NuPower Thermal LLC

Bridgeport Project

November 12, 2013

The Bridgeport District Heating Project

NuPower Thermal LLC identified Bridgeport thermal loop opportunity to use waste heat for heating downtown Bridgeport

Retained international engineering company

COWI Group to conduct detailed feasibility study

Study completed in May 2013 - indicated an economically and environmentally attractive project

Development Phase underway with COWI and VEOLIA ENERGY

LOW TEMPERATURE DISTRICT HEATING

- 1st generation: Steam 575°F (1880-1970)
- 2nd generation: Super heated Water, 260°F (1960-1980)
- 3rd generation: Modern Hot Water, 180°F (1970-present)
- 4th generation: Hot water for LEED buildings, 122°F (2010-present)

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LOW TEMPERATURE DISTRICT HEATING
the excavation

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LOW TEMPERATURE DISTRICT HEATING
modern twin pipe

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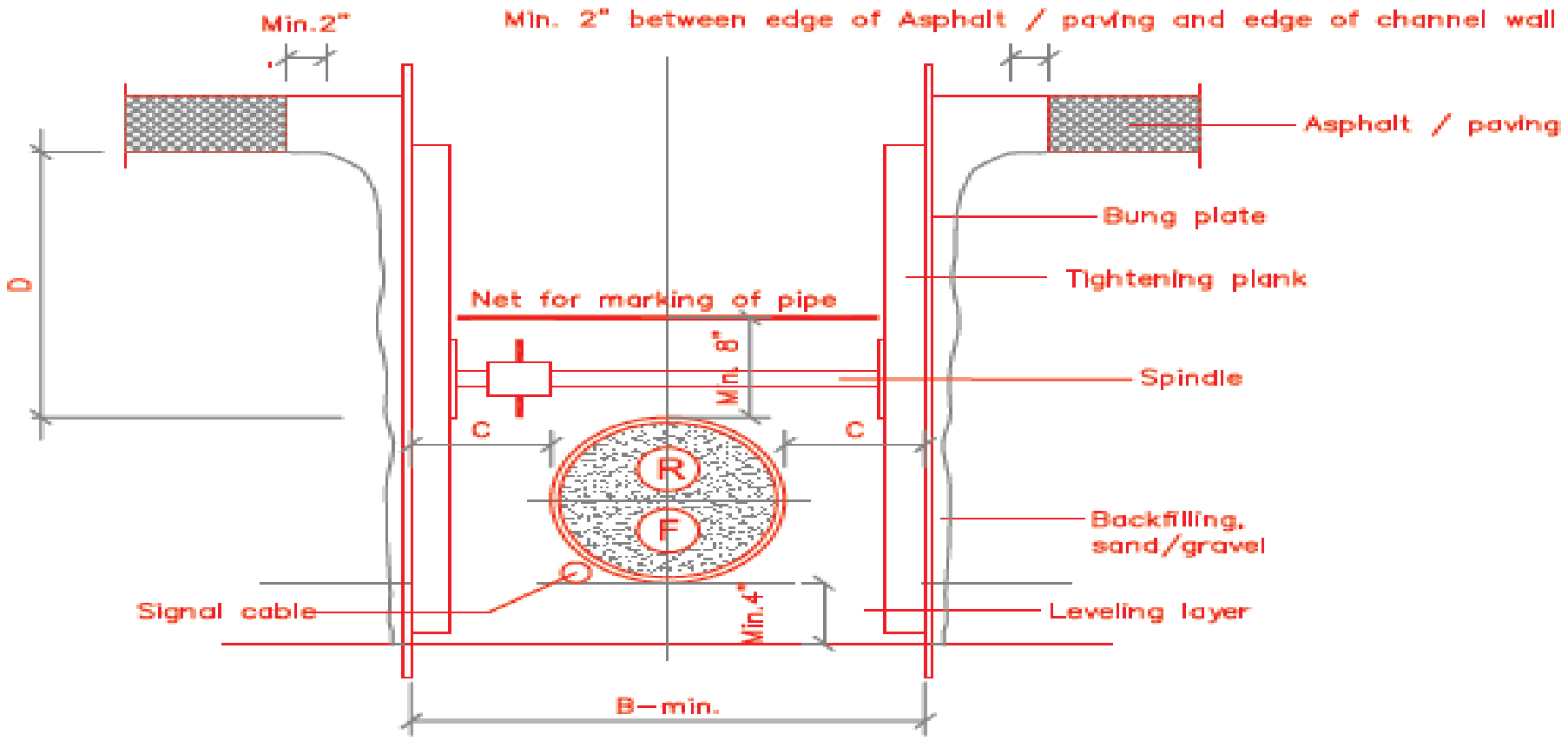
CROSS SECTION



