

Supporting Documentation

Guilden Sutton St John – Heating

Note to parish

This bundle includes all the supporting documentation to your faculty application as required under Rule 5.5 of the Faculty Jurisdiction (Amendment) Rules 2019.

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Caroline Hilton, DAC Secretary



10 May 2021

We petition the Court for a faculty to authorise the following-

Please describe the works or other proposals for which a faculty is sought in the way recommended by the Diocesan Advisory Committee in its Notification of Advice.

SCHEDULE OF WORKS OR PROPOSALS

The proposal is for the heating system to be drained and the existing Ideal Mexico boiler disconnected and removed from site. A new Worcester-Bosch 30kw Greenstar Life 8000 A rated condensing boiler will be fitted on an external wall in the boiler house stairwell with a new flue system to outside covered by a protective wire guard. The Heating and gas pipework will be amended and reconnected to the new boiler with a condensate discharge pipe running behind cupboards in the vestry to the nearest drain (see plan) using a condensate lift pump. The existing heating controls with frost protection will be retained and connected to the new boiler. A new Grundfoss circulation pump will be supplied and fitted as part of the new boiler installation.

To comply with current building regulations, the existing heating system will be treated with a chemical flushing agent prior to the boiler replacement. A Worcester Bosch 'Magnetic System Filter' will be fitted to the water circulation pipework to prevent future build-up of iron oxide sludge.

A corrosion inhibitor will added to the system when it is re-filled.

Copies of the Standard Information Form and any drawings, plans, specifications, photographs or other documents showing the proposals must be provided with this petition.

St John the Baptist Church , Guilden Sutton Statement of Significance

Section 1: Brief history and description of the church building(s), contents, churchyard and setting

The church lies in the older, eastern part of Guilden Sutton on the west side of Church Lane, elevated from the road. It is a Grade II Listed building.

There has probably been a church on the site since the early 1100s. The earliest register of births, marriages and deaths dates back to 1595.

The previous chancel was severely damaged by a great storm on 21st January 1802 making it necessary to rebuild the whole church. This is believed to have been completed by 1815.

The church is built in English garden wall bond orange brick with Welsh slate roofs. It is a simple structure, modest in size, giving a warm intimate feel to the worship space and flooded with natural light.

An octagonal louvred timber bellcote was added at the West end during the Victorian era. This was restored in 2005 after it had been damaged by death watch beetle. The bellcote is mounted with a weather vane.

A stained glass window in the West wall above the vestry door depicts the Baptism of Jesus and incorporates the River Gowy, which runs to the east of the church. It was designed by Abbot and Co. Ltd. Lancaster and installed in April 1981.

The church interior was attractively re-ordered in 2001, with the removal of the chancel screen and the choir stalls, some levelling of the floor, provision of a toilet and improvements to the entrance.

In 2010 the west end of the nave was attractively reordered with the installation of new, glazed internal doors and a new corner cupboard and shelving unit and relocation of the font on a reduced-size plinth to improve access to the vestry and toilet.

The church has its own churchyard which was extended to the west in 1960.

Section 2: The significance of the church (including its contents and churchyard) in terms of:

i) Its special architectural and historical interest

ii) Any significant features of artistic or archaeological interest

Two notable features include a panel, believed to be a box-pew end, with a carved inscription "Henricus Bunberie Hanc Sedem Texit 1527" and a wooden frame above the Vestry door with a painted inscription "Ralph Cotgrave and Thomas Whitehead Churchwardens 1698".

On the vestry door there is an attractive panel with a carving of the Ascension of Christ. To close the door, which has no handle, from the nave one takes hold of the hand of Christ. The provenance of this panel is unknown.

There is a memorial plaque to the Whitehead family on the South wall in the church, which refers to Robt. Whitehead who died in 1693 and whose body was interred near the area.

The Church organ is believed to possibly date from the early 19th century and may once been located in the Catholic Apostolic Church in Church Street, Chester.

A sandstone circular, basin-shaped font with a Tudor rose relief, mounted on a plinth, is dated 1635.

Outside in the churchyard is a buff sandstone sundial. It consists of a baluster column (late C18) on a square base with a cap in different stone. The copper plate and gnomon are inscribed with the date 1596. It is listed Grade II.

The churchyard contains 3 war graves and has two Yew trees subject to preservation orders, one of which is estimated to be over 400 years old.

Ref: 2021-059586 **Church:** Guilden Sutton : St John the Baptist
Diocese: Chester **Archdeaconry:** Chester
Created By: Dr PETER REID (09/03/2021) **Contact Tel.:** 07738 158747
Status: Notification of advice

Statement of Needs

General information

St John the Baptist Church is the parish church of Guilden Sutton, a sem-rural village to the east of Chester with a population of approximately 1500. The parish is in a benefice with St Peter's Plemstall with whom it shares a Rector. There are currently 83 people on the electoral roll. Prior to the Covid 19 pandemic the church building was used for weekly Sunday services (average attendance approximately 35 including a small number of under 16s), weekly mid-week Morning Prayer and weekly choir practices, as well as special services including the annual service of remembrance for the village, services for year groups from the local Church of England primary school and local toddler group, and occasional funerals and weddings. The church was routinely left open during the day for use by visitors, especially those attending graves in the churchyard. We hope to return to full use of the building once restrictions due to the pandemic are lifted.

Financial provision for the proposed works has already been made in the church's reserves.

The last Quinquennial was performed in 2016 by Tony Barton. Pertinent to the current application the major findings related to the propensity of the church to internal condensation and damp emphasising the importance of adequate heating of the building.

What is needed?

The church requires a replacement heat source for its gas boiler which has reached the end of its life. The church needs heating to comfort levels for users of the building during services, etc but also, due to its construction and propensity to internal condensation and damp, continuous background heating during colder months to maintain an internal temperature of at least 12 degrees C, as advised by our architect (please see option appraisal document for fuller explanation)

The proposal

The proposal is for the heating system to be drained and the existing Ideal Mexico boiler disconnected and removed from site. A new Worcester-Bosch 30kw Greenstar Life 8000 A rated condensing boiler will be fitted on an external wall in the boiler house stairwell with a new flue system to outside covered by a protective wire guard. The Heating and gas pipework will be amended and reconnected to the new boiler with a condensate discharge pipe running behind cupboards in the vestry to the nearest drain using a condensate lift pump. The existing heating controls with frost protection will be retained and connected to the new boiler. A new Grundfoss circulation pump will be supplied and fitted as part of the new boiler installation.

To comply with current building regulations, the existing heating system will be treated with a chemical flushing agent prior to the boiler replacement. A Worcester Bosch 'Magnetic System Filter' will be fitted to the water circulation pipework to prevent future build-up of iron oxide sludge.

A corrosion inhibitor will added to the system when it is re-filled (please see separate document for plans and images).

Why?

Our current gas boiler is over 30 years old. Our heating engineer has advised us that he can no longer obtain essential spares for it. He also estimates that due to its age its efficiency is likely to be about 50 - 55%. A warning notice was also posted at the recent service due to degradation of the lining of the flue. We wish to replace the old boiler electively, rather than in an emergency due to failure. This will also allow installation of a much more efficient boiler with lower carbon footprint.

Please see separate document with appraisal of alternative options for heating of the church.

Justification

We wish to continue to heat the building as advised by our architect to minimise internal condensation and damp, thus preserving the integrity of the building for future generations.

Installation of the new boiler in the preferred position will cause a minor cosmetic change on the wall of the boiler house stairwell with insertion of a flue and cover, replacing the existing air brick which will be relocated to a less visible position.

St John the Baptist Church, Guilden Sutton

Gas Boiler Replacement – Need, Option Appraisal and Proposal

The Need for a New Boiler

The boiler at St John's is used to heat the church building by circulating water at 70 degrees C around a system of 4" cast iron pipes which act as radiators. The existing boiler was installed some 30+ years ago. Recently we were informed by our heating engineer (Home Heat Solutions) that consumable spares are no longer available. Although the boiler passed its service a warning notice was also served due to deterioration of the flue lining. Given this and the low efficiency (recently estimated as 50 -55% by our heating engineer) of the existing boiler, an Ideal Mexico Super CF100, we now wish to replace it with a more modern, efficient boiler.

