



JUNEAU COMMISSION ON SUSTAINABILITY - WORK SESSION AGENDA

October 19, 2022 at 1:00 PM

Zoom Webinar

<https://juneau.zoom.us/j/83361298658> or Phone +1 253 215 8782 US (Tacoma) Meeting ID: 833 6129 8658 OR

A. CALL TO ORDER

B. LAND ACKNOWLEDGEMENT

C. ROLL CALL

D. APPROVAL OF AGENDA

E. PUBLIC PARTICIPATION

F. AGENDA TOPICS

1. Legislative Priorities Nominations – David Teal (JCOS) and Gretchen Keiser (JCOS)

2. Juneau's Climate Action and Sustainability - Work Plan Draft – Steven Behnke (JCOS)

G. INFORMATION ITEMS

H. COMMITTEE MEMBER / LIAISON COMMENTS AND QUESTIONS

I. NEXT MEETING DATE(S)

- | | |
|--------------------------------------|--------------------------|
| 3. Monthly Regular Meeting | Nov 2, 2022 @ 12PM ZOOM |
| 4. Monthly Work Session/Subcommittee | Nov 16, 2022 @ 12PM ZOOM |
| 5. Monthly Regular Meeting | Dec 7, 2022 @ 12PM ZOOM |

J. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city.clerk@juneau.org.

The Juneau Commission on Sustainability (JCOS) appreciates the opportunity to provide input to the CBJ's FY2024 capital project process. We were pleased to learn that the project list was not intended to be comprehensive. We believe that flexibility in identifying (and shifting) project priorities will be critical to our ability to leverage once-in-a-generation funding opportunities provided by the Infrastructure Investment & Jobs Act (IIJA) and Inflation Reduction Act (IRA). Cities can unlock funding opportunities by identifying priorities, estimating budget needs, pinpointing funding gaps, and targeting the appropriate federal funding sources. Hundreds of billions of dollars will become available for projects involving energy efficiency, electrification, GHG reduction, and climate resilience. RMI (webinar host) advised Gretchen to include a link to RMI's Oct 4th Webinar [How Unprecedented Incentives and Funding in the Inflation Reduction Act Can Advance Local Climate Action](#) but the link cannot be followed by hard copy and does not appear to include a recording—just says the link is expired. I think the first paragraph is sufficient for Assembly members and that CBJ staff should be able keep on top of this topic without our input at this time.

JCOS fully supports project #5—electrification of dock 16b—and urges you to move it to the top of the priority list based on its potential to reduce greenhouse gas emissions, improve air quality in downtown Juneau, contribute to economic development and function as a springboard for conversion of the tourism shore-based vehicle fleet to electric. The project may be a good fit for the funding opportunities provided by the Inflation Reduction Act.

JCOS also supports a more comprehensive approach to large, multi-year projects that may meet the above-mentioned federal funding opportunities and address the long-term sustainability of the Juneau community. Such an approach would focus on

- Energy efficiency upgrades to Bartlett Regional Hospital, schools, libraries, fire stations, etc. This would include ground-source heating, district heating (Civic Center), insulation, and other HVAC improvements;
- CBJ fleet electrification and needed EV charging infrastructure; and
- Upgrading the energy efficiency of residential and commercial buildings.

JCOS respectfully recommends that all capital project descriptions be expanded to include information intended to help the public, staff, and the assembly set priorities. While we agree with your statement that a prioritized list is useful only if it is manageable and relevant, we believe that more information is critical to the ability to establish priorities. We hope you will include the following information:

- Quantified data on each project's projected impact on greenhouse gas emissions, housing stock, waste, and other measures of sustainability.
- Funding expectations identified by source, amount, and year.

Again, thank you for the opportunity to participate in this important task.

City & Borough of Juneau

Legislative Priorities

Project Nomination Form

Project eligibility

- A. Does the proposed project represent a major, nonrecurring expense with a total project cost over \$1M
☒ YES NO
- B. Will the proposed project result in a fixed asset (e.g., land, major equipment, building or other structure, road or trail) with an anticipated life of at least two years? ☒ YES NO
- C. Will the project provide broad community benefit? ☒ YES NO
-

If you were able to answer YES to all three questions, please provide additional information:

1. Project title (Suggested heading):

Municipal Composting Facility Design and Construction

2. Project description and benefit. Describe the project (in half a page or less), including specific features, stages of construction, etc. Explain how the project will benefit the community. Are there any green or sustainability elements to the project? What sector/s of the community will this project benefit?

