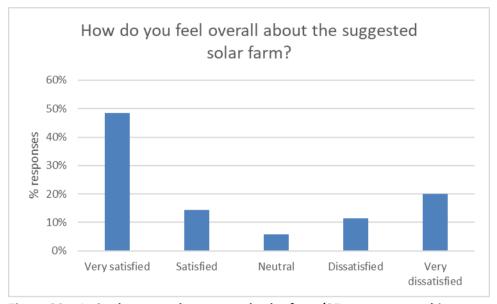


Figure 30 – Attitudes towards suggested solar farm (35 responses to this question).

In terms of the specific aspects of the suggest turbine, figures 31 and 32 shows survey respondents' feelings about the size and location of the solar. The majority in each instance felt positively with 59% satisfied about the size (up to 60 metres) and 63% satisfied with the location (East of Hinton Blewett Village and south of Cameley).

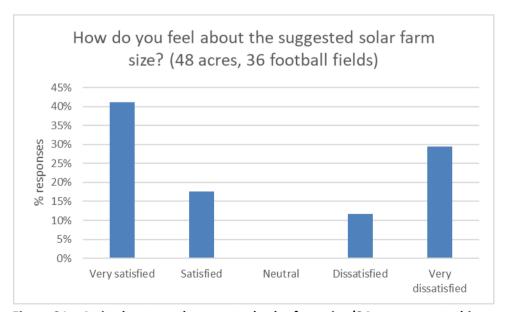


Figure 31 – Attitudes towards suggested solar farm size (34 responses to this question).

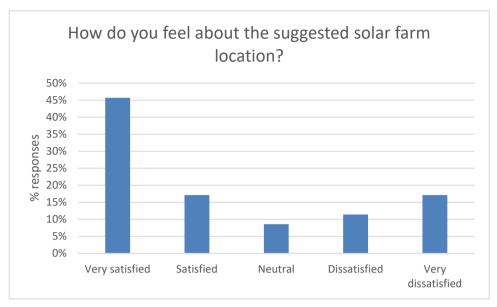


Figure 32 – Attitudes towards suggested solar farm location (34 responses to this question).

However, while over half felt satisfied about the suggested solar farm, there was significant concern about its size with 41% feeling dissatisfied about it.

Many comments showed concern about solar panels using agriculture land and expressed a preference for rooftop solar panels, including:

- Too big... this is good farming land, where do local people want their food produced? There's already a solar farm in that area, presumably producing power equivalent to a portion of the local consumption. Solar farms should be put on existing hard standing/buildings/industrial sites before agricultural land.
- I disagree, farmland shouldn't be taken over with solar farms, if every house and new build had solar panels on the roof there would be no need to waste good farmland!

Other comments reflected that a smaller area of solar could be preferable for wildlife and visual impact.

- Same capacity over several fields with farmland in between might be more
 acceptable. Driving through the (well used) lanes with panels on either side might
 feel unpleasant. Ideally the panels will be raised so the space underneath is useful
 (for farming or biodiversity) and not killed off.
- If this is not nature positive land then yes, but if it will affect/destroy wildlife etc.
 consider a smaller area of land which would provide energy for the number of
 homes there are (or are expected to be) rather than lots more.

Comments in support of the suggestion included:

- Sensible location with minimal visual impact. The site used to have many lapwings, some investigation into how panels are arranged might even encourage them back.
- Add more if you can, there's plenty of fields around for us to enjoy, we won't miss a few.

Rooftop solar

Rooftop solar panels received significant support in the survey, with 76% of respondents feeling satisfied with the suggestion (figure 33).

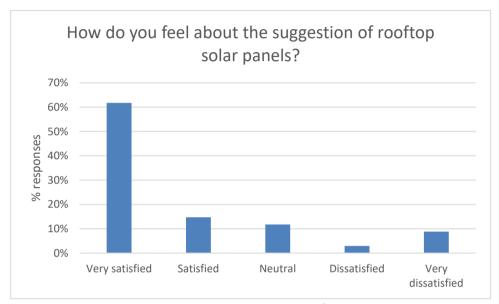


Figure 33 – Attitudes towards rooftop solar panels (34 responses to this question).

Comments about rooftop solar panels included funding/incentivising them, having battery storage alongside panels and that new build houses should require them. These quotes illustrate those points:

- Great idea but needs storage to make the best of this. A community scheme would be great especially if existing panel owners could join.
- If incentives or discounts were offered to make the idea of installing panels on roofs, then this would be ideal.

4.3.3 Combined area of wind turbines and ground-based solar panels

Overall, the majority of survey respondents felt positively about the suggested area of combined wind turbines and ground-based solar panels, with 64% feeling satisfied. However, a third of respondents (33%) felt dissatisfied with the suggestion (figure 34).

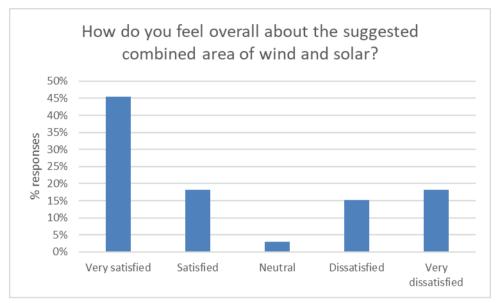


Figure 34 – Attitudes overall towards suggested area of combined wind and solar (33 responses to this question).

