



Next Generation case study: Lockleaze Loves Solar – June 2020



Lockleaze Loves Solar

1 Megawatt of solar on 300 roofs in Lockleaze. Supporting Lockleaze residents to save money on energy, save the planet and invest in their community

How

Solar panels are installed on roofs for free and energy from them is purchased by residents at 30% discount reducing electricity bills. The community owns and runs its own community energy generation. Profits are returned to the community

Get involved

We need help on steering the project, getting the word out and recruiting roof owners. Get in touch on how you'd like to help
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 0117 914 1129

Logos: Power to Change, Business in Community Hands, Bristol Energy, Low Carbon Gordon, Lockleaze Neighbourhood Trust

About us:

Lockleaze Loves Solar (LLS) is a partnership between [Low Carbon Gordon](#) and [Lockleaze Neighbourhood Trust](#). The project involves the development and testing of a community owned cluster of solar PV installations that will collectively generate 1 megawatt of power. It is hoped to recruit up to 300 households and potentially one school to host solar PV panels – effectively participants lease their roofs to LLS - the power from which is currently expected to be sold, via a power purchase agreement, to [Bristol Energy](#). Participants will benefit from lower energy bills but wider objectives include helping to raise awareness of climate change and community mechanisms for responding to the climate emergency.

The model is intended to be flexible enough to allow for future growth, but is also intended to be replicable by other communities with a key component of the project being the development of a DIY toolkit which will include, amongst other guidance and supporting materials, standard legal documentation.

Key points for Community Energy groups:

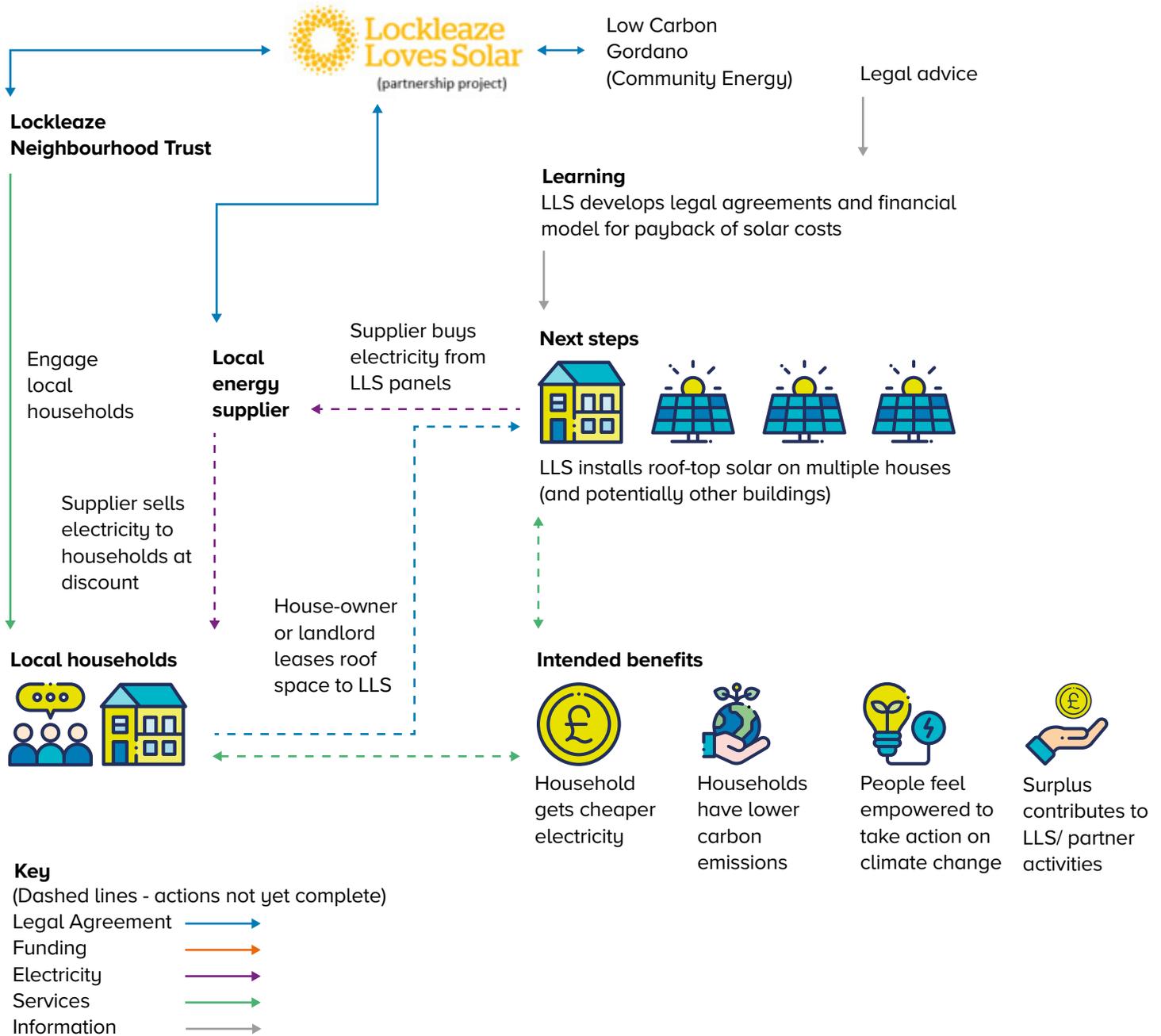
The aim of the LLS is to develop a business model and toolkit which can be used by other community based organisations to establish local community solar initiatives. If successful LLS partners hope to replicate the model in other parts of Bristol but it is also intended to promote it more widely as it has the potential to be applied, at scale and in a variety of settings, particularly within communities within the southern parts of England.





