



Climate Change Advisory Committee
Special Meeting
June 10, 2024
5:30 PM
Council Conference Room
280 Madison Avenue N
+ Zoom Webinar

The Climate Change Advisory Committee will hold this special meeting
in person and using a virtual, Zoom webinar platform

Members of the public will be able to attend at City Hall
or by calling in to the Zoom webinar

Please click the link below to join the webinar:

<https://bainbridgewa.zoom.us/j/83419359321>

Telephone: 1-253-215-8782

Webinar ID: 834 1935 9321

AGENDA

- 5:30 Call Meeting to Order/Roll Call/Accept of Modify Agenda/Conflict of Interest Disclosure
- 5:35 Approve Minutes from May 15, 2024 meeting
- 5:40 Public Comment
Public comment is accepted at this time on any topic of interest. Each commentor will have three minutes, or such amount as the meeting chair determines, to speak. Public comment is typically received by the committee, with no response. The lack of comment is not an endorsement or a denial of the comment. Remote public comment is allowed with advance notice by noon on the date of the meeting to the City Clerk (cityclerk@bainbridgewa.gov), provided that all remote commenters shall be required to display their true name and to keep their camera turned on to show their true uncovered face while delivering their comments.
- 5:45 Updates (Ellen Schroer, Deputy City Manager)
- Solar PV/carbon offset project update
 - Heat pump pilot program update
 - Status of Climate Officer position
 - Greenhouse Gas Emissions inventory update
 - Possible training on equity and inclusion
- 6:15 Final Recommendations on Implementation of ETIPP Reports (Steve/Mike – see attached)
Final action requested.
- 6:35 Draft Recommendations on the City EV Code (Sanjay/Steve – see attached)
Final action or delegation to the subcommittee requested to allow completion of this work by the end of June. Planned response to Council on July 9.

6:55 CCAC Updates

- Letter of support for extending the STO (Kevin – see attached)
- Meeting with REAC (Jens)
- Zero Emissions hand tool Ordinance (Julie/Kevin)
- CAP Dashboard (Mike)
- Electrification Expo (Kevin/Mike)

7:30 Adjourn

Materials

1. Meeting minutes from May 15, 2024
2. CCAC Recommendations on Implementing ETIPP Reports
3. CCAC Recommendations on EV Charging Code
4. Letter of Support for Extending the STO Trail
5. Zero Emissions Project – REAC Recommendation

Climate Change Advisory Committee
Meeting Minutes
May 15, 2024

Meeting called to order at 5:32 PM by Kevin

Roll call:

- Committee members: Steve Richard, Derik Broekhoff, Sanjay Bhat, Kevin Thomas, Jens Boemer, Michael Kleeman (online), Julie Matthews
- City Staff liaison: Ellen Schroer
- City Manager: Blair King
- City Council liaisons: Leslie Schneider

Agenda: No amendments

Conflicts of Interest:

- Sanjay disclosed he is marketing director at Kitsap Transit, which has a contract with COBI to promote transit, which is managed by Autumn's group at the city. He also serves on the Board with Courtyards on Madison, working with Department of Energy on community solar grant projects.
- Jens disclosed he is an employee of EPRI, a research institute that does work with PSE, but is not currently involved in any work with PSE.

Minutes for March meeting: Jens motioned for approval, Sanjay seconded, adopted by those present (Julie abstained since she did not attend last meeting).

Public comment: None.

Proposed Zero Emission Hand Tools Ordinance Briefing

City Manager Blair King briefed the committee on a proposed ordinance to ban gas powered hand tools & landscaping equipment. Committee members asked follow-up questions and discussed the proposal. Timing for making a decision will be around September. Kevin proposed forming a subcommittee to provide further feedback. Kevin and Julie volunteered and agreed to draft recommendations for the committee to consider, with the aim to provide feedback to the city by July.

City Liaison Updates

- The city has decided to move forward with developing a solar project with the school district (at Woodward Middle School) to offset emissions from the Ted Spearman Justice Center.
- The city's heat pump pilot program is also moving forward. The city has an upcoming meeting with Cascadia Consulting and Kicking Gas, is finalizing a contract, and will then move into program design & implementation.
- The city has received applications & will begin interviewing for a new climate officer.

Review Recommendations on Implementation of ETIPP Report

- Committee members still need to review revised draft recommendations related to the ETIPP study report.

Review Recommendations on the City EV Code

- Steve & Sanjay have been researching issues related to the city's EV code (which, among other things, requires installation of charging infrastructure at new buildings and major renovations). They are still in the process of deliberating on recommendations.
- Committee members discussed further investigation and questions to explore, and discussed different options for deliberating and coming up with recommendations by July or August.

Discuss Options for Equity and Self-Awareness Training for CCAC Members

- Jens proposed the idea of having committee members engage in equity and self-awareness training related to the committee's work.
- Ellen will consult with Anshu about training options.
- Jens offered to attend a meeting of the Race and Equity Advisory Committee (REAC).

Letter to Support Sound-to-Olympic (STO) Trail Grant

- Kevin informed the committee that city is seeking grant funding to support development of the Sound-to-Olympic trail. Committee members discussed providing a letter of support to submit with the grant application.
- Committee members agreed to form a subcommittee to draft a support letter, consisting of Sanjay, Kevin, Steve, Derik.
- There was unanimous support for providing a support letter, except for Julie who recused herself based on her involvement with the Parks & Recreation department.

Scheduling of Summer CCAC Meetings

- Due to scheduling conflicts, committee members discussed setting an alternate date for their June meeting.
- Kevin request that committee members email him about their availability in July and August.

Meeting was adjourned at 7:33 PM.

To: Deputy City Manager
From: Climate Change Advisory Committee
Re: Recommendations on Implementing Actions from the Energy Transitions Initiative Partnership Project (ETIPP)
Date: June 3rd, 2024

As you know in June 2022, COBI was selected as one of 12 communities in the country to receive technical assistance as part of the second cohort of the US Department of Energy's Transitions Initiative Partnership Project (ETIPP). The program helps remote and island communities transition their energy systems and increase energy resilience.

The program worked with various stakeholders on Bainbridge Island including Bainbridge Island School District; Bainbridge Prepares; Bainbridge Island Fire Department; Bainbridge Island Parks and Recreation; Climate Change Advisory Committee (CCAC); Kitsap County Sewer District #7; Puget Sound Energy; Utility Advisory Committee; Washington State Ferries, and Washington State Department of Transportation.

The project had two main components:

1. Analyzing pathways to achieve 100% renewable energy on Bainbridge Island by 2040 and
2. Explore and develop options for increasing energy resilience in the face of natural hazards.

The ETIPP team developed two reports and the CCAC provided comments on both of those reports.

The ETIPP team provided several key takeaways from the reports and suggestions for possible next steps for the city (see Appendix A and B). The recommendations that follow are suggestions by the CCAC on how to start implementing the key takeaways from the reports.

