



## Town of Derry, New Hampshire

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### REQUEST FOR QUALIFICATIONS

B21-018

July 23, 2021

The Town of Derry - Department of Public Works is seeking proposals for:

## Group Net Metering Photovoltaic System

Offered by:

### Town of Derry – Public Works Department

RFP Process Coordinated by:

Michael A Fowler, P.E., Director  
Department of Public Works  
14 Manning Street  
Derry NH 03038  
(603) 432-6144

### Background:

The Town of Derry invites qualified vendors (“Proposers”) to submit proposals for installation of solar panels (2.2 MW) on the Town’s solid waste landfill, located on Kendall Pond Rd to support the electricity needs of Town buildings in a group net metering arrangement. All Proposers responses to this RFP shall be assumed to be compliant with all provisions of this RFP, unless specifically noted by Proposer in their response (and as listed in Appendix F).

### Landfill History

The Derry Landfill located on Kendall Pond Road consists of approximately twenty-seven (27) acres of covered area and is comprised of two (2) contiguously capped sections (see Appendix B for map). One section is approximately twenty (20) acres of sanitary municipal waste and was operated from approximately 1974 to 1985 (now referred to as LF 86). The second section is approximately seven (7) acres of demolition debris and tree stumps that operated from approximately 1980 to 1990 (now referred to as LF 98). These sections were closed and capped in 1986 and 1998 with a

30 mil PVC liner and 40 mil textured HDPE liner, respectively. The two sections are hereafter referred to as the 86 and 98 landfills based upon year of closure.

## Landfill Construction

Construction of the cap over LF86 was completed in 1986. This cap consisted of 12 inches of interim cover overlain by 12 inches of sand overlain by a 30 mil PVC liner. The liner was covered with 18 inches of sand overlain by 6 inches of topsoil. Side slopes of the cap range from 2 to 29 percent.

The construction of the cap over LF98 was completed by the Town of Derry between April and November 1998. The cap consisted of 12 inches of intermediate cover over the solid waste, overlain by 12 inches of stone dust, overlain by forty (40) mil HDPE. Twelve (12) inches of stone dust was placed over the HDPE followed by 6 inches of silt and 4 inches of topsoil. Side slopes of the cap range from 8 to 29 percent.

There is a passive landfill gas venting system installed in the landfill. The system consists of 22 vertical perforated PVC pipe installed at varying depths within the landfill to vent to the atmosphere and prevent gas build up or migration. There are also three (3) gas monitoring probes outside the footprint of the newer landfill to monitor for potential migration of landfill gases.

Surface drainage from both sections of the landfill cap relies primarily on sheet flow over the landfill cap with run-off routed around and through a series of drainage ditches and swales prior to being released into grassy areas near Beaver Brook or surrounding wetlands. LF86 also has a subsurface drainage tile system in a portion of the landfill. The subsurface consists of perforated piping approximately 2-feet below surface within a pea-stone backfill covered by filter fabric.

The capping system is maintained in accordance with standards set forth in NHDES landfill post-closure regulations and guidelines. Semiannual inspections are conducted to identify the presence of leachate, cap erosion, groundwater/gas monitoring well and gas vent damage, excessive settling, perimeter control, and sparse vegetation. The cap vegetation is cut once per year beginning in late summer. The results of the inspection and monitoring are reported annually to the NHDES Solid Waste Management Bureau.

## Total/usable Acreage

An estimate of “usable acreage” was made using the Town’s GIS system. In preparing the estimate, it was assumed that a solar array would require relatively flat, level areas to construct the array.

The larger, older section of the landfill (LF86) has approximately 10 acres of relatively flat level area. There are 15 landfill gas vents within this area that would have to be

worked around. In addition, it would be advisable to avoid placement of any footings above the tile drain system to avoid damage to the piping.

The newer section of the landfill (LF98) consists of a large hill which is mostly sloped and only a small flat/level area exists at the top which is approximately 0.5 acres in size.

## Regulatory Discussions and Required Site Work

Recent discussions with NHDES Solid Waste Bureau indicate that an assessment of the LF86 cap liner would not be required provided the following: 1) that any excavation into the cap for purposes of placement of footings is limited to a shallow work, few inches to a foot such that it leaves a buffer distance to the liner and does not penetrate the liner, and 2) a review of long term groundwater monitoring data does not suggest a breach of the liner.

