

Community Energy London (CEL)

Response to the GLA *Draft Solar Action Plan for London*

November 2017

Introduction

Community Energy London is an informal network of community energy practitioners, enthusiasts and supporters carrying out community energy projects across London. The network has operated since November 2015 and has held major events and, since October 2015, regular monthly meetings to share experiences, resources, and learning.

Following a workshop and survey in late 2016, CEL submitted a report¹ to the GLA setting out a series of proposals to how a collaboration between the GLA and the community energy sector in London could help bring forward renewable, energy efficiency and fuel poverty alleviation projections which would work to support the Mayor's environmental and social justice manifesto pledges.

Community energy groups in London currently own and operate 748 kWp of solar PV situated on churches, mosques, social housing blocks and schools that have been financed through the purchase of shares by members of the community.

Community Energy London (CEL) welcomes the Mayor's approach to a separate Solar Action Plan for London (SAP). Supporting increased solar in London presents a number of opportunities to not only help achieve the Mayor's ambitions on growing the capital's decentralised energy capacity including a reduction in carbon emissions and making energy more affordable for Londoners, but also is a key component of London's transition to a smarter energy city.

Community Energy projects help connects Londoners with their use of energy by developing locally owned and governed sources of renewable energy. In addition, these projects can generate funds, which can be directed to support energy efficiency and fuel poverty alleviation initiatives. The strong alignment between community energy project goals and the Mayor's environmental and social aims suggests the potential for a strong partnership.

London lags behind many other cities in terms of community financed renewable generation. London based groups often struggle to identify sites for energy installation in a volatile property market with complexity of tenure and uncertain lifespan of the commercial building stock. Reluctance or refusal of some local authorities to engage with community energy groups, low levels of social capital, and lack of funding and capacity building opportunities have compounded these challenges. These are challenges common to many other community energy groups across the UK but are particularly acute in London.

A swathe of policy changes following the national election in 2015, including the 65% reduction in Feed in Tariff (FiT) rates, the removal of certain tax reliefs for investors

¹ *Community Energy in London: Realising the Potential*, Community Energy London (CEL) January 2017

along with the cessation of programmes such as the Urban Community Energy Fund (UCEF) and the Green Deal, has made it difficult for existing groups to grow and for new groups to form.

A solar target for London

CEL support the Mayor's ambition for 1GW of solar to be installed in the capital by 2030.

The 1GW target falls in line with Greenpeace's analysis in their report '*London Can't Wait for Solar*'², which proposed a target of "at least 750MW by 2025". This would have been an approximate 10-fold increase in the level of PV installed in London over the level of capacity as at the beginning of 2016. The latest Ofgem³ statistics show that as at the end of June 2017 103MW of solar PV was installed in London. Whilst this is an appreciable level of decentralised energy capacity added to the capital in a little over seven years – it still only represents 3% of the number of PV installations installed in the UK and 2% of actual generation capacity added across the country.

The challenges to installing solar in London are well laid out in the Greenpeace report – as well as the London Assembly Environment Committee's 2015 inquiry report '*Bring Me Sunshine*'. However, there has been no concerted effort by London government or London boroughs to support the uptake of solar as has been seen across many UK local authorities. The SAP proposes the first real efforts by London government to address these challenges and help Londoners take advantage of the benefits that local solar can bring.

The Mayor should be bold and set this as a specific target of the London Environment Strategy. The SAP provides a good initial framework to start action on driving solar capacity in London. Solar will be an integral part of the Mayor's plans for building greater decentralised energy capacity in London, but, together with opportunities that are coming forward in the local energy supply area, energy storage and EV charging infrastructure will also play a fundamental role in London transforming into a smarter energy city.

Additionally, as the Clean Growth Strategy has recently shown, there appears to be little appetite by Government to take a leadership role on decentralised energy (distributed, decentralised or embedded generation issues are barely touched upon in the CGS) or to recognise how cities can play a fundamental role in achieving the UK's carbon budget targets. It is up the Mayor – working with Londoners, community energy groups, boroughs, and other city organisations - to set out a future pathway in this area. Solar is part of suite of energy solutions that could help.

