Presentation on
McNeil and District Energy
6.13.23

NET ZERO ENERGY
BURLINGTON VERMONT

About Burlington Electric Department (BED)

- Burlington's municipal electric utility
  - Public Power since 1905
  - 118 employees, including the McNeil Generating Station
  - Third-largest electric utility in Vermont
- 21,000+ customers
  - 17,282 residential, 3,983 commercial and industrial
  - 5,500-6,000 residential accounts turn over each year
- Renewable Energy and Innovation :
  - Summer peak: ~65 MW; Annual energy use: ~330,000 MWH
  - McNeil is the largest energy producer in Vermont with Vermont Yankee retirement
  - 100% of power from renewable generation as of 2014, transition began in 2004 with decision to stop purchasing nuclear energy, move off fossil fuels
  - BED is working with the City of Burlington on implementing the ambitious Net Zero Energy 2030 Roadmap

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About the McNeil Generating Station

- **Jointly Owned by Vermont Utilities -** Jointly Owned by Burlington Electric Department (50%), Green Mountain Power (31%), and Vermont Public Power Supply Authority (19%)..

- **Built to Replace Coal -** McNeil is a 50 megawatt electric generator, that runs on wood chips. It is the largest power producer in the state of Vermont since Vermont Yankee nuclear closed. Voters approved revenue bonds to finance it, and it was built in the 1980's under Mayor Bernie Sanders, to replace the Moran coal plant.

- **Reliable Renewable Energy -** Unique for a renewable generator, McNeil can store fuel on-site and be dispatched based on market pricing signals. Can run 24/7 during the winter to reduce the ISO-New England region's overreliance on fossil fuels during that high-price time of year. McNeil was able to secure a full winter wood supply for 21-22 and 22-23, periods of high cost and where ISO-NE had reliability concerns. The ISO New England grid fuel mix as of 2022 was over 54% fossil fuel (primarily natural gas), 26% nuclear, and only 19% renewable including large hydro. Analysis from VEIC looking at ISO dispatch shows that natural gas is the "marginal" fuel for well over 90% of McNeil's runtime, meaning if McNeil was not running natural gas would replace it on the grid.

- **Innovation –** McNeil will be host to a new solar research facility, in partnership with UVM and supported by Senator Sanders.

Resources - https://www.burlingtonelectric.com/mcneil and https://www.iso-ne.com/about/key-stats/resource-mix and https://www.burlingtonelectric.com/wp-content/uploads/VEIC-Final-Memo-to-BED-LCA-of-GHG-emissions-4.29.22-.pdf

Air Emissions and Health

- **Air Emissions Reductions -** In 2008, McNeil installed a Regenerative Selective Catalytic Reduction system, reducing nitrogen oxide emissions to levels well below state requirements.

- **Memo from Jared Ulmer, Climate and Health Program Manager at VT Dept. of Health, to Vermont Climate Council Biomass Task Group**:

  "Health effects associated with McNeil & Ryegate – Based on the available data sources I have reviewed, the health impacts caused by air pollution from the two biomass power plants are essentially negligible and thus cannot be elaborated on in any detail….This is mainly a result of the two generating facilities operating with relatively efficient combustion technology and with extensive filtration, pollution controls, and regulations that in combination greatly limit emissions."

  "A question was raised about whether rates of asthma and cancer were higher near the two biomass power plants. In short, I cannot find any evidence to suggest that nearby asthma or cancer rates are influenced by either power plant. This is based on 1) the disease rates near either facility do not differ substantially from the rest of Vermont, and 2) published scientific evidence suggests that the amount of air pollution from either facility should not have a measurable impact on asthma or cancers."

Resource: https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Follow_Up_Response_Health_Impacts_Jared_Ulmer.pdf

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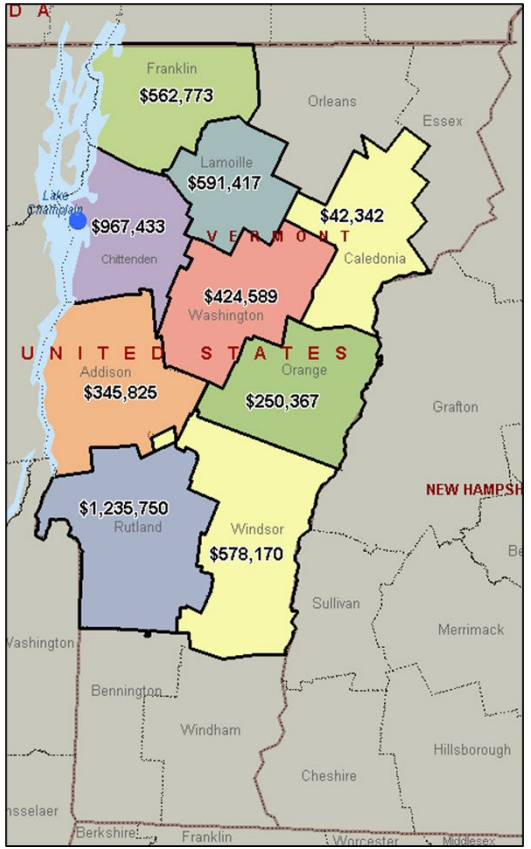
Jobs and Economy

- **Economic Impacts –** Analysis from Innovative Natural Resource Solutions using 2022 data indicated McNeil provides over $55 million in annual economic activity in Vermont, including wood purchases in that year from lands in 9 Vermont counties (see map to right).

