

Engaging communities in network innovation impact report 2016 - 2018

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List of acronyms used

DNO	Distribution Network Operator
DSO	Distribution System Operator
ENA	Energy Networks Association
ENWL	Electricity North West
NPG	Northern Powergrid
SPEN	SP Energy Networks
SSEN	Scottish & Southern Electricity Networks
UKPN	UK Power Networks
WPD	Western Power Distribution
LCN	Low Carbon Networks
NIC	Network Innovation Competition
FiT	Feed-in Tariff
PSR	Priority Service Register

Community Energy Innovation – summary report

Executive Summary

The community energy sector has encountered difficulties in the past few years with policy changes from the UK government affecting previously reliable business models based on income from the FiT. This has led communities to look towards network innovation to build new business cases, overcome network constraints and take part in new and emerging energy markets. Communities can't do this without the help of DNOs, and over the past three years DNOs have made great strides in developing this relationship, engaging more to help communities understand what they can offer the network, how DNOs can support low-carbon energy goals, running innovation trials communities can take part in, and explaining how the DSO transition will affect them.

The community engagement work around network innovation that the DNOs and the ENA has been doing for the past three years includes having a named contact for communities to speak to, communicating in plain English, having more face to face engagement and running innovation trials. This has benefited communities with stronger DNO-community relationships, leading to joint innovation trials, helping communities to work towards their energy goals and benefit local people. It's vital that DNOs continue to engage communities to help them innovate and become key players in our future energy system. Communities are a key partner for DNOs as they transition to DSOs in an ever-more decentralised energy system.

Introduction

Over the past three years the ENA and all six UK DNOs, together with Regen, have delivered a collective programme of events and guides to encourage and increase communities' engagement in electricity network innovation, as DNOs transition to DSOs. These events have engaged a total of 443 community and local energy stakeholders, including 134 community energy group representatives. DNOs have also increased their proactive engagement with this stakeholder group by offering funding, face to face events, guides and opportunities to get involved in finding solutions to local network constraints through alternative connections and innovation projects.

This report summarises collective DNO engagement with communities around electricity network innovation in the last three years, a selection of individual DNO activity, and the lessons for future engagement with this stakeholder group.

Communities are an integral part of our future energy system; their support and involvement will be required to gain the acceptance and achieve the behaviour change needed for the scale of transformation taking place.

"Community energy has an important role to play in supporting electricity networks and ensuring that the transition to a smart, decentralised, low carbon energy system is fair and fit for the future. Working in collaboration with DNOs will be vital in opening up new markets and income streams for community energy organisations that are striving to develop energy projects that maximise social benefit and reduce costs for consumers."

- Emma Bridge, Chief Executive, Community Energy England

Communities have strongly expressed their desire to be involved¹ in the next stage of the shift to DSO and there are clear network benefits they can provide to DNOs, in terms of solving local energy challenges and reducing demand to defer costly infrastructure upgrades. Collaborative network innovation trials between communities and DNOs are helping communities and DNOs better understand new ways in which they can work with each other to make our energy system more decarbonised, decentralised and democratic.

Impact of DNO engagement with communities

Community energy interaction with DNOs has evolved over the past three years with communities moving from conversations around how to connect to the network, towards innovation as they explore local supply, balancing, demand side response, and search for viable business models with the reduction and removal of the Feed in Tariff (FiT). This engagement has been key to the development of community energy.

¹ Western Power Distribution, [the future of our electricity network: communities consultation](#), 2018; ENWL, [Community and local energy strategy](#), 2018; UK Power Networks, [Future Smart Consultation](#), 2017/18; UK Power Networks, [Community Energy Regional Report](#), 2018



Impact on communities

The impact on community energy organisations who have participated has been clear, they now:

- Understand who the DNOs are and the connection processes
- Know who to contact in each DNO
- Understand what a network innovation project is, and how to get involved
- Have a bank of community energy innovation case studies from the events and guides
- Are starting to understand what the DSO transition means to them
- Know where to go to find more information

Not only have the events brought communities together to network and learn from each other, they have enabled communities to develop better relationships with DNOs, leading to more partnership working, better communication and additional support. This ranges from

funding, to more networking/training events in partnership with trusted intermediaries, to online tools and one to one support.

“We work with ENWL on a broad range of policies and projects. We’re part of their stakeholder engagement process, they partner with us on a retrofit project and we are already developing innovation trial ideas with them.”

- Jonathan Atkinson, Carbon Co-op

“Repowering are working with the innovation team at UKPN to help develop new ways in which communities can participate in network management and benefit from any network services they may be able to offer. We are very busy at the moment with rooftop solar installations and we definitely appreciate being able to reach out to UKPN for up to date information on connection timescales. This sort of dialogue with network planners and the generation connections team has really improved over the last few years.”

- Felix Wight, Technical Director, Repowering London

Impact on DNOs

DNOs have used best practice engagement principles to involve communities, listening to feedback, identifying trends and responding to what participants have asked for. Good engagement takes time, the three-year programme shows commitment with the ongoing programme of events and guides for communities. DNOs have developed their understanding of how to better engage communities, the specific challenges this stakeholder group faces, and have made concrete commitments to ongoing engagement in their joint [innovation strategy](#). DNOs understand that effective engagement with communities is essential to achieving the smart, flexible and low carbon energy system of the future. They are working to engage communities individually and collectively through a best practice working group.

Communities in network innovation

Why are communities looking to network innovation?

The [Community Energy State of the Sector Report 2018](#) highlights the challenges the 228 community energy organisations in England, Wales and Northern Ireland have faced in the last few years with the removal of:

- renewable energy subsidies
- tax incentives
- pre-registration for rooftop solar PV FiT
- funding for the 'at-risk' stage of projects in England.

This has led to a sharp decline in the number of new organisations forming, and the number of new community renewable energy projects being developed.

Unlike developers, communities can't relocate projects to areas or countries with more favourable conditions for renewables, or cheaper grid connections. However, because communities are motivated by social and environmental concerns above profit, they have not given up. Instead they are refocussing on energy efficiency, fuel poverty and innovation projects.

Communities are motivated by climate change and social resilience

Prior to the latest set of joint DNO community engagement events in Cardiff and Edinburgh in 2018, we asked attendees to tell us what motivates them to engage in energy issues. We found that climate change (or environmental concerns) were the main factors, 48 out of 56 total respondents cited this, closely followed by community empowerment, with care for their local area and social justice also cited. Financial concerns appear to be less of a priority for communities, as Figure 1 shows.

