

Community Energy Conference 2018

Post Event Report

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Morning session - energised communities

Afsheen Rashid, Chairperson of [Community Energy England](#) and Chair of the conference opened the day and welcomed delegates to the fifth Community Energy Conference. She welcomed delegates and thanked [Co-op Energy](#), [Electricity North West](#) and the [Tyndall Centre](#) for supporting the community energy sector and sponsoring the conference, which was the launch event for the [Community Energy Fortnight 2018](#).

Hector Cruz, Chief Financial Officer at Co-op Energy, was introduced as the first speaker. Hector lauded the success of Community Energy Fortnight 2018 - the largest and most diverse one to date with over 160 events taking place across the country. He discussed Co-op Energy's commitment to community energy, as the organisation has been actively supportive of the community energy movement since 2013. Hector highlighted how proud Co-op Energy is to be the UK's largest member-owned energy supplier to offer 100% renewable electricity across all tariffs as standard - greatly exceeding its pledge to run coal-free by 2019. Co-op Energy is also committed to grow the co-operative movement within energy, as illustrated by its acquisition of Flow Energy through investment from members of the Midcounties Co-operative.

Hector went on to acknowledge that Co-op Energy has not only honoured its pledge to avoid coal in its energy mix, but dramatically increased its number of Power Purchase Agreements (PPAs) with community energy groups. PPAs stood at 42 at the end of 2017, more than quadrupling the 9 at the end of 2014. Number of PPAs currently stands at 54, closing in rapidly on Co-op Energy's target to have 60 in place by end 2019. Co-op Energy will also continue to facilitate community projects, support vulnerable customers by not switching them on to Standard Variable Tariffs when Fixed Tariffs end and carry on deploying the Warm Home Discount and Energy Company Obligation schemes. Co-op Energy will also look at developing its own portfolio by investing £20m in and co-own community renewables over the next three years.

Hector confirmed that Co-op Energy's commitment to community energy will continue, noting that the sponsorship of the Community Energy Conference and the Community Energy Fortnight were part of this. Co-op Energy recognises the value of fair, low carbon, co-operative alternatives in the energy market and that community energy is part of this wider movement. Co-op Energy's [Community Energy Strategy](#), launched in March 2018, and Social Responsibility targets will be monitored and revisited annually.

He expanded on the results of Co-op Energy's [recent survey](#), which found that almost 80% of the British public support the idea that the government should do more to help local communities generate their own energy. Co-op Energy plans to widen its support of community energy through lobbying and advocacy for onshore wind and for better planning and price cap regulations.

Afsheen Rashid thanked Hector Cruz and welcomed Emma Bridge, the Chief Executive of Community Energy England, to the stage. Emma noted her own thanks to the sponsors of the conference and the Community Energy Fortnight before launching the 2018 Community Energy State of the Sector Report. Emma began by thanking the sponsors of the report [Electricity North West](#), [the Esmée Fairbairn](#)



[Foundation](#), [Northern Powergrid](#) and [Westmill Solar Co-operative](#), as well as the project partners [Scene Connect](#) and [Community Energy Wales](#).

Emma gave a recap of the last 12 months in the community energy sector, highlighting the uncertainty of the future of community energy when the first State of the Sector report was released in 2017. She went on to explore the result of the 2018 report. In total, 228 community energy groups comprising of 48,000 members, 166 full-time staff and 1,800 volunteers, were surveyed across England, Wales and Northern Ireland in 2017. The study identified 168MW of electricity generating capacity installed by community groups, generating 202 GWh, equivalent to the annual energy demand of over 67,000 homes. Adding in the 81MW of community owned energy in Scotland gave a grand total of 249MW. A further 35 electricity generation projects were found to be in development. Although Community Energy England has made every attempt to portray accurate data, Emma stressed that the figures may be under reported as organisations may be engaging in multiple activities that have not been recorded as part of the 2018 State of the Sector Report.

Overall electricity generation by the community energy sector had seen rapid growth in the past decade with project numbers steadily increasing from 2010 onwards after the introduction of the Feed-in Tariff (FiT) and peaking in 2016 due to the market rush sparked by the closure of the FiT scheme. As predicted, a slowdown in the formation of new groups and initiatives was found, with 15 new generation projects installed in 2017 as compared to the 30 in the previous year. This data shows the extent of the impacts of early retraction and reduction of government incentives and subsidies as well as recent regulatory and finance changes.

