ofgem
Making a positive difference
for energy consumers

Network Innovation Competition Screening Submission Pro forma v.5

Notes on completion

Before completing this form, please refer to the relevant Network Innovation Competition (NIC) Governance Document.[1]

Please use default font (Verdana size 10) in your submission and retain 1.5 line spacing.

We will only accept the text visible in the text entry areas.

The text entry areas are predetermined and should not be changed.

The full-completed submission should not exceed 19 pages in total.

Ofgem will publish all the information contained within this Screening Submission.

Funding Licensee
South Eastern Power Networks plc (SPN)
Project Partners including other Licensees
Buro Happold, Community Energy South (CES), EA Technology (EATL), Ovesco
Project Title
CommuniPower

[1] https://www.ofgem.gov.uk/publications-and-updates/version-30-network-innovation-competition-governance-documents All capitalised terms used in this document have the meaning given to them in the respective NIC Governance Document.

Project Summary
When planning to decarbonise, individuals and communities are faced with numerous and often complex options to achieve their plans. This project will establish a cost-effective way to deliver rural low carbon heat, through a community-led planned approach. Focusing on rural communities first we will demonstrate an optimal approach, at scale, with clusters of real communities. The project will realise the potential benefits of combining community-led planning with new network operation processes, integrate consumer and community-owned assets, and leverage new capabilities using new granular Distribution Network Operator (DNO) data streams. This will reduce timescales and network costs associated with the decarbonisation of heat and transport in these communities. Project outputs will include: • A tool to enable interested community members to plan their decarbonisation journey based on real data; • Integrated network capacity data and self-serve connections journeys to steer individuals and communities to solutions that balance benefits across the whole energy system; • A new connections process to manage risk and capacity allocation, enabling individual customers within communities to work to reduce reinforcement requirements and therefore time and cost to connect; and • A reference architecture, data feeds, and commercial arrangements to demonstrate energy balancing between domestic and community-owned (commercial) assets within the community, proving the network and customer benefits.

Estimated Start Date		**Estimated End Date**	
01 April 2023		30 September 2026	
Total Project Cost	£9.9m	**NIC Funding requested**	£8.9m
Technology Readiness Level (TRL) at start and end of project			4-6

What is the Problem that the Project seeks to address?
Climate change is the greatest challenge facing our generation. This project seeks to deliver meaningful change that will contribute to reducing emissions and therefore helping to avoid

the damaging environmental and socio-economic consequences of changes to global temperatures and weather systems. Doubling energy costs[2] are driving more customers into fuel poverty; this is especially true of rural communities, and those living in social housing and the private rented sector.

When planning to decarbonise, individuals and communities are faced with numerous and often complex options. Currently, community decarbonisation planning and network planning are carried out in isolation, resulting in non-optimal decisions being made or blocking decarbonisation. Findings from our recent *CommuniHeat* project demonstrated that without a planned, integrated approach to deliver decarbonisation, particularly in rural areas, network contributions to customer bills will rise considerably, network reinforcement costs will increase significantly and the transition to low carbon heating will be slow, missing national and local targets.

The correct selection of heat system is critical to consumer affordability and network planning. Integrating community energy systems and operating them effectively is key to further reducing bills to a point where the heat transition can happen, meet targets and providing resilience to price variability. Network demand is very sensitive to diversity. Current energy market-focussed bill reduction activities reduce diversity, increasing peak loading on the network and therefore reinforcement required. It is not the current approach to connect assets to a DNO LV network exceeding the rating of the upstream network and share or balance electricity locally. This misses opportunities to lower consumer bills, reduce carbon emissions and reduce upstream network reinforcement.

While the findings of *CommuniHeat* have proven invaluable in terms of insights and developing the community education and stimulation approach, there remains more to learn around the practical terms of how, whom and for what benefit operating in this optimised locally balanced system provides. If a planned, integrated approach is in fact a key driver towards a least regrets option to decarbonising rural communities, the solution must be tested and proven in operation. Ovesco, via its community engagement, is finding there is high interest across rural communities to adopt the *CommuniHeat* approach in principle, but the current tools and processes don't allow this. We are confident this approach can enable Net Zero and ensure that no one is left behind in the energy transition.

