
THE CLIMATE CHANGE ADVISORY COMMITTEE WILL HOLD THIS MEETING
IN PERSON AND USING A VIRTUAL, ZOOM WEBINAR PLATFORM

MEMBERS OF THE PUBLIC WILL BE ABLE TO ATTEND AT
CITY HALL OR CALL IN TO THE ZOOM WEBINAR

PLEASE CLICK THE LINK BELOW TO JOIN THE WEBINAR:

[HTTPS://BAINBRIDGEWA.ZOOM.US/J/91390380790](https://bainbridgewa.zoom.us/j/91390380790)

OR TELEPHONE: 1-253-215-8782

WEBINAR ID: 913 9038 0790

AGENDA

- 5:30 CALL MEETING TO ORDER/ROLL CALL/ACCEPT OF MODIFY AGENDA/CONFLICT OF INTEREST DISCLOSURE
- 5:35 APPROVE MINUTES FROM MARCH 13, 2023
- 5:40 PUBLIC COMMENT
- 5:45 CLIMATE OFFICER UPDATES (AUTUMN SALAMACK)
- PUBLIC EVENTS AND CCAC VOLUNTEER OPPORTUNITIES
 - ETIPP – APPROPRIATE SCALE FOR MICROGRIDS AND CCAC SESSION/SITE VISIT
 - DEPARTMENT OF COMMERCE GRANT APPLICATIONS
 - WASTE REDUCTION REGULATIONS
 - POLICE/COURT BUILDING OFFSETS PROJECT (SEE TWO ATTACHMENTS)
 - HEAT PUMP PILOT PROJECT (SEE ATTACHMENT)
- 6:30 CCAC’S ROLE IN COMPREHENSIVE PLAN UPDATE (MIKE)
- 6:45 DRAFT CITY COUNCIL PROCLAMATION FOR KITSAP EV AND BIKE EXPO (MIKE – SEE ATTACHMENT)
- 7:00 UPDATES
- COUNCIL BRIEFING ON 2022 PROGRESS AND 2023 WORKPLAN (DAVID – SEE ATTACHMENT)
 - PSE RESPONSE TO QUESTIONS FROM FEBRUARY 21 CITY COUNCIL STUDY SESSION (MIKE – SEE ATTACHMENT)
 - STATUS OF CLIMATE LENS (MIKE)
 - PROCESS FOR FILLING VACANCY FOR DEB RUDNICK
 - OTHER (ALL)
- 7:30 ADJOURN

Materials

1. March minutes
2. CCAC Police/Court Building carbon offset analysis
3. Summary of CCAC Police/Court Building carbon offset analysis
4. Heat Pump Pilot project analysis
5. Draft City Council Proclamation for Kitsap EV and Bike Expo
6. Briefing for Council on 2022 Progress and 2023 Workplan
7. PSE response to study session

Climate Change Advisory Committee
Action Minutes
March 13, 2023

Meeting called to order at 5:42 PM by David.

Roll call: David, Mike, Kevin, Julie, Derek, Jens, Autumn, Leslie, Kirsten

No changes to the agenda.

Jens makes his normal conflict of interest disclosure.

Julie moves to approve the minutes. Kevin seconds. Minutes approved.

Autumn provides updates on the following:

- CCAC sponsorship of EV Expo on May 20.
 - **Action Item:** CCAC to formally make this part of its work plan.
- CCAC work plan review by Council.
 - **Action Item:** Derek will lead a subcommittee to do the analysis and propose a decision framework for looking at the proposed offset approaches. Jens and David want to be involved.
- Heat pump pilot program.
 - **Action Item:** Autumn to set up the next meeting of the subcommittee.
- COBI grant applications.
 - Electrification of transportation systems – DC fast charger at Police/Court building (initial pre-app submitted March 6); hope to know by June.
 - Solar plus storage for resilient communities (due March 23); hope to know by June.
- Departure of Hannah will impact our current plans for outreach related to the education and outreach for Climate Smart Challenge.
 - **Action Item:** David will send a note thanking her for her help.
 - **Action Item:** Autumn will assess her needs and look at the overall plan as it relates to education and outreach and come back to the Committee with an update on possible ways the CCAC may be able to help.

Mike does an update on the CCAC work plan update for the Council.

David raises the topic of who should be the new Vice Chair. Mike nominates Kevin. The group votes. Kevin is elected as Vice Chair.

Mike follows up on the responses to questions from the Study Session with PSE.

Action Item: CCAC members will take a look at those and come back with any additional feedback.

Mike asks about progress with Fair & Peers.

Derek raises the topic of bus electrification.

Action Item: Derek and Kevin will write up summaries of the two approaches they have seen recently for Mike to take to the school district

Mike mentions the March 20 event at Cedars where members of Derek Kilmer's staff will provide updates on the IRA.

Chair

Date

CARBON OFFSET OPTIONS FOR POLICE/COURT FACILITY – DRAFT MEMO FOR COUNCIL PACKET

4/12/23

Questions for Committee:

- What information is missing/needed to complete analysis (if any)?
- Can we provide the estimated emissions data in metric tons of CO₂e (for ease of reference by all readers)?
- Does anything in the Excel file not make sense?
- How can we best summarize the full Excel table analysis in this draft memo? We can also share that full Excel file but should clean it up a bit as it will be presented as a PDF in the agenda packet (i.e., can we just include the first tab with sufficient detail to guide the discussion?).
- Note: this item is currently planned for the May 9th City Council meeting.

Summary

A subgroup of the Climate Change Advisory Committee analyzed five potential carbon offset projects to achieve a reduction of approximately 64 metric tons of carbon per year. This analysis pertains to potential carbon offsets associated with the new Police/Court building and what LEED Silver certification would have produced in terms of metric tons of carbon dioxide, and what the new Police/Court building would produce without certification.

Background

In January 2020, the City Council discussed the option of whether to pursue LEED Certification for the new Police/Court Facility. In February 2020, they signed a contract amendment with O'Brien360 to determine the feasibility and alternatives of pursuing LEED Silver certification. Results from that study were returned in June 2020 to the City Council. The City Council decided not to move forward with the LEED Silver certification and instructed the Climate Change Advisory Committee (CCAC) to review and provide recommendations on alternatives for closing the gap between what LEED Silver would have produced in terms of metric tons of carbon dioxide, and what the new Police/Court building would produce without certification. This gap was approximately 64 metric tons of carbon per year.

The following projects were presented to CCAC for review and feedback as a means to reduce 64 metric tons carbon dioxide equivalent (CO₂e) per year as a carbon offset for the Police/Court building remodel project. These options were identified based on an analysis by the City's Management Analyst, per a draft memo shared at the February 15, 2023 CCAC meeting, and further staff discussions.