Context

In February 2020, recognising the importance of the climate emergency, the General Synod of the Church of England passed a resolution requiring all parts of the church to *'work to achieve year-on-year reductions in emissions and urgently examine what would be required to reach net zero emissions by 2030 in order that a plan of action can be drawn up to achieve that target'*.

As this is rolled out churches will be required to consider their carbon foot print and decide what can be done to reduce it. Whilst it is acknowledged that smaller churches such as ours have a very low carbon footprint nevertheless we will have to consider practical steps to reduce this.

St John's Heating Requirement

In common with similar church buildings, constructed in the early 19th century, St John's is prone to internal condensation. This led to a significant problem with damp affecting the church walls causing major damage to the internal plaster finish, as noted in our last Quinquennial report in 2016. Over the last few years, on the advice of our architect, Tony Barton, the heating in St John's has been programmed to maintain an internal temperature of at least 12 degrees C to create a temperature gradient through the walls in order to reduce internal humidity. As a result of this action condensation is much less in St John's and progressive damage due to damp has ceased such that repair of the plasterwork is planned for the near future. A replacement heat source must be suitable to provide continuous background heating during the cold winter months in a cost-effective manner as well as provide additional heat to achieve internal temperatures to ensure comfort of those using the building.

We are not planning to replace all of the heating system elements, such as the 4" heating pipes, at this time because that would necessitate the costly and time-consuming reordering of the church.

Additional Considerations

At the last Quinquennial Inspection in 2016 the urgent need was identified for the complete re-pointing of the church with lime-based mortar to prevent progressive damage to the brickwork and to allow the building to breath. The church is about to embark on this project, at a cost of ~£25,000. The impact on the church budget of this expenditure, the cost of the replastering of the church and the anticipated cost of major works on corroding window frames, is such that the capital and running costs of the replacement heating unit must represent efficient use of the church's resources.

Option Appraisal

To assist in developing our option appraisal, as advised by Chester Diocese we have consulted 'Guidance Note - Choosing the right heating system' and 'Review of heating guidance - Establishing principles' by the Church Buildings Council. We have also provided responses to 'Assessment of Heating in Church Buildings' provided by the DAC Heating advisor and will provide the Diocese with our church energy footprint data.

The church has considered the options discussed below. Pros and cons are summarised in the table.

1. Replacement Gas Boiler

This would require little modification to the existing heating system. A new modern gas boiler would have an efficiency of ~90% compared with ~50-55% estimated for the existing boiler. This would therefore lead to an immediate reduction in the carbon footprint of the building. It would also be capable of burning a gas mix containing up to 20% hydrogen, should the national strategy mandate that. It would be able both to provide the required background heat to help preserve the structure of the building and to provide heat quickly enough to raise the temperature to levels allowing comfortable use of the building. The capital outlay and running costs of a new gas boiler make this a very cost-effective option.

2. Ground or Air Source Heat Pumps

The church is surrounded on 3 sides (south, east and west) by graves and on the north, shaded, side sits only a few feet from the boundary with our neighbours. The church is grade II listed and any installation would need to have negligible cosmetic effect. These factors would make the finding of suitable locations for heat pump units very difficult. The low-level heat generated by heat pumps and the need for under-floor heating or other suitable modality would necessitate extensive and costly re-ordering of the church building which is small and cramped. The capital outlay for heat pump technology and the higher running costs do not represent an efficient use of the church's resources.

3. Hydroboiler ('cold plasma')

Representatives of St John's participated in a Zoom discussion with the UK supplier (ICG) of these boilers and have examined technical information provided. The technology has the attraction of producing no CO2 emissions (other than those produced in the supply of electricity) and could supply water hot enough to use the existing radiators in the church. The boiler is compact and could be installed in the church building with no unwanted cosmetic effect. However the technology is quite new, poorly understood and long-term data is not available on the reliability of the latest model of boiler. At the time of our evaluation it had not been accredited by BSRIA for use in the UK. There would therefore be unquantifiable risk in the church becoming an early adopter of this technology. It is likely that the next few years will see other suppliers provide similar technology so this may become a better option over time. The capital cost and the running costs (since the unit is powered by electricity) make this option less attractive.

4. Electric Boiler

An electric boiler would have the advantages of being connectable to the existing pipework and would not require an external flue or drainage. It would not need an annual service and would not generate CO2, other than that used in the production of the supplied electricity. The main disadvantage is that

the running cost could be 3 – 4 times that of a replacement gas boiler and this would not represent good use of the church's resources.

5. Biomass Boiler

Although a biomass boiler would be carbon neutral and would have running costs similar to gas, the practicalities of such a system would make it entirely unsuitable for St John's (see table).

6. Solar Panels

Although solar panels could lower the carbon footprint of St John's, the only possible location would be on the south facing side of St John's roof. This would be cosmetically unacceptable on this Grade II listed building. Even if solar panels could be installed they would only make a partial contribution at peak demand and would be least efficient when demand is greatest in the winter.

Conclusion

We have carefully considered the various technologies mentioned above and have come to a view that replacing the current boiler with a modern high efficiency boiler which is ready to burn a hydrogen / natural gas mix takes us in the right direction as far as the zero emission goal is concerned. Such a boiler will improve our energy efficiency by at least ~35% and is the most cost-effective solution for us. In applying to install a new gas boiler, the church recognises that this does not represent a carbon neutral option. However, similar to the situation at St Mark's Mitcham where, given the current state of uncertainty about the best long-term options for heating, the Chancellor ruled in November 2020 in favour of installation of replacement gas boilers*, we consider that a new efficient gas boiler would best meet the church's needs currently. This should lead to a significant reduction in the church's carbon footprint. Nearer to 2030 when the national strategy and church guidance are more fully developed and newer technologies have matured there will still be time to consider an alternative heating strategy for the church.

* <https://lawandreligionuk.com/wp-content/uploads/2020/11/Re-St.-Mark-Mitcham-2020-ECC-Swk-5.pdf>

Proposal - Technical Details

The proposal is for the heating system to be drained and the existing Ideal Mexico boiler disconnected and removed from site. A new Worcester-Bosch 30kw Greenstar Life 8000 A rated condensing boiler will be fitted on an external wall in the boiler house stairwell with a new flue system to outside covered by a protective wire guard (see pictures and plans). The Heating and gas pipework will be amended and reconnected to the new boiler with a condensate discharge pipe running behind cupboards in the vestry to the nearest drain (see plan) using a condensate lift pump. The existing heating controls with frost protection will be retained and connected to the new boiler. A new Grundfoss circulation pump will be supplied and fitted as part of the new boiler installation. To comply with current building regulations, the existing heating system will be treated with a chemical flushing agent prior to the boiler replacement. A Worcester Bosch 'Magnetic System Filter' will be fitted to the water circulation pipework to prevent future build-up of iron oxide sludge. A corrosion inhibitor will added to the system when it is re-filled. The preferred quotation for installation is attached (Appendix 4).

V090321

Appendix 1 – Photographs and Plans



St John's south and east walls



St John's north wall

V090321



St John's west aspect and proposed location of new flue pipe (blue)

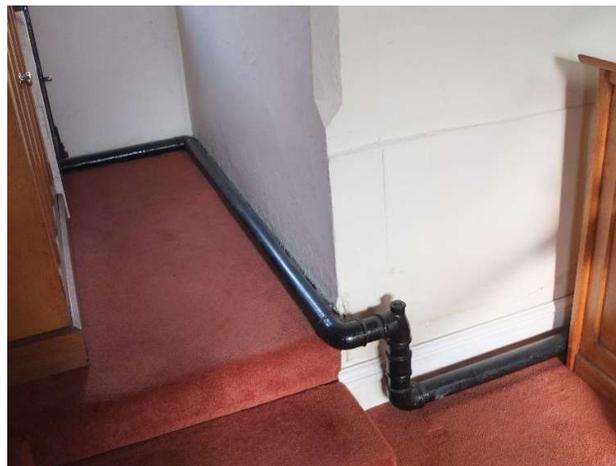


Nave of St John's showing heating pipes either side of aisle

V090321



Emergence of heating pipe from boiler room through vestry floor and example of heating pipe running along outer aspect of pews.