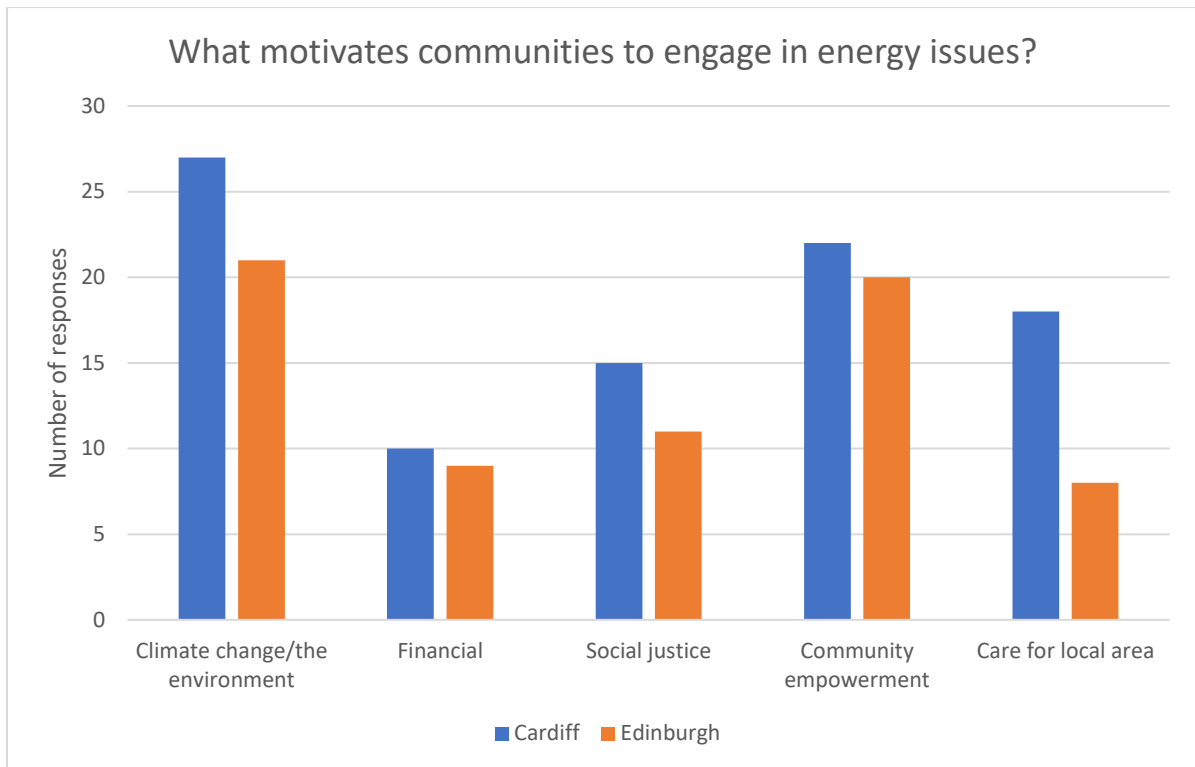


Figure 1: The factors which motivated attendees at community events in 2018 to engage in energy issues (56 total respondents, could select more than one).

Community energy organisations want to supply electricity locally

There are 204 community owned electricity generation projects, which equals a combined total of 168 MW of installed capacity in England, Wales and Northern Ireland², with another 62 community owned generation projects in Scotland³. There is a strong trend for community organisations who succeeded in installing generation projects wanting to sell the electricity generated directly to local homes, this message has been repeatedly raised at the combined events. Local supply models are, however, challenging under the current regulation.

“Community energy has always been about more than MW. It’s also about creating a stronger link for people locally between energy supply and energy demand, as we transition towards an energy system that will rely on more active participation, understanding and trust. All things that community energy companies are ideally placed to help build.”

- Pete Capener, Bath & West Community Energy

² Community Energy England, [State of the Sector Report 2018](#), p19

³ Local Energy Scotland, [Projects and case studies](#)

The events have supported communities to understand the regulatory barriers and network charging regulation that currently prevent local supply, but also that there is an opportunity to explore this subject through innovation projects.

Affordability of network connections in constrained areas

Constraints on the electricity network are another key driver for communities to innovate⁴, particularly in Wales and Scotland where policy is supportive of local energy, while wind generation, the cheapest form of energy generation⁵, is not effectively banned as it is in England⁶. Expensive connection costs in areas of the grid that require reinforcement to accommodate new generation can make low carbon generation projects financially unviable, and communities are being driven to explore alternatives. Examples in Scotland demonstrate this ([Outer Hebrides Local Energy Hub](#), [Heat Smart Orkney](#), [Levenmouth Community Energy Project](#)).

“Events like this are a step in the right direction, good to see interest. DNOs need to look strategically with local authorities and communities at network issues and try to make developments happen, give a heads up on where to locate projects.”

- Attendee at Edinburgh community innovation event, September 2018

How innovation helps communities

Innovation helps communities by:

- Exploring new business models that could become financially viable
- Looking for alternatives to standard grid connections in constrained areas
- Bringing partners together with time, expertise and capacity to deliver projects
- Providing funding opportunities for projects which benefit the network
- Innovation projects focused on demand side response can help with energy efficiency, education and cost savings for customers

⁴ Regen, [Rough Guide to Engaging Communities in Energy Network Innovation](#), 2017, p29

⁵ Department for Business, Energy and Industrial Strategy, [Electricity Generation Costs](#), 2016

⁶ Rule changes governing onshore turbines from the Conservatives following the 2015 general election led to a [94% decrease in planning applications for new wind farms](#).

- Innovation projects that seek to balance supply and demand locally can also help communities work towards local supply ambitions and potentially access revenue streams if communities can provide flexibility to the network
- Providing inspiration and motivation to the rest of the community energy movement that projects are still happening despite the challenging climate for renewables.

By taking part in innovation communities are developing their capacity, skills and knowledge to interact with the complexities of the changing energy system debate.

“We came home very buoyed up by the inspiring talks yesterday and particularly having been part of the round table groups in the last session. It was so helpful to have the opportunity to discuss the successes and problems with people from other projects and to have the effective leadership of our facilitators. Fostering our engagement with the DNOs, enabling community groups to understand the limitations of the systems and being prepared to respond positively where possible to local needs, is so welcome in this, otherwise often negative, environment.”