- **Jobs –**Innovative Natural Resource Solutions report also indicated "McNeil Station is responsible for the creation of 87 jobs at the facility and in the wood fuel supply chain, with total wages for these positions estimated to be $5.6 million annually. Importantly, these jobs are maintained as long as McNeil Station is operating and using wood fuel. This is in contrast with some other forms of renewable electricity generation, where most jobs are associated with the development and construction of generation units, not their ongoing operations."

Resources: Forthcoming Innovative Natural Resource Solutions Report for BED 2023 Integrated Resource Plan (IRP)



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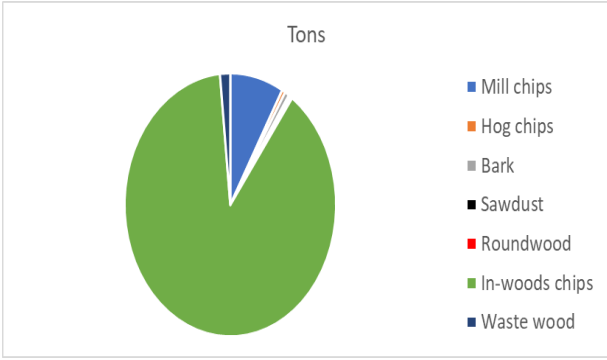
Forestry

Sustainable Forestry - McNeil employs four Vermont professional licensed foresters to monitor harvests and maintain sustainable wood supply. By providing a market for lower-value residues, the McNeil Station allows landowners to follow their forest management plans and keep lands as working lands, instead of developing them and reducing carbon sequestration. Wood ash from McNeil is used as a soil conditioner, and heavier ash for road projects.

Harvest - USDA Forest Service data indicates that Vermont's forests added net growth from 2014 to 2019, and that wood chips for McNeil in 2019 used only 4% of the net annual growth.

2023 analysis from Innovative Natural Resource Solutions shows that McNeil Station procures the vast majority (88%) of its biomass fuel as chips from harvesting projects where most of the wood harvested is for other purposes such as lumber or papermaking. McNeil uses "in-woods chips" that constitute tops and limbs left over from these operations. Another 8% of fuel is mill residue (bark, mill chips, hog chips, and sawdust) from sawmills. McNeil Station purchases small volumes of roundwood (from trees not appropriate for lumber or other uses), which can be stored and used during times when loggers cannot operate (such as mud season). Fuel purchased as roundwood was 0.3% of McNeil's fuel supply in 2022. Lastly McNeil operates a popular waste wood yard for residents to dispose of clean untreated wood waste (instead of landfilling it) which is then chipped for fuel for McNeil .



Resources:
https://www.burlingtonelectric.com/sites/default/files/2019%20BED%20harvest%20vs%20State%20growth%20data%20summary.pdf and
https://www.burlingtonelectric.com/wp-content/uploads/McNeil-Carbon-6.2023.pdf and forthcoming INRS analysis related to BED's 2023 IRP

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PLAY VIDEO

Empowered Energy Heroes, used with permission from Kiki Goshay, Director/Producer.

Narrating is Dan Reicher, former Assistant Secretary of Energy during Clinton Administration, former Advisor to President Obama, former Director of Climate Change and Energy Initiatives at Google, and Senior Research Scholar, Stanford Woods Institute for the Environment.

Climate and GHG

IPCC 2007: "In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the largest sustained mitigation benefit."

IPCC 2019: "Sustainable forest management aimed at providing timber, fibre, biomass, non-timber resources and other ecosystem functions and services, can lower GHG emissions and can contribute to adaptation (*high confidence*)"

Resource: https://archive.ipcc.ch/publications_and_data/ar4/wg3/en/ch9s9-es.html and https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/

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BURLINGTON Electric DEPARTMENT

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Climate and GHG

U.S. Energy Information Administration: "Burning either fossil fuels or biomass releases carbon dioxide (CO_2), a greenhouse gas. However, the plants that are the source of biomass for energy capture almost the same amount of CO_2 through photosynthesis while growing as is released when biomass is burned, which can make biomass a carbon-neutral energy source." "According to current international convention (see the Intergovernmental Panel on Climate Change's "2006 IPCC Guidelines for National Greenhouse Gas Inventories"), carbon released through biomass combustion is excluded from reported energy-related emissions."

White House Council on Environmental Quality (CEQ) 2016 Obama Administration – "This Guidance establishes guidelines for Federal agencies in calculating and reporting GHG emissions fluxes from different sectors and sources associated with agency operations, and seeks to avoid double counting. Though its goals differ from those of the IPCC inventory (i.e., to develop a common system for countries to inventory all anthropogenic GHG emissions, including fossil and biogenic CO2 emissions, across all sectors), both this effort and the IPCC inventory guidelines seek to avoid double counting. To that end, in IPCC inventories, carbon sequestration and CO2 emissions within biological systems, including the growth and harvest of terrestrial biomass, are assigned to Land Use, Land Use Change and Forestry (LULUCF) sector. Therefore, when biomass is burned for energy, the related biogenic CO2 emissions are accounted for in the LULUCF sector where the carbon was stored and initially emitted via harvest, not the Energy sector. (IPCC, 2006)"

