

encouraging early EV adoption in Whistler; however, free EV charging can lead to a situation where the stations are not being used efficiently due to a lack of turnover and can cause unfair distribution of access to charging services.

On November 3rd, 2020, RMOW Council directed staff to submit an application to the CleanBC Communities Fund to fund 73.3 per cent of the proposed Sea to Sky Electric Vehicle Network Expansion project. In addition, Council directed staff to evaluate options to implement EV charging station user fees with the goal to recover the cost for the stations' operation as well as future replacement of equipment.

The 2021 Whistler Electric Vehicle Charging Station User Fee Strategy has the goal to continually support EV adoption in Whistler while incentivizing home charging, increasing turn over, and recovering municipal operation costs at the same time. The focus hereby is to create a simple and clear fee structure that allows for future rate adjustments based on reliable EV charging data. To achieve this goal, the EV charging station user fees will be implemented in a phased approach as outlined below.

Phase 1, spring 2021 - EV charging station outside of day lots:

Guided by the main goal to reduce GHG emissions and support EV adoption, Phase 1 will focus on implementing a user fee at RMOW EV charging stations outside of the day lots. EV chargers outside of day-lots serve a user who is primarily needing a top-up and will do so while running errands, getting a coffee or going to a restaurant. Charging while grocery shopping or other short-term activities is unlikely to be changed as a result of a charging fee. This is applicable to both local use and visitor use. A low user fee in phase 1 will still encourage turnover and encourage home charging whenever possible. An introductory fee for Level 2 Charging is proposed at \$1.00/hr. Note that fees associated with DC Fast Charging stations are not outlined as the RMOW does not yet own or operate one of these stations.

This hourly fee is slightly higher than the electricity cost for EV charging at home but low enough to support EV adoption for residents, commuters, or visitors that have no home charging option or are in need of a top up. In addition, this fee will cover the electricity cost and additional service fees that incur for the RMOW.

Phase 2, winter 2021/2022– Mirroring fees from other communities and implementing fees in day lots:

In a second phase, the goal is to increase turn over at all public EV charging stations and to further incentivize home charging when possible. With the projected growth in EV adoption in Vancouver and the Sea to Sky region, it is anticipated that the demand for charging will increase. Regional visitors will be seeking charging options for return trips and more commuters will charge during their workday. Therefore, turnover will likely need to be encouraged in the day lots while still ensuring that EV usage remains a cost effective and viable option for both commuters and visitors.

The implementation and amount of the EV charging station user fee at the day lots will depend on more reliable long-term EV charging usage data. As a starting point, a fee of \$1.00/hr is considered with a cost ceiling of \$5.00 per day to make the use of the day lot charging stations economical even when parking for a full day. The EV charging station user fees outside of the day lots are proposed to increase to mirror the user fee structure of nearby communities. As a starting point, a fee of \$2.00/hr will be implemented.

Phase 3, summer 2022 – long-term strategy with sensitivity around commuter workforce and evolving EV use uptake:

In a third phase, a long term strategy for Whistler’s commuting workforce and passenger vehicle visitors will be developed. Sensitivity around the charging behaviour and requirements for commuters will be the focus of this phase with the goal to keep EV commuting a more cost effective option than commuting with an internal combustion engine vehicle, even when there is no home charging option available. This final long-term strategy will be based on EV charger usage data from phase 1 and 2 and EV adoption projections in the region. In addition, all user fee adjustments at the charging station in the day lots will be discussed with the Day Lot Operating Committee (DLOC) and aligned with day lot parking rate changes.

To facilitate informed and data-driven decisions about hourly fee adjustments at each station, it is important that the RMOW establishes indicators that help monitor station data consistently over time. The City of Vancouver recommends to track the *Average Daily Utilization* at the electric vehicle charging stations as an indicator for price adjustments. The *Average Daily Utilization* is the percentage of time that the EV charging station is occupied during daytime hours averaged over three months. If it drops under 40 per cent, the user fee can be reduced; if it goes over 75 per cent, the user fee can be increased.

