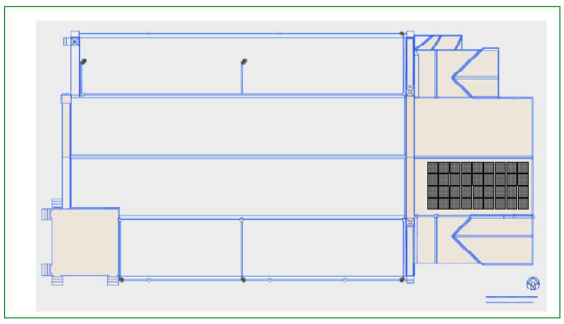
Solar panels at St Augustine's



Church:	St Augustine's Church Highbury, 108 Highbury New Park, London, N5 2DR
Designation:	Non-listed, in the Highbury New Park conservation area.
Total project cost:	£4,680 preparatory costs (towards architect fees, planning fees, structural survey x2, and the Energy Performance Certificate) £23,000 installation costs
Cloudesley grant:	£23,000, for the installation and £944 towards the architect's and planning fees
Other funding:	£2,736 from church funds and £1,000 Islington Community Energy Fund
Dates:	March 2018 Initial quote July 2018 DAC application submitted October 2018 Planning application validated November 2018 Cloudesley grant awarded February 2019 Planning permission received and faculty granted March 2019 Installation of panels
Contractors used:	Solar installer: **Treadlighter** Architect: **Nicholas Weedon, HMDW Architects ltd** Structural survey: **Ellis Moore**
Background	As part of Cloudesley's Sustainable Church Buildings Project (SCBP), St Augustine's was successful in applying for a grant for solar panels to be installed. The benefits of installing solar had been identified through the environmental audit carried out by AECOM in late 2017, as part of the SCBP. Through generating free, clean electricity when the sun is shining, the PV panels will help the environment and also reduce church running costs. St Augustine's will also benefit from the government's Feed in Tariff scheme, which pays income to solar electricity generators. The panels were one important part of a package of energy-efficiency measures implemented by St Augustine's with Cloudesley's support. Through the SCBP the church also replaced broken windows and are planning to install LED lighting later in 2019. Three solar PV options were considered; a 18kWp array on the upper church roof, an 18kWp array on the lower aisle roof, and a smaller 10.8 kWp array on the chancel roof. St Augustine's originally applied for planning permission for the upper church roof option, because it is a large expanse of relatively unshaded and sunny south-facing roof, with the highest potential benefits. However, because of planning concerns, St Augustine's changed their plans to the smaller array on the chancel roof, which is set back further

	from the road. On this basis, they got planning permission under delegated authority. The panels were installed in March 2019.
Benefits:	It is estimated that the panels will generate over 9000 kWh of free, clean electricity per year. Considering the amount of this electricity that can be used by the church, it is estimated St Augustine's will save £831 per year on their electricity bills. The church will benefit from an additional estimated £613 per year from the Feed in Tariff income. (This scheme is now closed to new applicants, although a new scheme is expected to replace it.) The reduction in greenhouse-gas emissions is estimated at 4.78 tonnes of CO_2e.
Challenges:	The main challenge was **getting planning permission**. There was considerable local support for the original application for panels on the church upper roof (over 35 local residents wrote to express support, and there were no objections). However, planners were concerned it would cause too much harm to a heritage building in a conservation area. The planners suggested that the chancel roof, which is set back further from the road, would be acceptable from a planning perspective, and so St Augustine's agreed to change their application. This then required them to repost their faculty notices. The Diocese had been supportive throughout the process, and ensured that the faculty permission for the new design was granted as quickly as possible. **Unexpected costs arose** and needed to be met, with the support of Cloudesley plus additional church funds. The extra planning work meant extra time was needed from the architect. A structural survey of the church roof was required, which then had to be repeated for the chancel roof when the design changed. A requirement by the Diocese for pigeon-proof netting was added. Then, at the last minute, when it came to the installation, **Storm Gareth hit**, delaying the work by a few days. Throughout all these changes, the installer has been very flexible. All of this took considerable **time and energy** from the project manager at the church.
Top tips for other churches:	**Get a free desk-top estimate** from an installer, to work out if your roof is suitable. When budgeting and fundraising, **consider both the installation cost <u>and</u> the preparatory costs**, including electrical preparation work **Get an environmental audit** to provide evidence to justify planning and faculty permission. **Get advice early on** from the local planning officer about what design would be likely to be acceptable, and also from the Diocese to confirm faculty permission is likely. Be prepared to chase decisions and respond to conflicting advice. **Do not underestimate the time it will take.** The benefits are clear – both financially and environmentally – but it will take time and energy to achieve them
The Cloudesley perspective – why did this project gain support?	This project had good environmental benefits relative to its cost. As part of a package of measures to make St Augustine's more energy-efficient, there was a strong case for this grant, since the panels will help the church financially and cut greenhouse gasses. The plans had to change and adapt to respond to planning requirements, but the project manager always communicated with Cloudesley staff and kept us fully up-to-date.