Design Statement – Devizes Library

Why we are installing PV panels

The design of the PV installation at this site has considered the following principles and factors:

1. Wiltshire Council has acknowledged a climate emergency and is seeking to make the county of Wiltshire carbon neutral by 2030. The Cabinet subsequently committed to also make the council carbon neutral by 2030 and a new carbon reduction strategy is being prepared to enable the council to meet these commitments
2. The Wiltshire Council Climate Strategy states that the council will support a move away from fossil fuels and towards alternative decarbonised energy sources. Within its own buildings the council has pledged to expand the installation of renewable energy technology wherever possible. The strategy also states it will encourage the increase of renewable electricity generation within the county by providing leadership
3. The National Planning Policy Framework stipulates that LPAs should have a positive strategy to promote energy from renewable sources. This proposal will make a small contribution towards meeting UK renewable energy targets
4. The move from fossil fuels such as gas and towards low carbon energy requires sufficient electrical capacity to be available at council buildings in order to support increased demand. The local electrical grid within Wiltshire is not yet in a position to fully support this increase in demand, therefore any power that can be generated on-site rather than drawn from the grid will assist with this low carbon shift.
5. The recent increases in the cost of energy will have a significant impact on the utility budgets that the council is responsible for paying. The council's management team have requested that any potential mitigation of these costs be brought forward and instigated s soon as possible. PV panels on council operated buildings will reduce the ongoing cost of electricity at that building.

The impact on the environment

1. Solar PV is the technology of collecting solar irradiation (sunlight) and converting it into electricity. They generate a direct current that is converted into alternating current through an inverter.
2. A major advantage of PV panel technology is that there is no noise output from the panels. There are no moving parts and therefore do not generate any safety concerns in operation.
3. The panels are designed to fit flush with the roof following the lines of the pitch.
4. Panels have a sleek black finish using non reflective materials to avoid glare.
5. The proposal will not introduce any new building structures as the panels are located discretely on an existing roof structure. Neither will the proposal result in the loss of any existing buildings or structures.
6. The proposal will have no impact on the local highway network and no alterations to landscaping are proposed.

Specific design

A full design implementation plan will be developed if planning is approved. This will take account of any access issues but it is likely that scaffolding will be required for the panels to be fitted at roof

level and that scaffolding is likely to remain in place for approximately 3 weeks. The roof is currently unused and has no public access.

The proposed PV system will be installed on the roof at Devizes Library, SN10 1DL. The array will have a total rated output of 15.58 kWp and will consist of 38 individual panels and 1 inverter.

A scaled plan of the roof showing the proposed location of the array is included with this application.

The library is not a listed building but, does sit within a conservation area. This application is seeking to utilise the amount of roof space that the PV will cover, in order to introduce self-generated renewable electricity at the site. The panels will follow the line of the roofs with no more than 10-degree incline for efficiency , so as to minimise the visual impact and reduce any loss to the overall character of the conservation area. With the parapet in place the panels will also be mostly hidden from the street view