

The revised District Energy System ("DES"), based around steam provided by the McNeil Generating Station and serving, initially at least, the University of Vermont Medical Center ("UVMCC") has the potential to be a significant step toward reducing the emissions from fossil fuels and supporting the Net Zero Energy Initiative in Burlington Vermont. The revised proposal represents a material departure from the prior (Corix) proposal in the use of steam as opposed to hot water and in a significantly reduced starting footprint. It avoids the need to add back-up gas boilers at McNeil, and can reduce the complexity of interconnection and interoperability with the hospital's existing thermal system while providing a platform for future expansion.

Initial economic and technical analysis conducted by Evergreen during Phase 1 of DES feasibility work indicated the opportunity to lower the cost of developing a DES relative to prior proposals. The signatories to this letter agree to advance the DES feasibility work to Phase 2, in an effort to implement a DES in a manner that is cost-effective and achieves reduced greenhouse gas emissions in Burlington. This letter is intended to document the agreement on the sharing of costs and responsibilities of Burlington Electric Department, VGS, and the University of Vermont Medical Center ("UVMCC") in advancing to Phase 2, to provide all the engineering, cost, and technical information needed to best inform a decision to advance to permitting/construction of the DES.

Phase 2, including work on detailed street-level engineering analysis and DPW coordination, refined economic analysis including examination of incentive and grant opportunities, technical interoperability and integration analysis for steam between McNeil and UVMCC's existing system, and evaluation of several regulatory/financing structures in an effort to provide multiple options for the signatories to consider is needed prior to advancing the DES to a permitting/construction phase. Phase 2 is estimated to require four months of work.

The section on the responsibilities of Evergreen Energy under an as yet to be executed agreement with BED and VGS is attached to this letter for reference purposes.

BED

BED will provide, during Phase 2, without financial compensation, staff time supporting the evaluation of:

- 1) Technical expertise as relates to McNeil
- 2) Technical expertise as relates to Tier 3 and Electrical Energy Efficiency incentives
- 3) Information on potential outside funding sources and availability of such funds
- 4) Consultation on potential regulatory/financing structures

BED will provide funding in support of the activities of Evergreen under the contract described above (xx%)

VGS

VGS will provide, without financial compensation, staff time supporting the evaluation of:

- 1) Technical expertise as relates heating, piped distribution systems
- 2) Technical expertise surrounding fuel supply for the thermal needs not met by DES
- 3) Consultation/technical expertise on potential piping routes and construction costs estimates
- 4) Consultation/research on potential regulatory/financing structures

VGS will provide funding in support of the activities of Evergreen under the contract described above (xx%)

UVMCMC


UVMCMC will provide, without financial compensation, staff time supporting the evaluation of:

- 1) Operational considerations of supplanting a portion of the hospitals heating demand with DES provided steam
- 2) Detailed engineering cost estimates – to the extent that the questions relate to costs that might be incurred in interconnecting the DES and UVMCMC heating systems, and converting or adding equipment on the UVMCMC side of the potential point of interconnection
- 3) Requests for UVMCMC staff input will be limited, to the greatest extent possible, to the period following April 15, 2020. UVMCMC will have the right to determine if staff time requests can be met before this date, and after this date shall have the final determination of delivery dates related to their staff contribution.
- 4) Commentary on the economic analysis and its feasibility from UVMCMC's perspective as the information above is developed and upon completion.
- 5) UVMCMC will not be asked to contribute financially to the cost of work performed by Evergreen.

By signing below, BED, VGS and UVMCMC agree to the above sharing of responsibilities and costs. This agreement may be terminated by any of the three signatories by providing written notice to the other two parties of intent to do so, and such termination will take effect 10 days from such notice.

BURLINGTON ELECTRIC DEPARTMENT

Darren Springer, General Manager



VGS

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UNIVERSITY OF VERMONT MEDICAL CENTER

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ATTACHMENT A TO LETTER AGREEMENT REGARDING DISTRICT ENERGY

EVERGREEN, ANTICIPATED CONTRACTUAL RESPONSIBILITIES

Evaluation of detailed costs and operational implications associated with a District Energy System ("DES"), using heat from McNeil, and initially providing that energy to UVMHC in the form of steam. Including:

- 1) Develop a clear understanding of what would be required to construct the proposed DES in terms of the distribution piping that will be located on public rights of way. Selection of a final specification for piping. Propose final route selection and designs sufficient to support #3. This will require interfacing with the Burlington Department of Public Works ("DPW") to understand the use of the RoW's for the piping, potential to align with other needed infrastructure improvements, barriers to the project etc.
- 2) As part of route selection under #1, minimize, and if unavoidable, identify any portion of the proposed route that would be on private property outside of City RoW's (save that property associated with the McNeil Generating station or owned by UVMHC).
- 3) Convert the planning grade cost estimates to detailed engineering cost estimates. Of particular concern is minimizing the potential for upside variance in the delivered cost of thermal energy to UVMHC. Identify risks that would increase the delivered costs from these planning grade estimates.
- 4) Prepare a report summarizing the potential operational impacts on the hospital of utilizing steam energy from a DES for a portion of the year and/or a portion of their thermal needs. This will require a detailed understanding of the normal and emergency operating capabilities of McNeil. Propose potential protocol for communicating changes in availability of thermal energy from the DES and procedures and timing for the hospital to transition from one source to the other.
- 5) Consider potential regulatory/financing structures along with their impact on the delivered cost of thermal energy and the cost to UVMHC for their portion of purchased thermal energy from the DES.
- 6) Refine the planning grade economic model based on the above information to a full multi-year economic model including the economics of the proposed DES to the McNeil Joint Owners.
- 7) A summary of the steps involved to move from the work described above, and a fully functional DES.
- 8) Prepare and present fully on the above work, both upon completion of each major component, and at the conclusion of the contracted work.

The above work will be performed pursuant to a contract for services between VGS, BED, and Evergreen which shall include a fully detailed Scope of Work along with timelines. The contract and SoW will be distributed to UVM for comment prior to execution.