- Attendee at Manchester event, October 2016

1. Lessons from community innovation events and guides

The ENA and all six DNOs worked with Regen to deliver six collaborative events, attended by a total of 443 people, along with two guides, widely distributed to communities, opinion formers, industry leaders, local authorities and local energy stakeholders, at events, by post and online, from 2016 to 2018.

Community energy innovation events: the story so far

2016 – the starting point

The context for the first events in Manchester and Oxford was challenging, because the community energy movement was in a difficult place with no obvious business model following FiT cuts in 2015. Connections had also become contentious because in some locations, projects had received connection offers with high connection costs. This happened where reinforcement was triggered.

DNO engagement with community energy organisations was still at any early stage, other than through the connections process or a handful of niche innovation trials. Participants, therefore, came to these first events with different levels of understanding and experience, some were asking ‘what is a DNO?’ and ‘what is network innovation?’ while others were asking ‘how do we do innovation projects together?’

Communities at these events voiced their frustrations but also gave clear and constructive messages to DNOs that they wanted more collaboration and better communication, including:

- Early engagement that started by DNOs listening to communities
- A named individual for communities to contact in each DNO with enough seniority to take action
- More information in plain English avoiding jargon and technical language
- Information for communities about innovation trials as they happen, online, at events, in guides, webinars, podcasts, videos, and case studies
- More opportunities to talk to DNOs ‘face to face’ in partnership with trusted community energy intermediaries like Regen, Community Energy England, Community Energy Wales and Community Energy Scotland.
- Solutions-based one to one dialogue around high connection offers and alternatives
- Opportunities to codesign innovation projects



Roundtable discussions at the Manchester event, October 2016

Facilitating constructive and positive dialogue amongst such a range of participants and receiving such clear feedback was a significant achievement. The debate at the events also demonstrated communities' willingness to work proactively with DNOs, to continue the conversation, to collaborate and to work to engage their wider communities in energy system change.

"It is very encouraging to find so many people planning for new projects in spite of the recent set-backs and to know that there is still the ambition to progress towards a greener future. We are looking forward to keeping in touch with changes and new ideas."

- Robin and Lesley-Jane Powell, Manchester event, October 2016

2017 – listening and building relationships

At the events in 2016 community stakeholders said they wanted more information in plain English about innovation trials. The Rough Guide to Engaging Communities in Energy Network Innovation was published in January 2017 by the ENA.

Community stakeholders also said they wanted more opportunities to talk to DNOs face to face, so two more conferences were held in London and Newcastle.

Both conferences were very different from one another. Newcastle had fewer attendees and less technically advanced community energy groups, who were more interested in connecting to the network than in innovation. London was very well attended, and the community participants had much more advanced levels of knowledge about the energy system, some were working on their own innovation projects, and all participants demonstrated a real eagerness to partner and collaborate with DNOs. The feedback showed a more optimistic and inspired mood from communities who wanted to partner and learn more about innovation, and who were more engaged overall, compared to the Newcastle event.



Communities putting their questions to DNOs at the London event, November 2017

“Being able to speak directly with SSEN to understand their challenges and frustration due to lack of proper government strategy and clear roadmap, and to interact with other community energy groups was very enlightening and allowed me to make some great contacts to work with other inspirational community groups.”

- Maurice Dixon, Westmill Solar, London event, November 2017

In 2017 the Open Networks Project got underway and we started to see more DNOs talking to their own local communities about the DSO transition. For example, UKPN’s [‘A day in the life of a domestic prosumer’](#) and [‘A day in the life of a community energy scheme manager’](#), which look at new key roles in a world of DSOs.

“DNOs are as scary as a maternity ward if you have never been in one before. But in every maternity ward there is someone who will welcome you and talk you through what to expect. I would like DNOs to provide that person more.”

- Andy Heald, Energise Barnsley, Newcastle event, November 2017

2018 – collaborative projects

In 2018 the impact of ongoing engagement with communities became more apparent, as DNOs continued their collective engagement through two more conferences and a guide, the [Electricity Network Innovation Guide for Communities 2018](#). We saw more communities and DNOs working together to achieve their energy goals. ENWL published their [Community and Local Energy Strategy](#) and WPD conducted a [consultation for communities](#) on the DSO transition and their role in our future electricity network. UKPN, teaming up with Community Energy England, Scene Connect and Community Energy South conducted a survey of community energy across their licence areas, to understand the needs and aspirations of communities, with a focus on flexibility, innovation and the DSO transition, as part of a [report on community energy in the South East](#).

Two more network innovation conferences for communities were delivered in Cardiff and Edinburgh. Feedback showed that communities wanted:

- more opportunities to develop innovation ideas with DNOs
- more concise communication materials in one easily accessible place
- more joint events, as well as small and local events with DNOs
- to influence strategic decisions by being invited to join DNO advisory panels and support to influence BEIS and Ofgem.



Workshop discussions at the Cardiff event, September 2018

“Co-production of Innovation Project proposals, and Calls for Expressions of Interest in collaborations, i.e. that they proactively create opportunities for communities to get involved practically, rather than wait for communities to approach them, which is how it (perhaps inaccurately or unfairly) it feels at the moment. Despite events like these, it's very difficult for communities to be informed well enough that they can take the initiative.”

- Attendee at Cardiff event, September 2018

Feedback from the events

Feedback from the community innovation events has been very positive. Figure 2 shows that at least 95% of attendees were either happy or very happy with each of the six events, with most receiving 100% satisfaction from guests.

“I just wanted to say thank you for organising this conference - it was the most useful one I've been to for a long time.”

- Gill Fenna, Manchester event, October 2016

“This is exactly what we need, I have never seen DNOs so engaged and all in one room, we need more events like this.”

