Re: Item 8.3.1

# District Energy and The Cogswell Interchange - The Next Steps

The following insights were shared by roundtable participants on April 22nd, 2015 and have been summarized below for reference moving forward.

## **Ownership Structure**

- Consensus Halifax Water Commission Owns and Operates System
  - Chance to be established as a progressive water utility
- Job Creation
  - Apprenticeship Programs

## **Funding and Policy**

- Enabling Legislation to Compel Use of District Energy
  - ex. minimum attachment by-law or agreements of purchase and sale
- Regulated or Unregulated?
  - Utilities and Review Board oversight of price
  - Follow the price of alternatives? or One time low price?
- Funding Sources
  - Natural Resources Canada
  - Efficiency One
  - Federation of Canadian Municipalities The Green Municipal Fund
    - brownfield sites, energy, transport, waste, and water

## **System Design**

- View project through Innovation Opportunity Lens
  - Adaptive System Load Shifting based on Seasonal Demand
- System Design Feasibility Study Specifics of District Energy System
  - energy supply is a full order of magnitude greater than what is demanded
  - Diversification Space Heating, Domestic Hot Water, Thermal Capacity Sidewalks, Combined Heat and Power
  - Is a backup system necessary?
    - Utilization of heat pumps can suffice to upgrade energy to high grade
  - System Scalability Phased development
  - District Cooling 75% residential property causing hot water demand to increase seasonally

## **Project Implementation**

- Commitment from Regional Council and Halifax Water Commission
  - Complete Business Case
  - Establish District Energy Marketing and Implementation Team
    - positive opportunity, stakeholder engagement efforts, explore funding, innovation research