

Town of Lyme, NH
One High Street; PO Box 126
Lyme NH 03768
Phone: 603.795.4639 ~ www.lymenh.gov

Solar RFP

Proposals due by: **4:00 PM on September 6th, 2022** - SEALED PROPOSALS should be mailed to:

Town of Lyme
Attn: Dina Cutting
PO Box 126
Lyme, NH 03768

The Lyme Select Board will open the sealed proposals at a public meeting on Thursday, September 8, 2022, at 9:15 a.m.

Contacts:

Administrative contact: Administrative Assistant to the Board of Selectmen, Dina Cutting,
603-795-4639 or dina@lymenh.gov.

Technical contact: Energy Committee member, Mark Bolinger, mark.bolinger@gmail.com.

The town of Lyme, NH, seeks sealed bids for the turnkey installation and sale of a ~25-30 kW-DC photovoltaic (PV) system on the south-facing roof of Lyme's new fire station, located at 44 High Street in Lyme, NH 03768 (entering this address in Google Maps provides an aerial view of the OLD building, which has recently been demolished and replaced—see pictures of the NEW building on the following pages).

We estimate there are ~1,600 square feet (~31 feet high x ~52 feet wide) of unobstructed, south-facing roof that could be covered with modules in a rectangular array. Additional area is accessible with a sawtooth array layout (discussed later). The roof pitch is 5/12 (22.6 degrees tilt) and the azimuth is ~188 degrees. There is minimal or no shading.

The building (and its asphalt shingle roof) is roughly one-year old, and is serviced by Eversource's Rate G (General Service). Prior to its demolition, the old fire station (located at the same site) consumed ~13,500 kWh/year, and rarely exceeded 5 kW of maximum demand/month (the threshold above which demand charges kick in). The new building has not yet operated for a full year at steady state, but over the past 12 months consumed 17,320 kWh (some of which likely reflects the construction phase, based on timing and notable spikes in maximum demand/month over this period). Unless the building's consumption continues to rise, we expect a PV system of the capacity envisioned (i.e., ~25-30 kW-DC) to generate significantly more electricity than the building consumes, and plan to "group net meter" any excess generation against a different Town-owned building. As such, the Town is more interested in maximizing the amount of PV capacity installed on the south-facing roof than it is in matching the PV system capacity to the building's annual electricity consumption.

That said, two considerations might temper this "fill the roof" mentality. First, the transformer on the pole serving the building is sized at 25 kVa, which presumably limits the AC capacity to ~25 kW. Second, there is a lower gable roof that "dies into" the lower part of the south-facing target roof and thereby interferes with the portion of the roof where the bottom row (or two) of modules would otherwise be mounted (i.e., prohibiting a full row or rows across the entire roof). There is also a vent pipe in this same lower roof area (see picture). We have not yet decided whether it is best to stick with a perfectly rectangular array (e.g., 4 or 5 rows by 14 or 15 columns of modules in portrait) or to instead try to squeeze in a few more modules by staggering the bottom row (or two) along the gable roof valley in a sawtooth layout (while also avoiding the vent pipe). Respondents are welcome to argue in favor of one layout versus the other, and/or to propose both layouts (see pictures for illustrative renderings of each

type of layout).

In order to be eligible for federal incentives contained in the Inflation Reduction Act, the installation must occur in 2023 (not 2022). The Town has donor funding committed for this project; hence, this project will NOT need to go before Lyme voters on Town Meeting day. We expect the successful proposer to work with the Town on administrative matters, such as applying for interconnection, net metering, and the New Hampshire Public Utilities Commission C&I solar rebate. We expect the installation to meet all fire and safety code regulations applicable to a fire station. We are not interested in a power purchase agreement (PPA).