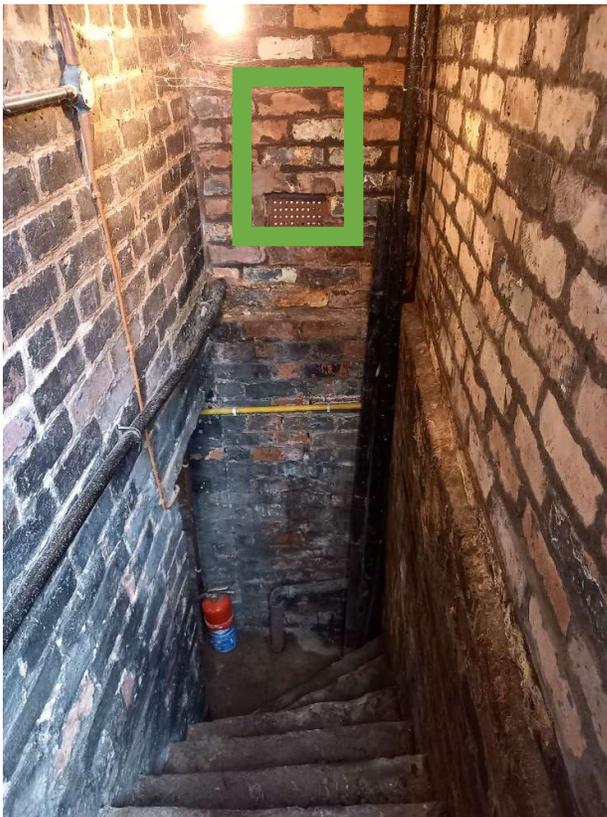


Heating pipes in choir area.

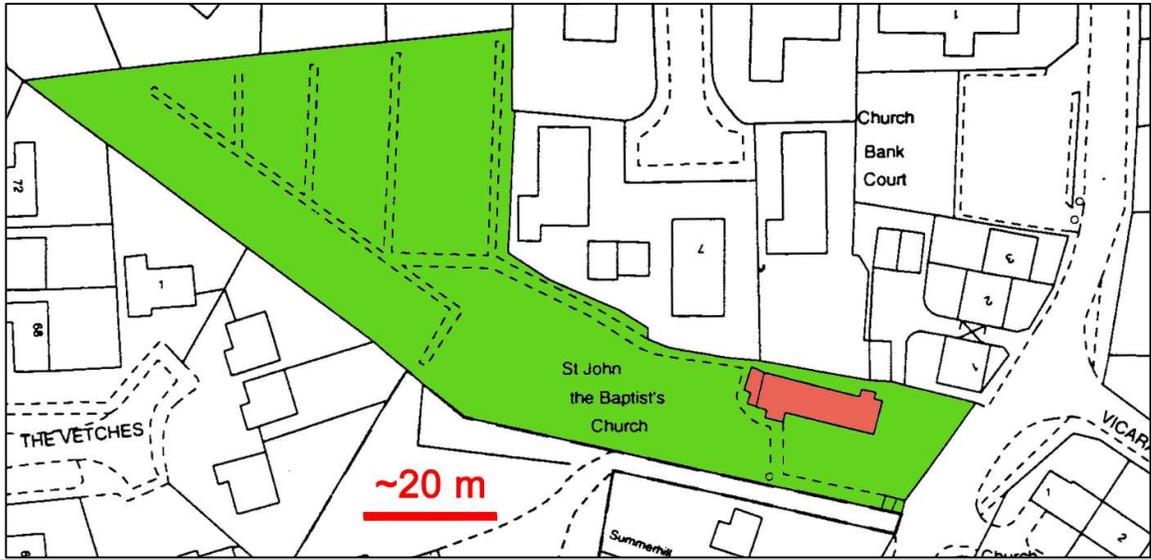
V090321



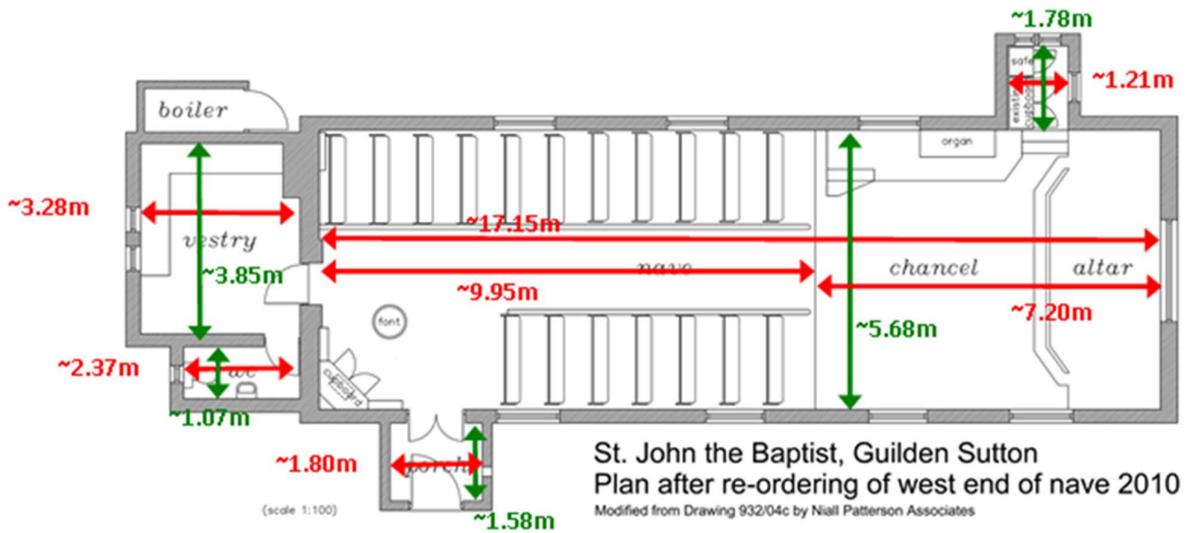
Existing boiler in boiler house beneath vestry.



Green rectangle shows proposed location of new boiler above ground level on exterior wall in boiler house stairwell. The existing air brick will be moved to the right hand wall.



Plan of St John's churchyard, showing proximity of church north wall to boundary fence and neighbouring properties



Plan of St John's with approximate measurements. 'Boiler' indicates the location of the steps down to the boiler house which is located beneath the vestry.

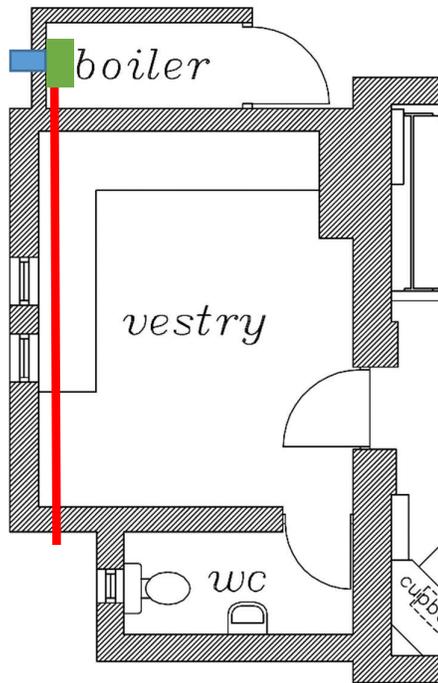


Figure showing proposed location of new boiler (green rectangle), flue (blue rectangle) and the root of the condensate drainage pipe (red line) on the back wall of the vestry, behind the cupboards, before emerging at the location of an existing drain.