CEL Recommends:

- **CEL support the Mayor's ambition for 1GW of solar to be installed in the capital by 2030. The Mayor however should be bold and set this a specific target for the London Environment Strategy.**

² *London Can't Wait for Solar, How the new Mayor of London can start a Solar Revolution in 2016*, Greenpeace February 2016

³ FIT activity by GB region

- **As part of this 1GW target setting process, the Mayor should engage with community energy groups to explore establishing a London Community Energy target (as was done in Scotland).**

Mapping solar potential across the GLA estate

CEL support the Mayor's proposal of identifying buildings and land within buildings and land portfolios held by the GLA and wider functional bodies.

TfL have been slow to realise the potential for solar and – it could be argued – missed out on huge opportunities for FIT income for Londoners - since the start of the Feed in Tariff (FIT) programme was initiated in 2010. TfL have paid little to no attention to diversifying their approach to providing power to London's Underground system, despite previous pledges to look to contracting with low carbon generators in London, through long term power purchase agreements (PPAs)⁴. Of the many new Crossrail stations constructed across London, only Whitechapel station appears to have any significant PV installed onsite⁵.

Failure by the previous administration to realise the potential for solar in the capital has largely contributed to this situation.

As of June of this year, TfL reported that they have solar PV installed at 11 sites, totalling no more than 245kW of installed capacity (i.e. 0.2% of London's PV capacity)⁶. This is despite being one of the largest landowners in London (5,700 acres)⁷ and owning 1800 buildings across circa 300 sites

CEL Recommends:

- **TfL's recent initiative in issuing a tender to the RE:FIT framework to install solar on its buildings is welcome. CEL and its members would be pleased to be involved in future discussion with TfL as their programme moves beyond this initial tranche of 24 buildings, and understanding TfL's future plans and timelines would be useful.**
- **Bristol City Council has provided opportunities for community energy groups to install solar PV on corporate stock following a competitive tender process. A similar initiative in London could enable the GLA to maximise the potential for community renewable generation on GLA sites. This would serve the dual purpose of promoting community-financed renewables and setting an example for other local authorities to follow.**
- **CEL would welcome discussion with the GLA/TfL on opportunities to sell CEL groups' solar PV generation output via the Mayor's Licence Lite programme.**

⁴ As set out in *Establishing a London Energy Company within London government: Issues for consideration* (Dec 2015), report published by Jenny Jones, London Green Party AM

⁵ Energy Efficiency and Carbon [webpage](#), Crossrail

⁶ TfL Solar Tender, 28 June 2017

⁷ TfL website – Property Development <https://tfl.gov.uk/info-for/business-and-commercial/property-development>

A Solar Map for London

A solar map for London could potentially provide a useful first tool to in helping provide an indication where solar generation might be viable in any particular part of the capital. Solar PV has some of the most detailed datasets of any renewable technology through Ofgem's quarterly Feed in Tariff installation reports⁸, which includes high level address details of the near 1 million schemes currently in place in the UK.

Before proceeding however, the GLA should first look to previous studies and online 'city solar maps' to understand how effective these have been in supporting the uptake of solar installations. A number of US cities and states have created solar maps including New York⁹, as referenced in the DSAPL, but also Cambridge (MA)¹⁰, North Virginia¹¹, Portland¹², Calgary¹³, amongst others, and it would make sense for the GLA to contact these/similar cities to understand how useful these maps have been to potential solar users. Closer to home, LIDAR exercises have been undertaken by Bristol¹⁴, St Albans¹⁵. In London, Haringey BC produced a study on solar potential of North London¹⁶. The Energy Saving Trust also have a postcode 'Solar Energy Calculator'¹⁷ and Google's Project Sunroof¹⁸, currently only available in the US, could potentially be looking at providing a similar service in the UK.

A London solar map could also use new resources that have recently come available, such as the output from the London Brownfield Sites Review, undertaken in 2014. This provides "*Brownfield data handed over from [the] LDA to the Homes and Communities Agency so that HCA could maintain it as part of the National Land Use Database (NLUD).*" and is posted on the HCA website¹⁹.