Juneau has a major solid waste problem. The landfill is only ~20 – 25 years away from the end of its useful life. The closure would negatively impact every member of the community.

In March 2021, JCOS finalized the “Juneau Solid Waste Fact Sheet and Recommendations for a Course of Actions by the City and Borough of Juneau Assembly: *History, Current Situation, and the Future*”. One of the recommended actions from that report was to adopt a Zero Waste plan. Zero Waste plans aim to reduce waste through avenues such as composting, recycling, and reuse. The Zero Waste plan concept was presented to the Public Works and Facilities Committee (PWFC) in 2021. The PWFC Chair supported moving towards composting as part of a broader Zero Waste plan.

The purpose of this project is to design and construct a commercial-scale composting facility to serve Juneau residents and businesses. Food scraps and organic wastes represent a large percentage of the material landfilled each year, taking up valuable space in the landfill and creating odor issues in the surrounding neighborhoods. Beyond the benefits of diverting waste from the landfill, CBJ also has a vested interest in reducing organic waste going to the sewer system. One of the main wastewater treatment facilities in the CBJ experiences high organic loading in the incoming wastewater, and CBJ staff are actively working on ways to reduce this loading through source control efforts. Ground up produce from commercial operations contributes to the high organic loading issues. With a commercial scale composting facility, the CBJ will have the capacity to accommodate large scale producers such as grocery stores and large restaurants as well as residential customers, getting this waste out of

For more information, call Katie Koester at 907.586.0800 or Katie.Koester@juneau.org

both the sewers and the landfill. Through composting, these food scraps and organic wastes then become a locally produced resource as a soil amendment rather than a solid waste or sewer (source control) problem.

3. Plans and progress. Describe (in one or two paragraphs) what has been accomplished so far (if anything). This may include feasibility study, conceptual design, final design/engineering/permitting, fundraising activity, and total funds raised to date.

This project is currently at the conceptual stage. CBJ allocated \$100,000 for Zero Waste Planning in Manager's Office as part of the FY2023 CIP projects.

4. Project support. Is the project supported in CBJ or other Area plans (List where the project is mentioned in planning documents. This could include CBJ plans such as the Comprehensive Plan, or regional planning documents like the Comprehensive Economic Development Strategy).

This project would directly support the 2022 CBJ Assembly Goal#5:

- Sustainable Community – Juneau will maintain a resilient social, economic, and environmental habitat for existing population and future generations
 - 5a. Develop a Zero Waste or Waste Reduction Plan

5. Goal of project. In one sentence or less, state the goal of the project. For example "economic development" or "improve non-motorized transportation routes."

The goal of the project is to design, do site preparation, and construct a municipal compost facility as part of a broader Zero Waste plan.

6. O&M. Who is responsible for operations and maintenance upon completion of the project?

CBJ will likely contract out the operation and maintenance of the compost facility, which the municipality would own.

4. Project cost:

A. TOTAL COST (including funds already secured) = \$ 2.5 million

B. AMOUNT SECURED (include funding source) = \$ 0

B. For construction projects, break out preconstruction costs (feasibility/design/permitting):

Preconstruction costs = \$ 0.5 million Construction costs = \$ 2 million

For more information, call Katie Koester at 907.586.0800 or Katie.Koester@juneau.org

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5. Timeline: Indicate when you hope to complete each phase of the project. Keep in mind that the L... Priorities will not be published until February. Legislative funding from the state would not be available until the start of the following fiscal year (July).