- Attendee at Cardiff event, September 2018

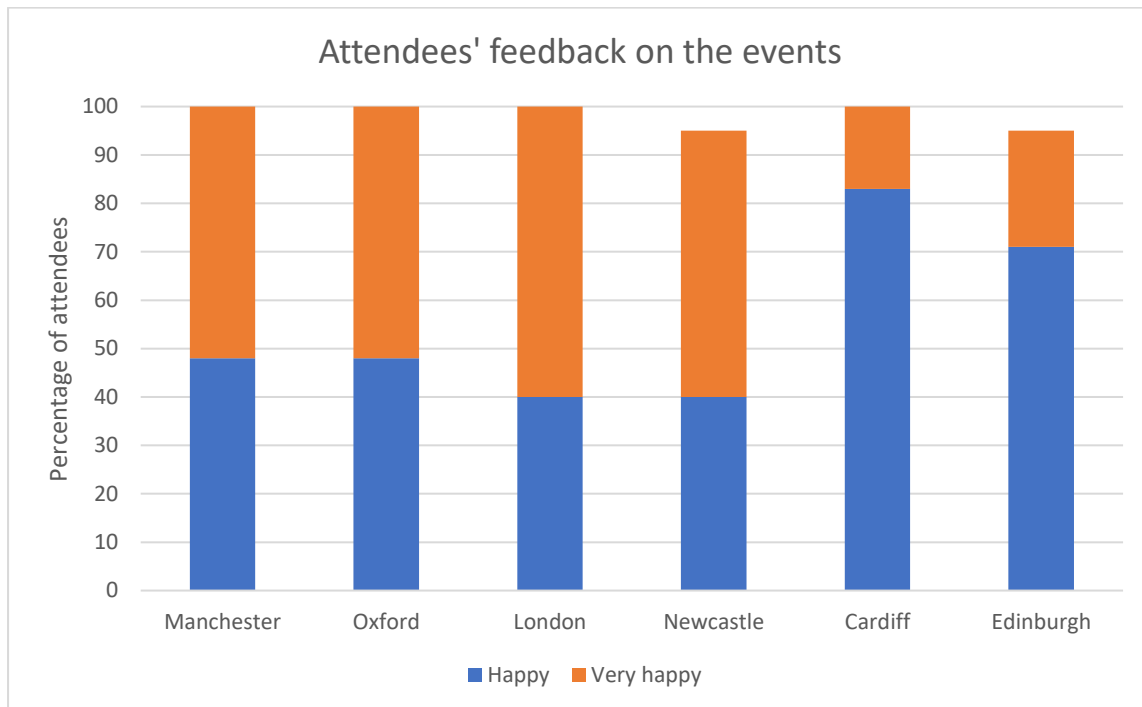


Figure 2: Post-event satisfaction feedback from attendees.

Developments in community energy and DNO engagement

The broad trend since 2016 has been for fewer participants at the ENA community energy innovation events as the sector has continued to face significant barriers and lack of a viable business model. However, a broader level of engagement has been achieved, which was reflected in the attendance profile of the most recent events. In Cardiff in September 2018, two thirds of attendees were from community groups and their support or umbrella organisations, while there was also a strong presence from local authorities, devolved government and consultants, with a few suppliers and academics. We found a similar make up of attendees at the Edinburgh event the same month, around two third communities and a larger proportion of consultants than we had seen in previous years.

Since 2016 there have been almost no new community energy groups starting, and far fewer projects delivered, due in large part to changes to the FiT⁷. The [Community Energy State of the Sector Report 2018](#) identified 66 stalled or failed community energy projects. In 2017, only 16 new projects were installed, and one new community energy organisation was started, down from 30 per year in 2014-15. Figure 2 shows how lower numbers of attendees has roughly correlated with falling numbers of community energy installations.

However, the dialogue at the events has become more collaborative and focused on joint working. Community energy organisations that were established and installed generation projects before the FiT cuts have shown considerable resilience and determination to continue. For these more experienced organisations trialling new models, piloting new ideas, and sharing lessons from innovation has become increasingly important.

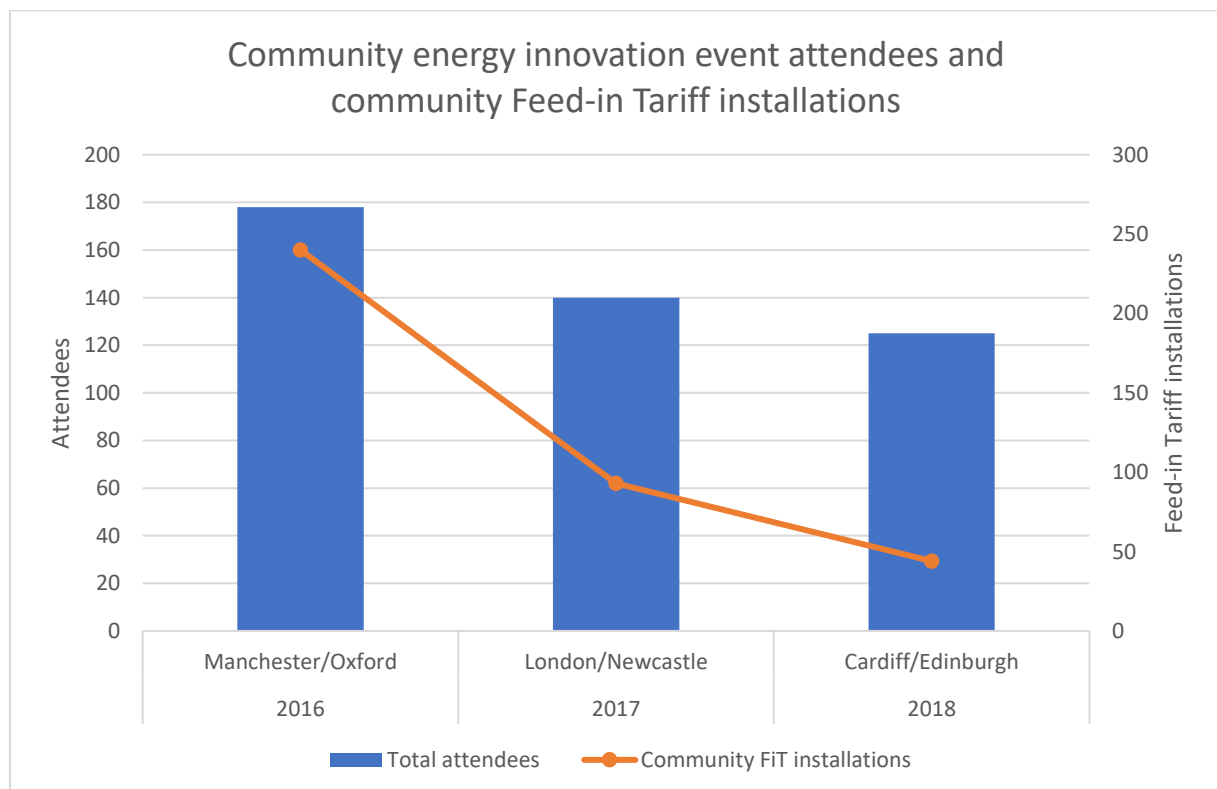


Figure 3: Attendance at the community innovation events and new community FiT installations. Data source: BEIS community and school FiT statistics⁸

⁷ Community Energy England, [State of the Sector report](#), 2018

⁸ BEIS, [Community and school Feed-in Tariff statistics](#), 2018

Within Regen's communities' network and among the participants at the ENA conferences we have observed significant changes in the past three years.

