

Request for Technical Consultancy – Feasibility for Installing PV, Energy Management and Energy Storage Systems for Rural Northumberland

Background

Community Action Northumberland (CAN) is delivering a report on behalf of communities across Northumberland to increase renewable energy generation and manage the energy more effectively.

CAN is now seeking a consultant to complete technical feasibility studies into the viability of installing PV technology, linked to energy storage solutions, for a range of buildings across rural Northumberland.

These technical feasibility studies will feed into the wider project, which is investigating the requirements for the development of a regional, community-focused, energy company. The purpose of this delivery vehicle will be to make easier the process of installing and benefitting from renewable energy generation for individual communities.

The project is being funded by the Rural Community Energy Fund (RCEF), administered by the North East Local Economic Partnership. More information can be found here <https://teesvalley-ca.gov.uk/business/key-sectors/energy-and-renewable/rural-community-energy-fund/>

The project will be managed by CAN, with facilitation from the Rural Design Centre (RDC).

Community Action Northumberland (CAN) supports and sustains rural communities across Northumberland by promoting and tackling rural community issues, empowering local organisations and supporting individuals. CAN works with a wide range of partners to share resource and knowledge to achieve the best results for rural Northumberland communities. <http://www.ca-north.org.uk/>

Rural Design Centre (RDC) works with people and organisations who are passionate about the places they live and work. RDC helps to create new ideas and turn them into solutions. www.ruraldesigncentre.com

Objectives

The project seeks to determine which sites across Northumberland will be viable for taking forward to installation and delivery of the renewable generation, management and storage systems.

The project team has completed initial workshops working to define what solutions could look like, but we are seeking ideas, options and to learn from best practice and develop innovation. We would welcome ideas over and above the objectives and delivery requirements here and would be keen to work with you to input into the development of the project.

There are three elements to the feasibility work required;

1. Assessing the viability for PV installation on up to 12 community buildings, including village halls and Churches
2. Assessing the viability for PV on domestic rooves within a village location with up to 20 houses

3. Assessing the viability and technical requirements for PV on static caravans within a caravan site

All elements should factor in the desire to utilize energy storage systems and smart energy management systems to maximize the efficiency of the schemes.

The region covered is Northumberland, with all focus on rural communities. The wider RCEF feasibility study managed by CAN includes engaged communities from across the region, including a hub in Beadnell. This project has brought communities together who would be unable to install renewable energy technologies and energy storage solutions on their own, due to the resource constraints and complexities.

Further Information

- **Community Buildings**

A list of the community buildings involved in the project is attached below in this document.

Baseline energy audits are available for the majority of the buildings.

Access to those with responsibility for the building energy can be arranged for any desk research required.

In all cases there is permission from the land and building owner to complete site surveys, and arrangements for site visits will be facilitated by the project team.

The number and location of buildings involved in the study may change, and so a price per building is required.

Many of the buildings are listed, and details of these, and the level of listing, can be provided.

Any site visits completed must be fully COVID compliant, and details must be provided in writing to the project team and the representative of the building before any visits can be undertaken.

There is a high level of stakeholder support for the project, both on a community level and on a strategic level from the Diocese of Newcastle and the Community Buildings Associations across Northumberland.

- **PV on Domestic Rooves**

All houses will be in the village location of Beadnell (post code NE67 5AN).

The houses are second homes or holiday rental properties. The project team and residents of Beadnell will facilitate access to and communication with the home owners, including seeking permission to complete audits.

The final number of houses included is to be determined, but is expected to be 10 houses, with no more than 20.

A separate study will determine the potential for energy storage units within the village, located at the substation. This study will be available to the consultant.

Any site visits completed must be fully COVID compliant, and details must be provided in writing to the project team and the representative of the building before any visits can be undertaken.

- **PV on static caravans**

This will focus on the caravan parks in Beadnell.

Existing information about energy usage will be made available, as well as financial systems and energy provision processes in place for the caravan sites.

The project team will work with the consultant and local stakeholders to communicate with the caravan site owners and occupiers.

Deliverable Outcomes

The final outcomes will be agreed with the consultant on their appointment. We would welcome ideas on beneficial presentation of the findings.

Information provided should include;

- Written report on feasibility for installing PV on community buildings, on a building by building case. A summary report should also provide an aggregated view of the potential for energy generation across all of the buildings. The individual building reports should include (as a minimum)
 - Overview of the building – including current energy requirements
 - Space available for PV
 - Type of panels appropriate for the building
 - Potential energy generated
 - Potential cost savings (compared to existing energy costs)
 - Potential carbon savings (compared to existing carbon)
 - Cost of installation
 - Maintenance required and cost of maintenance
 - Payback time, on a financial basis
 - Concluding assessment of whether to take the building forward to install the technology
- Written report on the feasibility for installing PV on domestic rooves in Beadnell Village
 - A summary of the properties included in the feasibility study

- The potential for energy generation, by household and aggregated across all houses within the study
- Indicative costs
- Options for energy use to maximise a) financial benefit, b) carbon benefit c) wider community benefit
- Written report on the feasibility for installing PV on caravan rooves at sites in Beadnell Village
 - A summary of the technology required, including a list of suppliers
 - The potential for energy generation
 - Indicative costs
 - An assessment on viability of the project

Sites that are deemed viable will be taken forward to the delivery phase with the planned installation of renewable technology.

