

SAINT MICHAEL'S EPISCOPAL CHURCH
BRATTLEBORO, VERMONT

REQUEST FOR PROPOSAL

Solar Power for the Church and Buildings

RFP RELEASE DATE: March 4, 2022

LOCATION: 16 Bradley Avenue, Brattleboro, VT 05301

POINTS OF CONTACT: Jon Davis, Building Project Team Member, (jsdavispe@gmail.com, 774-994-3280); Alan McBean, Chair of Building Project, Vestry member (amcbean57@gmail.com, 802-258-0971).

COMMUNICATION: In order to receive email communications regarding this solicitation during the pre-bid time frame, *interested firms need to send an e-mail to Jon Davis (jsdavispe@gmail.com) indicating a point of contact (firm name, e-mail and phone number).*

1.0 INTRODUCTION

St. Michael's Episcopal Church in Brattleboro, VT is requesting proposals to design, construct, and potentially to operate a photovoltaic (PV) solar array structure sufficient to provide 110% of its electricity for the church and associated buildings. Recent electric usage provides an unreliable baseline because of reduced load caused by the Covid-19 pandemic curtailments in building use. However, two months of pre-pandemic data for January and February suggest an electricity demand of approximately 35,000-40,000 kWh's per year although we expect the selected firm to evaluate historical and projected electricity use (after St. Michael's converts to predominantly electric heat in 2022) and identify the proper size for the solar PV system.

St. Michael's specifically seeks information on the proposed approach and estimated costs for the following Solar PV scenarios:

1. Solar PV to meet the 110% goal assuming consistent current use (based on analysis of historic use).
2. Solar PV to meet 110% of projected future use given St. Michael's commitment to convert its heating and cooling to all-electric mini-splits. St. Michael's Church is a facility of approximately 18,700 square feet with an estimated current heating oil consumption of 9,200 gallons/year.
3. Solar PV to meet projected future use for conversion to all-electric operations described in Scenario #2, *and* that considers additional possible future demands from climate change and St. Michael's commitment to support the community in case of climate emergencies. St. Michael's anticipates becoming a community gathering center in the event of climate disruptions. For the purposes of this RFP, assume a potential future use of 125% above projected need after fuel conversion to all-electric mini-splits.

St. Michael's also seeks information on innovative financing for this project (e.g., potential grants, power purchase agreement, low cost loan, other).

1.1 Overview

St. Michael's is "a Christ-Centered community of practice" that values environmental stewardship and climate responsibility. The church seeks to live its values through demonstrable actions that can provide a model for other churches. With this RFP we are seeking a firm that will partner with us to achieve the Episcopal Diocese of Vermont's Resolution on the Transition to Renewable Energy. The resolution calls for a transition to 100% renewable energy by 2030. We seek to begin this transition by acquiring 110% of our electricity from the sun within the next one to three years. The added 10% our church's call to tithe. A solar array that provides 10% more power than we need provides our "Earth Tithing."

St. Michael's Church has passed its own resolution that demonstrates its commitment: *St. Michael's commits to its mission of stewardship of the earth by pursuing an end to our reliance on fossil fuels and a transition to 100% clean, renewable energy by 2030; furthermore, to demonstrate our commitment, St. Michael's will begin a phased approach to transition its heating and cooling systems to all electric.*

We yearn to accomplish this transition to solar by maximizing our solar potential at our 16 Bradley Street location to make a visible statement of our values to the broader community. This project addresses electricity use at the main part of the church (the Sanctuary), the attached office and meeting room wing (the Bradley wing), and the Rector's house (the Rectory).

St. Michael's sees implementation of solar not only as a way to be climate responsible for ourselves, but also to serve as a beacon and motivator for the broader community. We seek to become a mentoring community and demonstration project to catalyze other churches seeking similar renewable energy goals.

1.2 Related Projects at St. Michael's in 2022

1.2.1 Roofing. St. Michael's has contracted with Phoenix Construction to 1) replace the roof on the Bradley Wing and one-half of the rectory with new asphalt shingles with planned completion in August 2022, and 2) replace the slate roof on the sanctuary with new standing seam copper with planned completion in November 2022.

1.2.2 Mini-Split Heating and A/C. St. Michael's is accepting bids (as of March 2022) to install new mini-split heat pump units throughout the Sanctuary, Bradley Wing and the Rectory. Current electrical panel sizing and configuration will likely be impacted by the mini-split project which is planned for completion in fall 2022.

2.0 OBJECTIVES AND NEEDS

St. Michael's seeks a Firm that will support the church staff and volunteers in three primary areas:

2.1 PV Sizing. Carefully reviewing past electrical needs (and estimating future needs) to determine the appropriate size/output for a solar array needed to respond to **the three scenarios outlined in the Introduction (1.0).**

2.2 PV Siting Options. Developing creative options for arranging the solar panels to provide sufficient power *and* a visual statement for the community, while not marring the historical look and feel of the church. Options to consider include:

2.2.1 All On-site. Obtaining all power from the Bradley Street location using roof and/or ground mounted systems;

2.2.2 On-site and Off-site. Identifying alternative ways/locations to provide 110% of power if sufficient suitable space is unavailable at the Bradley Street to meet one or more of the three scenarios.

2.2.3 On-site and Off-site Teaming. Teaming with other churches to create a shared solar farm, describing what that would entail, how much land would be needed, how it would work, and approximate costs.