Community energy organisations:

- know who their DNO is
- know who to speak to in their DNO
- interact more with DNOs
- want to partner with DNOs on innovation projects
- are having less adversarial and more constructive conversations with DNOs
- understand NIC and NIA criteria better e.g. that projects must be new/not done before

DNOs are:

- more actively engaging community energy organisations in a variety of ways in their own licence areas, having appointed named community contacts
- sponsoring and participating in community energy sector events like the CEE conference in June, no DNOs attended in 2016, three DNOs attended in 2018
- working more with trusted intermediaries to engage communities' networks including Regen, Community Energy England, Community Energy Wales, Local Energy Scotland, Community Energy Scotland, Community Energy London and Community Energy South
- beginning to engage more with community energy organisations at the project development stages of innovation projects.

"It was great to have an event with the real sense that DNOs such as SPEN genuinely want to engage with communities, and that they understand the energy system will be very different."

- Attendee at Edinburgh event, September 2018

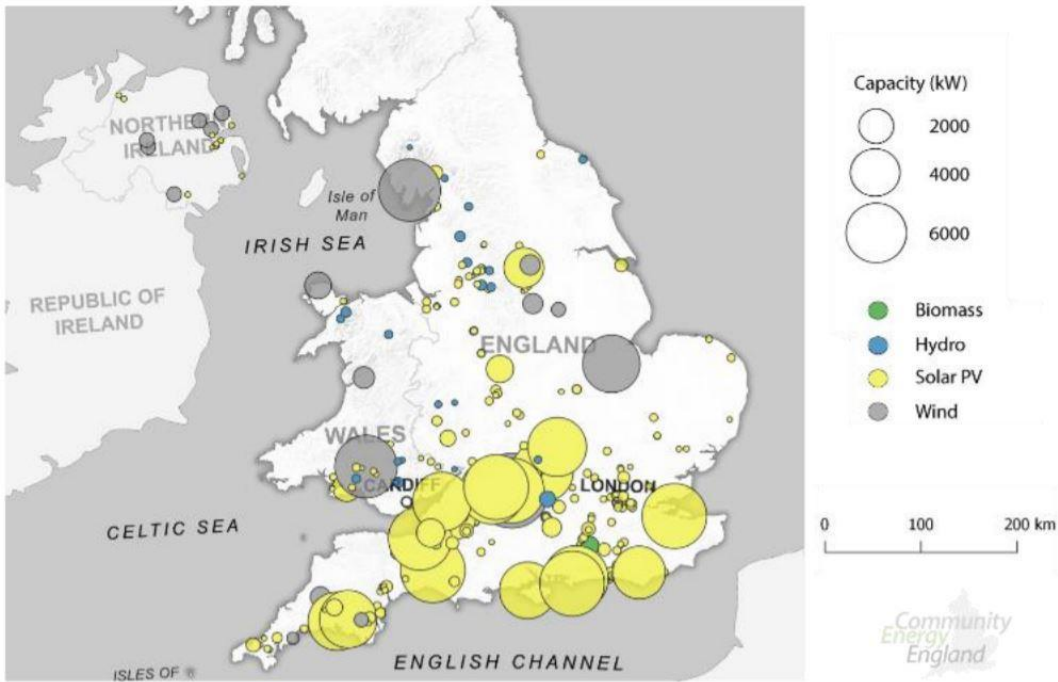


Figure 4: Map of community generation projects by type and scale in England, Wales and Northern Ireland. Source: Community Energy England State of the Sector report 2017