Appendix 2 - Summary of Pros and Cons of Different Heat Sources

	Pros	Cons
New gas boiler	<ul style="list-style-type: none"> Simple replacement Able to burn 20% hydrogen/80% natural gas mix 94% seasonal efficiency 35+% improvement in efficiency over current boiler Significant contribution to zero-emissions target Discreet - fits in place of existing boiler Can use existing pipework/radiators Low capital cost Low running costs Longest warranty period (12 years) 	<ul style="list-style-type: none"> Not zero emissions
Ground source heat pumps	<ul style="list-style-type: none"> 300% to 400% efficient High efficiency helps to offset the cost of electricity Eligible for RHI grant (but this ends March 2021) Only carbon emissions are those resulting from electricity generation 	<ul style="list-style-type: none"> Despite efficiency more expensive to run than a gas fuelled system Requires extensive excavations – problematic at St John’s Negative cosmetic effect Geothermal energy produced is location specific Produces low grade heat - would not work with our existing radiators Re-ordering of church required to install underfloor heating (?or alternative radiators)

		<p>Works best in a well-insulated and draught proof building which St John's is not</p> <p>High capital cost</p> <p>Higher running costs than gas</p>
Air source heat pumps	<p>300% to 400% efficient</p> <p>High efficiency helps to offset the cost of electricity</p> <p>Eligible for RHI grant (but this ends March 2021)</p> <p>Only carbon emissions are those resulting from electricity generation</p>	<p>Despite efficiency more expensive to run than a gas fuelled system</p> <p>Effectiveness of units decreases with temperature – installation other than on shaded side of church (where ambient temperature is lowest) problematic due to negative cosmetic effect</p> <p>Produces low grade heat - would not work with our existing radiators</p> <p>Re-ordering of church required to install underfloor heating (?or alternative radiators)</p> <p>Works best in a well-insulated and draught proof building which St John's is not</p> <p>Potential noise nuisance from units facing our neighbour and operating 24 hrs / day in winter to heat our building</p> <p>High capital cost</p> <p>Higher running costs than gas</p>
<p>'Cold plasma' technology</p> <p>'Hydroboiler'</p>	<p>Can fit in same space as a gas boiler</p> <p>No flue required</p> <p>300% efficient</p> <p>Only carbon emissions are those resulting from electricity generation</p>	<p>Novel technology without long track record</p> <p>No data about reliability of latest boilers</p> <p>Not yet accredited by BSRIA (as of Dec 2021)</p> <p>Needs careful pressure and flow balancing to ensure heating circuit works effectively - may be difficult / impossible with our low pressure circulation system</p> <p>Over pressure relief valve will discharge contaminated water to drain</p>

		<p>Higher capital cost than gas (may fall over time, especially if new suppliers emerge)</p> <p>Higher running costs than gas</p>
Electric boiler	<p>Connectable to the existing pipework</p> <p>No external flue or drainage</p> <p>No annual service needed</p> <p>Only carbon emissions are those resulting from electricity generation</p>	<p>Running cost 3 – 4 x that of gas boiler – therefore poor use of church’s resources</p>
Biomass boiler	<p>Carbon neutral</p> <p>Eligible for RHI grant (but this ends March 2021)</p> <p>Similar running cost to gas</p>	<p>Boiler needs more space than gas boiler.</p> <p>Well-protected (from rain/damp) hopper or wood store required – difficult at St John’s</p> <p>Delivery of fuel to site very difficult</p> <p>Labour-intensive use of boiler – fuelling and cleaning</p> <p>Very impractical option for St John’s</p> <p>High capital cost</p>
Solar panels	<p>Carbon neutral source of electricity or heat</p>	<p>No cosmetically acceptable location for installation at St John’s</p> <p>Solar panels alone could not provide sufficient electricity to heat St John’s at peak demand</p> <p>Least efficient when demand greatest in winter</p> <p>High capital cost</p>

Appendix 3 - Email from our Architect Tony Barton

2/4/2021

St John the Baptist, Guilden Sutton - pgeddesr@gmail.com - Gmail

Tony Barton

3 Feb 2021, 09:22 (1 day ago)

to me

Hi Peter,

You asked me about replacing the gas boiler, which has met the end of its life and your wish to meet the Church of England 2030 net zero carbon target.

From my perspective, whilst fully supporting the response to the climate emergency, St John's must have some background heat to combat the inherent damp problems in addition to keeping the congregation warm. The immediate thought is to replace the boiler with an air to air heat pump package to achieve all these aims but I fear the matter is not so simple.

We at Insall are running a research project with the Grosvenor Estate and are exploring to pragmatically and economically fit out a traditional building to achieve a high EPC rating and to meet the Estate's zero-carbon target.

You may wish to take further advice on this but for an uninsulated brick built, single glazed building like St. John's we would probably come to the same conclusion. The advice here was that

- not all electricity would be produced from non-carbon means,
- a heat pump would have to work particularly hard, using an inordinate amount of electricity,
- the heat pump would provide comfort heating temperatures (maybe not such a problem for the church),
- our consultants' advice was that the lowest carbon and most economical solution was to add an efficient new gas boiler with a view to letting all electric technology catch up.

Maybe not the advice that we would all want to hear but there it is. I am happy to explore this further with you.

Kind regards,

Tony

Donald Insall Associates

Chester Office
Bridgegate House, 5 Bridge Place
Chester CH1 1SA
Tel: 01244 350063

HOME - HEAT Solutions

Heating and Plumbing Services

Quotation

Mr R Williams
White House
Belle Vue Lane
Guilden Sutton
CH3 7EJ



30th July 2020

Re: Proposed Boiler Replacement at St Johns Church Guilden Sutton (Quotation No. 3430)

Dear Mr Williams

Following our visit to the above property please find below brief details and our provisional sum costing for the proposed boiler replacement.

To drain the heating system disconnecting the Ideal Mexico boiler and remove from site. Supply and fit on the outside wall in an agreed position a Worcester-Bosch 30kw Greenstar Life 8000 A rated condensing boiler with a new flue system to outside covered by a protective wire guard if required. The Heating and gas pipework will be amended and reconnected to the new boiler with a condensate discharge pipe installed to the nearest drain using a condense lift pump. All existing heating controls and frost protection will be retained and connected to the new boiler by our electrician. A new Grundfoss circulation pump will be supplied and fitted as part of the new boiler installation.

To comply with current building regulations, the existing heating system must be treated with a chemical flushing agent which would need to be added prior to the boiler replacement, we would request the system be operated as normal for 7-10 days at regular timed intervals to allow the 'De-sludge' process to take place this would be included in my price providing the existing boiler remains operational prior to the new boiler installation.

On completion the system will be re filled adding a corrosion inhibitor, test fired, commissioned in line with 'Benchmark' requirements and full operating instructions left with you. The new installation will be registered with 'GAS SAFE' and you will receive a certificate of building compliance and gas safety. My price for this work will be the sum of **£2509.00 plus £501.80 VAT.**

The boiler is fitted with a Worcester Bosch 7 year parts and labour guarantee (limited offer).

I would recommend the option of adding Worcester Bosch 'Magnetic System Filter'. This product will provide lifelong protection of the new boiler preventing the build up of harmful 'Iron Oxide' sludge and debris in the future. This can be fitted for the additional sum of **£178.00 plus £35.60 VAT.** **Fitting this product will extend the manufacturer's guarantee on the boiler to 12 Years (limited Offer)**

I hope my proposal is of interest to you, should you need to discuss any part please don't hesitate to contact me. If you have access to the internet you can view customer testimonials at www.homeheatsolutions.co.uk. If you wish to accept my quotation, I would be grateful if you could read the enclosed terms and return a signed copy in the envelope provided.

Many Thanks


Carl Thurston

2509
178
2687
incl VAT

3011
214
3225
incl VAT.