Options Evaluated:

1. Add solar panels to Police/Court building
2. Upgrade home heating systems to heat pumps
3. Install 8kW solar systems on roofs (on private property)
4. Replace gasoline lawn mowers with electric
5. Install 120 kW photovoltaic system somewhere on Bainbridge Island (not City property)

CCAC members selected a subgroup to work on this analysis at their March 13, 2023 meeting. The subgroup reviewed the five proposed options and evaluated each to refine and strengthen the initial analysis of projects and determine if each option would qualify as a good carbon offset project. A summary of options evaluated and criteria used in that evaluation is provided below. Please see Attachment A for the full, detailed analysis.

Criteria for Evaluation:

- Is the project already planned?
- Is this project otherwise additional (not likely to happen under business as usual)?
- Does this project affect electricity, or other source(s) of emissions?
- What is the range of CO2e emissions/year saved?
- What emission factors were used in the calculation?
- What is the duration of the anticipated benefits (for how long this option will reduce emissions)?
- What is the leakage potential?
- Does this project have a one-time or ongoing cost (for the City)?
- What are the estimated range of costs for this project?
- What is the estimated ease of implementation (from a City staff perspective)?
- Does this project impact the City's municipal financial and carbon budget (vs. that of a private property owner)?
- Does this project increase renewable energy supply or reduce electricity use?
- Does this project have an opportunity to leverage existing and/or planned programs (such as those offered by PSE and the IRA)?
- What equity considerations/ opportunities does this project address/provide?

Next Steps

- Review this analysis with City Council at a regular business meeting in May 2023.
- Determine if City Council is interested in a project recommendation from CCAC.

Budget

No funding has been allocated for this project in the City's 2023-24 budget.

Community Outreach

This topic was included as an agenda item at the February 15, March 13 and April 19 CCAC meetings in 2023.

DRAFT as of 4/13/23

Option	Project planned already?	Is it otherwise additional (not likely to happen under business as usual)?	Does it affect electricity, or other source(s) of emissions?	Range of CO2e emissions/year saved (metric tCO2_eq/a)	Emission Factors used in calculation (metric tCO2_eq/kWh)	Estimated Duration (for how long will this option reduce emissions?)	Leakage potential (will this only displace, not reduce emissions?)	One-time cost (for City)?	Range of Estimated Costs (capital, O/M and programmatic)	Ease of Implementation (1 - very easy, 5 - very difficult)	Does this impact the City's municipal financial and carbon budget (OR - Does this benefit a private entity)?	Increasing Renewable Energy Supply or Reducing Electricity Use?	Leveraging Existing and Planned Programs (e.g., PSE or IRA).?	Equity Considerations/ Opportunities
Responsible Person	Autumn	Derik, Autumn	Autumn	Jens / Derik	Jens / Derik	David	Derik	Autumn	David	Autumn	Autumn	Autumn	Jens	Autumn
Upgrade home heating systems to heat pumps (in private homes)	Yes	Somewhat unclear given existing incentive programs (including the Inflation Reduction Act)	Electricity and other (propane, fuel oil, wood stoves)	Derik to fill?	Derik to fill?	20 years average life expectancy of HP is 20 years	Low	Yes - limited duration program	\$10-15,000 capital \$0 maintenance cost (assumed to be bore by homeowner)	4	Community/homeowner benefit	May increase electricity use (with fuel switching) and decrease electricity use (with change from less to more efficient electric heating)	Existing: PSE Heating rebates and offers	Could be targeted to lower-income residents and/or housing authority properties
Install 8kW Solar Roofs (on private property)	No	Unclear given existing incentive programs (would need to ensure somehow that installations are on properties that would not have opted to install solar panels on their own)	Electricity	Ranging from 3,333 in 2024 to 227 in 2045. See lines 17 and 55 in tab "PSE Data (Jens)"	Ranging from 0.0002797 in 2024 to 0.0000190 in 2045. See line 17 in tab "PSE Data (Jens)"	22 years average life expectancy of solar PV is 25 yrs	Low	Yes - limited duration program	\$25K capital \$0 / year cleaning Assumes 500 sf @ 8kW AC	4	Community/homeowner benefit	Increasing renewable energy supply	Existing: PSE Customer Connected Solar Planned: PSE Residential Roof-top Solar Leasing	Could be targeted to lower-income residents and/or properties that serve vulnerable populations (to be defined)
Replace gasoline lawn mowers with electric mowers (for non-City entities/individuals)	No	Unclear given current market trends and incentive programs (Recommendation would be a one-time replacement, since additionality is likely to decrease over time)	Other (gasoline)	Low confidence: Savings could be around 5 tonnes per year per lawn mower replaced - assuming high usage (e.g., equipment used by yard service companies)	Savings of 5.75 kg CO2 / acre mowed	7 -10 years average life expectancy of fossil fuel-powered lawnmowers	Relatively high leakage potential, unless replaced gas powered mowers are permanently retired (scrapped)	Yes - limited duration program		4	Community/individual benefit	May increase electricity use (with fuel switching)	Not clear, but presence of subsidies/rebates would further undermine additionality	Sliding scale rebate program could be used to address lower-income resident and/or housing authority properties
Install 120 kW photovoltaic system elsewhere on Bainbridge Island	No	Yes?	Electricity	Ranging from 49,988 in 2024 to 3,399 in 2045. See lines 17 and 55 in tab "PSE Data (Jens)"	Ranging from 0.0002797 in 2024 to 0.0000190 in 2045. See line 17 in tab "PSE Data (Jens)"	22 years average life expectancy of PV 25 yrs	Low	Yes - assuming O&M costs passed on to property owner	2020 estimated capital costs: \$360k 2023 estimated capital cost of \$600k \$750 / year cleaning	2	Community/property owner benefit	Increasing renewable energy supply	Existing: PSE Community Solar, PSE Customer Connected Solar Planned: PSE Distributed Solar PPA	Could focus on properties that serve vulnerable populations (to be defined)

DRAFT OUTLINE – COMMUNITY HEAT PUMP PILOT PROGRAM

April 13, 2023

Goal of Pilot Program:

- Educate the community about the benefits of heat pumps and encourage them to upgrade their heating systems.
- Pay for partial or full costs associated with upgrades for a limited number of properties.
- Use pilot program to:
 - o Identify what current demand is for this type of program.
 - o Determine costs, ease of implementation, etc. associated with converting to heat pumps in different types of housing/working with different heating systems.
 - o Identify current, local contractor capacity and skill set for completing this work.
 - o Obtain case studies that can be used to provide additional community education and inform future program development.
 - o Create a proposal for an extended program – determine if additional funding and/or education, or a different program format, is needed to convert more homes to heat pumps (*pilot- w/limited scope and concept is prove out the concept, help a few people get systems, get data – then adjust educational materials, etc. to see what we really need*)

Audience for Pilot Program:

- Educational webinars – everyone
- Funding for installation:
 - o Homeowners on Bainbridge Island (priority focus on lower income homeowners, 80% AMI)
 - o Talk with Housing Authority about potential interest in targeting a limited number of rentals for participation?

