Briefing note for REACH

Community Selection Process and Results

This briefing note outlines the evaluation framework used to assess and select two communities from the seven candidates for the REACH project.

March 2025

About the sponsor

This project is funded by network users and consumers under the Strategic Innovation Fund (SIF) – an Ofgem programme managed in partnership with UKRI.

About Regen

Regen provides independent, evidence-led insight and advice in support of our mission to transform the UK's energy system for a net zero future. We focus on analysing the systemic challenges of decarbonising power, heat and transport. We know that a transformation of this scale will require engaging the whole of society in a just transition.

Regen is a membership organisation with more than 200 members who share our mission, including clean energy developers, businesses, local authorities, community energy groups and research organisations across the energy sector. We also manage the Electricity Storage Network – the industry group and voice of the grid-scale electricity storage industry in GB.

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- The seven community energy groups who participated in the Alpha phase: Awel Aman Tawe, Bigbury Net Zero, Sustainable Brailes, Eggardon CIC, Brassington Community Heating CIC, Little Wenlock Village Hall and Transition Bro Gwaun
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Introduction

This briefing note outlines the process used to select two communities from the seven candidates for full feasibility studies.

Our selection process combined quantitative scoring with collaborative expert judging to identify the most suitable communities for the REACH solution. We employed a two-step approach. First, we conducted quantitative scoring across five key criteria:

- Electricity demand growth
- Energy centre suitability
- Air-source heat pump (ASHP) viability
- Community interest
- Community experience.

This initial assessment provided an essential foundation of objective data for the second and most critical step: an in-depth discussion among all project partners – National Grid Electricity Distribution (NGED), VEPOD, Smart Grid Consultancy (SGC), Passiv and Regen. During this collaborative evaluation, the team weighted the criteria based on project objectives, balanced technical requirements with community factors and considered how each community's unique characteristics would contribute to testing the REACH solution.

The discussion allowed us to look beyond numeric scores and consider more nuanced factors, including expert partners' priorities, community interests and concerns and overall alignment with project goals. After thorough deliberation, the partners unanimously selected Awel Aman Tawe (Wales) and Bigbury Net Zero (England) to progress to the full feasibility stage. These communities offer complementary characteristics that will enable the REACH project to explore diverse community models while ensuring geographical representation across the service area.

This document details our methodology, findings and rationale, providing a transparent account of how we arrived at our final selection. It is for internal use only and is not for publication.

Community engagement summary

The REACH project aims to support rural decarbonisation in communities facing grid constraints, which limits clean energy technology adoption. Through a structured engagement approach, we identified suitable communities for collaboration on innovative solutions.

Discovery phase

During the initial Discovery phase of the REACH project, we implemented a structured three-stage engagement process to identify potential community partners:

- **Expression of Interest**: We used an online form to collect basic information from 82 interested communities, which helped us tailor subsequent engagement activities to their needs and contexts
- **Community workshop**: We hosted a substantial engagement event attended by 73 community stakeholders. The event featured breakout discussions, inspirational case studies and technical presentations from project partners, including Kensa, VEPOD and NGED.
- **Detailed questionnaire**: 32 communities submitted comprehensive information about their specific plans, locations, community engagement levels and technological requirements, providing crucial data for our shortlisting process.

Alpha phase

We selected seven promising communities for the Alpha phase based on the outcomes of the Discovery phase. In order to select two communities to move forward to feasibility studies, the first step of the Alpha phase was a comprehensive suitability assessment, which included:

- **In-depth interviews**: We conducted structured 90-minute interviews with each community to explore their specific circumstances, organisational capacity, project experience and technological interests
- **Site evaluation**: We assessed potential locations for energy infrastructure within each community, examining factors like land ownership, access requirements and planning considerations
- **Technical assessment**: Project partners evaluated each community's network constraints, reinforcement needs and suitability for proposed low-carbon technologies.

Regen conducted in-depth, 90-minute interviews with each of the seven participating community energy groups to support this decision-making process. These semi-structured interviews were designed to gather detailed information about potential sites for the energy centre, interest in the project and technologies, and community capacity to engage their residents and deliver projects.

Each interview began with updates on recent community developments and planned initiatives before moving into detailed discussions about potential locations for energy infrastructure. The

site assessment portion was particularly crucial for VEPOD's later analysis, exploring practical considerations such as land ownership, access requirements, proximity to residential areas and potential planning constraints. The interviews also explored each community's perspective on heat decarbonisation, including existing heat pump installations and potential barriers to adoption. This was complemented by discussions of the group's organisational capacity, including their experience in community engagement, project delivery and fundraising.

A key finding that emerged across the interviews was the varying levels of previous project development experience across the communities, from those with only early-stage concepts for possible initiatives to communities who own and manage their own wind projects. The interviews helped identify both opportunities and potential challenges specific to each location, providing crucial information for the site selection process, particularly in providing context during the discussion aspect of the decision-making process.

Detailed results from complementary analyses, including VEPOD's energy centre site assessments and NGED's network constraint analysis, can be found in REACH's comprehensive high-level feasibility report.

The interviews, site evaluation and technical assessment provided the foundation for a rigorous selection process. Building on this data, the project partners engaged in an in-depth collaborative discussion to identify the two most suitable communities for a full feasibility assessment. The following sections detail our evaluation methodology and selection process, explaining how we identified the communities that best demonstrated significant grid constraints and the organisational capacity to partner effectively on this innovative solution.

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Background on community energy groups

The following section profiles each community energy group, drawing on insights gathered through the interviews and subsequent analysis.