All proposals should include the company's project contact, including email and phone. All proposals should include information on equipment specifications (e.g., modules, module-level power electronics, inverters, racking, etc.) and applicable warranty terms, including the name of the company holding the warranties. In addition to equipment warranties, respondents must also provide a general workmanship warranty of at least five (5) years. All proposals should include production estimates. All proposals should indicate what type of web-based system monitoring interface will be provided. All proposals should include information, including references, on other similar projects completed or proof of qualification to successfully provide installation of project. All proposals should include contractor insurance, and a list of subcontractors to be used if applicable. All proposals should include information on how firm the proposed price is, given that installation may not happen until 7-8 months later. For example, if the proposal includes any price adjusters or indices, please note that and provide a clear explanation of how they would work.

The Town will host a meeting of interested contractors to tour the building – date and time to be determined. All questions must be submitted in writing to the Town's technical contact, Mark Bolinger, at mark.bolinger@gmail.com. All submitted questions and responses will be accessible to all bidders and posted at <https://www.lymenh.gov/energy-committee>.

Bids will be evaluated on the following criteria: competitive pricing; equipment specifications; company reputation; evidence of ability to successfully bring project in on time and within budget; cost guarantees; warranties on parts and labor.

The successful bidder will be required to enter into a "contract acceptable to the Town." As required by RSA 447:16, the successful bidder will be required to obtain sufficient security, by public works payment and performance bond or otherwise, in an amount equal to at least 100 percent of the contract price, or of the estimated cost of the work if no aggregate price is agreed upon, conditioned upon the payment by the contractors and subcontractors for all labor performed or furnished, for all equipment hired, including trucks, for all material used and for fuels, lubricants, power, tools, hardware and supplies purchased by said principal and used in carrying out said contract, and for labor and parts furnished upon the order of said contractor for the repair of equipment used in carrying out said contract. A performance bond would guarantee faithful performance of the contract by the prime contractor. A payment bond would guarantee that all subcontractors and material suppliers engaged to do work or deliver materials for a public works project are paid in full.

The Contractor will carry any and all insurance which will protect it, the Town of Lyme, its officials, agents, volunteers and employees from any and all claims and demands, costs, damages, loss of service or consortium, expenses, compensation and attorneys' fees including but not limited to any and all claims for personal injury and/or death, workers' compensation injuries, and property damages which may, in any way, arise from or out of the operations of the Contractor whether such operations be performed by the Contractor itself, anyone directly or indirectly employed by it or any other persons or company retained in any way to carry on all or portion of the operations, activities or work required by or related to the Contract. The Contractor further agrees that the Town of Lyme and its officials, agents, volunteers and employees shall be named as an additional insured on all relevant liability insurance policies.

Prior to commencing work, the Contractor shall demonstrate that it carries a general liability policy with limits of \$1,000,000 per occurrence and \$2,000,000 aggregate, as well as completed operations coverage, applicable to the work performed under the Contract and all liabilities as set forth above. The general liability policy must also contain contractual liability coverage applicable to the contractual indemnification obligation set forth below. This requirement may be satisfied by an umbrella policy at the Contractors discretion.

The Contractor shall provide proof of automobile insurance coverage in an amount deemed satisfactory to the Town of Lyme for the project.

The Contractor will furnish to the Town of Lyme a Certificate of Insurance and an endorsement prior to executing the Contract or commencing work demonstrating that the Town of Lyme and its officials, agents, volunteers and employees are named as an additional insured on the general liability and automobile liability insurance coverage on a primary and noncontributory basis.

The Contractor shall provide proof of workers compensation insurance meeting State of New Hampshire required limits and providing employer's liability coverage.

To the extent Contractor utilizes the services of an architect, engineer, surveyor or any other industry professional, all such professionals, in addition to the general and automobile liability coverages described above, shall carry professional liability insurance with minimum limits of \$1,000,000 per occurrence and \$2,000,000 aggregate. Such professionals shall name the Town of Lyme and its officials, agents, volunteers and employees as an additional insured on the general and automobile liability coverages by certificate and amendatory endorsement.

The Town of Lyme shall not be required to insure the Contractor, any subcontractor or any professional service provider.