2 https://utilityweek.co.uk/off-grid-households-see-near-doubling-in-price-for-heating-oil/

What Method(s) will be used and why? Ie, what is being demonstrated or developed? Please describe in terms of the NIC eligibility criteria. (page 1/3)

CommuniPower aims to establish the most suitable, cost-effective way to deliver rural low carbon heat, through a community-led planned approach. Focusing on rural communities first, we will demonstrate an optimal approach, at scale, with clusters of real communities. CommuniPower will realise the potential benefits of combining community-led planning with new network operation processes, integrate consumer and community-owned assets and leveraging new capabilities using new DNO data streams. This will reduce timescales and network costs associated with the decarbonisation of heat and transport. The project has two distinct methods which will be demonstrated through the novel operation of assets in the community of Barcombe and at least one other community as they continue their Net Zero journey. These methods, namely Community Decarbonisation and Community Balancing are detailed below.

Method 1 – Community Decarbonisation

The co-ordinated, facilitated *CommuniHeat* approach will be expanded and revised to be deployable at scale across Great Britain. This will include applying the latest techniques in digital twin asset planning and visualisation, Local Area Energy Planning (LAEP) and integrated DNO network planning capability to determine optimum solutions and viable roadmaps using a community-led planning approach. Specifically, this will include:

- Developing a tool to enable interested community residents to plan and track their decarbonisation journey based on real data, enabling them to input details of their own home or area to provide accurate results and insights;
- Integrating network capacity data and self-serve connections journeys to steer individuals and communities to solutions that balance benefits across the whole energy system, then provide them with an easy journey through a new connections process together with associated connection contracts aligned to the community energy plan;
- Developing and testing a new connections process to manage risk and capacity allocation, enabling individual customers within communities to work together to reduce reinforcement requirements and therefore time/cost to connect. This will include new commercial arrangements to do this fairly for all parties (this could include, for example, a "virtual point of connection" depending on detailed design);

What Method(s) will be used and why? (page 2/3)

- Developing new DNO planning approaches including visibility of the various community plans layered on the network to enable reinforcement decisions to be targeted in the right place, installing the right assets to minimise costs in both the short and long term; and
- Testing our approach with communities:
  - Direct community engagement to stimulate change through embedded energy champions and to enrol up to 30 communities or clusters of communities to trial a high-level assessment/screening process for their decarbonisation plans;
  - Energy surveys and advisory services for up to six clusters of communities to test and inform the tool and process development; and
  - Installation of measurement/monitoring equipment in four communities to validate survey data, inform the tool analysis and prepare for two community balancing trials and deployment of new trial service offerings (of which two will host trials)

This will gather critical community/network customer data to inform the other elements of the project.

Method 2 - Community Balancing

In order to prove that the network benefits delivered by the Community Decarbonisation method are sustainable in the long term, the plans must be demonstrated in action. It is proposed to develop a bottom-up architecture for a community-based smart local energy system, based on existing trials and sharing learning with Northern Powergrid's *Community DSO* project team, that enables a local community to make the most savings they can from local energy within the constraints of the DNO network. "Doing it for real" ensures that people make real choices, minimising optimism bias than can occur when considered conceptually. It will prove data flows, hardware, software, connection agreements and commercial arrangements work in the real world, enabling a smoother transition to business as usual. Specifically, this will include:

- System architecture design including required data sources and near-real-time data flows from the DNO to enable third party response as power flow reaches constraints on DNO networks. Doing this for multiple LV constraints in a sustainable, cost-effective way is novel globally;