Recommendations on Pathways Report

1. Hold Information Session for the Community

We recommend holding a community meeting to discuss the findings from the Pathways and Resilience reports and then discuss the next steps for putting the results into action. We would try to ensure the community working group that provided support in the development of the ETIPP reports would be present. We need public support for this program to be successful. Ideally the authors of the report would be available to participate.

2. Pursue Solar as the Primary Pathway to Increase Renewable Energy on the Island

We recommend the formation of a working group to help prioritize which solar and possibly wind sites to explore further. The ETIPP pathways report indicates that solar energy (rooftop, ground-mount, and carport) is the most promising renewable energy option on-island by far for meeting Bainbridge Island's future electrical energy demand (up to 25% if every possibility was acted on).

They state that there are numerous opportunities to develop smaller-scale solar projects in collaboration with public and private property owners and a limited number of opportunities for large-scale solar development on the island. So, it makes sense for COBI to focus primarily on solar opportunities vs. other renewable energy technologies.

For critical city infrastructure, it is compelling to look at combining solar with battery storage for increased resilience. More about this in the resilience section below.

The report includes a comprehensive list of potential solar and wind sites on the Island. To be useful we believe the list needs to be prioritized. The first step to do that is to develop criteria (e.g., costs, amount of energy, partners, location, etc.) to help decide which of those sites are the highest priority and then start to explore how we might get those projects funded.

The working group members could be drawn from the Community group that worked with the ETIPP team to develop the report and other community members who might be interested. The working group would of course include members of the CCAC, City staff, and hopefully PSE among others who can take the information here and develop a plan of specific next steps for consideration by COBI and the City Council.

3. Work with PSE to Increase the Renewable Portion of PSE Electricity

We recommend continuing to work with PSE to try and increase the portion of renewable energy they use for generating electricity as quickly as possible. The study makes clear that, even if we reach 10 or 20% from renewable sources on the island, most of our electricity will continue to come from PSE off-island. For that electricity to be as clean as possible, we need to advocate and push for steady improvement in the energy mix from PSE.

Specific recommendations on how to increase collaboration with PSE include:

- Work with PSE to increase promotion of PSE's Green Power and other programs (e.g., solar choice and community solar) on the Island that enable customers to choose 100% renewable electricity.
- Continue to work with PSE on the Memorandum of Understanding that would be a part of the PSE Franchise Agreement under discussion.
- Revisit establishing a community solar project at the Transfer Station. While this was evaluated previously, the Pathways report highlighted the Transfer Station as possibly the only site on the island where a PSE community solar project could be feasible. Because of this, we think it's worth evaluating that location again. This could potentially be included in the MOU with PSE.

4. Modify the 2040 Carbon Free Goal in the Climate Action Plan

We recommend that the goal in the Climate Action Plan to achieve 100% carbon free electricity on the Island by 2040 be modified to state:

"By 2040 all of Bainbridge Island's sources of electricity are carbon-free with 15% coming from on Island renewable energy sources and with an interim target of 10% by 2035."

As stated above, the remainder of carbon free electricity would come from PSE. They are required by the State Clean Energy Transformation Act (CETA) to be carbon free by 2045.

5. Continue to Explore Siting an Anaerobic Digester on the Island

We recommend that COBI continues to explore the development of an anaerobic digester on the Island. We understand the potential amount of energy generated by an anaerobic digester on the Island is small (around 1% of the total needed according to the study). However, given we can generate only about 10-15% of the renewable energy on the Island this could be a significant contributor.

Also, as you know, considerable work by the CCAC, City Council members and staff went into evaluating a possible anaerobic digester for our community. That work highlighted that there are numerous other benefits of deploying this technology on the Island other than energy generation. They include:

- Significantly reducing the amount of waste that is currently trucked off our Island and thereby reducing associated GHG emissions by transforming our communities' organic and cellulosic (paper-based) waste streams to useful products in an on-island facility.
- Creating multiple products that include liquid and solid digestate that could be sold and used locally to enhance agricultural and garden productivity.
- Creating biofuel products that can be converted to energy, increasing local electrical generation and/or providing lower carbon intensity fuel products that could be used by COBI fleets.

We would be happy to work with COBI to further explore possible options for this technology. The key next step is a waste characterization study. Understanding the quantity and quality of waste generated on the island will better inform the energy generation potential. It will also inform the potential benefits listed.

6. Take Advantage of Grant Opportunities

We would recommend that the city and/or working group mentioned above evaluate the potential opportunities to secure funding for increasing the use of solar and wind on the Island. We understand that it takes time to develop the grant applications, implement the grants, and administer the grants. However, we believe this could be a once in a lifetime opportunity to pursue grants as a part of the Inflation Reduction Act. Spark Northwest could potentially provide some limited support with this.

We could also explore options such as bringing on interns to help develop the grants or hiring a professional grant writer or assigning a person in the city to pursue the grants. The working group identified above could help prioritize which grants to explore.

7. Amend City Code to Accelerate Adoption of Solar/Renewables

We would recommend that the working group discussed above in conjunction with COBI explore possible options to amend its code(s) to help accelerate the pace of solar/renewables on Bainbridge Island. Ideas to do that include:

- Establishing a streamlined, no/low-cost permitting for renewable energy projects.
- Remove land use/design code changes that might inhibit significant solar project development.
- Organize a contractor "summit" inviting solar contractors to City Hall to develop a deeper understanding of their potential challenges to scaling up and how City can help.
- Establish requirements for 100% renewables in new residential/commercial development projects (or phased step-up) or offset with monetary contributions to a COBI Renewable-Energy "Bank" (REB) for development of equivalent power elsewhere on the island.
- Provide incentives/subsidies (e.g., grant or low-interest loan) to those sites with the greatest potential for high solar energy output from the Renewable Energy Bank to have solar panels installed (plus battery storage if relevant) with COBI-established requirements for maintenance of the asset over its useful life.

The reason for these ideas is that one of the barriers to seeing community and municipal solar broadly implemented on the island is capital, as well as permitting and contractor availability. In King County, they have in their municipal code, a ["Transfer of Development Rights"](#) scheme that is a market-based mechanism for preserving farmland and steering development growth into the urban area. This long successful county-administered program has incentivized developers to buy development rights from a TDR "bank" and put additional dwelling units in their projects, while the TDR bank provides compensation to rural landowners without having to sell their land. Encouraging and facilitating private sector support and investment for the capital investments in solar is also important, so that there are a variety of options or paths to funding solar projects.

Recommendations on Resilience Report

1. Apply a Climate Lens to Assist in Planning to Improve Resilience

We recommend COBI apply a climate lens in its planning to address one of the takeaways from the report which was that there are various natural hazards that exist on Bainbridge Island that need to be considered in planning for resilience and siting new renewables. They emphasized that sea-level rise, extreme heat, and extreme cold were not considered in past assessments and should be considered in future planning.

We understand that COBI made a decision to not use a tool that was developed by EcoAdapt called “Climate Change Adaptation Certification Tool: Moving communities from planning to implementation”. We also understand that COBI has started to develop an alternative climate lens tool but we are not clear if that tool is being utilized.