Outline for Pilot Program:

1. Provide education for community regarding benefits of heat pumps and how to swap out your existing heating equipment
 - a. Likely 1-4 webinars over a 3-month period
2. Provide funding to help a limited number of homes convert to heat pumps
 - a. Applications would be accepted over a 2–3-month period
 - b. Funding would be income-based (targeting lower income homeowners and providing more money to those with lower incomes)
 - i. Tier 1 – 100% of costs covered (or up to some \$) for income-qualified people
 - ii. Tier 2 - \$XX in incentives for non-income qualified people
 - iii. Align with IRA incentives (build upon those)
 - c. Soliciting applications from a variety of housing types, sizes, heating system types, etc. (see questions below)
3. Format for program: we provide extensive education on heat pumps and IRA funding opportunities along with:
 - a. Contractor(s) to provide home energy assessments as pre-condition of heat pump installation (i.e., make sure home are weatherized, have good insulation, etc. if possible)
 - b. List of contractors who can install heat pumps (easiest would be to provide a list that residents can select from)
 - c. Rebate to offset out-of-pocket cost for heat pump installation (could be larger amount based on income level) OR we contract directly with a contractor and pay them to do

the upgrade so there's no out of pocket expense for the homeowner (if income qualified)

Proposed Process

- City contracts with organization to administer program. Role of program administrator:
 - o Administer application process
 - o Complete site assessment
 - o Connect applicants to contractors (and identifying/partnering with contractors)
 - o Facilitate payments to contractors
 - o Gather and track pre- and post-installation data
 - o Create case studies
- Process for community members:
 - o Attend webinar (could be provided by CCAC/Rewiring America and not as part of program administrator duties)
 - o Submit application
 - o Receive site assessment
 - o If deemed a viable candidate, sign agreement and get equipment installed (and/or apply for rebate)

Proposed criteria for evaluating applications:

- Income (would like to offer more/prioritize lower income homeowners)
- Current heating system type
- Age of home (older homes likely to have less efficient heating systems)
- Housing type/size/# of stories
- Household size (# of people)
- Location (aiming for some geographic distribution if possible)
- Willingness to complete PSE home energy assessment (online process)
- Willingness to participate in data collection program (pre- and post-equipment installation)
 - o *This is a pilot and we'll be seeking/requiring feedback (must be on board with that element for pre- and post-participation): electricity use/cost data (comfort) for a year out (verify that there were some savings) – would that be something that could be built into the program administrator contract or would that be something that the City could receive and track at that one year mark?*

Potential Partners

- PSE – encourage (or require) people to complete their online home energy assessment as part of program; look at how we could work with them to identify contractors, heat pump equipment, etc. to facilitate ease of implementation (and any additional incentives they can provide for participants to either help cover the cost of the equipment and/or weatherize homes?)
- Senior Center – do survey with members to gauge current income levels, current heating systems, interest in program, etc.
- Local HVAC contractors – reach out early to see if they are interested in this type of program, how we could set it up to facilitate their participation, etc.
- Housing Resources Bainbridge – potential to target a few rental properties or homes for lower income residents?
- Kitsap Community Resources – potential to work with them to route eligible residents into their [weatherization program](#) to make homes more efficient and comfortable prior to heat pump installations?

From David - Draft list of qualifying questions to be asked in application process for heat pump pilot program:

1. Would you be interested in participating in a three-year survey and study related to of the conversion existing residential heating systems to high efficiency heat pump technology?
2. The existing system types are defined as the primary heating source for a residential home, must be one of the following; propane, fuel oil, wood stove, or resistance baseboard heaters. Which of these system types is your primary heating source in the home?
 - Propane
 - Fuel oil
 - Wood stove
 - Electric baseboard heaters
3. As a participant in the pilot, it is the expectation that the existing heating system would be decommissioned and removed after the successful installation of the heat pump technology, would you consent to this were you selected to be involved in the pilot program?
4. Would you be willing to provide both historic and future electricity values and consumption data for the purposes of this study?
5. Can you provide basic building information, for example the year built, number of floors, square footage, basic system design and fuel type, existing wall and ceiling insulation types and or values?
6. Would you accept a physical preliminary audit of your home to verify this and other information as deemed necessary to qualify?
7. Are you willing to work with a program administrator during the preliminary assessment as well as implementation of the new technology buy a certified installer?
8. Income level verification would be required has this applies to various rebates and incentives included in this pilot, are you willing to furnish that information?

PSE HOME ENERGY ASSESSMENT QUESTIONS

PSE offers a quick and convenient 3-step process to help you understand and control your home's energy usage.

1. Start by completing an [online assessment](#) to determine how energy is used in your home. This should take about 5 to 7 minutes to complete.
2. Next, review the relevant insights and suggested [ways to save](#) as a result of your online energy assessment.
3. Finally, measure and monitor the impact of changes you make on your overall energy usage by reviewing [usage graphs](#) within your myPSE account.

PSE Assessment Questions (text in red added by staff):

- How many people live in your home?
- What type of home do you live in?
 - o Single-family, Apartment/Condo
- Do you own your home?
- When was your home built?
 - o Before 1990, 1990 or after
- What's the size of your home (square feet)?
- Do you heat your home in the winter?

- What's the primary way you heat your home?
 - o Electric baseboard heaters, electric space heaters, boiler with radiators, **propane stove**, central heat pump with air vents, **wood stove**, something else
- What type of fuel does your heating system use?
 - o Electricity, propane, **Fuel oil/Diesel**, **Wood**, something else
- How old is your heating system?
 - o 0-4 years, 5-10 years, 11+ years
- When was the last time your heating system was serviced?
 - o Less than 2 years ago, 2 or more years ago
- Do you use a wood fireplace?
- Do you have a smart/web enabled thermostat?
- In the winter, where do you set your thermostat when you're home?
- How often do you turn down the heat when you're away from home or asleep?
- Which of the following have air leaks in your home?
 - o Windows, doors, walls
- Do you use air conditioning in the summer?
- What is the primary way you cool your home?
 - o Central AC, central heat pump, room air conditioner, room heat pump, something else
- How often do you use AC in the summer?
- When you're home in the summer, where do you set your thermostat?
- How often do you turn down your AC when you're away from home or asleep?
- What type of water heater do you have?
 - o Conventional storage tank, tankless, heat pump, something else, I'm not billed for it
- What type of fuel does your water heater use?
 - o Electricity, solar, **propane**, something else.
- What portion of your indoor light bulbs are energy efficient (like CFLs or LEDs)?
- Do you turn off lights when nobody is in the room?
- When do you use outdoor lights?
- Which of the following do you use in your home?
 - o Clothes washer/dryer, dishwasher, stand-alone freezer, stove/cooktop, oven, dehumidifier, air purifier, second refrigerator, mini refrigerator
- How often do you use your clothes washer/dryer/dishwasher?
- What type of fuel does your oven use?
 - o Electricity, **propane**, something else
- Which of the following do you use in your home (**long list of electronics**)?
- In a typical day, how often is your TV on?
- Do you own a pool?
- Do you have a backup energy source (battery, generator, etc.)?
- What is your backup energy source (battery, generator, etc.) that you have?
 - o Electric battery backup system, permanent or fixed natural gas/propane powered generator, portable generator
- Do you own or lease a plug-in electric vehicle?
- How many plug-in EVs do you own or lease?
- How often do you charge your EV at home?
- Do you use a level 1 or level 2 charging station when you charge at home?
- How many miles (round trip) do you commute each day in your EV?
- How long have you owned or leased an EV?