In terms of the specific aspects of the suggested technologies, figure 35 shows survey respondents' feelings about the size of each technology. The two small wind turbines and solar farm both had over half of respondents (57% and 63% respectively) reporting feeling satisfied. However, for the one large wind turbine under half (44%) were satisfied and around a third (34%) were dissatisfied, therefore that technology presented a more mixed picture.

Comments about technology size included:

- The largest turbine is possibly just a bit too big? They can look quite beautiful but
 it's difficult to appreciate just how turbines at this site would 'sit in the landscape'.
 The solar farm size suggested is massive use industrial land instead to preserve
 agricultural land for that purpose.
- I'd like the decision to factor in the best result for nature not only in providing renewable energy, but which of the above options is the best for nature/wildlife in this area? Which has the least impact? If the two smaller wind turbines for example cause less loss of habitats, but still provide enough energy for the homes in the area then this would be great.

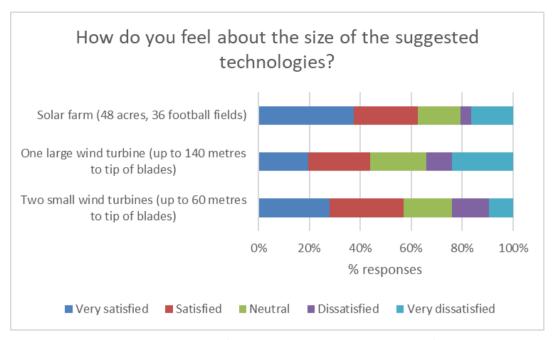


Figure 35 - Attitudes towards size of suggested technologies in area of combined wind and solar (32 responses to this question).

For technology location, nearly half (49%) felt dissatisfied about the one large wind turbine. The two other technologies (two small wind turbines and solar farm) presented a mixed picture, just under 50% felt satisfied about them while around a third felt dissatisfied. 1 in 5 felt neutral (figure 36). Comments about technology location included:

- Possibly the most important ecological area of the two parishes and over part of a nature reserve is barbaric.
- There are some public footpaths that are in a beautiful location that are in the middle of this area. Panels especially need to be further away from the footpaths allowing a green corridor and preserving views.
- Add more do more, these are all great initiatives, we don't have the luxury of keeping all these fields pointlessly empty, put them to good use.

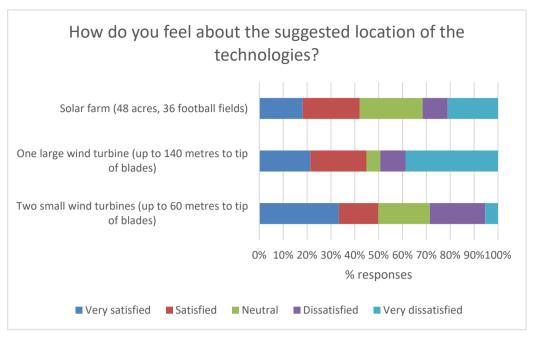


Figure 36 – Attitudes towards location of suggested technologies in area of combined wind and solar (27 responses to this question).

4.3.4 Anaerobic digestion

Response to the anaerobic digestor was mixed. Forty-one percent were satisfied, while 24% were dissatisfied. A third felt neutral (figure 37).

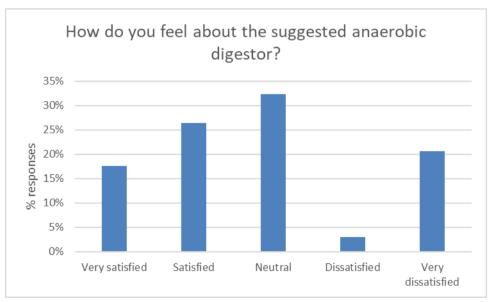


Figure 37 – Attitudes towards suggested anaerobic digestor (34 responses to this question).

Locations for anaerobic digestion suggested in the survey were:

• On the A37 for access.

- At willing farms.
- The Stowey quarry site (this was also suggested in the Stowey Sutton and East & West Harptree survey).
- Far from residential areas.
- Close to the feedstock source.

4.3.6 Overall energy generation

The renewable energy sources suggested in the workshop would result in Temple Cloud and Hinton Blewett generating 750% of its energy use from renewable energy. Therefore, the parishes would be generating more energy than they use.

In the online survey, 71% of respondents felt very satisfied or satisfied about this (figure 38).

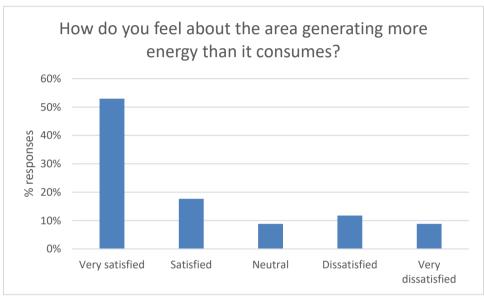


Figure 38 – Attitudes towards overall energy generation (34 responses to this question).