Timeline

Procurement Advertised	10 May
Questions and Clarifications from Consultant	11-25 th May
Bid submitted to CAN	4 th June
Questions and Clarifications	4 – 11 th June
Contract Awarded	16 th June
Kick off Meeting	w/c 21 th June
Interim Update	w/c 19 th July
Final Report Delivered	30 th August

It is anticipated that regular update meetings will take place through the feasibility period.

Budget

There is a maximum budget of £8,000 to complete this project.

Responses

All questions and requests for clarification should be emailed to andydean@ca-north.org.uk by 25th May.

The project team would be happy to discuss the brief in more detail before the bid is submitted. Please email andydean@ca-north.org.uk to request this.

Responses should be submitted electronically by 5pm 4th June on to andydean@ca-north.org.uk

Responses should include, but not be limited to:

- Your approach to delivering the project
- The team, including the main contact, who will deliver the project
- Examples of previous relevant work
- A breakdown of the budget required
- Confirmation of the timescale for delivery
- Outputs to be delivered

Evaluation Criteria

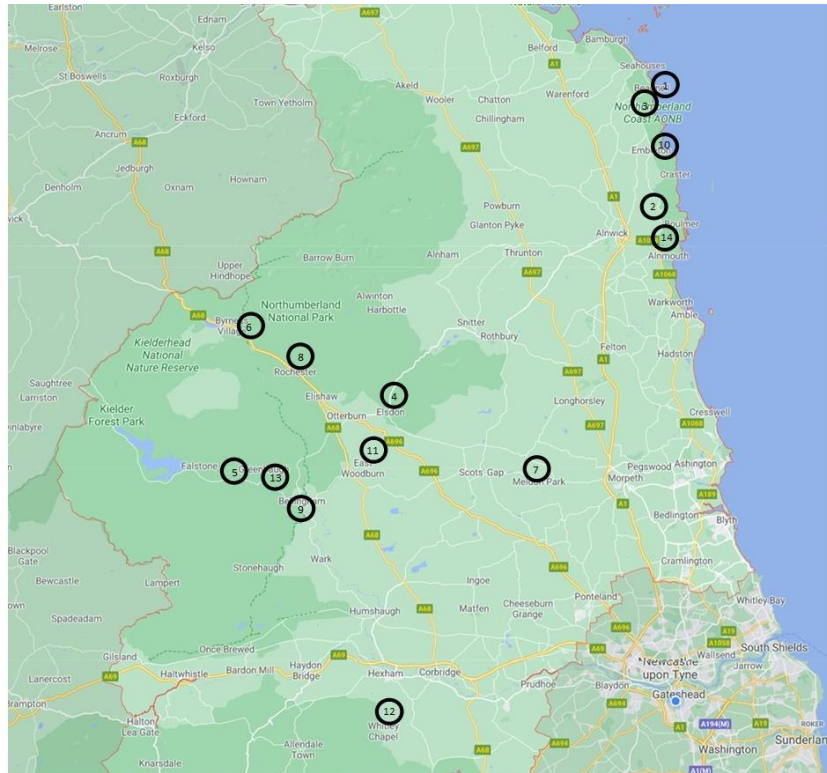
The response will be assessed by the project team and an independent energy consultant.

Understanding of the brief	10%
Quality of the approach to be taken	40%
Innovation	5%
Relevant experience	10%
Cost	35%

Questions and Contacts

All questions should be submitted by email to andydean@ca-north.org.uk

Locations of Committed Community Buildings



1	Beadnell Village	NE67 5AN
2	Longhoughton Community and Sports Centre	NE66 3JH
3	Beadnell - WI hall	NE67 6AG
4	Elsdon Village Hall	NE19 1AA
5	St Aiden's Thorneyburn	NE48 1AW
6	Byrness Village Hall	NE19 1TS
7	Hartburn Parish Church	NE61 4JB

8	Holy Trinity, Horsley	NE19 1RU
9	St Cuthbert's Bellingham	NE48 2JP
10	Embleton Parish Hall	NE66 3UP
11	Corsenside Parish Hall	Ne48 2SB
12	St Helens, Whitley Chapel	NE47 0HB
13	Taret Village Hall	NE48 1NT
14	Lesbury Village Hall	NE66 3PP

Several locations include more than one building. For example, St Helen's Church in Whitley Chapel is working in tandem with the village primary school. The buildings in Longhoughton include football pitches, multiple buildings, a large car park and plans for electric car charging posts. Specific details for the buildings will be provided.

Additional community buildings are submitting expressions of interest as the network grows. These will be discussed with the consultant on a case by case basis.



Community Action Northumberland