



REPORT

Report Date: September 15, 2021
Contact: Paul Storer
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RTS No.: 12745
VanRIMS No.: 08-2000-20
Meeting Date: October 5, 2021
[Submit comments to Council](#)

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: Climate Emergency Parking Program

RECOMMENDATION

- A. THAT Council direct staff to implement the Climate Emergency Parking Program (CEPP), comprised of a new overnight residential parking permit with reductions for households with low incomes, and a pollution charge added to parking permits for more polluting vehicles 2023 and newer with exemptions for specialized vehicles for wheelchairs, generally as outlined in this report;

FURTHER THAT Council direct the Director of Legal Services to prepare and bring forward for enactment amendments to the Street and Traffic By-law and By-law Notice Enforcement By-law, generally as set out in Appendix H.
- B. THAT Council direct staff to undertake public consultation as part of the City's existing annual budget, long term capital planning, and 2023-2026 Capital Plan engagement processes to help inform how revenues from the CEPP should be invested within the context of the Climate Emergency Action Plan (CEAP) approved by Council (RTS 13199).
- C. THAT Council direct staff to report back to Council in 2022 on opportunities for improving parking management for local streets, including full-time Residential Permit Parking areas.
- D. THAT Council direct staff to report back on initial outcomes of the CEPP in fall 2023 and any recommended program adjustments.
- E. THAT Council approve, in principle, the funding strategy for the CEPP as follows:

- One-time implementation cost estimated at \$1.7 million to be funded from \$0.6 million approved by Council in the 2019-2022 Capital Plan Recalibration (RTS 13895) for the CEAP and \$1.1 million from CEPP revenues
- Ongoing annual program administration cost estimated at \$1 million to be funded from CEPP revenues

FURTHER THAT the above be incorporated in the 2022 budget for Council consideration in December 2021

REPORT SUMMARY

This report outlines staff recommendations for implementation of the Climate Emergency Parking Program, based on analysis and engagement. If approved, the program will accelerate the shift to electric vehicles in Vancouver and fund in part the significant investment required to implement the City's climate emergency actions and fulfill the goals set out in the Climate Emergency Action Plan.

The program consists of a pollution charge of up to \$1,000 to be added to parking permit fees for more polluting vehicles 2023 or newer, as well as a \$45 overnight parking permit for residential streets in the City that are currently unregulated, which would be reduced to \$5 for people with low incomes.

An analysis of the feasibility and implications of removing the City's regulatory minimum parking requirements for new developments will be brought back to Council at a later date.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

The Street and Traffic By-law regulates the use of the street, including on-street parking and residential parking permits, including prices of permits.

The Climate Emergency Action Plan (CEAP) adopted by Council in November 2020 directs staff to bring forward recommendations in 2021 aimed at:

- implementing a pollution charge on moderate to high emission new vehicles to encourage decisions to choose low or zero emission vehicles;
- eliminating parking minimums in new developments city-wide; and
- introducing a parking permit city-wide to help fund climate emergency response and enable implementation of the pollution charge.

The relevant Council direction from the CEAP is attached in Appendix A.

CITY MANAGER'S COMMENTS

In 2019, Council declared a climate emergency and directed City staff to develop a plan to address it. The Climate Emergency Action Plan (CEAP), adopted by Council in 2020, contained a suite of actions which would reduce Vancouver's carbon emissions by 50% over 2007 levels.

This reduction is intended to help Vancouver contribute its fair share in the global effort to limit warming to 1.5 degrees C.

The program proposed in this report leverages the City's extremely limited jurisdiction and tools to impact emissions and will make a meaningful impact on emissions within Vancouver. The program would also provide equitable funding for Council to allocate towards implementing other actions within the CEAP. Without question, the City's climate goals will not be achieved without significant investment and, absent other revenues, would be solely dependent on senior government transfers or increases and/or reallocation of property tax.

Of note, a citywide overnight parking permit would also provide a necessary tool to manage parking impacts should Council decide to remove regulatory minimum parking requirements for new developments, as an overnight permit would be an important mechanism for managing on-street parking demand. Staff will be bringing an analysis of the feasibility and implications of removing minimum parking requirements to Council at a later date.

As such, the City Manager recommends approval of the recommendations within this report.

REPORT

Background/Context

In November 2020, City Council directed staff to explore a citywide residential parking program with a pollution surcharge as part of the Climate Emergency Action Plan, which aims to reduce carbon pollution in the city by 50% by 2030. Transportation currently accounts for about 39% of emissions in Vancouver.

The Climate Emergency Action Plan (CEAP) directs staff to bring forward recommendations in 2021 aimed at:

- implementing a pollution charge on moderate to high emission new vehicles to encourage decisions to choose low or zero emission vehicles;
- eliminating parking minimums in new developments city-wide; and,
- introducing a parking permit system citywide to help fund climate emergency response and enable implementation of the pollution charge.

Council direction is attached in Appendix A.

Strategic Analysis

As a result of the Council direction above, staff undertook research, analysis, and public engagement to develop the Climate Emergency Parking Program (CEPP).

The proposed CEPP is intended to:

- encourage people who are purchasing new vehicles to choose lower carbon options;
- reduce carbon pollution; and

- help fund the City's climate emergency actions planned under the Climate Emergency Action Plan.

It is also intended to set the stage for a more responsive parking system as the city densifies and demand for on-street parking increases.

In particular, Council has also directed staff to bring forward recommendations to eliminate minimum parking requirements in new buildings. The citywide overnight residential parking permit is a tool that will help manage residential streets if the elimination of parking requirements results in increased pressures on on-street street space due to parking demand exceeding parking supply in newer buildings.

To achieve these goals, staff recommend that the following two initiatives are implemented:

- An annual pollution charge on more polluting vehicles (model year 2023 or newer) that would be added to the cost of annual parking permits (annual pollution charge); and
- A new overnight (midnight-7am) residential parking permit that would apply to residential streets in the city that do not already require permits. This new overnight residential parking permit area would allow the pollution charge to be implemented across the entire city, not just in existing permit zones (overnight parking permit)

Annual Pollution Charge

Staff worked with Navius Research, a Vancouver-based climate and energy policy modelling firm, to forecast how different pollution charges would impact vehicle purchasing decisions. The forecasts account for consumer demand for EVs and the impact of policies that will increase the supply and/or demand for EVs (e.g. BC's Zero Emissions Vehicle Standard).

Using this information, in combination with the data on the types of vehicles in Vancouver and information gathered through engagement, staff recommend annual pollution charges based upon carbon dioxide (CO₂) emissions shown in Table 1.

Table 1 - Recommended Annual Pollution Charges

Category	Emissions Range (g CO ₂ /km) ¹	Annual Pollution Charge	Vehicle Types	Examples
Exempt		\$0	<ul style="list-style-type: none"> • All model year 2022 and older vehicles • Specialized vehicles for wheelchairs 	All vehicles that people already own today
Tier 1	Less than 200	\$0	Electric & low-polluting new vehicles	Electric vehicles, hybrids, most economy vehicles <i>(model year 2023 or newer)</i>
Tier 2	200 to 225	\$500	Moderately-polluting new vehicles	Most gas-powered sporty sedans, more efficient small SUVs <i>(model year 2023 or newer)</i>
Tier 3	More than 225	\$1,000	High-polluting new vehicles	Most gas-powered luxury sports cars, large SUVs, full-size pickup trucks <i>(model year 2023 or newer)</i>

¹A vehicle's emissions can be determined by the publicly available dataset published by National Resources Canada

Annual pollution charges are recommended to be applied to existing residential parking permits as well as permits for the new overnight residential parking permit zone described within this report.

The CEAP originally proposed that the annual pollution charge apply to vehicles with model year 2022 and newer. However, since some 2022 vehicles are already available for purchase, staff recommend starting the annual pollution charge with 2023 model year vehicles so as not to potentially impose a significant new fee on someone who has just purchased a 2022 vehicle.

More detailed information on the annual pollution charge can be found in Appendix B.

If approved by Council, annual pollution charges for vehicles with model year 2023 and newer would come into effect on January 1, 2022. Further details of the proposed roll-out can be found in Appendix E.

Overnight Residential Parking Permit

Currently, approximately 10% of Vancouver streets are regulated for permit parking. In order to enable the pollution charge to be fairly applied across the city, staff recommend the implementation of overnight residential permit parking requirements in all residential neighbourhoods. Specifically, staff recommend implementing permit parking on all streets that have residential uses on the block and no other posted regulations. Areas without residential uses (e.g. industrial areas like the False Creek Flats), or areas that have any other posted regulation valid at any other time (e.g. streets with metered parking or time limits) would not be subject to the permit regulation.

Through the first phase of the engagement process, staff heard concerns about how a new permit regulation would impact visitors. Additionally, many residents indicated that their area did not experience parking issues. To address this feedback, and still meet the goals of the CEPP, staff proposed in the second phase of engagement that the new permit regulation only be in effect between 10 p.m. and 7 a.m. Following feedback received during this round of engagement, staff recommend having the new permit regulation only be in effect between 12 a.m. and 7 a.m..

Given that the majority of areas impacted by the new permit regulation (the overnight residential parking permit) are lower density, staff recommend setting the fee for the overnight residential parking permit to be equivalent to the lowest price residential permits in the city today, \$43.29 plus GST/year (\$45.45/year). To ensure that this is not a burden to people with low incomes, staff are recommending a reduction in price for low-income households to \$5 plus GST/year.

To maintain the integrity and enforceability of the overnight residential parking permit regulations, overnight visitor parking permits will be required. Unlike existing permit zones that are often put in place to address parking spillover from commercial or institutional areas into residential neighbourhoods, staff do not expect similar issues in the overnight period. For that reason, it is recommended that the overnight visitor parking permits be issued without

verification. To ensure that overnight visitor permits are not used to circumvent the highest level of pollution charge¹, staff recommend a price of \$3 plus GST/night.

The costs of the annual overnight residential parking permit and overnight visitor permit are shown below in Table 2.

Table 2 – Overnight Residential Permit Costs

Overnight Residential Permit Element	Cost
Annual permit for residents	\$43.29 plus GST / year
Annual permit for low-income households	\$5 plus GST/ year
Overnight Visitor Permit	\$3 plus GST / night

Like the Residential Parking Permits offered by the City today, the overnight residential parking permit would be available for purchase online, on the phone through 311, or in person. Overnight visitor permits, however, would be simpler to purchase than today and would be available using PaybyPhone, or for those who do not have access to that service, by using coins or credit card at pay stations located in easily accessible locations throughout the city.

It is recommended that fines for non-compliance with the overnight residential parking permit match the current fine structure for non-compliance with Residential Permit Parking requirements today: \$100 per infraction with a 40% discount possible for early payment.

More detailed information on the overnight residential parking permit can be found in Appendix C.

If approved by Council, overnight residential parking permit are expected to be offered for sale starting in January 2022 and required, in a staggered manner, starting at the end of February 2022. Further details of the proposed roll-out can be found in Appendix E.

Equity Overview and Considerations

Equity is a key consideration of the Climate Emergency Action Plan. It strives to make low-cost sustainable transportation options easy, safe and reliable, so that people can get to their destination without needing to rely on gas and diesel vehicles, and seeks to share the costs of reducing our carbon pollution in ways that reflect people's ability to contribute to that transition.

Over a quarter of Vancouver households do not own a motor vehicle, including almost half of households earning less than \$50,000 per year. For these households, the CEPP would have little to no direct financial impact. Indirectly, it would help deliver actions to improve low-cost transportation options such as walking, cycling, transit, and shared mobility. It would also have affordability benefits for some households by reducing the need to drive or own a motor vehicle.

Impacts would vary for people who own motor vehicles. The overnight residential parking permit base fee would apply to anyone who owns a vehicle and parks on the street overnight between midnight and 7a.m. However, the pollution charge would not apply to any vehicles people already own, as it is meant to influence purchasing behaviour in the future.

¹ Charging minimum \$3/night is necessary to ensure that parking as a visitor for 365 days in a year is higher than a maximum annual pollution charge (i.e. \$3 x 365 days is \$1,095, which is higher than maximum annual pollution charge of \$1,000)

For individuals buying vehicles in the future (model year 2023 or newer), the annual pollution charge would vary depending on vehicle emissions. The proposed rate tiers have been set to ensure that most economy vehicles would fall under the \$0 pollution charge tier, including many models suitable for families.

Staff recognize that individuals with off-street parking options would be able to avoid both the Pollution Charge as well as the overnight residential parking permit. However the program would still create an incentive for people with off-street parking to choose lower-polluting vehicles, as the on-street permits have a convenience value, and the annual pollution charge could impact future vehicle resale value. Furthermore, should individuals only choose to park off-street, it would still have a positive result by freeing up street space for other vehicles or public uses.

Annual Pollution Charge Exemptions

The number of vehicle types that can be modified to serve people with disabilities is limited. For this reason, staff recommend an annual pollution charge exemption for vehicles modified to accommodate wheelchairs or other mobility devices for people with disabilities.

Through the engagement process, there were suggestions that large work vehicles be exempt from the annual pollution charge; however staff do not recommend exemptions for these vehicles, given the emerging availability of zero-emission vehicles in this category. A more detailed examination of impacts on vehicles used for work can be found in Appendix F.

Overnight Residential Parking Permit Exemptions

Through the engagement process, a common concern raised by the public related to the impact of this program on people with low income and renters.

The cost of the overnight residential parking permit, \$43.29 plus GST per year, is a small fraction of the overall annual costs associated with owning and operating a vehicle, which, not including depreciation of the vehicle, typically exceeds \$3,000/year. The overnight residential parking permit cost of \$45/year, equivalent to \$3.75 per month, represents a small fraction of costs of forms of transportation; for example, a one-year Mobi bike share membership costs \$129, and a year of monthly 1-zone transit passes costs \$1,200. Because of this, it is not expected that the fee of \$43.29 plus GST would present an affordability issue to middle- and high-income households.

On the other hand, staff are cognizant of the economic challenges facing many of Vancouver's low-income residents; one of the most common concerns heard through the engagement process was the impact that the CEPP would have on affordability. To mitigate the impact of the CEPP on low-income households, staff are recommending a discounted rate of \$5 plus GST/year (\$5.25/year).