Additionally, tools such as the London Land Commission Register database²⁰, launched in 2016, and the GLA's new EPC database²¹ (using recently released DCLG EPC data²²) can also provide opportunities to map sites, which can host solar projects. Data on

⁸ <https://www.ofgem.gov.uk/environmental-programmes/fit/contacts-guidance-and-resources/public-reports-and-data-fit/installation-reports>

⁹ <https://nysolarmap.com/>

¹⁰ <https://www.mapdwell.com/en/solar/cambridge>

¹¹ <https://www.novasolarmap.com/>

¹² <https://www.portlandoregon.gov/bps/article/446449>

¹³ <https://maps.calgary.ca/SolarPotential/>

¹⁴ Bristol Sunshine: An Analysis of Solar Rooftop Mapping Techniques & Outputs, Bristol City Council

¹⁵ Solar LiDAR Potential Mapping: St. Albans City Pilot Project

¹⁶ <http://haringey4020.org.uk/find-out-more/previous-studies-and-learning-partners/local-carbon-framework-studies/solar-power-on-council-buildings/>

¹⁷ <http://www.energysavingtrust.org.uk/scotland/tools-calculators/solar-energy-calculator>

¹⁸ <https://www.google.com/get/sunroof>

¹⁹ <https://www.gov.uk/government/collections/national-land-use-database-of-previously-developed-land-nlud-pdl>

²⁰ <https://maps.london.gov.uk/LLC/>

²¹ <https://www.london.gov.uk/what-we-do/environment/energy/energy-and-climate-tools>

²² Energy Performance of Buildings Data: England and Wales, DCLG

central government property and land is also available through data files from e-PIMS, the Government's Property and Land asset database²³.

CEL Recommends:

- **This broad range of existing research and initiatives strongly point to the GLA undertaking a full evaluation of options before proceeding with their own interactive solar map and tool for Londoners.**
- **In addition to a map, the GLA should signpost additional resources and companies which could help households/businesses with a solar install, including local community energy groups**
- **The map should be used to further evaluate London's potential for solar - building the evidence base for a London solar target.**
- **The map should also highlight community energy group sites.**
- **The Mayor's solar map of London should tie in with the GLA EPC and London Land Commission Register maps to highlight public sector building opportunities for solar. The Mayor should also seek to write to and engage with London universities and colleges, hospitals and museums etc. to highlight any potential sites when identified.**

Encouraging great London public sector take up of solar

There has been a broad range of responses from London local authorities to community energy groups who have proposed renewable installation on local authority corporate stock. Some councils have refused outright to allow established community energy groups access to any roofs on the basis that they have a policy against any third-party leasing roof space for solar and they make no exception for community energy groups. Even where support exists from asset management or sustainability teams within a council, this support may be lacking from legal teams. The lack of flexibility and willingness to engage with community energy organisations on the part of many local authorities has demotivated and frustrated some excellent groups. In contrast, local authority support has played a significant role in the success of community energy initiatives in Bristol, Bath and Plymouth, for example, who have provided advice and resources and facilitated planning consent.

Local authority buildings such as council offices, schools and community centres are the obvious choice of site for community financed solar PV because there is an expectation that their use will remain unchanged for many years and any savings made by the site can be directed to benefit the community. For example, reductions in a school's electricity costs will benefit the families of all those that attend the school by releasing funds to be spent on books, teachers, and sports equipment.

The Mayor could support London Councils, who have previously led on the development of energy initiatives, such as the London Energy Project and the Big London Energy Switch, to introduce a tools and activities to encourage local authorities to work with community energy groups.

²³ <https://data.gov.uk/dataset/epimstransparency>

CEL Recommends:

- **The Mayor should work with London Councils to agree a London-wide local authority programme for solar, tying in – and building on - previous work undertaken through RE:NEW and RE:FIT. Such an initiative will help support borough officers who have identified potential for installing solar PV on their buildings/land. The programme should develop a series of tools to help accelerate the decision-making, financing and installation process for solar projects.**
- **Building on this, the Mayor should set in place tools and activities to encourage local authorities to work with community energy groups to develop solar projects**
- **Further, in communications to public sector bodies highlighting where solar is suitable (see above) the Mayor should also encourage these organisations to work with the community energy sector.**

Supporting solar through the London Plan’s energy policies

CEL welcome the London Environment Strategy’s revision to the London Plan energy hierarchy (as set out on p. 233 of the LES). The renewed focus that *“developers should investigate generating and storing renewable energy onsite as well as using it onsite, to contribute to London’s security of energy supply”* (p233) should also include that developers should engage with local community energy groups, where present, to explore if and how the energy strategy for their development could include such groups’ participation.