Respondents were asked whether there anything that would them more comfortable with the area generating more renewable electricity than it consumes. Most responses (6 out of 13 responses) were positive, with four negative and three neutral comments. The most common response was that the community should benefit, with either revenue being ploughed back into the community or to reduce people's energy bills and ensuring the locations are most suitable:

- If any income can go back to the residents by reducing bills etc, then that would be delightful.
- Yes, revenue from the production of this energy being ploughed back into the parishes
- Knowing clearly where and how the energy is used, understanding why this area is creating more energy to be used elsewhere. Ideally if supports good causes e.g. If it means that renewable energy doesn't need to be built on a nature reserve elsewhere for example. Would want to know the reasoning as to why here.

• I think it depends on whether the locations in this area are significantly better (cost, efficiency, visual impact) than other locations in the wider area.

4.3.7 Other comments about renewable energy in Temple Cloud and Hinton Blewett

Survey participants were asked whether they had any other comments about renewable energy. The majority of responses (5 out of 10 comments) made neutral comments about the format and approach to the survey:

- Disappointed that landowners in this area weren't engaged with directly at this stage of the process.
- Consultation with neighbouring parishes, this is a very isolated, introspective consultation. Why not think bigger?

A further two respondents commented on the need for the community to benefit from hosting renewable energy:

- Is there anyway community/locals can get more involved? Also is there any way this can support residents financially? Also are there local energy companies that can be used?
- Consideration given to schemes to encourage people to insulate their homes better, to further improve the benefits of locally generated energy

4.3.7 Demographic data for respondents to online consultation – Temple Cloud and Hinton Blewett

Full demographic data for the Temple Cloud and Hinton Blewett online survey is in appendix C. 58% of respondents were employed on either a full or part time basis, and 26% of respondents were retired. Just over half of respondents were aged 40-69 (52%), 37% of respondents were aged 18-39, the remainder over 70. 63% of respondents identified as a woman and 32% as a man. Most respondents identified as White (95%). All demographic data questions were anonymous and optional for survey respondents to complete.

Thirty-five people responded to the online survey.

5. Conclusions and Recommendations

5.1 Summary of findings

The workshops and surveys show that in three areas of the project, most respondents were supportive of an increase in renewable energy deployment and the potential for their area to host additional capacity. Within all three parish clusters, there was majority support for onshore wind turbines, solar farms, domestic renewable energy generation and other forms of renewable energy, such as micro hydro, where feasible. These findings suggest that overall public opinion about renewable energy in Bath and North-East Somerset broadly mirrors the strong support for all forms of renewable energy seen in national opinion polls².

The renewable energy options supported in the online surveys would result in all three of the parish clusters generating more energy on an annual basis than is used locally. This is summarised in table six.

Table 5 – Renewable energy generation across the three communities

Parishes	% of local electricity demand generated from new renewable energy plant (supported in workshops and online surveys)
Stowey Sutton and East and West Harptree	350 %
Peasedown and Wellow	397 %
Temple Cloud and Hinton Blewett	750 %

Respondents had strong opinions about the type and scale of renewable energy projects which might be acceptable, where these projects should go, and how their community should benefit. Most respondents in all three communities felt "very satisfied" about their area generating more electricity than it consumes. However, in all cases this was subject to the community benefitting from hosting this infrastructure, either through profits being ploughed back into the community or lower energy bills. Who develops, owns, and benefits from a proposed renewable energy project is likely to have a significant impact on how it is seen locally and whether it is supported through the planning process. Consequently, to

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² BEIS Public Attitudes Tracker: Energy Infrastructure and Energy Sources, Spring 2022, UK

maximise renewable energy deployment Bath and North-East Somerset council should proactively support and enable community-owned and shared ownership schemes.

Not unreasonably, if communities are to meet their own needs for electricity generation and then export renewable electricity to support other areas, they wish to wish to benefit. Additionally, in all the surveys, participants explicitly made the link between renewable energy generation and lower energy bills. Across all workshops and surveys, a cross cutting theme was as sense of urgency to increase renewable energy capacity to address the climate emergency and energy crisis.

While workshop participants and survey respondents valued their landscapes and wished to protect them, even within areas covered by policy or landscape designations such as Green Belt or Areas of Outstanding Natural Beauty (AONB) there was support for developing some renewable energy projects of different scales and types. Workshop participants were able to weigh up how the protection of their landscapes should be balanced against the need to generate renewable energy. Most respondents didn't see policy or landscape designations such as Green Belt or AONB as an absolute barrier to projects coming forward. The following are direct quotes from workshop participants and survey respondents:

"I think there's a growing realisation that, to protect this beautiful landscape, we need to make some changes."

"We have to do this, for the sake of our children/grandchildren."

"The odd unnatural thing in the landscape is as nothing compared to keeping our energy needs supplied in a sustainable way."

"Add more (solar farms) if you can, there's plenty of fields around for us to enjoy, we won't miss a few."

Where projects are proposed in communities with Green Belt or AONB designations, which limit the locations where renewable generation could normally take place, the ambition to increase the self-sufficiency of that community if widely expressed, could be given weight as very special circumstances to support proposals.