We would recommend that COBI revisit the decision to not use the EcoAdapt tool for several reasons. First the tool was adapted for use on Bainbridge Island by working with City staff and a few local architects to test the tool here on Bainbridge Island. Second, a member of the CCAC did a review of alternative tools and did not identify a better alternative. The alternatives were very complex, costly, and used for larger infrastructure projects not relevant to Bainbridge Island. Finally, the tool has been used in various communities across the Country and we believe it would help to address the takeaway from the resilience study identified above.

2. Identify the Most Critical Sites for Resiliency

We recommend that COBI determine the most critical sites to work on to increase resilience to climate impacts on the Island. The study provided a very useful organization/framework for evaluating the most at-risk energy infrastructure on the island. While the analysis seemed to over-rate or under-rate in some cases it still provides a good starting point for assessing risk. The CCAC would be happy to work with COBI to determine which sites would be the best candidates. For example, the study indicated that the Winslow Wastewater Treatment Plant is ripe for planning related to adapting to sea level rise.

- Assessing earthquake related risk will require understanding more detailed information about building-specific vulnerabilities.
- For non-city infrastructure we should figure out how to share the ETIPP results with other island entities that would want to be notified of what was learned and calculated about their facility.

3. Become an Advocate for Hybrid Solar Systems (solar + batteries + grid)

We recommend adopting solar plus batteries as the optimal solution for resilience versus relying on gas-powered generators. One of the most important outcomes of the study is to highlight that we can increase resilience of several critical energy infrastructure locations with the installation of solar and battery storage. This is really the “sweet spot” for the city: add renewable electricity and resilience with the same project(s). And this is also a conclusion that can be shared with partners in the community (schools, churches, fire, etc.), as a cleaner and preferable solution vs. generators.

Appendix A: Key Takeaways from Pathways to 100% Renewable Energy by 2040 report (53 page report)

- None of the pathways identified, alone or combined, can achieve 100% of the electricity generation needed at present or in 2040 with on-island renewable energy alone.
 - Electric demand is likely to increase on Bainbridge Island, even considering aggressive energy efficiency measures, due to additional electrification (e.g., heat pumps, electric vehicles). Efficiency programs and actions are recommended to bring down the total consumption of energy, though are not enough on their own to offset growing demand.
- Solar energy (rooftop, ground-mount, and carport) is the most promising renewable energy option on-island for meeting Bainbridge Island's future electrical energy demand. There are numerous opportunities to develop smaller-scale solar projects in collaboration with public and private property owners and a limited number of opportunities for large-scale solar development on the island.
- Other renewable energy options could provide smaller amounts of power that could help meet key loads but are not likely to significantly contribute to meeting the 100% renewable energy goal for the Island in the near term.
 - Waste-to-Energy: To move forward with an anaerobic biodigester, a waste characterization study needs to be conducted to better understand the quantity and quality of waste generated on the island to serve as feedstock.
 - Wind Energy: A small, distributed wind project will be most useful in an area of high relative wind resource tied to a specific energy load. Once a site and load are selected, the next step is to conduct a site scale study to assess tree cover and collect wind energy measurements.
 - Marine Energy: Tidal energy is possible but is a long way out from commercial viability and the potential site in Agate Pass would likely generate very small amounts of power at a very high cost.
- Purchases of Green Power or other off-island renewable generation will be needed to meet the goal of 100% renewable energy generation by 2040.
- Next steps for the City of Bainbridge Island could include:
 - Continuing to make progress on 120kW publicly hosted solar site as part of the carbon offset associated with the new Ted Spearman Justice Center.
 - Partnering with PSE and others in the community to maximize the installation of solar at public and private facilities on the island. This could include a Community Solar project, but most locations analyzed are too small to qualify (Note: our analysis suggests the Transfer Station could have sufficient area to be a possibility).
 - Exploring installing solar on the remaining suitable City facilities: the Operations and Maintenance Yard rooftop, the existing Police building, and the new Ted Spearman Justice Center parking lot.
 - Developing educational materials and conducting outreach to promote renewable energy technologies and programs to the community to encourage more on-island renewable energy projects.

Appendix B: Key Takeaways from Technical Assistance: Improving Resilience Report (68 page report)

- Various natural hazards exist on Bainbridge Island that need to be considered in planning for resilience and siting new renewables. In particular, sea-level rise, extreme heat, and extreme cold that were not considered in past assessments, should be considered in future planning.
- Risk is assessed considering probability of hazards, vulnerability at locations, and consequences of occurrence.
- The most at-risk critical energy infrastructure on Bainbridge Island based on this analysis includes existing and planned transmission lines, the Virginia Mason Medical Center, and the Winslow Wastewater Treatment Plant. Several other locations may be at high risk due to earthquakes.
- Resilience actions to address these risks include:
 - a more thorough assessment of wildfire risk at the Virginia Mason Medical Center
 - planning for sea level rise specifically at the Winslow Wastewater Treatment Plant
 - adding building-specific vulnerabilities to a comprehensive earthquake risk assessment
- Based on our high-level analysis, several critical energy infrastructure locations could increase resilience to power outages in general with the installation of solar and battery storage. These locations include the Island School, Rolling Bay Presbyterian, Bethany Lutheran, Wing Point Country Club, Virginia Mason Medical Center, Grace Church, Sakai Intermediate School, the Public Works O&M Yard, the Winslow Ferry Terminal, and Fire Stations 21, 22, and 23. More detailed analysis for each site is needed for project design.

EV Charging Infrastructure: A Review of Bainbridge Island's Ordinance Report for Climate Change Advisory Committee (CCAC)

By Sanjay Bhatt and Steve Richard, CCAC members
June 5, 2024

EXECUTIVE SUMMARY

For new buildings, the City of Bainbridge Island requires 60% of parking spaces in commercial and multi-family projects to have some level of electric-vehicle (EV) charging infrastructure installed – a much higher bar than Washington state (30% for commercial, 45% multi-family). The City Council adopted [EV charging infrastructure requirements](#) (BIMC 18.15.020.C-3) in November 2022 to reduce barriers to EV adoption, reduce greenhouse-gas emissions (GHGs), support its Climate Action Plan (CAP), and ensure that new developments plan for future electric-vehicle demand. However, early permit applicants and critics of the city's rules say they are overkill, cost prohibitive and should be revised, and that the state's EV charging infrastructure rules ([WAC 51-50-0429](#)) are sufficient in most cases.

Stakeholders have legitimately different perspectives: Local jurisdictions see a future where EVs rule the road, even though they're a small fraction of vehicle registrations today. Property owners want to be climate-conscious when they build a structure to last 100-plus years, but point out that rigid regulation could do more harm than good because technology advances (i.e. EV battery range, charging times) outpace the problems the regulation was designed to address. Meanwhile, utilities are struggling in some places to manage basic reliability of today's grid, even as they plan for a future of net-zero emissions.

