

**SELSDON, ST JOHN THE DIVINE (NL; 1936)**  
**DAC SITE VISIT - 13<sup>th</sup> June 2024**

**Present:**

The Ven Greg Prior (Archdeacon)  
Melvin Hughes (DAC Vice Chair)  
The Revd Helen Cook (DAC member, and Rector of Limpsfield)  
Laura Morgante (DAC member - architect advisor)  
Mike Popper (DAC member - Sustainability/M&E advisor)  
Luke Tatam (DAC Secretary)  
Katie Jenner (DAC Assistant Secretary)

The Revd Canon Younis Francis (Rector & Project Team - Selsdon, St John)  
Martyn Brown (Churchwarden & Project Team - Selsdon, St John)  
Debbie Brown (Churchwarden & Project Team - Selsdon, St John)  
Helen Lishmund (PCC Secretary & Project Team - Selsdon, St John)  
Anthony Gurr (Cowley Heating)  
Curwen Gurr (Cowley Heating)

**Purpose:** The meeting was convened to discuss the parish's heating scheme and the developments in light of new heating feasibility study undertaken by the parish with Cowley Heating

**Introduction**

- Prayers were led by the Archdeacon
- The aim of the meeting was to discuss the parish's heating scheme and serve as an opportunity for DAC members to see and ask questions for themselves.
- Those on the site visit also discussed the parish's wider goals, including their pathway to 'carbon neutral', and their revised heating options study

Please note all orientations referred to in this document are liturgical.

**Context**

The current Clyde Combustion boiler and heating provision (a forced draught gas fired boiler in a basement boiler room) at St John's has reached the end of its' effective life, it was converted to gas in 1993. The current heating provision will not serve the parish for much longer. There was a huge leak in one of the under-floor pipes, which suggests the piping to be compromised elsewhere, and the boiler ineffective. The building is often cold, with the elderly members of the congregation often struggling in colder weather.

The parish undertook an initial options appraisal, and showed methodology in regards to pros and cons of a variety of alternatives. Their preferred option, which was presented to the February 2024 DAC meeting was a Gas boiler with LPHW heat emitters. Despite being more efficient than the current heating provision, the DAC did not conclude to recommend the scheme at that stage, largely owing to the preferred option of a gas boiler, which are now under more scrutiny given the changes to legislation in working towards Net Zero

Carbon goals. The parish were asked to further consider and appraise different options; both heat pumps and also far-infrared/radiant heating. Options appraisal had been undertaken at the end of 2023 to consider all technologies which the parish found useful, and submitted in January. Parish became frustrated as they felt they had done what had been asked, but the DAC response was not a straightforward recommendation for a replacement gas boiler.

New approach by parish was to take a look at heat pumps, and radiant/far-infrared (the latter wasn't favoured or progressed by the parish). St John's worked with Cowley heating to work on this proposal.

Jonathan Walter, the Diocesan Net Zero Carbon Programme Manager had been on an earlier informal visit to the parish, and it was reported by both parties that the visit was fruitful. Jonathan helped the parish to understand where the DAC were coming from in terms of the diocesan and national programme goals for working towards Net Zero.

Despite the frustration and disappointment in the parish with the hiatus of their initial scheme, the parish have been proactive and engaged in further appraisal, in particular, of air source heating pumps as part of their proposal. The purpose of the meeting was to discuss with DAC members including the Sustainability/M&E Advisor, as well as the parish's preferred heating firm Cowley Heating, the evolution of the parish's approach to help them move the scheme to a position where it can be recommended, with the parish confident in their choice.

### **Parish presentation**

The parish's current heating system pathway document that would allow for a gradual net zero transition. This would involve a commitment to a hybrid heating solution (gas / ASHP) for the church within the next 5 years.