LF86 has some areas of uneven settlement which formed some localized depressions which temporarily collects runoff. These areas will be addressed by the Town of Derry for filling and grading to promote positive drainage, prior to the start of the project. Any new depressions caused by Proposer's construction activities would need to be corrected by the Proposer.

The 15 landfill gas vents located on LF86 would need minor modifications to raise the height above the solar array and will be addressed by the Town of Derry prior to the start of the project.

The attached imagery (Appendix B) is taken from the Town's GIS System. The estimated available area could change based on the site inspection and the individual Proposer's approach using their technology and installation methods. Proposers may access the Town's GIS at [www.derrynh.org](http://www.derrynh.org) for their own use.

Proposers may access the FEMA flood map #33015C0527E for related data on flood zones within this property.

The Proposer shall be responsible for preparing and submitting a landfill modification permit reflecting the proposed site changes based on the existing permit DES-SW-TP-94-011 in accordance with Env-Sw 807.05(0). Please refer to Appendix D and the NHDES website for further information on requirements.

The Proposer shall provide copies of plans, studies and other accompanying information to assist the Town in its evaluation of the proposals. A Planning Board site plan review will also be conducted by the Town prior to start of the project.

A list of Town meters and approximate electricity usage for the period of calendar year 2019 is attached as Appendix A. The 2.2 Mw system would be for the municipal buildings listed in Appendix A. In addition, a list of schools buildings is shown in

Appendix A as an option (approximately 2.7M kwh/yr total). For the Proposer that is selected for the landfill site, the schools will be a future option but will require site visits and a business case presentation to the School Board for approval. Proposer should include optional pricing discounts in their proposal if the schools are added to the project in the future.

## Project Intent

The Town of Derry is seeking a proposal to include the following components:

1. The Town of Derry is seeking proposals to either purchase the solar panels outright or consider a lease to own option as offered by the Proposers (PPA). All submissions shall explicitly state a firm annual lease for the duration of the contract (minimum of 25 years) and a buy-out amount starting at the end of Year 5. If escalation clauses are to be included, the proposal shall include percentage increases for each year over the 25-year period.
2. The Proposer shall be responsible for system design and permitting through NHDES and other regulatory agencies such as NHPUC. This would include any Wetlands permit for the crossing of Beaver Brook. Proposer will be responsible for completing the Eversource Interconnection Agreement and any other Eversource requirements to complete the project. These costs shall be included in the Proposer's price quote (see attached), with any relevant assumptions, based on previous landfill projects that the Proposer has completed.
3. The Proposer shall provide a glare study that takes into consideration surrounding homes, roads and highways.
4. The Proposer shall furnish surety (bond) for 100% value of the project cost, if the project is an outright purchase.
5. The Proposer will not be responsible for building permit fees and property taxes if the proposal includes provisions for the Town to own the panels outright. ***If the proposal includes a lease provision, the Proposer should assume that it is their responsibility to pay annual tax payments for the duration of private ownership. If there is a future adoption of a Payment in Lieu of Taxes (PILOT) as permitted by New Hampshire RSA 72:74, the Town of Derry would seek a renegotiation of terms of the proposed contract.***
6. In a lease scenario, the Proposer may apply for tax credits and other incentives as eligible. The Proposer may retain the credits/incentives as part of the overall

financial proposal. For an outright purchase, the Town would capture those credits, if available to them (including all RECs). If the Town should purchase the system at a future date (e.g. at the end of Year 5) then the Town would receive all RECs following the purchase date.

7. The Proposer shall provide liability insurance for the duration of the lease with the following minimum limits:

Coverage must be written with an insurance carrier licensed to do business in the State of New Hampshire. The Town of Derry requires thirty (30) days written notice of cancellation or material change in coverage. The successful Proposer is responsible for filing updated Certificates of Insurance with the Town of Derry during the life of the contract.

The successful Proposer shall provide a Certificate of Insurance with evidence of the following coverage to the Town of Derry prior to commencing work under the contract document.