DN 25—65: B = 24"
DN 80—125: B = 32"
DN 150—200: B = 39"

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Bridgeport District Heating Project

- **Connecting existing thermal suppliers to low temperature district energy system**
- **Ideal location given significant waste heat generation sources in an urban environment**
- **Project divided into initial phase plus a follow-on expansion phase**
- **Phase I/II costs - $20.6 m/$ 14.0 m**

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Thermal Customer	Percentage of Total Phase I Load
Federal	4
State	5
City	11
Office	35
Academic	43
Retail	2
Investment Grade	90

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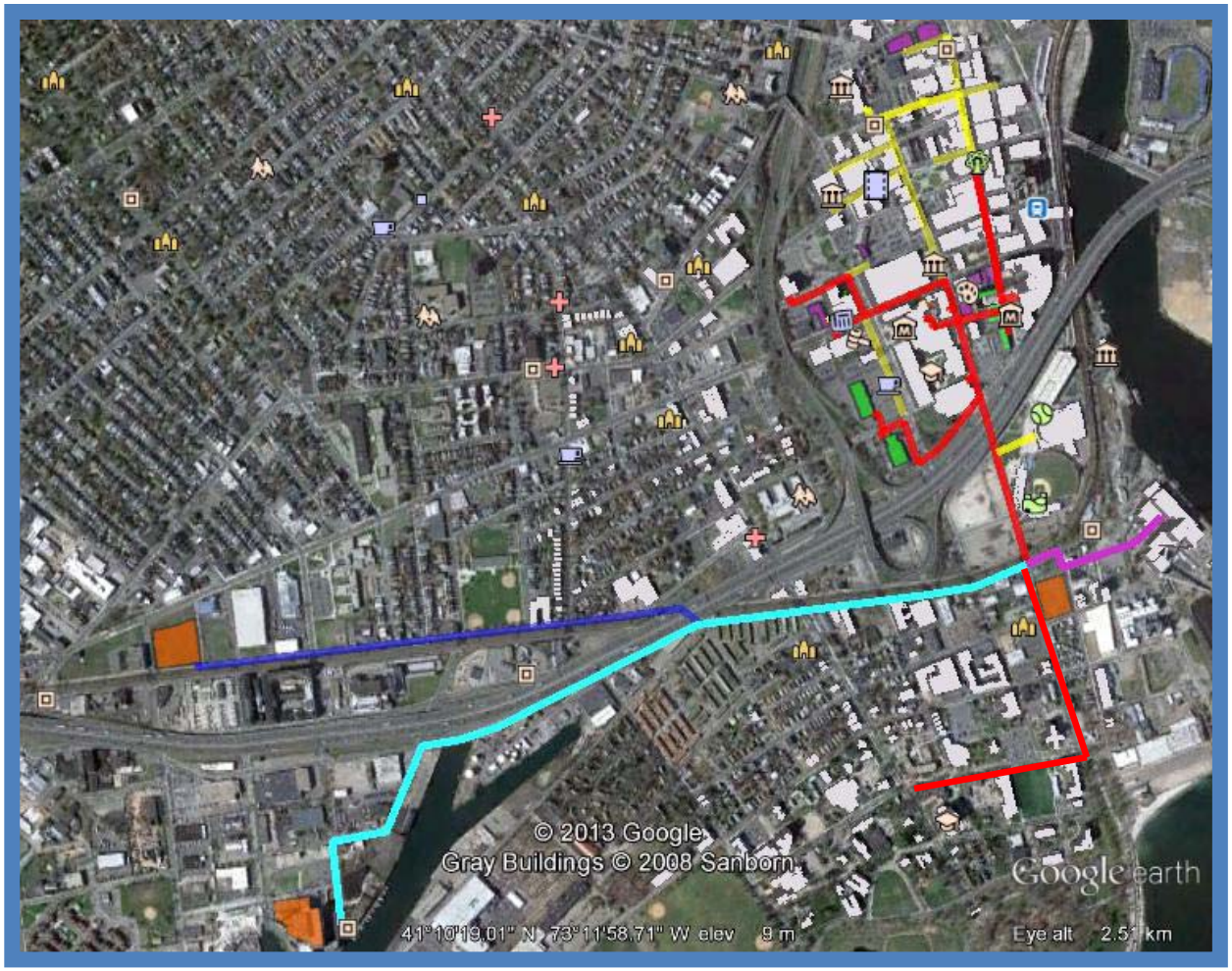
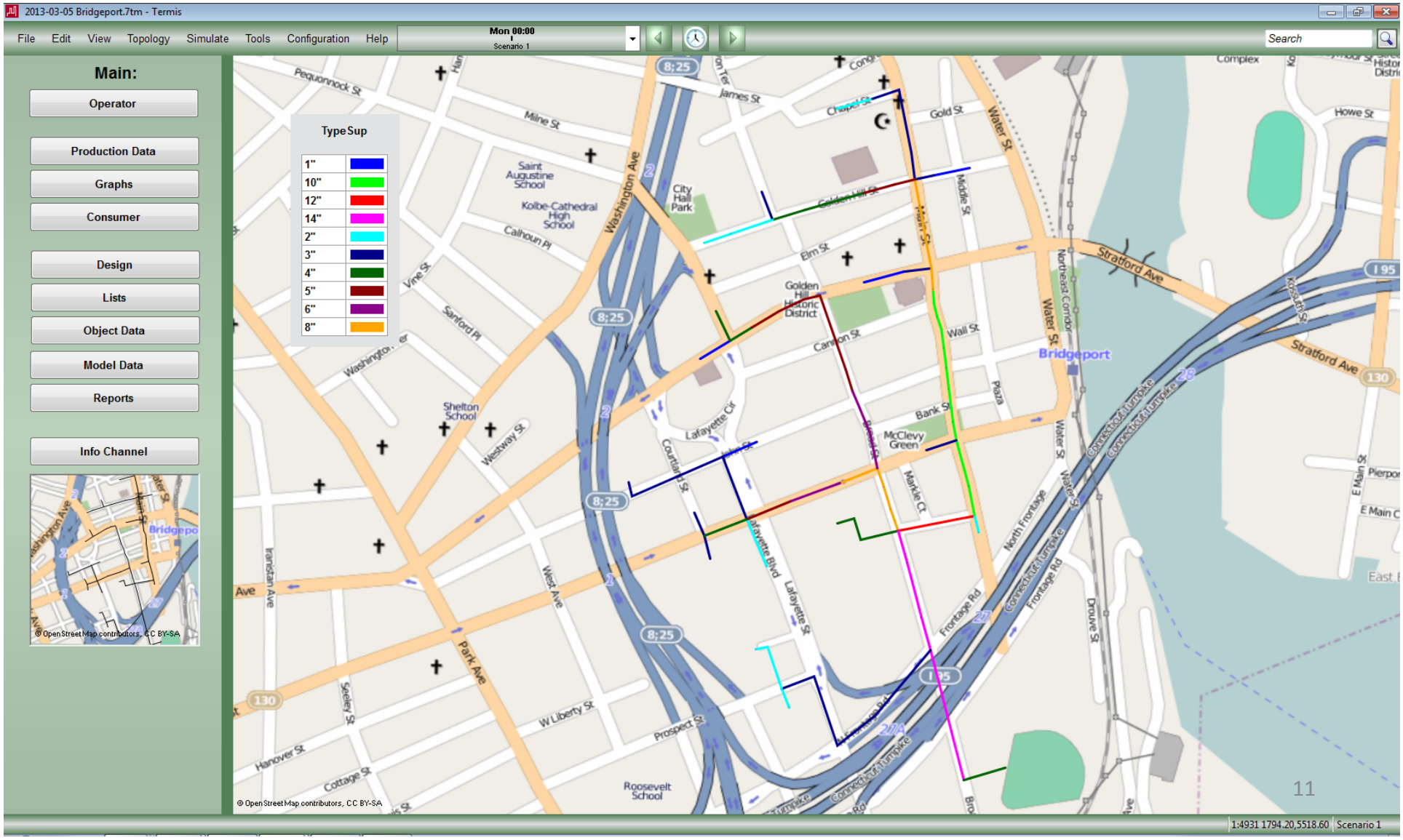


