Diocese of Westminster

Energy Management Policy

Version control

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Approved by	
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1. Executive Summary

1.1 Diocese of Westminster (DOW) has set four key objectives to change how it manages and uses energy:

- **Centrally procure energy** provide the Diocese with buying power by centrally procuring electricity and gas for all schools through a single contract.
- **Reduce** energy usage through energy monitoring, energy management, behavioral change, building control improvements and a spend to save strategy for energy efficiency measures
- **Decarbonise Heat** replace end of life boilers with low/zero carbon heating alternatives
- **Generate** a proportion of our energy through renewable energy technologies, Solar PV & Battery

1.2 Over the last 2 years there have been major changes in how climate change and carbon reduction/sustainability is viewed globally combined with volatile energy prices. To move forward the Diocese has considered three core options:

Do Nothing	**Continue to buy energy as we have been doing for several years; we are currently unable to take advantages of group purchasing and economies of scale. Also, due to recent price increases we will have to budget additional revenue to pay utility bills, furthermore this does not help reduce scope 2 emissions.**
Monitor & Manage	**The Diocese see the value in monitoring and managing energy (energy management) and recognise we need to start monitoring our energy and improve controls both in our people and our plant & equipment.**
Look to the Future	**Focus on reduction of energy consumption through capital investment, preventative maintenance better asset management, as well as generating a greater proportion of our own electricity, decarbonising our buildings with low/zero carbon heating, better insulation and bringing together estate & energy management under single control to reduce our carbon footprint.**

1.3 In addition, we need to align to the government targets to keep global warming to 1.5°C above pre-industrial level under the UK Government Carbon reduction commitment and attain Net Zero by 2050.

1.4 Our policy moving forward focuses on:

- ***buy better -*** ensuring we have no minimum use restriction, flexible contracts to meet changing needs.

- *u**se less*** monitor and manage our energy better, implement energy efficient technologies through better controls over plant and equipment (BMS), LED lighting, increased use of the cloud etc.

- ***generate more*** of own electricity, introduce battery storage and Decarbonise heat from our buildings with low/zero carbon solutions which will make the most of the current central contracts which are in place. In short:

1.5 These ambitions, will help us reduce our energy, costs and carbon and are the first steps required to assist us in with our aspirations to achieve Net Zero by 2030, and will assist us with our financial challenges the trust faces as self-generating electricity reduces the cost of electricity by around 60% per kWh and energy efficiency projects such as LED lighting and cloud computing transfer reduced operational costs into capital investment. A detailed programme will be developed into a specific plan and targets for each school within the Diocese.

2. Global Warming & Net Zero

2.1. Context of Global Warming & Net Zero

2.1.1. Global Warming & Net Zero implies an alignment with the Paris Agreement's goal of limiting global warming to well below 2°C preferably to 1.5°C above the pre-industrial levels. The 2018 Intergovernmental Panel on Climate Change (IPCC), the United Nations' climate science research group report said to limit temperature rises to 1.5C the world would have to cut carbon emissions by 45% on 2010 levels by 2030, and to Net Zero with any remaining pollution absorbed by measures such as planting trees by 2050 to avoid the most disastrous effects of climate change. The UK government has set a target to be net Zero by 2050.

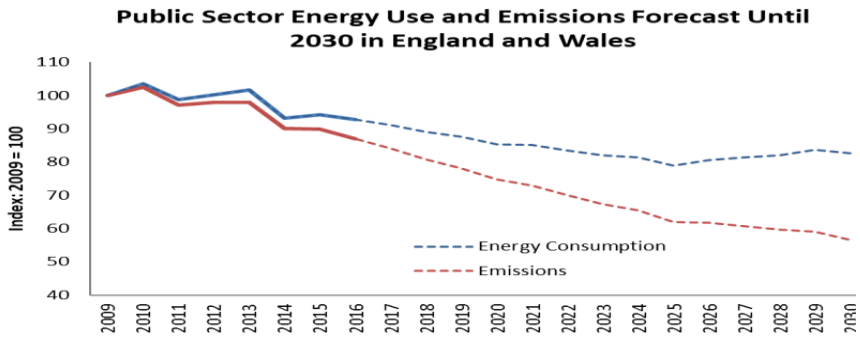
2.1.2. Public sector accounts for around 2% of all UK emissions, and the built environment accounts for around 40% of that total.

2.1.3. In 2017 the Department for Business, Energy and Industrial Strategy (BEIS) found that schools used around 13 terawatts of electricity and generated over 4.6 million tonnes of carbon.

