

Introduction and aims

1. The first ARC stakeholder forum was held on 27 February 2014 at the Scotsman Hotel, Edinburgh. The main purpose of the event was to introduce the project to the generators and developers in the SP Energy Networks distribution area. This was to attract their interest in taking part in the ARC project. See Appendix A for a full list of invitees.
2. The forum's aims were to:
 - a. Understand what issues were faced by stakeholders
 - b. Find out what support they wanted from the project team
 - c. Identify who was not in the room and needed to be
 - d. Decide what was the best means to maintain communication with stakeholders
3. The forum also gave these stakeholders the opportunity to meet the project team and to ask any questions about the project objectives and deliverables, and to discuss their own requirements. Richard Jenkins from North Wind Associates was invited to speak about his wind farm project in the Orkneys as an example of how communities were already connecting to the network, and what lessons had been learned so far that could be passed on to the ARC project.

Method

4. The forum was run according to the programme below:
 - a. Welcome and introduction – John Moffat
 - i. Project overview
 - ii. 'Your view' – what do you want from ARC?
 - b. Project presentation – Euan Norris
 - i. Who we are
 - ii. SPEN overview
 - iii. ARC project
 1. Aims
 2. Background
 3. The problem...
 4. The solution...
 - c. Guest speaker – North Wind Associates, Richard Jenkins
 - d. Community Energy Scotland: community benefits – Felix Wight
 - e. Discussion - Facilitator
 - i. What issues are you facing?
 - ii. What support is required?
 - f. Survey questions – Facilitator
 - g. Summary and closing remarks – John Moffat
5. The project team wanted to make sure that the attendees were provided with more information about the project following on from the overview provided in the initial invitation. For a full list of participants see Appendices B and C. To make the forum productive there would need to be a two-way

flow of information to allow the team to understand how the stakeholders viewed the project and their current perception of SPEN. This was achieved in two ways: First by holding a general discussion, after the introductory presentations, to find out what issues the stakeholders needed help with, and what support they wanted from the project team. Second, by asking the stakeholders to answer a series of survey questions using hand-held voting buttons to rate their responses. The IT that supported the voting also provided the function of sending 160 character messages to the project team throughout the event. All comments sent are at Appendix D.

6. There were 20 survey questions overall, see Appendix E, that were divided into four categories:
 - a. Network management
 - b. Information provision
 - c. Assessment and design fees
 - d. Customer service

Discussion and survey results

7. The majority of the issues raised during the discussion were around curtailment and the assessment process. It was felt that the project was an extremely good idea but that anyone wanting to take part would need to find financiers, which could potentially be difficult.

8. Richard Jenkins emphasised that the project team needed to pay attention to lessons learned from Orkney, and accept where mistakes had been made in order to successfully deliver the ARC project. The lessons highlighted by Richard Jenkins were:

- a. Frequent and transparent communications between stakeholders and the project team is essential. Quarterly meetings are recommended
- b. Communities offered stakes in wind farm developments to increase consent from locals
- c. Last in first off (LIFO) is a cardinal principle
- d. Accuracy of curtailment assessments is absolutely fundamental
- e. Renewable generation connecting at low voltage is eating in on the Active Network Management (ANM) capacity

9. It was generally understood that the assessment process and the information needed to predict curtailment would be an on-going process, with the project continually learning as new data was acquired and new technologies developed. The generator and developers agreed that transparency was crucial to effective communication.

10. A survey was conducted and the full results are at Appendix F. However, in summary the stakeholders felt there was:

- a. A lack of information provided by SPEN to generators and developers regarding connection, generation and charges; and in general there was room for improvement with regard to customer service.
- b. Tools such as geographical and schematic network and voltage diagrams would be very useful.
- c. Most are not averse to new connection fees or some of the reinforcement costs being passed to

the developers.

d. In line with the lack of information many of the stakeholders did not know about other types of connections such as small-scale wind farms, solar PV and biomass generation.

