

Derry Landfill Solar Project: Q&A

1. The color of solar panels can be somewhat subjective and can have cost implications. Can the Town be more specific about the requirement that "panels shall be black in color"? Is the Town open to a discussion with the selected vendor about the appearance (color and otherwise) of the many panels available and their relative cost and performance characteristics?

The Town is open to other options provided cost and performance characteristics are provided.

2. The RFP states that respondents should provide specifications and warranty information for "microinverters". Will the Town accept proposals for systems that do not utilize microinverters but perform equally well or better from a performance and longevity standpoint?

The Town will consider other solutions that do not utilize microinverters but documentation is required to verify that not only performance and longevity are equal or better, but if an alternative inverter does fail, what the expected loss of production may be before it can be replaced under warranty.

3. If a system with inverters (as opposed to microinverters) is acceptable, would the town plan to purchase extended warranty plans for the inverters to meet the desired term of 25 years?

The Vendor should include the cost of the extended warranty to cover the 25-year period requested in the RFP.

4. Will proposals with a different workmanship warranty be rejected or will the term of the workmanship warranty offered be just a criteria that will be weighed/used in evaluating responses?

Warranty is one criteria used in the Town's evaluation but is not the sole criteria.

5. Can you please confirm whether or not the waste water treatment plant is metered on the high side of the utility transformer(s)?

The meter is on the load side of the transformer of the Water/Wastewater Treatment facility. The Town's electrician believes the high voltage side is 7200 per phase to ground and 14200, between two phases to ground. After the transformer it is dropped to 480 volts, which is where it is privately metered for the town. The electrical meter, for billing the town, is located at the pole next to the dog park.

6. Would the Town take responsibility for upgrading the fence to both fully enclose the landfill and, if needed, increase fence height to meet NEC code requirements for the PV system? If not, please provide the height and confirm the location of the existing fence.

Proposers are encouraged to submit all aspects of the project which would make the project complaint with NEC. The current 6' high chain link fence bounds the south, west and east perimeter and the north part of the landfill is bounded by Beaver Brook. If additional fencing is required, the Town would review the need and cost as it analyses the overall concept of the solar panel array.

7. Can the Town please provide aggregate annual consumption data for all municipal accounts?

See Appendices 1,2 & 3 containing consumption data for the Town's major accounts (except WWTP – See Question 14). Appendix 3 contains the list of all accounts on the current aggregated supply contract.

8. Are there any initiatives planned at the WWTF that would dramatically change the consumption of the facility? If so, are there new consumption projections?

The Town of Derry does not envision any need in the next five years to expand the capacity of the WWTP. The WWTP operates at an average of 1.6 MGD and the current plant capacity is 3.0 MGD. The proposer shall assume that current electricity demands will remain constant over the first five years at a minimum.

9. Why can a standard EMT or IMC conduit not be used for the low voltage circuits? Aluminum conduit is usually used only in high corrosive environments or on systems too close to the sea. This requirement will increase the system cost

Steel, exposed to the elements in New England, tends to rust over the years (this is a projected 25 year project life). Don't recommend EMT for power circuits outdoor installations. IMC if allowed by NEC, would be acceptable, but is not preferable to GRS. Recommend that bidders provide alternate price for Aluminum conduit. Base price should state whether the material to be used is IMC or GRS.

10. Locating the transformers outside the landfill cap will increase the conduits and wiring runs. Will the Town be open to the possibility of having the pads on the cap? Ameresco has constructed 17 landfill solar PV systems, and in all of them the transformer pad has been constructed on the landfill cap.

This will be decided by the civil engineer for the town of Derry.

11. #12a of the Addendum 1 mentions a 5 MW transformer for option #2, but #6c mentions two 2.5 MW transformers. The maximum transformer size usually used on PV systems is 2.5 MW. Please clarify.

Item 6 is for general guidance purposes. Item 6c is based on limiting the panel size to 3000 amps which corresponds to 2.5 MW. If the contractor wants to install 2 – 2.5 MW transformers for the total of 5 MW, that would be acceptable.

Item 12a tries to deal with option 2 which requires the 1MW option to be expandable to 5 MW. This would require that the initial 1MW transformer pad would be sized for a future 2.5 MW transformer, based on the above scenario.

The second transformer would not be install in option 2, but site provisions must be made for the future installation of the next pad and transformer.

12. PV solar systems are limited power systems. Why is it required to do an arc flash analysis?
Ameresco has constructed hundreds of solar PV systems and this is the first time that this type of analysis has been required. This will increase the system cost.

Agreed that this would be a power limited system. The NEC and NFPA70E may still require Arc Flash Labels. If so than the classification would need to be established. If this can be done without a study, then no study would be required.

Proposal shall be based on No Study being included. This can be reviewed during the next phase.

13. Could particular locations for the glare analysis be specified? Surrounding homes, roads and highways is too broad of a scope.

Residential properties along Kendall Pond Road would be most critical in the analysis.

14. Can the Town provide hourly interval data for the WWTF?

Appendices 4 & 5 provide 60 day interval data from June and July 2018 along with historical load data.

15. Please confirm all municipal accounts receive energy supply from Eversource, not a competitive supplier.

The WWTP account will return to Eversource default energy supply in November 2019, to be eligible for the most favorable net metering rates. Other accounts are envisioned to remain on third party supply contract, unless the result of the RFP leads the Town to consider supply from the landfill project coupled with Eversource default supply.