A PROCLAMATION of the City Council of Bainbridge Island, Washington declaring May 20 as “Electric Vehicle and Electric Bike Awareness Day on Bainbridge Island.”

WHEREAS the City of Bainbridge Island’s Comprehensive Plan includes reducing greenhouse gas emissions and increasing the Island’s climate resilience as one of its eight guiding principles; and

WHEREAS vehicle transportation contributed to over 15 percent of the greenhouse gas emissions for Bainbridge Island in the 2018 greenhouse gas emissions inventory; and

WHEREAS the City’s Climate Action Plan has established a goal to transition the City’s fleet to 75 percent electric vehicles and the remainder to biofuels by 2025; and

WHEREAS the City’s Climate Action Plan has established a goal to have 80 percent of registered vehicles on Bainbridge Island be either electric vehicles or plug-in hybrid electric vehicles by 2045; and

WHEREAS the City’s Climate Action Plan set a goal to increase the mode share of active transportation (biking and walking) to 25 percent by 2030 and 50 percent by 2045; and

WHEREAS switching from gas powered to electric vehicles, and from cars to active transportation, are two important means to reduce transportation-related greenhouse gas emissions; and

WHEREAS there has been an exponential growth in the sale of electric vehicles with about 13 percent of new cars sold in 2022 being electric; and

WHEREAS electric bike sales outpaced the combined sales of regular and hybrid bikes in 2022; and

WHEREAS several Bainbridge Island based organizations have worked to organize a 2023 Kitsap Electric Vehicle and Bike Expo to help the public learn more about electric vehicles and electric bikes and encourage more residents to convert to electric transportation fuels.

NOW THEREFORE, I, Brenda Fantroy-Johnson, Mayor of the City of Bainbridge Island, on behalf of the City Council, do hereby proclaim May 20, 2023, as

Electric Vehicle and Electric Bike Awareness Day on Bainbridge Island

And encourage residents to attend the Kitsap Electric Vehicle and Bike Expo to be held on Saturday April 20th from 10:00 a.m. to 2:00 p.m. at Woodward Middle School on Bainbridge Island to learn more about electric vehicles and electric bikes and their role in reducing greenhouse gas emissions and mitigating our contribution to climate change.

DATED this ____ day of _____, 2023

Brenda Fantroy-Johnson, Mayor



Climate Change Advisory Committee

2022 Accomplishments & 2023 Workplan

April 11, 2023



Outline



2022 WORKPLAN – KEY
ACCOMPLISHMENTS



2023 WORKPLAN –
KEY HIGHLIGHTS



Climate Change Advisory Committee (CCAC)

Established 2017, 9 volunteers w/monthly meetings

Provide recommendations to City Council on actions to:

Tasked to develop 2020 Climate Action Plan

Reduce greenhouse gas (GHG) emissions

Prepare city, businesses, and residents for climate change impacts

David McCaughey

Mike Cox

Kevin Thomas

Derik Broekhoff

Jens Boemer

John Kydd

Julie Matthews

Steve Richard

Climate Action Plan: Six Focus Areas



Energy



Buildings



Transportation



Natural Environment



Waste



Community Engagement

2022 Workplan – Key Accomplishments



Outreach/Implementation

- Participated in community events to support the Climate Smart Challenge
- Worked with School District and Parks Boards to explore developing Climate Action Plans
- Initiated a relationship with REAC

Energy

- Provided input for Energy Transitions Initiative Partnership Project (ETIPP) application
- Provided input into the PSE Partnership Agreement

2022 Workplan – Key Accomplishments

Transportation

- Participated in Sustainable Transportation Technical Workgroup
- Worked with an intern on sustainable transportation funding and performance metrics

Waste

- Formed a waste subgroup with discussion on a potential biodigester
- Developed City Council memo RE: a comprehensive waste management plan

Environment/Natural Resources

- Participated in the Groundwater Management working group



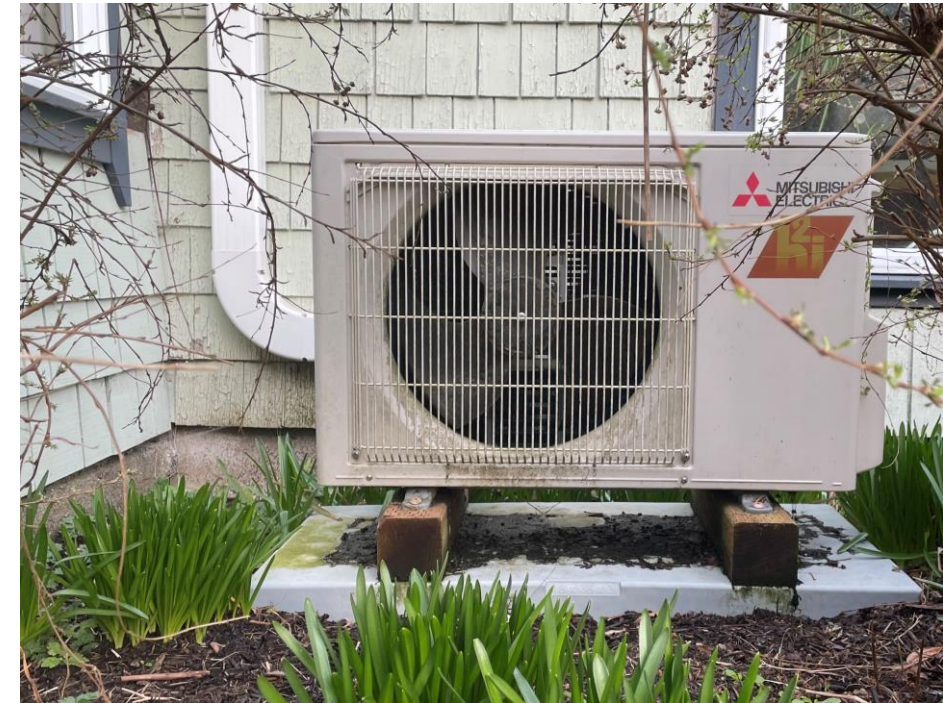
2023 CCAC Workplan

Objective: identify those areas where the CCAC can support the activities of the Climate Officer and other City staff.