Resource: https://www.eia.gov/energyexplained/biomass/biomass-and-the-environment.php#:~:text=Burning%20either%20fossil%20fuels%20or and https://www.eia.gov/totalenergy/data/monthly/pdf/sec11_n.pdf and https://www.sustainability.gov/pdfs/federal_ghg%20accounting_reporting-guidance.pdf

Climate and GHG

EPA 2011 Obama Administration publication entitled, *ACCOUNTING FRAMEWORK FOR BIOGENIC CO_2 EMISSIONS FROM STATIONARY SOURCES-*

> ”As discussed in Section 2, fossil and biogenic carbon interact with the overall carbon cycle on very different time scales, and this difference has implications for understanding estimates of biogenic CO2 emissions from stationary sources. CO2 emissions from the consumption of fossil fuels will inevitably increase the amount of carbon in the atmosphere on policy-relevant time scales, but such an outcome is not inevitable with the consumption of biologically based feedstocks. The amount of biologically based feedstocks consumed at stationary sources during a year may be partially or completely balanced by the amount of feedstock that grows during the year. On that basis, as discussed in Section 2, EPA concludes that in order to develop an accounting framework to adjust total onsite biogenic emissions at a stationary source, it is essential to assess the carbon stored by growth of biologically based feedstocks.”

Resource, page iv - https://www.epa.gov/sites/default/files/2016-08/documents/biogenic-co2-accounting-framework-report-sept-2011.pdf

Climate and GHG

Vermont Agency of Natural Resources: Per IPCC guidelines ANR does not include biogenic CO_2 in Vermont's emission inventories.

"An important distinction when considering accounting practices for biogenic CO_2 is that carbon dioxide emissions from the combustion of fossil fuels are coming from a geologic source, which is on a significantly longer time scale than carbon in the much faster carbon cycle which moves between pools on the order of months to centuries, which means that combusting fossil fuels adds more carbon that was in long term storage and effectively out of circulation into the atmosphere and into the more immediate carbon cycle. Carbon dioxide emitted from the combustion or decomposition of biogenic materials which are a part of the faster carbon cycle are assumed to be sequestered by the regrowth of the biogenic material that produced them, and are captured in the flux from the land use change as described above."

"Carbon dioxide from electricity generated through biomass combustion is not included because the CO_2 is of biogenic origin, but CH_4 and N_2O emissions are included in totals. States in the region differ on this accounting practice, however, it is consistent with IPCC inventory guidelines for the treatment of biogenic CO_2."

Resource: Vermont Agency of Natural Resources, Greenhouse Gas Emissions Inventory and Forecast, Methodologies, April 2023

INRS Report 2023 on McNeil

"Carbon accounting for biomass is complex and not well understood, with some disagreement about how to account for the near-term release of carbon from combustion compared to the role that forests play in capturing and storing carbon and the time over which that occurs. As noted above, the U.S. Energy Information Agency assumes that the "release of carbon from biomass combustion is assumed to be balanced by the uptake of carbon when the feedstock is grown, resulting in zero net emissions over some period of time." Others have suggested a "debt-then-dividend" accounting framework for biomass carbon emissions, where the biomass combustion is weighed against future forest growth. Under this scenario, the use of logging residues (and mill residues) provides a favorable fuel type:

> "The harvest and use of tops and limbs for biomass can have an important influence on carbon recovery times and profiles: tops and limbs decay quickly if left in the forest and so their use comes with little carbon 'cost" which tends to shorten carbon recovery times."
>
> "It is interesting to consider the 'harvest' and use of just tops and limbs…The results in this case indicate rapid recovery, with nearly 70% of the carbon losses "recovered" in one decade. Thus, all bioenergy technologies—even biomass electric power compared to natural gas electric—look favorable when biomass 'wastewood' is compared to fossil fuel alternatives."

Given the fact that whole tree chips represent such a small portion (16%) of total roundwood harvest in the Vermont counties where McNeil Station procures fuel, it is fair to assume that most of the "whole-tree chips" purchases are tops and branches, and thus a carbon-favored fuel source under the debt-then-dividend biomass accounting framework."

Resource: https://www.burlingtonelectric.com/wp-content/uploads/McNeil-Carbon-6.2023.pdf

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McNeil Station GHG Emissions 2022 VEIC Report

- **Carbon Accounting and Forestry - "**While biogenic carbon emissions do not yield long-term net increases in atmospheric CO_2 levels, it is imperative that forests are managed sustainably and are able to grow more new wood than is harvested annually. McNeil sources over 90 percent of its wood fuel from managed forests in Vermont and Northern New York and follows detailed sustainability requirements enforced by the State of Vermont. At the landscape level, Vermont's forests grow more new wood each year than is harvested by a 2 to 1 ratio. Based on a 2019 study conducted for the State of Vermont's Department of Forests, Parks and Recreation, analysis that examined FIA data on forest inventory, growth, mortality, and wood harvesting levels, Vermont and Northern New York's forests have been adding forest inventory (and stored carbon) consistently for decades."
- **Natural Gas is the Marginal Fuel When McNeil Operates – "**Whether using a capacity-weighted average when more than one fuel was listed as marginal or considering only time periods in which only one marginal fuel was listed, the result is that natural gas was marginal 92-98% of the time McNeil is running."
- **Methodology and Result – "**The data and methods used in this assessment conform with national and international carbon inventory methods by differentiating between biogenic and non-biogenic CO_2, and intentionally err on the side of being conservative in how the GHG emissions from wood fuels are compared to those of natural gas. Two examples of this conservative approach are the choice to include all the upstream emissions from sourcing wood fuels, while excluding the potential methane leakage that occurs upstream from the use of natural gas. Additionally, the McNeil Station is located extremely close to the load it serves (i.e. the City of Burlington) which drastically reduces transmission line losses. An alternative scenario with ISO-NE regional power plants would likely have higher line losses that would impact the carbon emissions attributed to that energy. As presented in the results section, the McNeil Station currently directly contributes to reducing regional GHG emissions by over 90,000 tons of CO_2e per year."