A. For projects that consist of land or equipment purchase only, state when the purchase would be made:

For construction projects:

B. Preconstruction phase to be completed by ____ [December 2023](#) ____.

C. Construction phase to be completed by ____ [December 2025](#) ____.

6. Physical Location. Please provide the address or physical description of where the project is located.

[This project would likely be built in the Lemon Creek gravel pit.](#)

7. Please provide a photo, drawing, map, or other graphic image if possible.

8. Contact Information

For more information, call Katie Koester at 907.586.0800 or Katie.Koester@juneau.org

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**City and Borough of Juneau
FY23 CDS Office of Senator Murkowski
Priority #5 of 5**

Municipal Composting Facility Design and Construction

Requesting Entity	Lobbyist
Rorie Watt City Manger City and Borough of Juneau 155 S. Seward Street, Juneau, AK 99801 rorie.watt@juneau.org 907-209-9863	Katie Kachel Principal Blank Rome Government Relations LLC 1825 I Street, NW, Washington, DC 20006 Katie.kachel@blankrome.com 443-465-2992

Project Information

Subcommittee: Interior, U.S. EPA

Project Location: City and Borough of Juneau (CBJ)

Project Purpose: The purpose of this project is to design and construct a commercial-scale composting facility to serve Juneau residents and businesses. Food scraps and organic wastes represent a large percentage of the material landfilled each year, taking up valuable space in the landfill and creating odor issues in the surrounding neighborhoods. Beyond the benefits of diverting waste from the landfill, CBJ also has a vested interest in reducing organic waste going to the sewer system. One of the main wastewater treatment facilities in the CBJ experiences high organic loading in the incoming wastewater, and CBJ staff are actively working on ways to reduce this loading through source control efforts. Ground up produce from commercial operations contributes to the high organic loading issues. With a commercial scale composting facility, the CBJ will have the capacity to accommodate large scale producers such as grocery stores and large restaurants as well as residential customers, getting this waste out of both the sewers and the landfill. Through composting, these food scraps and organic wastes then become a *locally produced resource* rather than a solid waste disposal problem.

Project Impact to Alaska: Lemon Creek, site of the existing landfill in Juneau, is home to a number of densely populated neighborhoods. Household income in Lemon Creek is 78% of the Borough wide income level and the racial make-up of the area is more

diverse, with minorities comprising 49 percent versus 22 percent minority population in the Borough.

Odor problems from the landfill disproportionately affect the Lemon Creek area of Juneau. By removing organic waste from the landfill and composting them in a properly designed and operated compost facility, has the potential to significantly reduce odor issues in these neighborhoods.

Project Description:

Juneau is positioned well to make composting a successful tool for achieving waste reduction goals. Based on a composting feasibility assessment performed for the CBJ in 2016, community support and economic drivers such as the high cost of landfilling make composting a promising option. A small, local composting company has been successfully composting residential and small business food scraps for several years. However, due to the cool wet climate here in Juneau, expanding capacity for larger-scale composting will require a facility and equipment that can support technologies such as in-vessel aerated static piles. The feasibility assessment also identified the need for additional carbon sources which can be filled using cardboard collected for recycling to be re-used locally rather than being shipped South.

This project would continue the work started with the composting feasibility assessment to design, and construct a commercial scale composting facility. The facility would be located on CBJ property that would be dedicated for this purpose. CBJ funds have been appropriated to identify an appropriate site and to support a Zero Waste planning effort in which increasing composting capacity has already been identified as an important component.

Project Goals/Results:

This project will directly support the 2022 CBJ Assembly Goal#5:
Sustainable Community – Juneau will maintain a resilient social, economic, and environmental habitat for existing population and future generations
5a. Develop a Zero Waste or Waste Reduction Plan

This project will also result in improvements in environmental quality and human health by addressing a concern in the Lemon Creek Plan: “reduce incompatible uses and minimize

or mitigate adverse impacts of such incompatible uses related to air quality (noise, dust, fumes, odors), public safety and natural resource protection.”

The volume of food scraps and other organic waste will be tracked for direct measurement of the success of the program in keeping material out of the landfill. Volumes of compost produced and used locally, offsetting the need for importing materials, will also be a metric used to evaluate the program. From this data, other relevant and important calculations, such as the reduction of greenhouse gas emissions, can be made.

Request Information

FY23 Funding Request: \$2.5 million

Priority: 5 of 5

Are you submitting this request of any other members of Congress? No

Does your project meet all the criteria listed in the CDS guidance. If your request does not meet all the requirements, you are not automatically disqualified for consideration. Please indicate why your request should be considered by Senator Murkowski.

Project is eligible under the U.S. Environmental Protection Agency State and Tribal Assistance Grantsⁱ.