Similar to the West End Parking Strategy, the recommended method of determining a household's income status would be to follow the requirements of the Park Board Leisure Access Program. There are several ways that households can qualify for this program including: receiving income assistance from the Province; supporting a child with a disability; and/or, based upon household income and size (e.g. a family with four people and a net income less than \$51,000/year qualifies, a one-person household with a net income below \$26,000 qualifies).

To ensure that this discount is easily accessed by those that need it, it would be administered using a self-declaration process and audited on an as-needed basis to ensure compliance. The auditing process would be as low-barrier as possible and consistent with the Freedom of Information and Protection of Privacy Act to ensure the dignity of people applying, while mitigating the risk of abuse of the system. Staff are anticipating about 5-10% of all households in Vancouver will use this discount.

Through the engagement process, staff also received detailed feedback related to supportive housing and care homes that require employees on-site to provide 24-hour care. Facilities that provide these types of services are often deeply embedded within residential areas.

Recognizing that the late night period often has fewer transportation options available, staff recommend that late-night home care workers and care providers be allowed to purchase an overnight residential parking permit. These home care workers and care providers would also be eligible for a discounted low-income rate if they qualify based on their household income.

Staff are also mindful of the fact that the implementation of this program may impact individuals that live in their vehicles. If approved by Council, staff would strive to use this program to better direct individuals living in their vehicles to the various homelessness services that the City provides.

Setting the Stage for Future Parking, Transportation and Street Use Improvements

Streets are critically important in serving transportation and public space needs, and are a key part of our urban ecosystem. Today, nearly a third of Vancouver's street space is dedicated to parking. As Vancouver continues to grow, so will the pressure on this fixed amount of space. This pressure will not only come in the form of increased parking demand, but also space to socialize, rest, and play.

Although the recommended CEPP is focused on the overnight period, it would provide a foundation for future parking improvements. Data from the program would be used to help staff make informed decisions about how parking can be reallocated to other uses, such as parklets or active transportation infrastructure, or help determine how new parking regulations could be put in place to make it easier for residents, visitors, and service providers to find parking on the street.

The recommended CEPP will also help support the CEAP direction to eliminate off-street parking requirements (while still requiring visitor and accessible spaces for people with disabilities). The ability to effectively manage on-street parking in all areas of the city is key to mitigating the potential parking spillover impacts of this action. This in turn can help unlock the carbon reductions in construction, transportation demand management benefits, and potential affordability benefits associated with this action.

Public/Civic Agency Input

A detailed engagement report is included in Appendix D; a high level summary is provided below.

Overview of Engagement Approach

The City of Vancouver conducted a two-phased engagement process on the Climate Emergency Parking Program.

The idea of a citywide parking program with a pollution surcharge was vetted with the public and stakeholders at a high level as part of the Climate Emergency Action Plan engagement process that took place in 2020, which supported its inclusion in the suite of actions recommended in the Plan and approved by Council.

Focused public and stakeholder engagement began shortly after approval of the Climate Emergency Action Plan, and included:

- **Ongoing stakeholder engagement** including online discussions, presentations, and workshops with citizen advisory bodies and other key groups representing transportation, equity, climate change, seniors, people with disabilities, industry, and other key areas
- **A two-phase public engagement process** including online information and surveys for the public to share their experiences, perspectives, and concerns

The two phases of public engagement are described below.

1. **Phase 1 (January 27 – March 1, 2021)** gathered feedback on how residential parking functions within Vancouver today, providing the public with an opportunity to share information about their own behaviour, experiences, and concerns as they relate to parking. This input helped shape a detailed proposal for Phase 2.
2. **Phase 2 (June 14 – July 5, 2021)** gave the public an opportunity to review and comment on a more detailed proposal. Feedback was used to help refine the program components recommended in this report.

The engagement strategy included a variety of public survey tools:

- **Talk Vancouver surveys** were used in both phases to give interested members of the public an opportunity to share ideas, concerns, experiences, and opinions. The survey was open to all members of the public, including residents and non-residents.
- **Market research surveys** conducted by Sentis were used in Phase 2, to better understand attitudes from a demographically-representative sample of Vancouverites. This included an initial survey with identical questions as the Phase 2 Talk Vancouver survey, and a follow-up survey to clarify program details and test potential modifications.

The Talk Vancouver surveys had very high response rates from the public, with over 12,000 surveys completed in Phase 1, and almost 19,000 surveys completed in Phase 2.

In both Talk Vancouver surveys, there was over-representation of survey responses from homeowners, lower density housing types, households with high vehicle ownership, and people who use a motor vehicle as their primary mode of transportation, as outlined in Table 3 below.

Table 3 - Over-representation from key demographics

	Survey Responses – Phase 1	Survey Responses – Phase 2	Actual Portion of City Households
single family housing	60%	61%	15%
ground-oriented housing	80%	73%	39%
homeowner	67%	67%	49%
car-free household	5%	5%	27%
motor vehicle as primary mode	69%	70%	46%

Summary of Phase 2 Engagement Results

Figure 1 below highlights high level results from the Talk Vancouver and market research surveys. The results indicate:

- Support for both program components (the overnight residential parking permit and the annual pollution charge) was lowest in the Talk Vancouver survey, which had a very high response rate, but significant overrepresentation from some groups as indicated in Table 3
- Support for the proposed program was significantly higher in the initial market research survey, which asked the same questions using a demographically-representative methodology
- For both the Talk Vancouver and initial market research survey, the most commonly-cited reasons for not supporting program focused on affordability and fairness (particularly to low-income households, renters, and contractors requiring large vehicles)
- A significant number of comments indicated common misperceptions about the program, e.g. assuming that existing vehicles would be subject to the annual pollution charge, and/or that only very expensive vehicles would fall under the \$0 pollution tier
- Support increased further in the market research follow-up survey, which (a) clarified aspects of the proposal that were commonly misunderstood in the initial surveys, and (b) tested potential program modifications
- There was more support for the pollution charge component compared to the new overnight permit zone component across all surveys

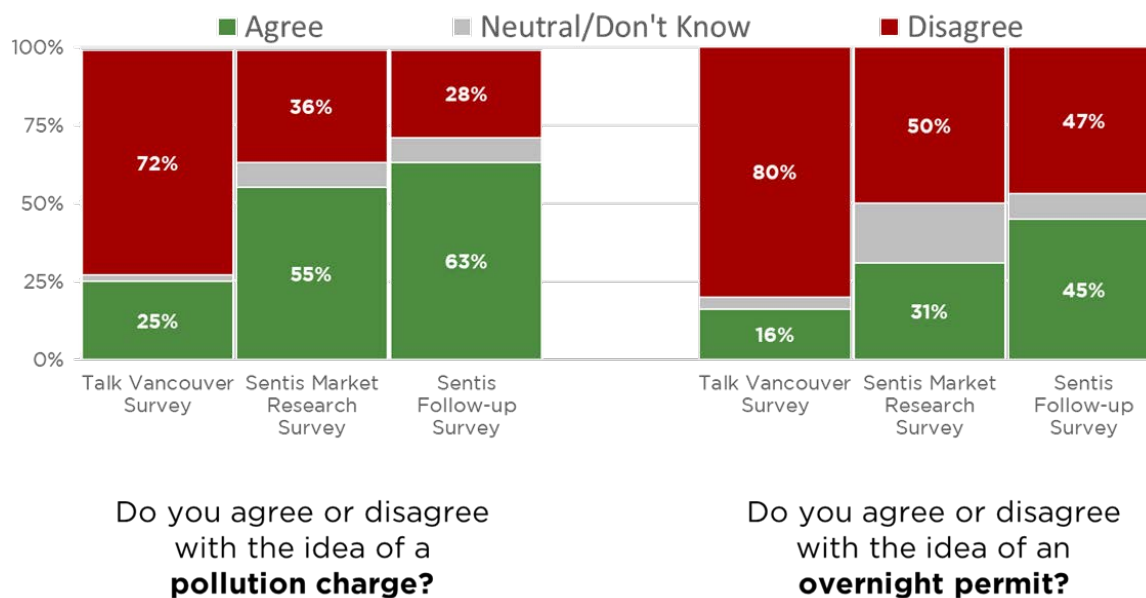


Figure 1 – Support for Program Components: comparing survey results²

Survey responses were further analyzed by a number of criteria (see Figure 2 and Figure 3 below). Across all three surveys, this analysis revealed relatively higher levels of support from:

- Renters (compared to homeowners)
- People living in higher-density housing (compared to ground-oriented housing)
- Households that do not own a motor vehicle

² Talk Vancouver survey results based on 18,923 responses. Market research results based on 521 demographically-representative responses (administered by Sentis on behalf of the City). Follow-up survey was sent to respondents from initial Sentis survey, with a total of 390 responses.

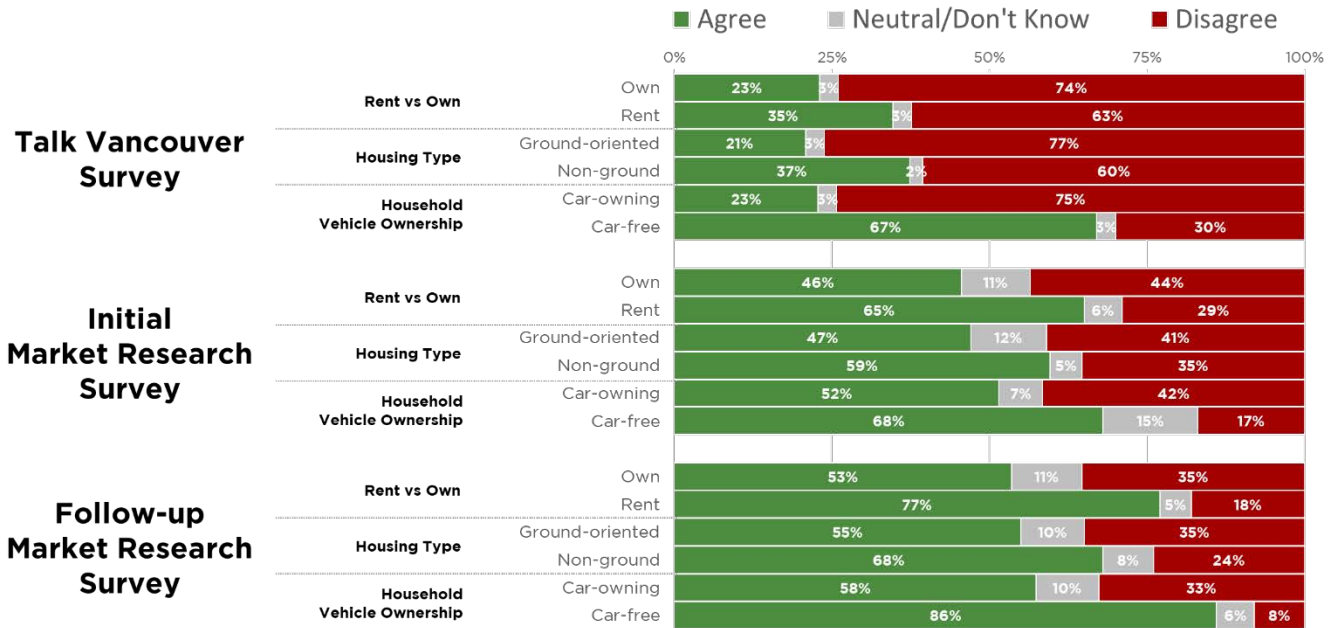


Figure 2 - Support for annual pollution charge, analyzed by various factors³

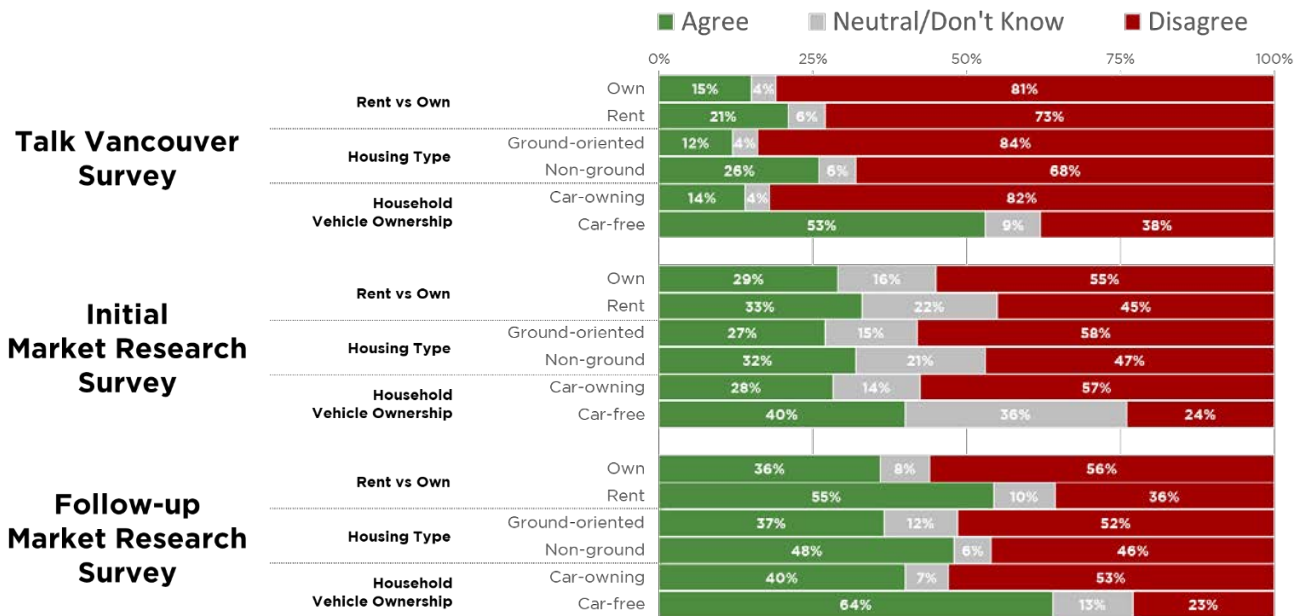


Figure 3 - Support for new overnight residential parking permit, analyzed by various factors⁴

³ Talk Vancouver survey results based on 18,923 total responses, including: 5,076 'Rent/Other' responses (where 'other' includes co-op, unsheltered, or write-in responses), 12,598 'Own' responses, 13,313 'Ground-oriented' responses, 4,951 'Non-ground-oriented' responses, 971 'Car-free household' responses, and 17,953 'car-owning household' responses. Initial market research survey administered by Sentis and based on 521 demographically representative responses. Follow-up survey administered by Sentis and based on 390 demographically representative responses, from same cohort as initial market research survey.