HEAT MAPPING

Analysis of current and future heat load of Downtown Bridgeport

The Network

Hydraulic modeling



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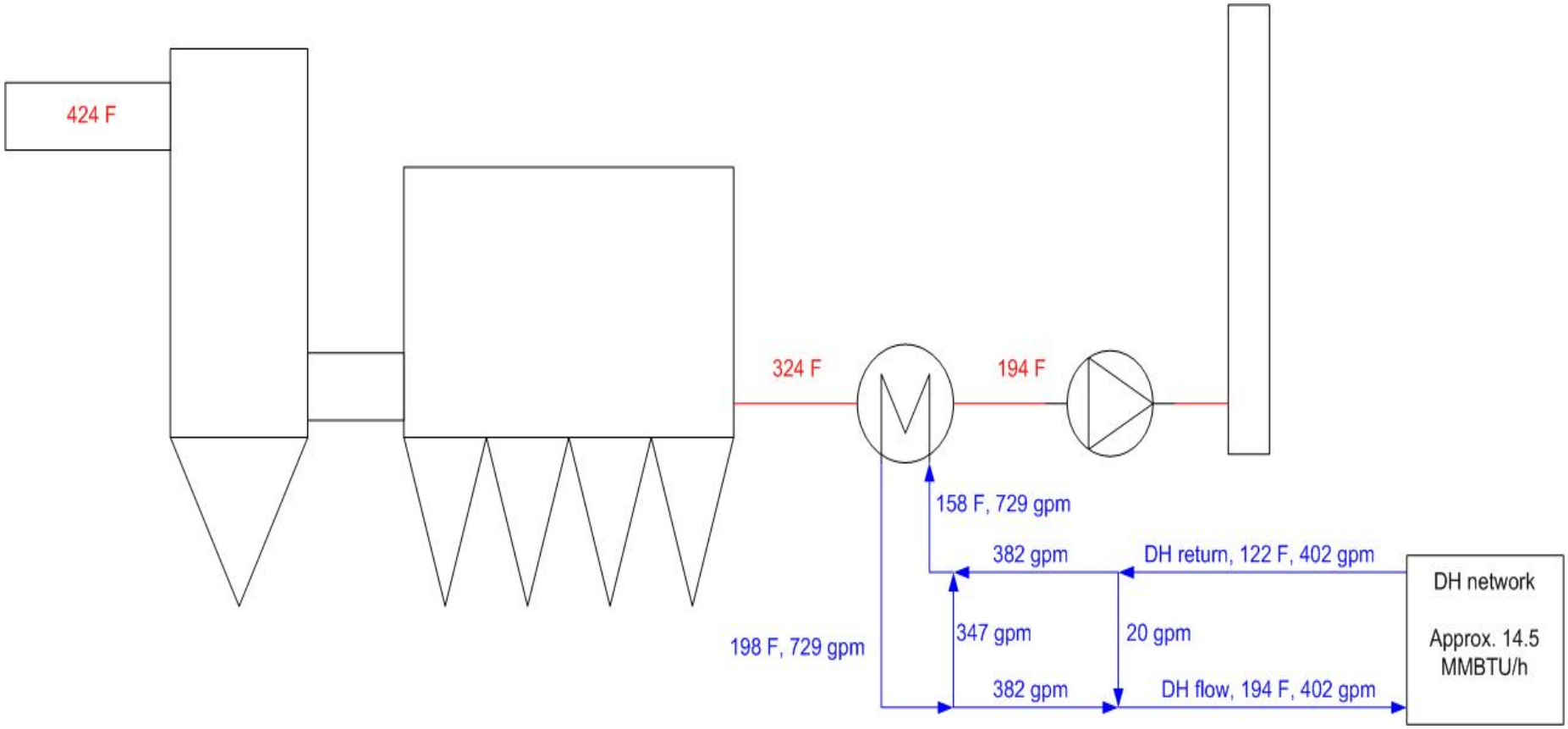
Low Grade Waste Heat Source



BUILDING INSTALLTION – THE HEAT EXCHANGER

Environmental Benefits

80% reduction in GHG

<u>Annual GHG reductions</u>

Phase I = 6,450 tons

Phase I & II = 12,900 tons

Class III REC

a waste heat recovery system installed on or after April 1, 2007, that produces electrical or thermal energy by capturing preexisting waste heat or pressure from industrial or commercial processes

Economics

Discount to current heating option of approximately 10% in year 1

29% annual savings over 20 years with cost of capital and 19% on operating cost alone

Controlled escalation of heating price over 25 years

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- **Connecticut Property Assessed Clean Energy (C-PACE)** allows for a voluntary assessment on customers' property tax bill. Property owners pay for qualifying improvements over time (20 years) through an additional charge on their property tax bill and the repayment obligation transfers automatically to the next owner if the property is sold.

  District Energy qualifies for participation under C-PACE including all "attached" equipment providing a mechanism for credit improvement.