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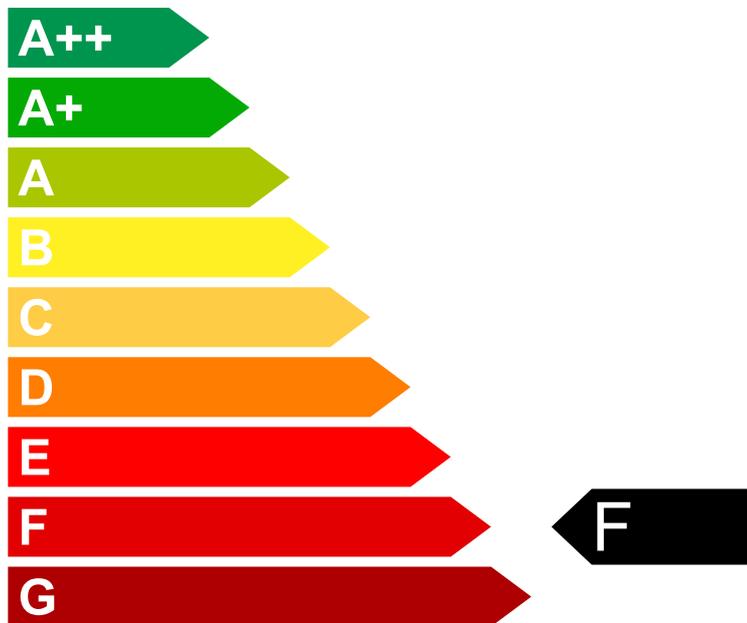
Energy Footprint Results

Carbon Footprint

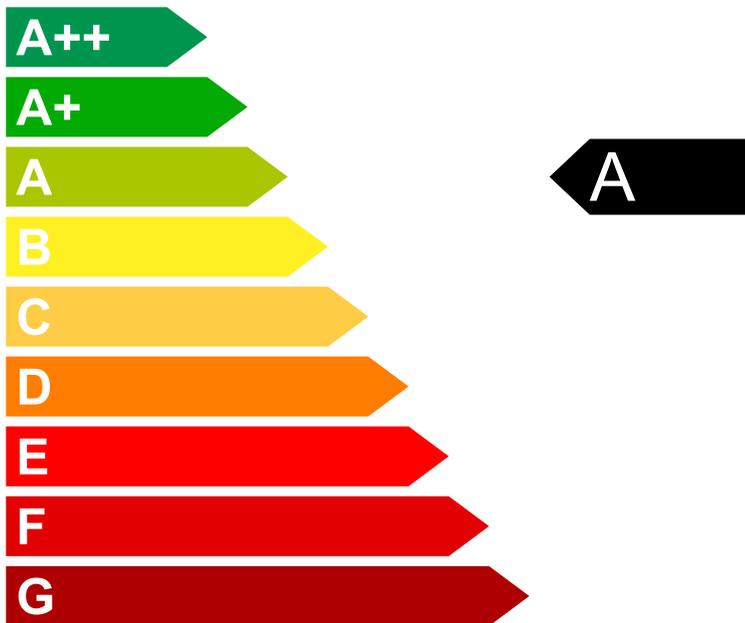
Gross CO2 emissions (Tonnes) ?	10.6
Net CO2 emissions (Tonnes) ?	7.5
Weather-Adjusted CO2 emissions (Tonnes) ?	6.6

Energy Efficiency

Emissions/m² rating



Emissions/person hour rating



CO2 emissions per m ² ?	36.3
Emissions/m ² rating	F
Person hours/year ?	10517
CO2 emissions per person hour ?	0.6
Emissions/person hour rating	A

The above two figures are important, because churches which have larger space and/or more activity and people tend to use more energy and produce more carbon emissions.

Nowadays A – G ratings are applied to many buildings and products. Our system is roughly equivalent to national Display Energy Certificates for public buildings.

Bands are awarded as good as A++, or B, C or D, all the way down to G which is the poorest rating.

You may find you get very different ratings for CO₂e and for person-hours. Many churches use little energy compared to their size because they may not be hosting many activities. Others are squeezing large crowds into small spaces, using as little as possible, compared to the number of people. A high grade on either measure is to be welcomed, though any lower grade on either measure may suggest productive opportunities for improvement.

What's next?

- For lots of environmental guidance, case studies, and more, see our website here (<https://www.churchofengland.org/environment>).
- Interested in generating your own renewable energy? See our guidance here (<https://www.churchofengland.org/more/church-resources/churchcare/advice-and-guidance-church-buildings/renewable-energy>).
- Need advice on funding? See Parish Resources (<https://www.parishresources.org.uk/resources-for-treasurers/funding/>).
- To find local support, contact your Diocesan Environmental Officer (<https://www.churchofengland.org/more/policy-and-thinking/our-views/environment-and-climate->

change/deo-map).

- To learn more about Parish Buying's Energy Basket, click here (<https://www.parishbuying.org.uk/categories/energy/energy-basket>).
- For information on LED lighting, click here (<https://www.parishbuying.org.uk/categories/led-lighting>).
- For information on building maintenance, please click here (<https://www.parishbuying.org.uk/categories/buildings-maintenance>)

Feedback

Please help us to improve the tool by taking a moment to answer some questions. The questions will take no longer than 3 minutes and we would be most grateful for your opinions.

[Give Feedback \(/index.php/enter-data?task=fm2x&qrid=8001430018190505&return=/enter-data\)](/index.php/enter-data?task=fm2x&qrid=8001430018190505&return=/enter-data)

Your Church Data

Show / Hide

Primary heating fuel	Mains gas
Electricity supplier	
Renewable tariff?	Partial
Electricity purchased (kWh)	1006
Cost of electricity (£)	253
Gas purchased	23930
Unit of gas purchased	kWh
Cost of gas (£)	786
Building footprint (sq metres)	115
Net useable floor area (sq metres) - if known	107
Usual Sunday attendance (persons)	39
Average Sunday time (hours)	1.5
Weekday services attendance (persons)	5
Hours per week	0.5
Other weekday footfall (persons/day)	5
Typical weekday time (hours)	0.25

Other Buildings Data

Show / Hide

Other Calculated Values

Is your church's electricity tariff 100% renewable?	False
Electricity - energy usage (KWh)	1006
Electricity - energy usage (KWh) weather adjusted	977
Tonnes of CO2 emissions from electricity	0.3
Weather adjusted tonnes of CO2 emissions from electricity	0.3
Gas - energy usage (KWh)	23930
Gas - energy usage (KWh) weather adjusted	20882
Tonnes of CO2 emissions from gas	5.0
Weather adjusted tonnes of CO2 emissions from gas	4.3
Oil - energy usage (KWh)	0
Oil - energy usage (KWh) weather adjusted	0
Tonnes of CO2 emissions from oil	0.0
Weather adjusted tonnes of CO2 emissions from oil	0.0
LPG - energy usage (KWh)	0
LPG - energy usage (KWh) weather adjusted	0
Tonnes of CO2 emissions from LPG	0.0
Weather adjusted tonnes of CO2 emissions from LPG	0.0
Fossil fuels - energy usage (KWh)	23930
Fossil fuels - energy usage (KWh) weather adjusted	20882
Tonnes of CO2 emissions from fossil fuels	5.0
Weather adjusted tonnes of CO2 emissions from fossil fuels	4.3
Wood - energy usage (KWh)	0
Wood - energy usage (KWh) weather adjusted	0
Tonnes of CO2 emissions from wood	0.0
Weather adjusted tonnes of CO2 emissions from wood	0.0
Pellets - energy usage (KWh)	0