Attachments (PDF) Letter of support from Mayor Weldon

ⁱ Project Eligibility/Guidance

1. Describe the project and make the case for its consideration. This project would design and build a commercial-scale community composting facility. The project is needed for several reasons: (1) Juneau’s landfill has an anticipated lifespan of only 20-25 more years, and suitable land for a new landfill is in short supply. Being landlocked (with no roads in or out), the community would likely resort to shipping waste south, an expensive proposition. Considering that approximately 35% of what goes into the landfill is compostable, community-wide composting will significantly extend the life of our landfill. (2) Due to our cool, very wet climate, the landfill produces significant odors. In fact, the state Department of Environmental Conservation solid waste staff reports this landfill as having by far the most odor complaints of any landfill in Alaska. This stench degrades the quality of life in the nearby densely populated neighborhoods, posing an environmental justice issue. Since organic matter tends to be one of the most odorous components of a landfill, removing or reducing the amount of organic matter through composting can reduce the odors from the landfill. (3) Organic matter regularly makes its way into our local sewer system, which contributes to high organic loads and reduced treatment efficiency. Providing a composting option for both residents and businesses will provide an alternate means of disposal, providing another option to eliminate this source of

excess strain on the wastewater treatment plant. (4) Composting will allow what was once a solid waste problem to be turned into a locally produced resource, providing a high quality soil amendment to local food growers and landscapers while reducing the production of greenhouse gasses, an important component of the CBJ's climate strategy.

2. Is the recipient entity a federal agency, state agency, Tribal entity, local city/county agency, university or college, or non-profit organization? **Yes**

3. Does the project meet the eligibility and matching requirements for a specific grant program (provide description)? **Yes – this project meets requirements for the EPA Multipurpose Grants to States and Tribes.**

4. Does the relevant federal agency have the authority to provide funds to this project and/or recipient (cite authority)? **Yes**

5. Is the project specifically authorized (cite public law or other authority)? **AS 29.35.050 Garbage and Solid Waste Services (for Home Rule municipalities). Although Alaska Waste (private company) holds the certificate of necessity and convenience from the Regulatory Commission of Alaska (RCA), the RCA does not regulate recyclable materials such as food scraps.**

6. Is the project on federal land or a federal facility? **No**

7. Is the project funded in the President's budget request (provide amount and describe any difference between the budget and your request)? **No**

8. What is the federal nexus for this project and why should there be a federal funding component? **The State of Alaska Department of Environmental Conservation does not provide grants and loans to support solid waste projects; therefore federal aid is needed through EPA. (I can verify this is true with a call to ADEC, but that is my understanding) EPA has programs dedicated to the sustainable management of food, including waste management. See here: <https://www.epa.gov/sustainable-management-food/funding-opportunities-and-epa-programs-related-food-system>**

9. What is the total cost of the project? **\$2.5M**

10. Has this project received previous federal funds (provide year, amount, and program)? **no**

11. Are there matching funds or partner contributions? **Yes. We have \$50k and can come up with more. 10% is reasonable... CBJ provides the land for the project**

12. Is this request being submitted to other subcommittees for consideration (note subcommittee, program, amount, and other relevant information)? **no**

13. Is the project ranked on any federal, state, or other prioritized list (provide list name and rank)? **CBJ Assembly Goals: #1 priority under sustainable community category.**

14. What is the timeline for this project and why are federal funds required in this fiscal year? **The CBJ agrees to dedicate or acquire property for this project. Once funds are secured, the project would progress as follows: July 2022: CBJ advertises for design firm August 2022 design firm hired, project design begins December 2022 Design complete, Construction bids solicited, February 2023 Construction contract awarded April 2023 Construction begins**

15. What are the estimated start and completion dates for the project? **July 1 2022 (if funds awarded), construction completed September 2023**

16. Can the project obligate all of the requested funding within 12 months of receipt? **Assembly can accept the grant or loan and appropriate the money for this purpose within 12 months.**

Juneau's Climate Action and Sustainability:

What's Been Accomplished and

Recommendations for a 5-10 Year Work Plan

10/14/2022 Draft
Juneau Commission on Sustainability

Executive Summary

Introduction

It's been 11 years since the City and Borough of Juneau (CBJ) adopted its 20-year community climate plan, the *Juneau Climate Action and Implementation Plan* (JCAIP). The JCAIP identified a goal of reducing GHG emissions by 25% by 2032 and identified hundreds of potential actions to accomplish this goal. Also 11 years ago, the Kensington Mine entered its production phase and today operates completely on diesel generation which, while bringing jobs to Juneau, has increased our overall GHG emissions.