Across all three parish clusters, common concerns about suggested technologies included their visual impact, impact on wildlife such as birds or bats, and loss of agricultural land to solar panels. These issues are valid planning considerations and would be assessed resolved through planning processes, were applications to come forward.

It is very unlikely that the level degree of support seen (and level of potential generation capacity supported) would have been forthcoming if respondents were not able to express these views in this engagement exercise/workshop format and illustrates the importance of community engagement and input. Community support should therefore not be assumed for renewable energy projects and to maximise potential generation, efforts should be made to shape proposals that address community concerns and aspirations.

The workshop was framed around the extent to which these communities could become self-sufficient in terms of generating the energy they use and localised the problem of decarbonising the energy system to the parish level. Whilst participants had differing views as to the extent to which this could be achieved, this framing (of community self-sufficiency) seemed to resonate with most participants. We suggest your climate team continues to use this messaging when discussing renewable energy with communities and individuals in your area.

5.1.1 Limitations

Heat and insultation

While the sessions did also consider renewable heat generation, including options such as district heating and heat pumps, in all cases the communities would generate only a very low proportion of their heat demand from local renewable sources. There was community support for renewable heat options, however there was also a recognition that the planning system is not the predominant barrier to the rollout of most renewable heat technologies. The barriers are instead predominantly financial, technical, and structural, whether the cost can be brought down to enable people to afford heat pumps, whether district heating would be feasible / viable in relatively low-density rural communities and whether local or national government is able to create heat networks in existing communities.

While for reasons of time, the workshops and surveys did not address how properties could be insulated to reduce energy demand, the need to reduce demand through retrofitting properties was frequently raised.

Technology options

CSE recognise that while the renewable technology options offered to communities in the workshops were based on the best available evidence, site specific considerations and planning constraints are likely to reduce what can be delivered on the ground. Additionally, the workshops and surveys were necessarily high level and did not allow landscape, visual or cumulative impacts to be to be assessed in detail. Whilst images of the technologies were shown, including wind turbines of different sizes, it was not possible to present wireframes or photomontages of projects in the landscape due to time and budget constraints. The results should be seen as indicative of the views of these three communities, but not binding on them.

Self-sufficiency and grid constraints

Currently there are grid connection constraints in the South West that could impact on the scale and timing of new renewable energy installations. This impacts the larger scale systems the most and is not such a limiting factor for domestic scale systems. This issue was not included in the workshop conversations, but we suggest that where further

conversations with these communities develop, it will be important to manage expectations in light of this.

Workshop outputs

Some respondents raised concerns about how "real" the outputs were and whether the locations suggested as being suitable for different forms of renewable energy generation would be developable. Whilst the workshops used the best evidence available to us of the likely deployable resource (the Council's RERAS studies), CSE share this concern. If the council or local communities run the process again as a basis for finding viable, developable projects, efforts should be made to source project level feasibility and viability data to inform the menu of choices, including (where possible) from the community and commercial renewable energy sectors. This could be carried out on a district wide basis. If data is sought in relation to specific parishes, the buy-in of that community or parish council should be established first.

6. Appendices

Appendix A – Stowey Sutton and East & West Harptree online survey data

A1 Renewable technologies

Table 6 – Data from Stowey Sutton and East & West Harptree survey

How do you feel overall about the suggested wind turbines?	Responses	%
Very satisfied	21	42.00%
Satisfied	15	30.00%
Neutral	5	10.00%
Dissatisfied	3	6.00%
Very dissatisfied	6	12.00%
Total	50	100%
How do you feel about the size of the suggested wind turbines? (up to 60 metres to the blade tips)	Responses	%
Very satisfied	17	34.00%
Satisfied	17	34.00%
Neutral	5	10.00%
Dissatisfied		
	4	8.00%
Very dissatisfied	7	14.00%
Total	50	100%
How do you feel about the number of the suggested wind turbines? (up to two)	Responses	%
Very satisfied	17	34.00%
Satisfied	17	34.00%
Neutral	5	10.00%

Dissatisfied		
	2	4.00%
Very dissatisfied	9	18.00%
Total	50	100%
How do you feel about the	Responses	%
number of the suggested		
wind turbines? (up to two)		
Very satisfied		
	17	34.00%
Satisfied		
	17	34.00%
Neutral		
	5	10.00%
Dissatisfied		
	2	4.00%
Very dissatisfied	9	18.00%
Total	50	100%

How do you feel about the suggested locations for each single turbine? (50 responses)								
	Very Satisfie Neutral Dissatisfie Very dissatisfied d							
Smitham Hill, to the south of East Harptree	21.95%	29.27%	19.51%	4.88%	24.39%			
North of the disused quarry on Stowey Road in Bishop Sutton	39.47%	36.84%	15.79%	2.63%	5.26%			

How do you feel about the suggested locations for each single turbine? (50 responses)							
Very Satisfie Neutral Dissatisfie Ve							
	satisfie d	d		d	dissatisfied		
Smitham Hill, to the south of East Harptree	21.95%	29.27%	19.51%	4.88%	24.39%		
North of the disused quarry on Stowey Road in Bishop Sutton	39.47%	36.84%	15.79%	2.63%	5.26%		