Pellets - energy usage (KWh) weather adjusted	0
Tonnes of CO2 emissions from pellets	0.0
Weather adjusted tonnes of CO2 emissions from pellets	0.0
Biomass - energy usage (KWh)	0
Biomass - energy usage (KWh) weather adjusted	0
Tonnes of CO2 emissions from biomass	0.0
Weather adjusted tonnes of CO2 emissions from biomass	0.0
Energy generated from solar PV (KWh)	0
Solar energy exported (KWh)	0
Solar energy exported (tCO2e)	0.0
100% Renewable energy (KWh)	0
100% Renewable energy (KWh) - weather adjusted	0
100% Renewable energy (tCO2e)	0.0
100% Renewable energy (tCO2e) - weather adjusted	0.0
Electricity - net energy usage (KWh)	1006
Electricity - net energy usage (KWh) weather adjusted	977
Net tonnes of CO2 emissions from electricity	0.3
Weather adjusted net tonnes of CO2 emissions from electricity	0.3
Total gross energy usage (KWh)	24936
Total gross energy usage (KWh) - weather adjusted	21859
Total net energy usage (KWh)	24936
Total net energy usage (KWh) - weather adjusted	21859
Total gross tonnes of CO2 emissions	5.3
Total gross tonnes of CO2 emissions - weather adjusted	4.6
Total net tonnes of CO2 emissions	5.3
Total net tonnes of CO2 emissions - weather adjusted	4.6
Estimated useable floor area (m ²)	107
Person hours/year	3237
Emissions per m ² of usable floor area	43.4

Emissions per m ² of usable floor area with adjustment for future carbon negativity	58.4
Person hours per m ² of usable floor area	30.3
Emissions per person hour	1.4
Emissions per person hour with adjustment for future carbon negativity	1.9

Other Calculated Values for Other Buildings

Show / Hide

Dear Peter,

I was thinking we might need this re our boiler application - seems to be too early to enter it into the footprint tool.

Our energy footprint for 2020 was

For the Church

Supplier of gas and electricity is British Gas. Electricity isn't a renewable tariff.

Electricity used during 2020 772 kWh @ 14.59p/kWh Standing charge is 25.99p/day

Cost of electricity was therefore $\pounds 113 + \pounds 95 = \pounds 208$ plus 5% VAT = $\pounds 218$

Gas used during 2020 19,095 kWh @2.905 / kWh Standing charge 25p/day

Cost of Gas was therefore $\pounds 555 + \pounds 91 = \pounds 646$ plus 5% VAT = $\pounds 678$

For the Church Hall

Supplier of gas and electricity is British Gas. Electricity isn't a renewable tariff.

Electricity used during 2020 573 kWh @ 14.59p/kWh Standing charge is 25.99p/day

Cost of electricity was therefore $\pounds 84 + \pounds 95 = \pounds 179$ plus 5% VAT = $\pounds 188$

Gas used during 2020 2759 kWh @2.905 / kWh Standing charge 25p/day

Cost of Gas was therefore $\pounds 80 + \pounds 91 = \pounds 171$ plus 5% VAT = $\pounds 180$

I have calculated the costs on the basis of actual usage which I have recorded monthly

Best regards, Bob

ASSESSMENT OF HEATING WITHIN CHURCH TYPE BUILDINGS [Rev (-) TB 27/11/19]

Responses for St John the Baptist, Guilden Sutton

Initial evaluation	St John's Response
What is the problem / concern?	Lack of availability of essential spares for our current 30+ year-old boiler. The boiler is also of low efficiency (est. ~50 - 55%).
Are there any temperature and humidity records available?	There are no recent data. Previous data indicated high levels of humidity in the building. Given this, visible condensation and a severe damp problem the church has for the last few years had its heating programmed to keep the temperature above 12 degrees C as recommended by our architect.
How is the building used now? How will the building be used in the future? What are the current and future needs?	<p>Prior to the pandemic the church was used for at least 1 service each Sunday, morning prayer on a Wednesday morning and weekly choir practices. Services for groups from the local primary school, toddler and pre-school groups are held several times a year. Several funerals take place over a typical year, occasional weddings and other special services, eg at Easter, Christmas and Remembrance Sunday. The church is left open during the daytime throughout the year so that visitors (especially those visiting graves in the churchyard) can enter for reflection/prayer.</p> <p>How use of the church will evolve in the future is difficult to predict so retaining the ability to be flexible is clearly sensible. An important current need and one that will persist for the future is to maintain the temperature of the building at a level to prevent condensation and damp.</p>
Are there any items of 'significance' that may be sensitive to changes in temperature / humidity? Are these being detrimentally affected currently?	<p>There are several significant wooden items in the church which could be susceptible to damp:</p> <p>A panel, believed to be a box-pew end, with a carved inscription "Henricus Bunberie Hanc Sedem Textit 1527."</p> <p>A wooden frame above the Vestry door with a painted inscription "Ralph Cotgrave and Thomas Whitehead Churchwardens 1698".</p> <p>An attractive panel with a carving of the Ascension of Christ on the vestry door. The provenance of this panel is unknown.</p> <p>A memorial plaque to the Whitehead family on the South wall in the church, which refers to Robt. Whitehead who died in 1693 and whose body was interred near the area.</p> <p>Of these the memorial plaque appears to be most at risk</p>

<p>What is the energy source for the heating (often gas)? Is there data available on the use of the energy?</p>	<p>The church is heated by a gas boiler.</p> <p>Energy Footprint data from Parish Returns is available for 2019</p>
<p>Are there any simple steps that can be taken to reduce the problem / concern?</p>	<p>The church will shortly undergo complete re-pointing with lime-based mortar which will help the walls to breath, which should help the damp problem. A French drain has been inserted along the base of the north wall to assist in reducing humidity in the wall.</p>
<p>How is the heating controlled? Can this be adjusted to better match the needs?</p>	<p>The boiler is controlled remotely. The sensor is located in the rear of the nave. The times of increased heating for services, choir practices etc are programmed for each day of the week. Since service times and other activities vary throughout the month adjustment of the programmed times is made weekly. In the coldest times of the year the heating is programmed to raise the internal temperature to 16 degrees C at these times. At all other times the heating is programmed to maintain a minimum temperature of 12 degrees C.</p>
<p>If you still, consider that you need more advice think about what aspect are you looking for advice on?</p>	<p>Our architect Tony Barton has advised that a replacement gas boiler is the most appropriate option for the church (see email in option appraisal document)</p>
<p>How is hot water currently provided to sinks / basins? What is the current and future requirement?</p>	<p>There is minimal requirement for hot water. In the toilet there is a small, wall-mounted electrical heater which users can switch on as required for hand washing. In the vestry there is a wall-mounted electrical heater which is used in normal times for an hour or so about twice per month to provide hot water for washing up. The church sees no strong need to replace either of these with a different system.</p>
<p>Are any architectural plans, elevation or section drawings of the church available? If not a hand drawn sketch with the main dimensions is better than nothing.</p>	<p>A plan and photographs are provided in our option appraisal document.</p>

<p>Are any heating plans / drawings of the church heating available? If not a hand drawn sketch with the main items of equipment is better than nothing.</p>	<p>No drawings of the heating system are available but photos of the boiler, controls, pipework etc are provided in the option appraisal document.</p> <p>A copy of the last boiler service record is available.</p>
<p>Is there an asbestos register available?</p>	<p>Yes. An asbestos survey was performed in July 2013 by J & S Bridle Associates Ltd. This documented the presence of Asbestos Insulation Board in the roof of the boiler house. Sealant was applied to the AIB by the surveyor and subsequently the AIB was encapsulated with fire retardant plaster board in July 2014. Warning signs were affixed to the boiler house door. The Ideal Mexico Super CF100 boiler is known to contain 'Mastic Containing Fibres' and if removed should be regarded as hazard waste.</p>





Guilden Sutton St John - Heating

Attachments are listed according to the numbering on the supporting documents list

- Attachments in brown are included within the overview section
- Attachments in blue are included within the proposals section