- **Connecticut Class III Renewable Energy Credits**
  Allows participation for systems that recover waste heat or pressure from commercial and industrial processes by converting MMBTU/hr to equivalent KwHrs

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Thermal project is an attractive lending opportunity

- **Long lived asset**
- **Stable and predictable revenue using long term agreements**
- **Decoupled from fuel risk**
- **High credit thermal customers**
- **Proven low risk technology**
- **Qualifies for tax exempt debt**
- **Potential for further credit enhancement under C-Pace Program and revenue enhancement under the CT RPS Program**

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Current Status

- **Completed Feasibility Study funded by several industrial partners and the CT Clean Energy Finance and Investment Authority (CEFIA)**
- **COWI retained to complete detailed engineering of thermal source at Wheelabrator's Bridgeport Waste to Energy Plant**
- **Veolia providing development support services to Bridgeport Thermal Project under MOU Agreement**
- **CEFIA providing additional development funding for thermal source engineering work now being conducted by COWI/Veolia/Wheelabrator**

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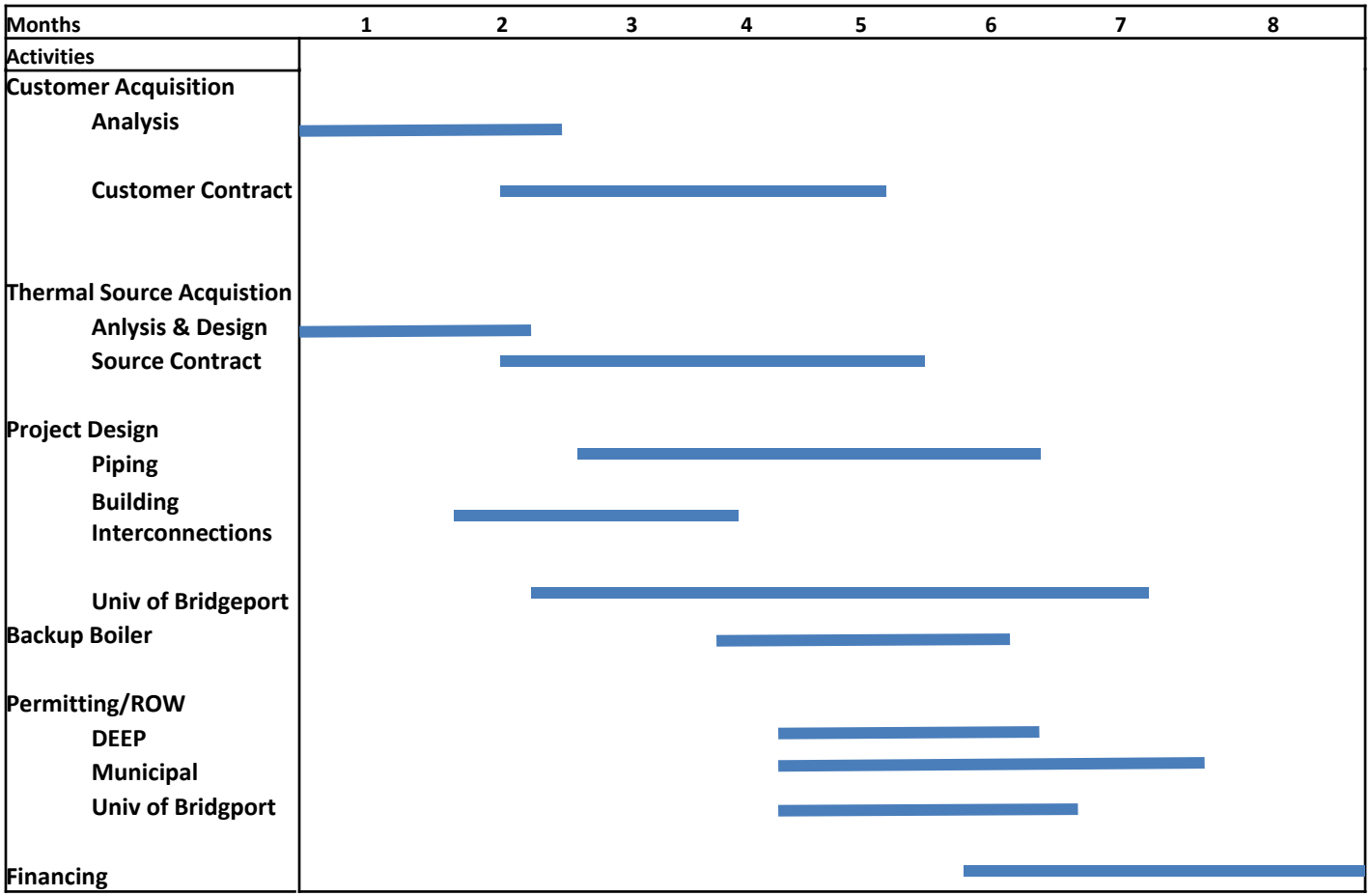

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