How do you feel overall about the suggested	Responses	%
floating solar panels?		
Very satisfied		
	22	50.00%
Satisfied		20.450/
Neutral	9	20.45%
Treatrai	2	4.55%
Dissatisfied		
	5	11.36%
Very dissatisfied	6	13.64%
Total	44	100%
How do you feel about the size of the	Responses	%
suggested solar farm? (covering around 10%	Responses	70
of the lake's surface)		
Very satisfied		
	17	38.64%
Satisfied	10	22.73%
Neutral	10	22.75%
TVC dt di	5	11.36%
Dissatisfied		
	6	13.64%
Very dissatisfied	6	13.64%
Total	44	100%
How do you feel about the location of the	Responses	%
suggested solar farm? (floating panels on	Responses	70
Chew Valley lake)		
Very satisfied		
	20	45.45%
Satisfied	9	20.45%
Neutral	9	2U.4J/0
11000001	4	9.09%
Dissatisfied		
	4	9.09%
Very dissatisfied	7	15.91%
Total	44	100%
How do you feel about the suggestion of	Responses	%
rooftop solar panels?	Nesponses	,,,
Very satisfied		
	31	70.45%
Satisfied	8	18.18%

Neutral		
	2	4.55%
Dissatisfied		
	2	4.55%
Very dissatisfied	1	2.27%
Total	44	100%
How do you feel about the suggestion of rooftop solar thermal panels?	Responses	%
Very satisfied		
	26	60.47%
Satisfied		
	5	11.63%
Neutral		
S	9	20.93%
Dissatisfied		4.650/
Van dissatisfied	2	4.65%
Very dissatisfied	1	2.33%
Total	43	100%
How do you feel about the suggested anaerobic digestor?	Responses	%
Very satisfied		
	10	23.81%
Satisfied	9	21.43%
Neutral	16	38.10%
Dissatisfied		
	4	9.52%
Very dissatisfied	3	7.14%
Total	42	100%
	_	
How do you feel about the area generating	Responses	%
more renewable electricity than it consumes?		
Very satisfied	25	59.52%
Satisfied	23	JJ.JZ/0
- Cutioned	9	21.43%
Neutral		
	5	11.90%
Dissatisfied		
	1	2.38%
Very dissatisfied	2	4.76%
Total	42	100%

A2 Demographic data

Table 7 – Demographic data for respondents to the Stowey Sutton and East & West Harptree survey

All demographic data questions were anonymous and optional for survey respondents to complete.

Gender (34 responses)	%
Female	58.82%
Male	41.18%
Total	100%
Age (34 responses)	%
17 or younger	2.08%
18-20	0.00%
21-29	4.17%
30-39	11.76%
40-49	32.35%
50-59	20.59%
60-69	29.41%
70 or older	5.88%
Total	100%
Ethnicity (34 responses)	%
White - English	50.00%
White - British	50.00%
Total	100%
Current occupation* (33 responses)	%
Employed, working full-time	27.27%
Employed, working part-time	30.30%
Not employed, looking for work	0.00%
Not employed, NOT looking for work	6.06%
Retired	30.30%
Disabled, not able to work	3.03%
Full-time education	0.00%
Part-time education	3.03%
Prefer not to say	0.00%
Other (please specify)	6.06%
Total	100%

^{*}multiple options could be selected



Figure 39 – Map showing postcode areas of respondents to the Stowey Sutton and East & West Harptree online survey.

Appendix B – Peasedown and Wellow online survey data

B1 Renewable technologies

Table 8 - Data from Peasedown and Wellow online survey

How do you feel overall about the suggested development of wind turbines in Peasedown and Wellow	Responses	%
Very satisfied	39	54.93%
Satisfied	14	19.72%
Neutral	1	1.41%
Dissatisfied	2	2.82%
Very dissatisfied	15	21.13%
Total	71	100%

How do you feel about the suggested wind turbine locations? (69 responses)						
	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Don't know
Upper Baggridge Farm (three tall turbines)	44.93%	23.19%	4.35%	1.45%	23.19%	2.90%
South of Combe Hay (one small turbine)	47.83%	15.94%	11.59%	1.45%	21.74%	1.45%
White Ox Mead (one small turbine)	46.38%	20.29%	11.59%	1.45%	18.84%	1.45%
South-west of Twinhoe (one small turbine)	47.83%	20.29%	8.70%	1.45%	20.29%	1.45%
North of Round Hill (one small turbine)	50.00%	19.70%	9.09%	1.52%	18.18%	1.52%
Near Woodborough Farm (one small turbine)	50.00%	22.73%	7.58%	1.52%	16.67%	1.52%
North of Peasedown (one small turbine)	50.00%	25.76%	7.58%	3.03%	13.64%	0.00%
Near covert woodland south of Stoney Littleton (one small turbine)	44.12%	22.06%	8.82%	4.41%	19.12%	1.47%