Awel Aman Tawe

Awel Aman Tawe is a well-established community-based organisation that has been operating since 1998. Originally emerging from grassroots efforts to develop renewable energy projects in partnership with a local development charity, the organisation has evolved significantly over the years. They have successfully expanded their scope to encompass various renewable energy initiatives, including establishing an electric vehicle (EV) transport scheme.

The organisation demonstrates strong financial sustainability through diverse income streams. Its primary revenue source is a wind farm that generates approximately £200,000 annually for the charity. It has also established two successful cooperatives – Egni and Awel – that focus on wind and solar energy development. Additional income sources include paid energy advice surveys and strategic grant funding for specific initiatives.

Community engagement experience

Awel Aman Tawe demonstrates strong community engagement through its extensive presence across several villages in its service area. They run various initiatives, including:

- Dedicated fuel poverty advice to support community members, funded through redress schemes
- An active community transport scheme addressing crucial local mobility needs
- Various cultural activities that help maintain strong community connections and participation

The organisation is currently expanding its physical presence, relocating their office from an SA9 village to an SA18 village, with the development of a new site that will feature a café and rental spaces, demonstrating its commitment to creating community hubs.

Experience in low-carbon technology development

Awel Aman Tawe has substantial experience developing and managing low-carbon technology projects, particularly renewable energy. They have successfully established and operated a wind farm project, developed solar energy initiatives through their cooperatives and implemented an EV transport scheme. This practical experience demonstrates their capability to manage complex renewable energy infrastructure projects from conception to operation.

The organisation possesses significant organisational capacity and resources for further low-carbon technology development.

Human resources

- A core team of 19 staff members (equivalent to 15 full-time positions)
- Currently recruiting for five additional positions
- A dedicated network of 50 volunteers supporting various initiatives
- Two energy advisers capable of conducting home surveys
- A dedicated full-time staff member (funded for two years by the Welsh government) focused on ASHP development.

Financial resources and project management

- Sustainable income stream from a wind farm (£200,000 per annum)
- Proven track record in fundraising, including the successful completion of a £2m property refurbishment project funded through 20 different grants
- Experience in managing share offers and generating independent finance
- Demonstrated capability in site development, grid applications and modelling.

The organisation has demonstrated success in renewable energy project delivery through its wind and solar installations, as well as its EV transport scheme. Their expansion into heat networks represents a new technological area for them, though their experience with other low-carbon technologies provides a strong foundation. They show a pragmatic approach to development, being open to collaboration whilst emphasising the need for clear value addition in partnerships, particularly with academic institutions. They have expressed interest in heat network development over the next two years and are actively seeking capital and staff funding to support this initiative.

Bigbury Net Zero

Bigbury Net Zero is an established community group operating in an area with significant seasonal tourism. While they have demonstrated capability in community engagement and environmental awareness initiatives, they are at an earlier stage in their development compared to groups with direct project delivery experience. The group has identified specific local infrastructure gaps, notably the lack of functioning communal EV charging facilities in an area with high tourist footfall, highlighting their awareness of practical sustainability challenges in their community.

Community engagement experience

Bigbury Net Zero demonstrates strong community connections and effective communication channels through multiple established initiatives:

- They maintain regular communication with their community through a bi-monthly page in the parish magazine and an active mailing list reaching approximately 550 subscribers. The mailing list is used to promote both social events and initiatives, ensuring consistent community engagement.
- They have established robust local partnerships, including close relationships with the parish council and a steering committee comprising local business owners. This network provides them with strong connections across different sectors of the community.
- Their community outreach infrastructure includes outdoor noticeboards in the local car park and a dedicated website, which they use to promote various initiatives.
- The group has organised public education initiatives focused on environmental issues and actively promotes government grant schemes to support sustainable development in the area.
- They demonstrate proactive communication about their involvement in new projects, as evidenced by their plans to share updates about the REACH project in their community newsletter.

Experience in low-carbon technology development

While Bigbury Net Zero has not yet delivered energy projects directly, they show strong potential for future development through their organisational structure and approach.

Human resources

- A core team of four volunteers
- A committee of six local business leaders providing strategic guidance
- Access to professional expertise through committee members' personal experience.

Project development capacity

- Members have individual experience in fundraising through their professional work, though not yet as part of the community organisation
- Demonstrated ability to identify specific local needs, such as the requirement for communal EV charging infrastructure
- Recognition of the need to build project-specific expertise and willingness to assemble appropriate teams as needed.

The organisation has demonstrated strong capabilities in community engagement and communication, though it is at an earlier stage in terms of delivering energy projects. Their expansion into the REACH project would represent their first major technological project, and they have shown awareness of the support and expertise they will need to develop. They show a pragmatic approach to development, being open about their current capabilities and needs while demonstrating strong potential through their established community networks and communication channels. They have expressed particular interest in developing their technical capacity through partnership with the REACH project and are actively seeking support in explaining technical elements to their community.

Sustainable Brailes

Sustainable Brailes operates as a subgroup of Brailes Parish Council (BPC), which provides it with strong institutional support and local governance connections. Formed during the lockdown, the group has established itself as an active force in community sustainability, with a particular focus on energy awareness. They have already invested in practical resources, including two thermal cameras, and are developing their capacity through initiatives, such as training a community retrofit advisor.

The group operates in a village that is not connected to the gas grid, which presents both challenges and opportunities for sustainable heating solutions. They have identified strategic locations for potential projects, such as the village hall, recognising the importance of visible community action in demonstrating their commitment to sustainability and decarbonisation of public buildings.