Cowley Heating came up with a Hybrid System approach, with three proposals. The parish wanted to make clear that Cowleys were not the only firm the parish have contacted, but that Cowley emerged as the best option to work with regarding hybrid heating. The first option (Option 1) was a more efficient gas boiler, which the parish were drawn to because of its' reliability to be able to heat the space. The other two proposals (Options 2 and 3) (KJ - what is the difference between these?) were based around 40kW heat pumps, backed up by a gas boiler most likely located in the boiler room. The heat pumps and boiler will feed three heat stores which will store 3000litres (1000 litres each). The heat stores will provide capacity to pre-heat the church and allow smaller heat pumps to be selected, with less demand on the electrical supply.. The stores which will hold the water at up to 65C and then distribute the hot water to the heat emitters. One of the challenges churches face will be the usage, which is why Cowley came up with this scheme based on trials with St Laurence, Catford who have two heat pumps and a back up boiler, and under floor heating so lower temperatures aren't an issue. St Laurence's church usage is high; but it was noted that for Selsdon, the usage during the week would not be as high. Selsdon, St John currently has a church usage of 4-6 hours per week so it wouldn't be appropriate to put in under floor heating, and most notably heat pumps, unless there was a thermal store so that the water is held until it is required.

The mix of fan convectors and radiators was put forward as the preferred options to heat St John's, which is a large space. Cowley considered the areas around organs and musical instruments and the building fabric. The importance of maintaining a temperate environment was highlighted. 8-12C is good for the building fabric, however, given the church is unlisted and not a medieval church that requires conservation-level climate management, the heating scheme proposed is aiming for 18-21C in the main seating and

community areas of the building; whilst keeping a careful eye on avoiding direct heating around the organ, or any major fluctuations. Fan convectors on full blast before a service, then lowering down the fans to a gentle blowing of heat during the service, would stop any conflict with music and atmosphere during services. The grille of the fan convector is designed to provide a stream/air curtain of heat at low level with a given throw so that it projects across the floor of the nave when positioned carefully. Cowley are confident of ensuring appropriate management and installation of this type of emitter.

Energy usage was presented over the last two years, including lighting (October-May). Over the past two years the energy consumption has been predominantly gas (86-14% split gas to electric). The site as a whole is 71-29%, as the church hall is powered by electric via air source heat pump. The projections with the more efficient gas boiler (160Kw versus the current 300kW boiler) lowers this split to 72-28%. The projected split with the hybrid energy would be 20-80% (20% gas; 80% electric). Carbon emission was presented and charted over the past few years to chart the parish's current carbon emissions versus the projected emissions under a hybrid system (please refer to the parish's projection % split slides). NB/ There is a significant drop in the third year as the parish would transition from the gas boiler from the second year. The parish acknowledge these numbers were quite broad, and especially in terms of projected outputs, but the parish were keen to show that the goal of the parish was to visualise a pathway of reducing their emissions.

Gas boilers have been included in both the hybrid heating schemes to supplement the heat pumps. Heat pump technology is moving apace, but the parish wanted to include a gas boiler for when temperatures fall below 5C, and also as an 'insurance policy' should the heat pumps not be as efficient as desired, or as a back up that could heat the church within 30 minutes should the system glitch or through human error (i.e. heat pumps may have not been programmed to turn on in time).

The system itself would be a heat pump system, with all pipes and technology installed to support this for the long-term. Should further modifications be required in the future, whether it is the removal of the gas boiler, or even the addition of more efficient heat pumps, the system itself would be flexible enough to adapt to newer technologies. If the heat pump is used to provide background heating and the buffers are kept topped up, there is no reason to use the gas boiler (unless it is very cold outside). It was questioned how often the temperatures get so low that this would ever be required, and whether the parish could do without a gas boiler altogether. However, the parish are keen that the money that their congregation has donated and raised should be honoured and spent on a system that thoroughly and reliably heats the building and does not disappoint. They expressed a level of nervousness at using such new technology, which for many would be a step in to the unknown, and including a gas boiler in the scheme would allow them the flexibility to transition.