Comprehensive General Liability - \$1,000,000 per occurrence/ \$2,000,000 aggregated – Town of Derry must be named as an additional insured.

Motor Vehicle Liability - \$1,000,000 combined single limit – Town of Derry must be named as an additional insured. Coverage must include all owned, non-owned and hired vehicles.

Workers' Compensation – as required by statute, Employers' Liability of \$100,000/\$500,000/\$100,000.

The successful Proposer shall indemnify and hold harmless the Town of Derry, NH, its agents and employees from and against all claims, damages, losses and expenses, including attorney's fees, arising out of the successful Bidder's/Subcontractors' performance under the contract.

8. The Town of Derry seeks to use a portion of the generated electricity at the Town's wastewater treatment plant (group host) which is located immediately to the north, across Beaver Brook. The Eversource account number for the group host is #8000358-01-5-8. For the main meter connection (see Appendix B), the medium voltage is 7200V phase to ground and 12470V phase to phase. The Proposer will be responsible for soliciting demand/usage information on the accounts to determine the optimum sizing of the solar panel field for this location for the calendar year 2019. For the 12 month period between January 2019 and December 2019, usage (see Appendix A) was approximately 3.7M kWh for the proposed group metering accounts. The Proposer is responsible for all material and labor to connect the solar array system into the main meter for a group net metering arrangement. Minimum electrical requirements are listed in Appendix C.

9. Proposers may submit questions by email only to [mikefowler@derrynh.org](mailto:mikefowler@derrynh.org). All questions shall be submitted by August 13, 2021, 4PM. Responses shall be posted to the Town's website by August 20, 2021. Proposals from Proposers are due by September 1, 2021.
10. **A site visit will be conducted on August 3, 2021, 10am at the landfill (unless previously visited).** Proposers are urged to keep an eye on the weather; they may contact the DPW office @ 603-432-6144 with any questions on the weather. The purpose of the site visit is to provide proposers with an opportunity to assess site conditions. Formal questions and requests for clarification will be responded to through the Q & A process noted in #9 above.
11. Operations & Maintenance service shall be offered by the Proposer should the Town select the purchase option. Service restoration for any failed portion of the system shall be repaired within a 5 day business window.
12. De-commissioning cost for the system at the end of the system life shall be included as a separate cost item by the Proposer.

#### Proposal Requirements:

At a minimum, the proposal shall include information regarding the qualifications and experience of Proposer's personnel on this project, information on projects in operation (in particular landfill projects), references, project approach, schedule and financial terms. Three (3) copies of the proposal shall be submitted.

#### **Basic Requirements for the proposal each site shall include:**

- Company Profile – including key personnel
- References for landfill projects similar in scope and overall company experience
- Panel Count, Wattage and Initial Site Layout – Panels shall be black in color
- Power production estimate: provide assumptions and methodology used to derive estimated yearly kwh production (25 years) and yearly degradation factor.
- Host Site Consumption: estimate of hourly usage at the Derry WW host site (GV meter) and corresponding export of excess electricity to the grid
- Estimated Installation Schedule and company backlog (if any)
- Specifications for solar panels, inverters or microinverters, and other relevant equipment
- Operations Software for the project to enable the Town to monitor production metrics by panel and by the system. In addition, provide real time notification to Town operator (or for PPA, the Proposers operator) for module or system failures to enable fast restoration times. Software license fees to be included in bid price.