Community engagement experience

Sustainable Brailes demonstrates a considered approach to community engagement through various channels:

- They maintain regular communication with approximately 50-60 community members through their newsletter
- They organise coffee mornings, questionnaires and community events with good participation rates
- They have successfully conducted community surveys with high response rates, particularly on energy decarbonisation priorities
- They actively engage with various community groups and maintain strong connections with key institutions, including the village hall and primary school
- They run practical community initiatives such as a repair café and a river water monitoring project.

Their previous community survey revealed strong support for energy decarbonisation as a priority, though it also highlighted community concerns about cost of living implications. The group recognises that significant engagement would be needed to build community support for heat network projects, particularly in addressing household-level concerns. Some concerns were also raised about the viability of the battery/energy centre in the community.

Experience in low-carbon technology development

Sustainable Brailes has begun developing experience in low-carbon initiatives through several practical projects and has access to resources.

Human resources

- A core active group of 15-20 members
- A wider network of 50 engaged supporters
- A diverse team, including retirees and career professionals
- Additional volunteers supporting specific projects
- Close integration with parish council resources.

Project experience and resources

- Operation of a thermal camera lending scheme with resident support and surveys
- Previous experience with school heating assessment (though not implemented)
- Evaluation of EV charging proposals for the village hall
- Access to parish council support for project development
- Experience in community fundraising through various events
- One member has significant fundraising experience (£750,000 church redevelopment project).

The organisation is at an early stage in delivering energy projects but shows strong potential through its practical approach and institutional support. It demonstrates good awareness of its current capabilities and development needs while having established effective community engagement mechanisms. The group is realistic about the scale of the challenge, acknowledging that heat network projects would represent a significant step up from its current activities and require additional support, particularly around technical aspects and community engagement.

Eggardon

Eggardon emerged from an initiative originally started by Loders Parish Council in response to Dorset County Council's 2019 Climate Emergency declaration. The project has evolved significantly, transitioning from parish council leadership to the Community Sponsors Charity and now operating through the Eggardon Community Interest Company (CIC). Their ambitious plan aims to develop comprehensive renewable heat, power and digital infrastructure for the Loders Parish.

Community engagement experience

Eggardon demonstrates a structured and evolving approach to community engagement:

- They have maintained strong engagement levels throughout their development, from initial parish council leadership to current CIC operation
- Successfully conducted community surveys, achieving an 80% response rate on their action plan
- Organised significant community events, including a workshop in September 2024 with 30 attendees (run by CSE) focusing on local environmental attitudes and identifying potential renewable sites. They also supported another workshop in December 2024 exploring EV possibilities in the area.
- Demonstrated continued community interest with 60 members participating in project revival discussions post-COVID in 2023
- Established connections with key stakeholders, including local organisations and landowners.

Experience in low-carbon technology development

Eggardon brings together substantial expertise and resources through its organisational structure and partnerships.

Human resources

- A core local team of six members
- Support from the wider Mill Community Energy team
- Access to senior expertise in law, planning and energy
- Project leadership includes individuals with significant experience in infrastructure, PFI schemes and community energy projects in other areas.

Project experience and resources

- Secured initial funding of £1,000 from Dorset Community Energy and applied for the Community Energy Fund (CEF) for feasibility study funding
- Strong partnership network, including:
    - Mill Community Energy and Community Sponsors Charity as delivery partners
    - Equans and Aviva Capital Partners as potential commercial partners
    - Support from Niras (known for Swaffham Prior project)
    - Collaboration with Dorset Community Energy and Bridport Community Energy on turbine projects
    - Working relationship with Wessex Community Assets for retrofit workshops.

The organisation shows significant potential through its strong technical expertise and established partnerships while maintaining active community engagement. They demonstrate a pragmatic understanding of project development needs, particularly on feasibility studies and funding structures. The group has successfully transitioned from parish council initiation to community ownership while maintaining institutional support and building professional partnerships. Their approach combines local community engagement with professional project development expertise, positioning them well for delivering complex energy infrastructure projects.

Brassington Community Heating CIC

Brassington Community Heating CIC has already taken significant steps towards developing a heat network project. They have completed a feasibility study for an ASHP network funded through the Rural Community Energy Fund (RCEF). Their vision includes powering this network through either four existing nearby wind turbines or developing a new turbine, potentially combined with a solar array to ensure consistent power generation.

The feasibility study, conducted by Sharenergy two years ago, confirmed the broad feasibility of a heat network and identified potential locations and connections to existing wind generation. However, it also highlighted key risks, particularly around local authority support and grid connection challenges.

Community engagement experience

Brassington Community Heating CIC maintains basic community communication channels:

- They publish several articles in the parish magazine annually
- They hold one major community meeting per year
- They currently have limited engagement, specifically regarding the proposed heat network or EV charging initiatives
- They maintain connections with the parish council through two councillor advisors.

Experience in low-carbon technology development

Brassington Community Heating CIC has made progress in project development through several key areas.

Human resources

- Led by one primary member who is the driving force behind the project
- Supported by four volunteer advisors with diverse expertise:
    - Two parish councillors providing local governance connections
    - One University College London professor
    - One retiree from the Peak District park planning area
- Recently added bookkeeping support to manage financial compliance.

Project experience and resources

- Successfully secured funding for feasibility assessment through the RCEF
- Obtained £100,000 from the CEF for design study
- Developed a partnership with Equans following participation in the Cambridge forum
- Completed feasibility study through Sharenergy, demonstrating project management capability.