## **Discussion**

Cost comparisons were discussed between the current cost of heating versus the projections of the three proposed schemes. A typical Sunday morning currently would cost £120. Proposal 1, the cost reduces. The hybrid options are an even steeper drop (please see slides). Capital costs were also looked at. A new gas boiler system (Option 1) would be around £100,000. Option 2 (Hybrid Option A) would cost around £180,000, with Option 3 (Hybrid Option B) £220,000 (this would include more sophisticated controls reflected in the higher cost). The advanced controls would include a Trend building management system (BMS) with a panel akin to a wardrobe. This would provide features that could enhance the usage of the hybrid option and could deliver feedback and monitoring of heating usage and

trends. Trend is one of the biggest names in the industry. The advantage of having a BMS for a heating system with pumps means that it can respond and be managed according to outside versus inside temperature. There are various different Trend System levels of complexity, with some that are incredibly advanced with lots of different inputs and outputs, and some which are basic. The cost of £25,000 would be for something pretty sophisticated (it was noted that something more basic could be installed for less, but this depends on what the parish want). There is usually a user interface with touch screen that makes this type of system easy to use and mobile access so the system can be controlled remotely. It was noted by a self-declared technophobe that this system was easy to use, give or take a few days of getting used to the system. This type of system would allow the parish to report and log settings, which would be useful. Were the parish as early adopters of this type of technology to choose this option, it was noted they would make a very interesting case study, were they able to run reports. Hybrid Option 1 would still provide a Hive/Nest option/smart thermostat which are low cost. These are easy to use, but more limited in terms of providing inputs and outputs and deriving data. The parish were confident that a small number of dedicated individuals would be assigned to manage this type of system, but were confident that the system would be user-friendly enough so that it could be understood easily.

The parish asked the DAC if there was a VAT deduction for choosing the hybrid schemes. A new notice was sent to contractors regarding deductions, which the DAC confirmed they would be willing to check, as well as put the parish in touch with Katherine Prior, the Church Buildings Fundraising Support Officer.

#### **Heat pumps only?**

The parish were asked if they had considered a fourth option, which would be 'heat pumps only'. The parish responded they have not directly looked at that, but Cowley noted that it would be easy to remove the boiler on both the hybrid options. The boiler is included in both schemes for extreme situations/back up to improve efficiency on the heat pumps, but ultimately, both systems are heat pump systems. The system would work with heat pumps at low temperatures; it just wouldn't be as efficient. The parish noted that the gas boiler cost was relatively low in comparison to heat pump cost. However, the interfacing between a boiler and the heat pump system would be a higher cost to install. The parish reiterated they had a belts and braces approach with heat pumps, which is why a boiler is being included in both schemes. St Laurence's, Catford was referred to. In colder weather last year, the parish used the gas boiler to boost the heating output; the parish had older radiators which were not well adapted to the lower heat pump temperatures which they couldn't afford to replace. Given the design of the heating system/emitters in Selsdon is to be designed to operate between 40-60C, it was noted that a new gas boiler system would be very efficient at these temperatures.

#### **Could a boiler be added later to a heat pump/be adaptable?**

It was asked whether a boiler could be added retrospectively to heat pump-only system should the heat pump system not be as efficient as anticipated. Cowley commented there was no reason why one couldn't. The boiler selected is 20% hydrogen ready, but should hydrogen ever become feasible, you would have a boiler that was hydrogen adapted. It was argued that both Hybrid options cover all scenarios that would avoid emergency situations. The parish commented they would rather spend £9k on one gas boiler to be sure. It was reiterated that a nice, warm church was the result expected by the congregation. There are many in the congregation in their eighties and nineties, and they do get cold very easily.

#### **Ambient temperature for St John's?**

One advisor asked to clarify what was meant by a 'nice warm church'. Cowley commented that the heating scheme was designed to be around 21C. At present, the church can barely

reach 13-14C. The advisor - also the organ advisor - commented it wasn't a good idea to try and achieve lounge temperatures in churches, but anywhere between 18-21C would be ideal. The parish want the church to feel warmer than the outside. The church needs to feel warmer than the outside, but not too warm so that congregations take their coats off (as the parish do not have room for a cloakroom!).

