CASE STUDY

ILLUMINATING FAITH AND SUSTAINABILITY: A CHURCH'S JOURNEY TO HARNESS SOLAR ENERGY FOR HEATING

Kingsway Electrical
Domestic • Commercial • Solar • EV Chargers
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FETTERESSO CHURCH

HOW FETTERESSO CHURCH INSTALLED SOLAR PANELS TO DECARBONIZE AND POWER AN AIR SOURCE HEAT PUMP SYSTEM

After it became evident to Fetteresso Church that its carbon footprint was at odds with the teachings of stewardship and care for the community, the Church consulted with energy firms on how to decarbonize, and to reduce their energy costs.

Fetteresso Church developed a major project to replace a gas fired central heating system with Air-to-Air heat pumps, improve insulation and energy utilisation, and install a solar system to reduce energy consumption from the grid and reduce their energy bills for the Grade 1 Listed buildings. Fetteresso secured grant support through the Scottish Government's Community and Renewable Energy Scheme (CARES) delivered by Local Energy Scotland. CARES supports communities to engage with, participate in and benefit from the transition to net zero emissions.

Kingsway Electrical Ltd was chosen to install the solar system and update the Church electrical systems. The Church solar system installation on the flat roof was a significant achievement. Despite some predicted challenges such as ensuring structural integrity and safe installation of the solar panels, the project team successfully integrated the solar panels and inverter onto the electrical grid.

Coordination with contractors undertaking a complete renewal of the roof covering, and simultaneous installation of the air-sourced heat pumps, and full integration with the church electrical system provided modern sustainable heating in the church.

The result of the project has been impressive. The heating system is very popular with the congregation, the church is experiencing a substantial reduction in its energy bills, and the financial savings have been directed towards various community outreach programs, from raising awareness and fostering a culture about sustainability and environmental stewardship, to inspiring faith and hope in the community.

KEY TAKEAWAYS:

- ·Utilisation of the flat roof to mount solar panels on Grade 1 Listed building.
- ·58 Solar Panels for a combined output of 23.49KW.
- ·Estimated Annual Energy Generation of 18,673KWh.
- ·Estimated Annual Self-consumption of 59%.
- ·Annual Estimated Bill Reduction of 63%.
- ·Annual Co2 savings of 4.7 tons equivalent to 904 Trees.

"Pete Docherty responded proactively to our request for a solar PV with battery storage installation. After an exchange of data, we had an early Zoom Meeting with screenshots from Google Earth showing what our systemcould look like.Once we were ready Kingswaydelivered a competitive quotation after a site visit which has been benchmarked by our grant provider as best value in the market. All of the equipment offered is CE marked and has been designed and tested to International Standards.

There are other companieswho can provide technically superiorsystems but offeredat uncompetitive prices in our opinion.

The installation team consisting of salaried employeesworked diligently to complete the work and the follow up communications to iron out wrinkles were top class."

Dick Jenkins
Property Convener