## PLEASE NOTE: THIS IS A COPY OF THE REACH DETAILED QUESTIONNAIRE.

# APPLICATIONS WILL ONLY BE ACCEPTED THROUGH THE ONLINE GOOGLE FORMS.

## LINK: <u>https://forms.gle/qE21HGo9MpPYHheB9</u>

# REACH – Detailed questionnaire

Please submit responses no later than 5pm Tuesday 9th April.

#### Important information – please read

The Rural Energy and Community Heat (REACH) project is looking at novel and innovative solutions for how rural areas can achieve their decarbonisation objectives such as EV charging and low-carbon heating in areas not served by commercial markets, and where there is limited electricity network capacity.

Working collaboratively with communities, and with National Grid and technology partners, we are exploring technological and financial solutions that can accelerate the uptake of low-carbon technologies. This may include quicker access to modular EV charging and energy storage, and shared centralised heating solutions.

Following the expressions of interest phase and initial workshop, we are now looking to gather details of organisations that are interested in implementing solutions that relate to this project. Organisations that submit this form should have a genuine interest in continuing in the programme and ideally have the initial idea of what a project could look like in the rural area they represent.

Following the submission of this form, Regen and the project partners will review the submissions and assess which organisations are most eligible to continue in the project.

We will be in touch by 26 April to let you know whether you have been selected or not. The selected organisations will be contacted to arrange a further discussion about their project and what support and funding they would need to continue in this process.

We are currently in the Discovery phase of this project, looking to understand more about rural communities and the solutions that might be appropriate for them. Following this we will be applying for funding to enable this project to continue into the next phase. If successful, the next phase will involve working with the selected communities on feasibility studies.

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

#### Please note:

If any of the questions do not apply to you, or you are unsure whether your project is quite right, we still want to hear from you.

If you have any questions or struggle at any point on this form, don't hesitate to reach out to George on gmiddlemiss@regen.co.uk or Shona on sreid@regen.co.uk

#### Data collection

The data we collect will be stored securely by Regen. We will use it to:

- Contact you about further involvement in this project;
- Assess levels of eligibility to participate; and
- At an aggregated level, to report to project funders, partners and interested stakeholders about the general net zero related ambitions and challenges faced by rural communities.

Any data that is reported on will be desensitised. We will not pass on personal information and contact details without prior consent.

By pressing the "Next" button below you are indicating that you are happy for your data to be collected and used for the outlined purposes. You are also giving Regen permission to record and process the information you provide, and to contact you with regard to this project.

## **Background questions**

- 1. Are you interested in developing a low carbon project in a rural area, located within National Grid's distribution licence areas (East and West Midlands, South Wales, South West)?
- 2. Did you submit an expression of interest form?

#### **Project questions**

- 3. Please provide a summary description of the rural low-carbon energy project you are interested in developing. When answering this please ensure that you also highlight the local context and need for this project (i.e. what particular challenges are you hoping to address, or what sort of benefits are you aiming to bring to the community). [character limit 1,800 around 300 words]
- 4. What is the name and postcode of the village(s) or hamlet(s) you are interested in developing this project in?
- 5. Please outline which technologies you are interested in implementing as part of this project. Please select all that apply.
  - Solar rooftop
  - Solar ground mounted
  - Solar thermal
  - Onshore wind
  - Heat network/heat pumps
  - Community/on street EV chargers
  - Batteries/energy storage
  - Other (please specify) \_\_\_\_
- 6. Please indicate which of the following statements best describe your current progress in developing this project. (Agree/ Disagree / Not applicable)
  - We are in the early stages of idea development.
  - We have engaged key stakeholders in initial discussions.
  - We have engaged with relevant landowners (e.g. for siting new infrastructure).
  - We have completed a feasibility study.
  - We have developed a business case and financial models.
- 7. Please describe how you have engaged members of the local community on this project so far?
- 8. If you are aware of any potential planning constraints that may impact your ability to deliver your project, please describe them here. These may include Listed buildings, National Parks, Areas of Outstanding Natural Beauty, Flood zones, Sites of Special Scientific Interest, Agricultural land.
- 9. Please describe how you have engaged relevant landowners (e.g. for siting new infrastructure), if at all.