Changes in the FiTs were confirmed as being the biggest barrier for community energy groups; Emma noted that Community Energy England will be discussing how to overcome this challenge with government, partners and community energy groups in the future. Emma then covered expected projections for the future in community energy, including bringing existing assets into community ownership, the increase in energy efficiency and demand management activities and the increase in skills through the apprenticeship standard that Community Energy England is overseeing. She highlighted the importance of the Community Energy Fortnight and the collaboration between the Community Energy Coalition and the Climate Coalition on the timing of the [Speak Up Week of Action](#), which runs during the second half of the Fortnight, to capitalise on the opportunity to raise awareness of community energy and to garner support from politicians.

In a change to the agenda, Afsheen Rashid introduced Cara Blockley, Central Services Manager at Electricity North West (ENW), the Distribution Network Operator (DNO) for North East England. Cara stood in for Steve Cox, Engineering and Technical Director, to talk about the future of community energy from the perspective of a network operator.

Cara discussed the opportunities brought about by the DNO to Distribution Systems Operator (DSO) transition and how communities can engage. As the networks necessitate further upgrades, DNOs need to facilitate this change and not constrain it. The four drivers for change are: the increased percentage of renewables in the energy mix, the electrification of transport and heat and big data - with the desire for energy democracy as an additional large driver in the change.



Cara highlighted the importance of ensuring that all customers are included in the transition so that no individuals are left behind or excluded. She then discussed the complexities of managing demand and the new, sophisticated, proactive role of ENW as an operator managing multi-directional flows of energy and complex supply and demand from consumers and energy generators. Flexibility will be key in this transition and engagement with community energy will be part of this. Cara commented that working with community energy groups will benefit ENW in the transition from DNO to DSO, as they have existing networks of interested stakeholders, are flexible, adaptable and engaged in low carbon and energy efficiency activities. Cara encouraged groups in their license area to check their new [Community and Local Energy Strategy](#), get in touch with ENW's newly appointed Community Energy Manager Helen Seagrave and engage in their dedicated workshops.

Afsheen Rashid then introduced Dr Carly McLachlan and Dr Tim Brauholtz-Speight from The Tyndall Centre Manchester. Dr Carly McLachlan presented a project on community energy finance and business models being undertaken by the Tyndall Centre. Although community energy is about much more than finances, money is an intrinsic part of the process and financial viability heavily affects what can be achieved. Carly gave the rationale behind the project, covered the elements of the research project, their linkage with the 2018 State of the Sector Report and the project's desire to reflect practitioner views. Dr Tim Brauholtz-Speight went through the preliminary results emerging from a survey which collected data from 143 projects in 48 community energy organisations. Tim confirmed that the data is still being developed and gave a snap shot of the statistical analysis' future milestones. Carly then discussed how innovations in technology will shape long-term visions in community energy and called for delegates to get involved in the study to co-create future pathways for the sector to thrive.

Delegates were then given the opportunity to ask questions and make comments on the presentations. Discussions took place on the remaining barriers for community energy groups and the supported needed to overcome them, the future of storage and its place in the transition from DNO to DSO and Brexit, as its narrative of taking back control may offer an avenue for community energy organisations. Afsheen Rashid closed the session and thanked delegates and speakers.

Morning breakout sessions

How can we build sustainable models for delivering energy efficiency?

Jonathan Atkinson introduced himself, his role at Carbon Co-op and its history. He went on to introduce the speakers and the programme for the day.

Marianne Heaslip from URBED introduced herself and her work; URBED is an urban design consultancy based in Manchester. Marianne noted that retrofit can be a complex procedure with unintended consequences, such as damp, if not carried out correctly, however, there is a role for community energy groups in retrofit now as larger corporations have moved out of the space. Community energy organisations give value, are trusted and responsive as well as holding local knowledge. Marianne





discussed how the role for community energy groups in energy efficiency can be separated into three parts; Protector, Promoter and Provider. Marianne warned that the Provider role needs to be fulfilled by a skilled retrofit practitioner to avoid errors. Marianne then covered some of the debates around deep retrofit and stressed the importance of working with trusted contractors. For more information on the roles of Providers, Protectors and Promoters, see Carbon Co-op's blog [here](#).

Richard Hurst from Durham County Council introduced himself and the REBUS Interreg European project, which is led by Florence Energy Agency, with assisting partners across Europe, including Durham. The project is a platform for sharing experiences and best practice for how each partner can retrofit buildings in their home country. Richard commented that although not all projects are replicable, the wider partnership is a great way to exchange tips and experiences. Richard informed delegates that sharing best is key and gave some examples of the wide scale of projects undertaken, including a school carbon reduction plan and museum renovation.