### **The benefit of hybrid options in the pathway to net zero**

It was asked should the parish pursue options 2 or 3 (i.e. the Hybrid options), whether these systems could be added to and removed from? For example, should the parish feel able to, could the boiler be removed? Or should heat pump technology advance enough, could a more efficient heat pump be added on to the system? Cowley heating said they did not see any reason why not and that the system was flexible and adaptable. However, it was noted that the parish should ideally get through three or four winters and accumulate enough data and experience of the existing system to be able to make that decision. It was agreed that heat pump technology has come a long way even in the past three or four years, and there is anticipation that it is ever-improving. Refrigerant capabilities are also being developed. Costs of heat pumps and heat pump systems are comparatively high, but it is anticipated as this technology becomes more widespread, that over time the costs will lower. It was commented that if this scheme is being framed as a 'pathway' to net zero (a criteria by which all new church heating schemes are being assessed), framing the hybrid systems as flexible and adaptable will help the application. The parish should have confidence in being able to frame either of these hybrid systems (whichever is preferred) as adaptable to new technologies. It is not unreasonable to anticipate a trajectory in the efficiency and technology in heat pumps, refrigerants, and a system that is ready and flexible for new technology would be encouraged in how the parish presents their chosen scheme to the DAC.

### **Why there has been pushback from the DAC regarding the parish's original gas boiler option**

The advantage of the gas boiler is that it is cheaper and the parish know it will work. The hybrid system has unknown elements. The parish are aware that this is a huge amount of money being spent, and they want this system to work. Should the parish take the Hybrid route and it were not to work, it would be disappointing.

The DAC Secretary acknowledged the push-back given from the DAC in regards to the original gas boiler system proposed by the parish, in contrast to other parishes' gas boiler schemes. The DAC Secretariat wanted to acknowledge the hard work the parish have put into the project, the robust feedback given, and the impact this has had on the team in the parish who have clearly worked hard. The DAC have appreciated the seriousness in which the parish have taken DAC comments, and the disappointment they have experienced.

### **Benefits of a heat pump system with a boiler 'back up'**

There is a big difference between a faculty scheme where a new gas boiler could be swapped in or out, and a scheme for an entirely new system, including heat source, pipework and emitters. A lot of churches who have recently had gas boilers permitted have largely swapped in a new gas boiler; all other heating infrastructure such as pipes and radiators and associated costs have remained unchanged. These are lower threshold schemes that could be around £15k budget, where everything else remains the same. The opportunity that St Johns have is that they can look to a very high reduction, possibly all the way to a 100% goal of net zero carbon, because everything (heating source, emitters, piping, controls, infrastructure) would be changed. Pursuing the hybrid solutions with a gas boiler 'back-up' would be less of a concern for the DAC and a lower threshold concern. What the parish would be presenting would be a heat pump emission and distribution system, which would make up most of the capital cost, expense and time. One of the other concerns regarding

the pathway is that if the preferred design put forward by the parish were the new gas heating system - however more efficient and optimised in comparison with the existing - the parish would be locking in the lifespan not only of the boiler, but also the pipework and radiators. The pipework and radiators chosen now could potentially last another ninety years. The parish should be encouraged look to the long-term, and consider that a gas-boiler only system will only be able to take you to a finite point, but the parish were warned they may well be saving problems up further down the line for themselves and their successors, and would run the risk of having to rip these relatively new pipes and emitters out in order to adapt to what will likely be mandatory heating options. This would be counter-intuitive in terms of money and time spent. One of the problems with the net zero carbon target 2030 is that once we have reached this goal, there will be a new goal which will likely be more oriented toward embodied carbon. Whatever system St John's chooses, the piece of equipment that would be installed, include its transport, manufacture, materials etc is locked in to that piece of equipment as embodied carbon and we cannot accurately and definitively measure embodied carbon, so current practice is to focus on what we can measure, which are the running costs and carbon emitting by the church. However, at some point, there will be a move to grapple with embodied carbon and what we do not want is to take out unnecessarily soon equipment and material that was put in 'on the journey' but then don't meet the needs of the next stage of the parish's pathway. The parish should be encouraged to think about their options in this context.