Summary and conclusions

11. The organisers and participants agreed that the forum had been worthwhile and successful, and that generators and developers would be interested in getting involved in the project. The aims of the day were met as follows:

- a. Understand what issues were faced by stakeholders
 - i. There was a general feeling that the main issues faced by developers and generators were around availability of information, particularly regarding the connection process, charging and network capacity, including geographic and schematic diagrams. It was felt that developers and generators might be able to make more efficient progress and decisions if more information was available, and if customer service improved.
- b. Find out what support they wanted from the project team
 - i. The stakeholders welcomed the ARC initiative, and this positive start needs to be followed through with regular communication and a demonstration that SPEN is working through the issues with stakeholders, particularly in helping to make more relevant information available if possible.
- c. Identify who was not in the room and needed to be
 - i. It would have been useful to have had representatives from finance/investment companies, and elected representatives (councillors and/or MPs and MSPs) who make decisions or have influential opinions on planning applications. Although a number were invited, none attended.
- d. Decide what was the best means to maintain communication with stakeholders
 - i. Quarterly forum meetings would be welcomed, along with improved one-to-one contact with the ANM team.

12. Going forward, the project team guided by the audience responses felt it should concentrate on:

- a. Accuracy of curtailment
- b. LIFO principle
- c. Communications with stakeholders – frequency and transparency
- d. Access to ANM team – query turnaround in 24 hours

Appendices:

- A. List of Invitees.
- B. List of Participants
- C. List of ARC and partner representatives.
- D. List of comments made by audience throughout the day.
- E. Survey Questions.
- F. Survey results.

Appendix A. List of invitees

Name	Position	Organisation
Rodolphe de Beaufort		Alstom
Heidi Thorsdalen		AMEC
Mark Rowcroft		Banks Group
Ian Jarvie	Treasurer	BCCF Environmental
Roy Garden	Secretary	BCCF Environmental
Sheila Kerr		Be Green Dunbar
Philippa Whetton		Berwickshire Association of Voluntary Services
Alan Hobbett		BHA Group
Brian Emmerson		Borders Energy Agency
Ian Lindley		Borders Energy Agency
Scott Robertson		Borders Energy Agency
Michael Bayne		Borders Machinery Ring
Jamie Adam		CES
Huw Connicks		Connicks Consultancy
Colin Mackenzie		DNV GL
Ian Govier		E2E Services
Alastair Raynard	Housing	East Lothian Council
Willie Innes	Councillor	East Lothian Council
Norman Hampshire	Councillor: Planning Committee Convener	East Lothian Council
Peter Banks		Fine Energy
Johnnie Andringa		Gaia Wind
Owen Paterson		Gaia Wind
(General invitation)		George F White
Aily Armour-Biggs		Global Energy Advisory
Michael Moore	MP	Government
Alan Beith	MP	Government
Fiona O'Donnell	MP	Government
Cedric Gerbier		Green Cat Renewables
Jono Wells		Inazin Power Limited
Karim Anaya		Judge Business School, University of Cambridge
Lucy Miller		Kalm Architecture
Jim Ramsay		Knockmen Wind Farm
Stuart Stevenson		Life Long Energy
Ruth Evans	CARES Deliverer	Local Energy Scotland
James Wauchope	Farmer	Lochtower Farm

Ian Maclean		Locogen
Graeme Crawford		Locogen
Dita Macfarlane		Midlothian and East Lothian Chamber of Commerce
Jim Hart		Napier
Kerry Barr	Regional Manager	NFU
Gran Davey	Councillor	Northumberland County Council
John Taylor	Councillor: Area Planning Committee North	Northumberland County Council
Peter Hatley		Northumberland County Council
Calum Watt		PNE Wind
Ian Fleming		Renton Farm
Dr Graham Pannell	Senior Grid Engineer	RES Group
Simon Noon		RFL Communications
Jim Campbell	Renewable Energy Team Leader	SAC Consulting
Alan Vass		SBHA
Carly Stewart		SBHA
David Parker	Councillor	Scottish Borders Council
Louise Cox	Environmental Strategy Co-ordinator	Scottish Borders Council
Ron Smith	Councillor: Borders Chamber of Commerce	Scottish Borders Council
Anne Gray		Scottish Land and Estates
Teresa Dougall	Regional Manager	Scottish Lands and Estates
Iain Gray	MSP	Scottish Parliament
John Lamont	MSP	Scottish Parliament
Christine Grahame	MSP	Scottish Parliament
Paul Wheelhouse	MSP	Scottish Parliament
Niall Stuart	CEO	Scottish Renewables
Rachelle Money	Director of Communications	Scottish Renewables
Michael Reilly		Scottish Renewables
Alan Mortimer		Sgurr Energy
Matt Chapman		Smith Associates
John Ayscough		SoLoCo
Pip Tabor		Southern Upland Partnership
Jim Shanks	Farmer	Standhill Farm
Andrew Bissell		Sunamp
Sean Watters		Sustaining Dunbar