⁴ Ibid

The market research follow-up survey also asked about support for the program as a whole, after clarifying program details. Results are shown in Figure 4, indicating:

- 52% support for the program as a whole (37% opposed)
- Higher levels of support among renters, people living in higher density housing, and households that do not own a motor vehicle.

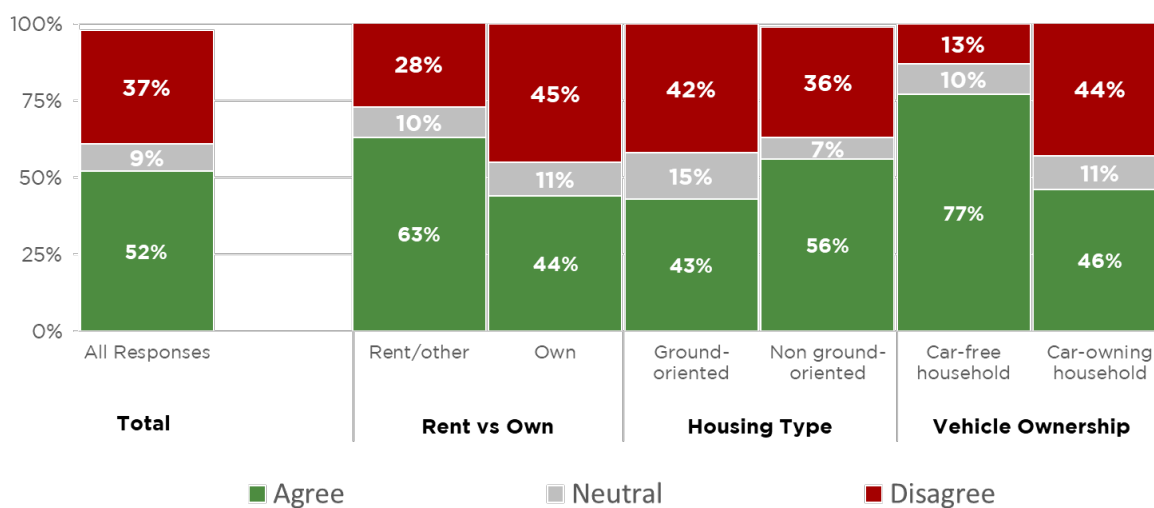


Figure 4 - Support for overall Climate Emergency Parking Program (follow-up survey)⁵

Additional findings from the follow-up market research survey included respondents:

- Like the idea of reducing the overnight residential parking permit base fee for low-income households (from the proposed \$45 per year)—*recommended in this report*
- Like the idea of reducing the time the new overnight permit zone would be in effect, from the original 10 pm-7am to midnight-7am—*recommended in this report*
- Do not like the idea of reducing the overnight fee for visitors (from the proposed \$3 per night)
- Like the idea of using revenue to fund climate actions—*recommended in this report*

Engagement methodology and results are discussed in greater detail in Appendix D.

⁵ Sentis follow-up survey, based on 390 demographically representative responses. The question was posed as follows: "Alright, now that we've clarified some details and if the discussed modifications were made, do you agree or disagree with the idea of a Climate Emergency Parking Program?"

Responding to Common Concerns

Table 4 below summarizes how the recommendations respond to common concerns heard through both phases of engagement.

Table 4 – Responding to concerns

Concern	Response
<p>Affordability General concern about the city being too unaffordable and this program requiring additional fees</p>	<ul style="list-style-type: none"> • Staff recommend that any existing vehicles people currently own be exempt from the annual pollution charge • Staff reviewed the tiered system proposed for the annual pollution charge to ensure that affordable and family-friendly vehicle options would be available in Tier 1 which has \$0 annual pollution charge • Staff recommend a discounted rate for the overnight residential permit for low-income households
<p>Concern about the City collecting incremental revenue / how these revenues would be used General sentiment that any new fee is unfair / revenue would be wasted</p>	<ul style="list-style-type: none"> • Revenue generated through the CEPP would go towards implementing investments planned for as part of CEAP. The proposed projects range from additional transit priority to adding electric vehicle charging stations, planting more trees and converting building heat and hot water systems to more sustainable methods. All of these are required to meet CEAP targets • Staff considered various revenue engagement opportunities discussed further in the report
<p>Ease of use visitor parking Some concerns that the system would be complicated, and/or that visitors and service providers wouldn't be able to park</p>	<ul style="list-style-type: none"> • The recommended CEPP would only be in effect from midnight to 7am, so daytime visitors and service providers would be unaffected • Residents with a permit could park anywhere in the overnight residential parking permit zone • Visitors without a permit would be able to park overnight for \$3/night • Staff recommend a simple visitor system where visitors could purchase the overnight passes through a cellphone app or at a neighbourhood pay station
<p>Concern that program would disproportionately affect various groups Renters and others who don't have access to off-street parking options; people who need large vehicles for work purposes (e.g. contractors)</p>	<ul style="list-style-type: none"> • Both surveys and stakeholder engagement processes have indicated higher support from renters compared to owners. In addition, over 50% of renters live in high-density areas where parking permits of \$45 are already implemented. Renters in low-income households would be considered through the potential low-income permit exemption discussed further in the report • Any existing and model 2022 trucks would be exempt from the program and pollution charges. By 2023, a number of hybrid and electric trucks vans will be available, which would have a pollution charge of \$0 • Staff recommend that caregivers who require overnight access on a regular basis would be provided an option to purchase an annual overnight permit at \$45 rather than pay the nightly \$3 visitor pass

Implications/Related Issues/Risk

Financial

CEPP Revenues

Should Council adopt the recommended fee structure, the overnight residential parking permit and annual pollution charge would generate a total of \$44M to \$72M over four years starting 2022. This is equivalent to approximate 20% of the funding gap identified in the CEAP's financial framework (RTS 13199). Table 5 below shows the breakdown of the potential revenue generated by each of the two program components. Appendix G contains scenarios to highlight the impacts of adjusting the proposed rates.

CEPP Costs

The initial implementation and roll-out of the CEPP is estimated to cost \$1.7M, comprised of signage (53%), IT portal & pay stations (18%), communication (18%) and contingency; sources of funding to be \$0.6M approved by Council in the 2019-2022 Capital Plan Recalibration (RTS 13895) for the CEAP plus an additional \$1.1M to be funded from CEPP revenue.

Ongoing program administration is estimated to cost \$1M a year, comprised of staffing for Parking Management and Enforcement and Revenue Services (88%), pay station/pay by phone operation, and advertising; source of funding to be CEPP revenue.

Table 5 - Potential Gross Revenue Generation by CEPP Action, Before Consideration of Program Administration Costs

Action	Estimated Gross Revenue Generated Between 2022 and 2025 over four years	Estimated % of CEAP Funding gap up to 2025
Overnight Residential Permit	\$28M - \$40M	12 – 17%
Pollution Charge	\$16M – \$32M	7 – 14%
Total Incremental Revenues Generated	\$44M - \$72M	19 – 31%

Net revenue (gross revenue less costs) generated for the whole program is projected to be between \$40M - \$68M over the four years from 2022 to 2025.

Should Council approve the recommended CEPP and fee structure, the above costs and anticipated revenues would be incorporated in the 2022 budget to be considered by Council in December 2021.

Should Council decide to lower or not adopt the recommended fee structure, implementation of the CEAP will have to rely on senior government funding which is uncertain, reprioritize funding from other work, and/or raise property taxes.

Future Revenue Engagement and Use

Predictable funding sources are critical to deliver key actions necessary to meet the City's Climate Emergency goals. Consistent with Council direction, net revenue generated from the CEPP would fund various Climate Emergency initiatives outlined in the CEAP.

To give a sense of what could be accomplished with CEPP revenue, Table 6 below highlights a potential bundle of CEAP projects that could be funded by approximately \$60M in revenue.

Table 6 - Potential bundle of CEAP projects possible with \$60M of CEPP Revenue

Develop 20 km of bus priority projects to improve bus speed and reliability, which can not only make transit trips faster, but enable more service to be provided	Construct infrastructure and plant 1,000 Street trees in underserved neighbourhoods to provide tree canopy for improved air quality and temperature regulation
Construct on-street connectivity improvements surrounding two major rapid transit stations to encourage more transit use	Construct 4 km of green infrastructure on local streets to capture and clean rainwater
Install 25 new pedestrian signals to provide safer crossing opportunities that will encourage walking	Install 15 fast charging stations that provide easy public charging opportunities for hybrid and electric vehicles
Infill 100 missing curb ramps to improve accessibility and the walking experience for all	Install 500 Level II charging stations with an emphasis on rental buildings

To help inform how CEPP revenues should be invested within the context of the CEAP, staff recommend undertaking further consultation within the existing engagement processes as follows:

1. Annual Budget: staff would include specific questions related to this program in the City's annual budget engagement process
2. Capital Planning: staff would include specific questions related to this program in upcoming engagement for both long term capital planning and 2023-2026 Capital Plan. These processes (both scheduled for 2022) would be another opportunity to engage with the public regarding priority investments under the CEAP

Human Resources/Labour Relations

The recommended CEPP will result in an increase in the City's parking permit system, requiring additional staff to administer permit sales and enforce regulations on the street.

Accordingly, staff are recommending that eight (8) FTE positions can be created for the sale of permits (six (6) operational support clerks (OSCIII), one (1) clerk (Clerk III) and one (1) supervisor (EAIV)) and three (3) FTE positions (two (2) enforcement officers and one (1) supervisor) be created for the enforcement of on-street regulations. Initially, for the start of the program, staff recommend that these eleven (11) new positions be created on a two-year temporary basis. After this initial two year period, RFT positions would be established based on the needs of the program going forward.

Environmental

The CEAP strives to reduce carbon pollution from transportation, buildings and waste by 1,382 kilotonnes below 2007⁶ levels.

Although the program is limited to on-street parking, modelling suggests that it shifts the uptake of electric vehicles from 10% of new purchases to 17% in 2023, and further in future years. This accounts for existing federal and provincial policy to support electric vehicles.

This shift in behaviour is estimated to achieve 7 to 14% of the 233 kt of carbon pollution reductions that the Climate Emergency Action Plan targets from the switch to electric vehicle and renewable fuels. In 2030, that would be between 17 to 33 kilotonnes less carbon pollution emitted from the cars and trucks on our roads. This is a scale of reduction on par with, or larger than other major City initiatives. It is equivalent to:

- 2 - 4x the amount of emissions reductions as the Zero Emissions Vancouver Building Bylaw requirements for low-rise new homes;
- 1 – 3x the amount of emissions reductions as the Vancouver Landfill RNG project;
- 3 – 6x the reductions from transitioning Vancouver's film sector off of diesel generators; or,
- Similar emissions reductions as the Creative Energy switch from natural gas to electric boilers.

Note that these forecasts depend on factors such as how frequently people purchase new vehicles, their willingness to choose an EV when they purchase a new vehicle, and their ability and choice to park off-street.

Impact on CEAP strategy

The City has funded climate-related work for a number of years now, including walking and cycling improvements, transit improvements, neighbourhood energy systems and green buildings, as examples. Additional funding is needed in order to scale up investment to achieve the City's 2030 target of cutting emissions by 50%.

The revenue generated by the CEPP could play a critical role in meeting this funding gap. Without this funding, addressing climate change will require additional funding from another source, such as property taxes.

Legal

In order to facilitate the recommended CEPP, a number of amendments to the Street and Traffic By-law and By-law Notice Enforcement By-law will be required. These amendments fall within the City's authority under section 317 of the Vancouver Charter and section 124 of the Motor Vehicle Act and are generally outlined in Appendix H and proposed to come into force on January 1, 2022.

⁶ 2007 has been used as a reference point to align with provincial benchmarks and the Climate Change Accountability Act enacted in 2007

Other**Climate Leadership**

Addressing the scale of the climate crisis is beyond what can be achieved through the City of Vancouver's jurisdiction and is not limited to our geographic boundaries. Fortunately, the influence of the City of Vancouver's actions is not limited to its boundaries as evidenced by successful initiatives such as the Zero Emissions Building Plan. Should Council approve the recommended CEPP, it would be the first program of its kind in British Columbia and could potentially inspire other jurisdictions or more senior levels of government to pursue similar programs. If a pollution charge similar to CEPP was applied province-wide, the estimated 2030 reductions would be about 530 kilotonnes of carbon pollution, which would represent about 5% of the additional reductions British Columbia needs to meet its 2030 target.

Actions by Other Levels of Government

Federal and provincial governments have existing programs promoting conversion to zero-emissions vehicles. The GHG reductions projected as a result of this project is incremental to impact of the above programs and includes consideration for existing policies in place.

CONCLUSION

This report outlines staff recommendations for the implementation of the Climate Emergency Parking Program, based on analysis and engagement. If approved, the program will accelerate the shift to low-polluting vehicles in Vancouver, reduce GHGs and air pollution and help fund climate emergency actions.

* * * * *

Appendix A – Council Direction from Climate Emergency Action Plan

Recommendations from report dated October 22, 2020:

G. THAT Council direct staff to bring forward recommendations in 2021 aimed at eliminating off-street motor vehicle parking requirement minimums, except for spaces required for accessibility, implementing parking maximums, and further supporting sustainable transportation choices in new developments in accordance with Appendix E

FURTHER THAT Council direct staff to bring forward recommendations in 2021 to transition toward managing all curbside space, including an on-street parking permit system city-wide to support the elimination of parking requirements in buildings and better manage parking within neighbourhoods, and to support the introduction of carbon pollution surcharges for vehicles in accordance with Appendix F

H. THAT Council direct staff to bring forward recommendations in 2021 to apply a residential parking permit surcharge for vehicle model years 2022 and later with the surcharge price accounting for the vehicle's carbon intensity and cost in accordance with Appendix F

Appendix B – Proposed Citywide Vehicle Annual Pollution Charge Methodological Details

The proposed annual pollution charge would be added to the proposed overnight residential parking permit and existing permit programs. The annual pollution charge would:

- Apply to all existing and future permit zones
- Only apply to vehicles with model year 2023 or newer
- Not apply to specialized vehicles for people with disabilities

This solution is proposed as while the transition to low-polluting or zero emission vehicles is ongoing in British Columbia, one of the leading jurisdictions in North America for the EV uptake, the transition is not happening fast enough to meet the targets set by Council in the CEAP.