Were the parish to install a gas boiler, how difficult would it be to translate this to a heat pump system? It was explained that the emitters (radiators) and fan connectors are designed for the heat pump. If the parish were to stick with a gas boiler with the relevant piping and emitters, they would operate at a higher temperature and would therefore be smaller. The parish would therefore have to change a lot to accommodate a heat pump were it to be added later. It was emphasised by Cowleys that heating system itself should be compatible with heat pumps, even if a gas boiler were installed. It would be prudent to ensure the heating system is compatible with a heat pump at this stage.

Regarding the boiler as 'backup', there are two situations where emergency heating may be necessary. Firstly, human error, for example, if someone forgot to select the programming. Secondly, if there has been water ingress and if there were a wet wall and you needed to bring up the temperature. A gas boiler tacked on to heat pump system would be a huge and significant step forward for this scheme, which the DAC would be much more receptive to, rather than vice-versa. There is also the obvious option of also simply turning a boiler off should the heat pumps be more efficient and capable that current cautious expectations. This would still stop the consumption. Milder winters may also make the gas boiler itself eventually redundant.

Cowleys referred to Catford, St Laurence, who have experimented with the changeover between their heat pumps to gas boiler upon colder weather. The changeover was originally set at 4C outside, but on the trend, this can be lowered down. This can be lowered exponentially. The boiler will be running at 40-60C and be adjusted according to the temperature.

### **Funding and costs**

From the parish's point of view, is it worth £100,000 to save a couple of tonnes of carbon? Is £200,000 viable for a one day a week church? Jonathan Walter's visit was referred to joined the Diocese recently, and we now have a fundraising advisor in the diocese who has also started who would be more than happy to help and be involved in this and who the parish can refer to for advice. It was noted that a figure of £130,000 was cited as the current amount raised for the heating fund, which would cover the gas boiler. However, external grant funding is very favourable towards air heat pumps and other net zero solutions, which

fundings want to fund. A lot of funds will help bridge the gap for community/charity/not-for-profit projects where carbon net zero goals are being put forward. St Laurence, Catford is a great example; they raised £25k from their congregation which resulted in a £200,000 grant for a heat pump system, including £100k in Local Authority funding. Selsdon is in Croydon Local Authority area, which on the surface, given Croydon's financial woes may seem unpromising, but there are central government funds for this type of 'net zero' initiative that is ringfenced which they cannot touch and is intended for low energy solutions. It was noted that funding applications can only be undertaken upon a Faculty being granted. The parish will be connected with Katherine Prior, Southwark's Fundraising Advisor, to discuss these options and their implications. This will be able to reassure the parish about previous successful grants, and realistic expectations in what they could expect and an indicative plan. Were the parish to opt for the gas boiler heating system, the parish will not find many funders interested in funding that type of scheme. Low carbon and addressing the climate crisis is a priority for many grant givers; maintaining the status quo by installing a gas system - despite its efficiency- will be less appealing. Were two parishes, one with a gas system and one with a more eco friendly heat pump system were to apply simultaneously, the likelihood is the latter would be more successful in securing funding. The parish are encouraged to consider

#### **Missional opportunity of a warmer church**

There may be a missional opportunity for the parish to be more than a 'Sunday church', especially given the moveable chairs and the flexible space in the West end of the church. This area could provide space for a nursery or a 'second hall' type space that could be rented out and provide added financial resilience as well as missional aspirations.

#### **Internal low-impact solutions**

Secondary glazing and carpets were raised. The parish have looked at this, but not in detail. The cost of secondary double glazing, particularly on the top windows would make this not worth pursuing. There could be a case further down the line for secondary glazing on the lower windows, but the parish are not focussed on that at present, and it would be a separate initiative. It was added that the parish could look at low-cost, low-impact solutions that aren't as 'big spend' as secondary glazing. Some things such as having curtains to block off drafts at certain points in the church and having air curtains upon entrance points, and even cushions on chairs (which make people feel psychologically warmer). The easiest type of insulation is to add imitation timber panels that can be added to the soffits of the roof and colour matched to be less intrusive and provide added insulation. The parish would have to check in regards to acoustics. Temporary cloth banners can be added around the building to add softness, some insulation, and make the visitor feel warmer. Low impact solutions can go a long way without being a huge project. The parish took these points on board, but are still rightly focussed on implementing their current scheme.