Phillip Revel		Sustaining Dunbar
Tim McBride		Temporis Wind
Nigel Williams		Temporis Wind
Heather Batsch		The Bridge
Dawn Muspratt		The Renewable Power Exchange
Luke Cummins		Tweed Form
Duncan Smeed		University of Strathclyde
Roy Ferguson		Wind Direct
Robert Mitchell	Senior Electrical Engineer	Wind Prospect
David Hutchinson	Community Councillor	Yetholm Community Council
Dave Redpath	Community Councillor	Yetholm Community Council

Appendix B. List of Participants

Name	Position	Organisation
[REDACTED]		Banks Group
[REDACTED]		CES
[REDACTED]		DNV GL
[REDACTED]	[REDACTED]	East Lothian Council
[REDACTED]		Fine Energy
[REDACTED]		Gaia Wind
[REDACTED]		Green Cat Renewables
[REDACTED]		Knockmen Wind Farm
[REDACTED]		Local Energy Scotland
[REDACTED]		Locogen
[REDACTED]		Napier
[REDACTED]		North Wind Associates
[REDACTED]		Northumberland County Council
[REDACTED]		PNE Wind
[REDACTED]		Renton Farm
[REDACTED]		SAC Consulting
[REDACTED]	[REDACTED]	Scottish Borders Council
[REDACTED]		Scottish Land and Estates
[REDACTED]		Scottish Renewables
[REDACTED]		Sunamp
[REDACTED]		Sustaining Dunbar
[REDACTED]		Temporis Wind
[REDACTED]		The Renewable Power Exchange
[REDACTED]		Wind Direct
[REDACTED]	[REDACTED]	Wind Prospect

Appendix C. List of ARC and partner representatives

Name	Organisation
Andy Maybury	Community Energy Scotland
Felix Wight	Community Energy Scotland
Eva Foran	Copper Consultancy
Rachel Cochrane	Copper Consultancy
Sue Hayman	Copper Consultancy
Angela Thomson	ScottishPower
Karen MacGregor	ScottishPower
Euan Norris	ScottishPower Energy Networks
David Campbell	ScottishPower Energy Networks
John Moffat	ScottishPower Energy Networks
Luke Tait	ScottishPower Energy Networks
Martin Hill	ScottishPower Energy Networks
Martin Tait	ScottishPower Energy Networks
Martin Wright	ScottishPower Energy Networks
Tracy Joyce	ScottishPower Energy Networks
Andrew Malkin	Smarter Grid Solutions
Jorge Pena-Martinez	Smarter Grid Solutions
Ivana Kockar	University of Strathclyde
Simon Gill	University of Strathclyde

Appendix D. List of comments made by audience throughout the day.

- Great event. Useful info. Thanks
- Accurate curtailment going to be vital for finance
- When will ARC go global?
- Comms agree
- LIFO not well justified
- LIFO agree
- Accuracy critical
- Richard have you priced better comms?
- Micro-generation installations eat a lot of capacity in Orkney, is there thought to encourage better onsite use by these generators?
- Micro-generation
- Need to appreciate impact of un-firm capacity on financed projects. Very difficult

Appendix E. Survey questions

Section 1: Network management

Do you think SPEN does enough to facilitate connection offers?

Too much / about right / don't know / could do a bit more / could do a lot more

How helpful have you found SPEN in facilitating non-firm connections?

Very helpful / quite helpful / don't know / not very helpful / not at all helpful

How much do you think energy storage will contribute to the network in future?

A large amount / a reasonable amount / don't know / not very much / nothing

How much do you think Demand Side Management will contribute to the network in future?

A large amount / a reasonable amount / don't know / not very much / nothing

Section 2: Information provision

How much information does SPEN provide to generation companies on connection capacities at all voltages across their network area?

A lot / enough / don't know / not much / none

Does SPEN provide enough online information about available network capacity in specific areas to help with planning new generation?