A key direction shaping the policy is to encourage people buying new vehicles to choose clean options—without incentivizing new purchases, or placing extra burdens on people for vehicles they already own. The 2023 model year is proposed as a ‘cut-off’ to ensure the annual pollution charge would only apply to purchases made after the new policy comes into effect.

Staff had originally considered application of the annual pollution charge to model year 2022 in part because it results in a larger reduction in emissions than the 2023 model cars option (25-37kt versus 22-33kt by 2030 respectively). However it was noted that select 2022 models are currently available for purchase on the market whereby residents are making vehicle purchasing choices without knowledge of the pollution charge. It is estimated that up to 400 people who may have purchased a 2022 model vehicle before October 2021 and would be impacted by the Pollution Charge if it applied to 2022 vehicles.

The rates proposed for the annual pollution charge are provided in Table 1 below. The three tiers are set according to the amount of pollution a vehicle produces per kilometre driven.

Table 1 - Pollution Charge rates

Category	Annual Pollution Charge	Vehicle Types	Examples
Exempt	\$0	<ul style="list-style-type: none"> • All 2022 and older vehicles • Specialized vehicles for wheelchairs 	All vehicles that people already own today
Tier 1 (<200 g CO ₂ /km)	\$0	Electric & low-polluting new vehicles	Electric vehicles, hybrids, most economy vehicles (model year 2023 or newer)
Tier 2 (200 – 225 g CO ₂ /km)	\$500	Moderately-polluting new vehicles	Most gas-powered sporty sedans, more efficient small SUVs (model year 2023 or newer)
Tier 3 (>225 g CO ₂ /km)	\$1,000	High-polluting new vehicles	Most gas-powered luxury sports cars, large SUVs, full-size pickup trucks (model year 2023 or newer)

The following should be noted regarding the tiers proposed above:

- **Tier 1 (\$0)** includes both zero-emission and low-polluting vehicles, which do not have to be qualified as “hybrid”. Many vehicles in this tier are suitable for families with sufficient

passenger and carrying capacity. Some examples of current models⁷ in this tier include the Ford Escape, Toyota RAV4, Volkswagen Golf, Honda Civic, and Chevrolet Malibu.

- **Tiers 2 (\$500) and 3 (\$1,000):** as of the 2023 model year, essentially all types of vehicles found in Tier 2 and 3 have low-polluting or zero emission options that fall into Tier 1, so people choosing a new vehicle could select a lower-emitting option to avoid paying the pollution charge. High-polluting vehicles like most large gas-and diesel-powered SUVs and full-size pick-up trucks fall into Tier 3, which has the highest pollution charge.

Staff worked with Navius Research, a Vancouver-based climate and energy policy modelling firm, to forecast how different pollution charges would impact vehicle purchasing decisions. The forecasts account for consumer demand for EVs and the impact of policies that will increase the supply and/or demand for EVs (e.g. BC’s Zero Emissions Vehicle Standard). Staff combined that information with data on the types of vehicles in Vancouver and information on where those vehicles park to produce the carbon pollution and revenue forecasts in this document. These forecasts are uncertain and depend on factors such as how frequently people purchase new vehicles, their willingness to choose an EV when they purchase a new vehicle, and their ability to park off-street.

In addition, staff performed an affordability analysis, and noted that for many vehicles⁸ CO2 emissions appear to correlate with the vehicle cost, with high-polluting vehicles generally costing more (see Figure 1 below). This report provides further details on additional equity considerations in chapter “Equity Overview and Considerations”.

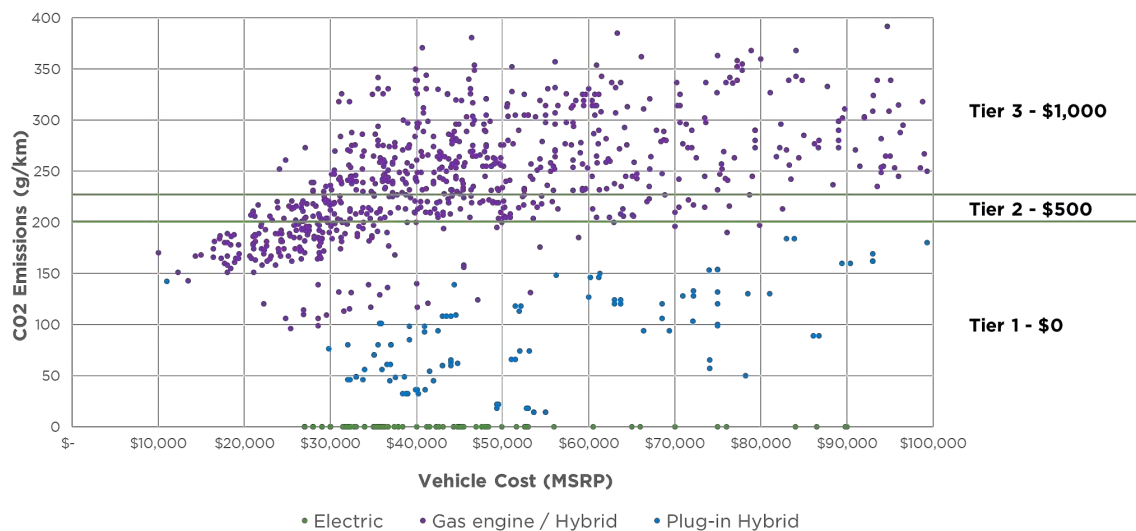


Figure 1 – Correlation of CO2 and Vehicle Cost

The tier system proposed is tied to the national database for vehicle emissions intensities, and is adaptable to be able to respond to future changes in the vehicle emissions levels.

⁷ Based on emissions of current models

⁸ Based on emissions for 2021 models. Annual pollution charge would only apply to future vehicles starting with model year 2023. Rates for all models available online: <https://fcr-ccc.nrcan-rncan.gc.ca/en>

Appendix C – Proposed Overnight Residential Parking Permit Methodological Details

Currently, approximately 10% of Vancouver streets are regulated for permit parking. Permits in Vancouver's existing residential zones cost between about \$45 and \$400 annually, depending on location, which is equal to about \$3.75 to \$33 per month. Fees are generally higher in more dense parts of the city where parking issues are more significant. In the West End (the most expensive zone at ~\$400 per year), a lower cost non-market rate of ~\$90 per year is available to low-income households. To help manage demand, permit sales are limited to two per household in some locations.

Figure 1 below shows the areas in Vancouver that currently require residential parking permits.

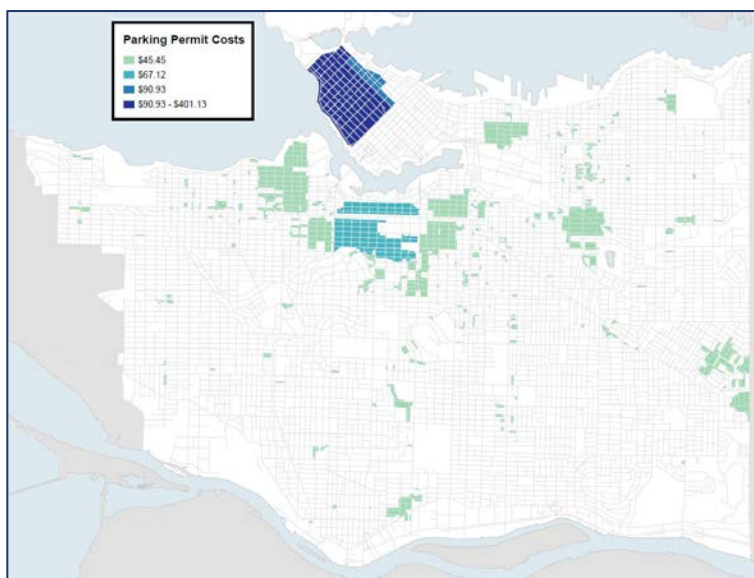


Figure 1 – City of Vancouver Permit Zones

A new 'overnight only' zone would cover the residential streets that are currently unregulated and would:

- Enable the pollution charge to be fairly applied across the entire city
- Provide a long-term solution to allow effective street and parking management as the city grows
- Provide a reliable source of funding for climate emergency initiatives

The proposed approach would apply in the following manner:

- **Vancouver residents:** Annual permits only required for residents who park on the street overnight (12am - 7am). Base fee: \$45 per year⁹, \$5 per year for low-income households
- **Daytime visitors** would be able to park anywhere within the new overnight zone between 7am and 12am without fees. No changes to the current parking rules are proposed
- **Overnight visitors** would be able to park anywhere within the new overnight zone between 12am and 7am and pay \$3/night. The payment would be taken using a phone app or at a neighbourhood pay station

Where there is high demand for street space, from a parking management perspective, it is helpful when permits are priced comparably to off-street parking. This encourages people to park off-street when they have that option, freeing up street space for people who need it—including service providers, visitors, and residents who do not have off-street options. In locations where demand for parking is high and prices are too low, parking can be very difficult to find.

The cost of off-street parking varies. It is often bundled into the cost of housing, i.e. people pay for it as part of their rent or mortgage—whether or not they use it. This can make it difficult to measure or even understand.

Calibrating Proposed New Fees

Survey responses from the first phase of public engagement suggest most people who rent off-street parking separately from housing pay between \$25 and \$100 monthly, which is equal to \$300 and \$1,200 annually (see Figure 2 below).

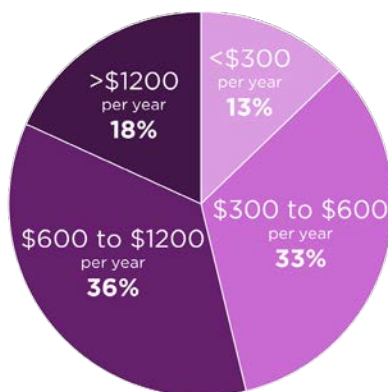


Figure 2 - Cost to rent an off-street parking space in Vancouver (Phase 1 survey results)¹⁰

⁹ Plus pollution charge, if applicable. \$45 per year (equal to \$3.75 per month) is the same as the lowest existing permit zone fees in the city.

¹⁰ Source: City of Vancouver Phase 1 survey on citywide parking permits. Based on 781 responses from people indicating they pay for parking separately from the cost of housing. Not including 1,708 responses from people indicating they own their parking space, 565 responses indicating it is included with their rent, or 113 responses indicating 'don't know.'

Parking construction costs can also give a sense of off-street value, since the costs are passed along when people buy or rent a home. A single parking space can cost \$40,000 to \$80,000 to construct, with cost varying depending on factors such as land value, site constraints, and how many underground levels are required.

In addition, when determining the appropriate cost for the overnight residential parking permit, the City staff performed a benchmarking analysis against other jurisdictions. It was found that permit rates vary from one city to another. Rates in some other jurisdictions are highlighted in Table 1 below. In some locations, discounted rates may be available to low income households and/or people with disabilities that impact their mobility.

Table 1 - Residential permit rates in various cities, 2021.

City	Annual permit cost	Factors impacting cost
Toronto ¹¹	\$233 to \$1,019	<ul style="list-style-type: none"> • Number of permits bought • Household access to off-street parking
Montreal ¹²	\$11.50 to \$264	<ul style="list-style-type: none"> • Vehicle emissions • Location
Calgary ¹³	\$0 to \$57	<ul style="list-style-type: none"> • Number of permits bought • Location
Sydney Australia ¹⁴	\$41 to \$242	<ul style="list-style-type: none"> • Number of permits bought • Vehicle emissions • Household access to off-street parking • Location

Other jurisdictions

Similar program examples can be found in Montreal and Sydney, Australia. The Montreal borough of Ville-Marie charges a higher parking permit rate when a vehicle's engine size is larger, because larger engines typically produce more carbon pollution than smaller ones. Montreal offers reduced rates for low-income residents. Quebec is second in Canada (behind BC) for EV adoption, much of which is concentrated within the City of Montreal.

Sydney, Australia charges for parking based on CO₂g/km rates. While EV adoption in Australia is behind Canada, Sydney has some of the highest EV adoption rates in Australia.

In Oslo and other Norwegian cities, municipal vehicle fees (e.g. parking, road tolls, and ferries) are mandated to be at least 50% lower for EVs than the fees for gas/diesel vehicles. Coupled with similar national policies, these pricing tools to encourage the transition to EVs has resulted in EVs accounting for 75% of new light duty vehicles in Norway.

¹¹ <https://www.toronto.ca/services-payments/streets-parking-transportation/applying-for-a-parking-permit/residential-on-street-parking/>

¹² <https://montreal.ca/en/how-to/get-residents-only-parking-sticker>

¹³ <https://www.calgaryparking.com/web/guest/parkingpermits>

¹⁴ <https://www.cityofsydney.nsw.gov.au/transport-parking/apply-residential-parking-permit>

The International Council on Clean Transportation indicates that “exemptions on parking fees or parking permits, charging an electric vehicle, road tolls, and congestion charges can be powerful instruments at the local level to supplement national policies to provide further cost advantages for electric vehicle drivers.” C40 supports this point by noting that many municipalities in the US, EU, and China provide discounts and preferences to park EVs.



Climate Emergency Parking Program

Phase 2 Engagement Summary

September 2021 | shapeyourcity.ca/parking

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Climate Emergency Parking Program

Phase 2 Engagement Summary

The City of Vancouver conducted a two-phased engagement process on the *Climate Emergency Parking Program*. This report provides an overview of the overall engagement approach, and summarizes feedback from the second phase of engagement.

More information about the program, including a summary of the first phase of engagement, is online at shapeyourcity.ca/parking.

Project Background

In November 2020, Vancouver City Council directed staff to explore a citywide residential parking program with a pollution surcharge as part of the [Climate Emergency Action Plan](#), which aims to reduce carbon pollution in the city 50% by 2030. Transportation currently accounts for about 40% of emissions in Vancouver.