2.1.4. An average secondary school produces 200-300 tCO_2 and an average primary school 40-70 tCO_2 per annum.

2.1.5. The Diocese must develop a strategy to reduce energy & carbon for schools to contribute to the UK government reducing its carbon footprint.

2.1.6. The Department for Business, Energy and Industrial Strategy is encouraging schools to use energy data to help schools reduce their energy consumption by 15% and emissions by 40% by 2030.



2.2. Streamlined Energy and Carbon Reporting

2.2.1. The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 came into force on 1 April 2019 and apply to financial years starting on or after 1 April 2019. The legislation is aimed at tracking progress to the government's carbon reduction targets. ESFA has confirmed with the Department for Business, Energy and Industrial Strategy (BEIS) that academy trusts are within the scope of the legislation.

2.2.2. Streamlined Energy and Carbon Reporting (SECR) for academy trusts, disclosures were required for the first time in their 2019/20 accounts. From 2020/21 onwards, the prior year equivalent figures are also required to be disclosed for comparison purposes. The Diocese will implement this on a voluntary basis for all schools to assist in achieving its Net Zero ambitions and as best practice to assist in reducing its carbon footprint. SECR require organisations to develop key performance indicators which:

- Clearly reflect the scope of matter material to both your company and your stakeholders
- Transparently review the quality of your disclosures
- Provide clear conclusions on data quality and processes
- Be conducted by a qualified, independent third-party reviewer
- Meet the requirements of a recognise standard
- Be easily understood and jargon free

2.3. Diocese Obligations

2.3.1. Legally the government currently have no legislative tools to enforce the Diocese to reduce its carbon footprint however legislation may alter in the coming years.

2.3.2. With the adoption of net Zero by 2050, the Diocese recognise that we must change from our current position and existing process, linking estate & energy management together and introducing a strategy of by buying better, using less and generating more we will be able to achieve our aspirations of achieving Net Zero by 2030.

2.4. Diocese Target

2.4.1. Due to the volatility of current energy prices, the Diocese must act now and reduce the amount of energy it consumes, market predictions do not see a considerable decrease in energy prices for the next five years.

2.4.2. The reduction of our carbon is directly linked to the consumption of energy from the grid or renewable sources which has financial implications to each school.

2.4.3. A 10% reduction over the next 12 months will equate to a saving of 317564.3 kWh for electricity, 1,042536 kWh for gas and a cost saving of £47,634 for electricity and £41,701 for gas against current spend across our schools.

3. Energy Procurement (Buy Better)

3.1. Centralised Procurement

3.1.1. Currently, the Diocese do not have a centralised procurement strategy and do not manage the procurement of energy for our schools. Our energy is purchased indifferent ways, through brokers, local authorities, and frameworks to name a few. We have found that these schemes do not consider the individual needs and requirements for each school and do not represent the best interest of our schools. As part of a recent benchmarking exercise out of 35 schools participating overpayments to the value of £tbc have been identified, we have found that existing procurement routes are for the benefit of the framework provider and have unnecessary layers of additional costs. The Diocese will look to undertake a value for money exercise and select a single provider to procure energy across the Diocese as opposed to at an individual school level. As a Diocese we need to:

- rationalise individual school contracts into an umbrella contract with a common start and end date, this will enable better purchasing power, assist with economies of scale and have a single start and end date - 1 contract to be signed as opposed to many individual contracts with different start and end dates as the schools currently do.

- have penalty clauses removed from supply agreements on usage.

- appoint a single supplier to provide us with greater access to data separate from supply agreements, this will further reduce costs over current arrangements, provide the schools with usage and cost data in near real-time ahead of their bill. This will be used as part of a strategy enable the introduction of the management of our energy use, achieve cost savings and provide improved financial control. This data will be used for procurement and profiling of energy use further reducing costs and enabling contracts that are specific for individual school needs and requirements as opposed to the benefit of the provider arranging individual contracts for our schools.

3.2. Procurement and Risk

3.2.1. We need to continually market test the cost of energy and must consider:

- the best procurement route; be that self-managed in line with financial regulations or the use of frameworks.

- how much risk the Diocese is willing to take in relation to longer term price certainty compared to shorter-term riskier contracts where the price is subject to market volatility.

3.3. Central Billing

3.3.1. When putting a central supply contract in place for energy, central billing is advised. This will be awarded to 1 provider for electricity and 1 provider for gas and 1 bill and for each utility with a statement for each site's use, each school can set up individual direct debits for payments.