Strikethrough text refers to a separate faculty application

Date	Message
<p>27/10/2020</p> <p>To: Bob Williams From: Caroline Hilton</p>	<p>I write further to our telephone conversation this morning regarding the matter of future heating of the church. I understand that you are considering what alternative ways may be possible for heating the church in terms of practicality and cost.</p> <p>Further to your request I have been checking our records for examples of churches using air source heat pumps (or any other form of renewable energy) in the diocese and can advise that Alsager St Mary uses an air source heat pump.</p> <p>Whenever a parish is considering replacing boilers and heating systems there is now a requirement to demonstrate that due consideration has been given to reducing the church's carbon footprint in line with the Church of England goal of reaching net zero carbon by 2030. Please see the link to the heating guidance page of the diocesan website: Heating This gives an introduction to the net zero carbon goal and sets out a three part exercise for parishes to complete when looking to replace boilers and/or heating systems. . This webpage also contains some useful links to advice, and as you scroll down it there are links to the guidance on the Church of England website regarding renewable energy, choosing a heating system and sustainable buildings.</p> <p>With regards to possible sources of funding for any new heating works, I recommend you contact the diocesan Church Buildings Missioner Emily Allen who will be able to advise on this. As discussed I have copied Emily in to this email so you have each other's contact details. (Also for information here is the link to the Funding page on the diocesan website).</p> <p>I hope this is of some initial help and if you have any further queries please do not hesitate to contact me.</p>
<p>27/10/2020</p> <p>To: Caroline Hilton, Emily Allen From: Bob Williams</p>	<p>Thank you for your email. It will take a bit of digesting. Looks like we have a few hoops to jump through! Thank you for the pointer to St Mary, Alsager.</p> <p>Emily, How are you? I am wondering if there are any grants currently available for green energy projects such as the replacement of a conventional gas fired boiler with ground source heat pumps, in buildings such as ours, I want to know what is available for a project</p>

	<p>such as ours in order to calculate the payback on any air source heat pump installation we consider, without having to make a formal application.</p>
<p>16/11/2020</p> <p>To: Alan Kempster-Down From: Carl Thurston</p>	<p>This is probably a random question but do you know of any church that has had renewable 'Air Source' heating installed. Its warm air (like air con)</p> <p>We are looking at replacing the boiler at the church at Guilden Sutton and I am trying to provide some alternative ideas for the PCC.</p> <p>Would anyone else at Church House Know ???</p>
<p>17/11/2020</p> <p>To: Carl Thurston From: Katy Purvis</p>	<p>It's really good to hear that Guilden Sutton are looking at alternative heating, I hope the PCC find your research useful. Before I answer your question, please can I check that you and the parish have been made aware of the current heating guidance, as that may help you in your investigation.</p> <p>https://chester.anglican.org/support-services/churches/technical-advice/heating.php</p> <p>In the light of the 2030 zero carbon target, all new heating applications need to submit evidence of undertaking the following three steps.</p> <ol style="list-style-type: none"> 1. Firstly read the initial document produced by the Church Buildings Council, Review of heating guidance - Establishing principles, which explains some of the issues to consider if the Church is to achieve carbon neutrality by 2030. 2. Assess the current carbon footprint of your building. The Energy Footprint Tool will calculate your church's carbon footprint, based on the energy you use to heat and light your buildings. You will need to have the whole of last year's electricity and gas/oil bills. There are two useful graphs which show you your efficiency scores; one for energy efficiency based on building size and one for attendance. This tool is available to all Church of England churches using the Online Parish Returns System. 3. Assess your needs and requirements by working through the questions suggested in Assessment of Heating in Church Buildings, provided by the DAC Heating advisor <p>Alsager St Mary has an air source heat pump, but I think that is the only one in the diocese. Brian Haley is a reader rather than a churchwarden, but I have been talking to him about other works at the church recently, and can ask him if he would be willing to talk to you or someone at Guilden Sutton, or can suggest someone else at the parish with knowledge of the heating system.</p> <p>Grappenhall St Wilfrid are currently building an extension which they had intended to be heated by air source heat pump. They were concerned about the external appearance (it's a Grade 1 church) and have now applied for a variation to use a hydrogen boiler instead,</p>

	<p>which is allegedly half as expensive in terms of capital costs. We don't have any experience of these boilers yet, but hope that will be successful if the DAC approve the variation at this weeks meeting. I've attached some details of their proposals for info</p>
<p>17/11/2020</p> <p>To: Katy Purvis From: Bob Williams</p>	<p>Carl Thurston , whom I know well , forwarded your email to me. Very useful indeed.</p> <p>Please could you tell me who is the project leader for the St Winifred's project. I would like to find out more about Hydro Zero.</p>
<p>17/11/2020</p> <p>To: Bob Williams From: Katy Purvis</p>	<p>I confess, I have since discovered it was less useful than intended. We believed Alsager St Mary had an air source heat pump, but having spoken to them today, it seems that it isn't actually.</p> <p>Grappenhall haven't yet installed the hydrogen boiler, in fact don't have permission to do so yet, this is to be taken to the DAC on Friday. We are hopeful that this will be a success, but it is a bit untested as yet. We haven't talked to the parish directly about the new boiler, as the variation details came via the church architect and heating engineer, but I've will ask them to let me know who is leading this aspect of the project at the parish, and I'll let you know when I know who that is</p>
<p>17/11/2020</p> <p>To: Katy Purvis From: Bob Williams</p>	<p>Thanks for coming back to me. Very keen to hear what happens at the DAC. This technology is the way forward in the absence of a mixed hydrogen and natural gas distribution network .</p> <p>It would be very helpful to have the project leaders name. The Hydro Zero web site has nothing useful really!! I am going to wing an email to them asking lots of questions.</p> <p>Re St Mary's Alsager I have spoken to Brian Haley. They have a 20+yr old Dravo industrial heater, completely different technology to ASHP.</p>
<p>18/11/2020</p> <p>To: Bob Williams From: Katy Purvis</p>	<p>I've heard back from the architect at Grappenhall, and he says the best person to speak to at Grappenhall is the vicar, revdproudfoot@hotmail.co.uk.</p> <p>The DAC heating advisor, DAC Secretary and I are all hopeful that the DAC will be supportive of the Hydro Zero proposal, but we'll have to see what they say. I'll let you know the outcome next week.</p> <p>Yes, I spoke to Brian yesterday and realised that the Dravo system has been misinterpreted somewhere along the line. It was rather disappointing as it is was thought to be the only renewable heating in diocese, so I now need to update the renewable energy map to say we have none at all. So I very much hope Guilden Sutton will correct that.</p>
<p>18/11/2020</p> <p>To: Katy Purvis From: Bob Williams</p>	<p>I have been looking at St Wilfred's web site and their Project. Is it the whole project that is going before the DAC or just the use of a Hydrogen Boiler for heating?</p>
<p>18/11/2020</p>	<p>The extension itself is already underway, construction is ongoing. The DAC are just looking at two extra aspects this week, the hydrogen</p>

To: Bob Williams From: Katy Purvis	boiler is a variation to the existing faculty, which approved an air source heat pump. There was some concern about the external appearance of the air source heat pump, which the hydrogen boiler doesn't have, and the hydrogen boiler has lower initial capital cost. There is also a reserved matter about drainage and easement, which needed to be finalised later in the project
18/11/2020 To: Katy Purvis From: Bob Williams	I Have had a very interesting and useful discussion with St Wilfred's treasurer, who is leading their project. As a matter of interest, do you know whether the DAC will be specifically considering the use of hydrogen versus gas technology for safety and environmental reasons when it considers the St Winifred's variation/
18/11/2020 To: Bob Williams From: Katy Purvis	That's good to hear. Yes, the DAC will be very much specifically considering those issues.
09/03/2021 To: Katy Purvis From: Peter Reid	Further to our discussions and our online application I have pleasure in sending you: <ul style="list-style-type: none"> 4) Need, Option Appraisal and Proposal including preferred quotation 5) Energy Footprint data 2019 6) Report of energy use 2020 7) Assessment of heating in church buildings questionnaire received 9 March 2021
09/03/2021 To: Peter Reid From: Katy Purvis	This all looks good to me, can you please just clarify the height of the location of the new boiler? I can't tell from the photo if it would be accessible for routine maintenance. I will send this for review today and let you know if there are any comments
09/03/2021 To: Katy Purvis From: Peter Reid	I haven't measured it but estimate the bottom of the boiler would be about 7' from the bottom of the stairwell, less from the steps opposite. The location was suggested by our heating engineer who will be responsible for servicing it. It will need a stepladder for access.
09/03/2021 To: Peter Reid From: Katy Purvis	I've just had a query from the architect reviewer, which I admit I should have spotted myself. Has Tony been involved in the actual proposals rather than just the net zero aspect? Is he supportive of the boiler location, drainage etc?
09/03/2021 To: Katy Purvis From: Peter Reid	No we haven't involved him in that as there didn't seem a need.
09/03/2021 To: Peter Reid From: Katy Purvis	He might not need to do much, but he will need to be involved regarding location etc, so please could you contact him? I'm afraid I've also realised this needs faculty rather than List B, because the boiler location isn't as existing, sorry. I've put it on the agenda for the next DAC meeting 26 th March anyway.