The Climate Emergency Parking Program is intended to:

- Encourage people who are purchasing new vehicles to choose lower carbon options
- Reduce air and carbon pollution
- Help fund the City's climate emergency actions planned under the Climate Emergency Action Plan

It would also allow the City to respond more effectively to localized parking issues as Vancouver grows.

Overall Engagement Approach

The idea of a citywide parking program with a pollution surcharge was vetted with the public and stakeholders at a high level as part of the Climate Emergency Action Plan engagement process that took place in 2020, which supported its inclusion in the suite of actions approved by Council.

Focused public and stakeholder engagement began immediately following approval of the Climate Emergency Action Plan, and included:

- **Ongoing stakeholder engagement** including online discussions, presentations, and workshops with citizen advisory bodies and other key groups
- **A two-phase public engagement process** including online information and surveys for the public to share their experiences, perspectives, and concerns

The two phases of public engagement are described below.

1. **Phase 1 (January 27 – March 1, 2021)** gathered feedback on how residential parking functions within Vancouver today, providing the public with an opportunity to share information about their own behaviour, experiences, and concerns as they relate to parking. This input—together with the City's existing parking programs, detailed technical analysis, and best practices from other cities—helped shape a detailed proposal for Phase 2.
2. **Phase 2 (June 14 – July 5, 2021)** gave the public an opportunity to review and comment on a more detailed proposal. Feedback is being used to refine directions before going to Council for approval later this year.

Stakeholder Mapping

Virtually all people living in or visiting Vancouver would be impacted by this project in some way.

It would directly impact many people, including:

- Residents who own motor vehicles and park on the street
- Residents who receive visitors that own motor vehicles and park on the street
- People who visit residential areas in Vancouver by car (including residents, non-residents, and service providers)
- People who live in their motor vehicles in Vancouver

From a geographical perspective:

- Residents in areas that do not already have parking permit requirements would be particularly affected, especially if they own motor vehicles, since (a) they may need to purchase parking permits to continue current behaviour, and (b) it could affect how their visitors park
- Residents living in areas that already have parking permits or other curbside regulations may feel less impacted, since permits are already required to park on the street. However, they would also be affected since:
 - The program would result in the implementation of new pollution surcharges on existing permit zones
 - The proposed policies could inform longer-term changes to established zone areas
 - If they drive, they likely visit residential areas in non-regulated parts of the city, or know people who do

More broadly, all residents and visitors would be indirectly impacted by this project, even those who don't drive. This is because the policies are intended to provide broad benefits including:

- Improving air quality and reducing carbon pollution
- Funding other climate actions with benefits including improved walking, rolling, cycling, and transit infrastructure
- Making it easier to convert some road space from private vehicle storage to other uses with broad community benefits (e.g. green infrastructure, public space, improved walking and cycling, more shared mobility)
- Making it easier to receive visitors, including service providers (since permit programs can help free up curb space by encouraging more people to park off-street)

Given the project entails increased regulation and most likely new fees, groups and individuals concerned about affordability and equity may be particularly concerned.

Responding to Feedback from Phase 1

A summary of the first phase of engagement is available online at shapeyourcity.ca/parking. Table 1 below highlights ways that the Phase 2 proposal responded to common concerns.

Table 1. How the Phase 2 draft proposal responded to key issues raised during Phase 1

Feedback from Phase 1	Phase 2 Proposal Response
<p>1. Climate change concerns 90% of respondents concerned about climate change</p>	<ul style="list-style-type: none"> ▪ Would achieve about 10% of targeted emissions reductions relating to clean vehicles ▪ Would fund about 25% of Climate Emergency Action Plan needs-\$60M by 2025
<p>2. Affordability Impact on overall affordability in the city; impact to renters and low-income households</p>	<ul style="list-style-type: none"> ▪ New permit zone would have low base fee: \$45 per year (equivalent to \$3.75 per month) ▪ Pollution charge would not apply to vehicles people already own or vehicles specialized for people with disabilities ▪ Most vehicle types would have Tier 1 (\$0 pollution charge) options—including economy vehicles and vehicles suitable for families with children ▪ Climate Emergency Action Plan would improve lower-cost transportation options—almost 50% of households earning under \$50K do not have car ▪ Pricing parking supports more efficient street use, unlocking potential to convert some parking to other uses—30% of street space is dedicated to parking today
<p>3. Use of Revenue How will revenue be used?</p>	<ul style="list-style-type: none"> ▪ Revenue would support Climate Emergency Action Plan initiatives ▪ Revenue would improve walking/rolling/cycling/transit, electric vehicle charging infrastructure, green buildings
<p>4. Ease of use visitor parking Visitors and service providers, complex</p>	<ul style="list-style-type: none"> ▪ New zone would be overnight only to minimize impacts; permits would not be required between 7am and 10pm <i>[updated to between 7am and midnight after Phase 2]</i> ▪ Permits could be purchased online or in person ▪ Visitors could park anywhere in new zone ▪ Visitor overnight permit could be paid through PaybyPhone app or at pay stations located in each neighbourhood
<p>5. Lack of parking issues in some areas Introduction of new permit zone where people don't have parking issues</p>	<ul style="list-style-type: none"> ▪ New zone would be overnight only to minimize impacts, while still allowing for the pollution charge to be implemented citywide ▪ New system would help manage local parking issues as the population increases

Stakeholder Engagement

Tactics

City staff engaged with stakeholders on an ongoing basis, with feedback used to inform final recommendations to Council. Due to the pandemic, engagement methods were limited to online meetings and workshops.

Citizen Advisory Committees

As with Phase 1, staff met with citizen advisory committees representing transportation, seniors, persons with disabilities, and renters. A joint workshop with all of these groups together took place in late July, to allow for a deep discussion and sharing of ideas and concerns. Small group discussions focused on the draft proposal (what elements people liked or disliked and why), considerations to be mindful of as the proposal is refined (e.g. elements that could be improved, additional exemptions or pricing considerations), and considerations to be mindful of with regard to guiding investments made possible by the program.

Climate and Equity Working Group

Staff conducted a workshop with the newly formed Climate and Equity Working Group in mid-July. Discussion themes were similar to the Citizen Advisory Committee workshop, with a particular emphasis on climate and equity considerations.

Other stakeholders and governing bodies

As with Phase 1, staff reached out to a wide variety of stakeholders inviting further discussion, including groups representing local resident and business associations, transportation, sustainability, public space, affordability, and equity. Musqueam, Squamish, and Tsleil-waututh Nations were informed via the City's project referral process.

Throughout Summer 2021, staff held over a dozen Phase 2 stakeholder sessions with more than 140 participants (see *Table 2* below). Other groups not on the list

Table 2: Stakeholder groups engaged

Stakeholder Group	Phase 1	Phase 2
Citizen Advisory Committees – Virtual Presentation & Discussion		
Persons with Disabilities Advisory Committee (PDAC)	✓	✓
Renters Advisory Committee (RAC)	✓	✓
Seniors Advisory Committee (SAC)	✓	
Transportation Advisory Committee (TAC)	✓	✓
Virtual Workshops		
Joint Committee Advisory Workshop (PDAC, RAC, SAC, TAC)	✓	✓
Climate Emergency Workshop (all citizen advisory committees)	✓	
Equity and Climate Working Group		✓
Other stakeholders – Virtual Presentation & Discussion		
All BIAs (via citywide BIA partnership meeting)	✓	✓
SPARC BC	✓	✓
Developmental Disabilities Association	✓	
Climate Emergency Amplifier Network	✓	✓
Modo	✓	✓
New Car Dealers Association	✓	
Electric Mobility Canada	✓	✓
Electric Autonomy Canada		✓
Community Energy BC		✓
Province of BC		✓
BC Housing		✓
Real Estate Board of Greater Vancouver		✓
City of Burnaby		✓
Peer cities with pollution charges on parking permits (Sydney, Montreal)	✓	

What We Heard: Key Stakeholder Themes

Staff heard a diversity of opinions and ideas throughout the stakeholder discussions. Some common themes and discussion points are highlighted below.

General program design comments

- Consider impacts the program would have on different groups, including:
 - people with disabilities (not just those requiring modified vehicles)
 - families working different schedules
 - people living in vehicles
 - people co-owning vehicles who might live in different areas
 - service providers such as contractors and home healthcare workers
- Consider impacts to low income households, including
 - new fees that would affect affordability for those who drive and park on the street
 - benefits that would improve low-cost transportation options
- Consider how the program would work in areas that are primarily industrial but have some residential uses
- Recognize that the current system where about ~30% of road space is dedicated to private vehicle storage is not equitable, especially when considering other civic needs and how many households do not own a vehicle and cannot use this space
- Recognize importance of regulating on-street parking if City is to eliminate parking minimums from new development; otherwise developers may just push parking to the street
- Many commented on the importance of bold action to address the climate crisis, while a few suggested gradual implementation so people could get accustomed to changes
- General interest in understanding relationships between income, vehicle ownership, and parking on the street

Exemptions or reduced rates

- General support for already-proposed exemptions
 - Existing vehicles (since many people are not in a position to purchase or do not need a new vehicle)
 - Vehicles modified for people with disabilities (since there may be fewer options available for these types of vehicles)
- Diverse discussions on potential exemptions or reduced rates for low-income households
 - Renters living in secondary suites who own vehicles may be more likely to park on the street and *need* a permit, whereas homeowners are more likely to have garage access
 - However, renters are less likely to own vehicles overall, and most rental units tend to be in more dense parts of the city where there are already permit requirements, so the impacts of this program to renters might be overstated
 - Recognize that many low income households do not own a vehicle; additional exemptions would mean reduced revenue overall, which means less revenue towards improving low cost transportation options for people who don't drive
 - Proposal already includes considerations to address affordability (e.g. \$3.75 per month base rate for new permit zone, pollution charge exemptions for existing vehicles, pollution charge thresholds set so that most new vehicles under \$30,000 fall into \$0 'Tier 1')
 - Some expressed that \$45 annually is not a significant barrier when compared to other transportation costs (e.g. \$129 for annual bike share membership, \$1,200 for annual 1-zone transit pass)
- Diverse discussions on potential exemptions or other considerations for contractors and others requiring specialized vehicles for work

- Some expressed concern that there may be fewer vehicle options for contractors and others who require larger vehicles for their work; this concern was tempered by others who noted the pollution charge would not apply to existing vehicles, and that low-carbon options for large vehicles are increasing (e.g. Electric F150 Lightning, Chevrolet Silverado, Tesla Cybertruck)
- Some felt additional cost would be absorbed as a 'cost of doing business,' which could lead to higher prices overall for services
- Discussions on considerations regarding homecare providers
 - It was appreciated that the new zone would be 'overnight only'
 - However, some homecare providers work odd hours with relatively low income, and need a motor vehicle to serve clients across large geographical areas

Considerations relating to revenue

- Invest revenue to improve low-cost transportation options such as walking, cycling, and transit, e.g.:
 - Sidewalk improvements / accelerating curb ramp program
 - Transit priority measures to improve service levels
 - New and improved cycling routes
 - Secure bike parking
 - Expansion of shared mobility services like Mobi
 - Sustainable transportation discounts or incentives programs for low-income households
- Invest revenue to ensure infrastructure exists to support increase in electric vehicles, e.g.:
 - More charging locations
 - Retrofit programs for existing buildings
- Invest revenue to support increased accessibility for people with disabilities, e.g.:
 - More accessible sidewalks
 - More accessible parking / retrofits
- Continue to reallocate road space away from private vehicle storage for things like:
 - Green space and community gardens
 - Public space
 - Sustainable transportation improvements
- Securing from this program should mean doing *more* for sustainable transportation that we do today; it should be *in addition to* and not *replace* existing sustainable transportation funds
- Consider charging higher fees, but:
 - Directly returning revenue to residents through a sustainable transportation credit
 - Subsidizing those experiencing hardships
- Increase general fees if more exemptions are made, so that revenue for climate action is not adversely impacted
- Be transparent about revenue allocations and where revenue is spent; consider participatory budgeting or other measures to provide assurances
- Investments should be made where they are most needed, not where they are most politically palatable
- Invest in projects in programs that will reduce car use/pollution the most
- Put towards areas of the city that have fewer transportation options to create more choice
- Identify disproportionately impacted communities and invest in their priorities; direct a portion towards programs that increase transportation equity
- Have incentives to shift towards other modes (e.g. grants/rebates for e-bikes)

Public Engagement

Outreach Tactics

As with Phase 1, a communications outreach plan was developed to support the engagement process by ensuring diverse public awareness of the scope, timeline, and opportunities for input. The plan included an extensive print, digital, and media campaign to ensure a broad, multilingual, and regional reach.

Communications tactics included the following:

- **Media releases:** Media Advisory, News Release and reminder Information Bulletin (one week prior to survey closing)
- **Print:** advertisements in 6 papers across Vancouver and the Lower Mainland including Chinese-language print and Indo-Canadian papers
- **Transit Shelter Ads (TSAs):** advertisements were placed in 22 bus shelters across the city
- **Social Media:** organic posts across the City's Instagram, Facebook, Twitter and LinkedIn platforms (CoV, Greenest City and Walk Bike Roll channels)
- **Earned media:** More than 50 unique pieces of news/media coverage across all media formats (print, web, TV and radio)
- **Reddit Ask Me Anything (AMA):** Staff participated in one [AMA](#) in June 2021
- **Partner networks:** stakeholders and the Climate Amplifier Network of 50+ influencers were encouraged to share engagement opportunities with their networks, which included newspaper op-eds, radio interviews and social media posts on influencers' channels
- **Project newsletter:** the engagement was promoted via an email sent to approximately 5,000 people who signed up to stay informed about the project
- **Greenest City newsletter:** the project was promoted in the June 2021 Greenest City newsletter, with approximately 6,500 email subscribers and on Greenest City social media channels
- **City newsletter:** the project was promoted in the monthly City newsletter, with over 1,000 email subscribers

Complementing the above list, the project website (shapeyourcity.ca/parking) was updated in June 2021. It includes an overview of the proposal, Phase 1 engagement summary, responses to frequently asked questions, fact sheets and other related materials, and a link to sign up for the project e-newsletter.