Energy

- Provide advice and input on potential ordinance and/or incentive programs for zero emission hand tools*
- Support for a Home Energy Heat Pump Pilot Program*
- Support the City's ETIPP project*
- Help identify code updates for buildings recommended in the CAP/research potential building code updates*
- Participate in a City Council Study Session with PSE
- Provide input into the PSE Partnership Agreement as requested by the City
- Work with City staff and elected officials to understand opportunities related to the Inflation Reduction Act

** Identified by the Climate Officer as a good fit for CCAC input or assistance.*



2023 CCAC Workplan

Transportation

- Help implement the Sustainable Transportation Plan*
- Review the Fehr & Peers report*
- Provide subgroup assistance and support for the City Thread Program*
- Help support the launch of community EV car share program*



Waste

- Provide support to the City to explore the possibility of establishing a comprehensive waste management system for the Island

* Identified by the Climate Officer as a good fit for CCAC input or assistance.

2023 CCAC Workplan

Adaptation/Natural Environment

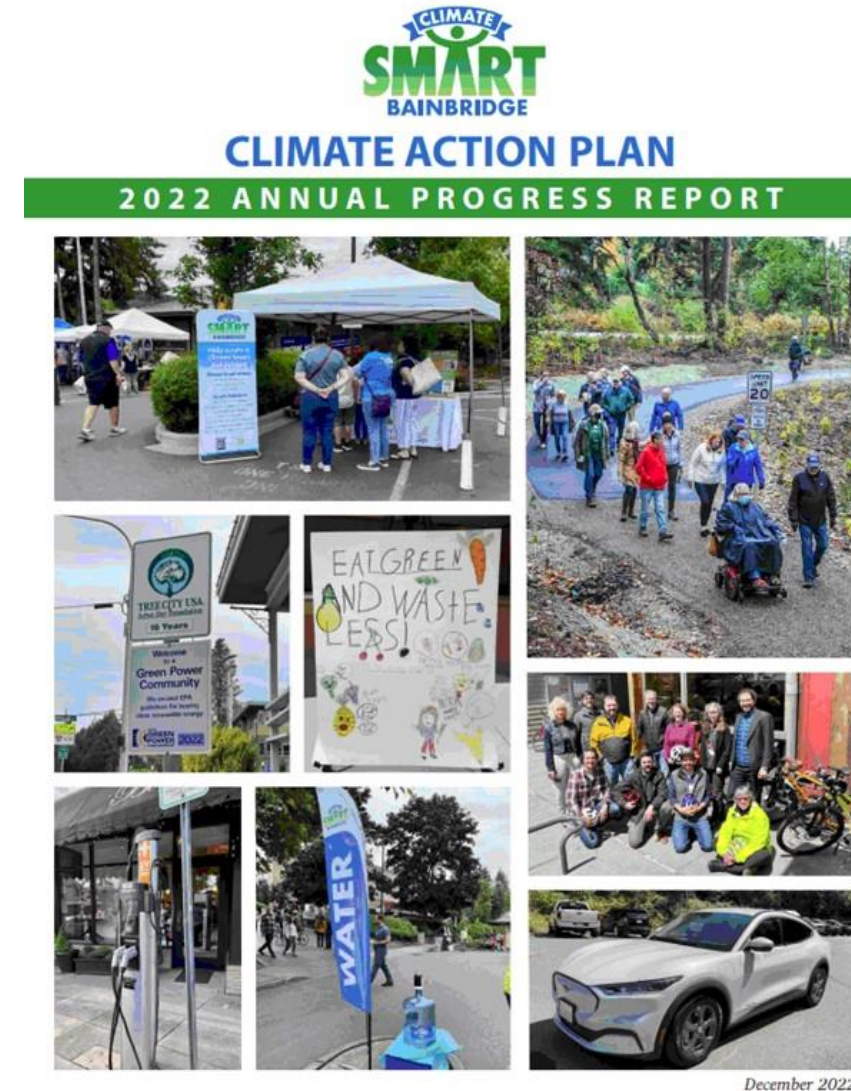
- Continue to work with the City on the Shoreline Management Program and sea level rise evaluation*
- Continue to serve on the groundwater management plan working group
- Support development of an Island-Wide weed management plan
- Assist City arborist on plans to identify climate-ready plants as needed

** Identified by the Climate Officer as a good fit for CCAC input or assistance.*

2023 CCAC Workplan

Education and Outreach

- Work with Climate Officer and other organizations to develop community events that support the Climate Action Plan*
- Support participation in the Climate Smart Challenge*
- Support the Climate Officer in developing the 2023 Annual Progress Report*
- Support the Climate Officer and other City staff as requested to support implementation of specific CAP actions
- Provide support, as requested, to develop a climate/equity lens for the Island
- Respond to City Council requests for advice and support
- Continue to serve on City lead teams (subcommittees)



December 2022

* Identified by the Climate Officer as a good fit for CCAC input or assistance

Next Steps for CCAC

1

Work with
Climate Officer
and other City
staff to support
implementation
of CAP

2

Respond to
Council requests

Bainbridge Island City Council Study Session with PSE on February 21st, 2023 (April 13th, 2023)

As part of the February 21st study session with the Bainbridge Island City Council and as a follow-up to the Study Session, PSE was asked to respond to several questions.

There are three sets of questions that they provided:

Set #1: Questions that were discussed at the February 21st Study Session

Set #2: Questions that PSE was requested to respond to but not discuss at the Study Session

Set #3: Follow-up questions from the Study Session.

