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Downtown Sydney District Energy

Background

- District Energy (DE) is a system of underground pipes used to pump water, used for heating and cooling, to multiple buildings in an area such as a downtown district
- First identified as a potential opportunity for CBRM in the Municipal Climate Change Adaptation Plan (2014)
- Preliminary study in 2019 showed that DE could be financially viable and have positive environmental impacts, but further analysis required for investment
- CB Partnership commissioned detailed study in 2020/21, with work recently completed

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Project Details

- Wastewater energy recovery from effluent being treated at Battery Point Treatment Facility.
- Free, easily accessible, and abundant energy source under direct control of CBRM
- Fully electric system eliminates or greatly reduces fossil fuel combustion at customer buildings; reducing GHG emissions by approximately 75%
- System will utilize renewable electricity generation and storage
- Phased 4-year construction plan in place to connect large and committed end-users first.



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Capital Cost and Funding

- Full Class D budget estimate of **\$37,920,000** (includes HST and contingency)
- Department of Natural Resources and Renewables are reviewing an application for 73.33% funding through the Investing in Canada Infrastructure Program
 - ICIP Contribution: \$27,806,736
 - CBRM Contribution: \$10,112,264
- CBRM four year capital plan:
 - 2022/2023 : \$2,667,000
 - 2023/2024 : \$3,258,582
 - 2024/2025 : \$2,474,884
 - 2025/2026 : \$1,713,051
- Revenue from sales will be used to service debt



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Value Proposition

- Greater efficiency in central generation facility
- Stable, long-term, alternative revenue generation for CBRM
- Easy to integrate renewable technologies into generation mix
- Reduced or eliminated GHG emissions
- Mechanical space savings in buildings
- Reduces operations & maintenance costs to building owner
- Offloads energy expertise to a district energy provider



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Recommendation

Before making a funding decision, The Nova Scotia Department of Natural Resources & Renewables require evidence of CBRM council's support for this project

Also, because the Investing in Canada Fund is a "claims-based" funding program, CBRM must show they have capacity to incur short term project costs

Therefore, we recommend that Council pass a motion directing CBRM to include annual capital costs for a district energy system in CBRM's 5-year capital plan which is subject to an annual capital budget approval process.

Recommended Motion:

Move that CBRM council support the funding application to Nova Scotia Department of Natural Resources & Renewables for a Sydney District Energy System, and that staff be directed to include the Sydney District Energy System in CBRM's 5-year capital plan.



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Downtown Sydney District Energy

Q&A



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