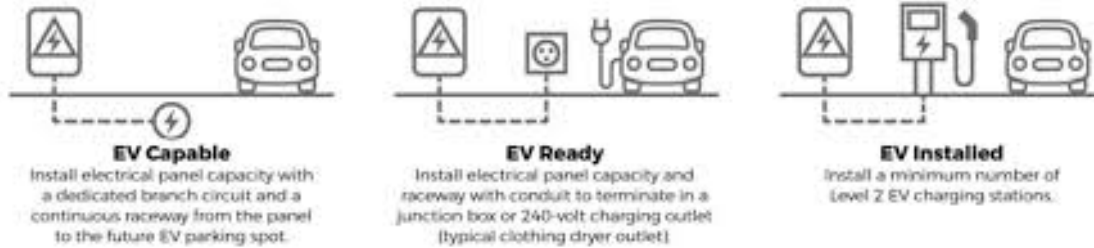
Requirements vary dramatically across local jurisdictions and should be tuned to local needs and priorities. As we see it, the City of Bainbridge Island has at least 3 options:

- Option 1: Leave its existing ordinance as is.
- Option 2: Repeal its requirements in favor of the state's requirements.
- Option 3: Revise its requirements to promote certain needs (like multi-family) while avoiding rigidity and minimizing potential negative impact on the community.

The CCAC's recommendation, we believe, should strive to balance the future demand with practical realities and certainty of technological advance. Specifically, from our research, Option 3 is the best path, with COBI raising requirements for residential multi-family developments and lowering requirements for non-residential developments.

NUTS AND BOLTS OF EV CHARGING INFRASTRUCTURE

For this report's purposes we want to ensure basic definitions and assumptions are clear. The illustration below from the City of Edmonds shows what is meant by "EV Capable," "EV Ready," and EV Installed" when discussing the progressively higher requirements for EV charging infrastructure:



The CCAC asked us to find out about the costs for each level of charging infrastructure. The City of Issaquah has estimated the cost of EV Capable infrastructure at around \$280 to \$760 per parking space; the City chose to emphasize EV Ready to provide certainty to end users they can have access to EVs and reduce concerns about compliance.

In 2020 King County compiled cost estimates per space for EV Ready and EV Installed.

Development type	EV Ready	EV Installed	Total Cost Range, new construction	Retrofit Cost Range
Single family/duplex	\$150 - \$375	\$500 - \$600	\$650 - \$975	\$1,100 - \$2,000
Townhome	\$150 - \$3,600	\$500 - \$3,250	\$650 - \$6,850	\$1,100 - \$7,500
Apartment (simple chargers)	\$1,200 - \$1,500	\$1,200 - \$1,500	\$2,400 - \$3,000	\$2,900 - \$8,200
Apartment, commercial & parking lots (dynamic chargers)	\$600 - \$1,500	\$3,000 - \$3,250	\$4,200 - \$4,750	\$4,100 - \$10,000

Similarly the City of Denver compiled costs for EV Ready and EV Capable parking spaces during the city's building code update in 2018.

Infrastructure requirement	New construction - per space	Retrofit - per space
EV Capable	\$300	\$2,500
EV Ready	\$1,300	\$6,300

(Source: City of Bellevue, Electric Vehicle Readiness Draft Proposal, January 3, 2024)

A recent [report by the National Renewable Energy Laboratory](#) (NREL) provided some capital cost assumptions for EV Installed spaces (see below) but not cost estimates for front-of-meter

utility upgrades (such as new transformers and line extensions), distributed energy resources (such as on-site storage or generation), operating costs (such as utility energy and demand charges), maintenance costs (necessary for ensuring a high level of reliability), and certain construction soft costs (such as delays associated with local permitting utility service connection) because of a lack of publicly accessible data.

EVSE Capital Cost Assumptions (p. 33 of [NREL report](#))

Charger hardware	Unit cost per port	Install cost per port
Level 1 (L1) residential	\$0 (included with EV)	\$100 - \$1,000
Level 2 (L2) residential	\$400 - \$1,200	\$500 - \$1,700
Level 2 (L2) commercial	\$2,200 - \$4,600	\$2,200 - \$6,000
DC 150 kW	\$66,400 - \$102,200	\$45,800 - \$94,000
DC 250 kW	\$91,400 - \$134,800	\$54,750 - \$105,950
DC 350 kW	\$116,400 - \$167,400	\$63,700 - \$117,900

It's worth noting that lead times dictate how quickly charging infrastructure can be deployed: "Previous studies have estimated that while charging infrastructure projects can often take 3-10 months to complete, situations requiring feeder upgrades can add one year to this timeline, and substation upgrades can potentially add up to 4 years."

Another basic concept is understanding the relationship between amperage, range added and charging time and how that is implemented in the code requirements.

The state requires a minimum of 40-ampere dedicated 208/240-volt branch circuit for each EV Ready parking space and each installed Charging Station and a conduit capable of accommodating a minimum 40-ampere dedicated 208/240-volt branch circuit for each EV Capable parking space.

Significantly, the City of Bainbridge Island's code **does not** explicitly say what size circuit is required for EV Capable or EV Ready parking spaces; it only explicitly states the minimum amperes for Installed charging stations. It refers to "Level 2" but does not define it. It does say infrastructure will be installed in accordance with National Electrical Code, but we aren't sure whether that code defines amperage for L1 or L2. This may warrant clarification in any revision.

The City of Edmonds, for example, explicitly defines the levels as follows:

- Level I- considered slow charging and operates on a fifteen to twenty amp breaker on a one hundred twenty volt AC circuit.

- Level II- considered medium charging and operates on a forty to one hundred amp breaker on a two hundred eight or two hundred forty volt AC circuit.
- Level III- considered fast or rapid charging and operates on a sixty amp or higher breaker on a four hundred eighty volt or higher three phase circuit with special grounding equipment.

A 40-amp circuit can carry a 32-amp EV charger. The amount of amps an EV needs depends on the maximum input power the EV can accept: For EVs in general, if the vehicle's maximum acceptance rate is 7.7 kW or less, then a 32-amp charger is the limit of what the vehicle will accept. Even if the vehicle's charge acceptance rate is higher, the amount of power it can accept is limited by the size of the circuit – which will impact the charging time as well.

A 2023 Tesla Model 3 (rear wheel drive), one of the most common EV models on Bainbridge Island, will add 5 miles per hour on a L1 charger, 30 miles per hour on a L2 charger on a 40-amp circuit (32-amp charging) and 38 miles per hour on a L2 charger on a 50-amp circuit (40-amp charging). Put another way, to fully charge the Tesla's battery, it would take 43 hours with L1, 8 hours with L2 on 40-amp circuit, and 6 hours with L2 on 50-amp circuit, according to the [EvoCharge EV Charging Time tool](#).