Resource: https://www.burlingtonelectric.com/wp-content/uploads/VEIC-Final-Memo-to-BED-LCA-of-GHG-emissions-4.29.22-.pdf

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McNeil Station GHG Emissions 2022 VEIC Report – Additional Indirect Benefits of McNeil

- "**Keeping forests as forests** – without healthy local markets for low-grade wood (which allows foresters and landowners to not cut as many higher-quality trees), private forestland owners often struggle to cover the costs of owning and properly managing forests. Markets for low-grade wood help foresters conduct timber stand improvement (TSI) thinnings, prevent high-grading of forests when only harvesting the highest quality trees, and ultimately avoid forest fragmentation, parcelization, and land clearing for development. Keeping in-tact forests as forests is widely regarded as one of the most critical strategies for mitigating global climate change.
- **Supporting the durable wood products market** – thinning stands to enhance the growth of high-quality timber helps sawmills and producers of dimensional lumber. When these products are used in building construction, it stores carbon dioxide for longer periods of time and displaces other carbon-intense building materials like steel, concrete, and plastics.
- **Anchoring market for woodchip heating in Vermont** – large consumers of woodchip fuel like McNeil Station are vital for logging and chipping contractors to sell enough volume while also selling relatively small amounts of wood chip fuel to the numerous schools, hospitals, and colleges that heat with woodchips. Without a viable supply of wood chip fuel, these facilities would be burning millions of gallons of heating oil each year."

Resource: https://www.burlingtonelectric.com/wp-content/uploads/VEIC-Final-Memo-to-BED-LCA-of-GHG-emissions-4.29.22-.pdf

INRS 2023 Report

"Converting the forest carbon to CO_2 equivalent using a factor of 3.67, there are 24.3 million tons of additional forest CO_2 equivalent over the 13 year period from 2007 to 2020, or 1.87 million tons annually or 5,128 tons of CO_2 equivalent daily. Photosynthesis converts atmospheric CO2 to sequestered carbon and free oxygen as plants grow."

Resource – https://www.burlingtonelectric.com/wp-content/uploads/McNeil-Carbon-6.2023.pdf

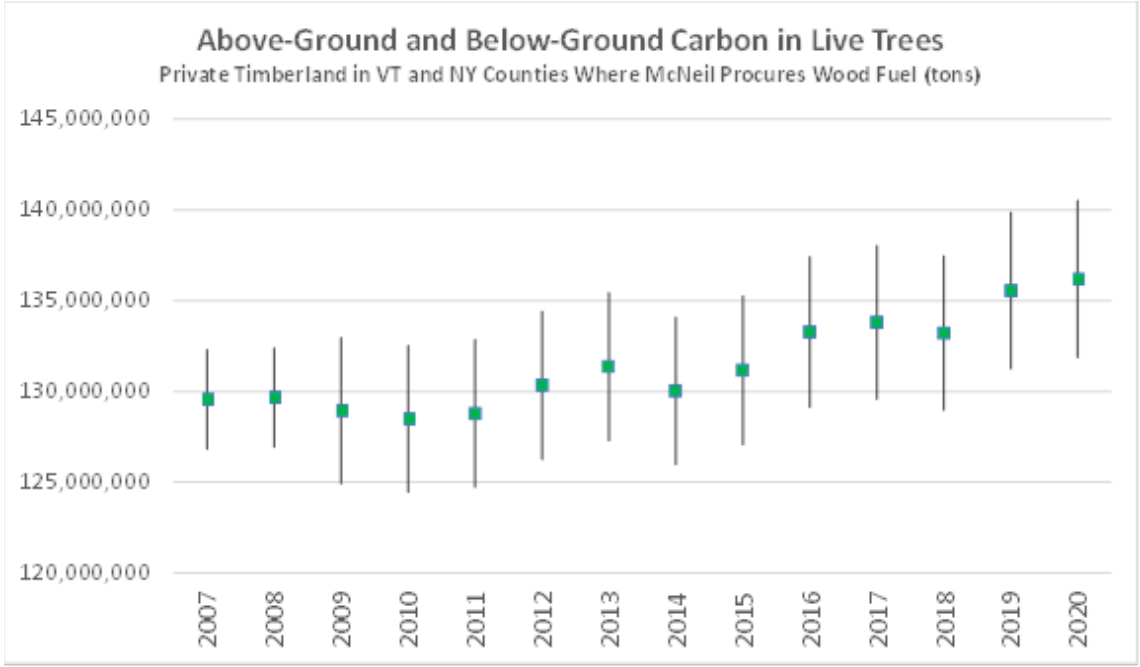

Figure 1. *Tree Carbon on Private Timberland in Vermont (Addison, Chittenden, Franklin, Lamoille, Orleans, Rutland, Washington, and Windsor) and New York (Clinton, Essex, Franklin, and Warren) Counties*

