



Engineering & Public Works Department

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DATE: 04-09-18

TO: Loren Jones, Chair
Public Works and Facilities Committee

FROM: Michele Elfers, Chief Landscape Architect
Engineering & Public Works Department

RE: EV Charger Program

Draft Ordinance 2017-35, An Ordinance Amending the Traffic Code Relating to Electric Vehicles and Providing for a Penalty, creates a \$50 annual fee for use of municipal electric vehicle charging stations. It also establishes penalties for violations of the ordinance. Municipal vehicle charging stations include:

Installed and Operating Now:

Eaglecrest, Level II

Valley Library, Level II

Marine Parking Garage, Level II

Treadwell Ice Rink, Level II

Installed Spring 2018:

Downtown Transit Center, Level III

Statter Harbor, Level II

Douglas Library, Level II

In addition to this list, Bartlett Regional Hospital has expressed interest in charging stations. Public comment on this draft ordinance has been solicited at a Juneau Commission on Sustainability meeting, their comments are attached to this memo, and at the Juneau Electric Vehicle Association (JEVA). JEVA members' comments include concerns on the impacts and confusion of a community wide charging network including public and privately owned stations with different management and fee policies.

Ideas on how to move forward include:

1. Create a public-private program for all chargers in the community with a policy on usage, such as time limits on charging of either 1 or 2 hours for a Level II.
2. Create a centralized fee collection program for public and private chargers that requires a sticker to use the chargers, fees are collected and distributed to all owners of chargers. This program could be run by JEVA.
3. Create standardized signage for all public and private chargers that includes some use policy standards.

April 5, 2018

To: Loren Jones, Chair
Public Works and Facilities Committee

From: Duff Mitchell, Chair
Juneau Commission on Sustainability

Re: JCOS Recommendation on CBJ EV Chargers

The Juneau Commission on Sustainability has reviewed the 2/26/18 [EV Charger Recommendation](#) report to Public Works. We have discussed the EV charging issue with individuals and groups, including the Juneau Electric Vehicle Association, and at our March 14 JCOS meeting. As a result of these discussions, JCOS recommends that the CBJ develop a more comprehensive and detailed plan to support EV adoption in Juneau before the development of a fee system for EV charger usage.

At this time, we believe it premature to seek to recover costs for use of CBJ EV chargers or to adopt a permit program as proposed in Ordinance 2017-35. JCOS does believe that it is an important goal of a CBJ charging plan to develop a method for EV owners to pay for use of electricity and charging infrastructure. We believe that most EV owners see value in a public charging system and are willing to support it financially. However, from our discussions, we believe that a relatively small proportion of EV owners would be willing at this time to pay a \$50 annual fee for access to the small number and unpredictable availability of CBJ chargers.

If an unrealistic fee is charged, and there is little EV owner participation, there is the risk of interpreting this as a lack of interest in public chargers. Juneau is still very early in the adoption cycle for EV's. While we are seeing rapid rates of increase, the DMV reports that at this time Juneau has just over 200 EV's. As this number grows it is likely that there will eventually be a large enough population of EV owners to financially support a more market-based public charger system.

A fragmented EV charger system, with one set of rules and costs for CBJ chargers, and other rules and possible costs for other public chargers, has the potential to cause confusion and frustration and possibly undercut EV adoption. Fees for CBJ chargers may push increased demand and conflicts towards businesses and organizations that provide their own public chargers, undercutting the existing cooperative approach to installation of chargers. Users of EV chargers in Juneau would like to see more certainty and common understanding about etiquette for sharing chargers, which will be difficult under a fragmented system. Ideally, any fee and etiquette system that is developed will be consistent across the breadth of charger ownership.

With non-EV's parking in charging stations, increasing numbers of EVs and with a relatively small number of chargers, people cannot count on having a charger available when needed. This could be addressed by providing additional EV spaces adjacent to

existing charger spaces, so that cars can queue up and be plugged in by others. A regulation restricting use of the spaces to EV's, with a possible time limit on such parking spaces, and enforcement of the time limits, could help improve predictability for the EV user, and increase reliability of the charging network. The CBJ should also consider developing support and incentives to encourage businesses and other organizations to install EV chargers.

We recommend that the CBJ adopt a broader plan for EV support, addressing these and possibly other issues, before developing a permit or cost recovery system. This will help convince EV owners that it is worth financially contributing to a public charging system and should be considered in the broader context of CBJ policies. The Juneau Comprehensive Plan, the Juneau Climate Action and Implementation Plan (2011), and most recently, the Juneau Renewable Energy Strategy (JRES, 2018) each have policies that support reducing dependence on fossil fuels. The JCAIP and the JRES specifically support EV adoption, which in addition to climate and air quality benefits, saves people money. The JRES calls for developing a transportation action plan, which should include consideration of options for supporting EV adoption.

CBJ support for EV chargers and investment in this infrastructure should also be viewed in the context of the CBJ's own fleet and planned EV growth. Over the next decade the CBJ will be able to reduce costs by shifting to an EV fleet due to the low operational and maintenance costs of EV's. Having public chargers distributed throughout the community will increase the effectiveness and cost savings for the CBJ fleet now and into the future. Again, this can be considered in more detail as the JRES is implemented.

Additional Background on EV Use and Charging in Juneau

Most EV owners in Juneau charge at home, which mirrors national usage patterns and many EV owners use home charging stations exclusively. A typical habit is to occasionally use a public charger if it is convenient, while going to the library or pool, or for emergency use if running low on battery power because of a miscalculation or unexpected trip. A small number of EV owners do not have access to chargers at their residence and rely on public chargers exclusively. Some public chargers, such as those at Eaglecrest, see more consistent use because of the longer driving distance involved, and because these chargers offer good parking locations.

There appear to be some common misperceptions about the CBJ's role in providing EV chargers and about EV's in general. The existing chargers on CBJ properties were not paid for by the CBJ. A cooperative effort funded these chargers through private donations and grants. The CBJ hosts, and provides electricity for, only four of the existing 12 charging stations. The CBJ pays very little for the electricity used in public chargers and paid little upfront cost for the charging equipment. In 2018, a \$25,000 CBJ CIP will add the first Level 3 (fast) charger in the community and two new Level 2 chargers from CBJ funds. The Level 3 charger is a donation from the Juneau Electric Vehicle Association and CIP money will assist in its installation.

EV's are not just for the well-to-do. While there are a few high-end EV's in town (Tesla's, etc.), an important reason for the rapid EV adoption in Juneau these past few years has been the availability of relatively inexpensive used (off-lease) EV's. Many of the Nissan Leafs in Juneau cost in the \$9,000-14,000 range. Not only are they reasonably priced, but they save money through low operating and maintenance costs that are roughly 1/2 to 1/3 lower than those for comparable internal combustion vehicles.

Again, the JCOS recommends that this proposal not be adopted as written at this time and that the CBJ develop a longer range plan for EV support before considering fees for use of chargers on CBJ property. JCOS appreciates the staff and Assembly work and time that has gone into addressing this issue and feels that this is a good starting point for continued community education and discussion.