A JCAIP Top 10 recommended action was to develop an energy plan for the community, which was completed in 2018 when the CBJ adopted the *Juneau Renewable Energy Strategy* (JRES). The JRES sets a goal of shifting community energy use away from fossil fuels so that renewable sources provide 80% of the total energy used in Juneau by 2045. Juneau's JRES is different and more encompassing than other communities' strategies in that our strategy provides for 80% renewable energy not just for electrical energy production, but 80% renewable energy for Juneau's heating and transportation needs. This energy shift helps meet the JCAIP climate action goals, reduces vulnerability to fuel price shocks as in 2022, and strengthens the community's economic sustainability and resilience.

The JRES provides a menu of hundreds of specific policies and actions for meeting Juneau's climate and renewable energy goals (drawn from the CBJ Comprehensive Plan and the JCAIP). Recommended actions and the development of action plans are placed in four general categories:

- An internal CBJ energy management program - to track and reduce energy use and costs, contribute to climate and renewable energy goals, and lead by example.
- Buildings' energy use and space heating – install energy efficiencies and electrify heating to reduce Juneau's dependence on fossil fuels,

- Transportation – electrify fleet, buses and personal vehicles to reduce Juneau’s dependence on fossil fuels, and
- New renewable energy supplies - to meet demand as Juneau electrification continues.

This white paper offers a retrospective on what’s been accomplished since the JCAIP and JRES were adopted, identifies actions currently underway, and makes recommendations for additional actions. While this paper focuses on the CBJ’s role in reaching climate goals, JCOS recognizes that

1. The city is a leader but is not the only player in strengthening Juneau’s energy future – residents, homeowners, businesses, organizations, and government agencies all have an important role to play in reducing GHG emissions and our reliance on fossil fuels.
2. The community’s climate actions do not happen in a vacuum, but are part of the overall efforts undertaken to sustain and enhance the livability and economic well being of Juneau for current and future generations.
3. There are additional measures of a community’s sustainability, including poverty, housing, and environment. Although these issues are important, the focus of this paper is limited to near-term actions (5 to 10 years) that tackle the community’s underlying use of energy and that address the impacts of the changing climate.
4. The intent of this white paper is to position CBJ and community members to take advantage of and optimize the funding opportunities in recent federal legislation that can financially enable the CBJ to meet its strategic climate and sustainability goals and can strengthen Juneau’s community values using federal assistance.

I. Are We on the Way to Meeting Our Goals? What’s Been Accomplished in Recent Years?

A. Measuring Progress

Ideally, Juneau would publish (and regularly update) dashboard graphics that show where the community started, our goals, and the path (or paths) that will lead us to those goals in a timely manner. Although simple in concept, the unfortunate truth is that we can neither measure progress nor identify roadblocks to progress unless we have good data on energy usage and greenhouse gas emissions. Juneau does not have adequate and current data.

While Juneau’s 2010 energy profile and GHG inventory have not been updated, two actions contribute to getting the data needed:

- In 2020, the CBJ Maintenance staff began to compile 2015-to-present records and monitor energy use in CBJ facilities. Now, energy use in approximately 60 CBJ facilities is tracked, and CBJ Maintenance and Finance are working to automate ongoing electrical bills and fuel purchasing records.
- In 2022, CBJ contracted with a national firm to prepare a current energy profile/GHG emission inventory for the Juneau community as a whole and for local government, with the capability to model future efforts that help inform decision making. Preliminary results of this update are expected in fall, 2022.

RECOMMENDATION:

Strengthen the modeling efforts by establishing a way to track the amount of fossil fuel used for transportation, heating and other uses. Knowing the amount of GHG associated with different activities will help focus policy and budget decisions on areas that produce the best results.