INRS 2023 Report – Annualized Forest Carbon CO2 additions and McNeil Stack Emissions Comparison

"[T]he combustion of biomass for electricity production does have emissions, though these are balanced by forest growth in the region. In 2022, McNeil station emitted 375,540 tons of CO_2. Additionally, plant operations used 7,935 gallons of gasoline and 41,003 gallons of diesel in 2022, resulting in an additional 537 tons of CO_2 emissions. As a result, the facility is responsible for 376,077 tons of CO_2 annually. As demonstrated in Figure 1, the total forest carbon on private timberland in the counties McNeil Station purchases wood from was 129,556,074 tons in 2007; in 2020 this had grown to 136,186,750 tons of carbon. Given this information, the private timberland in the region added over 6.6 million green tons of carbon over this 13-year time period....Converting this to CO_2 equivalent, this represents 24.3 million tons of additional forest CO_2 equivalent over the 13-year period from 2007 to 2020; 1.87 million tons annually or 5,128 tons of CO_2 equivalent daily. Given the 376,077 tons of CO_2 that McNeil Station is responsible for, this represents 73 days of carbon additions on private timberlands in the region, or 20% of annual additions."

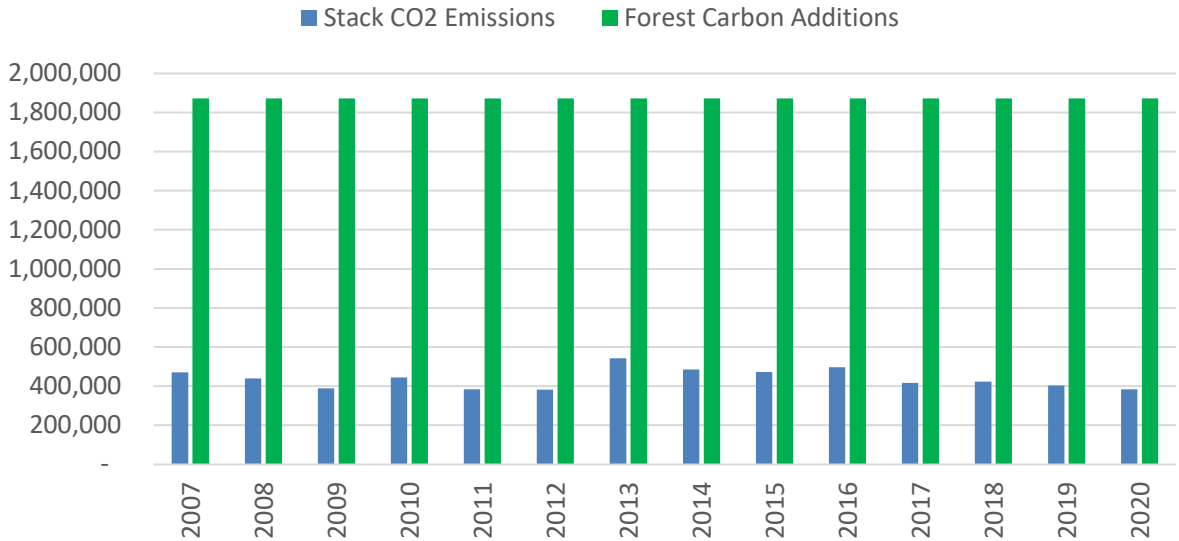

***Figure 5**. Forest carbon CO_2e additions (annualized) in the supply area, and McNeil emissions, 2007 – 2020*

Resource: https://www.burlingtonelectric.com/wp-content/uploads/McNeil-Carbon-6.2023.pdf

INRS 2023 Report – Annualized Forest Carbon CO_2 additions and McNeil Stack and Operations Emissions Comparison

