

Update on Greenhouse Gas Reduction Initiatives

February 10, 2026



Background

- The City has been working with Vicinity Energy regarding their e-Steam program over the past two years.
- Similarly, the City has been working to secure a solar developer to supply the City's primary circuit from the Butterworth Landfill site over the same period of time.
- The e-Steam initiative was one of 20 initiatives prioritized by the Commission from the Climate Action and Adaptation Plan
- Because the Butterworth solar initiative was considered "in progress" it was not included on that list.
- Today, both programs are near or at the point where decisions are necessary to move forward or defer.

Background

- As part of our CAAP implementation strategy, we have contracted with Fresh Coast Climate Solutions to calculate the greenhouse gas reduction potential and cost for CAAP initiatives.
 - Pursuant to discussion at CAAP presentation and acceptance on 8/12/2025
 - Contracted on 8/25/2025 under manager's spending authority (NTE \$26K)
- While final reports should be available in April, this discussion includes some of their preliminary calculations for both projects.

Vicinity e-Steam

Buildings & Industry Strategy 4, Action 3

Partner with Vicinity Energy to continue to implement efficiency projects and pursue electrification of steam generation and the sourcing of renewable energy as a strategy to reduce process emissions as well as help their downtown customers achieve building-related emissions reductions.

Average annual cost to the City: \$310,000

20-year cost to the City: \$6.2 million

GHG emission reduction: 15,081 MT CO₂e

Cost per MT CO₂e: \$20.56

Community-Wide Reduction: 0.05%*

**- For City's portion of e-Steam. If fully utilized, reduction could be up to 0.61%*



Butterworth Solar

Energy Systems Strategy 4, Action 6

Maximize local benefit of the City's renewable energy portfolio through renewable natural gas generation at the City's biodigester and pursuing solar at the City-owned Butterworth Landfill.

Average annual cost to the City: \$2,900 ¹

20-year cost to the City: \$58,000 ^{1,2}

GHG emission reduction: 539 MT CO₂e

Cost per MT CO₂e: \$5.38 ¹

Community-Wide Reduction: 0.02%

NOTES:

¹ – *Cost calculations based on proposals received*

² – *As compared to the estimated costs for generation through Consumers Energy's Renewable Energy Program (REP)*



Vicinity e-Steam

Overview

- City would subscribe to e-Steam program for provision to City buildings and facilities served by the company
- Power supplied through Consumers Energy Renewable Energy Program (REP)
- Diverts GHG generation locally



Vicinity e-Steam

Considerations

- City could opt for a partial subscription to reduce costs (would also lower GHG reduction)
- Provides fixed rate over time vs. volatility of gas rates
- REP subscription is limited, availability window is closing
- Due to the unfunded budgetary impact and term of commitment, project should be considered as part of the overall FY27 budget development process
- Updated ordinance language needed to allow Vicinity to sell electrically-generated steam to local customers



Butterworth Solar

Overview

- City is currently in final evaluation of proposals for a 2MW array at the former landfill site
- Project would be owned by the developer, with City purchasing generated power at an agreed-upon rate (PPA)
- Agreement would include maintenance and operation, as well as generation guarantees over the life of the array
- City would have option to purchase after year six of the initial PPA agreement
- Indirect GHG diversion, similar to Consumers Energy's Renewable Energy Program (REP)



Butterworth Solar

Considerations

- Compared to projected rates on the Renewable Energy Program (REP) costs are slightly higher over time
- Overall project cost was reduced by \$3M via state grant to extend primary circuit to the site
- Initial year cost difference higher due to gap before REP goes into effect in CY2028
- To secure maximum tax credits and construction time window, project must be initiated on site (not just design) before July 4, 2026
- Pending final review, team intends to bring this item forward for consideration at the 2/24 Commission meeting



Summary

Vicinity e-Steam

- ~\$6.2M over 20 years @100% utilization
- 15,081 MT CO₂e reduction
- Updated Ordinance language to come forward at 2/24 meeting (allows Vicinity to market e-Steam product locally)
- Consider subscription as part of FY27 budget development

Butterworth Solar

- Estimated net cost difference of ~\$58K over 20 years*
- Proposal must be considered at 2/24 meeting in order to meet Federal timelines

Full CAAP Analysis for Commission priorities expected in March 2026

Questions?