Bainbridge Island City Study Session with PSE (set #1 of responses)

Tuesday, February 21st, 2023 from 6:30-7:30pm

PSE Virtual Presenters:

Danielle Kievit (KIH-VIT), Clean Energy Product Manager

Kate Hartgering (HART-JER-ING), Community Projects Manager

PSE In-person Attendees:

Christine Nhan, Local Government Affairs Manager

Karen Brubeck, Senior Community Engagement Representative

EV Charging Stations Program

- **Status of PSE's EV charging station program on BI?**
 - There are five charging stations in the multifamily and workplace pilots and 15 chargers in the residential pilot, which provided over 54,000 kWh to electric vehicles in 2022. This equates to almost 5,406 gallons of gasoline saved and nearly 53 tons of CO2 avoided.
 - The Transportation Electrification Plan (TEP) is a five-year strategic framework for electric vehicle (EV) products and services that will allow PSE to drive the transition to a cleaner energy future by advancing electrified transportation in Washington State. The TEP was filed with the Washington Utilities and Transportation Commission (UTC) in March 2021. The UTC acknowledged the TEP in August 2021.
 - Products described in the TEP are being released in phases. Expansions of the Education & Outreach service and Multifamily charging products have launched to customers. A new Fleet charging product will be available in Q2 of this year, followed by an expansion of the Workplace charging product in late Q3. Remaining products and services – single family residential, public, and alternative technology demonstrations – will be launched in 2024.
 - All programs under the TEP include equity-focused components, and PSE has committed to allocating 30 percent of the TEP budget toward equity-focused programs that support electrification among low-income customers, BIPOC communities and the community-based organizations, government agencies and tribal entities that serve them.
 - Information and links to apply for all new products are accessible via our main transportation electrification page – www.pse.com/upandgo.
- **Number of public and in-house private charging?**
 - Through the Up & Go Electric pilots, PSE installed chargers in 20 locations on Bainbridge Island, providing charging to those at multifamily properties, workplaces, and at their home.
- **What PSE rebate programs are available?**
 - Up & Go Electric for Multifamily is opened for enrollment in January 2023 and a link is available at www.pse.com/multifamilycharging
 - Up & Go Electric for Fleets is opening to all for enrollment in Q2 of 2023 and a link will be available at www.pse.com/evfleet.
- **What are the opportunities for PSE-hosted public charging stations on BI?**
 - PSE is currently completing projects under the Up & Go Electric public pilot which launched in 2019. We plan to introduce a new program in 2024 that would provide additional opportunities for properties to host PSE-owned/operated/maintained public charging stations, or install and operate their own public charging stations with the

support of PSE incentives. More details will become available as the tariffs are finalized and approved by the Utilities and Transportation Commission.

- **What is the role of PSE for installing chargers at commercial properties?**
 - All properties interested in installing chargers should contact PSE early in the process to make sure the infrastructure serving the property can support the additional power needed, even for a relatively low-kW charger.
- **How will PSE manage the additional load with more EVs charging on the island?**
 - Customers participating in TEP programs that involve EV charging will be automatically enrolled in a corresponding load management program. These programs are designed entirely as a benefit to customers at no cost and can be opted out of at any time.
 - These load management programs are designed to mitigate peak impacts from EV charging while still promoting equitable access to EV charging. They will include both financial and educational incentives to encourage customers to shift their charging outside of peak windows.
 - PSE is also exploring other load management alternatives such as voluntary demand response and EV time varying rates.
 - In addition to load management efforts, PSE continually forecasts the impacts of transportation electrification and accounts for these increases in its system and grid planning.
- **Can PSE help the City as they electrify their vehicle fleet?**
 - Up & Go Electric for Fleets is opening to all for enrollment in Q2 of 2023 and a link will be available at www.pse.com/evfleet.

Community Solar

- **Are there any Community Solar projects in the pipeline for BI?**
 - There are currently no Community Solar projects in the pipeline on Bainbridge. PSE is currently developing a web-based platform to allow interested sites/organizations to submit an application online; more information will be coming soon on that.
- **What criteria does PSE use when evaluating potential Community Solar sites?**
 - A minimum of 20,000 square feet available is needed for the installation of solar panels. This could be a rooftop, or ground level location. For ground mounted systems, either Greenfield (undisturbed) land, or Brownfield (previously used for industrial purposes) could be ideal, with special considerations for Brownfield.
 - The area should be clear of equipment and other types of obstructions. A site is not in an ideal location if there are competing uses or intentions for future use of the space.
 - Southern exposure that is unshaded for the majority of daylight hours throughout the year is ideal. The site needs to be free of walls, trees, buildings, poles and other obstructions, as well as of any potential future obstructions including tree growth and planned neighboring development.
- **How can BI work with PSE to create community solar opportunities?**
 - PSE will inform the BI team when the web application is ready, which will also include further guidance on what makes a good site.
- **What suggestions does PSE have to ensure BI taxing districts (e.g., City, school, parks, and fire district) are competitive in developing proposals for Community Solar projects?**
 - PSE's new application process will allow sites to be submitted on a continuous basis, so process will no longer be competitive. We encourage the BI taxing districts to submit sites that meet our site guidelines as soon as our new website launches.

Clean Energy Transformation Act (CETA - written only no presentation)

- **What are PSE's plans to meet the CETA goals? What is the timeline?**
 - PSE submitted our first Clean Energy Implementation Plan (CEIP) to implement CETA in 2021, which charts new directions in our electric supply and moves us forward to 63% clean electricity by the end of 2025. While this plan is still undergoing a formal review process by the Washington Utilities and Transportation Commission, we must continue to make progress. We published a draft of Chapter 3: Resource Plan from our first Electric Progress Report on Jan. 24. This chapter builds upon the 2021 IRP and CEIP and describes our plan to meet our CETA obligations.
 - [Visit our website](#) for more information about the CEIP.
- **What challenges does PSE see in meeting the goals of CETA?**
 - As we work to create a new clean energy future and the urgent need to address climate change, we must do so in a way that ensures all of our customers, especially those who shoulder an outsized share of the climate burden, have a voice in and benefit from the transition to clean energy.
 - In 2021, PSE also convened an inaugural [Equity Advisory Group](#) (EAG) to help seek perspectives from and broaden engagement with communities we serve, including frontline communities of low-income people and Black, Indigenous, and People of Color (BIPOC). The members of the EAG share perspectives from their lived or working experiences related to environmental justice, Tribal interests, highly impacted communities, vulnerable populations, social services and affordable housing.
 - In early 2022, we welcomed several new members to the EAG for 2022 and 2023. Alongside our new members, several inaugural EAG members returned for a second year. Together, our new and returning members are helping to deepen and expand our perspectives in the clean electricity transition.
- **What can Bainbridge Island do to help PSE meet the CETA goals?**
 - We know that it will take a diverse set of solutions to reach our clean energy goals and that we cannot do this on our own. In addition to ramping up utility-scale clean energy resources like large-scale wind and solar generation, our CEIP also outlines targets for collaborating with customers to significantly increase installation of Distributed Energy Resources (DERs) such as rooftop solar and battery storage programs. It also creates more ways for customers to save energy and reduce costs through energy efficiency improvements, and introduces new programs and incentives to reduce or shift energy use during peak times (also known as Demand Response and Peak Energy Rewards).
 - We look forward to continuing to work with the City of Bainbridge Island and our customers towards meeting CETA and our CEIP goals!
- **What are PSE's plans regarding Colstrip? What about the transmission infrastructure that could be re-utilized for renewable resources?**
 - As part of its pathway to complying with CETA, PSE has signed an agreement to transfer its ownership in Units 3 and 4 of the Colstrip Generating Station in Eastern Montana to Talen Energy effective December 31, 2025. Under CETA, the state's electric utilities are required to eliminate coal-fired generation serving Washington State customers by the end of 2025. PSE is one of six owners in Unit 3 and 4, holding a 25% interest in each unit. There is no transfer of the Colstrip transmission system as part of this assumption of PSE's interests in the generating assets.