B. CBJ and Community Actions in Recent Years and What's Underway Now

1. CBJ Energy Management

• Several CBJ facilities have had or are slated for near-term energy efficiency & HVAC upgrades, including Treadwell Arena, Savikko Park, Douglas Fire Station/Library, Downtown Library, CBJ Street Shop (at 7 mile) Glacier Fire Station, Eagle Valley Center, Lynn Canal Fire Station, Syeik Gastineau Community School and Ką́digoowu Héen (formerly Riverbend) schools, Auke Bay Fire Station, Zack Gordon Youth Center, Centennial Hall, Augustus Brown Pool, Dimond Park Field House and Dimond Park Pool.

- New construction and operation at the Juneau Airport's North Terminal and Bartlett Behavioral Health Facility incorporate numerous energy efficiencies.
- CBJ Engineering and Public Works (E&PW) incorporated energy use data from CBJ facilities into a 2021 Sustainability Report (<https://juneau.org/wp-content/uploads/2021/11/CBJ-AnnualSustainability-2021-r3.pdf>).
- Beginning in 2021, the CBJ incorporated sustainability as a criterion for projects in its Capital Improvement Plan.
- CBJ replaced **eight** of its vehicle fleet with EVs (what **%?**), and is investigating consolidation of its downtown-located vehicles for more efficient utilization and potential future EV purchasing.
- CBJ Transit secured federal funding for seven electric buses (39% of fleet), bus-charging equipment, and bus barn upgrades. Juneau's first electric bus began

operation in April 2021 and is providing practical experience and trouble-shooting useful in ordering the next six electric buses.

RECOMMENDATION:

CBJ should continue to lead by example. Publicize accomplishments and impacts to help the public understand that reducing GHG emissions can also save money.

2. Buildings: Energy Use and Space Heating in Businesses and Private Homes

- Since 2020, the CBJ Assembly has funded Alaska Heat Smart (AHS), a local nonprofit that provides education & technical assistance to homeowners who then convert their home heating to air source heat pumps. As of September 2022, AHS conducted about 450 home heating assessments, with approx. 80 more in progress. AHS data shows, on average, homeowners save about 67% on annual energy costs (at \$5/gal fuel in 2022) and eliminate CO2 emissions annually equal to one automobile. In 2022, AHS secured \$2.4 million in two federal grants to install energy efficiencies and heat pumps in lower income Juneau homes over the next three years. Recently, AHS has posted information on its website about the potential energy efficiency upgrades and home heating rebates and tax credits under the federal Inflation Reduction Act (IRA).
- The number of heat pumps has increased rapidly in Juneau. Owners have installed heat pumps in approximately 1500 Juneau homes, roughly 11% of Juneau’s housing units.
- Air source heat pumps are a preferred heating system for new construction, renovations, and real estate sales. High demand has led to increases in hiring by local installers.
- To date, the Juneau Carbon Offset Fund has installed heat pumps in 30 lower-income homes.
- Spearheaded by Interfaith Power & Light volunteers and others, an investigation of potential financing options is underway to accelerate the adoption of heat pumps and other energy efficiencies. An application for a federal USDA line of credit project may be feasible.
- A district heating system for Aak’w Kwaan Village district and downtown is being designed.

RECOMMENDATIONS:

Consider CBJ assembly action to:

1. Expand financing options for businesses that take action to increase their energy efficiency.
2. Provide encouragement (to homeowners and landlords) to install heat pumps by offering financing incentives via on-bill financing, C-PACE, LIDs, etc..
3. Encourage (or require) lower GHG emissions through revisions to the building code (such as requiring heat pumps in new construction).