3.3.2. We have found that the current procurement arrangements across the Diocese have resulted in large overpayments by schools as we have proved in the current benchmarking exercise. Overpayments are due back to schools going back several years, which is a 'reactive strategy' and with the current rising cost of energy, schools cannot afford for this to continue. By implementing on-going bill validation, the Diocese will introduce a 'pro-active strategy' for bill validation to ensure overpayments are not made, enabling a cost 'prevention/avoidance strategy' as opposed to the reactive strategy currently in place.

3.3.3. By implementing centralised billing there will be 1 electricity and 1 gas bill per month as opposed to 100's across the Diocese, enabling better transparency and improved control across the schools improving accuracy and reducing costs.

3.3.4. Further cost savings can be made by awarding a contract for the collection and management of energy data outside of supply agreements. In addition to cost savings, the Diocese will be able to retain historic data through 1 central source which will assist in energy management and grant bids in the future.

3.4. Volume Tolerance

3.4.1. By removing minimum or maximum volume tolerance levels against usage at each school, provides flexibility for the introduction of energy efficient technologies and low/zero carbon heating without having penalty clauses levied against them.

3.4.2. Having some volume tolerance may return a better price as the risk to the suppliers may be seen to be reduced, low/zero carbon heating solutions are dependent on a capital replacement/improvement scheme through grants such as Public Sector Decarbonisation Scheme or the implementation of renewable generation.

4. Reduction of Energy Consumption

4.1. Six steps to reduce energy, costs & carbon

4.1.1. Measure – energy data must be collected easily and effectively (see procurement above), must be accessible by all through a central source to be able to monitor, measure and verify impact of energy usage within schools across the Diocese.

4.1.2. Control – by improving the control of each school's plant and equipment effectively through a Building Management System (BMS) energy usage can be reduced and savings made

4.1.3. Optimise – using the BMS to control plant and equipment will reduce usage and costs

4.1.4. Comply – by managing assets effectively and optimising them to reduce energy costs, further costs can be made against legislative requirements.

4.1.5. Maintain – manage your assets properly, utilising a preventative maintenance as opposed to a break fix reactive strategy for asset management results in cost savings and extending longevity of equipment reducing lifecycle costs

4.1.6. Renewable Technologies – introduce generation capabilities at each school along with Heat Decarbonisation – replacement with low/zero carbon heating solutions and schemes

4.2. Core Elements

By following a structured programme and strategy the above elements must always have the core elements of our energy management policy when making decisions around estate and energy management, namely:

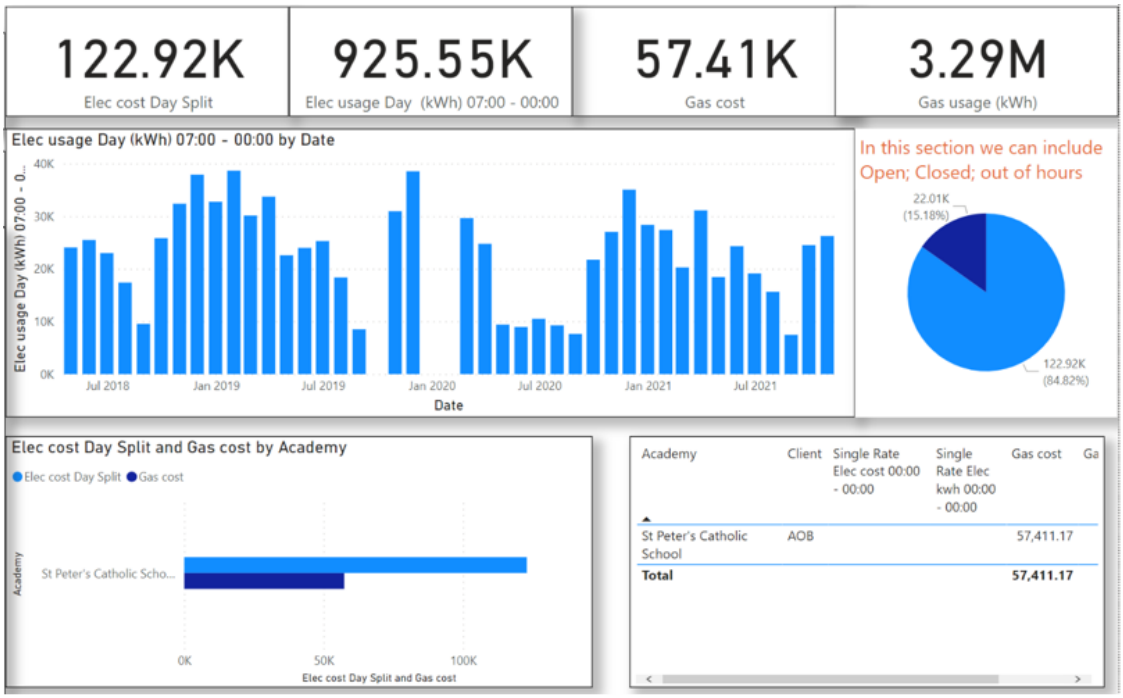
•Buy better

•Use less

•Generate more

4.3. Energy Monitoring

4.3.1. From 1st April 2022 a pilot scheme of 35 schools will be undertaken to provide access to energy data as per the below dashboard, reports will be provided, this can be published throughout the school and will assist in accurate procurement, energy management and energy/carbon reporting and cost reduction by identifying opportunities for energy, carbon and cost savings.



4.3.2. Lack of information and understanding of the school's energy use is a contributory factor to unnecessary energy usage/costs.

4.3.3. A targeting campaign will be undertaken in the first instance to reduce energy usage/costs when the schools are closed.

4.3.4. A baseline for improvements will be established at each school to set reduction targets

4.4. Energy Efficient Technologies

4.4.1. A replacement of traditional lighting for more energy efficient LED lighting will be explored – funding dependent

4.4.2. Cloud computing will be considered as opposed to onsite traditional server technology reducing costs/carbon this will reduce Scope 2 emissions; however, this will require the Diocese to ensure they can accurately report on Scope 3 emissions

4.5. Targets

4.5.1. The schools will be provided with advice and guidance as to how to reduce their baseline energy usage, costs and carbon. Key Performance Indicators have been agreed and targets set as detailed below.

4.5.2. The KPIs will be against the agreed baseline will measure the impact of improvements and this will be used as the benchmark that the Diocese will report against for Streamlined Energy and Carbon Reporting.

The Key Performance Indicators for the management of energy are:

➢ Total electricity kWh (Scope 2) ➢ Total gas kWh (Scope 1) ➢ Total electricity cost (Scope 2) ➢ Total gas cost (Scope 1) ➢ cost per pupil ➢ kWh per pupil ➢ cost per m_2 ➢ kWh per m_2 ➢ cost per m_2 open ➢ kWh per m_2 open ➢ cost per m_2 closed ➢ kWh per m_2 closed ➢ cost per m_2 weekends ➢ kWh per m_2 weekends ➢ cost per m_2 holiday ➢ kWh per m_2 holiday ➢ percentage of energy used generated from renewables	Our target is to reduce our usage from the 2018/19 baseline by: 5% by September 2022 and 10% by March 2023

5. Generating Electricity

5.1.1. There are a number of private sector funders such and social enterprises which will fund photovoltaics and LED lighting in schools with schemes that can fund through an operating lease which has been approved in accordance with the academies financial handbook.

5.1.2. The Diocese will seek to generate energy from Solar PV & Batteries onsite where possible. Grants and alternative procurement options will be sought for the installation of such schemes.

5.1.3. Generating electricity does not make the schools more energy efficient but it does minimise risk and exposure to volatile market prices as well as reducing our emissions.

5.1.4. Solar PV & Battery storage will be considered under a 'Storage-As-A-Service' model, no capital outlay but reduced costs will be achieved within our schools.

6. Decarbonise Heat

6.1.1. The Diocese will follow government directives and funding the current opportunities concentrate on end-of-life boilers to be replaced with low/zero carbon alternatives – District heat Networks and Air Sourced Heat Pumps

6.1.2. A whole building approach will be taken into consideration, starting with Fabric First, the Diocese will look to improve insulation, roofs, doors, windows and walls to ensure the thermal capacity of out buildings will enable the transition to this technology

6.1.3. Full building, mechanical, electrical, control and thermal imagery surveys have been used to provide a programme of works and costs to upgrade and replace 35 schools within our Diocese along with the creation of a Heat Decarbonisation Plan, this has been paid for under the Salix Low Carbon Skills Fund.

6.1.4. Capital replacement programmes will be applied for under the Public Sector Decarbonisation Grant Scheme and alternatives as they become available.

6.1.5. Applications will be made in accordance with government funding to undertake surveys and plans at all schools within the Diocese to enable the Decarbonisation of Heat and the transition to Net Zero.