



# House Energy and Technology Committee

**H. 616 District Energy  
January 30, 2018**

**Darren Springer, Chief Operating Officer**



## What is District Energy?

- District energy is an “underground infrastructure asset where thermal energy is provided to multiple buildings from a central plant, or plants.” – International District Energy Association
- Benefits can include improved efficiency, reduced emissions, and fuel flexibility
- Very common on college campuses and in cities, examples in Vermont include Montpelier and UVM



## What is District Energy?





## District Energy in Burlington

- ❑ The idea of using energy from the McNeil biomass plant to provide heating and/or process energy to customers has been studied multiple times over past several decades
- ❑ Active citizen-led effort – BURDES Committee - to support this in Burlington
- ❑ In 2016 BED issued RFP, and selected Corix Utilities to partner on bringing district energy to Burlington



## Current Status

- ❑ **Initial feasibility study** - showed district energy is technically feasible, and could be cost-competitive with business as usual scenario
- ❑ **Initial plan** - uses three energy sources: 1) “waste” heat from McNeil; 2) steam heat from McNeil turbine; 3) natural gas generators for peaking and backup
- ❑ Potential customers are reviewing individual economic assessments from Corix



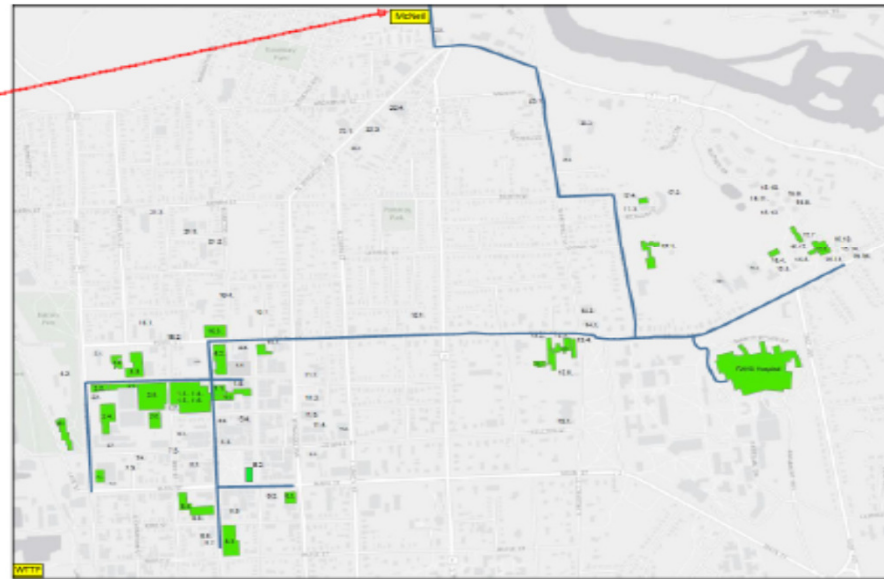
# Potential Route

**CORIX**

**Scenario S1A - McNeil**



McNeil Proposed Central Energy Center Location

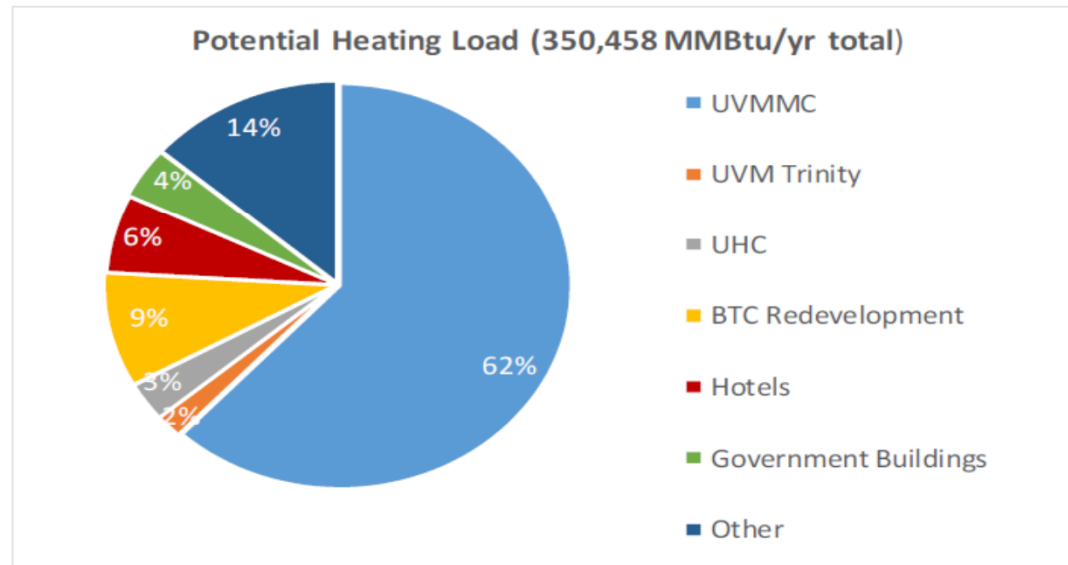




# Initial Study Results



## Potential Heating Load





## Potential Benefits

- ❑ **Emissions** – District Energy system offers approximately 13-15% greenhouse gas emissions reduction in heating sector in Burlington
- ❑ **Cost Effective** – The District Energy System offers the potential for fuel diversity and stable/predictable costs for customers
- ❑ **Flexible Platform** – The infrastructure can accommodate growth and new fuel sources, including from wastewater treatment facility
- ❑ **Support Forest Economy** – McNeil purchased from 56 different suppliers in FY 16, vast majority relatively small Vermont-based





## TEPF

- **TEPF** is Vermont's thermal efficiency fund, and BED as an Energy Efficiency Utility administers on behalf of our customers
- **3 Year TEPF Budget** - PUC order dated 1/11/2018 reserved BED approx. \$1.8 million, of which approx. \$1.2 million for district energy
- **30 V.S.A. § 209** - BED is seeking a statutory change to clarify authority to use TEPF for district energy, since district energy would serve natural gas customers and TEPF traditionally has focused on unregulated fuel customers



## H. 616

- ❑ **BED strongly supports H. 616**, which would provide BED clear authority to invest TEPF funds in district energy
- ❑ **BED respectfully suggests the following helpful clarifications:**
  - ❑ Provide a definition of “biomass-led” in the bill to ensure the district energy system is majority biomass/waste heat, but allows for back-up/peaking natural gas
  - ❑ Change “high efficiency heating appliances” to instead make clear that the district energy distribution system should be “high efficiency”