PSE continues to invest in the diverse resources of Montana, including through power purchase agreements from the Clearwater Wind Farm and Selis Ksanka Qlispe hydroelectric project. Additionally, PSE will remain in Colstrip for years to come for decommissioning and remediation work. In 2017, PSE contributed \$10 million to the Colstrip Impacts Foundation to support the community's transition planning

Bainbridge Island City Study Session with PSE (Set #2 of responses)

Tuesday, February 21st, 2023 from 6:30-7:30pm

Questions for PSE continued

Status of PSE Franchise and Partnership Agreements:

- **When does PSE anticipate the Franchise and Partnership Agreements will be completed and is there anything we can do to speed up its adoption?**

The draft franchise is currently with the Bainbridge Island Public Works Director. We are awaiting their reply before the process can move forward.

- **What are the changes from the last Franchise Agreement? How, if at all, have the CAP goals been considered in the Franchise Partnership Agreement?**

The Franchise Agreement is in negotiation. Therefore, we do not know at this time how the agreement will change and how the CAP goals will be considered.

- **What are the latest reliability metrics for Bainbridge Island (e.g., System Average Interruption Duration Index and System Average Interruption Frequency Index)?**

Attached is system reliability data through 2021. Data for 2022 is not yet available. SAIDI and SAIFI for the island generally exceed the Service Quality Index which is noted on graphs on page 3 and 4.

We are addressing reliability and capacity needs for the island through a series of projects and improvements on the island including a new transmission line to create a transmission loop, rebuilding the existing Winslow Tap transmission line, installing a battery energy storage system (BESS), and conservation and demand response programs.

More information on PSE's plan is available at <https://psebainbridge.com/>

Installation of 3.3 MW Battery Energy Storage System

- **What is the status of the battery storage project?**

The 3.3MW peak shaving Battery Energy Storage System (BESS) is currently in the engineering stage. We are working with our vendor and national experts on various aspects of the battery system design. We are also in the stages of preliminary civil and electrical assembly engineering for the substation interconnection facilities. In addition, we at PSE are working with the City of Bainbridge Island on land use and permitting requirements.

- **Can the battery energy storage project be expanded to store more than 3.3 MW?**

No, the BESS was sized to meet the identified capacity needs of the Bainbridge Island electric system during the 10-year planning horizon. The BESS will provide 3.3MW of capacity. An additional 3.3MW of Bainbridge Island electric system capacity needs are anticipated to be met with distributed energy resources (DERs) and demand response (DR). Additionally, the substation we plan to house the BESS is not large enough to accommodate additional BESS equipment for increased capacity.

- **Will the system have capability to operate in islanded operation for emergency preparedness?**

No, the BESS we are designing will be used primarily for peak shaving when demand for electric power is high on the island. It will also be used for frequency response and voltage regulation. We will educate and inform the community about the BESS.

Ferry Electrification Program

- **What are PSE plans for providing power for the new hybrid ferries?**

We are working with Washington State Ferries (WSF) on their plans to create a hybrid ferry run from Seattle to Bainbridge Island. Decisions are still being made, however, the anticipated plan is to create a new dedicated feeder line to the ferry dock to provide electric service to the new ferries. WSF has also chosen to receive electric service under a lower cost rate schedule which allows for service interruptions for a limited number of hours each year. This would mean when demand for electric power is high on Bainbridge Island, residential customers would continue to receive electricity and the ferry would run on diesel for a short time.

- **What is the timeline of these plans?**

The first step in this process is for WSF and PSE to sign a Memorandum of Understanding. We are currently working on an agreement. WSF is the lead on ferry electrification. The timeline for the Seattle-Bainbridge ferry electrification project depends on WSF's schedule. Our approach with WSF is similar to how we work with other large customers.

- **Does PSE anticipate any potential dependencies or conflicts between DRM goals and supplying ferries, and how will these benefits or conflicts, if any, be managed?**

Our hybrid solution for Bainbridge Island includes curtailing electricity to the ferry terminal during peak times. Therefore, we do not anticipate conflicts with DRM goals and supplying ferries.

Solutions report is available online here: <https://psebainbridge.com/reliability-and-grid-modernization>

Bainbridge Island City Study Session with PSE (set #3 of responses)
Follow-up Questions for PSE

Clean Energy Transformation Act (CETA)

- **Could you explain further how the Community Solar program contributes to the CETA goals (does it contribute or are they separate)?**

The renewable generation from Community Solar, including all environmental attributes, is owned by the participants of community solar and cannot be claimed by PSE, as part of the standard resource portfolio. However, Community Solar generation does help meet CETA requirements by working to reduce system load calculations. In fact, Community Solar is a key part of PSE's strategy to add more distributed solar to PSE's system under our Clean Energy Implementation Plan (CEIP).

Electric Vehicle Programs

- **Where can we find information about each of the Phase 1 Transportation Electrification Plan (TEP) programs highlighted in the presentation?**

Information and links to apply for all new products are accessible via our main transportation electrification page – www.pse.com/upandgo.

- **What are the criteria for the Phase 1 TEP fleet services program (i.e., does the City's fleet qualify for that assistance)?**

To qualify, customers must:

- Be a current non-residential PSE account holder and electric customer. Transmission-only (Schedules 448/449) customers are not eligible for this program.
- Procure at least two owned or leased EVs (or one for qualified Empower Mobility customers) for their fleet by the time EVSE at the site is installed and activated.
- Agree to operate charging equipment for 10 years.
- Participate in surveys annually or as otherwise requested about charging preferences and patterns.
- Sign an easement agreement, if required.
- Agree to install networked charging equipment. Depending on the network, a separate meter dedicated to the charging equipment may be required.
- Approved Empower Mobility recipients may install non-networked charging equipment with a separate meter dedicated to the charging equipment.
- Provide parking stalls dedicated to EV charging for the 10-year duration of the service agreement.
- Obtain written permission from the property owner if the customer is not the property owner.

- **Who can we talk with to learn more about the options for installing PSE- or City-owned EV chargers for both the City fleet and public use?**

We plan to launch Up & Go Electric for the public next year and currently do not have funding available for public charging projects. Prior to the launch of that program, PSE can offer support via a feasibility assessment of identified project locations. For fleet projects, an account manager is available to work with the customer – and relevant PSE staff - on the fleet project.