Kayla Ente from BHESCo introduced herself and her organisation's work. She discussed the complexity of delivering energy efficiency and the duty that community energy organisations have to be self-sufficient. She discussed the difficulty in finding qualified suppliers and the uncertainty of the sector following the collapse of the Green Deal Scheme. BHESCo is working on innovative models and Kayla gave delegates some case study examples, which included a 19th century church renovation which we propose to finance using a Power Purchase Agreement on energy saved as well as energy generated. The project includes Solar PV, under floor heating and an air source heat pump. Kayla ended by noting the importance of community energy organisations, the unique value they bring to the energy industry and how vital it is that they keep going.

Jonathan then posed some key questions to the group and opened the conversation up to the floor. Key discussions took place on PPA's, working with households in fuel poverty and the importance of carrying out works to fuel poor homes as carefully as possible to avoid any unintended consequences. It was agreed that although the sector has improved, there is still an inefficient number of trusted, quality installers for community energy organisations to engage with.

The transition from DNO to DSO - what could it mean for community and local energy?

Helen Seagrave, Community Energy Manager at Electricity North West, chaired the session and introduced the first speaker.

Jim Cardwell from Northern Powergrid gave an overview of the Energy Network Association (ENA)'s Open Networks project and the definition of Distribution System Operator (DSO). The Open Networks project has been identified by BEIS as a key energy industry initiative to drive progress towards a smart and flexible network. The project brings together nine of UK and Ireland's electricity network operators, academics, NGOs and Government departments along with the energy regulator Ofgem. One of the project's outcome has been the creation of a working definition of DSO and a smart architecture model. These are providing a starting point for the evolution of the role of DNO to deliver DSO services with a range of potential paths and will evolve over time as knowledge of the networks increases and the





industry develops. Jim noted that stakeholder input and feedback is essential and encouraged attendees to learn more about the ENA and the Open Networks project by signing to the mailing list and checking out the outputs and consultations posted online.

Jim went on to explore how Northern Powergrid is preparing for the transition to DSO and the value of working with community and local energy groups during this process. Northern Powergrid is a proud supporter of the Northern Energy Taskforce and their vision to make the North of England the leading low-carbon region by 2050. Northern Powergrid is engaging with and listening to their customers' priorities in order to make well-informed choices and build a network that respond to their needs. Their key DSO themes are: reliability and availability, affordability, innovation, safety and vulnerable customers. As part of their development into DSO, Northern Powergrid is currently working to establish partnerships with electric vehicles users, manufacturers and energy companies, as well as understand the impact and benefits of solar PV installed with storage and the scope for microgrids to boost resilience. Jim ended his presentation by outlining opportunities available to community energy, including enabling new local markets for peer-to-peer trading and facilitating customers' transition to a low carbon future.

Lynne McDonald from UK Power Networks introduced herself and described UK Power Networks' vision of the future DSO role and how stakeholders are helping to shape their transition plans to deliver 'a smart grid for all'. Their traditional business of building and maintaining network assets will persist, and their core objectives of keeping the lights on, providing great customer service, and lowering costs for the 8.2 million homes and businesses in their license areas will not change. However, the way that these objectives are delivered is evolving to align with the emergent distributed energy world. Based on stakeholder feedback gathered through live events, the 'Future Smart' website and social media, UK Power Networks is now focusing on five key priorities: facilitating cheaper and quicker connections, using customer flexibility as an alternative to network upgrades, developing enhanced system operator capabilities, collaborating with industry and others to make the DSO transition a reality, and facilitating the uptake of electric vehicles. Finally, Lynne encouraged attendees to continue to challenge network operators and provide them with feedback and ideas. Listening to community energy groups and other stakeholders is and will continue to be a priority for all DNOs.