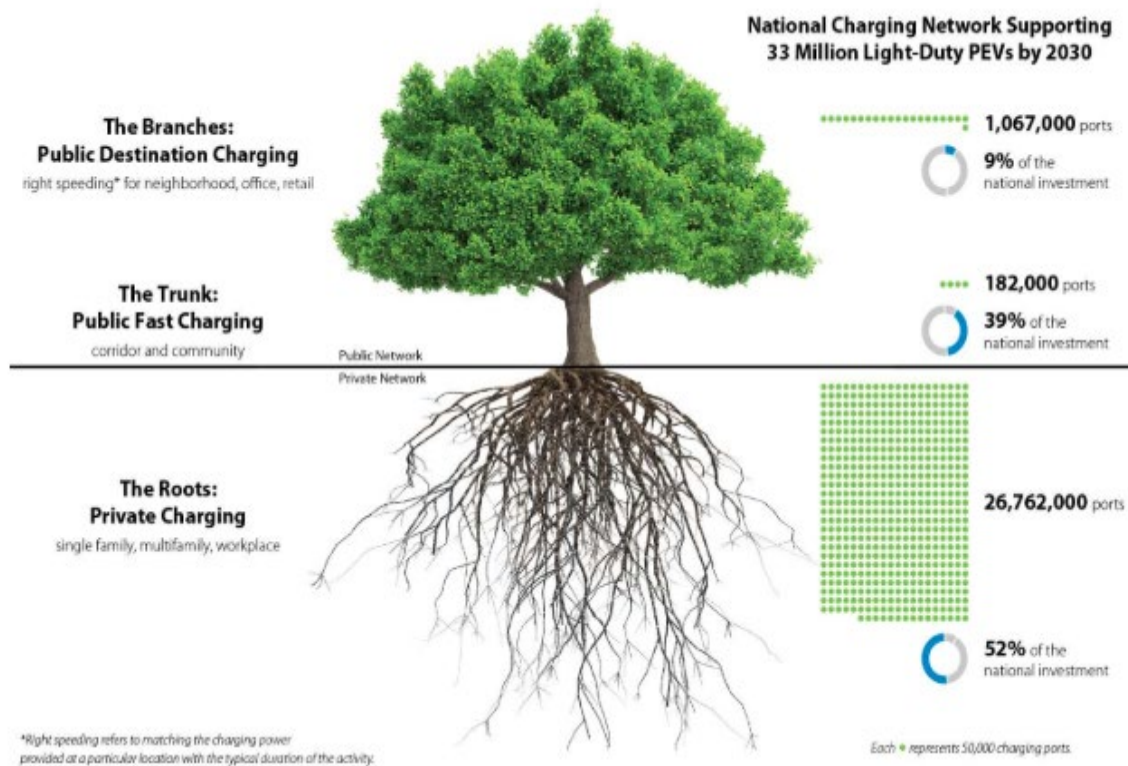
In terms of code requirements, L2 charging could be required for certain occupancy uses, but L1 charging could be sufficient for others. A 120-volt outlet can usually handle L1 charging.

DIFFERENT VISIONS FOR AN EV CHARGING NETWORK

Benoit Marcoux, an EV charging infrastructure consultant, has published a useful chart (below) to depict the relationship between charging levels, dwell time, locations (occupancy use) and criticality. His [EV charging pyramid](#) is what he expects the market share of the basic EV charging use cases to be once EV charging infrastructure is more widely deployed in a decade.

Charging Use Case	Market share	Charging Power	Park Duration	Examples of sites	Convenience	Criticality	Costs
On-the-Go Fast Charging	~5%	150+ kW	<30 min.	Service areas; convenience stores	👍	⚠️⚠️⚠️⚠️	💰💰💰💰
Destination Fast Charging	~10%	50–100kW	<1 hour	Grocery stores; shopping malls	👍👍	⚠️⚠️⚠️	💰💰💰
Destination Level 2 Charging	~10%	5–7 kW	Hours	Curbside; national parks; train stations; workplace	👍👍👍	⚠️⚠️	💰💰
Home Level 1 or 2 Charging	70–80%	1–7 kW	Hours, off-peak	Detached homes; multi-dwelling units.	👍👍👍👍	⚠️	💰

The [NREL report](#) uses a different planning concept (below) for the future national charging network in which 96% of charging ports are private and 4% are public.



In the context of Bainbridge, most on-island trips will be less than 5 miles, and certainly not more than 10 miles, in one direction. A worker who drives an EV to Winslow from Port Orchard (34 miles), Belfair (40 miles) or Sequim (58 miles) to their job at a dentist's office, a retail store or a daycare might need a Level 2 charger at their workplace if they left home without an adequate battery level or their home charger is out of service.

But households on Bainbridge drive off island frequently for shopping, health care and recreational trips too, averaging 18,465 miles annually, according to the [Center for Neighborhood Technology](#). On a 52-week calendar, that's 355 miles per week.

FEEDBACK FROM THE HELPLINE HOUSE & BARN

While regulation shouldn't be based on a single project, the Helpline House project helps us understand how the City's regulation plays out and whether the city should adjust its approach.

Helpline House is proposing a new 11,719 square-foot building to house a food bank, social-services offices, and a community conference room. The city's code requires 47 parking spaces, of which 60 percent must have some level of EV infrastructure. The \$11 million project could require an expensive transformer upgrade if the City's rules apply, but the non-profit won't know until it goes through the permitting process.

According to the project consultant, the difference in estimated cost between the City's and the state's rules for EV charging infrastructure are significant:

47 total parking stalls	City of Bainbridge Island			Washington State		
	% of total stalls	# of spaces	Cost	% of total stalls	# of spaces	Cost
EV Installed	10%	5	\$22,830	10%	4	\$15,220
EV Ready	30%	10	\$27,440	10%	4	\$6,860
EV Capable	20%	15	\$7,300	10%	3	\$2,190
Total	60%	30	\$57,570*	30%	11	\$24,270

*Additional costs: \$50,000 electrical service upgrade and unknown cost for utility upgrade to transformer on site results in a cost difference of more than \$83,000.

Some key points raised by Helpline House and BARN:

- The cost of running conduit for EV capable spaces isn't high. However what drives the cost significantly higher is that the state Building Code requires the electrical service and the electrical system, including any on-site distribution transformer to have "sufficient capacity to simultaneously charge all EVs at all required EV Charging Stations, EV

Ready parking spaces, and EV-Capable parking spaces at a minimum of 40-amperes each.”

- The City’s code has no exemptions or reduced EV infrastructure requirements for certain commercial uses, whereas the [state code](#) does allow them for Assembly (A), Educational (E) and Mercantile (M) occupancies. “This reflects the reality that most of the parking spaces for this building are for short-term client use – visits of less than 30 minutes that are not likely to utilize EV charging.”
- Parking lots don’t currently offer gas pumps – so why should they be required to install so many EV-capable spaces? We know 80% of EV charging takes place at home because it’s more convenient and affordable than outside the home.
- Are these EV chargers expected to be publicly accessible ones or for the facility’s employees and clients? Helpline House and BARN see these chargers as serving private needs (their employees and clients), not public ones (as part of a public access charging network).

In short, these stakeholders say that installing infrastructure that outpaces the facility’s needs in the near-term and long-term is a wasteful use of resources. The Building Industry Association of Washington has opposed EV charging infrastructure requirements at the state level as well.

