

Case Study: A Phased Approach to Net Zero

St John's Church, Stoke-next-Guildford

Guildford, Surrey; Guildford Deanery

Summary

St John's church is on the outskirts of Guildford town and is a vibrant evangelical community whose vision is to bring 'Life in all it's fullness' to those in the parish. The church holds three Sunday services; traditional, family and contemporary worship and has an electoral role of just over 100 people.

Post Covid the church and community centre needed modernisation and refurbishment, and the project initially focused on improving audio-visual services grew into a church development plan, *The Next Chapter*. A team was formed, key goals and objectives set out, a terms of reference put in place with the PCC and a phased plan set in motion to develop St John's buildings for its future mission, into which the Net Zero goal has been integrated throughout.

To date the community centre is now Net Zero, heated / cooled by an air to air heat pump and largely powered by solar PV. The site EPC has progressed from a G to a D rating, with much of the church's electricity, around 40% average across the year generated onsite by solar PV, and the gas usage for heating of the main church has been slashed by a third.

Background

St John's is a stone-built grade 2*-listed church. It hosts a modestly sized evangelical congregation, with just over 100 on the electoral roll from the local area. Its 1980s-built community centre hosts a range of activities to support the local community and is very busy with church and community activities throughout the week. The church's major outreach activity is St John's Community Support, which provides free meal deliveries to families and individuals locally in holiday periods. *The Next Chapter* is a church development plan, not a buildings project. The desire is for a holistic approach to upgrade the church buildings to support mission, themed around love for each other, God and the community. The themes of improving accessibility, safety & security sat alongside sustainability and is woven throughout the project.

Leadership

The project is led by the Next Chapter team, composed of 8 members and chaired by Dave Curran, which meets monthly and reports to the clergy and PCC.

The Project

The Next Chapter has been conceived in 4 phases of which the church is in the middle of phase 2. As the project progresses each phase increases in size, complexity and the scope of marks of mission.

Sustainability and Net Zero has been woven through the phases, and advanced where funding opportunity arose and were obtained. Key to progressing this was obtaining an independent energy assessment report to guide us and identify the most impactful and cost-effective works to prioritise.

We tried to ensure that on each phase we were undertaking a range and scope of works that would ensure visible progress could be seen by the congregation and centre users and that benefits would be felt by all to ensure our stakeholders are invested in the project.

In phase 1, titled Progressing Sustainability, the following measures were implemented:

- A new (gas) heating system comprising of two ultra efficient condensing boilers with remote programmable thermostat and control system
- Air curtain above the main door and draught-proofing around historic doors
- De-stratification fans to recirculate rising warm air and reduce heat loss
- Secondary glazing installed in two test spaces – vestry and bell ringing chamber
- New internal doors to reduce draughts
- Exterior tower LED lighting on photocell sensors to improve health and safety
- Installation of a fire detection alarm and fire door rectifications
- Installation of emergency lighting and exit signage
- Installation of a public access defibrillator
- Infra-red heating installed in the vestry and bell ringing chamber
- Refurbishment and installation of LED lighting in the vestry and bell ringing chamber

In this first phase, £135k was raised including £54k in grants from a variety of donors.

In phase 2, Enabling Outreach, the following measures have been completed:

- 3-phase power upgrade – to enable larger export of solar energy and installation of equipment with increased efficiency and longer term capacity for future church heating upgrades
- 27kw array of solar PV and 27kw of battery storage
- Air to air heat pump and air conditioning units, combined with electric heaters throughout the community centre - replacing gas boilers
- Electric oven / induction cooker - replacing gas cooker / hob
- LED and PIR sensor lighting upgrades internally and externally
- Replacement internal and external doors – upgrading all glazing to secondary

£233k of funding has so far been secured in this phase, including crucially a £146k VCSE grant. St John Stoke became a phase 2 Demonstrator church, and the funds pledged through this project will enable secondary glazing of the main church, along with other energy efficiency measures already completed above. The Aviva community crowd funding also assisted greatly in these energy upgrades.

Phase 2 will also include the following works which are progressing:

- Secondary glazing installation on all historic church windows
- Church office extension and creation of a St Johns Community Support preparation / storage room
- Additional site access path and gates on road entrances
- Upgrading and enlarging cycle storage, due to low capacity
- Further exterior architectural and site lighting

Wider Context

The church has the bronze Eco Church award and is actively pursuing silver and beyond. As a Demonstrator church, St John's has been active in promoting its approach to Net Zero in the diocese, to other voluntary organisations and more widely through an open morning, presentations at webinars and drop-ins, and recently as host venue of the 2026 Southern Dioceses Net Zero Conference.

Future Plans

The Next Chapter has further phases to complete including Phase 3: Enhancing Worship will reorder and completely refurbish the church building and replace the heating system with a sustainable system and Phase 4: Serving our community will comprise of further works and extensions to the community centre.

Moving to a recognised green tariff for electricity will be an important step on the Net Zero journey, and there is work to do to embed the sustainability work of the Next Chapter into the A Rocha Eco Church framework to progress to silver and gold awards.

Learning

St John's is a good example of a phased approach to decarbonisation across a site with multiple users and needs. *The Next Chapter* team is an excellent exemplar of how a small group can achieve big results through empowerment from the church leadership. A varied, proactive and creative approach to fundraising through a mixture of sources and types has brought in multiple grants, and the congregation have been generous and shared the vision for renewal which *The Next Chapter* offered.

Contact

The diocesan team is available to help with planning and fundraising around Net Zero and Eco Church. Contact alison.moulden@cofeguildford.org.uk with any queries. We can also put you in touch with the team at St John Stoke if you have any questions for them.

Key costs & contractors

3-phase power upgrade	£75k	UKPN
Solar and batteries	£43k	Titan Eco Ltd
Air conditioning	£32k	Thaw Ltd
Secondary glazing (whole church)	£75k	Granada Glazing Ltd
Destratification fans	£7.5k	Airius Europe Ltd
Electric oven / induction hob	£5.5k	Catering Appliance Superstore
LED / PIR lighting upgrades	£3k	Various suppliers & local electricians

Key Grants

VCSE	£146k
Church of England Demonstrator	£38k
Aviva Community fund Crowdfunding	£30k