- 10. How many homes are in the village/hamlet?
- 11. Are there any other energy users in the area (e.g. holiday parks, shops, farms, factories)
- 12. If yes, please provide brief details.
- 13. Does this project build on any previous energy projects in the same area? For example, do you have existing wind or solar generation that you are looking to couple with storage or EV charging?
- 14. If yes, please provide an overview of these previous projects.
- 15. Are you interested in EV chargers as a project? (Yes or No)

#### (if yes to question 15)

#### **Electric Vehicle charging**

In this project, we're exploring communal on street chargers rather than individual household chargers. For example, this could mean a charging station with multiple chargers in a local car park, greyfield site or other appropriate site.

- 1. Have you identified a suitable site or sites for EV chargers?
- 2. If known, approximately how many EV's are in the village/hamlet?
- 3. Does the area experience an increase in car traffic in the summer? [Yes/Somewhat/No]
- 4. What type of electric vehicle would be most appropriate? [Many slow-rate chargers/fewer rapid chargers or ultra-fast chargers/Not sure].

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. Therefore, the siting of EV chargers would need have space for a modular energy centre (which would need to be situated on a concrete base – whether there currently or able to install one). Each energy centre requires a minimum space of 50 feet squared for the energy modules and additional space for the chargers with appropriate vehicle access space. This is roughly the size of two tennis courts.

- 5. Do you have a site for EV to land that could house one or more energy centres?
  - a. Does this meet the minimum space requirement?
  - b. Does this space currently have a concrete base / could it have a concrete base installed?
  - c. Please provide a description of the land available, including further details about your above answers.
- 6. If known, approximately how far is this from the nearest electricity cable/substation?
- 7. Is there anything else you would like to tell us?

16. Are you interested in electricity storage as a project? (Yes or No)

(if yes to question 16)

## **Electricity storage**

Batteries store electricity from the electricity grid or from nearby generation to be dispatched at a later point, when the power is most needed. Grid scale batteries can be the size of a small storage container whereas domestic batteries can be as small as an old desktop computer.

- 1. Are there any specific technologies or solutions you are interested in exploring? Please outline these here, for example, battery size, location(s), connection, use cases etc.
- 2. If you are focussed on grid scale energy storage solutions, have you identified a suitable site for the infrastructure? [yes/no]

- 3. If yes and if known, approximately how far is this from the nearest electricity cable/substation?
- 4. Is there anything else you would like to tell us?
- 17. Are you interested in heat networks as a project? (Yes or No)

(if yes to question 17)

### **Heat Network**

A networked ground source heat pump solution comprises an array of deep boreholes, joined together with pipes buried in trenches, with individual connections from this network into each property. Each property then has a small electrically driven ground source heat pump, about the same size as a typical gas boiler, which provides space heating and hot water. There might be about one borehole per house, depending on a number of factors, and boreholes will typically be drilled close to the properties. The top of each borehole is capped at ground level with a small access cover (about 30cm across), and all trenches are back-filled and made good, so once installed there is effectively nothing to see. Key factors that make the solution more cost effective include:

- properties in close proximity to each other;
- avoiding the need to drill boreholes or dig trenches in the highway;
- having a large proportion of residents ready and able to commit to the new heating system as soon as the network is installed;
- participating residents being off the mains gas grid.
- 1. Have you identified a cluster of approximately 20 or more homes that may be suitable for participating in heat network? Please provide details.
- 2. How densely situated are these homes? For example, is it one small cul-de-sac or terrace, or large detached homes with fields in between? Please give a description.
- 3. Please give an indication of the proportion of these homes are supplied by the gas grid. [All /Most /Some /None /Not sure]
- 4. Please give an indication of the proportion of homes are occupied year round. [All /Most /Some /None /Not sure]
- 5. Have you identified a potential site for shared heat infrastructure? i.e. boreholes
- 6. If yes, please describe the site and give further details. For example how close is this to the houses.

### Organisation

- 18. Please provide details of your organisation and any project partners, including each organisation's name and role in the project.
- 19. Which of the project partners that you have provided above is a legally constituted organisation?

### Representative

- 20. Main contact
  - o Full Name
  - o Organisation
  - o Number
  - o Email
- 21. Alternative contact
  - $\circ \quad \text{Full Name} \\$
  - o Organisation
  - o Number

o Email

### Thanks for answering these questions.

Please press 'submit' for us to receive your application. We will be in touch by 26 April to let you know whether you have been selected or not. The selected organisations will be contacted to arrange a further discussion about their project and what support and funding they would need to continue in this process.

We are currently in the Discovery phase of this project, looking to understand more about rural communities and the solutions that might be appropriate for them. Following this we will be applying for funding to enable this project to continue into the next phase. If successful, the next phase will involve working with the selected communities on feasibility studies.