To the fullest extent permitted by law, Contractor shall protect, indemnify, save, defend and hold harmless the Town of Lyme, including its officials, agents, volunteers and employees ("Indemnified Parties"), from and against any and all liabilities, obligations, claims, damages, penalties, causes of action, costs, interest and expenses, including but not limited to reasonable attorney and paralegal fees, which Indemnified Parties may become obligated or suffer by reason of any accident, bodily injury, personal injury, death of person, economic injury or loss of or damage to property, arising indirectly or directly under, out of, in connection with, or as a result of this Contract or the activities of Contractor or its agents, employees, contractors or subcontractors, and even if caused in part by any negligent act or omission of Indemnified Parties.

In addition, and regardless of respective fault, Contractor shall defend, indemnify and hold harmless the Indemnified Parties for any costs, expenses and liabilities arising out of a claim, charge or determination that Contractor's officers, employees, contractors, subcontractors or agents are employees of the Indemnified Parties, including but not limited to claims or charges for benefits, wages, fees, penalties, withholdings, damages or taxes brought in connection with laws governing workers compensation, unemployment compensation, social security, Medicare, state or federal taxation, and/or any other similar obligation associated with an employment relationship.

The Contractor's obligations to defend, indemnify and hold harmless the Indemnified Parties hereunder shall survive the term of this Contract.

The Town of Lyme shall not be required to defend or indemnify the Contractor, any subcontractor or any professional service provider."

The Town reserves the right to accept or reject any and all bids

Appendix: Site Pictures



Lyme fire station from the SouthWest corner (note the vent pipe, which seems to be below where the gable roof dies into the south-facing target roof, and so would presumably lie below a rectangular array layout)



Lyme fire station from the SouthEast corner



25 kVa transformer that serves the building



Two electrical panels and generator interface



Both electrical panels



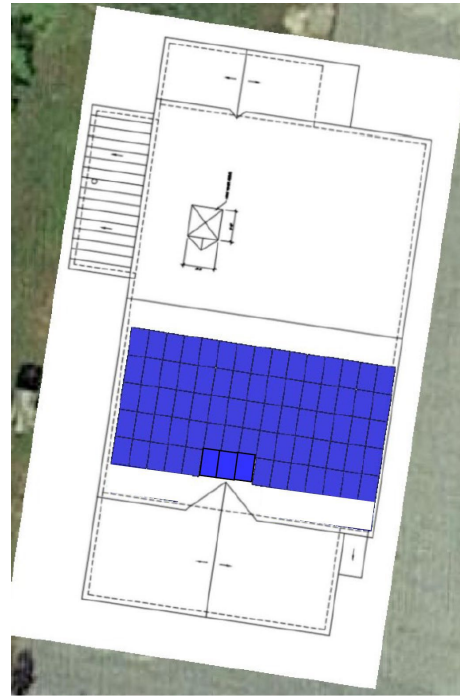
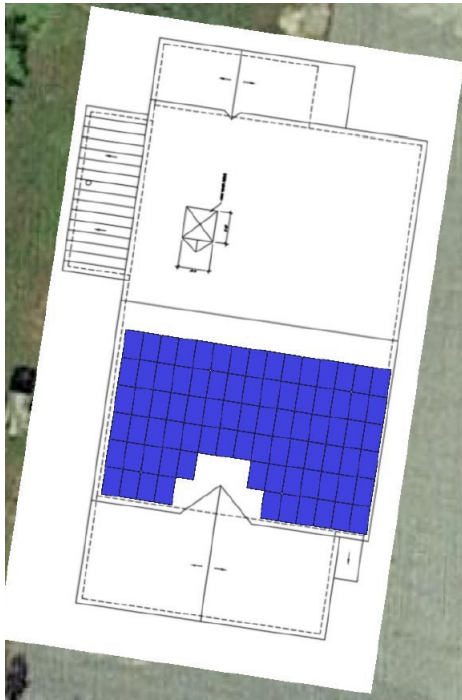
Main electrical panel



Sub-panel (or switch?)



Framing of the south-facing target roof



Sawtooth layout (left) and rectangular layout (right). To accommodate 5 full rows in a rectangular layout, the entire array may need to be shifted slightly higher, toward the peak of the roof.