It’s worth noting that little-noticed parameters can drive costs higher or lower:

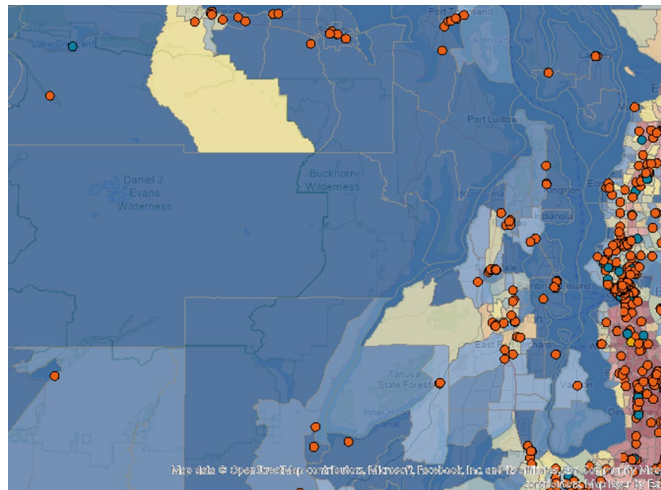
- There is an exception in the state building code for the amount of electrical system capacity required: Automatic load-management systems (ALMS) can be used to adjust the maximum electrical capacity by allocating charging capacity among multiple EV stations to as little as 16-amperes per EV charger. With [ALMS](#), building owners can double the amount of EVSE for a given electrical capacity, reducing the cost of expensive electrical upgrades.
- The number of EV parking spaces required is based upon a percentage of required parking spaces. **In a future where the City envisions a denser, taller Winslow that relies less on driving alone and more on walking, bicycling, transit and ride-sharing, the City should consider reduced parking requirements more in line with that stated vision.** The ripple effect would be fewer EV parking spaces required and lower electrical capacity charges. The zoning code requires Helpline House to offer 25 mercantile parking spaces and 22 office parking spaces in an area that has pedestrian and bicycling infrastructure improvements (Madison Avenue) and robust bus service (on-demand BI Ride, 8:30 AM-3:30 PM, as well as Routes 95 and 99 outside of those hours). [Helpline House](#) operates from 9 AM to 5 PM on weekdays.

At the end of the day, the incremental additional cost of Helpline House installing the EV charging infrastructure under the City’s rules, even if \$100,000, represents less than 1% of the total project cost.

Another key consideration and reason for EV requirements, is that the cost to retrofit EV charging infrastructure in existing buildings is at least 4 times higher than designing for it and installing it in new construction.

ANTICIPATED EV ADOPTION AND EQUITY

Looking at the big picture, EV charging infrastructure needs are growing daily as EV car prices plummet and more people travel through Kitsap County from Seattle, which has far more publicly accessible EV chargers than the Peninsula (see image at right from Washington Department of Commerce, EV Charging Publicly Available Site Mapping Tool).



In 2023, 31% of **new vehicle registrations** on Bainbridge were either battery-electric vehicles (BEV) or plug-in hybrid electric vehicles (PHEV) – up from 11% in 2020. New internal combustion engine (ICE) vehicle registrations fell from 78% to 56%.

Bainbridge’s overall EV adoption rate (8% of all vehicle registrations) is *three times* the state average – the strongest argument for the City to set higher standards than the state.

“Electric Cars Are Suddenly Becoming Affordable,” *The New York Times* reported this month, due to intense competition, lower raw-material costs and more efficient manufacturing. Federal tax credits as well as state incentives are pushing prices even lower. There will be more than 100 fully electric models for sale in the United States by next year, according to Cars.com, double the number available last year.

Peter Slowik, who leads research on passenger cars at the International Council on Clean Transportation, says that **electric cars and SUVs capable of traveling 400 miles on a full battery will cost less than ICE cars in 2030** – just 6 years away – even before taking into account government subsidies.

Today, the EVs with the highest number of vehicle registrations on Bainbridge all exceed 200 miles of range on a full charge.

Data for 2021 from the Census indicates that for all jobs on Bainbridge Island, 60 percent of workers travel less than 10 miles (roughly the length of the island) to get to their on-island job. Another 40 percent travel 10 miles or more (essentially from off the island) to get to jobs on Bainbridge – 23 percent travel 10 to 24 miles; 9 percent travel 25 to 50 miles; and 8 percent travel greater than 50 miles. These figures do not include employees of the Department of Defense. For Bainbridge Island residents commuting to jobs off the island, about 5 percent travel more than 50 miles.

“For many people, the car’s price is not the only expense to consider,” the *Times* story goes on. “People who live in apartments often depend on public charging plugs. Public charging, besides being less convenient, tends to be more costly than charging at home.”

Or as Andrea Pratt, a former policy adviser for the City of Seattle, put it in a webinar: “When people don’t have charging at home, they’re not going to convert.”

And there’s the rub: While EV charging at home is the preferred location for EV owners, those who rent a home may not have access to an EV charger for various reasons – the landlord may not allow it or refuse to incur the cost.

“The single biggest local government consideration for an EV future is planning for equitable deployment of the chargers that are required to support the anticipated growth of EVs in our communities,” according to a [2023 report by the Interstate Renewable Energy Council \(IREC\) and the Sustainable Energy Action Committee \(SEAC\)](#). This report also calls for clear and predictable local approval processes for siting and installation of EV charging infrastructure.

Puget Sound Regional Council has recently established an information clearinghouse, [Puget Sound REV](#), to help local municipalities stay abreast of model codes.

BASELINE ASSUMPTIONS FOR FUTURE EV CHARGING ON BAINBRIDGE

Our recommendations are based on these key assumptions about future of EV charging on Bainbridge:

- We should plan for 100% of vehicles on Bainbridge being EVs. During the 50-100 year life of any commercial building, it is very much expected that almost all vehicles will become electric.
- The range of EVs will increase so that charging is likely to become less frequent, a bit more like filling up at a gas station and then having 500+ miles of range.
- The availability of DC Fast Chargers on the island will increase and take the place of today’s gas stations. Town & Country Market is the first to have one.
- Charging at home with Level 2 chargers will continue to be the most popular choice for charging due to the convenience (no special stop) and the cost (cheaper than public chargers). The Department of Energy estimates that 80% of EV owners are currently charging at home, and we expect that to continue.

EXAMPLES FROM OTHER JURISDICTIONS

To promote equity, local jurisdictions in the Puget Sound region have **raised requirements for multi-family projects**, as the table below shows.

