SP ENERGY NETWORKS

Accelerating Renewable Connections
(ARC)

ARC is an exciting new initiative to help new green energy projects connect to the local power network earlier through the development of new connection techniques and innovative contractual arrangements.

ARC will also seek to help community groups develop their own generation projects by matching locally produced energy with local electricity demand, to maximising the output of the generation scheme.

The project is led by Scottish Power Energy Networks (SPEN) working in association with Community Energy Scotland, Smarter Grid Solutions and the University of Strathclyde.

NORTH BERWICK

DUNBAR

EDINBURGH

EYEMOUTH

BERWICK-UPON-TWEED

COLDSTREAM

GALASHIELS

HAWICK

N

KEY

ARC trial area

0   10.00
kilometres

How can you get involved?

You can find out more about ARC at **www.arc-project.com** or by emailing our

Community Relations team at **enquiries@arc-project.com**

Developers can also find more technical information on the SPEN website at **www.spenergynetworks.com/pages/arc_accelerating_renewable_connections.asp**

Further information about the project partners can also be found by visiting their websites:
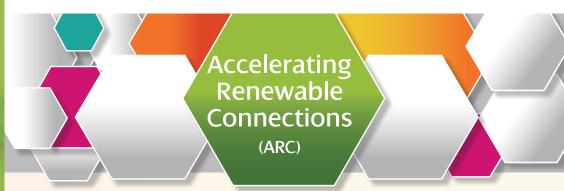
SP ENERGY NETWORKS   www.spenergynetworks.com

Community Energy Scotland
Empowering Communities   www.communityenergyscotland.org.uk

smarter grid solutions   www.smartergridsolutions.com

University of Strathclyde Glasgow   www.strath.ac.uk

Project overview

ARC is happening in the East Lothian and Borders region of SPEN's electricity distribution network – an area of 2,700 square kilometres stretching from North Berwick down to Holy Island, and inland as far as Hawick and Galashiels.

ARC will aim to help more renewable energy connect to the local power network more quickly and cost-effectively.

It will use a process called Active Network Management (ANM). This means SPEN may ask generators to reduce or increase the amount of energy they produce to meet local electricity demand and other factors, such as network constraints.

ARC will also seek to work with local community organisations to develop new ways of matching locally-produced energy with local energy demand. This will help generators have more network access at times when generation export is high.

Why ARC?

SPEN has an obligation to connect renewable generation to the local power network. However, this is becoming more difficult because of network constraints – where there is not enough capacity for all generators to use the network all of the time – and means that connection costs and construction lead times are increasing rapidly. New low-carbon generators are needed to meet future electricity demand and there are many Government and European targets to increase the level of generation from renewable sources.

We need to find new ways to connect more green energy sources – and this is where ARC comes in.

Who will benefit from ARC?

ARC will help to accelerate the connection of generation projects onto the local power network. This will not only benefit those seeking to connect but also help to meet UK and Scottish Governments' targets for increasing the amount of energy from low carbon sources.

In addition ARC will seek to work with a number of community groups to develop new techniques where local electricity demand could be matched with the output of a local generation project. This would enable the generator to maximise output when there are constraints elsewhere on the network.

Whether you are a community, businesses or renewable energy company, ARC wants to bring all stakeholders together to hear your views on how best to achieve its aim of accelerating renewable connections onto the local electricity network.

Why choose to trial in East Lothian and Borders?

East Lothian and Borders is a region of relatively low population and electricity demand.

Generation already exceeds demand in some areas, and some generators operate under constraints. This means they cannot always export their electricity onto the network.

At the same time more new power generation is planned for the future, but SPEN cannot connect this without constructing new network capacity leading to costly connections and long lead times for generation schemes to access the network.

The alternative is to develop innovative ways of helping generators connect despite the constraints – and this is where ARC can help.