Too much information / about right / don't know / not enough / none

How useful would you find geographic or schematic network and voltage diagrams when planning new generation?

Very useful / quite useful / don't know / not very useful / not at all useful

Do you think there is enough information about use of system charges at different voltages?

Lots of information / enough information / don't know / not enough / none

Section 3: Assessment and design fees

SPEN spends a lot of time developing connection offers that are then not accepted by developers.

Would you support an up-front connection fee?

Strongly support / might support / don't know / slightly against / strongly against

Would you be more inclined to support an up-front fee if it was deducted from the connection offer once a generator had signed to accept it?

Much more inclined / slightly more inclined / don't know / less inclined / much less inclined

Do you think SPEN provides enough detailed breakdown of its charges in its quotation letters?

Very detailed / quite detailed / don't know / not very detailed / not at all detailed

When SPEN needs to reinforce the network to connect new generation, how much of the cost should be passed on to the developer?

All including wider costs / some of the wider costs / don't know / just their own connection / none

Section 4: Customer service

How helpful do you find SPEN's Distributed Generation design teams?

Very helpful / quite helpful / don't know / not very helpful / not at all helpful

How well does SPEN deal with enquiries or complaints about the generation connection process?

Very well / quite well / don't know / not very well / poorly

The connection process requires SPEN to respond to a connection application within 90 days / 65 working days. Is that acceptable?

Too fast / about right / too slow / don't know

Do you think SPEN has a strong enough focus on connecting small-scale wind generation?

Too focused on wind / about right / don't know / not enough/ none

Do you think SPEN has a strong enough focus on connecting small-scale solar PV generation?

Too focused on solar PV / about right / don't know / not enough/ none

Do you think SPEN has a strong enough focus on connecting biomass generation?

Too focused on biomass / about right / don't know / not enough/ none

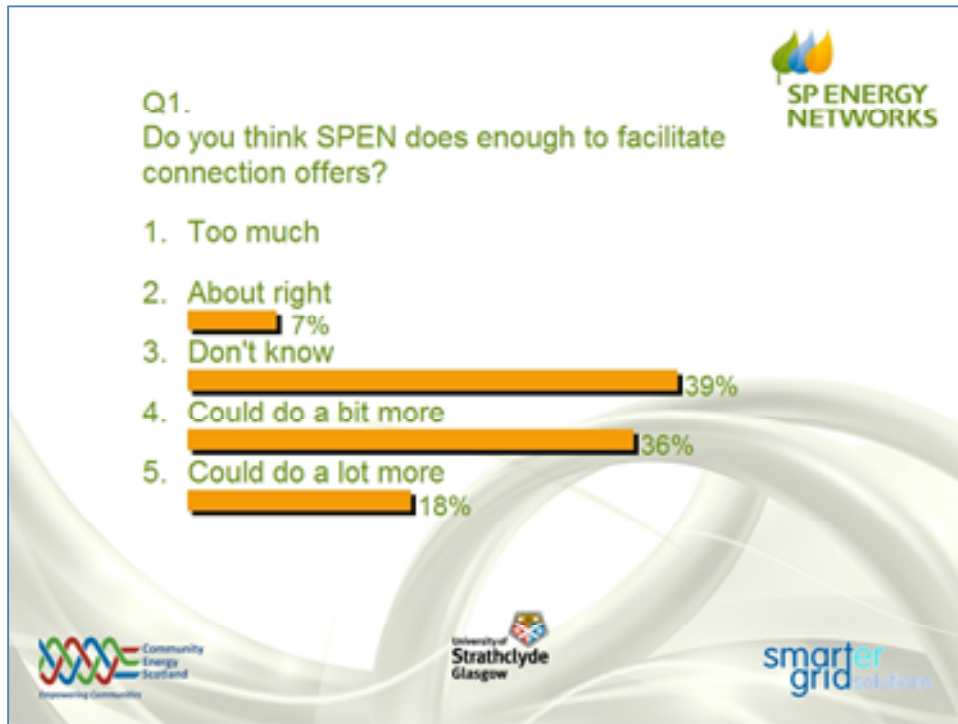
How well do you think SPEN manages the conflicting priorities of generators and other stakeholders?