Cara Blockley from Electricity North West (ENW) gave an insight into the move to a distributed, decentralised energy system highlighting that customers expect DNOs to respond promptly to their changing needs and expectations. She then proceeded to describe the changes that have already been implemented by ENW and outline their next steps to deliver the transition that their stakeholders want. ENW has been cleansing its network data to ensure that it accurately reflects the network. Having a robust and reliable network model is a key foundation for the development of new DSO services. ENW has been providing flexible connections, implementing smart metering and a whole host of technological solutions (i.e. CLASS, Respond, ARS) to manage energy consumption, avoid network reinforcement and improve the customer impact of network faults. ENW has also created an interface between their control room fault management and CRM systems as well as a better understanding of load flow and fault levels through the development of system analysis tools. These tools are being put to work to offer better customers service. As part of their development into DSO, ENW is currently working to develop a new system to actively manage the network in real time and to understand how to balance capacity across the distribution and



transmission networks. New systems and knowledge will enable ENW and other DNOs to predict short-term network changes and longer-term changes in energy usage patterns. These capabilities are the essential first steps to be able to offer the full range of DSO services. Cara concluded her presentation by stressing the important role of community and local energy in facilitating the move to a smarter, cleaner energy system.

Feedback and questions were given from workshop participants. Attendees discussed the opportunities for community and local energy in the transition further, touching upon the possibility for community energy groups to act as network operators, the feasibility and legislation constraints of large-scale peer to peer trading and the increased involvement of DNOs in policy circles and lobbying activities.

Storing and charging - diversifying into new markets

Olly Frankland, Project Manager at Regen and Chair of the session welcomed delegates and introduced the workshop. He explored the flexibility that storage and electric vehicles could offer community energy organisations and the main challenges to smart grid deployment.

Olly then introduced Pete Capener, Managing Director of Bath and West Community Energy and Director of Community Energy England. Pete discussed his own experiences with charging and storage and suggested three overarching themes that groups may wish to consider when assessing the market. These three areas are:

- Strategy - Any potential project needs to be weighed against the ability for groups to complete it. Groups should firstly assess their strength and weaknesses and where the organisation sits in terms, and then match opportunities accordingly.
- Risk - Pete advised delegates to carefully consider the risks involved in any project before progressing it.
- Organisational wellbeing - Pete encouraged delegates to use the experiences gained through carrying out innovation projects to build their organisation's skills, knowledge and capacity. The increase in knowledge and experience will leave the organisation stronger.

Chris Jardine, Co-Founder and Technical Director of Joju Solar expanded on some potential projects that he would like to explore in collaboration with community energy organisations. He covered some of the issues he has had in this area, including problems when installing electric vehicles chargers in privately-owned car parks. A discussion took place around the viability of storage and charging projects and whether they are economically viable at present. The speakers encouraged caution if projects are expected to yield returns to shareholders as there is a substantial risk associated.

Dudley Moor-Radford, Managing Director of Moixa, introduced the organisation's work and discussed Moixa's Gridshare platform; Moixa trades excess power stored in smart batteries with the National Grid, giving battery owners a share of the profits. He also covered the Smart Energy Islands project, located on the Isles of Scilly, on which Moixa is a delivery partner. The project aims to manage the electricity demand across the islands and reduce bills for the community.





The price of storage was discussed as, although the average cost came down by 27% in 2017, fluctuations in cost affect the best time to invest in the technology. This may cause additional complexities for groups wishing to engage in storage and charging projects, as they are investing community funds groups may feel they have a duty of care to wait until prices reduce to lowest possible rates.

What do we need next? Taking community energy from surviving to thriving

Paul Monaghan, Sustainability Advisor for Co-op Energy, opened the workshop by outlining the changing policy environment. He then introduced Josh Roberts, Advocacy Officer at REScoop, who was joining the workshop via video link. Josh gave an overview of the new EU Renewable Energy Directive and its definition of 'Renewable Energy Communities'. The definition sets out that they must be an autonomous legal entity and be democratically governed and owned. They must operate as not-for-profits and for community benefit, and participation must be voluntary and open. Josh outlined REScoop's key asks and status within the directive and the next steps for turning the directive into law. He stressed the need for continued lobbying and informed delegates that REScoop had developed a checklist of policy asks that can be used for strategies up to 2030.

Emma Bridge advised that Community Energy England was updating its list of policy priorities in light of recent changes and upcoming consultations. She ran through the previous list of priorities for delegates to think about and feedback on at the end of the session.

Max Wakefield, Lead Campaigner at 10:10 Climate Action, gave a background to their wind campaign and issues around planning. Wind is the cheapest source of energy, has high levels of public support and wind energy will be needed if the UK is to meet its climate change targets. Communities affected by wind projects should be given the opportunity to lead the projects and communities developing projects should be putting pressure on government rather than paid campaigners. Max gave his priorities for community energy: engage with the upcoming consultation on post-2019 support for small scale electricity generation; unlock wind projects in England; the Renewable Heat Incentive; network charging.