How do you feel about the suggested quantity of wind turbines? (69 responses)						
	Very	Satisfied	Neutral	Dissatisfied	Very	Don't
	satisfied				dissatisfied	know
Upper Baggridge Farm	48.53%	17.65%	5.88%	4.41%	23.53%	0.00%
(three tall turbines)						
South of Combe Hay	42.65%	20.59%	11.76%	4.41%	19.12%	1.47%
(one small turbine)						
White Ox Mead (one	42.65%	22.06%	11.76%	4.41%	19.12%	0.00%
small turbine)						

South-west of Twinhoe (one small turbine)	42.65%	19.12%	14.71%	4.41%	17.65%	1.47%
North of Round Hill (one small turbine)	43.28%	17.91%	16.42%	4.48%	14.93%	2.99%
Near Woodborough Farm (one small turbine)	43.28%	19.40%	14.93%	4.48%	16.42%	1.49%
North of Peasedown (one small turbine)	42.65%	22.06%	14.71%	5.88%	14.71%	0.00%
Near covert woodland south of Stoney Littleton (one small turbine)	42.42%	16.67%	10.61%	6.06%	19.70%	4.55%

How do you feel about the suggested wind turbine sizes? (69 responses)						
	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Don't know
Upper Baggridge Farm (three tall turbines, each turbine up to 140 metres to tips of blades if feasible)	42.65%	14.71%	11.76%	4.41%	26.47%	0.00%
South of Combe Hay (one small turbine, up to 60 metres to tips of blades)	45.59%	14.71%	13.24%	2.94%	22.06%	1.47%
White Ox Mead (one small turbine, up to 60 metres to tips of blades)	45.59%	14.71%	16.18%	2.94%	19.12%	1.47%
South-west of Twinhoe (one small turbine, up to 60 metres to tips of blades)	45.59%	13.24%	16.18%	2.94%	20.59%	1.47%
North of Round Hill (one small turbine, up to 60 metres to tips of blades)	46.27%	13.43%	20.90%	1.49%	16.42%	1.49%
Near Woodborough Farm (one small turbine, up to 60 metres to tips of blades)	46.27%	14.93%	19.40%	1.49%	16.42%	1.49%
North of Peasedown (one small turbine, up to 60 metres to tips of blades)	44.78%	17.91%	17.91%	1.49%	17.91%	0.00%
Near covert woodland south of Stoney Littleton (one small	43.28%	13.43%	17.91%	4.48%	19.40%	1.49%

turbine, up to 60			
metres to tips of			
blades)			

Do you have a preference for having fewer, taller wind turbines or a greater number of small wind turbines?	Responses	%
Very satisfied	23	37.10%
Satisfied	11	17.74%
Neutral	12	19.35%
Dissatisfied	16	25.81%
Very dissatisfied	23	37.10%
Total	62	100%

How do you feel about the suggested location for each solar farm? (64 responses)						
	Very	Satisfied	Neutral	Dissatisfied	Very	Don't
	satisfied				dissatisfied	know
Between Peasedown	45.31%	17.19%	17.19%	0.00%	20.31%	0
and Shoscombe						
White Hill	43.75%	18.75%	15.63%	3.13%	18.75%	0
South of White Ox	42.19%	21.88%	9.38%	3.13%	23.44%	0
Mead						
Link Hill	42.19%	21.88%	9.38%	4.69%	21.88%	0
Upper Baggridge	42.19%	18.75%	10.94%	4.69%	23.44%	0

How do you feel about the size of each solar farm? (64 responses)						
	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Don't know
Between Peasedown and Shoscombe	40.63%	18.75%	14.06%	6.25%	20.31%	0
White Hill	41.27%	19.05%	14.29%	6.35%	19.05%	0
South of White Ox Mead	39.06%	20.31%	12.50%	6.25%	21.88%	0
Link Hill	39.06%	18.75%	15.63%	4.69%	21.88%	0
Upper Baggridge	39.06%	20.31%	15.63%	4.69%	20.31%	0

Workshop participants also supported the	Responses	%
installation of ground-based solar panels around		
the base of wind turbines suggested in the		
previous section. How do you feel about this		
suggestion?		
Very satisfied	30	45.45%
Satisfied	10	15.15%
Neutral	10	15.15%
Dissatisfied	6	9.09%
Very dissatisfied	10	15.15%
Total	66	100%
How do you feel about the suggestion of rooftop solar panels?	Responses	%
Very satisfied	41	63.08%
Satisfied	12	18.46%
Neutral	6	9.23%
Dissatisfied	4	6.15%
Very dissatisfied	2	3.08%
Total	65	100%
10001		10070
How do you feel about the suggested anaerobic digestor?		
Very satisfied	16	24.62%
Satisfied	5	7.69%
Neutral	26	40.00%
Dissatisfied	10	15.38%
Very dissatisfied	8	12.31%
How do you feel about the suggestion of micro hydro power?	Responses	%
Very satisfied	24	37.50%
Satisfied	14	21.88%
Neutral	12	18.75%
Dissatisfied	10	15.63%
Very dissatisfied	4	6.25%
Total	64	100%
How do you feel about the suggestion of mine water heat, should it be found to be viable?	Responses	%
Very satisfied	34	53.97%
Satisfied	12	19.05%
Neutral	7	11.11%
Dissatisfied	6	9.52%
Very dissatisfied	4	6.35%
	+	
Total	63	100%

How do you feel about the area generating more renewable electricity than it consumes?	Responses	%
Very satisfied	38	60.32%
Satisfied	9	14.29%
Neutral	5	7.94%
Dissatisfied	6	9.52%
Very dissatisfied	5	7.94%
Total	63	100%

B2 Demographic data

Table 9 - Demographic data for respondents to the Peasedown and Wellow online survey

All demographic data questions were anonymous and optional for survey respondents to complete.