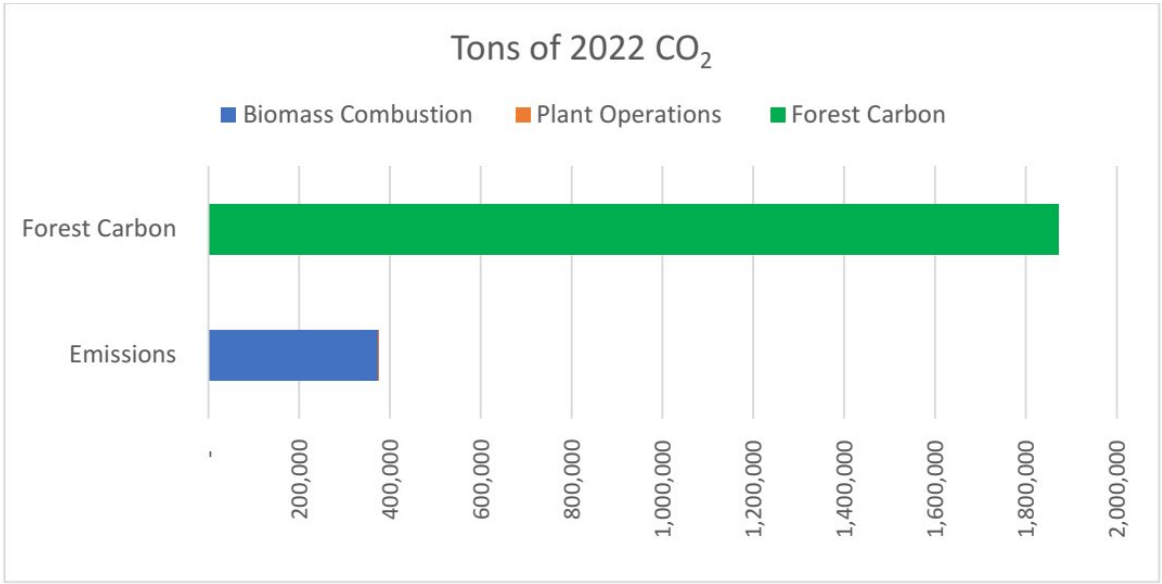

***Figure 4**. Annual forest carbon CO_2e additions in the supply area, and McNeil emissions, 2022*

Resource: https://www.burlingtonelectric.com/wp-content/uploads/McNeil-Carbon-6.2023.pdf

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Background on District Energy System (DES) in Burlington

- **What is district energy?** – District energy in Burlington is the idea of capturing waste heat and additional steam from the McNeil plant, and transporting it underground (via steam or hot water pipes) to be utilized for thermal energy at large buildings, such as UVM Medical Center (UVMMC) or UVM.

- **Why is it important for Burlington? –** McNeil was designed to accommodate district energy all the way back in the 1980's, and the project would turn McNeil into a combined heat and power plant, moderately improving efficiency. For Burlington, district energy was identified as one of four key pathways in Burlington's 2019 Net Zero Energy Roadmap, and is projected to help reduce commercial sector natural gas use by 16% or more in the City. It is the single-biggest step we can take to address emissions in that sector.

Resource - https://www.ever-greenenergy.com/project/city-of-burlington/

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Background on District Energy System (DES) in Burlington

- McNeil Generating Station state permit (first issued in **1981**) included language referring to plant's capabilities to support a DES specifically for UVM and UVMMC. Feasibility studies were completed in **1994, 1996, 1998, 2002,** and **2014,** but there never was agreement to move beyond feasibility to Phase 2 detailed engineering work for any of those efforts, with low conventional fuel prices limiting interest.

- **2014** – Mayor Miro Weinberger tasked BED with determining once and for all if Burlington would be able to advance a DES and explaining why such a project could or could not move forward.

- **2016/2017** –BED, VGS, UVM, UVMMC, CityPlace partnered with Corix Utilities through MOU on new feasibility study.

- **2018/2019** – City Council approved filing with PUC on local rate regulation for district energy. BED received legislative approval to fund feasibility work via thermal energy and process fuel (TEPF) funds.

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Moving Forward with Ever-Green Energy

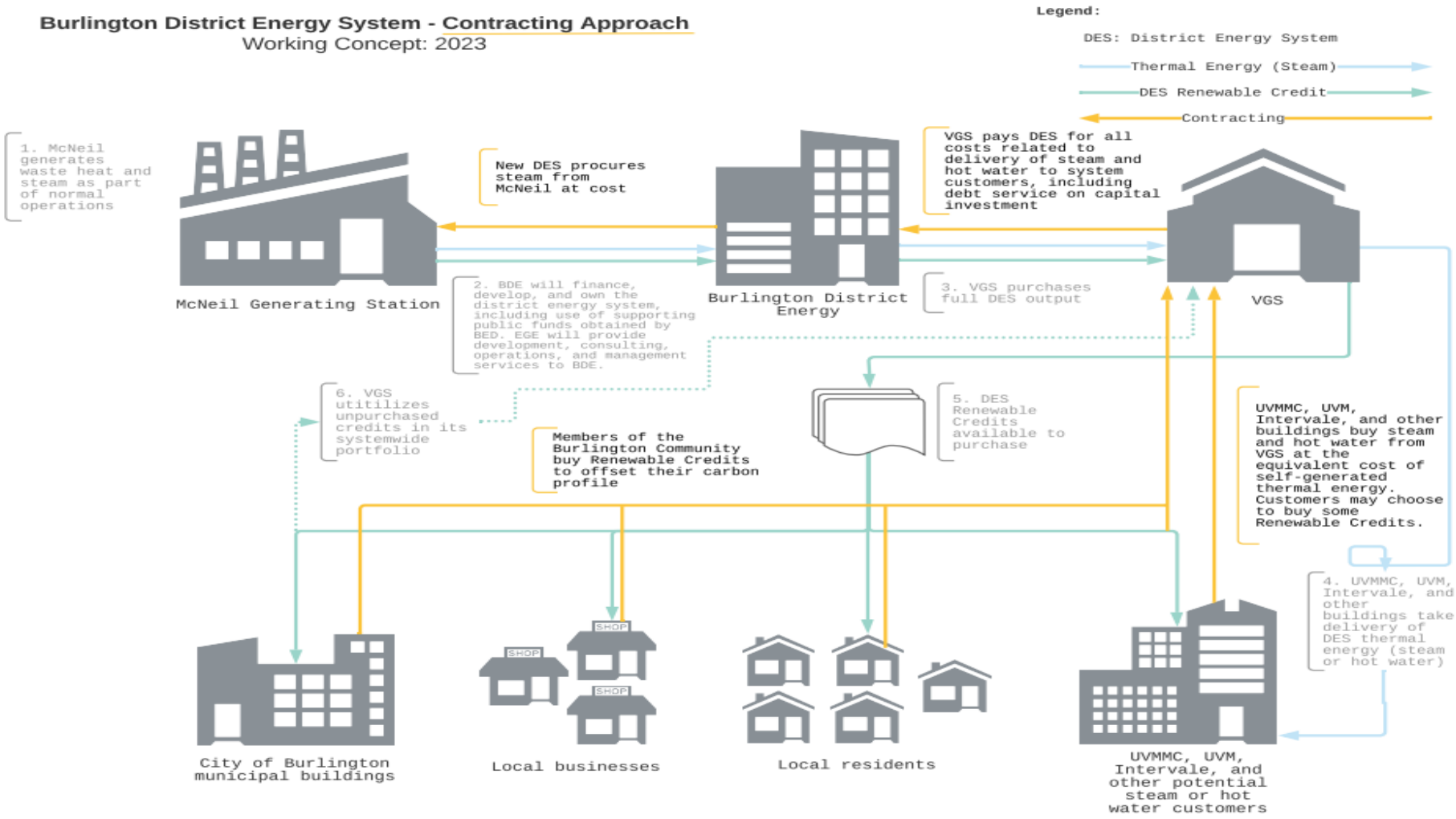
- **Follow-up -** BED had discussions with key potential customers and partners – UVMMC, VGS, UVM, and CityPlace in late 2018 and early 2019 to assess whether DES remained viable. Based on those discussions, BED and VGS engaged with Ever-Green (which had studied DES in Burlington in 2014) to conduct a revised feasibility analysis focused on bringing steam system to UVMMC and UVM buildings.