It should be noted that the current London Plan states *“The Mayor and Boroughs will also encourage community-led initiatives for renewables and low carbon energy and examine how they can be supported through neighbourhood planning.”*[para 5.41]. To date there appears to have been little to no engagement between developers and community groups in relation to supporting such initiatives. In addition, the Mayor’s *Guidance on preparing energy assessments*²⁴ makes no reference to developers submitting evidence of such dialogue taking place.

CEL Recommends:

- **The new London Plan and guidance document need to include actions that will support greater dialogue between developers and community energy groups to support potential community-led energy projects on new developments**

Using planning carbon offset funds to support solar

CEL welcomes the LES action that the Mayor *“will publish guidance to LPAs on the allocation and use of offsetting payments and review the current carbon price to determine the most effective level to deliver carbon offsetting projects and the option of pooling funds.”* CEL’s report to the GLA suggested how community groups could work with local authorities to identify and deliver renewable and energy efficiency projects, supported with zero carbon funds. CEL was hence pleased to see Islington BC’s recent

²⁴ *Guidance on preparing energy assessments*, GLA, March 2016

consultation around launching a community energy fund through the use of offset payments²⁵ (scheduled to be launched in January 2018) and Camden BC's recent launch of a Community Energy Grant, through their Camden Climate Fund²⁶.

CEL Recommends:

- **The Mayor's guidance on offset funds should recommend boroughs work with community energy groups, to use funds to help establish community-led renewable (and other carbon reduction solutions) in the local area.**

Using a forthcoming RE:NEW programme to support solar

MQ [2015/3678](#) highlighted that originally 18 RE:NEW PV projects were to go ahead, however, the majority of these projects were abandoned due to the Government's dramatic reduction in solar FIT rates.

CEL Recommends:

- **CEL welcomes that a successor to RE:NEW will again look at solar projects on social housing roofs. There may be opportunities for community energy groups to help provide match-funding opportunities for such projects and RE:NEW should liaise with community energy groups to explore this and other options.**

A reverse solar auction

CEL support the Mayor's initiative to hold a reverse solar auction providing care is taken not to flood the market with products that may prove inferior to alternative models.

CEL Recommends:

- **The GLA need expert advice to ensure the best products and installers are used in any wide-scale programme to install solar PV on London households. Negative feedback to installations will have a detrimental impact on the programme and negative publicity to the Mayor (it is likely installs would go-ahead in 2019 - a year ahead of the 2020 election where it is possible the current Mayor could run again). Organisations like the Renewable Energy Consumer Code (RECC) and the Solar Trade Association (STA) should be consulted closely by the GLA to ensure the reverse solar auction is successful.**
- **Community Energy groups could play a useful role here in helping raise the profile of the auction, provide information and guidance to householders, and potentially support the roll out of multiple installs - if these are undertaken on an area-wide basis.**

²⁵ http://islingtonlife.london/discover-islington/blog/islington-community-energy-fund/?utm_medium=social&utm_campaign=SocialSignIn&utm_source=Twitter&utm_content=Energy+2017-18

²⁶ <https://consultations.wearecamden.org/culture-environment/ccf-community-energy/>

Highlighting the potential of solar to Londoners

The Clean Growth Strategy states that the Government “*want[s] to see more people investing in solar without government support and are currently considering options for our approach to small scale low carbon generation beyond 2019, and will provide an update later this year.*” [p99]

Solar remains the most popular technology to respondents of BEIS’s Energy and Climate Change Public Attitude Tracker with the latest survey (November 2017) reports 84% of respondents said they supported solar energy²⁷.

Solar in London suffers the same challenges of complexity and cost as installing energy efficiency measures (through ECO etc.) – but to date, there has been no concerted effort to highlight the potential benefits and opportunities that Londoners could gain through the use of solar, or a programme of action to introduce solar to potential consumers. As a consequence, London energy bill payers have been contributing to the uptake of solar (through their contribution to the FITs mechanism), with proportionally only a very few realising the benefits.

