

# DESIGN & ACCESS STATEMENT

## **1.0 Introduction**

### **1.1 General**

Freetricity Commercial Ltd. is intending to install solar PV panels on the roof of the relevant building with a maximum energy output of just under 50 kW, which is the approximate energy usage of 12-15 dwelling houses in the United Kingdom.

### **1.2 Site Address**

Site Address: *Crawford House Community Partnership, 2 Gwent Street, Liverpool, Merseyside, L8 8DN*

## **2.0 Policy Context**

### **1.1 Listed Buildings**

Freetricity Commercial Ltd. refers you to Planning Policy Statement 5 (Planning for the Historic Environment):

*“HE1.1 Local planning authorities should identify opportunities to mitigate, and adapt to, the effects of climate change when devising policies and making decisions relating to heritage assets by seeking the reuse and, where appropriate, the modification of heritage assets so as to reduce carbon emissions and secure sustainable development. Opportunities to adapt heritage assets include enhancing energy efficiency, improving resilience to the effects of a changing climate, allowing greater use of renewable energy and allowing for the sustainable use of water. Keeping heritage assets in use avoids the consumption of building materials and energy and the generation of waste from the construction of replacement buildings.*

*HE1.2 Where proposals that are promoted for their contribution to mitigating climate change have a potentially negative effect on heritage assets, local planning authorities should, prior to determination, and ideally during pre-application discussions, help the applicant to identify feasible solutions that deliver similar climate change mitigation but with less or no harm to the significance of the heritage asset and its setting.”*

There is no change in the structural integrity of the building by way of demolition or damage in fixing the panels to the roof, as the panels are held in place by brackets which are either supported by the roof surface or non-penetrating through the breathable roofing membrane.

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## 1.2 Non-Listed Buildings

Freetricity Commercial Ltd. refers you to Planning Policy Statement 18 (Renewable Energy):

*F12. "The technology will be familiar to most and from the planning point of view, whilst there are clearly implications for listed buildings and the sensitive front elevations of some conservation areas, in general 'solar panels' are to be encouraged. In many cases involving dwelling houses, provided the building is not a listed building, or in a conservation area and the installation complies with the relevant constraints, PV will be 'permitted development' and is thus deemed not to require a planning application."*

## 1.3 All Building Types

Planning Policy Statement 22 (Renewable Energy):

*"Increased development of renewable energy resources is vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy. Positive planning which facilitates renewable energy developments can contribute to all four elements of the Government's sustainable development strategy:*

- social progress which recognises the needs of everyone – by contributing to the nation's energy needs, ensuring all homes are adequately and affordably heated; and providing new sources of energy in remote areas;*
- effective protection of the environment – by reductions in emissions of greenhouse gases and thereby reducing the potential for the environment to be affected by climate change;*
- prudent use of natural resources – by reducing the nation's reliance on everdiminishing supplies of fossil fuels; and,*
- maintenance of high and stable levels of economic growth and employment – through the creation of jobs directly related to renewable energy developments, but also in the development of new technologies. In rural areas, renewable energy projects have the potential to play an increasingly important role in the diversification of rural economies." (Government Objectives, p.6)*

Planning Policy Statement 21 (Policy CTY1 [Development in the Countryside – Non-Residential Development]):

*"Planning permission will be granted for non-residential development in the countryside in the following cases: ...renewable energy projects in accordance with PPS18".*  
(p.12)

Planning Policy Statement 1 (Delivering Sustainable Development):

Local planning authorities should *"seek to promote and encourage, rather than restrict, the use of renewable resources (for example, by the development of renewable energy)".*  
(s. 22, p.9)

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## 3.0 Site Appraisal

### 3.1 Site Description

- Building use/type: *Community centre*
- Type of roof: *Pitched*
- Visibility of roof from surrounding sites and public spaces: *Limited*

### 1.3 Local Context

Brief description of surrounding environment including:

- Adjoining land uses: *Residential*
- Close Proximity to Area of Conservation: *No*
- Close Proximity to Listed Buildings: *No*
- Any other notable features in the surrounds: *None*

## 4.0 Proposed Development

### 1.4 Proposed Use

The roof will be used as a means to support solar panels which will generate electricity.

### 1.1 Scale and Amount

- Number of panels: *180*
- Mounting system to be used: If flat, mounting frames angled at 10 degrees; if pitched, flush with roof at identical roof angle.
- Other installations: *Inverter(s)*

#### 1.1.1 Construction

The installation will take approximately 1-2 weeks to complete, with approximately 1 truckload to deliver 60 panels maximum per day.

#### 1.1.2 Operation

Maintenance requirements involve 2 yearly visits for cleaning and repair, aside from that the development will be passive in operation, with low impacts. These include low/ negligible noise levels and no emissions.

### 1.2 Layout

Please refer to the attached layout plan and proposed array images contained within the desktop survey. Area of each panel is 0.99m x 1.65m = 1.6335sqm.

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## 1.3 Appearance

Sample photos of pitched/ flat arrays are included as examples of the final appearance.

Figure A: Flat Roof Installation



Figure B: Pitched Roof Installation



## 1.4 Landscaping

Unlikely to need landscaping with a roof installation, note that the impacts will be minor and therefore no landscaping is considered necessary.

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There is a misconception that PV panels might cause adverse glint and glare effects, with reflected sunlight creating a nuisance or even a safety risk for planes or traffic. This is not the case. The panels are designed to absorb as much daylight as possible, and therefore have a low level of reflectivity when compared to surfaces such as window glass, water or snow. Less than 9% of total incident visible light is reflected by PV panels, whereas normal glass reflects about 17%. Studies have shown that PV panels do not create a risk for aircraft or vehicle traffic, due to the absorptive properties and low reflection levels of the panels, and in fact in Germany and the USA it is common for PV systems to be installed on airport terminal buildings, or within airport grounds.

## **1.5 Access**

Please refer to the enclosed location plan. The solar photovoltaic system will be positioned on the roof and will therefore not require any access to the general public.

There will be no impact on the local highway and the construction traffic will be unnoticeable such that there will be no increase in volume of traffic on the local network.

## **5.0 Conclusions**

With above criteria recognised and fulfilled to accommodate the installation, the design for renewable energy works should meet Council approval in light of the government climate change mitigation targets.