The organisation has demonstrated the ability to secure funding for technical studies and build strategic partnerships while operating with a lean organisational structure. It shows good awareness of technical requirements through its completed feasibility work, though it acknowledges the need to expand its community engagement activities. The group has successfully established professional partnerships and accessed funding for feasibility work, positioning it to move forward with project development while recognising the need to broaden its community involvement and support base.

Little Wenlock Village Hall

Little Wenlock Village Hall has established itself as a flagship community asset within Shropshire, demonstrating a practical commitment to decarbonisation through multiple initiatives. The organisation has already achieved significant progress in reducing its carbon footprint through practical implementations, including 10 kW of rooftop PV, 8 kW of energy storage batteries, LED lighting and the replacement of oil boilers with ASHPs.

Since engaging with the REACH project, their vision has expanded beyond the initial goal of achieving carbon neutrality for the village hall. They have identified several strategic opportunities across Shropshire, including potential involvement with the Bishops Castle heat network project and the development of EV charging infrastructure near the Wrekin, a popular tourist destination. Their approach combines practical local action with broader regional collaboration through partnerships with organisations like Shropshire and Telford Community Energy (STCEnergy) and the Telford and Wrekin Borough Climate Action Forum.

Community engagement experience

Little Wenlock Village Hall demonstrates established community engagement through various channels:

- They maintain detailed community data, including historic carbon footprints for all village houses from 2006
- Regular community touchpoints through:
    - Monthly parish council meetings
    - Bi-monthly village hall committee meetings
    - Annual parish meeting for the whole community
- Active sharing of their decarbonisation journey through presentations at the Community Resource annual village halls conference for Shropshire, exhibitions at climate-related events and social media updates
- Strong institutional connections as active members of the Telford and Wrekin Climate Action Partnership
- Established a relationship with Shropshire Wildlife Trust, particularly around EV charging initiatives.

The group has demonstrated capability in gathering community data and sharing its experiences to inspire other communities. While its primary focus has been on the village hall, it has built foundations for broader community engagement through its established meeting structures and institutional relationships.

Experience in low-carbon technology development

Little Wenlock Village Hall has developed significant practical experience in implementing low-carbon technologies.

Human resources

- Volunteer-run committee comprising retired professionals with diverse expertise
- Active involvement in broader regional energy initiatives through STCEnergy
- Connections to technical expertise through partnership with Sharenergy.

Project experience and resources

- Successfully implemented multiple low-carbon technologies on their village hall, including a 10 kW rooftop PV installation, an 8 kW energy storage system, LED lighting systems and an ASHP
- Completed feasibility study and business case for solar installations on the village hall
- Connection to a community-owned solar farm (20 miles away) with potential funding opportunities through a community benefit fund
- Plans for further development on the village hall, including:
    - Additional 8 kW of rooftop PV
    - Upgrade to 20 kW modern 3-phase battery storage
    - Replacement of LPG cooking equipment with electric induction
    - Installation of community-facing EV charging.

The organisation has demonstrated strong practical capability in implementing low-carbon technologies at the village hall scale while developing a broader vision and connections for larger community energy projects. They show good awareness of both technical requirements and partnership opportunities, positioning them well for expanded project development. The group combines hands-on experience in renewable energy implementation with a growing capacity to engage in larger-scale regional initiatives through its developing partnerships and expanded vision.

Transition Bro Gwaun Ltd

Transition Bro Gwaun Ltd is a well-established community organisation with a strong track record in delivering energy projects. Their current focus includes the villages of Panteg and Scleddau, 1.5 miles southwest of Fishguard and Goodwick, where they have identified potential sites for heat network development. The group operates in an area facing significant network challenges for decarbonising heating and transport, with many energy-inefficient homes presenting opportunities for exploring integrated solutions combining heat networks with retrofit approaches.

The organisation demonstrates clear strategic thinking in its project development, having already identified specific locations for potential heat network development. They have highlighted two potential pilot areas: Panteg Terrace and the north side of Scleddau village, both currently off-gas and relying on oil for heat and hot water. The proximity of existing renewable infrastructure, including two 80 kW turbines near Panteg, provides opportunities for integrated energy solutions.

Community engagement experience

Transition Bro Gwaun demonstrates comprehensive community engagement through multiple channels:

- Maintains a physical presence with drop-in facilities at their offices in Fishguard
- Regular engagement through various community events, including:
    - Agricultural show participation
    - Self-hosted events bringing together local installers and service providers
    - Drop-in sessions discussing their objectives and activities.

They maintain strong institutional connections, including:

- Partnership with Scleddau Community Council for the REACH application
- Volunteer representation on the community council
- Regular updates at community council meetings.

They also facilitate active community benefit distribution through their wind farm surplus fund, with over £100,000 distributed to local projects – beneficiaries include schools and community buildings.

Experience in low-carbon technology development

Transition Bro Gwaun brings substantial experience in renewable energy project development.

Human resources

- Two full-time equivalent staff members
- Project lead funded for two days weekly, with one member who has additional experience working in the Welsh government energy service
- Active trustee board providing voluntary oversight
- Plans to increase paid staff contingent on funding
- Subsidiary organisation (Transition Community Ventures) supporting development.

Project experience and resources

Existing projects:

- 225 kW community wind turbine (Abergwaun Community Turbine) – joint venture partner
- Partnership development of 140 kW rooftop solar near Panteg
- Plans for battery storage to support a local dairy farm
- Three members currently funded by the Welsh government for solar project development.

Financial track record:

- Successfully raised £600,000 for wind turbine development
- Established a joint venture between a farm owner and a community organisation
- Demonstrated success in community loan raising
- Experience in grant funding applications
- Climate Fund established through community wind turbine benefits.