#### **The parish to explain why they have not opted for far infra-red heating**

The DAC heating advisor asked the parish why they hadn't pursued infra-red long-wave heating. The parish looked into this at an earlier and decided against it. There would be an issue with the electrical supply, with the heating only being on for an hour. The electrical supply would require considerable work. The parish heating committee also had spoken to members of the congregation and believe this style of heating wouldn't be popular. Someone did say they would leave the church were this to be installed. There is a possibility of miscommunication in terms of what 'infra-red' heating means to people. There is the pub style heating that are the red panels/patio heaters most commonly seen in beer gardens and terraces, which are mostly known as 'near infra-red heating'. The far infra-red heaters are something the DAC felt compelled to raise. The most recent Church Buildings Council (national church) guidance does suggest far-infrared heating for churches that are infrequently used then there is a change in method: the people rather than the space should

be heated. This is what infra-red long wave heating is particularly good for. Flat panels or chandelier heating both have their benefits, and there are case studies to peruse. The parish are strongly encouraged to be precise in why they have decided against this mode of heating in their fresh documentation, to show they are in compliance with the guidance. It would be good for the parish to briefly and clearly show why they have decided against this. User comfort is an important consideration. The easiest way for all parishes to reach carbon net zero would be to install under-pew heating, but this is obviously not possible, given many churches have no pews, and use separate spaces, so far-infrared options are a suitable alternative for many.

Were the only option on the table still the gas boiler, that would be something that required interrogating more. The decision-maker (the Chancellor of the Diocese) is a judge and is forensic, with a probing, analytical approach. The radiant heating is being looked at and has moved beyond the old-fashioned glowing patio heaters, so explaining the reasoning and presentation in why the parish have not chosen this avenue will need to be clear. The capital cost of the equipment then can offset the fact that if there is an electrical supply upgrade, the parish would be spending so much less on the equipment the overall project budget may not be so difficult. There is a recent (April 2023) change in the [electrical supply rules](#) which means network companies cannot pass on costs within the network associated with a customer's upgrade. They used to be able to charge, for example, a proportion of the costs of upgrading a local substation, which would add considerable cost; but now they can only charge for costs incurred for the electrical connection. This means that the cost for connection could be significantly lower than prior to 2023 (up to tens of thousands of pounds). The parish should be encouraged to find a new quote, as this cost may well have changed. The parish commented that the network provider previously would not provide a quote until they had a full plan of what the system would be from the parish, which the parish would have had to have paid for and produced. This went well beyond their preliminary scoping of such an option.

### **DAC process and forms; the impact on the parish**

The parish asked the DAC whether a pro forma could be produced by the DAC. There are already three pro formas, which the parish filled in. Every parish scheme is different, with different variables. The DAC Secretariat would consider providing guidance to accompany the pro forma and helping the parish to interpret the questions. Each parish is unique, and full of volunteers who work hard to deliver documentation to what can be very complex, professional work. As frustrating as this process is, once this project comes to fruition, this interrogative process and back-and-forth will pay dividends. It should help settle and ratify exactly what the right course of action for the parish should be. This heating system is a huge undertaking and should be considered for the long-term. The parish raised the issue that the congregation would be facing another winter in the cold. The Archdeacon cited a massive £1.8million project in his previous church, which included heating work, and he commiserated with the parish about facing a winter with blankets around people's feet. A project like this is not just for the immediate 'now', but should be generational, and it is important to view it in this context. We sitting here may all be gone, but do we want the next generation cursing us for putting in something that only met shorter-term needs? The parish should be encouraged in working through what is a technical and slow process, with the view that they will be making well-reasoned decisions and scheme which has longevity.