Carly McLachlan, from the Tyndall Centre Manchester, outlined the need for both a short-term and longer-term vision for the sector and asked delegates to consider what the sector should look like, what if anything needs to change to get us there, who is involved and needs to take action and what are the risks to maintaining community values and processes.

An animated discussion ensued, with additional priorities being put forward related to access to the grid, asking for incentives rather than subsidies, regulation of direct sale of energy, involving trade unions and referring to climate jobs, the role of DNOs and academics, working with local authorities, engaging the wider community, and acting as a trusted intermediary in driving down bills. The most viable business models related to ground mounted solar, rooftop solar and LEDs were also discussed and the need for better data and evidence to lobby against increased costs e.g. grid connection and export meters.

Emma confirmed that all the discussions from the workshop would feed into Community Energy England's forward plan and would involve members in ongoing discussions.



The Opportunities for Community Energy within the BEIS vision: Patrick Allcorn, Department for Business, Energy & Industrial Strategy

Afsheen Rashid welcomed delegates back from lunch and introduced Patrick Allcorn, Head of Local Energy at the Department for Business, Energy & Industrial Strategy (BEIS).

Patrick thanked Community Energy England, Co-op Energy and all the sponsors for organising the annual conference - which provides a space for the UK Government to understand how the community energy is developing and evolving. Patrick commented that energy should be used as a facilitator for the change that we want to see in society, supporting services such as transport and transforming places. There were opportunities to improve messaging around these wider benefits and build upon the good practice that is already taking place. Waste needed to be optimised as a fuel resource. New housing needed to be built with smart technology and linked to the electricity grid but it must also be ensured that the arising benefits are shared with the wider community. The installation of solar was helping village halls in rural areas to reduce costs and enable the building to be optimised during the daytime and provide services to the community.

Patrick discussed the position of local authorities and their plans, the potential connection between community energy organisations and new build properties, as well as the potential for groups to help fuel poor households become warmer. For adults in social care, energy is a vital component. By tackling fuel poverty, vulnerable people will be able to stay at home longer and bringing transport issues into the mix can also tackle loneliness.

He commented on the Local Energy Programme and encouraged delegates to get involved in their Local Enterprise Partnerships (LEPs) and in the development of their local energy strategies. Local and community energy have many shared issues and problems, such as the question on where funding for projects and feasibility costs come from. Local leadership through devolution, such as in Manchester, was helping to drive debate and local climate change targets.

The Industrial Strategy and its focus on clean economic growth was another opportunity. As Europe is working on a new energy market design, local and community energy will be defined and transposed into UK legislative and regulatory frameworks before Brexit. The Committee on Climate Change was exploring what targets would be needed for zero net growth.

Patrick went on to discuss the Green Finance Task Force - the roadshows that will be coming to each region over the upcoming winter and the possibility for community energy groups to become self-sufficient and explore off gas grid solutions.

He encouraged delegates to be more vocal about community energy and disseminate stories about the positive impacts that the sector has. He advised them to avoid conversation around the cost benefits of local trading due to the potential cost transfer to other consumers. He then went on to encourage delegates to utilise the [Community Energy Hub](#) further, as this online resource can become a strong tool



for community energy groups if they engage with it. Patrick informed delegates that an announcement on Green Great Britain week would be imminent. Claire Perry MP, Minister of State for Energy and Clean Growth, would write to MPs and encourage them to meet with a community energy organisation in their constituency. This is a massive opportunity for community energy to influence the government and policy. Groups should focus on the outcomes they want to see rather than legislation

Delegates were then invited to ask Patrick questions and make comments. Delegates discussed the UK's reticence to engage with community heat, the future of the Renewable Heat Incentive and the need for a holistic approach to decarbonisation. Delegates asked Patrick if community energy is a comrade or a threat to local authorities. Patrick answered that the relationship was positive if projects were completed to a good standard. He noted that 68% of local authorities have not conducted any low carbon projects, and that community energy organisations have relevant skills to help them. Patrick reminded delegates that BEIS's objectives are, in order of importance, security of supply, affordability and clean energy and that fairness across the grid was an important underpinning priority. It is essential to still look at the national picture whilst working at the local level. Patrick ended the Q&A session by encouraging community energy groups to aim much higher than their local village and surroundings and to scale-up their activities.