The organisation shows significant capability through its proven track record in renewable energy project delivery and strong community connections. They demonstrate an ambitious vision for local energy development, including turbine repowering, rooftop solar deployment and local area energy planning, while maintaining a pragmatic approach to growth and development. Their successful experience with community funding and project delivery positions them well for expanded activities, though they acknowledge the need for sustainable funding to maintain long-term project management capacity.

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Alpha shortlisting method

The community shortlisting process employed a structured, multi-stage evaluation methodology designed to identify the most suitable communities to test the REACH solution.

Our methodology culminated in a comprehensive and collaborative discussion and judging session among the project partners, which formed the cornerstone of our decision-making process. This critical evaluation was informed by qualitative insights from stakeholder interviews and quantitative scoring through expert technical analysis, ensuring our final selection was data-driven and contextually nuanced.

To prepare for the judging session, all seven candidate communities were initially scored across five criteria, with the understanding that the relative importance of each would be determined through collaborative discussion:

- Electricity demand growth (25 points)
- Energy centre suitability (25 points)
- ASHP viability (15 points)
- Community interest (15 points)
- Community experience (15 points).

This initial scoring provided a comprehensive baseline assessment that highlighted each community's strengths and limitations. However, it served primarily as a discussion tool rather than a decisive ranking, and the communities ultimately selected were not necessarily those with the highest total scores.

Following this quantitative assessment, project partners convened for an in-depth selection meeting to review the data, discuss technical considerations and evaluate each community's unique profiles. This collaborative evaluation was the heart of the selection process, enabling the team to move beyond numeric scores to select two communities that would best align with the project goals. This discussion proved invaluable as it allowed partners to weigh their priorities collectively, integrate their diverse expertise, address potential challenges proactively and thoroughly evaluate each community's specific concerns and enthusiasm for the project.

The following sections detail each step of this process, the criteria applied and the deliberations that led to our final selection of two communities for full feasibility assessment.

Pre-judging analysis

The pre-judging analysis was based on five main categories. During the in-depth judging session with the partners, each category and its components were weighted through discussion to reflect their relative importance in determining community suitability for the REACH solution. The following section outlines the five main categories. Detailed scoring breakdowns for each category can be found in Table 1.

Category 1: Electricity demand growth – Led by NGED (0-25 points)

The first category, led by NGED, evaluated the community's electrical infrastructure and capacity needs. The assessment focused on identifying existing network constraints, understanding potential future constraints under different growth scenarios and evaluating the cost and complexity of required network interventions. Each factor in this category totalled 5 points, leading to a score of 25. This systematic approach ensured that communities could be compared across infrastructure needs and costs.

Category 2: Energy centre – Led by VEPOD (0-25 points)

The second category, led by VEPOD, included a comprehensive evaluation of potential energy centre locations. The assessment examined practical considerations such as size requirements and site availability, alongside crucial factors like land ownership, existing charging infrastructure and planning considerations. Additional factors included site suitability, noise impacts, road access and tourism levels. The final score was calculated by summing the 16 criteria scores and normalising them to the 25-point scale. This approach ensured that the most suitable locations and infrastructure for energy centres could be identified while accounting for both technical feasibility and local context.

Category 3: ASHPs – Led by Regen (0-15 points)

The third category, led by Regen, evaluated the practical and planning considerations for community-wide heat pump adoption. The assessment examined three key areas: available space for heat pump installation (5 points), planning restrictions (5 points) and current building energy efficiency (5 points), totalling a maximum of 15 points. This evaluation helped identify areas where there may be challenges to installing heat pumps.

Category 4: Community interest – Led by Regen (0-15 points)

The fourth category measured the community's interest level in three key areas: the modular energy centre, EV chargers and heat pumps. Each area was scored based on the community’s responses to interviews held by Regen, with a maximum of 5 points per technology area. During these interviews, communities were asked about their interest and any concerns regarding each technology. This approach ensured that community preferences and readiness for different low-carbon technologies were adequately factored into the assessment, recognising that community buy-in is crucial for successful implementation (see the Appendix for the Interview Protocol).

Category 5: Community experience – Led by Regen (0-10 points)

The final category evaluated the community group's track record and capability through two key metrics: their success in community engagement (5 points) and their experience in project delivery (5 points). This assessment helped identify communities with the organisational capacity and experience to successfully implement and manage new energy infrastructure projects. While it wasn't essential for the communities to have experience in low-carbon projects, this criterion helped identify which communities might need additional support to deliver successful outcomes and which had already demonstrated capability in managing complex community initiatives (see the Appendix for the Interview Protocol).

Table 1

Categories for initial scoring of communities

Criteria category	Components and scoring system	Maximum score
Electricity demand growth	Substation constraints: • 5 points if the community is fed from a primary substation with forecast constraints in the next 5 years • 0 if not Headroom constraints (best view): • 5 points if the community has headroom constraints under the 'best view' scenario • 0 if not Headroom constraints (consumer transformation): • 5 points if constraints exist under the 'consumer transformation' scenario • 0 if not Network intervention cost: • 1 point: £0 - £99,999 • 2 points: £100,000 - £249,999 • 3 points: £250,000 - £499,999 • 4 points: £500,000 - £1m • 5 points: Over £1m Intervention complexity: • 1 point: 0-6 months • 2 points: 6-12 months • 3 points: 12-24 months • 4 points: 24-36 months • 5 points: Over 36 months	25