Engagement Tactics

As with Phase 1, public engagement approaches were somewhat limited by pandemic restrictions. Tactics included a self-select Talk Vancouver survey, market research surveys of demographically representative populations, and a Reddit Ask Me Anything (AMA).

Talk Vancouver survey

Members of the public were provided an overview of the program and invited to share feedback via an online survey on the project website (shapeyourcity.ca/parking). Almost 19,000 survey responses were received between June 14 and July 5, 2021.

The survey questions focused on the following areas:

- **Level of support for the idea of the pollution charge**
 - Those who did not support the idea of a pollution charge were asked why
 - Those who supported or were neutral to the idea were asked follow-up questions on specific aspects of the proposal:
 - Having the pollution charge not apply to existing vehicles (model year 2022 or older)
 - Having the pollution charge not apply to vehicles specialized for wheelchairs or other mobility aids
 - Having higher polluting vehicles pay more than less polluting ones
 - Having the pollution charge applied equally in all permit zones in the city
 - Whether other exemptions should be considered beyond existing vehicles and vehicles modified for mobility aids
 - Whether proposed rates for each pollution tier should change
 - All respondents were invited to share additional comments about the pollution charge
- **Level of support for the idea of the new overnight permit zone**
 - Those who did not support the idea of an overnight permit zone were asked why
 - Those who supported or were neutral to the idea were asked follow-up questions on specific aspects of the proposal:
 - Allowing anyone who parks on the street during the day and early evening to park anywhere for free
 - Requiring residents who park on the street overnight to purchase an annual permit
 - Allowing visitors who park on the street overnight to park anywhere for a small overnight charge
 - Defining 'overnight' as 10pm to 7am
 - Whether the proposed \$45 annual base rate for a residential permit should change
 - Whether the proposed overnight visitor fee of \$3/night should change

Respondents were also invited to share additional comments about the proposed program, along with basic information relating to vehicle ownership, parking access and behaviour, and other demographic information.

As with Phase 1, there was over-representation of survey responses from homeowners, lower density housing types, households with high vehicle ownership, and people who use a motor vehicle as their primary mode of transportation (see *Table 3* below).

Table 3. Over-representation from homeowners, low density housing types, high vehicle ownership, drivers¹

	Talk Vancouver Responses Phase 1	Talk Vancouver Responses Phase 2	Actual Portion of City Households
single family households	60%	61%	15%
ground-oriented homes	80%	73%	39%
homeowner	67%	67%	49%
car-free household	5%	5%	27%
motor vehicle as primary mode	69%	70%	46%

Market research surveys

Alongside the Talk Vancouver survey, Sentis conducted a parallel survey with 521 residents on behalf of the City. Respondents were sourced from online panels to yield a demographically representative sample of the City residents and results were also weighted by dwelling type (ground-oriented vs other), household income, and city sub-region to ensure that the sample accurately reflected the City of Vancouver adult population.

The initial demographically representative market research survey was felt to be important given the over/under-representation of some groups in the Phase 1 and Phase 2 general public surveys. Although people who park privately owned motor vehicles on the street are most likely to feel directly impacted and thus be more likely to fill out the survey, virtually everyone living in or visiting the city would be impacted by the program in some way, including:

- People who live in existing parking permit zones and park on the street, since they might have to pay an additional pollution surcharge in addition to the base permit fee
- People who live in unregulated residential areas and park on the street, since they might have to purchase a permit in the future to continue existing behaviour
- People who visit currently unregulated residential parts of the city by car, since they might be required to follow new visitor parking requirements
- People interested in purchasing a new motor vehicle in the future, since the pollution charge would apply differently depending on vehicle emissions and other factors
- Everyone living in, working in, or visiting the city, since the program would improve air quality and help fund climate actions such as improvements to walking, cycling, and transit

A Sentis follow-up survey was sent to the same group in August, to clarify program details and test potential modifications to the program.

Other tactics

Other engagement tactics included a [Reddit Ask Me Anything](#) in June 2021 where staff responded to questions posed by participants, as well as correspondences via email, letters, and calls to 311.

A summary of all Phase 2 public engagement tactics is described in *Table 4*

¹ Based on 12,384 survey responses. Sources for Citywide numbers: 2016 Census, 2017 TransLink Trip Diary, 2019 COV Vancouver Transportation Panel Survey

Table 4: Summary of engagement events and surveys

Engagement Events & Feedback Tools	Purpose	Participants
Talk Vancouver Survey June 14 to July 5, 2021	<ul style="list-style-type: none"> Provide opportunity for public to indicate level of support for the proposal and give feedback on specific features 	18,923
Market Research Survey June 2021	<ul style="list-style-type: none"> Understand attitudes from a demographically representative sample of Vancouverites Same questions as Talk Vancouver survey Administered by Sentis 	521
Market Research Follow-up Survey August 2021	<ul style="list-style-type: none"> Clarify commonly-misunderstood aspects of the proposal and test level of support for potential modifications Sent to same group as initial market research survey and administered by Sentis 	390
Reddit Ask Me Anything Date: June 19, 2021	<ul style="list-style-type: none"> Provide opportunity for staff to engage with participants, answering questions in an online forum 	Questions received: 57 Questions answered: 36 Total comments: 237
Other Submissions <ul style="list-style-type: none"> Dates: Jun 14 to Aug 31, 2021 Format: Letters, 3-1-1, Emails 	<ul style="list-style-type: none"> Provide opportunity for individuals and organizations to ask questions and share feedback 	212

What We Heard from the Public

Overall levels of support for the main program components

As noted earlier, primary survey questions focussed on level of support for the idea of (a) a pollution charge that would be added to the base cost of a parking permit, and (b) a new overnight permit zone for residential streets that do not already require parking permits.

Results are highlighted in *Figure 1* below. There was a significant discrepancy between the Talk Vancouver survey and market research survey results:

- Regarding **the idea of an annual pollution charge**, 27% of Talk Vancouver survey respondents and 63% of market research survey respondents were supportive or neutral
- Regarding **the idea of a new overnight permit zone**, 20% of Talk Vancouver survey respondents and 50% of market research respondents were supportive or neutral

This may be explained in part by the large over-representation in the public survey from homeowners, low density housing types, high vehicle ownership households (see *Table 3* earlier).

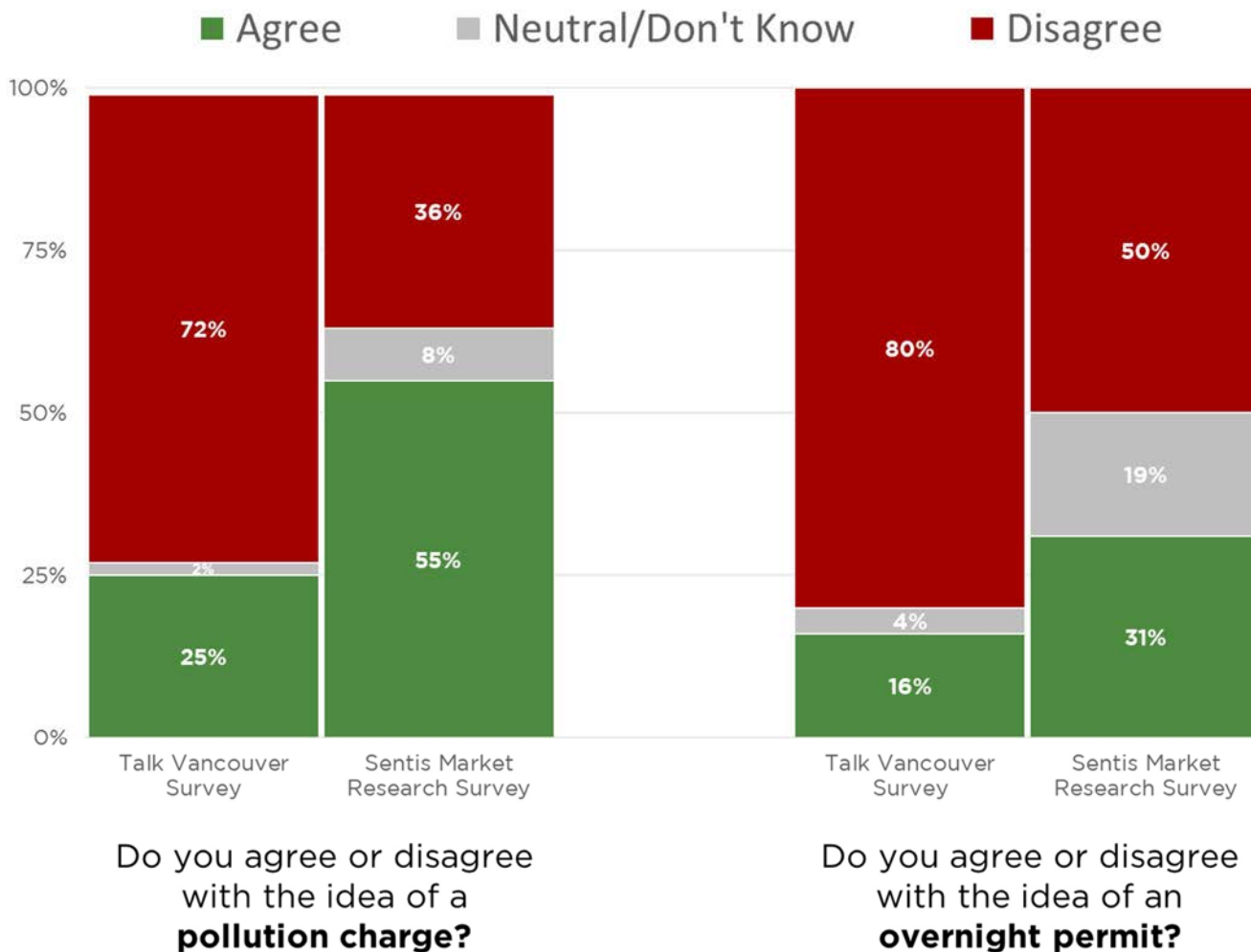


Figure 1. Overall levels of support for the two program components²

² Talk Vancouver survey results based on 18,923 responses. Market research results based on 521 demographically representative responses (administered by Sentis on behalf of the City).

Results for this question were further analyzed based on a number of criteria, as shown in *Figure 2* (Talk Vancouver survey) and *Figure 3* (market research survey) below.

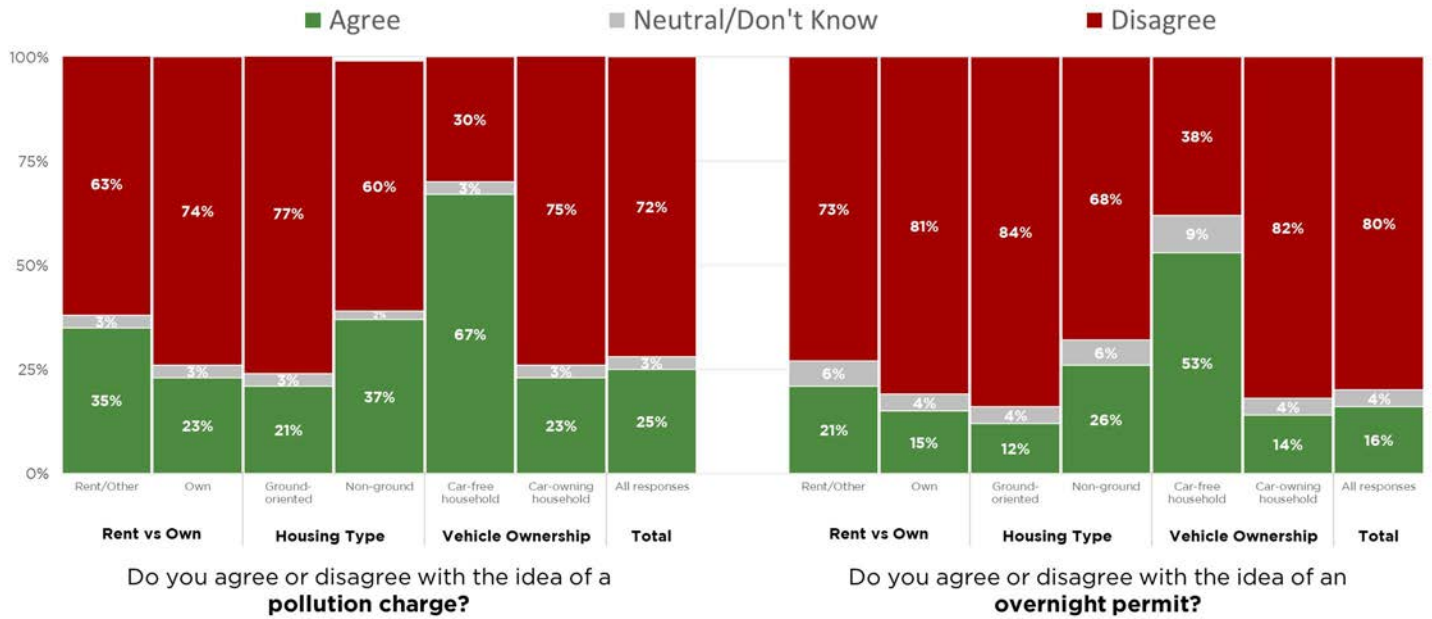


Figure 2. Talk Vancouver survey: overall support for the program components, broken down by various factors³