Gender (48 responses)	%
Female	47.92%
Male	50.00%
Non-binary	2.08%
Prefer not to say	0.00%
Total	100%
Age (48 responses)	%
17 or younger	2.08%
18-20	0.00%
21-29	4.17%
30-39	6.25%
40-49	22.92%
50-59	12.50%
60-69	31.25%
70 or older	20.83%
Prefer not to say	0%
Total	100%
Ethnicity (47 responses)	%
White - English	55.32%
White - British	29.79%
White - Scottish, Welsh, North Irish	2.13%
White - Gypsy or Traveller communities	4.26%
White - Any other White background	4.26%
Asian/Asian British - Indian	2.13%
Black/African/Caribbean/Black British -	2.13%
Caribbean	
Total	100%
Current occupation* (48 responses)	%

Employed, working full-time	29.17%
Employed, working part-time	12.50%
Not employed, looking for work	0.00%
Not employed, NOT looking for work	0.00%
Retired	41.67%
Disabled, not able to work	0.00%
Full-time education	4.17%
Part-time education	2.08%
Prefer not to say	4.17%
Other (please specify)	10.42%
Total	100%

^{*}Multiple options could be selected



Figure 40 – Map showing postcode areas of respondents to the Peasedown and Wellow online survey.

Appendix C – Temple Cloud and Hinton Blewett online survey data

C1 Renewable technologies

Table 10 - Data from Temple Cloud and Hinton Blewett online survey

How do you feel overall about the suggested wind turbine?	Responses	%
Very satisfied	17	48.57%
Satisfied		
Neutral	6	17.14%
Neutral	3	8.57%
Dissatisfied	_	 /
Very dissatisfied	6	8.57% 17.14%
Total	35	100%
How do you feel about the size of the suggested wind turbines? (up to 60 metres to the blade tips)	Responses	%
Very satisfied	16	45.71%
Satisfied	5	14.29%
Neutral	6	17.14%
Dissatisfied	2	5.71%
Very dissatisfied	6	17.14%
Total	35	100%
How do you feel about the location of the suggested wind turbine?	Responses	%
Very satisfied	16	45.71%
Satisfied	8	22.86%
Neutral	2	5.71%
Dissatisfied	2	5.71%
Very dissatisfied	7	20.00%
Total	35	100%

How do you feel overall about the suggested	Responses	%
solar farm?		
Very satisfied		
	17	48.57%
Satisfied	5	14.29%
Neutral		
	2	5.71%
Dissatisfied		
	4	11.43%
Very dissatisfied	7	20.00%
Total	35	100%
How do you feel about the suggested location of the solar farm?	Responses	%
Very satisfied		
0.11.6	16	45.71%
Satisfied	<u></u>	47.440/
Neutral	6	17.14%
Neutral	3	8.57%
Dissatisfied	3	0.3770
	4	11.43%
Very dissatisfied	6	17.14%
Total	35	100%
How do you feel about the suggestion of rooftop solar panels?	Responses	%
Very satisfied	21	61.76%
Satisfied		14.71%
	5	
Neutral		11.76%
	4	
Dissatisfied		2.94%
Very dissatisfied	3	8.82%
Total	34	100%
Total	J-1	10070
How do you feel about the suggested size of	Responses	%
the solar farm? (48 acres, 36 football fields)		
Very satisfied	14	41.18%
Satisfied		
	6	17.65%
Neutral	0	0.00%
	0	0.00%

Dissatisfied		
	4	11.76%
Very dissatisfied	10	29.41%
Total	34	100%
How do you feel overall about the area of	Responses	%
combined wind and solar?		
Very satisfied		
	15	45.45%
Satisfied		
	6	18.18%
Neutral		
	1	3.03%
Dissatisfied		
	5	15.15%
Very dissatisfied	6	18.18%
Total	33	100%

How do you feel about the suggested size of the technologies in the combined area of wind and solar? (32 responses)					
	Very	Satisfie	Neutral	Dissatisfie	Very
	satisfie	d		d	dissatisfie
	d				d
Two small wind turbines (up to	27.91%	29.23%	19.05%	14.28%	9.53%
60 metres to tip of blades)					
One large wind turbine (up to	19.65%	24.35%	21.92%	10.06%	24.02%
140 metres to tip of blades)					
Solar farm (48 acres, 36	37.35%	25.30%	16.73%	4.19%	16.43%
football fields)					