3. Transportation - reduce reliance on fossil fuels

- To date, Juneau residents purchased about 500 EVs - roughly 2.5% of the community's 20,000 cars.
- Beginning in 2017, through a collaborative effort among nonprofits, businesses and agencies, 31 public EV chargers have been installed and provide free charging.
<https://www.plugshare.com/directory/us/alaska/juneau>
- CBJ investigated the challenges, locations, and installed 10 public EV charging stations in 2022 with CIP funding approved by the Assembly, additional funds and in-kind logistical, standard drawings, and coordination support from Juneau EV Assn. and AK EV Assn., and coordination with AEL&P. The new Tier 2 charger sites are: 8th St/Basin Rd (2 chargers), Twin Lakes (2), Harris Harbor (2), Eagle Valley Center (2), and Eaglecrest (relocated & added 2 to expand site to 4 chargers).
- With a FY2023 \$5M State grant, CBJ is beginning a collaboration with the State on renovation of the State Office Building parking garage to accommodate substantially more parking and EV charging.
- Using 2022 Marine Passenger Fees (MPFs), the CBJ is analyzing the feasibility of electric bus circulators for downtown.
- In 2022, CBJ prioritized electrification of its two public docks for cruise ship shore power – through revenue bonds, MPFs, and potential federal grants.
- With 2022 MPFs, the CBJ commits to upgrade the 20-year-old electrical infrastructure serving the Franklin Dock shore power, as a precursor to electrifying the two city docks for shore power.
- Norwegian Cruise Lines has stated that it expects to provide cruise ship shore power if a new dock is approved. That development is now under Huna Totem Corp. ownership.
- A local entrepreneur has an electric boat operational.

RECOMMENDATIONS:

Continue to install EV infrastructure and replace CBJ vehicles with electric vehicles. Consider taking action to require installation of EV chargers in new single and multi-family dwellings and at new commercial properties.

4. New Renewable Energy Supplies

- Studies and grant applications have raised community awareness that replacing fossil fuels with electricity will challenge AELP's current capacity to provide the amount of electricity required to meet the community's climate/energy goals.

RECOMMENDATIONS:

Establish a dialog with the AEL&P, Regulatory Commission of Alaska, and the Alaska Legislature with the intent of having the utility prepare and share a plan for meeting the longer term energy needs of the community.

5. Community Sustainability

- Beginning in 2019, the CBJ Assembly identified annual sustainability goals and has taken actions to implement the Juneau Renewable Energy Strategy and solid waste issues.
- In 2020, CBJ pursued USDA funding (unsuccessful) to expand Juneau's composting capability in partnership with a private business, local schools, and Alaska Dept. of Environmental Conservation.
- In 2021, the CBJ Wastewater Utility staff began an analysis of the sources of high organic loads; fats, oils and grease (FOG); and infiltration and stormwater into the community's two larger wastewater treatment facilities (the Juneau and Mendenhall plants). Efforts are underway to address these sources which cause increased treatment costs and equipment maintenance, and higher energy use.
- In FY2023, the Assembly funded a zero waste planning project to reduce & divert solid wastes and extend the life of Juneau's landfill. The CBJ also has a congressionally designated grant for \$2.5 million for a composting facility included in the pending FY2023 federal budget legislation.
- An Environmental Projects Specialist was hired in September 2022 to work on CIP-funded zero waste, utility, EV, and energy/GHG inventory projects.

- A collaborative report by UAS, UAF, and CBJ, *Juneau's Changing Climate & Community Response*, is published in 2022 and identifies probable effects Juneau residents will be facing in coming decades.

II. A Proposed 5 to 10 Year Juneau Sustainability and Climate Action Plan

The CBJ's recent and ongoing actions identified above give Juneau strong momentum in achieving its climate, renewable energy, and sustainability goals. Federal legislation in 2021 (Infrastructure Investment & Jobs Act - IIJA) and 2022 (Inflation Reduction Act - IRA) present once-in-a-generation opportunities to propel the Juneau community forward on its path to a more sustainable and resilient future. The CBJ has identified a grant strategy for projects that CBJ would seek funding under the 2021 IIJA. Efforts to understand the funding opportunities focused on climate, energy, and equity are also underway. [INSERT footnote on RMI's 10/04/22 webinar for municipalities on how to optimize IIFA and IRA funding)

In light of ongoing community action and pending grant opportunities, JCOS offers the following recommendations for action during the next 5 to 10 years. The Commission has sought to identify gaps in community-wide efforts to achieve equitable energy efficiency, climate resilience, and sustainability. It is JCOS's intention that the action plan contributes to overall community goals by:

- Helping community members, businesses, CBJ staff, and the CBJ Assembly identify priority actions;
- Providing guidance on funding for sustainability projects in the CBJ budget and CIP processes;
- Supporting private, foundation and public funding requests;
- Identifying and supporting federal funding opportunities;
- Contributing to public communications about Juneau climate and energy actions; and
- Identifying the connections between climate/energy goals and other community goals such as affordable housing, reducing waste and landfill odors, etc.