What Method(s) will be used and why? (3/3)
• Community energy smart system architecture to optimise local asset operation, deliver energy services including flexibility and diversity improvement to the DSO whilst ensuring comfort and affordability to network customers; • Assessment of options and choices for the most appropriate commercial arrangement between network system operator and community Energy Services Company (ESCO)/supplier; • Procurement/development of a community control system to manage the community assets (commercial and domestic) by the energy supplier/ESCO within the DNO constraints; and • Proven operation of the community control system in two communities demonstrating customer energy bill reduction and reduced network impact. To Note, not all customers behind the measurement point are likely to be controlled in this way as not everyone in the community will engage at the same time or may not be solely contracted. Solutions such as these are needed to enable decarbonisation in the face of spiralling energy costs, and the fact that variable energy tariffs are becoming more widespread[3]. Without them, bill reduction driven purely by the energy market could likely to lead to significant increases in network costs.

[3] https://www.bbc.co.uk/news/uk-politics-60864097 Lower energy bills for people near wind turbines considered

Funding Commentary (page 1/2) *Licensee must provide a commentary on the accuracy of its funding estimate. If the Project has phases, the Licensee must identify the approximate cost of each phase. If the NIC is being used as match funding, please state the other sources of funding.*

The project costs are based on the estimated work volumes and standard rates for the staff proposed, for the planned trial scales and information known at this time. This includes the requirements for the potential development, the effort associated with preparing the trial areas and unit costs for tasks. These costs are validated based on experience gained from previous projects and quotations from potential suppliers, where available. Where a partner looks to gain competitive advantage from their involvement in the project, an expectation has been communicated that an in-kind contribution to project costs will be required.

We are planning to conduct a top-level screening assessment of up to 30 communities, develop roadmaps for up to six communities and trial local balancing in two communities. The costs are based on this project scale and may be revised for the FSP should the planned trial volumes change. It should be noted that the NIC funding will not be used to fund customer side of the meter energy assets apart from in-home monitoring equipment or the community owned energy assets.

The access model to participate is strengthened by the community energy approach which leaves no one behind. A fair system of access and membership means all network customers can participate irrespective of demographic, sharing benefits fairly and removing barriers to entry which would otherwise appear once early movers have committed.

This approach is key to transitioning the 341,000 off gas rural homes in UK Power Networks' regions alone but we will also be including multiple communities in other network areas to develop an approach that has the potential to decarbonise the lives of millions of network customers over in the next 10 years.

Funding Commentary (page 2/2)

The estimated total cost of £9.9 million is based on delivering the identified core activities:

- Project management and technical management - £2,158,940
- Smart system design and architecture - £800,000
- Digital tool suite development - £2,506,240
- Community engagement - £777,600
- Community planning and roadmaps - £1,240,000
- Physical trial implementation including monitoring - £1,504,610
- Learning and insights (including academia) - £403,905
- Contingency - £500,000

TOTAL: £9,891,295

NIC Contribution: £8,902,165.50

In preparation for the FSP, a more detailed cost break-down will be developed. Based upon the ISP detail at this stage, the project partners propose to make a 10% contribution of their respective costs, resulting in a NIC funding request of £8.9m. This in-kind contribution will contribute time, resources and data, and will ensure the project will represent good value for money for customers. Once a full benefits case has been completed for the FSP, we will revisit any increased contributions.

In addition to the above costs, the project team currently anticipates further gearing of the NIC funding through funded network reinforcement by UK Power Networks and negotiation with project partners/suppliers. We will identify project suppliers who have offerings that could be incorporated into the community smart system, offering long term benefits that will continue past the lifetime of the proposed project. These will be further detailed in the FSP as they become firmer but may include the granting of free software licenses, provision of information on third party architectures and/or development of some third-party interfaces at zero cost to the project. Through the implemented procurement process for third party providers, we will be placing a strong emphasis on measuring value for money and strongly encouraging the provision of high quality, value-added services at zero additional cost.

The details of each partner contribution will be included as part of the FSP submission.

