











## District Energy and Wastewater Heat Recovery

Aaron McCartie, P.Eng., CEM

**September 29, 2021** 



### **CAN BE SEPARATED INTO:**



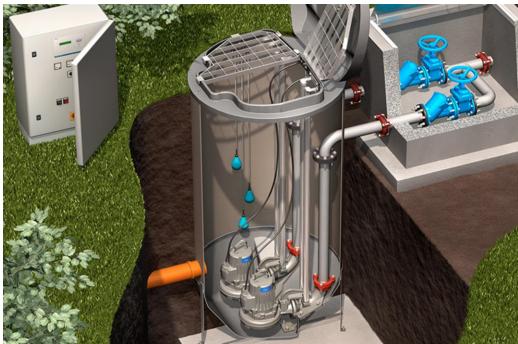


**EFFLUENT HEAT RECOVERY** 

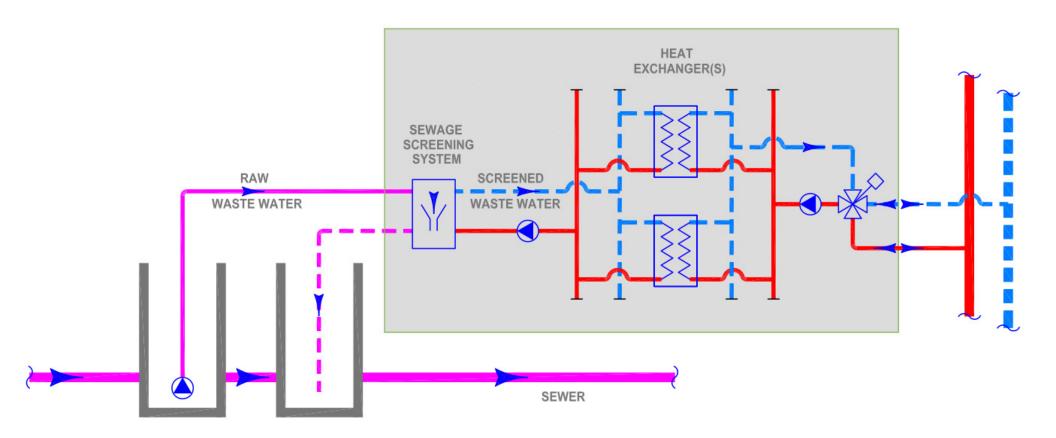
SEWER HEAT RECOVERY

### **TECHNOLOGIES CAN ALSO BE SEPARATED INTO:**



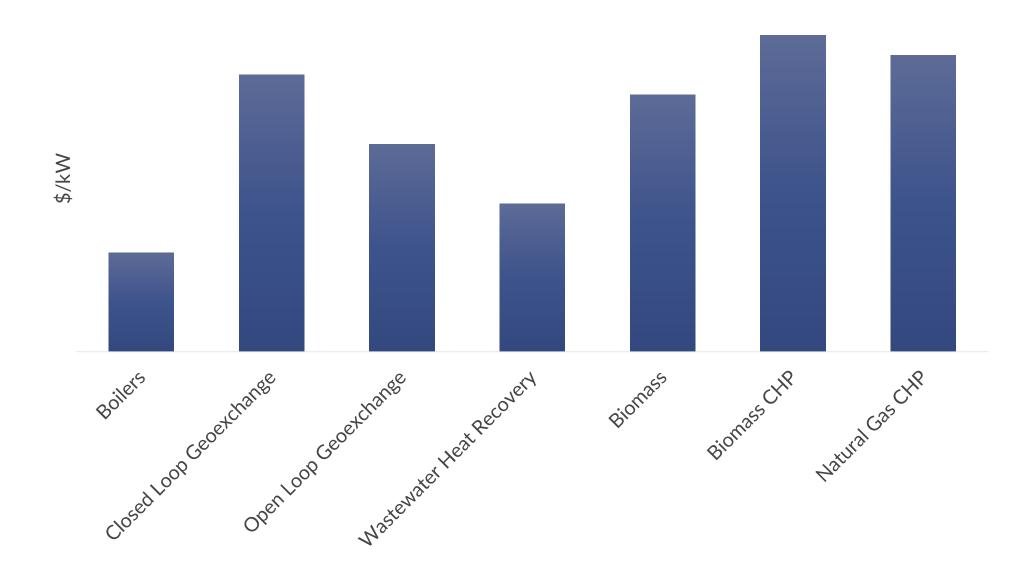


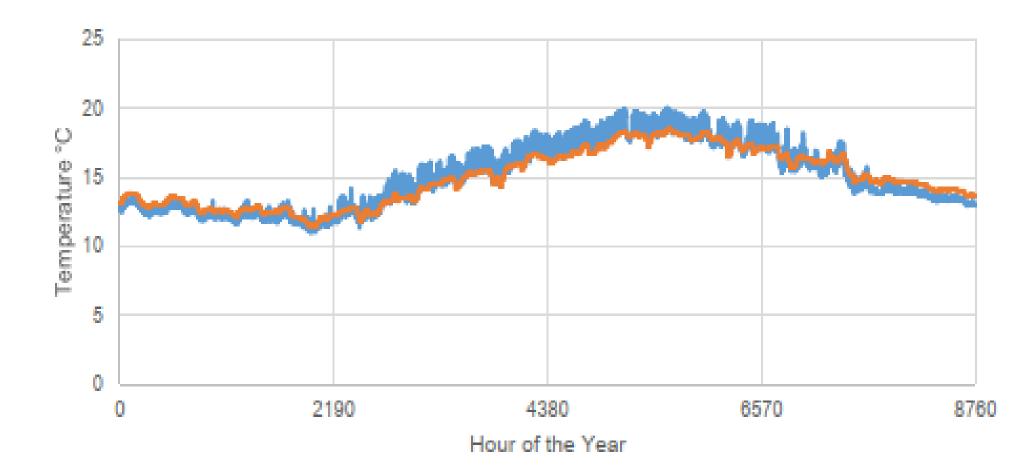
INLINE DIVERTED

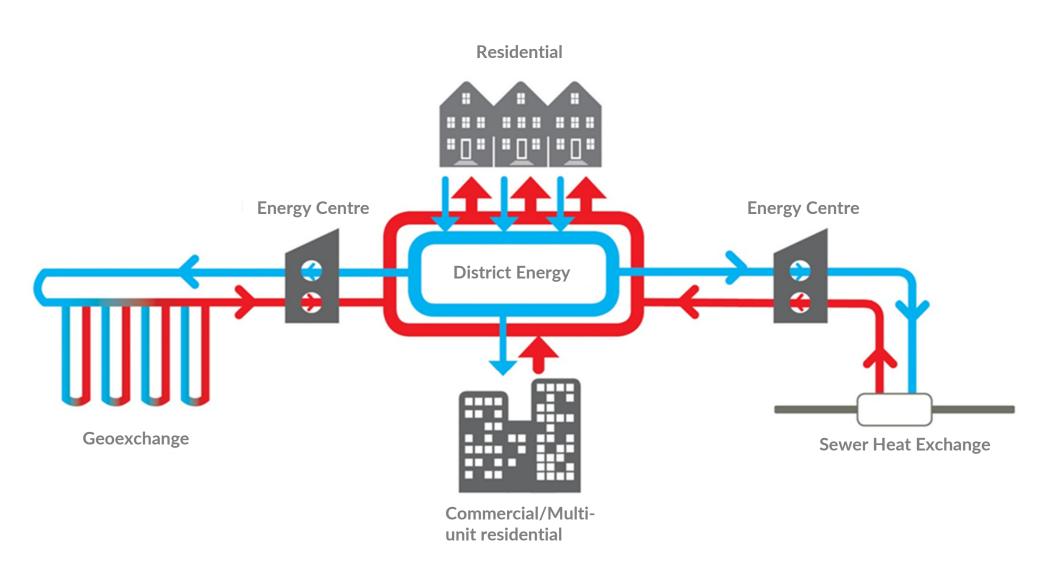














## **Screening**

**Debris Filter** 

Step Screen

**Band Screen** 

**Rotary Drum** 

Inclined/Vertical Auger Screw

## **Heat Exchange and Packaged Systems**

Wide Gap Plate and Frame Heat Exchanger

Concentric Heat Exchanger

**DDI Square Channel Heat Exchanger** 

**SHARC Energy System** 

Huber Rotomat + Rowin System

# **Design Considerations**

## **Design considerations**

Flushing, Cleaning and Maintenance

**Odour Control** 

Overall System Design and Approach Temperature

**Heat Pumps** 

# **Project Examples**







## **New Canadian Projects**

South East False Creek Expansion

**OVDEU Sewer Heat Recovery** 

Toronto Western Hospital

Blatchford DESS Sewer Heat Exchange

## YOU SHOULD BE CONSIDERING WASTEWATER HEAT RECOVERY FOR YOUR DISTRICT ENERGY PROJECT



Contact Aaron McCartie, mccartiea@ae.ca