The timeline to implement the user EV charging station user fee phases is proposed as follows:

Milestone	Date Completed
Phase 1 fee implementation	April/May 2021
Community and stakeholder engagement	Summer 2021
Phase 2 fee implementation	December 2021/January 2022
Community and stakeholder engagement	Summer 2022
Phase 3	Summer 2022 – depending on charger demand and usage

POLICY CONSIDERATIONS

Official Community Plan

Community Vision

Whistler’s vision is to be a place where the community thrives, nature is protected, and guests are inspired. This implementation of a fair and equitable EV charging station user fee aims to remove the barriers for the community and guests to shift to lower carbon transportation and help to achieve Whistler’s climate goals. Therefore, this project is in alignment with Whistler’s vision.

Goals, Objectives and Policies

The goal of this strategy is to implement a user fee that is fair and equitable for the following three user groups: 1. Whistler residents, 2. Commuter workforce, 3. Visitors. This strategy aligned with the following goals, objectives, and policies of Whistler’s Official Community Plan’s (OCP’s).

10.2. Goal - Substantially reduce GHG emissions form vehicle and transportation

10.2.3. Objective – Increase integration of lower-impact technologies for community mobility

10.2.3.1. Policy – Integrate support for electric vehicle charging infrastructure into relevant municipal development policies, including electric vehicle-readiness requirements for parking areas and garages in new, or significant redevelopment, projects.

11.3. Goal - Minimize GHG emissions created by the transportation system

11.3.1. Objective – Support new technologies that reduce GHG emissions.

11.3.1.1 Policy – Support innovative technological advances in transportation that reduce GHG emissions and are appropriate to Whistler’s climate.

11.3.1.3 Policy - Support technology that promotes more efficient transportation choices.

Other Relevant Policies

The Climate Action Big Moves Strategy Big Move 2, “Decarbonize Passenger and Commercial Transport” has set the target that by 2030, 50 per cent of all vehicle kilometers in Whistler will be by zero emission vehicles. This directly supports the need to scale up EV infrastructure for visitors and residents while incentivizing home charging and increasing turn-over at the same time.

BUDGET CONSIDERATIONS

Currently, the Resort Municipality of Whistler (RMOW) provides use of all municipally operated public electric vehicle charging stations free of charge. Imposing a user fee for EV charging will ensure more efficient use of the stations in order to maximize the number of EV drivers accessing the stations. All proposed user fees, i.e. \$1/hr and \$2/hr for Level 2 charging, is estimated to recover the cost of energy as well as operating and maintenance costs for the stations where the fee was implemented. A fee of \$2/hr for Level 2 charging is estimated to additionally cover the cost of future installations and replacement (e.g. charging units, electrical upgrades, permits etc.). A detailed cost-revenue analysis for the proposed user fee implementation can be found in Appendix “B”.

COMMUNITY ENGAGEMENT AND CONSULTATION

The engagement that has been implemented so far is outlined below. Further engagement activities to evaluate the success of the strategy is planned for after implementing each phase.

- Individual meetings with internal RMOW staff were held with the goal to develop a first strategy draft and a consistent rationale for the strategy. The draft was presented to SMT for input and review.
- Day Lot Operating Committee (DLOC): The strategy draft was presented at a DLOC meeting with the goal to gather expert advice and address potential challenges and the technical feasibility of implementing an EV charging station user fee. A user fee implementation was generally welcome and a cost ceiling of \$5/day was proposed. The technical challenge of having 2 payment systems was raised.
- Transportation Advisory Group (TAG): The draft strategy was shared with all TAG members via email with a request for feedback. A total of 5 comments were received in response with all of them in support of implementing a charging a fee for EV use of public infrastructure. Other feedback included support simple cost per hour fee and some comments were that the pricing structure was very low and should be at least \$2/hour or more for all locations in Phase 1.

According to the feedback received, the “issue for EV users (especially visitors) is not the cost of charging but access to top-up charging so they can get to their next destination”. Collecting user data was seen as important for future decision making and it was pointed out that enforcement and violation monitoring will be needed.

SUMMARY

The 2021 Whistler Electric Vehicle Charging Station User Fee Strategy has the goal to continually support EV adoption in Whistler while incentivizing home charging, increasing turn over, and recovering municipal operation costs at the same time.

Respectfully submitted,

Luisa Burhenne
CLIMATE ACTION COORDINATOR

For
Jessie Gresley-Jones
GENERAL MANAGER OF RESORT EXPERIENCE