- Proposed capacity and production metrics; annual degradation factor of system
- Annual Reduction in Electricity cost. For current cost of electricity use 13 cents per kwh as baseline for WW and 15 cents per kwh for other town buildings for the Group Metering Arrangement. Initial estimate is 780,000 kwh/yr can be utilized behind the meter at the WW site but must be verified by Proposer by analyzing hourly consumption data at the WW (WW total consumption is 2.1M kwh/yr). Current Supply Vendor for Town Municipal and Schools is Standard Power, with cost at 6.575 cents/kWh, valid until November 2023.
- Estimated annual REC Income
- Peak Usage Impact on Demand Charges and Potential Cost Savings if any
- Payback Analysis – **PROPOSERS SHALL ACCURATELY REPRESENT REVENUES/CREDIT FROM EXPORTED ELECTRICTY SALES AND ALSO ACCURATELY REPRESENT EXPENDITURES FROM IMPORTED ELECTRICITY PER NHPUC REGUALTIONS**
- Warranty Information for panels at 25 years, inverters or microinverters at 25 or 12 years, workmanship and infrastructure at 12 years
- Reliability analysis of inverter selection (inverter vs microinverter comparison)
- Spares list if the Town selects the purchase option
- Pricing Proposal (use template from Appendix E). Pricing shall include all racking materials and service from PV array to service panel and or WWTP building, or in other words a turnkey project. Include proposed payment schedule.
- Detailed schedule tied to Payments, including permitting with Eversource, NHDES, NHPUC and other Agencies if necessary.
- Pricing (Use attached Pricing Sheet. Appendix E), Include separate prices for O&M and De-Commissioning Costs. List all key assumptions. Prices to be valid for a minimum of 90 days:
  - *Option A – Outright purchase – Gross Cost and Net Cost for 2.2 MW*
  - *Option B – Lease Agreement/PPA buyout at Years 5 through 25 for 2.2 MW and Electric Cost (\$/kwh) for Town to purchase during lease years*
  - *Option C – Additional Discount Factor for Inclusion of School Buildings (2.7 M kwh/yr)*

Selection Criteria:

Each Proposer shall be evaluated based on these criteria:

1. Team qualifications/Past Projects for New Hampshire and New England landfills and other locations
2. Qualifications of Project Manager, Lead Designers, and other Key Staff
3. O&M Support/Response times to fix product/system failures
4. Technical Response

5. Responsiveness to Town's requirements reflected in proposed approach/scope
6. Project schedule
7. Financial Terms & Lifecycle Costs
8. Financial Stability of Proposer and ability to finance the project

The Town shall rate the firms in order of preference. The top-rated Proposer shall be notified of its standing and further negotiations with the Town may commence. If the Town is unsuccessful in reaching a satisfactory contract with the top-rated Proposer, it may terminate the negotiations without prejudice and commence negotiations with the second rated Proposer. If no agreement can be reached with the second rated Proposer, the Town shall move to the third, and so forth. Once negotiations are terminated with a Proposer, they may not be reopened.

The Town of Derry may or may not interview Proposers at their discretion. Proposers should fully understand that the Town evaluation team cannot interview all Proposers. The Town will seek to expedite the selection process but Proposers should expect a final decision by 4<sup>th</sup> Quarter 2021.

**Submission Information:**

Proposals must comply with the following submission procedures:

Four (4) sealed proposals shall be submitted marked "Photovoltaic System" on the outside of the envelope, addressed to:

**Landfill Photovoltaic System**

**Michael A Fowler, P.E., Director  
Department of Public Works  
14 Manning Street  
Derry, New Hampshire 03038**

Proposals will be accepted until 4:00 pm **September 1, 2021**. Proposals received after this time will be returned unopened. Faxed or emailed proposals will not be accepted.

1. **AUTHORIZATION:** The proposal must be signed in ink by an authorized signer, or by an agent of the proposer legally qualified and acceptable to the proposer, and



contain the printed names, titles, and business and post office address of both parties, if applicable.

2. **WITHDRAWAL OF PROPOSALS:** A proposer will be permitted to withdraw their proposal unopened after it has been deposited if such request is received in writing prior to the time specified for opening of the proposals.
3. **RESERVATION OF RIGHTS:** The Town of Derry reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it deems to be in the best interest of the Town. The proposer is solely responsible for the contents of their response to this request for proposal. **The Derry Town Council must approve the terms of the contract at a public meeting. This contract will not become binding until Town Council has taken an affirmative vote according to the Town Charter.**
4. **AVAILABILITY OF DOCUMENTS:** Copies of this proposal are available at:  
Public Works Office  
2<sup>nd</sup> Floor – Derry Municipal Center  
14 Manning St  
Derry, NH 03038

Appendices:

- A- List of Accounts and power consumption
- B- Map of Landfill
- C- Electrical Requirements
- D- NH DES Requirements
- E- Pricing Template
- F- Proposer List of Exemptions to RFP specifications