Afternoon breakout sessions

Getting warmer - progress on community heat

Sonia Bedford introduced herself and her involvement in community energy through Exeter Community Energy, which has carried out feasibility studies on both a biomass and a Combined Heat and Power project. She then presented the session plan for the day and the speakers.

Mike Smyth introduced himself and Energy4all, gave its background and its working structure as a co-operative of community energy groups that share resources to manage their co-operatives and support development of new community energy projects. Mike gave a brief history of heat and the policy currently affecting projects, using Denmark as an example of how co-operatives can successfully develop a community heat project. He then explained the benefits of hot water district heating, which is ideal to replace oil, can be sourced from waste heat from industrial buildings and can easily be retrofitted into older buildings. He used Springbok Sustainable Wood Heat Co-operative as a case study to highlight how heat projects work in practice. He reminded delegates that this type of project is much more complex than P.V. and may be a time-consuming operation for both the community energy group and the host of the project. Mike ended by highlighting the importance of using good quality materials and using trusted partners in community heat projects.

Jon Hallé from Sharenergy introduced himself and discussed a potential community heat project that Sharenergy would like to get to the feasibility stage. Jon presented a map of the village which highlighted the main issues in the project plan; the houses in the village were widely dispersed and the financial assumptions of the project were not viable if a biomass boiler was chosen as the heat source. Jon then assessed an alternative method for making the project practically and financially viable. He explained how



a shared loop ground source heat pump could be used, as it is an ideal model for old properties such as those in the case study being discussed. An additional benefit of this type of heating is that every property has its own pump and therefore each household can be billed separately. Jon commented that a private wire could also be introduced so that a community energy group could bill householders if they chose to do so, and that this type of project could be complimented with an additional source of renewable energy, for example a wind turbine. Jon closed by noting that fluctuations in oil costs may influence the financial model, and that policy changes may impact on these sort of project plans.

Key discussions then took place around Jon's proposed project, Mike's findings from his completed case study, financial costings for projects and potential share offers for larger CHP schemes. The group discussed the impact of building fabric on the effectiveness of community heat projects and the effect of seasonal changes on heat loss. It was agreed that community energy organisations have a unique selling point in certain areas as they are trusted intermediary groups who work for the betterment of their communities.

Everything you wanted to know about finance but were afraid to ask

Mark Kenber, Chief Executive of Mongoose Energy, chaired the session and introduced Benjamin Rick from Social and Sustainable Capital (SASC).

Benjamin gave an overview of SASC and the organisation's successful work, having invested nearly £10m in seven community owned renewable energy assets with five organisations over the last two years. SASC is a generalist social investor regulated by the Financial Conduct Authority. SASC is one of the largest community investment funds in England and can shape the deals offered to fill any gaps in funding. They manage a £50m fund and 51% of their profits go into the social investment business foundation. SASC has had a strategic focus on community energy since the fall out of government subsidy and incentives. They offer short and long-term investments from £250k to £3m. They have been delivering flexible financing solutions, working with other financing partners and taking risks on projects that has the potential for high social impact. Benjamin explained that, as opportunities to buy existing assets rise and equipment costs decline, SASC is committed to support community energy in the post-subsidy, post-EIS environment. They will continue to direct investment into this innovative sector and into projects with clear commitment to social impact and with strong management and corporate governance.

Matthew Clayton from Thrive Renewables introduced the organisation and its history. Thrive Renewables is a public limited company initially founded by Triodos Bank in 1994. They aim to power the transition to a sustainable energy future by connecting people and businesses with opportunities to invest in clean energy projects that deliver financial, environmental and social rewards. With over 22 years in the industry, they have a wide network of professional contacts and a community of over 6,240 investors. Thrive supports communities in taking ownership of local energy projects by acquiring existing assets and helping them raising their own funds. They are always on the lookout for new projects which will enhance their existing portfolio of 21 renewable energy projects, totalling 105 MW. Matthew went on to discuss the feasibility of building subsidy-free projects by reporting on wholesale electricity prices and grid price





parity's longitudinal changes as well as the evolution of renewable electricity generation assets through the lenses of revenue certainty, perceived project risk and cost of capital.