Which specific requirements does the Project fulfill?	
Mark YES in the appropriate box(es)	
A specific piece of new (ie unproven in GB) equipment (including control and/or communications systems and/or software)	**YES**
A specific novel arrangement or application of existing electricity transmission and/or distribution equipment (including control and communications systems software)	**YES**
A specific novel operational practice directly related to the operation of the electricity transmission and/or distribution systems	**YES**
A specific novel commercial arrangement	**YES**

How does the Project accelerate the development of a low carbon energy sector and have the potential to deliver net financial benefits to existing and/or future customers in the relevant sector? (page 1/2)

A key part of the government's Clean Growth Strategy is focused on decarbonising off-gas grid communities from the 2020s due to their carbon intensity per capita resulting from predominantly using oil for heating.

Carbon Savings- There are carbon benefits in electrifying both heating and transport. It was assumed that delays in building infrastructure in the reactive approach will result in a proportional delay in the uptake of heat pumps and EVs. Contrarily, the alternative options present an approach to facilitate the decarbonisation of off-gas grid customers without delays and this can be quantified in carbon emissions avoided.The CommuniPower project aims to contribute up to 2,000 tCO_2 annually to the national emissions reduction through decarbonising each rural village.

Direct savings to customers- The average annual energy saving per household from switching from oil to electric heating has been calculated using thedifference between the average domestic oil heating bill vs an electricity heating one. The average household bill for customers using oil heating is estimated as £830/year. Average household cost of electricity per year is calculated as £464/year, based on Ofgem's typical domestic consumption values

- At 2900 kWh (Ofgem TDCV Electricity Profile Class 1 Medium)
- Standing Rate: 20.58p per day
- Unit Price: 14.40p per kWh (This has now doubled in the short term)
- Total Elec Cost for Heating = (Standing Rate * 365) + (Unit Price * kWh)

As the cost of a new heat pump is higher than a new oil boiler, the lifetime cost of a heat pump (ASHP) vs the cost of an oil boiler has also been factored into the proxy calculation. However, we appreciate there are recent studies indicating that ASHP can achieve price parity with boilers- Heat pumps reach cost parity with boilers for the first time | News | The Times

- Cost of heat pump (ASHP) per year is £400/year, assuming £6000 spread over life of 15 years (does not account for any government incentives).
- Cost of oil boiler per year is £266.70/year, assuming £4000 spread over life of 15 years

Average annual financial savings (electric vs oil) is therefore: (£830/year + £266.7/year) – (£464/year + £400/year) =£232.75 per household per year.

Through accelerating network customer uptake of low carbon technologies integrated with community assets, applying new improved processes and releasing capacity there are further benefits for network customers which include protecting customers from the volatile

Accelerates the low carbon energy sector (page 2/2)

changing and unregulated price of heating oil as well as enjoying further reduction in tariffs from investment in local community assets. For example, the Octopus Fan Club offers 50% reduction on tariffs when local assets are generating.

This proxy has only been applied to the number of households that could transition from oil to electric heating faster because of the CommuniPowers proactive planned approach. This has been calculated using the forecast uptake of electric heating from the proactive versus the reactive scenario.

Community renewable energy will support the system and investigation into Peer to Peer (P2P) trading and supply models can help further drive down the cost of energy. The energy champions will work with vulnerable households to ensure that they are not left behind.

Direct Network Savings- Off-gas communities themselves are often in isolated areas where the electricity network was designed with low-load growth expectations. Rural electricity networks typically consist of small, pole mounted secondary substations and long radial branches of overhead lines to support a dispersed customer group. As a result, those parts of the network have limited spare capacity and when LCTs are implemented on a traditional customer-by-customer basis without any 'smart' operation, there are significant implications in terms of carrying out inefficient, uncoordinated piecemeal reinforcement.

The ambition of delivering a coordinated programme of work compared to the baseline organic option is to introduce efficiencies by 'touching the network' once. Avoiding repeat future works at the same sites will reduce the amount of effort required to decarbonise all rural communities and hence reduce the overall real cost by between 20-75%. The disruption experienced by customers in these areas will also be lower with a coordinated programme compared to a reactive approach. Further, consuming renewable energy locally will contribute to reducing network system losses and towards carbon emission reduction.