Jurisdiction	Year	Code	Capable	Ready	Installed	Total EV readiness
Bainbridge	2022	Zoning	10%	25%	10%	45%
Mountlake Terrace	2011	Land Use	20% of parking spaces Capable or Ready ()		More than 10k sqft, 10%	30%

					of spaces	
Seattle	2019	Zoning	-	20% EV Ready: 1-6 stalls (all), 7-25 (6 spaces), >25 (20%). Garages 20%	-	20-100%
Edmonds	2022	Community Development	40%	40%	10%	90%
Issaquah	2023	Land Use	0%	30%	10%	40%
Bellevue	Prop.		20%	40%	15%	75%
WA State	2021		10%	25%	10%	45%

For new **non-residential projects**, most of the local jurisdictions have significantly lower requirements than Bainbridge:

Jurisdiction	Year	Code	Capable	Ready	Installed	Total EV readiness
Bainbridge	2022	Zoning	10%	25%	10%	45%
Mountlake Terrace	2011	Land Use	2-6% of parking spaces Capable or Ready (depending on land use)		More than 10k sqft, 1-3% of spaces	3-9%
Seattle	2019	Zoning	-	10% EV Ready	-	10%
Edmonds	2022	Community Development	40%	0%	10%	50%
Issaquah	2023	Land Use	0%	10%	5%	15%
Bellevue	*.		40%	10%	15%	65%
WA State	2021		10%	10%	10%	30%

*Proposed in Jan. 2024. The total percentage may be reduced before a Council vote.

From an international perspective, Washington state's requirements are modest, and the trend is toward higher requirements.

The International Code Council, which updates the International Energy Conservation Code (IECC) every three years to incorporate new building technologies and practices, published a [2024 draft code requirements](#) for residential and commercial with up to 100% of parking spaces in multi-family having some level of EV readiness – but [after major pushback from the building industry made them optional for jurisdictions](#) to consider.

Table. Required EV Power Transfer Infrastructure - Commercial (selected occupancies)

Occupancy	EV Capable	EV Ready	EVSE Installed	Total EV
Group A (Assembly)	10%	0%	10%	20%
Group B (Business)	30%	0%	15%	45%
Group E (Education)	30%	0%	15%	45%
Group F (Industrial)	5%	0%	2%	7%
Group M (Mercantile)	30%	0%	15%	45%
Group R-1 (Hotels)	75%	5%	20%	100%
Group R-2 (Multi-unit Dwellings)	75%	5%	20%	100%
Group R-3/R-4 (Misc. Housing)	5%	0%	2%	7%

Rather than designating a straight percentage of parking spaces for EVs, Bainbridge may consider creating separate tables for different land uses. For instance, parking facilities for shopping centers may merit different EV charger readiness requirements than parking facilities for houses of worship.

SUPPORTING WORKPLACE CHARGING

Home charging isn't the only place where policy can help.

Workplaces also need to accelerate the availability of EV charging. Level 1 charging cannot be reasonably relied upon to top up an EV battery for long commutes off the island. Through its [Up & Go program](#), Puget Sound Energy can cover up to 100% of the cost for qualifying customers to install and maintain Level 2 chargers for employees.

Why focus on workplaces? Commute trip reduction is a strategy to reduce single-occupancy vehicle trips and GHGs. However, a potential barrier for commuters to take advantage of Kitsap Transit's EV vanpool – a fleet of Mustang Mach-Es – is that they lack Level 2 charging both at work and at home. Many won't give up their single-occupancy ICE vehicle for a ride-share arrangement with an EV unless they know they can charge at their employer's worksite.

PLANNING FOR NECESSARY GRID CAPACITY

The cost of installing EV chargers is relatively small compared to the cost of upgrading a utility's transformers or installing underground vaults.

That is why some jurisdictions, such as Seattle and Edmonds, have provisions that allow a City official to reduce the EV charging infrastructure requirements where there is documented proof that the requirement will trigger utility upgrades above a cost threshold. Further research is necessary to determine whether such a "safety valve" is feasible in practice, but it provides an equitable solution to permit applicants and puts a spotlight on the urgency of accelerating planned improvements to the grid's capacity.

The fact that these provisions exist in ordinance points to a larger problem facing Bainbridge Island in particular – the state of its grid. The City has a franchise agreement with Puget Sound Energy (PSE) and needs to do what it can in its permitting requirements to help the utility upgrade the grid's capacity and reliability as soon as is practically feasible. Without that, the EV charging infrastructure policy goal may be dead on arrival due to the PSE capacity charges property owners will face if their projects trigger the city's requirements.

The City should solicit input from PSE on how the utility's programs can complement the EV readiness ordinance. According to the IREC/SEAC report, utilities view EV charging as a revenue stream and are thus incentivized to collaborate on code development and build community support. The City of Seattle worked with Seattle City Light and found that one of the biggest barriers to electrifying existing buildings was a "one site, one service" policy; is this a barrier for property owners on Bainbridge and can it be remedied in discussion with PSE?

The [U.S. Department of Transportation](#) recommends jurisdictions invest in planning and build for flexibility. "To avoid the need for even more upgrades in the future, consider both the current charging needs and expected future needs and ensure that planning is done in a careful and coordinated fashion. Designing infrastructure to accommodate future growth in demand – for example, through modular charging stations that allow for incremental increases in power – may be worth the extra installation costs. This approach can also reduce [site preparation costs](#), as it may be cheaper and easier in the long run to lay electrical conduit for all potential EVSE at once instead of cutting concrete multiple times during future projects."

RECOMMENDATIONS

In our view, Options 1 (do nothing) and 2 (revert to state requirements) are not the preferred way to go. The City should pursue Option 3 and refine its existing ordinance.

We see two categories of need on Bainbridge Island where regulation can help close gaps:

- Level 2 charging for multi-family dwellings and residential condominiums
- Level 2 or 3 charging for workplaces

Adopting requirements higher than the state are necessary to eliminate costly retrofits, meet the future demand for EV charging and support the City's GHG emission reduction goals.

If more time were available, the City staff could conduct listening sessions with a cross-section of stakeholders (including PSE, property owners/developers, EV users, and major employers), as other cities have done, to update its understanding of local needs, potential opportunities and pitfalls in promulgating new requirements. But the CCAC has been asked to provide recommendations on the requirements, so we have tried to strike a balance based on available information and interviews with some stakeholders.

In all cases, the City of Bainbridge should consider these measures:

- To incentivize EV adoption and charging, as New Jersey does, allow all EV-ready stalls (with or without chargers) to *count as more than one space* for minimum parking requirements. Allow accessible stalls to count as two spaces to account for the wider stall and required landing zone. This reduces the overall number of parking spaces on a site, while also promoting alternative forms of mobility (transit, bicycling, ride-share).
- Be clear about what is required of Level 2 charging, either referencing state requirements or defining it explicitly as other cities have.
- Consider credit for GHG offsets: For example, if a property commits to installing PV solar arrays on site to ensure the building's load is 75-100% renewable energy, that could merit credit for a portion of the required EV Ready or Installed spaces. This would accelerate solar installations that provide clean, renewable energy for future EV spaces.
- Develop signage requirements to clarify whether the EV parking spaces are publicly accessible or only for use of residents and building guests and what measures may be taken (i.e. impound, fines) for unauthorized use of EV spaces.