In the absence of any leadership from central Government, the Mayor should use the launch of the SAP in 2018 as a key opportunity to help introduce solar to Londoners. Similarly, supporting community energy groups to hold briefing sessions, information days, and sites visits to their installations would provide useful ‘word of mouth’ opportunities – which would again perhaps be more useful to interested parties than a simple online map. Community energy groups play a vital role in ‘translating’ energy issues to the wider public, through raising awareness, and are increasingly being recognised as a credible source of information.

CEL recommends that to drive new interest in solar, the announcement of the reverse auction and London solar map could be matched by accompanying actions that could include:

- **Solar is already popular amongst the public. Supporting the take up of solar provides the Mayor a powerful gateway to engage Londoners, and London businesses in other environmental actions critical to the capital – from cycling to recycling, public transport to water conservation, food waste to growing green spaces.**
- **Supporting community energy groups to hold workshops, information days, and sites visits to their installations which could provide useful “see it/believe it’ opportunities. The London Community Energy Fund could provide financial support for a series of local solar workshops hosted by community energy groups**
- **Finally, there remains a little over a year before the FITs schemes finishes (March 2019). The Mayor should highlight this to Londoners to encourage solar installs before this deadline, after which the support mechanism will no longer be available.**

²⁷ Energy and Climate Change Public Attitudes Tracker (PAT): Wave 22 - summary report, BEIS, 3 August 2017

Supporting energy storage solutions

Community energy groups are already working on a range of highly innovative projects including Demand Side Management, battery storage for residential and commercial sites, smart meter trials, peer-to-peer energy trading and more. CEL groups regularly collaborate with highly technical organisations from new-entrant players to incumbents such as London's distribution network operator, UK Power Networks.

CEL Recommends:

- **Community energy groups are highly skilled, highly motivated individuals and are already involved in a number cutting-edge energy projects involving solar across the capital. CEL members are a fantastic resource for the GLA and the GLA should look to consult with, and use when helpful, community energy representatives as the Mayor's SAP is rolled out.**

London Community Energy Fund and supporting community energy project barriers

CEL is very pleased to see the launch of the Mayor's London Community Energy Fund (LCEF), which was a positive outcome and response to CEL's recommendations made in a report submitted to the Mayor in January 2017.

There is a strong alignment between community energy and the Mayor's goals of creating a decentralised sustainable energy system able to meet the needs of Londoners and lift Londoners out of fuel poverty.

The timeframe for submissions to the first tranche of the LCEF was very 'tight' and some groups may struggle to advance their projects to a stage suitable to apply the Fund. Nevertheless, CEL are very positive that the LCEF was advance projects that have been on hold since the disappearance of the Government's Urban Community Energy Fund (UCEF).

CEL Recommends:

- **CEL would ideally like to see the LCEF as a rolling fund, responding to applications as they came forward.**
- **CEL would like to see the LCEF support programmes through the early stages of development, such as community engagement, energy awareness raising and training, as well as more fundamental elements of project development, such as solar PV roof study, grid connection, etc.**

Supporting community energy activity through the Decentralised Energy Enabling Project (DEEP)

Community energy groups have often built up huge expertise through a network of volunteers, lending supporting on technical, financial, and legal advice. However, each project requires significant due diligence which is costly and often beyond the ability of most groups to work through by themselves. Project advice to community energy groups through the development phase, would be particularly helpful, like that

currently directed to local authorities for heat network projects, via the RE:FIT delivery team and the Decentralised Energy Enabling Project (DEEP).

CEL welcomes the SAP commitment that the *“the Mayor will link any potential community grant scheme to the Decentralised Energy Enabling Project (DEEP) where suitable.”*

CEL Recommends:

- **CEL would welcome further information on how the DEEP programme could provide support to London community energy groups develop projects.**

Supporting community energy project generation output through Licence Lite

CEL welcome the Mayor’s commitment to use his forthcoming Licence Lite programme to support smaller suppliers such as community energy groups.

CEL Recommends:

- **CEL and its members would welcome discussions with the GLA and its ‘white label plus’ energy supply operation as it is rolled out to examine opportunities to how local communities, especially those directly contributing to establishing community energy solar schemes, could directly source the power they are helping generate.**
- **A Power Purchase Agreement (PPA) with community energy generators would not only ensure that energy is generated and supplied locally but it could also provide community energy groups with a fair price for electricity generated and long-term security of purchase. Any modest increase in revenue for sales of exported electricity through PPAs would make a significant impact on the viability of community generation projects.**

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