By accurately measuring, monitoring and in some cases controlling local energy assets both in front of and behind the meter, novel operating models integrated with the DSO mean new energy services can be provided. This includes for example, options around dynamic DUoS, dynamic management of services to cater for both fluctuating energy prices and capacity while quantifying this and rewarding network customers for participation. The aggregated value to customers is far in excess of the value to individual network and this is reflected in the returned value providing further annual savings to the bill.

How will the Project deliver value for money for electricity customers?
Value for money from the solution will be delivered by: (covered in previous section) - Touching the network once - Reducing the system losses - Taking an energy efficiency first approach to use less energy to deliver the desired outcome, such as comfort or transport - The ability to track and support customers and communities along their decarbonisation journey before investing in network upgrades - Coordinate load and generation asset connection timing **The Project aims to deliver value for money in delivering CommuniPower by:** - Selecting partners who have worked efficiently together before - Setting the expectation that each partner is to have skin in the game through providing a contribution towards the project - This project will also provide collaborative learning, and a solution replicable and applicable to all GB DNOs helping to resolve common industry challenges in a co-ordinated and efficient manner.

How will the Project generate knowledge that can be shared amongst all relevant Network Licensees?

The CommuniHeat NIA project showed that a co-ordinated community approach to planning decarbonisation in rural communities could reduce LV network demand by 20% and consumer costs by £233/year. *CommuniPower* aims to take that knowledge, build it into scalable, deployable tools and prove that those tools can deliver these benefits across Great Britain.

By seeding behaviour change through targeting selected catalyst rural communities, other communities can start to develop the approach and cluster their neighbouring communities. Once a cluster is up and running, there will be wider benefits across each of their regions. These cluster communities are starting to seed within other DNO areas – we have engagement with communities where we can test the solution in other networks belonging to Scottish & Southern Energy Networks, Northern Powergrid and Electricity North West Limited. There are also partnerships being developed with the Local Authorities that will support LAEP using these communities as benchmarks for Net Zero.

The tools being developed would not be specific to any one DNO and can be used nationally if proved successful, although it should be noted that integration with another DNOs' systems and processes would require investment from that DNO.

In our RIIO-ED2 Business Plan, we have committed to ensure that 71% of off-gas grid homes in our regions have the suitable capacity to decarbonise their heating and transport by the end of RIIO-ED2. However, we have identified the associated cost of completing this work at £75 million. To enable 100% of these homes would cost disproportionality more. Knowledge gained through this project could help reduce these costs significantly across all DNOs and help to accelerate the decarbonisation of off-gas grid communities.

Answering Yes or No, does the Project conform to the default Intellectual Property Rights (IPR) arrangements set out in the NIC Governance Document? *If answer is NO, the Licensee must demonstrate how learning will be disseminated to other relevant Licensees and how value for money will be ensured. The Licensee must also outline the proposed alternative arrangements and justify why the arrangements are more suitable than the default IPR arrangements.*

Yes, current project partners have confirmed that they are able to work within the default IPR arrangements. However, not all partners have been finalised at this stage of the bid. We will only onboard partners who agree to the default IPR arrangements.

How does the project demonstrate it is innovative (ie not business as usual) and has an unproven business case, that the innovation risk warrants a limited Development or Demonstration Project to demonstrate its effectiveness?

CommuniPower is innovative because it will prove a shift in the community energy approach that has not been demonstrated before. Traditionally, community energy has been groups of people in an area investing in shared commercial assets with long term supply agreements to local commercial businesses. Using the community energy vehicle to empower individuals and communities to decarbonise in the way proposed by CommuniPower is novel, carries risk and is not proven at scale. Including consideration of the physical electricity network in community approaches is new and requires significant change in the DNO as well as the community, with potential to reduce long-term costs for everyone.