Very well / quite well / don't know / not very well / not at all well

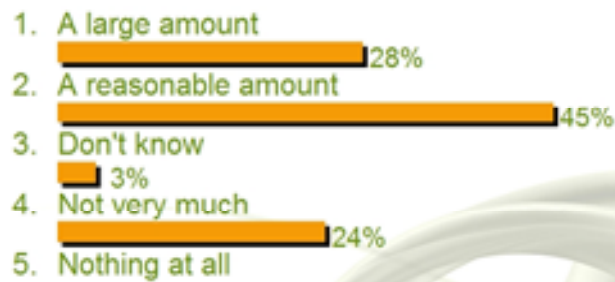
What do you think of the overall customer services provided by SPEN to connecting Distributed Generators?

Excellent / Good / Don't know / Room for improvement / Poor

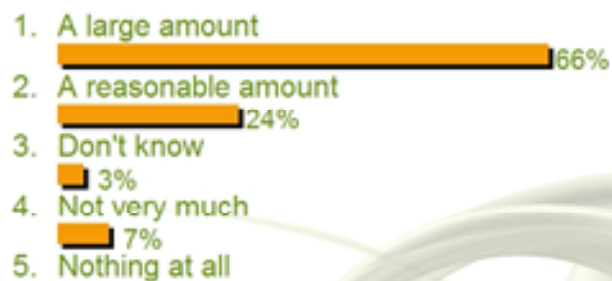
Appendix F. Survey results




Q3.
How much do you think energy storage will contribute to the network in future?






Q4.
How much do you think Demand Side Management will contribute to the network in future?



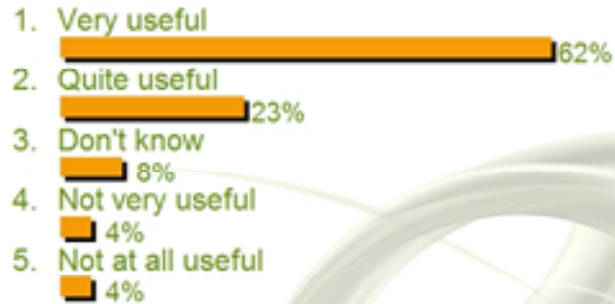
Q5.
How much information does SPEN provide to generation companies on connection capacities at all voltages across their network area?

- 1. A lot
- 2. Enough  4%
- 3. Don't know  56%
- 4. Not much  41%
- 5. None

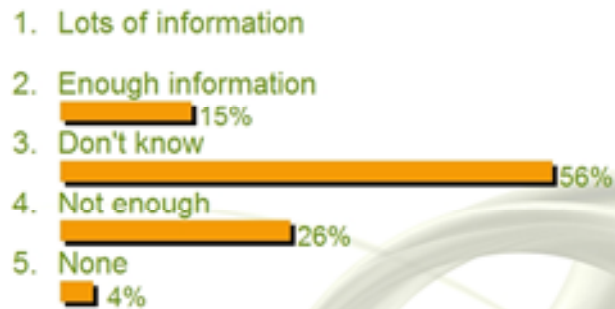
Q6.
Does SPEN provide enough online information about available network capacity in specific areas to help with planning new generation?

- 1. Too much information
- 2. About right
- 3. Don't know  30%
- 4. Not enough  67%
- 5. None  4%

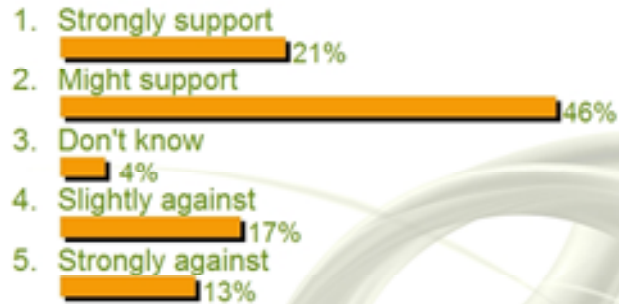
Q7.
How useful would you find geographic or schematic network and voltage diagrams when planning new generation?



Q8.
Do you think there is enough information about use of system charges at different voltages?



Q9.
SPEN spends a lot of time developing connection offers that are then not accepted by developers.
Would you support an up-front connection fee?