Energy centre	Size requirements: • 1 point: Very small scale with limited expansion potential • 2 points: Very small scale with expansion potential in the short term • 3 points: Medium scale with limited expansion potential • 4 points: Medium scale with expansion potential in the short term • 5 points: Large scale Land ownership/access: • 1 point: Land not owned, access difficulties and complex permissions • 2 points: Land not owned and one other difficulty • 3 points: Land not owned but with good access and no complex permissions • 4 points: Land owned with either access difficulties or complex permissions • 5 points: Land owned, good access and favourable permissions EV charger proximity: • 1 point: Rapid (50 kW+) chargers less than 3 miles away • 2 points: Rapid chargers less than 5 miles away or fast (7 kW or 22 kW) chargers within 3 miles • 4 points: Fast chargers within 5 miles • 5 points: No public EV chargers within 5 miles Planning concerns: • 1 point: High planning concerns • 2 points: Moderate planning concerns • 3 points: Low planning concerns • 4 points: No planning concerns • 5 points: Positive planning environment	25
Heating	Space availability (assumed flats more likely to experience space constraints than houses): • 5 points: >20% flats • 3 points: 20-40% flats • 1 point: Over 40% flats Planning concerns: • 5 points: No concerns • 4 points: Conservation area/area of special interest + <10% listed buildings • 3 points: 10-20% listed buildings	15

	• 2 points: 20-30% listed buildings • 1 point: 30-40% listed buildings • 0 points: >40% listed buildings Building energy efficiency (average score): • 5 points: >92 • 4 points: 69-91 • 3 points: 55-68 • 2 points: 21-54 • 1 point: 1-20	
Community interest	For each category (energy centre, EV chargers, heat pumps): • 5 points: Community is interested • 3 points: Some concerns exist • 0 points: No interest	15
Community experience	Community engagement: • 1 point: No previous engagement • 2 points: Limited previous engagement • 3 points: Some engagement but limited evidence of success • 4 points: Some engagement and some evidence of success • 5 points: Lots of engagement and reaching the majority of the community Project delivery capability: • 1 point: No previous experience • 2 points: Limited previous experience • 3 points: Some experience but limited evidence of success • 4 points: Some experience and some evidence of success • 5 points: Lots of experience and successful projects	10
Total		90

Discussion and judging methodology

The heart of our selection process was a structured, collaborative discussion and judging session among all project partners: NGED, VEPOD, SGC, Passiv and Regen. This two-and-a-half-hour evaluation represented the culmination of our multi-stage assessment approach, where quantitative scoring informed – but did not dictate – the final selection.

To ensure the judging session was productive and comprehensive, we developed a clear structure that allowed for systematic evaluation while enabling open discussion. All partners reviewed the initial scoring data and community profiles before the meeting. Each technical lead presented their assessment findings to provide context. The discussion followed a logical progression through each community's profile, using a step-by-step elimination method to narrow down candidates.

The judging session followed this specific progression:

1. **NGED's network analysis**: Detailed presentation of network diagrams and reinforcement cost projections, highlighting which communities would require significant upgrades and associated timelines and cost
2. **Regen's community analysis**: Presentation of community interest, organisational structure, resilience and experience with energy projects
3. **VEPOD's site assessment**: Evaluation of potential energy centre locations, including factors like land ownership, access and planning considerations
4. **Regen's heat pump considerations**: Evaluation of space availability for installations, planning restrictions such as listed buildings and building energy efficiency ratings across communities.

Deliberation and decision-making approach

Rather than simply ranking communities by their scores, the judging session enabled partners to weigh multiple factors and make elimination decisions after each expert presentation. This progressive elimination approach allowed the team to:

- Focus on increasingly detailed considerations as the candidate pool narrowed
- Apply specialised expertise at each stage of the decision process
- Consider factors that weren't fully captured in the quantitative scoring
- Evaluate each community's unique strengths
- Ensure all partners' perspectives were incorporated into the decision.

The elimination process followed a logical progression tied to the expert presentations:

- Following NGED's network analysis presentation, the first elimination decisions were made based on network reinforcement requirements, with communities showing lower network intervention costs being removed from consideration
- After Regen's community interest and experience presentation, further elimination decisions were made, considering factors such as community engagement levels, alignment with existing community energy projects and demonstrated experience in project delivery
- Following VEPOD's site assessment presentation, the team evaluated potential energy centre locations in depth, considering planning constraints, visual impact concerns, land ownership and access challenges
- During the heat pump considerations discussion, Passiv provided an expert assessment that suggested all communities should be technically viable for heat pump deployment and should not be a major consideration in this process. Thus, it was discussed but did not lead to any elimination.

This progressive deliberation ensured that the final selection reflected technical requirements and a nuanced understanding of what would make the communities successful test cases for the REACH solution.

4

Final selection

Following the initial assessment, project partners convened for an in-depth meeting to select the two communities to take forward to a full feasibility assessment.

As set out in our methodology, each community was first scored against five categories to act as a starting point for the discussion and judging selection process. The initial score for each community is shown in Table 2. There are no 'final weighted scores' as the relative importance of each category and the factors within them emerged during the collaborative discussion when expert project partners articulated what they believed to be the most important components for selecting the two communities to move forward. This discussion-based approach allowed for nuanced decision-making that no scoring system, regardless of weighting, could have captured.