2.3 PV Financing. Outlining multiple financing strategies to indicate the best option for the church:

2.3.1 Power Purchase Agreement (PPA): Because St. Michael's is a nonprofit entity, it seems likely that the best financial option for developing this solar array is by entering into a Power Purchase Agreement (PPA) structure, in which a third party owns and operates the solar array for a specified term, offering electricity supply to St. Michael's at par, or at a discount compared to the current electric utility. Obtaining rebates and funding for PV systems is encouraged. After the agreed upon term, St. Michael's would have the option to either purchase the equipment and operate the array for its own benefit or continue with the PPA for a defined term with options for renewal. Under a PPA the developer/owner of the project will perform all maintenance and service on the installed system for the initial term.

Options for Funding the PPA: Address the feasibility and process for funding a PPA in a variety of ways. Also provide a clear description of the short and longer-term (over 10 to 20 years) costs and benefits for each of these options:

1. Conventional PPA approach with 100% outside investors.
2. PPA that is funded internally by a group of St. Michael's investors (e.g., members of the congregation).
3. Shared approach that blends congregational and external investors.

2.3.2. Outright Purchase of the Solar System: In the event that St. Michael's implements a Capital Campaign, an outright purchase strategy may be appropriate. Provide a cost to furnish and install the system only. Show how this cost compares to the PPA approach over a 10- and 20-year period.

2.3.3 Collaborating with other Churches and/or Aligned Institutions: Provide information on the cost, approach, and feasibility of a third strategy which may involve St. Michael's joining with other institutions to create a solar farm that would power several entities rather than just our facility.

3.0 SCOPE/TECHNICAL SPECIFICATIONS

3.1 Option 1. Furnish, install, operate, and maintain system, including but not limited to:

- a. Incur all expenses associated with the furnishing and installation of a PV system at St. Michael's church
- b. Pricing shall be net (meaning reflects all discounts and incentives) and include all costs
- c. Provide a proposed capacity of the system and an estimated operation date for the system
- d. Provide discounted pricing for electricity and an electricity pricing structure for 5, 7, 10, and 20-year PPA terms, including any annual escalation percentages and any additional rate increases for the life of the term(s).
- e. Provide estimated costs for St. Michael's to purchase the system at the end of each PPA term
- f. Provide additional services to the system as required
- g. Acquire and maintain throughout the entire contract period, all required permits, licenses, interconnection agreements, inspections, and approvals
- h. Plan view of proposed system layout and description of the level of detail firm will provide in design drawings (e.g. electrical routing, electrical enclosures, electrical line diagrams, mounting details, interconnection details and P.E. stamp(s))
- i. Description of PV monitoring and reporting system
- j. Warranty description for materials, panel energy production, inverters, and workmanship including transferability to St. Michael's
- k. Description of staff/firm licenses and project/material code compliance and UL listings
- l. As-Built Drawings
- m. Operation/Service manual

3.2 Option 2. Provide a cost to furnish and install PV System only

- a. Pricing shall be net and include all costs to furnish and install system
- b. Provide a proposed capacity of the system and an estimated operation date for the system
- c. Acquire and maintain throughout the planning and construction period, all required permits, licenses, interconnection agreements, inspections, and approvals
- d. Plan view of proposed system layout and description of the level of detail firm will provide in design drawings (e.g. electrical routing, electrical enclosures, electrical line diagrams, mounting details, interconnection details and P.E. stamp(s))
- e. Description of PV monitoring and reporting system
- f. Warranty description for materials, panel energy production, inverters, and workmanship including transferability to St. Michael's
- g. Description of staff/firm licenses and project/material code compliance and UL listings
- h. As-Built Drawings
- i. Operation/Service Manual.
- j. Operation and maintenance options (if available)

3.3 Option 3. Provide process explanation and approximate cost for working with St. Michael's Church and other institutions to develop a solar farm or other kind of group solar project.

3.4 Summary Table Comparing the Options. Provide an easy-to-read summary table that compares all the above options to support the St. Michael's Church decision-making. The table should include information on cost, maintenance responsibilities, pros and cons, incentives, and any other information you deem important.

4.0 INSTRUCTIONS FOR SUBMITTING PROPOSAL

4.1 Format and Contents of the Proposal:

Responses should address all sections of this solicitation. The response must be in sufficient detail to allow the evaluation committee the ability to evaluate the submission. Submissions must follow the same sequence and numbering scheme used in this RFP.

Provide the following information in a single PDF document emailed to:

Jon Davis (jsdavispe@gmail.com)

Information to be included:

- Cover sheet clearly identifying the Firm submitting the proposal and key points of contact at the firm
- Project summary in the form of a cover letter signed by an authorized officer of the firm. This letter should also include a stated date commitment for when the work could commence once the award is granted.
- Detailed project plan for fulfilling the contract per the Scope/Technical specifications
- Detailed financing information requested in the RFP, including itemized price quotes for each option.
- Requirements of St. Michael's if applicable (e.g., identify any services, information, equipment, space, or other conditions that must be fulfilled by the church in order to accomplish the goals of this RFP).
- Public outreach and education. St. Michael's wants to educate its congregation and the wider community on this project and the work that is being done. Describe what kind of support your Firm is willing and able to provide to support these educational efforts.
- Client references. Preference will be given to firms having demonstrated experience working in the faith sector. Provide at least 3 references where your firm has provided a similar scope of services. For each reference include name, address, telephone number, email, primary contact, and description of services provided.
- Other information: Provide any additional information your firm believes is pertinent to support your proposal, for example, any insurance your company offers, awards won for your work, or other information that supports your proposal.

4.2 Timing:

- RFP Release: March 4, 2022
- Deadline for questions by firms to St. Michael's Episcopal Church: March 15, 2022, emailed to Jon Davis (jsdavispe@gmail.com)
- Deadline for proposal submission: April 8, 2022, emailed to Jon Davis
- Deadline for In-Person Reviews by finalists: May 6, 2022
- Final decision: May 18, 2022