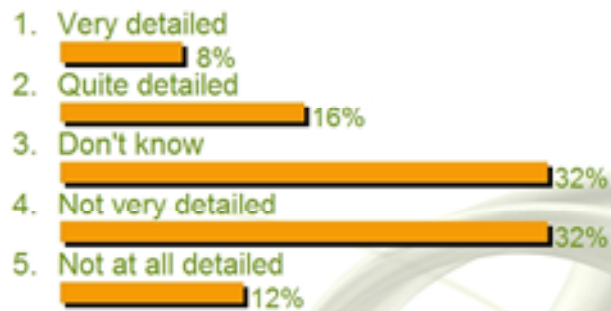


Q10.
Would you be more inclined to support an up-front fee if it was deducted from the connection offer once a generator had signed to accept it?



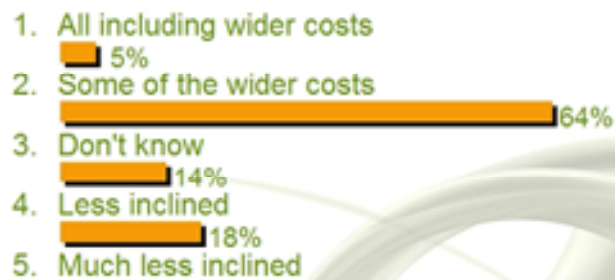
Q11.

Do you think SPEN provides enough detailed breakdown of its charges in its quotation letters?



Q12.





When SPEN needs to reinforce the network to connect new generation, how much of the cost should be passed on to the developer?



Q13.
How helpful do you find SPEN's Distributed
Generation design teams?




1. Very helpful
 13%
2. Quite helpful
 21%
3. Don't know
 42%
4. Not very helpful
 25%
5. Not at all helpful

Q14.
How well does SPEN deal with enquiries or
complaints about the generation connection process?

1. Very well
2. Quite well
 26%
3. Don't know
 48%
4. Not very well
 17%
5. Poorly
 9%




Q15.

The connection process requires SPEN to respond to a connection application within 90 days / 65 working days. Is that acceptable?

1. Too fast
2. About right  25%
3. Too slow  67%
4. Don't know  8%

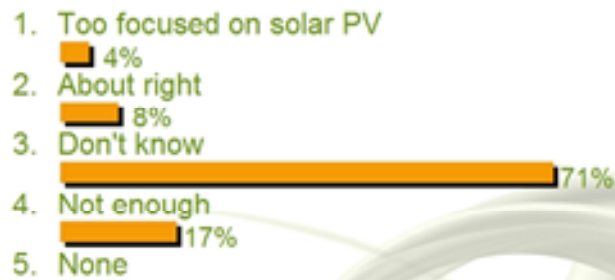
Q16.

Do you think SPEN has a strong enough focus on connecting small-scale wind generation?

1. Too focused on wind
2. About right  17%
3. Don't know  63%
4. Not enough  21%
5. None

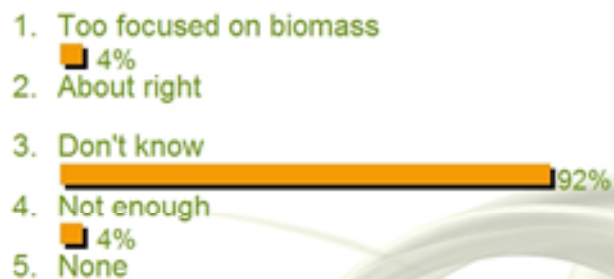
Q17.

Do you think SPEN has a strong enough focus on connecting small-scale solar PV generation?

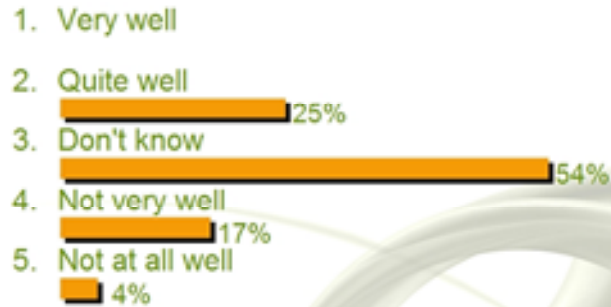


Q18.

Do you think SPEN has a strong enough focus on connecting biomass generation?



Q19.
How well do you think SPEN manages the conflicting priorities of generators and other stakeholders?



Q20.
What do you think of the overall customer services provided by SPEN to connecting Distributed Generators?