Overview of our project:

The business model involves installation of solar PV on roofs leased from households and other community buildings, funded by LLS. The electricity would be sold to an energy supplier by LLS and the households would receive discounted electricity from this supplier. A schematic overview is given in the diagram below.





Our learning so far:

The project is not yet operational and is still very much in a learning phase with activity evolving iteratively in response to real world conditions. To date the project has met and addressed a number of challenges and these have generated multiple lessons of the project partners. Those considered most likely to be of wider relevance are discussed below.

Engagement with energy supply companies

The model for this project relies upon having an energy supplier as a partner. The intention is that the energy supplier manages the billing of any self-use from each property, with that electricity being at a ~30% discount to normal retail prices, and then purchases any surplus generated power as part of an aggregated PPA (a virtual power plant). The intention is to then develop a community energy supply system, within current regulatory frameworks, whereby this surplus power can be sold by the energy supplier to other Lockleaze residents (who do not have panels on their roofs) at a slight discount compared to retail prices. Establishing an effective mechanism for dealing with customer billing was seen as a major hurdle for the project and the involvement of an energy supply company was seen as essential. Project partners were initially concerned that suppliers might be unwilling to engage with the project owing to concerns about complexity or simply because the scheme was seen as too small to be worth their while. In practice conversations have been held with three energy supply companies, with Bristol Energy emerging as the project's preferred partner.

The engagement of Bristol Energy is seen as a major success by the pilot, particularly as it has addressed the hurdle of managing the complexities of customer billing. The fact that the project has been able to accomplish this indicates that other groups may also be able to establish similar arrangements, although it is understood that Bristol Energy regard this as a pilot endeavour and one which helps them to address questions of relevance to their own, wider, ambitions in relation to customer engagement in community energy initiatives of this sort. Learning to date suggests, that energy companies are willing to engage with community solar initiatives, but that the extent to which they will do so will, perhaps self-evidently, depend upon the level of overlap between local community and energy supplier objectives and ambitions.

Engagement with social housing providers

The project originally envisaged being able to recruit council and social housing tenants and held initially encouraging conversations with Bristol City Council and two local housing associations. In practice all of these organisations have subsequently indicated that they are not prepared for their properties to be included in the project. In the case of the local authority and one housing association this is because they wish their properties to participate in another scheme. The remaining housing association has decided that participation is overly complex at this point in time. The learning point for other community energy organisations is that local authorities and housing associations will have multiple opportunities to engage with solar PV and other energy initiatives, and may regard these as being preferable to local, community owned, schemes. In short, when considering the development of local initiatives, community ventures should not assume that social housing providers will wish to be involved in their scheme.

The value of having an experienced and committed installation partner

LLS has chosen to engage [IDDEA](#) as their installer. IDDEA is a commercial organisation with extensive experience of installing domestic solar PV and came to the attention of LLS as a result of their (IDDEA) involvement in Fromes 'Solar Streets' initiative. IDDEA were the installer for this initiative and have subsequently become committed advocates of the concept.

IDDEA's involvement has provided the LLS partnership with an additional source of challenge and expertise, and has contributed to several improvements in the partnerships approach. For example, to minimise upfront costs the original business model assumed the use of a 'dumb' meter which would have required manual reading / checking. However, as a result of discussions with IDDEA, the partnership now plans to install smart meters. Each smart meter costs an additional £120.00, but their use avoids the need for manual checking and allows for real time charging by the energy supply company. Overall, the introduction of smart meters has improved the business case (by removing the cost of manual monitoring) and will better enable potential follow up projects on energy behaviours; something that the Neighbourhood Trust is keen to do in the future.

What we're doing next:

LLS has made significant progress, this has not always been straightforward and the partners have had to flex their approach to accommodate and address the challenges they have faced to date. As the project has developed it has attracted the attention of other community energy organisations and wider stakeholders but at the time of writing two key challenges are still to be addressed.

Recruitment and retention

Owing to the withdrawal of interest from the social housing sector the pilot has had to focus on privately owned housing. Recruitment from this sector has been slower than hoped and has since been disrupted by the emergence of the coronavirus. There is some concern that those who have provisionally signed up to the project may withdraw their interest as the project lead in time lengthens.

Finalising the legal model

The LLS model is based on the establishment of a formal contract of agreement whereby the homeowner, or other property owner, leases the use of their roof to LLS. Finalising the legal documentation that enables this has proven more complex than originally expected and is currently the project's most pressing challenge.

If you want to know more:

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