Josh Brewer explained how Ethex helps community energy organisations raise funds and the popularity of these investment options. For example, Ethex raised over £1,000,00 in one day, demonstrating both a rush to get projects through as well as a demand and support for the idea. Ethex enables organisations to access new sources of investment from its 13,000+ investor base, who has helped finance almost 90MW of renewable energy over the past 5 years. Ethex can provide a range of registry and co-operative management services to community energy enterprises. Josh proceeded to cover popular project financing options, including the advantages and disadvantages of community shares and bonds. He then expanded on a flexible, Innovative Finance ISA eligible community bond offer that Ethex has recently designed for Energy Garden. This new offer has been approved as a financial promotion by Bates Wells & Braithwaite LLP and might be replicated by other organisations. Community bonds are issued with a condition that investors also purchase a community share in the society and are structured in a way that provides greater flexibility to the issuer. Josh also discussed refinancing opportunities and provided attendees with a case study of Low Carbon Hub, which created the Community Energy Fund to bring in long term equity, to complement and replace the short-term debt. The fund operates in two parts, with equity provided by individual investors and the short-term debt facility provided by Oxford City Council. This enables Low Carbon Hub to respond to opportunities when they arise.

Discussions took place around the reliance on external groups for financing options and the need to upskill within the sector. There was some discussion around the need for a robust strategy on feasibility costs, as social funders' focus is on post-consent projects, whilst many community groups present at the workshop were more concerned with feasibility studies. A delegate pointed out that the Energy Saving Trust's Energy Redress scheme, whose next round of funding will be launched in late summer/early Autumn, may be of interest to groups looking for early stage funding. The group then moved into a general discussion around success factors in securing investment and raising funds. Panellists agreed that small banks and investors are now looking for the social capital of a potential project in addition to CO2 emission reductions. Organisations should have clear socio-environmental outcomes at their heart, combined with high standards of governance and well-established track records. Panellists reminded attendees of the importance of communicating the story of community energy and its related achievements in order to attract potential investors. They advised practitioners to engage with their local community and start strong marketing campaigns as soon as possible. Organisations should also keep investors informed and be realistic about returns. It was noted that community energy has an advantage over other sectors as it does not need to make profit.





Asset management - how to look after your community's investment

Rob Proctor, Business Development Manager at Community Energy Wales chaired the session and welcomed delegates. He introduced Dan Kingscote, Performance and Operations Manager at Mongoose Energy.

Dan introduced Mongoose Energy's work and the types of services that it offers to community energy organisations, which range from board support to looking after assets. Mongoose Energy manages enough capacity to power 26,000 homes.

Dan discussed the vital elements of asset management that community energy organisations should consider as part of their projects. He encouraged groups to approach projects from a professional perspective, whilst ensuring that the core aims as a community energy organisation are not lost in the process. Professionalism will mean that contractors are well managed, whilst maintaining or even improving the ecology of land used. Dan also advised groups to engage with trusted contractors who are able to maximise revenue and improve land management.

Discussion then turned to selecting an O&M manager. Dan stressed the importance of early negotiations to allow for flexibility in contacts and tenders. Dan advised delegates to include security in an O&M contract to help protect against issues relating to theft, as this has recently increased in relation to ground mounted solar.

Conversation was then opened to the floor. Various maintenance issues were discussed, from working on dusty farms, to installer issues, to P50 radiation, to working with schools. Notably, transformer corrosion has been a big problem for Mongoose, as it is a particularly expensive piece of equipment. One issue discussed was sourcing equipment from abroad, as different set ups and amounts of paint used on different parts are particularly suited to different climates, not the UK.

How to optimise the deal an energy generator agrees with an energy supplier - now and in the future

Natalie Brown, Renewables Co-ordinator at Co-op Energy and Chair for the session, introduced the workshop and speakers. She gave an overview of Midcounties Co-operative, which is the largest independent co-operative in the UK, with a turnover of over £1.5bn and is the parent company of Co-op Energy. Natalie then went on to give a background on Co-op Energy, which was launched in 2011 and from its outset, actively sought power from community generation initiatives through supporting market access via Power Purchase Agreements (PPAs). It is now the largest energy co-operative in Europe with more than 450,000 energy customers, delivering 1.8TWh electricity per annum. Joshua Brown, Renewables Manager at Co-op Energy noted that the energy supplier role was born when the energy industry was privatised in the 1990s.

Matt Andrews, Project Finance Transaction Manager at Leapfrog Finance, introduced and gave the background of Pure Leapfrog. Pure Leapfrog is a charity that enables communities to take power over their own clean energy future. Since 2015, Leapfrog Finance has funded 23.1MW of community owned





projects, utilising £28.8m of bridging finance. Matt went on to cover the Levelised Cost of Energy (LCOE) method of benchmarking projects against each other on a like for like basis, which compares the average total cost to construct and operate a project over its lifetime to the total energy generated by the plant over that lifetime. He explained that although the method can be useful to work out some benefits to a potential project, it is also worth considering other factors when assessing potential projects, such as benefits for the community.