A co-ordinated approach to community decarbonisation is shown to have significant benefits to both the network and individual households. The approach and tools used need development to be able to scale. They also need change within DNO processes to be deployed. It remains unclear whether the data to enable these processes will be available at a low enough cost to make the approach viable at scale. It is also not yet certain how this community led approach interacts with higher level/top down LAEP processes, particularly interaction and interest from local authorities regarding community heat decarbonisation, which are still being developed. Together, these create too much uncertainty to justify the investment in tool development within business as usual.

Innovation has been carried out in the local energy market and local balancing space. We will draw on learnings from other projects, including Transition, LEO, Cornwall LEM, NINES, CommuniHeat, Urban Energy Club and Constellation to minimise any duplication to bring these solutions closer to business-as-usual deployment realising benefits.

We will also work closely with Northern Powergrid and their team working on the Community DSO proposal to share learning on the architecture design for a scalable approach to smart local energy systems. Both approaches are built from the bottom up to work at multiple scales, delivering value for each stakeholder group involved (network customer, community energy SPV, DSO), by reducing energy costs and network reinforcement costs.

How were Project Partners, external resources/funding identified, and what are their respective roles in the Project? Please evidence how Partners were identified and selected, including the process and rationale that has been followed. *The Licensee should provide details of any Project Partners who will be actively involved in the Project and are prepared to devote time, resources and/or funding to the Project. If the Licensee has not identified any specific Project Partners, it should provide details of the type of Project Partners it wishes to attract to the Project.*
Buro Happold and Ovesco originally presented the idea for this project to the ENA Call for NIC project ideas for the 2020 NIC round. EA Technology have been invited to join because of their expertise in network connections tools and experience of NIC project delivery. Buro Happold are UK-based with over 40 years' experience in developing infrastructure solutions and have made a pledge to only develop low carbon infrastructure. They have a successful record in delivering innovative energy schemes globally and vast experience in energy systems modelling, design and development of digital platforms. They have the necessary skills and expertise to carry out the Design Authority role within the project team. Community Energy South (CES) is a regional umbrella group for South East England established in 2013. Their expertise in stakeholder engagement is vital to ensure the project outcomes are replicable across the UK. CES is currently working with the regional energy hubs and BEIS on their Community Energy Pathways programme to grow the sector and support new communities to transition to net zero. EA Technology Ltd have been leading electricity network innovation for over 50 years including exceptional recent innovation projects such as My Electric Avenue and Charge. Ovesco started in 2007 as one of the first groups to raise community equity for rooftop solar, with 12 domestic PV projects and a 5MW solar farm under their management. Previous Ashden Award winners and 2019 "Community Energy Practitioner of the Year" they are at the vanguard of community energy. Ovesco's strong influence within the Barcombe community and community energy nationally are essential to the project success. The partners will seek involvement from an energy supplier and/or an academic institution in the project. These may be as partners or contracted to one of the existing partners depending on the scale of their work.

Would the Project require any derogations or exemptions to current regulatory arrangements? *If YES, please provide details of the required changes.*
The project may require a derogation or exemption to the current connections regulations. UK Power Networks are currently assessing whether the current regulations would allow individual connections to be handled together if they are part of the community scheme. If this assessment identifies that a derogation will be required, Ofgem will be contacted with all the required information at the time.

How will the Project activities impact customers? *The Licensee should outline any planned interaction with customers or customers' premises as part of the Project, and any other direct customer impact (eg amended charging arrangements, supply interruptions).*
As *CommuniPower* is community focused, a detailed customer engagement plan will be developed for community residents, all tiers of local government (including Counties, District/Boroughs and Town/Parish Councils) and other interested stakeholders. Information and training will be provided throughout via trained Community Energy Champions to ensure all residents are comfortable with the changes to their community. Trials will be designed in such a way that disruption to residents is minimised. Specific activities which will impact the residents are: • Building fabric upgrades and LCTs for heat and transport – customers may choose to upgrade their homes in order to participate in the project, an activity that will cause them some disruption. Other customers may pool their resources to invest in a larger shared asset; • Network readiness – there may be some supply interruptions while work on the DNO network takes place, these will be minimised and carried out following best practice; • Participation in network service provision – customers will be able to enter the flexibility market for the local area and trade with a supplier, the network system operator and/or with their neighbours within the community. A detailed Data Protection Impact Assessment will be carried out early on and will be continuously updated as the project progresses. Ovesco will brief the residents on how the data will be managed and once they have signed up will provide accessible options to opt out should they chose later. The partners will take all necessary precautions to only capture, store and use data which is needed for a specific purpose as part of the trials.

