1. Introduction

District heating system is cost effective and helps to reduce green house gases. It uses the waste heat from existing power plants to provide low temperature heat to the commercial and residential buildings. At UB, the 1.4 MW fuel cell system is owned by another company and the waste heat is free to us. Currently, less than 50% of the waste heat is utilized in several buildings.

2. Heating loop at UB

Existing heating loop to serve three buildings:
- Wheeler Recreation Center
- The University apartments
- The University Hall (connected but not supplied)

Heat source: 1.4MW fuel cell station

Wheeler Recreation Center and the University Apartments are heated by the fuel cell station, but they also rely on boilers to provide additional heating.

The University Hall currently is only heated by boilers due to the lack of an appropriate expansion tank.

Cooper three will be connected.

3. Life cycle cost

Inflation rate is set as 2.3% and interest rate is set as 2.35%