How do you feel about the suggested location of the technologies in the combined area of wind and solar? (27 responses)					
area or wina and solar. (27 resp	Very satisfie	Satisfie d	Neutral	Dissatisfie d	Very dissatisfie d
Two small wind turbines (up to 60 metres to tip of blades)	33.36%	16.52%	21.56%	23.21%	5.35%
One large wind turbine (up to 140 metres to tip of blades)	21.35%	23.53%	5.76%	10.60%	38.76%
Solar farm (48 acres, 36 football fields)	18.15%	23.96%	26.31%	10.53%	21.05%

How do you feel about the suggested anaerobic digestion?	Responses	%
Very satisfied	6	17.65%
Satisfied	9	26.47%
Neutral	11	32.35%
Dissatisfied	1	2.94%
Very dissatisfied	7	20.59%
Total	34	100%
How do you feel about the area generating more renewable electricity than it consumes?	Responses	%
Very satisfied	18	52.94%
Satisfied	6	17.65%
Neutral	3	8.82%
Dissatisfied	4	11.76%
Very dissatisfied	3	8.82%
Total	35	100%

C2 Demographic data

Table 11 - Demographic data for respondents to the Temple Cloud and Hinton Blewett survey.

All demographic data questions were anonymous and optional for survey respondents to complete.

Gender (19 responses)	%
Female	63.16%
Male	31.58%
Non-binary	5.26%
Total	100%
Age (19 responses)	%
17 or younger	0.00%
18-20	5.26%
21-29	10.53%
30-39	21.05%
40-49	15.79%
50-59	15.79%
60-69	21.05%
70 or older	10.53%
Total	100%
Ethnicity (19 responses)	%
White - English	68.42%
White - British	21.05%
White - Any other White background	5.26%
Black/African/Caribbean/Black British - British	5.26%
Total	100%
Current occupation* (19 responses)	%
Employed, working full-time	47.37%
Employed, working part-time	10.53%
Not employed, looking for work	5.26%
Not employed, NOT looking for work	5.26%
Retired	26.32%
Disabled, not able to work	5.26%
Full-time education	0.00%
Part-time education	0.00%
Prefer not to say	0.00%
Other (please specify)	0.00%
Total	100%

^{*}Multiple options could be selected



Figure 41 – Map showing postcode areas of respondents to the Temple Cloud and Hinton Blewett online survey.

Appendix D - Renewable energy technology information

D1 Solar

Table 12 – Different type of solar technologies

Туре	Image
Roof solar panels, often referred to as solar photovoltaic (PV) turn sunlight into electricity through the 'solar cells' they contain.	Figure 42 – Rooftop solar panels. Photo credit: Vivint Solar via Unsplash
Ground mounted solar panels, also known as a solar farm, work the same way as roof panels but are located on the ground.	Figure 43 – Solar farm. Photo credit: Gabriel via Unsplash
Solar thermal involves using solar panels to absorb the heat of the sun and transfer it to the water you use in the home.	
	Figure 44 – Rooftop solar thermal. Photo credit: CSE website

D2 Wind turbines

These work by wind turning the blades of the turbine around which spins a generator and creates electricity.

Wind turbines can be different sizes and the height of the turbine will affect how much electricity it can produce. Larger turbines have a greater visual impact, but also substantially greater output than smaller turbines. An 80-meter (3 megawatt) turbine would typically generate 270 times as much electricity as a 15 meter tall (10 kilowatt) turbine.

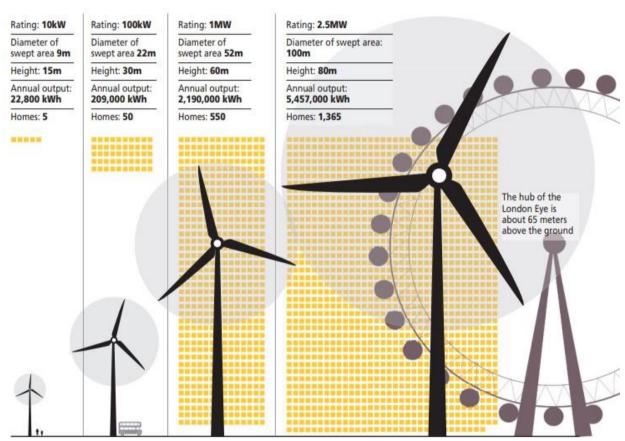


Figure 45 – Wind turbine sizes and outputs. Photo from CSE Neighbourhood Planning Guidance

D3 Energy battery storage

Sometimes more energy will be generated than is being used, for example on a sunny and windy day. Battery storage means that energy can be stored for use at another time, such as on a cloud, still day.



Figure 46 - Energy battery storage. Photo credit: Sungrow via Unsplash

D4 Anaerobic digestion

Anaerobic digestion works when organic matter (for example animal manure and food waste) is broken down in the absence of oxygen, producing methane which is then burnt to produce heat and/or electricity.



Figure 47 - the 1.1 megawatt Ancala anaerobic digestion facility located in Weston-super-Mare. <u>Source: Biogen.</u>

D5 Community ownership

Renewable energy projects range from 100% community owned projects to partially community owned projects to fully private enterprises, albeit still offering some community benefits.

Private developments contribute a proportion of their profits into funds that benefit the local community, but community owned renewable energy projects return all their profits to the community.



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