- **Feasibility analysis and system design** – Ever-Green conducted 3 phases of feasibility analysis between 2020 and 2022. It worked to engineer and design project, with BED and VGS working on financial and regulatory model. McNeil conducted operational tests and project added Intervale Center as potential customer. Funding from Senator Leahy was secured for over $5 million towards capital for infrastructure and electric boiler. The City Council approved creation of a 501c3 non-profit to finance and construct project, and construction bids received in 2022. District Energy Act 250 documents have been filed in 2023.

Resources: https://www.burlingtonelectric.com/milestone-step-forward-to-phase-2-of-updated-district-energy-system-project/ **and** https://www.burlingtonvt.gov/Press/mayor-miro-weinberger-burlington-electric-department-vgs-uvm-medical-center-ever-green-energy **and** https://www.burlingtonvt.gov/Press/mayor-miro-weinberger-and-partners-announce-district-energy-system-ready-for-act-250-state

Burlington District Energy System - Contracting Approach

Working Concept: 2023



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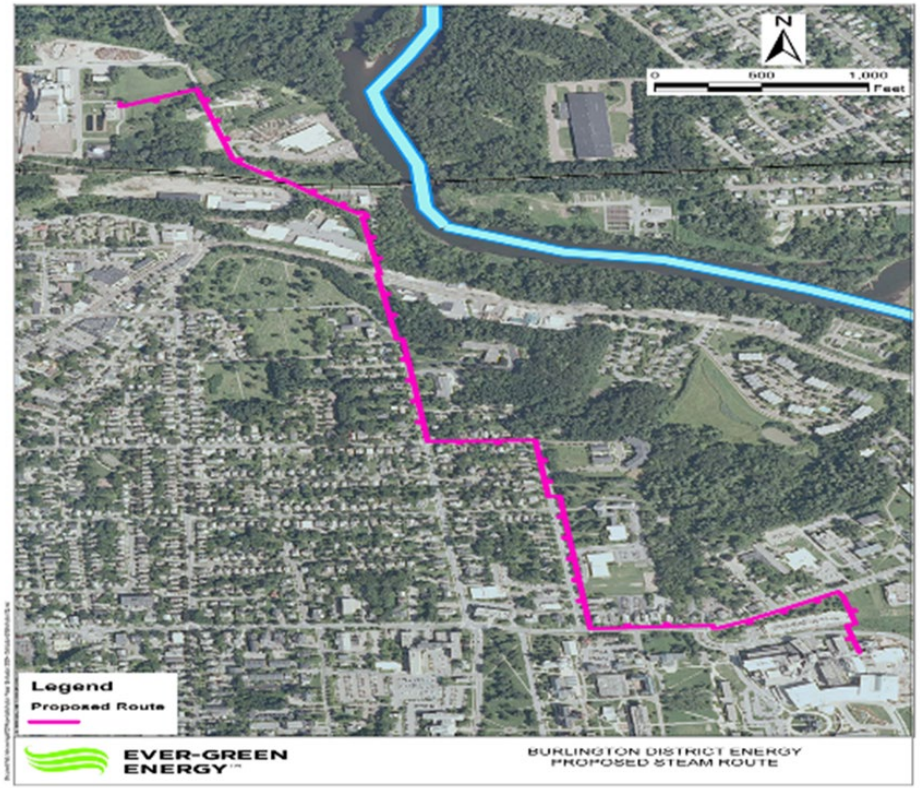

- Intervale Road to North Prospect
- North Prospect to North Street
- North Street to Mansfield Ave.
- Mansfield Ave. to Colchester Ave.