Are there any further details the Licensee considers would support its submission?

Through *CommuniHeat* we have actively engaged with the community and several organisations which have supported the work completed to date and support further work in the CommuniPower approach:

- Local authorities and councils: Greater Brighton City Region Infrastructure Panel (letter of support available from panel), Lewes District Council, South Downs National Park Authority, Barcombe Parish Council, East Sussex County Council, Essex County Council, Uttlesford District Council, Saffron Waldon Town Council and parishes, Kent County Council, Suffolk County Council, Norfolk County Council, Surrey County Council
- Community energy organisations: Community Energy England
- Local groups: Greater South East Energy Hub, Barcombe CofE Church, Transition Town Lewes – an active community group, Littlebury Parish and its neighbours
- BEIS Local Energy team and Heat Network Delivery Unit
- South East Water
- Other DNOs: Northern Powergrid, Scottish & Southern Energy Networks

Throughout the development of this ISP, the project team has engaged with Northern Powergrid, acknowledging that there could be some overlap with the Community DSO project. The discussion highlighted that there are opportunities to collaborate on the development of an architecture for community balancing and smart local energy systems which will be explored further in the development of the FSP and the project. There was also clear distinction in the area of community engagement, assessment, planning and connections where significant new learning would be developed in this project, providing a large benefit to customers. This identified good reason to keep the projects separate at this stage. Further to this, in order to ensure the opportunities presented by both projects are maximised, overlap minimised and learnings shared, there has been a mutual agreement to ensure representatives from the other network licensee will sit as members of the respective *CommuniPower* and *Community DSO* project steering groups.

A similar project, CommuniFlex, was submitted to Ofgem for the 2020 NIC. It was rejected largely on the grounds that Ofgem did not consider domestic flexibility to have a direct impact on the electricity network.

The project team has taken this feedback on board and, using learning gained in the *CommuniHeat* NIA project, has developed this new project we believe fully meets the requirements of the NIC governance. *CommuniPower* starts with customer engagement to influence the customer to choose that have a lower network impact when they decarbonise, making a measurable reduction in peak and/or total demand for the life of the assets (or, in the case of energy efficiency measures, the property). This project also develops and demonstrates a new approach to connections, reducing the network impact locally and upstream by encouraging development of generation and demand assets together, both domestic and community owned (commercial) assets. These would be controlled by the community and energy suppliers. They will be governed by data feeds and commercial arrangements to allow as much flexibility as possible in response to the energy market price or balancing services, while respecting the capacity of the network locally. Due to the mix of parties involved and the risk to success no one party would take this forward without innovation funding support. The scale of the work involved makes it too large for NIA funding, requiring NIC funding support. Evidence from the *CommuniHeat* NIA project and further engagement with several other off-gas communities has shown that there is demand for the proposed approach. As such, we are confident in being able to trial this in other areas and, if successful, making it available across GB. *CommuniPower* still focuses on understanding community flexibility and how to minimise the network impact of heat decarbonisation, both elements which were considered valuable in the Communiflex submission.

Contact Information

Contact Name(s) and Title(s)
Jack McKellar – Innovation Lead – Bids and Opportunities, UK Power Networks
Contact Address(es)
UK Power Networks, Newington House, 237 Southwark Bridge Road, London, SE1 6NP
Email address(es)
jack.mckellar@ukpowernetworks.co.uk
Direct Telephone
Jack McKellar: 07706 001 089