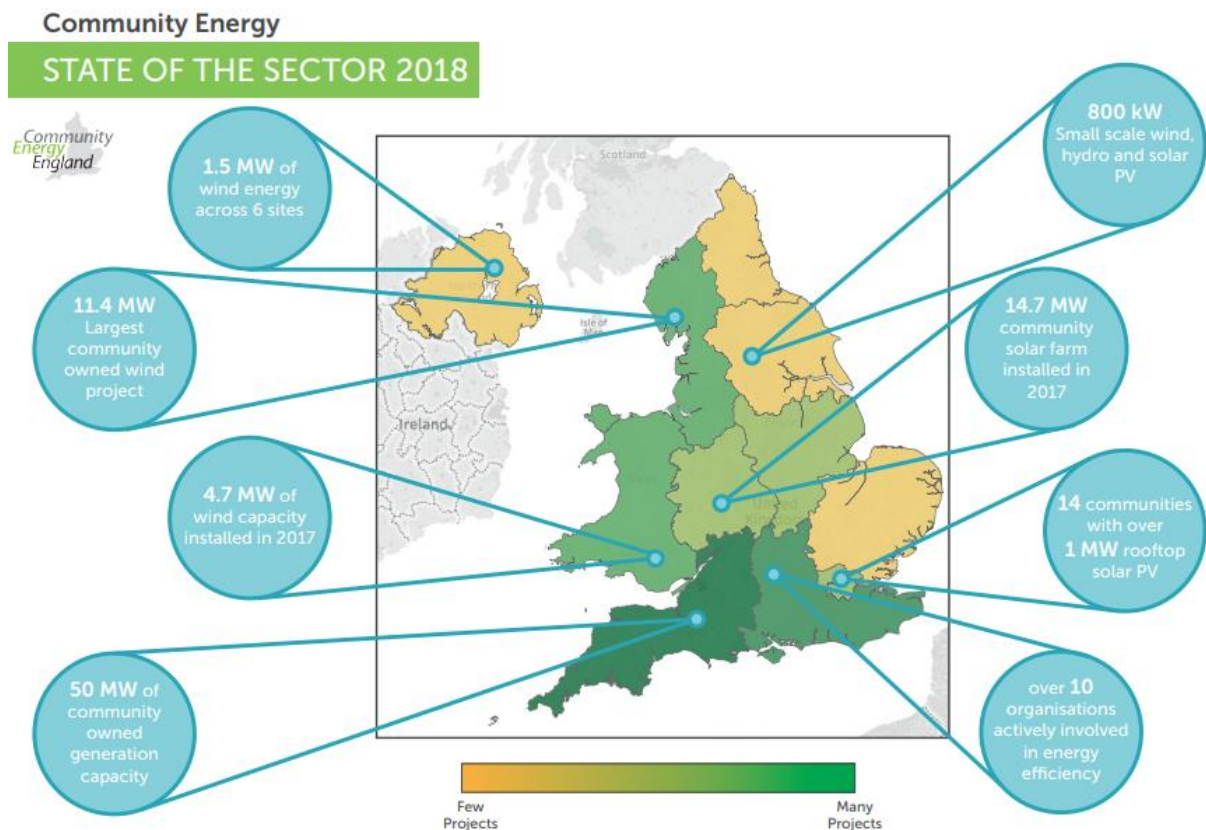


Figure 5: Overview of community energy generation capacity by region. Source: Community Energy England, State of the Sector report 2018

Regional differences

There are significant differences in the amount of community energy organisations and the support they receive across the UK, as both Figure 4 from 2017 and Figure 5 from 2018 suggest. This affects how DNOs engage.

Scotland has more community energy organisations and projects than anywhere else in the UK, due to a policy framework that is supportive of renewables and community owned renewable energy. Local Energy Scotland run a support service and fund for Scottish communities who want to deliver their own energy projects.

We saw fewer community energy participants attending the ENA event in Scotland, with more local energy stakeholders (local authorities, support organisations and consultants). This is possibly due to the geographical challenges and time it takes for communities to travel to such events, as well as the excellent support already available in Scotland, making communities less in need of networking and learning opportunities.

The South West of England has more community energy organisations and projects than any other English region⁹, which reflects the strong solar resource, but also correlates with the level of support for community energy networks from independent organisations like Regen and charities like the Centre for Sustainable Energy. Community energy is also strong in Wales, thanks in part to the Welsh Government Energy Service.

There are fewer community energy projects, organisations and networks in the North East than anywhere else in England, and communities in this region are at a noticeably earlier stage in their development than other community energy organisations in the UK. This led to lower attendance at the ENA community innovation event in Newcastle and questions that were more around how to set up a community energy project, or connect to the network, than about innovation.

To address regional differences clearly requires tailoring of engagement and support. Areas with fewer established community energy organisations require earlier stage support and examples and inspiration from more advanced groups from elsewhere. Areas with strong

⁹ Regen and Devon County Council, [Devon Community Energy Impact Report 2018](#)

community energy groups can focus more on the complex areas of innovation in the shift to a DSO. In areas with extensive support, such as Scotland, DNO engagement is best delivered working in partnership with those support agencies.

DNO responses to community energy requests

Attendees at the community energy innovation events were asked for specific requests from attendees on what they would like from the ENA and DNOs to support them in the network innovation space. Table 1 gives a run-down of the support communities have told DNOs they require, and what DNOs have done as a result of what they have learned at the events.

Table 1: What communities said they wanted to see and what DNOs have done.

Communities said		DNOs have
'We need funding' 2017, 2018	Ofgem	Started asking third parties to submit ideas for Electricity NIC funding
	NPG	Northern Powergrid set up the Community Energy Seed Fund in 2015, a £50,000 funding pot to help large community energy projects get off the ground, or cover full costs for smaller projects.
	ENWL	Launched the ' Powering our Communities Fund ' in 2018 to support communities in fuel poverty work, energy efficiency or new business models and low carbon network solutions with up to £15,000 each.
	UKPN	Set up Power Partners , a £300,000 per year community investment fund administered by the Centre for Sustainable Energy, from which communities can apply for grants of £2,000 to £20,000.
	SPEN	Awarded £110,000 funding from their Green Economy Fund to Community Energy Scotland to support eight local communities build their knowledge and capacity to develop local energy initiatives.

	SSEN	Launched the Resilient Communities Fund offering grants of up to £20,000 for community resilience projects.
‘We want more face to face interaction’ 2016, 2018	ENA all DNOs	Ran six national conferences for communities on electricity network innovation since 2016, in partnership with all the DNOs.
	WPD	Since 2014 WPD have delivered eight community engagement events per year across their four licence areas, jointly with Regen, with conference and workshops in Birmingham , Nottingham , Cardiff , Plymouth and Exeter .
	ENWL	Have delivered four community engagement events in 2018, aimed at community energy and local groups.
	UKPN	Supported three community energy conferences in 2018, a community energy panel in London, a conference delivered in partnership with Community Energy South in Lewes and the Community Energy Conference in Manchester.
‘Speak plain English and give us more accessible information about innovation and trials, in different formats’ 2016, 2017, 2018	ENA all DNOs	Two guides for communities on electricity network innovation and a set of case studies; Electricity Network Innovation Guide for Communities 2018 and Rough Guide to Engaging Communities in Energy Network Innovation , 2017, and a communities guide on connecting to the network; Connecting Community Energy , 2016.
	WPD	Produced four podcasts and eight animations covering the shift to DSO, demand side response, flexibility, EVs, local supply, alternative connections and electricity storage.
	ENWL	Launched a Community and Local Energy Strategy in 2018, focussing on where supporting community and local energy could help deliver other benefits e.g. protecting vulnerable customers, improving energy efficiency or reliability. Also published an Introduction to Community Energy , a general guide to promote to a wider audience.

	UKPN	Created ‘A day in the life of a domestic prosumer’ and ‘A day in the life of a community energy manager’ and teamed up with Community Energy England and Scene Connect to produce the Community Energy Regional Report for the South East, London and East of England with Community Energy South. Also produced booklets , animations and case studies from innovation trials.
	SPEN	Developed a bespoke Community Guide for communities looking to establish a project and get connected.
‘Work with us and our support organisations’ 2017, 2018	ENA	Commissioned Regen who worked in partnership with Community Energy England, Community Energy Wales and Community Energy South to deliver national community conferences
	WPD	Worked with Regen, its communities’ network, and other support organisations such as Community Energy England and Community Energy Wales to deliver their engagement programme across their licence areas.
	UKPN	Partnered with Community Energy England and works with Community Energy South , Community Energy London , and Community Energy East to support communities and tackle fuel poverty in their licence area, and Centre for Sustainable Energy on their community investment fund, Power Partners . Worked alongside UK100 to create ‘Making the most of energy opportunities: a guide for local government’ .
	ENWL	Works with Regen, Community Energy England, Carbon Co-op, Energy Saving Trust and Centre for Sustainable Energy on their guides and engagement programme and sponsors Community Energy England annual conference.

