

EMPOWER COMMUNITY

ACCELERATING THE TRANSITION TO SUSTAINABLE
LOW CARBON LOCAL ECONOMIES

LB HARINGEY

Business Case – Solar PV

Benefits from a Solar PV programme

This business case is intended to provide an indication of what a local solar PV programme delivered by Empower Community and its partners could potentially achieve for the Haringey and other local stakeholders. The figures are based on retrofitting existing social homes with installations of less than 4 kWp per household where the Feed in Tariff level is 41.3p per kWh of electricity generated and the export to grid is deemed at 50% of total generated electricity at a price of 3p per kWh.

All installations completed and registered before 31st March 2012 will qualify for this level of tariff, with annual increases linked to the Retail Price Index and guaranteed for 25 years. Installations completed after this date are likely to be on a lower tariff, which is not yet set by the Government; therefore early action is advised.

Benefits to Local Stakeholders

In addition to the intrinsic social benefits, there are quantifiable financial, economic and environmental returns for participating communities. Key stakeholders in an Empower Community Solar PV scheme include:

- The Local Authority and other public sector organisations that participate in the scheme
- Registered social landlords that participate in the scheme
- Tenants of social housing stock included within the scheme

Assumptions

In preparing this illustration, the following assumptions have been applied:

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|---|-------|
| • Estimated number of homes suitable for solar PV panels | 1,000 |
| • Average power output of each household installation (kWh per annum) | 1661 |
| • Average installation size per household (kWp) | 2 |
| • Retail cost of electricity per kWh | £0.13 |
| • CO ₂ emissions avoided per kWh generated (in kg) | 0.537 |
| • Annual increase in the Retail Price Index | 2.50% |

The average power output of each household is based upon historical local solar fall data sourced from European Commission data tables.

Benefits to local stakeholders can be summarised as follows:

Financial Benefits

In addition to the revenue which will be received by LB Haringey directly from the project a Local Community Vehicle (LCV) will also receive a share of profits from the scheme. LB Haringey will be granted membership of the LCV steering group and will have a say how the fund available to LCV is invested. It should be noted that LB Haringey will have the option to receive either a defined annual amount for each kWp installed or a percentage of income available.

The table below provides an indication of the level of the defined annual amount that could potentially be received by LB Haringey and the LCV:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 25
Building owner	£30,000	£30,750	£31,519	£32,307	£33,114	£37,466	£54,262
Cumulative	£30,000	£60,750	£92,269	£124,575	£157,690	£336,101	£1,024,733
Local Community	£107,271	£106,346	£105,337	£104,243	£103,060	£102,708	£121,457
Cumulative	£107,271	£213,617	£318,954	£423,197	£526,257	£1,037,687	£2,697,177

The above illustration is merely indicative of the potential income that may be generated by the scheme but in reality this could be lesser or greater than that shown due to a variety of factors.

Economic Benefits

Individual householders could make potential savings of up to £216 per annum from daytime usage of electricity generated from the panels. This amount of annual savings would make a material difference to those tenants suffering from fuel poverty.

Depending on daytime household electricity usage, a programme including 1,000 social homes across the Local Authority area could potentially achieve up to £215,952 of total savings per annum that would otherwise leave the local economy through electricity bills. In addition, any public sector buildings hosting a solar PV installation would also enjoy free electricity during daylight hours.

One of the objectives of Empower Community is to support the development and training of local skilled workers and we will be seeking, along with installer/operators, to create local skilled job opportunities as part of a solar PV programme.

The combination of all of the above factors should help create additional local jobs and have a positive impact upon GVA for the area.

Environmental Benefits

The scheme will assist in reducing overall carbon emissions as indicated below:

- Annual CO₂ emissions reduction per household 0.892 tonnes
- Annual CO₂ emissions reduction across whole project 892 tonnes
- Total CO₂ emissions saved throughout the life of the scheme 22301 tonnes

Should solar PV installations are included in non-residential Local Authority buildings (e.g. local government offices) the reduction in CO₂ will be greater.

Further Expansion of the Scheme

Any solar PV programme undertaken by Empower Community and its delivery partners can also include other public sector building stock such as Local Authority buildings, schools, etc. from outset. Benefits from these installations would be additional to those illustrated in this document.

Whilst the Empower Community solar PV scheme for local communities is intended to begin with social housing stock and public sector buildings, we see this as the beginning of a larger programme that can ultimately bring economies of scale to other community members such as private householders and local businesses. In addition, once a solar PV programme is underway, Empower Community will work with the Local Authority and other key stakeholders to help identify, scope and develop other types of project that can reduce carbon emissions and build local economic resilience.

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