Table 2

Initial scoring of communities

	Awel Aman Tawe	Bigbury Net Zero	Sustainable Brailes	Eggardon CIC	Brassington Community Heating CIC	Little Wenlock Village Hall	Transition Bro Gwaun
Electricity demand growth	18	23	14	25	20	23	20
Energy centre	14	16	14	11	15	16	14
Heating	12	12	12	12	9	12	12
Community interest	15	15	13	15	13	15	15
Community experience	10	5	7	8	5	6	10
Total	69	71	60	71	62	70	71

Following the initial scoring, the project partners held a judging and evaluation meeting to decide which two communities would move forward to full feasibility. As outlined in the methodology section, the judging discussion followed this structure:

1. NGED's network analysis results
2. Regen's community interest and experience analysis results
3. VEPOD's potential sites assessment results
4. Regen's community heat results.

During NGED's network analysis discussion, NGED tended to put weight primarily on their analysis of network intervention costs and how the constraints were split between LV and HV networks. For business-as-usual network intervention costs, Transition Bro Gwaun scored lowest of all the communities, with the lowest network intervention costs (between £250k - £499.99k – Score: 3). On this basis, Transition Bro Gwaun were removed first. Brassington Community Heating CIC and Little Wenlock Village Hall also had lower scores for this category than other communities, with costs between £500k - £1m (Score: 4). However, Little Wenlock was slightly lower than Brassington's, and thus, was removed at this point in the process. All other communities had network intervention costs above £1m (Score: 5).

Next, Regen highlighted the community's interest in the project and provided an overview of each community's experience with low-carbon technologies. Of the communities left, the only ones that raised some concerns around interest were Brassington Community Heating CIC and Sustainable Brailes. Brassington Community Heating CIC showed less engagement with the EV charging aspect of the REACH project compared to other communities and raised concerns regarding a community heat network that they are progressing. They were concerned that it was advancing at a faster pace than the REACH project, creating potential misalignment. Brassington Community Heating CIC also scored the lowest on community experience and had one of the lowest costs for network intervention. For all the reasons outlined above, they were removed from the selection at this point.

The remaining candidates – Awel Aman Tawe, Bigbury Net Zero, Sustainable Brailes and Eggardon CIC – were evaluated in greater depth.

Sustainable Brailes, despite having high network intervention costs, which initially made it an attractive candidate, had raised concerns about being in an Area of Outstanding Natural Beauty (AONB) and noted potential reservations within the wider community about battery storage visibility. The project team noted that the proposed energy centre location beside the village hall could face planning and visual impact concerns. Sustainable Brailes also had the lowest total score across the categories. Therefore, Sustainable Brailes was removed from the list.

Early in the discussion, Awel Aman Tawe emerged as a strong candidate to proceed to the next stage. The community had high network intervention costs, comparable to the other remaining candidates (score: 5, overall £1m). NGED also highlighted a nearly equal distribution of intervention costs between high-voltage and low-voltage networks, making Awel Aman Tawe an especially valuable case study from NGED's technical perspective. The community group also

stood out as having the most experience, having run and managed their own renewable projects already. Additionally, they also own land and have experience in negotiating with landowners for renewable projects, which was considered a key asset for this project. Based on these factors, the project partners unanimously agreed to advance Awel Aman Tawe to the feasibility stage.

For the selection of the final community, there was significant deliberation amongst the project partners between Eggardon CIC and Bigbury Net Zero. In the end, Eggardon CIC was eliminated due to receiving lower scores for energy centre locations compared to Bigbury Net Zero (11/25 versus 16/25) as this would be an essential part of the REACH project. Eggardon's location also presented access challenges with narrow roads, which may have posed difficulties in deploying the energy centre. The team also recognised that Eggardon's community profile was more similar to Awel Aman Tawe, limiting the diversity and representation of the final selection.

After thorough discussion, the team unanimously selected Awel Aman Tawe (Wales) and Bigbury Net Zero (England) to progress to full feasibility. These communities presented complementary characteristics. Awel Aman Tawe offers professional community energy experience with established energy projects and community assets alongside significant network constraints. Conversely, Bigbury Net Zero provides an example of a community group with less experience but with enthusiasm and ambition to push for low-carbon initiatives in their local area. Bigbury Net Zero also had multiple viable energy centre locations with good relations with the landowners and provided a different use case as a coastal community with seasonal tourism patterns (i.e. variability in demand), common across NGED's network. Bigbury Net Zero also had high network intervention costs. This selection allows the project to explore diverse community models with significant network intervention costs while ensuring good geographical representation across the service area.

Table 3

Summary of outcomes

	Outcome	Reason
Awel Aman Tawe	Selected	High network intervention costs; professional expertise with established energy projects and staff; community-owned assets including land; Welsh representation.
Bigbury Net Zero	Selected	High network intervention costs; multiple viable energy centre locations with landowner relationships; different use case (coastal community with seasonal tourism demands); English representation.
Sustainable Brailes	Not selected	Despite high reinforcement costs making it technically attractive, the community had concerns about battery visibility in an AONB and planning and visual impact concerns for the proposed site near the village hall. Lowest total score across the categories.
Eggardon CIC	Not selected	Lower scores for energy centre locations than other communities; access challenges due to narrow roads; profile similar to Awel Aman Tawe, limiting the diversity of test cases.
Brassington Community Heating CIC	Not selected	The community heat network project is proceeding at a different pace than the REACH timeline, creating potential misalignment. There was also less engagement with EV charging aspects, and it has one of the lowest costs for network intervention.
Little Wenlock Village Hall	Not selected	The cost and extent of reinforcement required was less than for other communities and can be delivered fairly quickly.
Transition Bro Gwaun Ltd	Not selected	The cost and extent of reinforcement required was less than for other communities and can be delivered fairly quickly.

5 Appendix

The appendix includes Regen's interview protocol for the Alpha phase.