	NPG and ENWL	Sponsored the Community Energy State of the Sector Report 2018
	SPEN	Work with Community Energy Scotland to provide support and funding to communities.
'Have a named person we can speak to' 2016, 2017	All DNOs	Every DNO now has a named community contact listed in the 2018 network innovation guide and on each DNOs website.
'Develop innovation projects with community partners' 2017, 2018	WPD	WPD worked with communities in Cornwall (Wadebridge Renewable Energy Network), Regen and Tempus Energy to develop the Sunshine Tariff , which aimed to resolve local network capacity issues by trailing how consumers engage with cheaper daytime (time-of-use) tariffs and altering consumption patterns in response to price signals.
	SSEN	Partnered with Oxford City Council, Moixa and others for Project ERIC starting in 2015. It involves 82 households in West Oxford who have solar PV and battery storage.
	SPEN	Ran Accelerating Renewable Connections , an Ofgem funded project with Community Energy Scotland to enable community generation projects to connect to the distribution network sooner and at reduced cost.
	WPD	WPD, along with EA Technology, Centre for Sustainable Energy and Regen, run OpenLV , a WPD innovation trial opening up access to local substation data for communities to help them achieve their energy goals by better understanding local energy challenges.
	UKPN	Partnered with Repowering London, GLA, Moixa, Green Energy Options, Housing Associations' Charitable Trust and others on BEIS funded projects Home Response and Core4Grid investigating domestic demand side response.

		Continued working with community organisations on existing innovation projects such as energywise and Domestic Energy Storage and Control, investigating how consumers and local communities can benefit from energy saving, demand response opportunities and co-located solar generation and energy storage.
‘Help us support people in fuel poverty’ 2016	WPD	Partnering and funding communities to sign vulnerable people up to the PSR.
	NPG	Community energy projects funded to sign vulnerable people up to the PSR, and have reached over 2,700 people with efficiency, switching and in-home measures
	ENWL	Value of Lost Loads (VoLL) project values the previously underestimated social impact of loss of electricity supply to fuel poor customers. VoLL included significant customer engagement and helps justify network investments. Works with a number of partners to promote PSR and fuel poverty referral partners.
	SPEN	Run a range of support services for vulnerable customers which is clearly presented in the customer support section of their website, as well as their PSR.
	SSEN	Provided a £100,000 grant to Warmworks , a fuel poverty charity operating in Scotland, to remove up to 200 people from fuel poverty.
	UKPN	Worked with Repowering London to provide energy saving support to residents of one of the UK’s most deprived council wards, supported by revenues from solar PV generation. Ongoing work with Community Energy South and local partners to tackle fuel poverty through Energy Cafes and Advice partnership.

	Worked with Community Energy South and Energise Sussex Coast as part of Green Great Britain week targeting vulnerability, innovation and future skills.
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“Repowering have been working in partnership with UKPN in order to promote their Priority Services Register as part of our home energy advice service. The arrangement means that we are able to help more fuel poor households to reduce their energy costs, while also making sure that all members of our communities are aware of the extra support that UKPN are able to provide to vulnerable households.”

- Felix Wight, Technical Director, Repowering London

“We very much appreciate WPD's pro-active stance on engaging with Community Energy through Regen and by providing a dedicated contact person.”

- Attendee at Cardiff event, September 2018

2. Recommended future actions

The events report for each of the three years of community innovation events contain a list of actions based on feedback from communities and local energy stakeholders (see appendix 1). Many of these recommendations have been followed up with actions. The main outstanding suggested actions from the three years of event reports include:

- Website tools and community energy resources centralised (2016)
- More opportunities to pitch innovation ideas to DNOs (2017)
- More communities sitting on DNO advisory panels (2018)
- DNO support to pass on messages from communities to BEIS and Ofgem (2018)
- Local substation data made more available (2018)

Good engagement is an ongoing practice of listening, actions and feedback so there is always more that can be done. Each DNO has their own engagement plan for community and local energy stakeholders. Here we are focusing on recommendations where DNOs can collectively have an impact and continue a process of best practice engagement with communities and

local energy stakeholders, which are the result of three years of joint community engagement events.



Edinburgh event, September 2018

1. **Annual face to face events** – community energy stakeholders continue to value face to face interaction with DNOs based on feedback we recommend:
 - **DNOs host one Smart Local Energy conference a year where all the DNOs participate and can interact with the most advanced communities, local authorities and local energy stakeholders.**
 - DNOs attend and support Community Energy England’s community energy conference in June
 - DNOs all either jointly or individually deliver their own engagement events with independent facilitators, specifically aimed at communities, local authorities, and local energy stakeholders.
2. **Communities page on Ofgem’s innovation portal** - include the guides to network innovation, and more accessible write ups of innovation projects in plain English, targeted advice on how to get involved and a link on the Community Energy Hub.

3. **Create a collective ENA innovation and low carbon generation specific seed fund** to support communities who want to develop innovation ideas to take to DNOs with the early stage development.
4. **An interview with each DNO covering key innovation themes**, with early feedback from current trials, exploring opportunities for communities to get involved. These should be publicised through DNO community pages and the Community Energy Hub.
5. **Open Networks should develop a community and local energy engagement strategy** with a specific targeted plan to involve community and local energy audiences.
6. **Make sure community and local stakeholders have a voice with Ofgem and BEIS** – DNOs could communicate back the key messages and evidence coming from this stakeholder engagement work with community and local energy actors. For example, communities have been clear they want to see carbon reduction as a key priority of innovation and the shift to a DSO.

Conclusion

If we are to achieve a more democratic, decentralised and decarbonised energy system, communities will need to be engaged more and community energy groups are a key ally to achieving wider participation.

As the community energy movement continues to face major barriers, they are by necessity looking at innovative and new ways to deliver local environmental and social benefits from our energy system. Community energy organisations ambitions to supply energy locally make them a natural partner for DNOs looking to balance supply and demand and reduce constraints on the electricity network. Community energy organisations could also be a key delivery partner for DNOs procuring flexibility, as they are trusted locally rooted organisations that could influence domestic consumers to reduce demand at peak times.

DNOs have used the past three years events and guides to disseminate learning from innovation projects involving communities, build trust, and listen to participants. The quick wins have been achieved, case studies have been disseminated, guides written, face to face events delivered, but there is always more that can be done.