- **Currently individuals with the help of their auto dealer and electricians are installing charging stations for their EVs at their single-family homes. I understand that PSE does a load assessment and COBI, or L&I signs off on the installation. Since PSE is involved in approving them, how many home car chargers are installed on the island now, and at what charging level? This would be a good metric for the community to track.**

There were 15 Level 2 chargers installed through PSE's Up & Go Electric Residential pilot. PSE does not track chargers that are not owned by PSE.

- **Will you be working with the auto dealers to get into this loop, or will this be just an alternate path for homeowners to take?**

We plan to work with dealerships to expand awareness of our electric vehicle products and services.

- **For those who are already charging EVs at home, will homeowners be able to access lower rates for off peak charging through Up & Go?**

Customers participating in programs that involve dedicated EV charging, such as single-family residential and fleet, will be automatically enrolled in a corresponding load management program. This program is designed entirely as a benefit to customers at no cost and can be opted out of at any time. Load management programs also mitigate peak impacts from EV charging while continuously promoting equitable access to EV charging. They will include both financial and educational incentives to encourage customers to shift their charging outside of peak windows. We are exploring other load management alternatives such as voluntary demand response and EV time varying rates.

In addition to load management efforts, we forecast the impacts of transportation electrification and account for increases when conducting system and grid planning.

Solar Energy Systems on BI

- **Bainbridge Island has for years had an outsized number of installed solar energy systems when compared to other communities, and I am curious if that trend is still holding up. Could you provide us with the number of installed PV systems on the Island with their aggregate kilowatt capacity?**

Bainbridge Island has 436 PV systems for a combined generating capacity of 3.7 MW.

- **For PV systems that also have a battery system, could you provide information on the number of those systems with their aggregate battery capacity?**

There are 26 systems on the island with PV plus batteries. We do not require customer-generators to report the capacity of their batteries used for backup power.

Community Solar

- **We would like to know the reason(s) why the BI Fire Department withdrew the Station 21 project? And if it is possible for them to reapply to PSE? Some background, I believe the east roof to be a viable site, as I had estimated the Total Solar Resource Fraction (TSRF) would meet or exceed the 75% minimum level of efficiency.**

It is our understanding that the fire department deferred the program to another year. A second RFI was sent in 2022 and the City of Bainbridge Island confirmed that they also shared

information with the Fire department at that time. We encourage them to re-submit to our site host application if they are still interested.

- **Could you explain in more detail why the Vincent Road Transfer Station Community Solar project was cancelled?**

The project was ultimately not selected after reviewing the interconnection on site. We concluded that unfortunately, a 500 kW Community Solar project is not currently feasible at the Vincent Rd Landfill as part of our program. This is due to the lack of three-phase infrastructure located onsite and the closest interconnection location being over 1,200 ft. away. At the time, we did our due diligence to ensure we understood all barriers to the landfill site.

- **Could you provide more information on the Green Power Community Solar program for places of worship and other non-profits?**

The Green Power Solar Grants are funded by participants in our Green Power and Solar Choice program. These are voluntary programs where customers pay more to have their energy usage matched with renewable energy that is generated and added to the grid. In doing so, it reduces their personal carbon footprint. A small portion of customer dollars also goes to fund a competitive grant program for non-profits, public housing authorities, and tribal entities that serve low-income and/or BIPOC communities. The grants allow recipients to install solar, reduce their utility bills by generating energy on a site that they own and maintain, and use those savings to further benefit the aforementioned low-income and/or BIPOC communities. It is another way that participants in Green Power and Solar Choice help bring more solar to Puget Sound.

- **How is PSE marketing the ability of community solar site hosts to subscribe to renewable energy credits? Are the site hosts given priority for signing up for those subscriptions?**

Community Solar site hosts are given the first opportunity to reserve shares if they want to subscribe to the project on their site. We discuss this with site hosts directly during site negotiations and site design meetings.

- **What are the net metering program options that we can help communicate/market to residents?**

Information for our metering program can be found [here](#). In addition to net metering, through which energy you send back to the grid is credited against your consumption, we also offer resources to customers about going solar including a list of Recommended Energy Professionals (local installers).

- **What is the rent calculation that PSE uses for its Community Solar hosts?**

Historically, PSE has used a third-party appraisal to determine rent amounts for rooftops. This has usually come out to about \$0.10/sq. foot. We negotiate this amount with site hosts during the lease and easement negotiation process.

- **When the new application process for Community Solar is released, would PSE be available for an information session with Bainbridge's different taxing districts (i.e., City, Schools, Parks, and Fire)?**

Our team is excited to share that our new site host application form is now live [here](#)! Potential site hosts can also email renewables@pse.com if they have questions, but note that to be considered potential sites hosts will need to complete the application form.

- **Could you explain in more detail why the current program does not provide for sites to utilize the energy from the solar arrays directly for the site?**

Community Solar is designed to make solar energy accessible for customers who can't or don't want to install solar on their own property. In order for the solar energy to benefit PSE customers that subscribe to the Community Solar project – and therefore increase accessibility to solar – the grid connection cannot take place within the property's electrical system. It must connect on the PSE side of the site's meter. As stated above, site hosts are also given the chance to subscribe to shares from the array before we open the project up to other customers.

Green Power

- **Hearing about the Green Power grant process last night I would like to know some more details. Specifically, what is its net benefit to Bainbridge Island?**

We will continue to welcome applications from eligible facilities on Bainbridge Island. The Suquamish Tribe, a neighboring community, have been awarded in the past.

- **Where does money go and why doesn't it come back to projects on the island?**

Please see the above question in the Community Solar section.

- **What is the annual dollar amount of aggregate contributions that Islanders give to Green Power (which I have understood to be around \$100k annually), with the annual dollar amount of Green Power grants that go to projects on the Island?**

Using the term “contribution” is misleading when discussing participation in Green Power or Solar Choice. The vast majority of the funds are used to purchase the renewable energy as described above. As the “owner” of the renewable energy, the participant is able to reduce their personal carbon footprint and work toward their own sustainability goals.

At the end of 2022 Bainbridge Island had 1859 participants purchasing 19M kWh of renewable energy. Total revenue was \$223K. To date, we have not had a solar grant application from Bainbridge Island that met the level of community impact to low-income and/or BIPOC communities required to be awarded – please see above for qualifications and our interest in seeing future applications. However, it may be interesting to note that before we had the current iteration of Solar Grants we used to do Green Power Community Challenges that funded solar projects in the same way.

The Bainbridge Island Senior Center was a recipient after a challenge in years past. Since then, we changed the grants program to have a greater impact. Currently, they benefit non-profits, public housing authorities, and tribal entities that are supporting our most vulnerable customers. We have received favorable feedback from participants and we agree these are important solar projects to fund.