<p>09/03/2021</p> <p>To: Katy Purvis From: Peter Reid</p>	<p>I didn't realise that moving it a few feet in the boiler house constituted a new location. I'll contact Tony.</p>
<p>09/03/2021</p> <p>To: Katy Purvis From: Peter Reid</p> <p>With attachment</p>	<p>I have started the faculty form. BTW do we need more than one petitioner?</p> <p>I'll attach the statement of significance which I already have.</p> <p>2) Statement of significance</p>
<p>11/03/2021</p> <p>To: Peter Reid From: Katy Purvis</p>	<p>Hi Peter, thanks for this statement of significance, and for starting the application. I think it's fine to have just one petitioner</p> <p>I've heard back from the heating advisor he comments "I have reviewed the information that you have sent through and have the following comments:</p> <p>The gas consumption is low at approximately 24000 kWh (2019 figure). The Parish have put forward a good submission to demonstrate that replacing the existing inefficient boiler with a new condensing boiler is the correct approach. On this basis I would expect their gas consumption (and carbon emissions) to fall whilst maintaining the same internal conditions.</p> <p>I would like the Parish to commit to looking closely at the potential for any fabric thermal performance improvements. This may be in the long term when any major work is undertaken. One particular area may be to consider is if the access doors and windows are suitably draught proofed. This is relatively inexpensive to undertake and will give an immediate benefit.</p> <p>My only comment on the detail of the proposal is that the boiler is shown above the access stair to the boiler room. This is a difficult location for access both for maintenance and the user (to adjust the controls). My understanding is that this arrangement would not be in-line with the manufacturers installation instructions. I would be grateful if the Parish could review the location with the boiler specialist and advise."</p> <p>Please could you respond to the third and fourth paragraphs, probably with advice from Tony as well as your heating contractor? Tony will be able to advise as to whether draught proofing is appropriate, and may well have a view on the boiler location</p>
<p>12/03/2021</p> <p>To: Katy Purvis From: Peter Reid</p>	<p>Many thanks for forwarding this. I'll discuss the insulation/draft proofing with Tony. I am not sure what the options will be for insulation as we have been told the walls need to breathe, but we'll look into this. I am sure we can do something to improve the draft-proofing.</p>

	<p>Regarding the boiler location - in the first instance I have discussed this with the heating engineer who suggested the location. He clarified that the reason he didn't want to put the replacement in the location of the existing boiler down in the boiler house is because there would be no easy flue solution. He does not see access to the boiler in the proposed new location as problematic. I have been down to look at the location more closely today and attach two photographs taken standing on the second step up from the stairwell floor. I was eye-level with the proposed boiler location and had no difficulty touching the back wall. Since the boiler will protrude from that wall I see no problem in accessing it. Our heating engineer did say we could construct a simple wooden platform resting on the steps and stairwell if that proved necessary - but I don't think it will be. He was not aware of a reason why the proposed location should contravene the manufacturers instructions but he asked me if we could ask the Diocesan heating adviser what his specific concern was so that can be addressed. Therefore I should be very grateful if you would kindly forward this question</p> <p>8) Photographs of boiler location</p>
<p>15/03/2021</p> <p>To: Peter Reid From: Katy Purvis</p>	<p>I have a further response from our heating advisor</p> <p>"I am happy that they are looking at the draught proofing.</p> <p>Regarding the boiler location below is an extract from the manufactures instructions:</p> <p>1</p> <hr/> <p>The appliance must be installed where:</p> <ul style="list-style-type: none"> ▶ The area is well lit, allowing to clearly see the appliance to carry out any work or checks. ▶ An engineer can gain clear and safe access to work on the product or component, including making adequate provision for visual inspection of flues in voids. ▶ The homeowner can gain clear and safe access to the controls, check, top up or reset the appliance. ▶ Roof space installations must fully conform to BS 5410 part 1: roof space installations. ▶ Products in roof spaces must have permanent fixed lighting, a permanent fixed retractable ladder and a fixed floor area sufficient to allow access for normal use and servicing around the product and between and the access hatch. <p>We would also recommend that a remote pressure gauge and filling loop are sited where the customer can gain easy access for checking and topping up.</p> <hr/> <p>There should be arrangements to 'allow access for normal use and servicing of the product'.</p> <p>The provision of a removable platform will make servicing the boiler much easier and I would recommend this is considered. If the Parish and Heating Installer are satisfied the arrangements provided are suitable then I have no further comments."</p>
<p>22/03/2021</p>	<p>I discussed our heating with Tony Barton on Friday including the proposed location for the new boiler and the route of the condensate</p>

<p>To: Katy Purvis From: Peter Reid</p>	<p>drain pipe. He expressed no concerns. I also raised with him the issues of draft proofing and insulation and we will consider these further.</p>
<p>06/04/2021 To: Peter Reid From: Katy Purvis</p>	<p>With apologies for the delay, Caroline is on leave, and I was off sick last week.</p> <p>I'm writing to let you know that the DAC considered the proposal for a new boiler at its meeting of 26 March 2021 and resolved, subject to submission of a formal faculty application, to recommend the scheme, with the following provisos</p> <p>a. Any electrical works should be carried out by an electrical contractor accredited with the NICEIC or ECA, to the standards recommended in the Churchcare "Guidance Note: Electrical Wiring Installations in Churches" available via https://www.churchofengland.org/sites/default/files/2018-11/CCB_Electrical-wiring-installations-in-churches_Apr-2013.pdf</p> <p>This means that if you now complete an online faculty application, when Caroline returns from leave, she will be able to raise the Notification of Advice so the public notices can be made available for display.</p> <p>If you have any queries please let me know.</p>
<p>06/04/2021 To: Katy Purvis From: Peter Reid</p>	<p>I thought I had completed all the sections of the online application (accepting that the statement of significance was a file which I sent you). Could you let me know what else I need to do? I've just clicked a 'submit' button - maybe that was all that I needed to do?</p>
<p>06/04/2021 To: Peter Reid From: Katy Purvis</p>	<p>Yes, that's right, you just needed to submit it, all sorted now</p>
<p>06/05/2021 To: Peter Reid From: Caroline Hilton</p>	<p>I have been working on raising the Notification of Advice, and this is nearly ready now. I'd be grateful if I could just check one detail with you. I note from the details the new flue exit position is marked on a photograph but I don't have any detail of what the flue will look like. I've googled the proposed <i>Worcester-Bosch 30kw Greenstar Life 8000 A</i> rated condensing boiler and can see that in some of the promotional images that come up, the flue attachment is included next to the boiler. (Please see link to example Worcester Greenstar 8000 Life Regular Boiler Packs horizontal flue PlumbNation)</p> <p>Am I right in assuming it would be like the example in the link, with a wire guard over it?</p>
<p>06/05/2021 To: Caroline Hilton From: Peter Reid</p>	<p>Yes, my understanding is it is a round pipe, with a cage over it. We have a Worcester Bosch boiler at home (fitted by the same</p>

	<p>engineer who is going to do the church) and our flue looks exactly like the picture I'll attach. I think the church's will be similar.</p>
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9) [Photo of flue outlet](#)