The challenge now is for DNOs to engage communities early, as equal partners in the development of innovation project ideas, and ensure they are funded and supported to participate in innovation trials. In providing this support DNOs are recognising that the playing field is far from level, and that less well-resourced partners need encouragement to enable them to participate.



Talking through innovation ideas at Oxford event, October 2016

“DNO engagement has been vital for community projects, especially where DNOs have introduced a dedicated community contact link. The dynamics of community projects are different to commercial ones and resources are stretched, it’s great to have someone who understands this, gives appropriate advice and explains what’s necessary.”

- Andy Maybury, Community Energy Scotland

Appendix 1

Post event recommendations

2016

- Regular events along the lines of this project that bring people together face to face.
- Presenting relevant network innovation projects in an easily accessible way for community groups to inspire ideas.

2017

- **More accessible visual tools:** feedback, particularly in the North of the country, suggested that location made the events difficult to travel to (i.e. travelling from Scotland/North West), so tools such as visual minutes that can be shared far and wide would be useful to share learning beyond those who are able to attend events.
- **Short films:** there is an ongoing need to help community stakeholders understand why innovation is necessary and support learning around how the network is changing. Films and short animations can support this education process.
- **Podcasts:** “Electricity Network Inspiration Station”
- **Website support:** at both events comments were made about using both the ENA and individual DNO websites, these could be developed into more community friendly resources.
- **DNO information and case studies made available on the Community Energy Hub website**
- **Seed fund to support communities with innovative ideas**
- **More opportunities to pitch innovation ideas to DNOs:** these could be hosted in each area or at central ENA events, this could be a competitive Dragon’s Den format or a friendlier opportunity to pitch an idea over a cup of tea.

2018

- **Seed funding for innovation:** local energy stakeholders have innovative ideas but lack of expertise and capacity to develop network innovation projects. A programme

of seed funding to support them to develop ideas to a point they would be suitable for network innovation calls would level the playing field with incumbents.

- **Annual events:** local energy stakeholders continue to value face to face events with DNOs on innovation and the shift to DSO. Given this audience finds long trips challenging DNOs should consider one joint event a year in each of England, Wales and Scotland.
- **Collation of guidance and communication:** there are some strong existing communication materials already produced by ENA and DNOs. It would be valuable to collate and present this on Community Energy Hub where communities are used to accessing material.
- **More concise and digestible communication materials:** this audience requires greater support to understand the shift to DSO and specifics such as the development of local flex. DNOs could produce further case studies, infographics and animations targeted at this audience.
- **Local engagement:** the joint DNO events are targeted at more expert and experienced local stakeholders. Reaching a broader local audience requires DNOs to build on their current communication with proactive outreach at a local level using trusted local intermediaries.
- **More communities sitting on DNO advisory panels:** supporting local energy stakeholders to sit on advisory panels will enable them to have a stronger voice and influence strategic decisions
- **Influence with BEIS and Ofgem:** local energy stakeholders would like to see their views fed back to BEIS and Ofgem by their local DNO.
- **Data availability:** local substation data is valuable to local energy stakeholders. They would like to see DNOs working to make this available.

Appendix 2

Case Studies

To help communities and other local energy stakeholders understand how they could participate in our future energy system with new and innovative business models, we profiled case studies of DNO-led innovation projects which are already being carried out in our 2018 [Electricity Network Innovation Guide For Communities](#), and [Rough Guide to Engaging Communities in Energy Network Innovation](#), 2017. The case studies offer inspiring examples of communities collaborating with DNOs on exciting new projects, and it's important for community organisations to know what's already being done on the ground, as it can be difficult to get funding for a project that is not new and innovative. The 2018 guide featured handy tips for communities on how to approach your DNO and where to find funding, to help communities start their own innovation projects, showcasing communities at the heart of the energy transition.

ENWL worked with BEIS, Ofgem and Citizens Advice as well as engaging a diverse range of their customer base in Value of Lost Load (VoLL), an innovation project to determine the specific value of uninterrupted supply to different types of consumers, including vulnerable customers and users of low-carbon technologies. It found that current universal VoLL estimate undervalues the needs of certain customers, like electric vehicle users, off-gas customers and the fuel poor.

OpenLV trials an open software platform in 80 low voltage substations across WPD's distribution network to monitor substation performance and electricity demand. There are seven communities involved in this WPD innovation trial, which is delivered in partnership with EA Technology, Centre for Sustainable Energy and Regen. By opening up substation data to communities, this helps to engage local people in their energy use, better understand local energy challenges, determine the potential value to the network of time-shifting peak demand and the potential to connect more low carbon technologies to the network.

SPEN have partnered with Fife Council and the University of St Andrews on FUSION, implementing a local, open and structured flexibility energy market in East Fife. The project is designed to create flexibility for prosumers in the network, working with communities, aiming to save customers over £236m and contribute to a 3.6m tonne reduction of CO2 by 2050.

UKPN worked with small-scale storage manufacturers and suppliers to install domestic storage units in 70 properties with solar generation in the Domestic Energy Storage and Control (DESC) project. In total, 30% less electricity was imported by customers participating in the trial with a reduction of peak demand up to 75% and financial savings per year up to 15% of the battery price. DESC shows that both individual customers and community schemes can benefit from the energy savings delivered by the effective use of co-located solar generation and battery storage, while increasing their earnings from providing services to the network.

As well as DNO-led innovation projects, there are exciting cases of communities taking a lead on innovation and approaching their DNO with a project. In these instances, DNOs are a key partner in helping communities advance and achieve their energy goals.

Energise Barnsley have worked with Northern Powergrid on their solar PV and battery storage project, a two-year NIC funded project which helps Northern Powergrid understand the impact of PV and storage on network design, while the DNO helps the community to absorb excess generation and supply peak loading when needed. This project is helping Energise Barnsley achieve their energy goals by installing solar PV on council homes to support the fuel poor, as well as schools and community buildings.

SSEN are one of the partners in Project Eric (Energy Resources for Integrated Communities)¹⁰, a community innovation project in Rose Hill, Oxford. Project Eric involves installing solar PV on rooftops, along with Moixa smart battery units, in 74 social housing properties in the community, to help residents use more of the energy they generate locally and combat fuel poverty.

¹⁰ Project Eric, Re-energising Communities, [What is Project Eric?](#)