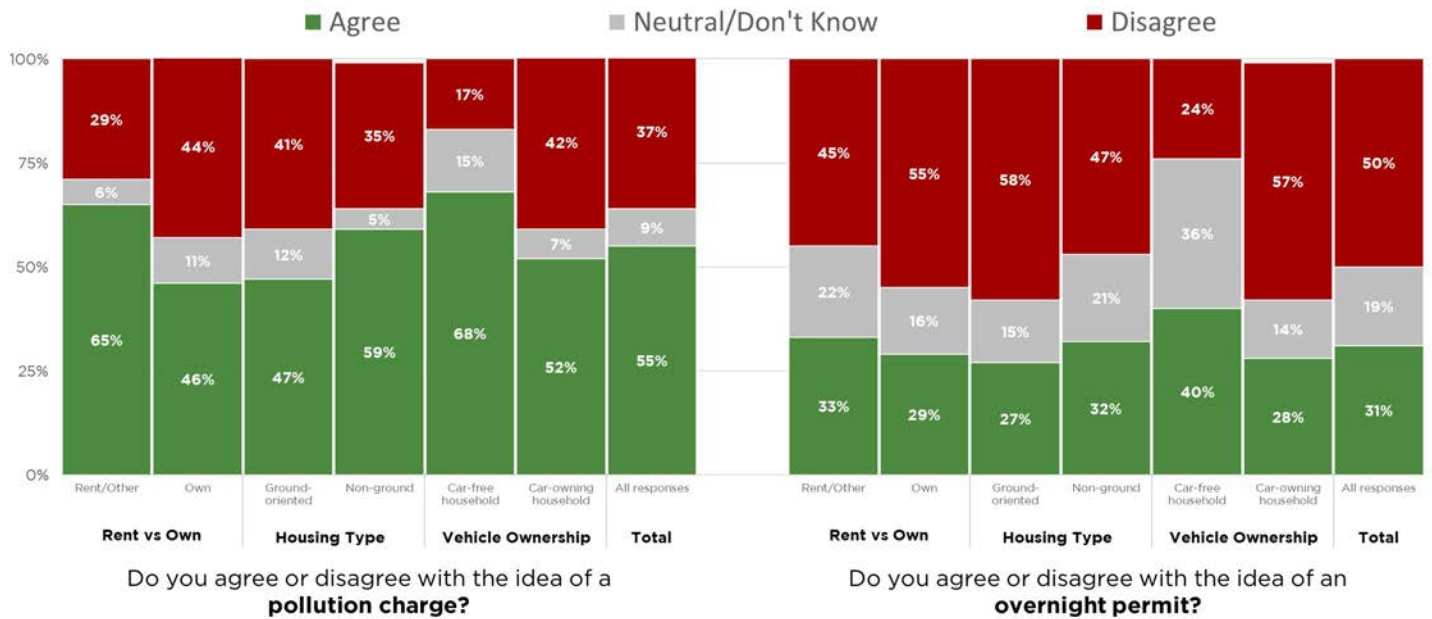


Figure 3. Market research survey: overall support for the program components, broken down by various factors⁴

This analysis reveals **higher levels of support from:**

- **Renters** compared to homeowners
- **People living in higher-density housing** compared to ground-oriented housing
- **Households that do not own a car** compared to households owning cars

³ Talk Vancouver survey results based on 18,923 total responses, including: 5,076 'Rent/Other' responses (where 'other' includes co-op, unsheltered, or write-in responses), 12,598 'Own' responses, 13,313 'Ground-oriented' responses, 4,951 'Non-ground-oriented' responses, 971 'Car-free household' responses, and 17,953 'car-owning household' responses.

⁴ Market research results based on 521 demographically-representative responses (administered by Sentis on behalf of the City).

Reasons for opposing the idea of an annual pollution charge

Some commonly-cited reasons for not supporting the idea of a pollution charge are highlighted in *Table 5* below, which includes sample verbatim quotes from the Talk Vancouver survey.

It is significant to note that **some common reasons were based on misconceptions about how the program would work**, in particular:

- Believing that the pollution charge would apply to existing vehicles, thus requiring purchasing a new vehicle to avoid the charge; in fact, it would only apply to vehicles in the future with model year 2023 or afterward
- Believing that the only vehicles falling under the \$0 tier would be expensive electric vehicles; in fact, most economy cars and many vehicles suitable for families would fall under the \$0 tier (See *Figure 4*. Most economy vehicles and many vehicles suitable for families would not be subject to the pollution fee.

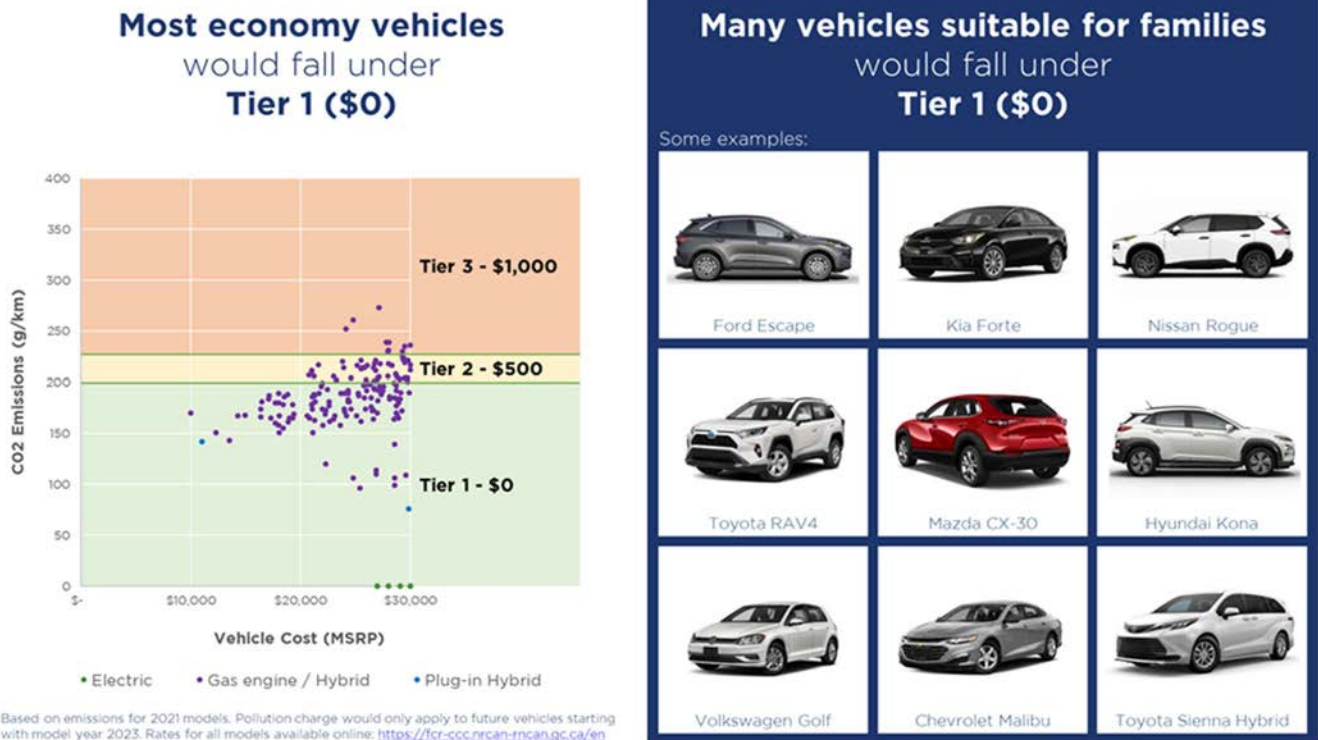


Figure 4. Most economy vehicles and many vehicles suitable for families would not be subject to the pollution fee.

Table 5. Reasons for not supporting the general idea of the pollution charge: common themes with sample verbatim quotes

Reasons for not supporting the general idea of a pollution charge: common themes with sample verbatim quotes	
1. Concern that it is unfair because not everyone can afford a new car (based on misconception that the charge would apply to existing vehicles)	<ul style="list-style-type: none"> • <i>Promotes inequity as it disproportionately penalizes those who can't afford new, expensive electric vehicles.</i> • <i>Not everyone is able to upgrade their vehicles. People who require a personal vehicle for transportation and cannot afford to upgrade should not be penalized for a GLOBAL crisis.</i> • <i>I can barely afford to rent in Vancouver. This could force me out of the city and I'd lose my job. I would not have the luxury to buy a new car and public transit is not adequate for night shift workers.</i> • <i>Most people can't afford to buy new vehicle.</i> • <i>I am in no position to buy a new vehicle. My current car is a 2016 and I am very happy with it. It is NOT a luxury SUV or gas guzzler.</i> • <i>I drive a 2006 Volvo station wagon (well maintained) I am not in a position financial to purchase a new vehicle.</i> • <i>Not everyone can afford electric, hybrid or low polluting vehicles. The cost of them has not come into the affordable range for most people yet.</i> • <i>Financially cannot afford to buy a new car.</i> • <i>Not everyone can afford buying new electrical vehicles.</i> • <i>You are forcing people to buy new cars. Who can afford that?</i>
2. Concern that families, low-income households, etc. will have to pay \$500 to \$1,000 each year in fees (based on misconception that it would apply to existing vehicles and/or that there wouldn't be \$0 Tier 1 options for families, low income, etc.)	<ul style="list-style-type: none"> • <i>The cost of EVs is not at a price point that is affordable for the general public. If you have a family, your only real option for an EV is a \$70k vehicle.</i> • <i>We cannot afford an electric car cause its expensive.</i> • <i>Electric vehicles in many ways and certainly from a price point ARE luxury vehicles and substantially more expensive than their internal combustion equivalents. For many the additional \$500 to \$1000 per year will represent an additional financial burden in a city with an already disproportionate cost of living - what constitutes a luxury vehicle, price, model, package level? The differentiation is too vague and arbitrary with little to no recourse for the common citizen.</i>
3. Concern that it is unfair for people who need large vehicle for work purposes (e.g. contractors)	<ul style="list-style-type: none"> • <i>It is unfair to trades people and business that live and work in the city. You will just drive the cost of living up.</i> • <i>As a poor new Canadian I have no choice but to drive my old truck with my tools I can't afford hybrid.</i> • <i>People need their trucks to work and electric or hybrid trucks are not that common or affordable yet.</i> • <i>Most people who drive SUVs and pick-ups work labour jobs carrying tools and equipment. SUVs are family oriented as well.</i> • <i>Not everyone can afford to buy a specific kind of vehicle. Some people need a specific vehicle for work and they should not be penalized for that.</i> • <i>Your proposal does not take in account trade and delivery vehicles - they would either take a hit on parking or on the cost of replacement.</i>
4. Concern that we shouldn't encourage electric vehicles, because the technology is unproven, because there aren't enough charging locations, etc.	<ul style="list-style-type: none"> • <i>Electric or hybrid vehicles are more expensive to acquire and more so with the insurance. There is also not enough charging station at this time to bring everybody to use electric vehicles. People need to see the infrastructure first.</i> • <i>Rely on a sprinter van for work. If I were to buy a new one just because of my profession I would be charged. Seems unfair. when they haven't released any EV versions. as well EV charging would need to be expanded much more.</i> • <i>EV car can't parking outdoor. And a lot of apartment don't have EV charging station. All packages are not complete.</i> • <i>The infrastructure for EV charging is not yet sufficient. Cost effective savings on efficient vehicles are not yet sufficient</i> • <i>Most cannot afford Teslas. Electric battery disposal has also not considered "clean" by any means.</i>
5. General sentiment that new fees are unfair / taxes are too high / revenue would be wasted / etc.	<ul style="list-style-type: none"> • <i>We are being taxed to death! Better money management would be the solution!</i> • <i>It's just another tax with a fancy name under the guise of being more green.</i> • <i>This is a SCAM and a CASH GRAB. Stop funding drug addicts and use that money to support payroll.</i> • <i>Its a pigheaded tax grab, have you seen the price of fuel lately, taxes and mismanagement by you folks</i> • <i>Grow up, people are taxed enough as it is.</i> • <i>Taxes are already sky high and I don't know if the CoV even does anything useful with our money other than trying to trying to establish more ways for the city to gain revenue off of their citizens.</i> • <i>You haven't even mentioned how this tax would be spent to HELP the environment. So it's just a money grab...</i>

**Reasons for not supporting the general idea of a pollution charge:
common themes with sample verbatim quotes**

6. General concern about the city being too unaffordable

- *Vancouver is already unaffordable you are just making it more unaffordable.*
- *Another way to take money away from families.*
- *It is already very expensive to live in the city, in addition to the highest cost in insurance. To add another charge would hurt the livelihoods of people who are struggling.*

7. Sentiment that parking should be free

- *This is an awful idea. I want to buy new car and park outside my own house for free. I paid the insane real estate price for my house I should be able to park my car in front of my house.*
- *It violates us the right to free parking on the residential street in front of my house.*
- *Why am I paying for street permit when I'm already paying taxes for them? Why am I paying to use my car when I already purchased the car 10 years ago?*
- *Robbing the poor. No other cities and countries to collect the resident to paid for parking in front of the house.*
- *Gas price already include climate fee.*

8. Sentiment that the pollution charges shouldn't be linked to parking, but to vehicle registration, distance driven, etc.

- *I have a Truck that I use for a weekend get a way maybe once a month. This measure will punish people that dont use their vehicles for commuting.*
- *Tying pollution to parking is irresponsible. A parked vehicle does not pollute.*
- *This type of incentive program, if to be done at a governmental level, should be left to the provinces or federal government - Try a different criteria such as weight to power so that you are truly targeting inefficient or so called luxury vehicles.*

9. Sentiment that we should be using carrots (incentives) not sticks (disincentives)

- *Spend your time and energy on adding more EV Charging stations and not taxing the citizens.*
- *These cars are expensive. Instead of punishing poor and middle class people can't afford eco cars, you should provide rebates to make these cars more accessible to the general population.*
- *How about making specific parking spots for electric vehicles, ones with reduced rates (carrot over stick).*

10. Sentiment that exemptions for older vehicles will incentivize market for older, more polluting vehicles

- *If anything this incentivizes people who have no choice but to drive/commute to buy OLDER vehicles that emit more carbon/are less efficient. Most cannot afford Teslas.*

Reasons for opposing the idea of a new overnight parking permit zone

Some commonly cited reasons for not supporting the idea of a new overnight parking permit zone are highlighted in *Table 6* below, which includes sample verbatim quotes from the Talk Vancouver survey.

A **common misperception** appears to be not seeing a linkage between the new fees and climate action, i.e. not understanding that the new zone would (a) enable the pollution charge to become more effective by being applied across the entire city, and (b) generate significant revenue earmarked for climate actions. In some cases these feelings express a lack of trust in local government.