A. Facilitate energy efficiency and electrification in Juneau buildings:

- Adopt a CBJ policy of building decarbonization, and lead by example [\[2\]](#)
- Update building codes to incorporate current energy efficiency standards: 2021 International Energy Conservation Code (IECC) and ASHRAE Standard 90.1-2019. Consider a "stretch" code as a starting point.

- Continue to support efforts to upgrade the energy efficiency and heating systems of housing to enhance the affordability for lower income households.
- Establish financing options, such as “C-PACE” (Commercial Property Assessed Clean Energy), for commercial and multi-family building owners to install energy efficiency, heat pump systems, and climate resilience upgrades.
- Investigate district heating for the proposed City Hall [still appropriate??] and Civic Center and thereby provide momentum to encourage nearby federal and state facilities to support the project.
- Investigate federal ARP/ESSER funding for air quality/energy efficiency upgrades in Juneau schools
<https://www.buildinggreen.com/news-analysis/once-lifetime-opportunity-green-public-schools>

B. Develop a community strategy to electrify transportation through a collaborative process. Identify the CBJ’s role as a catalyst to overcome barriers and accelerate EV adoption, including particular areas where CBJ could facilitate the transition to EVs include:

- Adopt a CBJ policy of support for electrification of transportation.
- Collaborate to create a program for maintenance and repairs to existing public EV chargers.
- Finance EV charging infrastructure renovations for multi-family rental and condominium housing through LIDs, C-PACE, property tax deferments, etc.
- Amend CBJ codes to incentivize EV chargers in parking lots of new developments and to require EV chargers as a feature of new single and multi family housing construction.
- Provide waterfront electrification for EV charging infrastructure and work with the tourism industry to identify and implement incentives to assist in converting their fleets to electric buses, vans and vehicles.
- Lead by example by continuing to convert the City’s fleet to EVs.
- Actively engage with the Alaska Energy Authority on State planning and funding for EV charging infrastructure in Southeast Alaska and on the Haines and Alaska Highways.

C. Track the Community’s Progress: Energy Profile and GHG Emissions Inventory:

- Continue to track and annually report CBJ facility energy performance.
- Use the 2022 inventory as a benchmark to establish measurable sustainability indicators, and then track and communicate the indicators to the public.
- Readjust the JCAIP and JRES goals and create interim targets for renewable energy and GHG emissions.

- Use the 2022 modeling tool to identify actions where CBJ and others in the community can make notable progress toward GHG emission reduction and renewable energy goals.
- Update the 2022 community energy profile and GHG emission inventory no later than 2027.
- Include information on projected changes in energy use and GHG emissions anticipated from significant CBJ actions and projects over \$1 million, as well as projected costs of reducing or offsetting new GHG emissions.
- Move strongly toward replacing generic national projections with local data in order to improve the accuracy of the GHG emissions model. Establish a mechanism to obtain accurate information on annual fossil fuel usage in the community.

D. New Renewable Energy Supplies & CBJ's Role

- Articulate to the Regulatory Commission of Alaska and the Alaska Legislature the Juneau community's interest in long-term renewable energy supplies.
 - Seek independent, expert analysis of community power needs and rate agreements favorable to the community, as warranted.

E. Community Sustainability

- Construct a CBJ composting facility as an essential foundation to a community-wide effort to divert organics from the Juneau landfill. Based on the outcomes of the current zero waste planning project, implement other actions within a 5-10 year timeframe to reduce waste, divert waste, enhance local resource recovery businesses, and begin planning for a new landfill.
- Identify vulnerabilities in CBJ's infrastructure to climate change, and seek federal funding opportunities (e.g. stormwater management, landslide abatement, etc.).
- Advocate for and collaborate on workforce training for local construction/utility trades to meet demands for energy efficiency and climate resilience upgrades by residents, businesses, and agencies.

[1] JCOS previously identified GHG emissions, and the relative proportions of energy provided by fossil fuels and renewable sources, as initial sustainability indicators).

[2]The report “[Model Government Zero Emissions Buildings Policy](#)”, released May 2022, provides “plug-and-play” policy language for jurisdictions considering taking a lead-by-example approach to building decarbonization to show what’s possible.