A discussion then took place on the post subsidy landscape. Post subsidies, the ability of a project to generate revenue will be wholly based on PPA's, so a successful project's LCOE will need to exceed the PPA amount. Community energy is moving into a market with minimum support and it is important to evolve the current modelling methodology. An example of how this can be achieved is, instead of generating a cashflow profile and comparing the results against the Lender's & Investors' expectations, take the minimum baseline profile and work back from to calculate the minimum PPA price the project would require. Alternatively, if the PPA price is known, then another option is to seek for other solutions such as the maximum affordable cost of a project in terms of capital construction or operational costs.

Delegates were then invited to ask questions of the expert panel. A discussion took place around assumptions on wholesale prices, with Matt commenting that it is extremely hard to accurately forecast and extremely expensive to purchase long term agreements. Leapfrog wants to offer fixed prices for between 2 and 3 years, however, this will mean that a third party will be needed to take a risk on long-term forecasts. Matt noted that Local Authorities are now increasingly becoming backers of community projects. They are taking senior positions and more open to risk. Local policy shifts are helping with this support for the local projects. A discussion then took place on how practitioners can get guaranteed generation rates and what the best combination of different technologies is, with Josh commenting that Co-op Energy is calling out for any community energy groups to work with them to try and establish a battery firming service.

Afternoon panel session

Afsheen Rashid welcomed delegates back to the final session of the day. Paul Monaghan, Sustainability Adviser at Co-op Energy, facilitated the afternoon panel session, with panellists and delegates taking part in a lively discussion on the reasons to be cheerful about the future of community energy. The panel was made up of some of the most experienced community energy practitioners in England. Pete Capener of Bath and West Community Energy and Community Energy England, Hector Cruz of Co-op Energy, Jodie Giles of Regen, Andrew Hunt of Oldham Council and Simon Roberts of Centre for Sustainable Energy.

Panellists took turns to share their knowledge and reasons to be optimistic. Pete Capener noted that the sector should be proud its rapid rate of growth, its ability to scale up, raise finance and to do things from the ground up. At its best community energy is about people and it will be people that make the difference in the energy transition.

Jodie Giles expanded that the value of the community energy network is a reason to be positive, as well as the possibility of exploration in new areas of technology. Jodie highlighted that Devon is a leader in the





community energy revolution and raised a key point about engaging people with energy through art, poetry, crafts, music and food.

Simon Roberts noted three key reasons for his 'relentless optimism' for the sector. Firstly, that three Distribution Network Operators attending the Community Energy Conference demonstrated a huge step forward and a desire to be an active player in their communities. Secondly, tackling community energy and low carbon issues in neighbourhood planning would mean that meaningful public consent can be built from the bottom up, hopefully stopping future negative actions and policy at the national level. Thirdly, the cost reduction of technology and the consortium of various community energy organisations that have helped support burgeoning groups, such as Power to Change's programme to bring private assets into community ownership whilst developing skills in the sector.

Oldham Council's participation in the COALESCCE project was given as Andrew Hunt's reason to be positive about community energy, with many European partners taking part in the project also attending the Conference. UK is seen by some partners as a leader in community energy and we should be proud of that and take stock of how far we have come. Aspirations from abroad can also be replicated in the UK and push community energy further forwards.

The debate was then opened to the floor and delegates were invited to make comments and question panellists. Comments were made around the Midcounties Co-operative's commitment to community energy and wider social enterprise, as it has been named Leading Co-op of the year for the third year in a row. Hector noted that the organisation is not solely interested in investment - giving back to the community is a vital component of its business model. Conversation also took place around diversification and self-sufficiency. Afsheen gave an example from Repowering London's process for becoming self-sufficient and embedded in the community. Repowering works with deprived communities in inner city London. It includes local people at every level of the project, engaging through work experience and training beyond just engaging with direct investors in schemes. Planning impacts of potential European laws coming into force shortly and the relationship between community energy organisations and District Network Operators were also discussed, before Emma Bridge closed the day by thanking speakers and delegates and giving her own reason for optimism. Green Great Britain Week will include a People's Day on 19 October, and as part of this Community Energy England will be holding its annual awards in Bristol.