### **Why DAC advice has changed**

The frustration for the parish came when they initially started the process and received initial guidance. The parish would have appreciated more direct feedback from the DAC initially to let the parish know what the 'best' options would be. Considering different avenues cost the parish time and money. Why could the DAC not be clearer about their preferred option from the start? In response, it was commented that this was a fair point



and we could understand their frustrations. The timing for St John's has been incredibly unlucky. Since February 2020 - when General Synod adopted the 2030 Net Zero targets - there has been much work in how to implement what Synod set forth. This was a target, but an aspirational one, with no plan on resource. Since February 2020, the national church, dioceses, multiple case study churches, and professionals have worked on how to implement this. A plan was developed and the Faculty Rules changed in summer 2022, right in the middle of the parish's planning stage. This would have been after the ideation and quotes, with no push back against the criteria that is being measured against. The Church of England is ahead of the government and national heating strategy, but could not carpet-ban gas boilers as they wanted to ensure cases could be handled on a case-by-case basis by Dioceses (there would always be the reality that some parishes would need to look to gas in the transition). It was unfortunate that Selsdon, St John's heating scheme came to the fore when they did. The CofE have been early adopters of carbon neutral goals; ahead of the government and of the national heating strategy for all types of buildings. St John's scheme has come to the fore at just the wrong time; in the middle of a period of flux in both government and CofE changes. Were this be a few years later, there would be more stability and more case studies to draw upon. Over the last year, the CofE have poured money into case studies, some of which are ongoing and will bear fruit in a year or two. It would have been easier had this scheme emerged in a couple of years where these findings were more widespread and we had established confidence in them. The DACs were given the responsibility of implementing these changes (with guidance clear about gas boilers not being banned but strongly discouraged), but with no clear details on how strongly to discourage them.

Gas boilers are not banned. Were the parish able to show their full pathway to net zero using gas, a gas boiler would be easier to justify. 'Net zero carbon' is defined as a 90% reduction, with a 10-20% margin that could be off-set. This is how Net Zero Carbon 2030 is framed. The aim is to get to 100%. If you have a plan that gets you to 50% and then plateaus for the next twenty years, the justification is hard to support. The gas boiler as part of a hybrid solution or heat pump-ready system is much easier to justify, as opposed to a gas boiler system, which in its ordinary lifespan might last (say) forty years, taking it well past the 2030 goal post. It is important to note that the Chancellor - where schemes are recommended to - makes decisions based on precedents. The DAC have not seen a scheme since the rules have changed of an entirely new heating system that primarily uses gas boilers. Thermal stores may not be needed initially, but it would be good to have plans that include space for them (Cowley propose 150ml insulation which would hold heat in vessels for significant periods). A case study on thermal stores for Southwark diocese would be helpful. The Chancellor will be dealing with a new set of legislation, and St John's would be the test case. This would be a significant challenge.

### **To conclude**

As long as the parish can demonstrate that they are on a pathway to Net Zero, a more favourable response would be anticipated. The parish should demonstrate they are planning for the next few decades, not only for the scope of the heating vision, but also the use of the building for the future. How will the heating provide greater missional scope and use of the building well in years to come? The parish were encouraged to give thought to this and embed both these elements in to their proposal, especially given the church is currently more 'low use'. The type of heating could open up the church and its outlook for further outreach and opportunity.

The parish confirmed that the drawings and supplementary work was ready to be sent, and it was agreed that this would help in sending 'finished' material to the DAC to help speed

things along. The parish have a PCC meeting on 3<sup>rd</sup> July where these proposals would be put forward and consensus made.

It was reiterated to the parish that they should make use of advice from the Diocese. The new Net Zero Carbon Programme Manager and the Church Buildings Fundraising Support Officer are both new to post this year, and were not there in 2021 when the parish were in the earlier stages of their proposal.

**Next Steps:**

- The DAC to write up the site visit and send to the parish
- The parish to send their most recent slides (presented at the visit) to the DAC
- The parish should be encouraged to consider the missional use of the building, in conjunction with their heating plans
- The parish to feed back from the 3<sup>rd</sup> July PCC meeting with consensus
- The parish to submit appropriate and amended paperwork (e.g. Statement of Need, quote, background and reasoning) for their new choice of heating option
- The parish to include in their reasoning why radiant heating was decided against (as explained above)
- The DAC to put the parish in touch with Katherine Prior (Church Buildings Fundraising Support Officer) in regards to potential funding information

**Katie Jenner**  
**Assistant Secretary to the DAC**  
**21<sup>st</sup> June 2024**