For new and substantial expansion of multi-family dwellings and residential condominiums, the City of Bainbridge should consider these measures:

- Research planning formulas for how many shared EV chargers are needed in a multi-family building to support a future where 100% of the resident vehicles are EVs. Even though everyone may have an EV, **not everyone will need to charge every night** because EV range on a full battery will likely exceed 400 miles.
- Raise EV Capable, Ready and Installed requirements as needed, but offer flexibility based on local site conditions and the documented cost of utility service upgrades. The City could phase in these requirements to reach 50% EV Capable, 25% EV Ready and 10% EV Installed (85% EV total) by 2028, with a provision like Seattle or Edmonds that allows reductions in requirements to be granted by the Planning Director based on explicit cost thresholds for utility service upgrades to transformers or construction of vaults. By phasing in progressively higher requirements, the City gives PSE's Bainbridge grid time to "catch up" while also giving developers a clear and predictable roadmap.
- Increase awareness of automated load management systems (ALMS) and promote demonstration projects in collaboration with PSE.
- The City of Issaquah has provisions in its code that addresses the need for EV spaces in affordable housing, but flexibility to reduce requirements to an extent to be cost neutral.
- For parking spots that are assigned to specific units/residents, 100% should be EV Capable - treated similarly as a private garage. The state requirements don't differentiate between unassigned and assigned parking spots, and we believe this differentiation is

very important. And it's important to note that unassigned resident parking with shared charging is the most efficient use of space and smart to encourage.

For new and substantial expansion of non-residential commercial buildings and parking lots, the City of Bainbridge Island should consider these measures:

- Lower EV Capable, Ready and Installed requirements to match the state's requirements.
- Encourage employers to work with PSE's Up & Go workplace charging incentive program and take advantage of federal tax credits for EV charging infrastructure.
- Conduct a survey of EV usage at different types of commercial occupancies on Bainbridge Island to inform whether required EV spaces should vary based on different land uses or occupancies, similar to how other jurisdictions do this.
- Engage with local gas stations to understand if/when they plan to add DC fast chargers to their stations, what their hurdles are, and how the City can support their transition. The electrification of gas stations is happening already in Europe.

June 2, 2024

To Whom It May Concern,

We, the members of the Bainbridge Island Climate Change Advisory Committee (CCAC), are writing to support the City of Bainbridge Island (COBI) as it seeks grant monies for extensions to the Sound to Olympics Trail (STO).

The CCAC is an all-volunteer committee of island residents; our role is to serve as an advisory resource for the City Council in issues related to climate change. In 2020, COBI adopted the Climate Action Plan (CAP), which was created by the CCAC. The CAP provides a detailed and comprehensive roadmap to reducing the City's greenhouse gas emissions (GHG) and increasing the island's resiliency in the face of climate change. COBI has already drawn on the CAP to help shape elements of its comprehensive planning.

Transportation accounts for more than a third of the GHG emissions on Bainbridge Island. The Transportation section of the CAP calls for the significant reduction of motorized vehicle miles per capita. To achieve this ambitious goal, the CAP specifically recommends that the City overcome barriers to increasing cycling and walking, that COBI build out pathways – for all ages and abilities – that link business areas, neighborhoods, and schools on the island.

In an effort to bolster the Transportation section of the CAP, COBI contracted with Fehr & Peers to conduct additional research on and analysis of miles traveled on Bainbridge and the associated GHG emissions. One of the key takeaways from the Fehr & Peers report is that the City should, as part of its efforts to reduce GHG emissions per the recommendations of the CAP, actively incentivize the accelerated adoption and use of e-bikes.

Our aim is to reduce GHG emissions on Bainbridge Island. To do that, we need more people using forms of transport that do not rely on fossil fuels. Those people need the space and infrastructure to make that happen. The STO forges the very sorts of crucial and accessible pathways that ease movement by e-bike, bicycle, stroller, or on foot. It will significantly expand our network of trails, linking five different schools as well as numerous neighborhoods. In this way, the STO aligns neatly with the central goals of the CAP, and we, as members of the CCAC, want to support efforts to extend the STO.

The CCAC fully supports the City pursuing the grant for the STO.

Yours Truly,

Members, Bainbridge Island Climate Change Advisory Committee (CCAC)

REAC Recommendation for Zero Emissions Project

On August 4, 2022, Public Works Director Chris Wierzbicki and Climate Mitigation & Adaptation Officer Autumn Salamack consulted with REAC on applying a race equity lens on the City's proposed Zero Emissions Project. The following is REAC's recommended strategy for the Zero Emissions Project with an emphasis on ways to mitigate possible harms on BIPOC communities.

Our primary recommendation is for the City and the Public Works Department to develop and implement a proactive outreach program to intentionally reach out to BIPOC community members that will be most affected by this change in policy. Steps to include:

1. Identify the community members who will be most affected by the implementation of this program. A few suggestions are:
 - a. Latinx business owners who live off-island who conduct the majority of their business on Bainbridge.
 - b. Bainbridge Island Homeowners who use both these tools themselves as well those who employ landscapers.
 - c. Local climate advocacy groups.
2. Proactively speak to these stakeholders to gain a first-hand account of how they believe this policy will change their business. This is **not** a survey; this is a collection of qualitative conversations. Please go prepared with strategies to have these conversations in languages other than English.
3. Implement insights gained in collaboration with representatives from affected communities.

Questions to Consider

- Can the business owners and community members afford to replace this equipment with or without assistance from the city?
- What are the logistical barriers for the charging, purchasing, and movement of this equipment and their batteries? Do these logistical changes create an additional financial burden on homeowners or business owners?
- What is the emotional burden of having to discuss this policy with the people who hire them and to share this news with their employees who will also be financially impacted?
- How is COBI ensuring the community, specifically business owners, are contacted and understand the regulation or policy?
- Will COBI mitigate any of the costs or impacts born by individuals or groups caused by this regulation or policy and, if so, how?
- If any unforeseen harm to groups or individuals ensues from this regulation or policy, what steps is COBI willing to take to mitigate that harm?

Possible Solutions

Note: Because none of the REAC members are business owners in the field of landscape design and maintenance, we are only able to make assumptions on equity issues we see in this project. This is to say **that regarding issues facing business owners, the voices of the BIPOC business owners should be taken as a more reliable truth.**

- Provide rebates or financial assistance to help landscaping businesses make the transition from gas- to battery-powered tools.
- Pilot a program with landscapers. Provide a financial incentive for them to voluntarily try this approach. If it is successful, they will be more persuasive in getting others to make the transition, based on their experience.
- Outreach programs will be needed to inform the public and landscapers. No one wants to find out about the program by getting issued a fine.
- Take other measures to reduce climate change—not burden landscapers. The scapegoat seems to be noisy leaf blowers and weed whackers. Do we really need them? As Indigenous practice—and science—tell us, leaves (with the exception of leaves that pose safety hazards) are best kept on the ground. They are nutrients for grass and plants and provide shelter for wildlife.

Please direct any questions and comments to REAC Climate Action Liaison, Clarissa San Diego, at clarissa.sandiego@cobicommittee.email