VEIC 2022 Report Analysis of District Energy System Emissions Reduction

Older system design, including upstream McNeil emissions – DES reduces emissions by over 6,000 tons CO2 equivalent annually

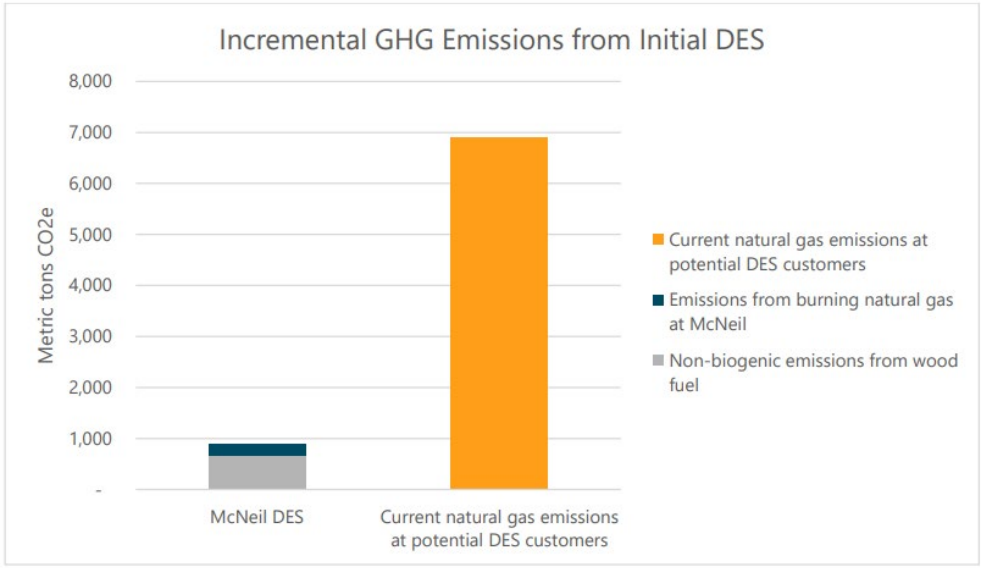

Figure 5 - Incremental emissions impact from initial DES

Resources - https://www.burlingtonelectric.com/wp-content/uploads/VEIC-Final-Memo-to-BED-LCA-of-GHG-emissions-4.29.22-.pdf

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GREET Carbon Score for District Energy

The GREET model is specifically referenced in the recently enacted Affordable Heat Act passed by the Vermont Legislature and supported by a wide coalition of environmental groups (see, for example - https://www.eanvt.org/chs-commentaries/)

"To promote certainty for obligated parties and clean heat providers, the Commission shall, by rule or order, establish a schedule of lifecycle emission rates for heating fuels and any fuel that is used in a clean heat measure, including electricity, or is itself a clean heat measure, including biofuels. The schedule shall be based on transparent, verifiable, and accurate emissions accounting adapting the Argonne National Laboratory GREET Model, Intergovernmental Panel on Climate Change (IPCC) modeling, or an alternative of comparable analytical rigor to fit the Vermont thermal sector context, and the requirements of 10 V.S.A. § 578(a)(2) and (3)."

Resource, page 24 - https://legislature.vermont.gov/Documents/2024/Docs/ACTS/ACT018/ACT018%20As%20Enacted.pdf

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GREET Carbon Score for District Energy

A carbon score evaluates the life-cycle carbon emissions related to the use of a particular energy source. The score is relative to the prior state of operation. For example, if the use of a fossil fuel is replaced by a renewable fuel, the score would reflect a credit for the avoided fossil emissions. The score measures intensity, which means a common unit of energy is used across all measurements so that they are comparable to one another. The unit use to measure carbon intensity is grams of carbon dioxide-equivalent per megajoule of energy. You may see this abbreviated as g C02e/MJ. Carbon dioxide equivalencies allow for a common unit of measure across various greenhouse gases that have different climate impacts.

The GREET model was developed by Argonne National Laboratory to estimate life cycle carbon emissions for a wide variety of energy sources and uses. It is continually updated by the Lab, and is used by many State governments to measure carbon intensity under emissions reduction regulations. First Environment was retained by VGS to estimate carbon intensity for McNeil and the proposed district energy system using the GREET model. Their modeling assumes that steam energy displaces the use of natural gas for customers of the system. Results of initial modeling are shown below, indicating McNeil District Heat Proposal (including electric boiler) reduces GHG emissions over 95% compared with current natural gas usage.

Fuel	CI Score (g C02e/MJ)
Natural Gas	79
McNeil Steam	3.76
Electric Steam (BED Portfolio)	0.039
McNeil CHP with Electric Boiler	3.60

*Note that the natural gas score above is an approximation of carbon intensity on a life cycle basis, meaning that it includes the use of energy in production, transportation and distribution, and accounts for both emissions from combustion and from fugitive emissions like leaks. The CI score is based on initial modeling, is DRAFT, subject to revision. Resource - https://www.burlingtonelectric.com/wp-content/uploads/CI-Model-Letter-Report-draft-ver-3.pdf

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BURLINGTON Electric DEPARTMENT

CITY OF BURLINGTON, VT. ORGANIZED FEB. 21, 1865

Ever-Green Energy Analysis of District Energy for Burlington

Proposed district energy system design would produce:

- 190,000 MMBTU per year of renewable thermal energy
- Plus an additional 34,000 MMBTU in efficiency savings at the hospital
- More than 16% reduction in Burlington commercial sector natural gas-related GHG emissions

Resources - https://www.ever-greenenergy.com/project/city-of-burlington/