DESIGN & ACCESS STATEMENT

1.0 INTRODUCTION

GENERAL

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

SITE ADDRESS

Site Address: Flowflex Co. Ltd., Tongue Lane Industrial Estate, Buxton, Derbyshire, SK17 7LR

2.0 POLICY CONTEXT

NON-LISTED BUILDINGS

Freetricity Commercial Ltd. refers to the current 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."

ALL BUILDING TYPES

Freetricity Commercial Ltd. refers to the current 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)

DESIGN & ACCESS STATEMENT

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)

3. SITE APPRAISAL

SITE DESCRIPTION

Building use/type: B2 Industrial

Type of roof: Pitched

Visibility of roof from surrounding sites and public spaces: Limited

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. PROPOSED DEVELOPMENT

PROPOSED USE

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

SCALE AND AMOUNT

- Number of panels: 210 max.
- 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)

DESIGN & ACCESS STATEMENT

CONSTRUCTION

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

OPERATION

Maintenance involves on average visits every two years for cleaning and any necessary repairs with low impacts. These include low/negligible noise levels and no emissions.

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.

APPEARANCE

A sample photo of a pitched array follows as an example of the final appearance of the proposed model in other locations:

Figure A: Example Pitched Roof Installation



DESIGN & ACCESS STATEMENT

LANDSCAPING

Landscaping is rarely necessary with a roof installation; impacts will be minor and therefore no landscaping is considered necessary.

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%. PV panels do not create a risk for aircraft or vehicle traffic due to the absorptive properties and low reflection levels of the panels. Where there is a nearby airfield it should be noted that in Germany, the USA and elsewhere it PV systems are already widespread close to airports, on airport terminal buildings and within airport grounds.

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. CONCLUSIONS

With the 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.