Southeast False Creek Neighbourhood Energy Utility - SEFC NEU

2. Business Model

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2017-06-13
Outline

• System Overview
• Ownership & Governance
• Business Model
• Rate Structure
SEFC NEU System Overview

- 3 MW\textsubscript{th} of sewage heat recovery & 16 MW\textsubscript{th} of gas boilers
- 27 buildings connected
- 400,000 m\textsuperscript{2} of floor area connected (720,000 m\textsuperscript{2} at build-out)
Ownership & Governance

- **Ownership**
  Owned and operated by the City of Vancouver
  Operation by the Engineering Department, with Steering Committee oversight

- **Governance oversight**
  City Council + Independent Expert Review Panel
  Makes decisions on capital investments, policy, and customer rates (rates reviewed and approved annually)
Business Model

• Business model
  – Financially self-sufficient
  – Recovering capital costs, operating costs and a return on equity with competitive customer rates

• Funding
  – Capital cost to date: $40 million
  – Federal grant from Innovation Fund: $9.5 million
  – Debt-financed:
    • Low-interest loan from the Federation of Canadian Municipalities ($5 million)
    • Other City loans
Deferred Recovery of Annual Costs

- Under-recovering annual costs
- Recovering past costs

- Annual costs
- Annual revenue
Business Model

Deferral Account

- Under-recovering annual costs
- Recovering past costs
Rate Structure

Two-part rate (2017)

- **Capacity Levy:**
  - Fixed charge of $0.54 per square meter floor area per month
  - Recovers NEU’s fixed costs (e.g. infrastructure financing)

- **Energy Charge:**
  - 4.7 cents per kilowatt-hour energy consumed
  - Recovers NEU’s fuel costs associated with energy production
## Rate Comparison

<table>
<thead>
<tr>
<th>Energy Provider</th>
<th>2017 Effective Rate per MWh*</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEFC NEU</td>
<td>$106</td>
<td>Based on a typical SEFC building that consumes 110 kWh per m² per year</td>
</tr>
<tr>
<td>BC Hydro (electricity)</td>
<td>$113</td>
<td>Rates are forecast to increase significantly over the next 5 years</td>
</tr>
<tr>
<td>FortisBC (natural gas)</td>
<td>$86</td>
<td>Assumes high efficiency boiler, factoring in boiler maintenance/replacement costs. Based on current natural gas price which is at historical low.</td>
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</tbody>
</table>

*real effective rate experienced by occupied SEFC buildings varies with actual amount of energy consumed*
Other Renewable Inputs

Solar Thermal

Building Waste Heat  Renewable Natural Gas
Thank you

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