Interview protocol

The interview protocol has been designed to cover the key aims outlined above. It is expected that the interview will be semi-structured in nature, allowing the interviewer time to follow up on ideas brought forward by the interviewee that may not be in the protocol. In addition, the interviewee may answer questions later in the protocol during initial earlier conversations; the set of topics and questions outlined here are a guide only and should be adapted in response to the direction of the conversation.

The interview protocol includes the following sections, with suggestions for timing:

- Welcome, introduction and consent (5 mins)
- Community updates (10 mins)
- Site assessment & planning (30 mins)
- Heat (15 mins)
- Community engagement and ownership interest (15 mins)
- Next steps & close (15 mins)

Introduction

1. **Thank them** for their time so far and for agreeing to continue working with us on this project. Ask if it is okay to record the interview.
2. **Introduce those in the virtual room, project, funding process and purpose of the meeting.**

Interview questions

Part 1: Community update (10 minutes)
NOTES FROM EMAILS ON UPDATES

Add

1. Since we last spoke, have there been any significant changes or developments in the community that you applied for that might affect your participation in this project?
    - **Probe**: e.g. are there other low-carbon energy initiatives being considered/in planning? *Some communities were interested in ground-sourced heat pumps and had technical feasibility studies/conversations in progress; how has that moved on?*
    - **Probe**: Are there any planned developments in the area that might impact energy demand?

Part 2: Site assessment and planning (30 mins)
NOTES FROM APPLICATION

Add

1. Can you confirm that the maps I sent are the villages you are applying for?
    - **Probe:** For some communities, there were areas we said REACH wasn't likely suited for. However, NGED is doing a more detailed analysis, so it would be great to hear about those areas as well.
2. *Due to electricity network constraints in rural areas, this project is exploring how communal EV charging can be deployed alongside electricity storage and generation ('modular energy centres') to ensure power needs can be met.* What are your thoughts about having a modular energy centre in your community?
    - **Probe:** Do you foresee any challenges/barriers in terms of engaging your community on this?
3. We'd like to discuss potential sites for the REACH modular energy centre. Could you tell us about the locations you're considering?
    - **Probe:** Why those areas? What was your decision based on?
    - **Probe:** Do you know who owns the land? Is this someone who lives locally?
    - **Probe:** Do you foresee any challenges/barriers with this land? For example, is there anything already being planned on this land or discussions of different uses?
    - **Probe:** *The project partners have a strong preference that EV chargers be located at the same sites as the modular energy centre*. Do you think that this location would be good for EV charging? Why/why not?
    - **Probe:** Is it close to residential areas/amenities? For example, do people pass this area regularly, do they shop near there?

- **Probe**: Would these chargers mostly be used by residents or visitors? Do you have a preference?
- **If suggested sites aren't within the village(s)**, why not? Is there limited space? Is there any land that may be suitable that is smaller than the two tennis courts?

3. Do you think there is demand in your community for EV chargers? Do you see that changing over time?
   - **Probe:** Beyond the ones you've mentioned with the modular energy centre, do you think there are other locations which may be suitable? (Quick question/don't stray – only if time).
4. Would your community group be interested in owning and managing the EV chargers?
5. Are you aware of any plans for new chargers in your village? (e.g. at pubs, church halls, shops).

Part 3: Heat (15 mins)

NOTES FROM APPLICATION

Add

We're delighted that Passiv have joined the project in the Alpha phase. With them onboard comes the option to explore ASHPs (i.e. the more 'usual' in-home/boiler replacement solution) or ground-source heat networks for a community.

1. How much discussion is there in your community about upgrading heating systems to heat pumps?
   - **Probe**: Do you see that changing in the future?
   - **Probe**: Are there any heat pumps already installed? ASHP or GSHP?

   If time:

   - **Probe**: What's been stopping people from making changes so far? (e.g. costs, finding installers, waiting for current systems to fail).
   - **Probe**: If there was support available with things like finding qualified installers or managing the installation process, how do you think your community would respond?
2. Do you have a preference between ASHPs or GSHPs? If so, why?
   - **Probe**: Can you think of any challenges in installing heat pumps in your area? For example, is there enough space around the houses for a heat pump? Are there any listed buildings?
   - **Probe**: Has your community done any previous work or studies looking at heat pumps?

ONLY IF THERE IS A PREFERENCE FOR GROUND SOURCED:

3. Have you done any feasibility work/currently working with any partners to explore this option?
4. Would your community group be interested in owning and managing a ground-source heat network?

Part 4: Community engagement and ownership interest (20 mins)

NOTES FROM APPLICATION

Add

1. Could you tell us about your community group's current structure?
   - Do you have volunteers or paid staff?
   - Who would be involved in this project if you were to move forward?
2. Could you tell me your group's experience in engaging your community on energy projects? We're particularly interested in:
   - How your group typically engages with your community
   - How confident you feel in your ability to engage the community
   - **Probe**: What methods do you use to gather and assess community feedback?
   - **Probe**: What experience does your group have with raising finance for community projects?
   - **Probe**: If you were to move forward to the next stage, would you need support in engaging your community?
3. Are you still interested in being part of the next phase of the REACH project?
4. Are there any challenges or barriers you foresee for your group, in particular in undertaking this project?

Next steps & close (10 mins)

1. If you aren't chosen to move forward to the next phase, is there anything in particular you would like to see in the short report on possible next steps? (We can't promise anything, but we can feed this into the process!)
2. Do you have any further questions or information that you think will be useful for us moving forward?

Thank them for their time. We will be bringing together all this information for the project partners. If we have any follow-up questions/concerns, we will get back to you on them.

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