

2025 St. James Episcopal Church

Energy Audit

History

In December, 2022, the St James Creation Care Committee authorized the first Energy Audit following the format suggested by the Diocese Creation Care Committee. The 2023 Report divided St. James into the following areas: the Sanctuary, the Guild Hall, Classrooms and Meeting Spaces (Upstairs), Kitchen/Food Service Areas, the Undercroft, and the Exterior of the Church. The systems inspected were: Lighting, Heating and Cooling, Water Use and Water Heating, Kitchen/Food Service, Business Operations, and Safety. We noted improvements made previously as well as suggestions for future work based on our observations.

The 2024 Energy Audit was completed in April and presented to the Vestry in May. This report included significant updates made over the past year including the installation of a new boiler, installation of a variable frequency drive in the Guild Hall, carbon monoxide detectors in the Guild Hall, the replacement of lighting in the kitchen and storage area with LED, and the recognition of the water savings by having volunteers do spot watering instead of using the sprinkler system on the Yale side of the church. Outlined as goals for 2024 included attention to weather stripping on all doors after the doors have been repaired, continuing to replace old bulbs with LED, an inspection to detect sprinkler heads not functioning properly and installation of drip sprinklers when possible, and the installation of a Monarch Waystation using native plants to call attention to the benefits of using native plants.

The Vestry accepted the 2023 report in April, 2023 and the 2024 report in May of that year. Both reports are available on the Creation Care website.

2025 Updates

While significant energy efficiency improvements were made over the past years, additional changes will require a major investment. When the Inflation Reduction Act was passed by Congress, significant money was poured into programs that addressed energy efficiency. Those programs have been largely discontinued or defunded at the current time. Danny is investigating a Westar program that may partially assist in paying for installation of LED lights if labor is provided.

LED Replacements: All lights, apart from those in the upstairs rooms and the Guild Hall, have been changed to LED. These will be replaced as needed.

Weather stripping: Repairs are made on the doors when time is available. Weatherstripping cannot be installed until the repairs are made.

Automated lights: Motion sensitive lights were installed in high traffic areas and do not depend on faulty memories to turn off lights and waste energy. These have reduced our energy usage. On occasion they must be reset to continue to work as designed.

Congregation Involvement: The Creation Committee instituted a project during Lent that suggested that everyone select one or more ways to conserve water or electricity in their homes or in the environment. Parishioners responded with some good ideas they were going to try. While this does not directly reflect reduced energy levels at St. James, it encourages conversations about individual responsibility and action.

Future needs:

1. Additional Security: This would not increase our energy efficiency and may result in more energy usage. There are doors that are currently not monitored. With increased usage of the church, this may be necessary.
2. A new chiller: St. James will eventually need a new chiller. Danny does not recommend its purchase until necessary as there is currently not enough return on this significant monetary investment to justify its purchase. We recommend ongoing discussion and monitoring of this item.
3. Weather stripping: This is a time-consuming project but could be a project that could save energy and funds.

The graphs on the following pages are comparisons of electric and gas usage in 2019, 2022, 2023 and 2024. Consideration must be given to the temperature fluctuation in each of these years as well as church activity. Thanks to Suzi Stallings for providing this data.

While the Creation Care Committee wants to continue to review the energy usage each year, we also understand that increased energy usage could mean more church activities focusing on all age levels, more members engaged in the work, and more connections being made – not just on Saturday night or Sunday morning but every day.

The Creation Care Committee commends the work of Junior Warden Danny Blair, in keeping the church's systems running but also his planning for the future.

Respectfully submitted,

Claudette Johns

Members of the Creation Care Committee