Table 6. Reasons for not supporting the general idea of the new overnight permit zone: common themes with sample verbatim quotes

Reasons for not supporting the general idea of a new overnight permit zone: common themes with sample verbatim quotes	
1. Concern that permit parking contributes to general unaffordability	<ul style="list-style-type: none"> • <i>Cost of living in the city is already high and sacrifices are made to live here (i.e. financial strain, living with multiple families/multi-generations in the home). Adding another fee is a challenge for many families.</i> • <i>Vancouver is already an unaffordable place to live, don't make it worse.</i> • <i>People can barely afford to live in Vancouver already. You are making it worse by adding even more things they can't afford!</i> • <i>I think that this puts another unnecessary living expense towards living in Vancouver. This city is expensive as is, and more effort should be put towards making this city liveable. This is not done through additional charges</i> • <i>Vancouver is already so unaffordable. This is over the top.</i> • <i>I payed high enough just to buy a house in Vancouver - plus add in high property taxes. Last thing I need is to pay extra to park my vehicle which I need to work.</i> • <i>This is an absolutely absurd proposition. People can barely afford car insurance, let alone living expenses, and now we will be charged just for parking. This will end up pushing long time residents out of the city, businesses will suffer, and liveable prices will soar even higher.</i>
2. Concern about City collecting more revenue / how revenue would be used	<ul style="list-style-type: none"> • <i>This is a money grab and nothing to do with environmental issues.</i> • <i>Leave us alone! You have already taken away so much street parking with these bike lanes in a city that sees 8 months of rain every year. The cyclists still clog up the major thoroughfares regardless of them. This is another money grab. Start taxing people for something that shouldn't cost them anything and there's nothing we can do? Absurd.</i> • <i>Residents already pay property tax utilities. The city has already increased property tax by an exceptional amount this year and I see it to increase more in the years. Why is the city creating more and more taxes for the residents?!?</i> • <i>Parking permits will make mobility and visiting Vancouver more costly and complex and will not provide any benefits. It will only make the city more unaffordable and make mobility more difficult.</i> • <i>This is another cash grab by the government. You are not considering the people who are renting and have no choice but to park on the streets.</i> • <i>Where are you thinking we are to park? We pay license, vehicle tax, fuel tax, carbon tax, transit taxes, don't you have enough? How far are you going to push us before people retaliate in a form you don't like?</i> • <i>It's another way to collect money without actually addressing the real issue of climate change</i> • <i>Good job city, keep on buying those 10k desks.</i>
3. Sentiment that parking should be free	<ul style="list-style-type: none"> • <i>I like the freedom to park in my neighbourhood without paying a fee and to also do the same for when friends or family come to visit. Parking elsewhere is already so expensive.</i> • <i>People already paid for property tax, car insurance, they have right to park their car overnight.</i> • WHY ARE YOU CHARGING RESIDENTS WHO LIVE ON THE BLOCK AN EXTRA FEE TO PARK NEAR THEIR HOMES AT NIGHT??? <i>THIS MAKES ABSOLUTELY NO SENSE.</i> • <i>Charging the people that live there is the most stupidest thing you guys will ever do why not charge the one that doesn't live there and get better law enforcement</i> • <i>A simple life choice to spend the night in a specific place should not be hindered or affected by a cost or fee.</i> • <i>A city should have free parking. This is just an additional expense for people and will like drive up the cost of private parking spaces due to demand.</i> • <i>I don't agree with any permit zone apart from what is already in place. This proposal limits the freedom of people to travel around in the city and promotes a huge inconvenience for folks. I have a right to have a visitor at my home without me or them having to pay for them to park. If Vancouver wants to pack people in like sardines, then make the builders and developers create enough parking for 2 spots and one visitor spot per family unit when they build these new homes.</i>

**Reasons for not supporting the general idea of a new overnight permit zone:
common themes with sample verbatim quotes**

- *My family DO NOT want to pay any fees for parking. What if friends come over? They have to pay too? Thats utterly stupid. Why should we pay for parking in front on our OWN HOUSE? That doesn't make ANY SENSE AT ALL.*
- *You just want money. this is our city, our streets, not yours.*
- *I already pay for my home. I should not have to pay for my car to be on the street overnight. I have two toddlers and cannot travel by bus to two daycare drop offs and work*

4. Sentiment that a permit zone isn't necessary due to the presence OR lack of parking issues

- *I have neighbors that have parties/get togethers and the cars are parked there all day. Ill get home from work and have to end up parking down the block.*
- *There are no issues with current overnight parking.*
- *Why should I pay to park where street is empty and there is no other cars. In downtown Vancouver this makes sense where people can use public transportation but not where there is no SkyTrain.*
- *I do not support the citywide parking permits. For probably 75% or more of residential streets, parking is not a problem at all, with plenty of space for residents and visitors. Parking permits will make mobility and visiting Vancouver more costly and complex and will not provide any benefits. It will only make the city more unaffordable and make mobility more difficult when transportation in Vancouver is already poorly organized. Any city candidate that supports this policy will lose my vote.*
- *My street is 3/4 empty pretty much all day and all night and you want us to pay? Are you out of your mind??*
- *You are forcing me to pay to use a section in front of my house. I live in a residential only neighborhood with no need for a permit. Plenty of street parking. This is ill informed, especially for those in trades or living in multigenerational homes on properties with 3 living spaces.*

5. Sentiment that we should be using other tools to fund climate action / this wouldn't help climate action

- *Personally, charging a fee for commuters coming into the area from outside the city seems to be more reasonable. Emissions from cars travelling long distances (e.g. 2+ hours on the road round trip) contribute more to pollution than short commutes for residents within the city (>20 minutes). So rather than an overnight permit parking program, is there consideration that revenue can be collected from commuters who are parking in the city during the day?*
- *This is not going to address pollution. Most vehicles that park overnight in the City are NOT the polluters; its those vehicles that spend hours every day commuting from the suburbs, South and East of the Fraser that are contributing the overwhelming proportion of the local motor vehicle emissions, not the vehicles parked on the street (which emit nothing when parked, btw). All the vehicles in Canada emit less than a single massive container ship per year. What policies can the City enact to eliminate the need for a single container ship?*
- *I'm not sure why targeting individual people is more effective than big corporations. Why not charge all the trucks coming out of the ports? Or tax the oil companies and other big corporations that are responsible for most of the world's pollution? Or defund the police?*
- *Get your funding elsewhere like car insurance... Stop hustling residents that need to park on the streets.*
- *How does parking overnight help with the climate?? Think properly please. Parking overnight = car stopped. Where's the pollution???*

6. Concerns that overnight system would deter visitors and socializing / unfairly target nighttime service providers / lead to safety issues (drunk driving), etc.

- *In the event of a spontaneous event wherein someone without the necessary permit in a specific region would need to park over night, this becomes an obstacle to potential safe situations. Ex: an inebriated friend ends up needing to stay the night, but may feel the need to drive home to avoid paying the overnight fees.*
- *Forcing no parking from 10pm to 7am or pay parking is encouraging drinking and driving if friends or family are over and are to inebriated to drive. If there are people coming in from the suburbs to visit, they can't stay the night without paying a fee? Gas already is \$1.719 per litre and now you're forcing people to pay for overnight parking at a friends or relatives house.*
- *It will penalize people e.g. those who are caring for elderly relatives. It will encourage drinking and driving*
- *Charging visitors to pay for overnight parking past 10pm is not realistic. Many people stay past 10pm just when over for a dinner party. It's like putting a curfew on public outings.*
- *It will increase driving under the influence, as people will be more likely to drive their vehicles home at the end of the night, rather than risk ticketing and fines.*
- *Discriminatory against families who require overnight nursing support to care for medically complex children.*
- *This penalizes residents for having out-of-town guests or even having dinner guests in their homes.*
- *People of average income who are visiting their elderly parents overnight in the winter would have to pay. This does not seem fair or encourage alternative transportation methods; in many cases bicycle or bus transportation is not practical and so they will choose not to visit which deprives seniors of much-needed support.*

7. Unfair to renters and others who can't afford or don't have access to off-street parking options

- *This is another cash grab by the government. You are not considering the people who are renting and have no choice but to park on the streets.*
- *Charging car owners who have no parking options you are punishing people cant afford to pay for overnight parking in residential buildings and encouraging landlords to increase parking rates in the buildings.*

**Reasons for not supporting the general idea of a new overnight permit zone:
common themes with sample verbatim quotes**

- *This tax will target tenants who are renting suites from Vancouver homes who generally do not have access to the garage or driveway. Again this tax would only affect lower income individuals who do not have the luxury of owning a home with a driveway or garage.*
- *Once again, this impacts renters and owners of condos with no parking space. People who can afford single family homes have driveways and garages. This taxes people who can least afford to be taxed. This does nothing to stop pollution and is another money grab from the government of the least affordable city in Canada.*
- *Discriminatory against low-income and poorer people - who often cannot afford a garage or, if they're renters, will likely not have a garage available to them.*
- *Penalizing those who cannot afford a house with a driveway/ garage. Seems like a lazy "taxing the poor" solution, and extremely greedy.*

8. Other—suggestions to give first permit for free, concerns about enforcement costs outweighing benefits, concerns that costs will keep rising

- *Maybe start charging those household that owns more than two vehicle. Limit two cars that can park in the residential street for every household and I disagree the time frame that you will charge the resident to park in front of their houses, imagine you're still paying while you were sleeping.*
- *People should be allowed 1 vehicle parking per residence. Charge for additional vehicles. And no charge for visitors (way to make people feel welcome... sarcasm).*
- *Who is going to enforce this? Bylaws are off shift and the VPD need to focus on criminal matters. The money collected will be used to hire overnight bylaw officers and not go towards climate action.*
- *The cost to administer and enforce this program outweigh the benefits. Instead of taxing residents, think of something better. Work with corporations instead of burden to the individual citizens!*
- *We have no parking problem in our area. I have always been able to find a space within 50 feet of our lot. The charge starts at \$45 but can go up to whatever the City chooses.*
- *In 5 years time it will be 200 dollars a year because City Hall has no concept of restraint.*
- *It is not the city's job to deal with climate change. Your current policy of not having new apartments have adequate parking ensure you have created a cash cow for you.*

Sentiment on the details of the annual pollution charge proposal (from respondents open to the idea)

Respondents to the survey who indicated they were not opposed to the idea of the pollution charge were asked follow up questions to gauge perceptions on specific details of the proposal.

The results, summarized in *Figure 5* below, indicate that these respondents generally support:

- Having the pollution charge not apply to existing vehicles (model year 2022 or older)
- Having the pollution charge not apply to vehicles specialized for people with mobility aids
- Having higher polluting vehicles pay more
- Having the pollution charge applied equally in all permit zones

About a fifth of respondents did not support proposed exemption for existing vehicles. The most common reason noted was that older vehicles are more likely to have higher emissions and should also be charged to capture environmental impact and accelerate the transition to cleaner vehicles.

Sixteen percent of respondents did not support applying the pollution charge equally in all permit zones. The most common reason noted was that some parts of the city have fewer viable transportation options, and should have lower fees since they are more car-dependent.

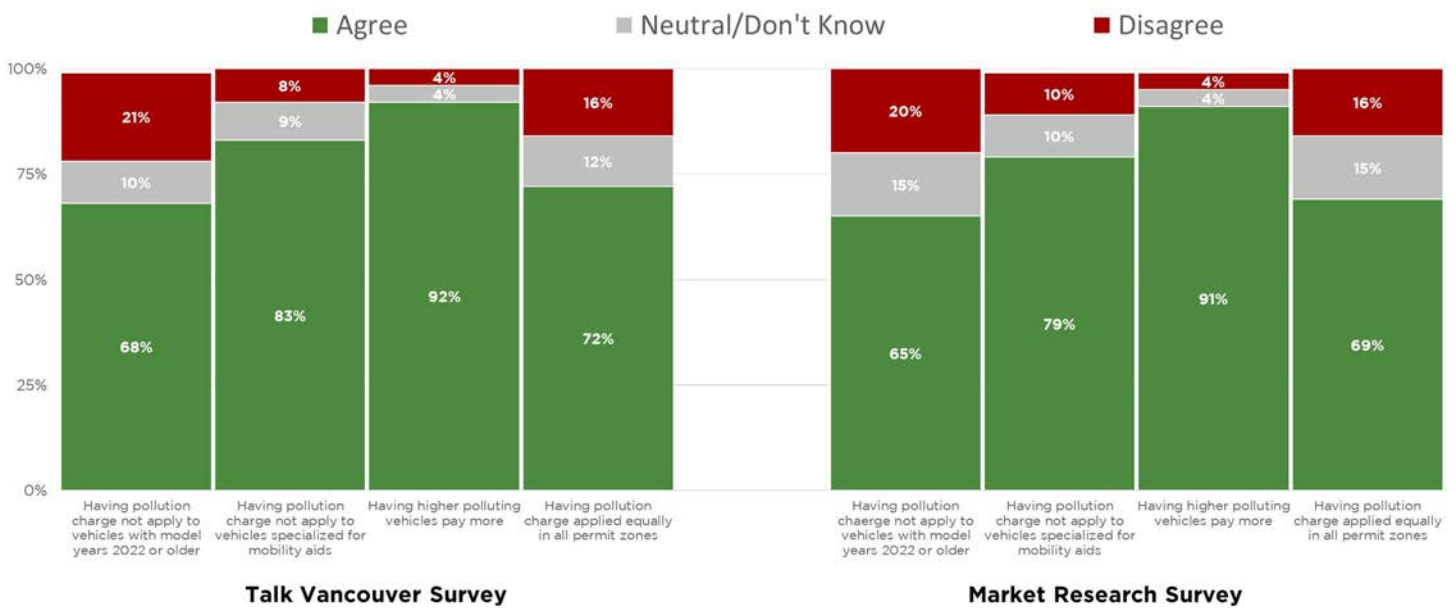


Figure 5. Sentiment on the details of the pollution charge, from respondents who were supportive or neutral on the general idea⁵

⁵ These questions were asked of the 27% of Talk Vancouver survey respondents who agreed with, were neutral to, or unsure about the pollution charge, and of the 62% of market research survey respondents who agreed with or were neutral to the idea.

Sentiment on whether additional pollution charge exemptions should be considered (from respondents open to the idea)

Respondents to the survey who indicated they were not opposed to the idea of the pollution charge were asked whether additional exemptions should be considered, in addition to the ones already proposed (Figure 6).

About a quarter of these responses suggested additional exemptions, most commonly for low income households and/or work vehicles.

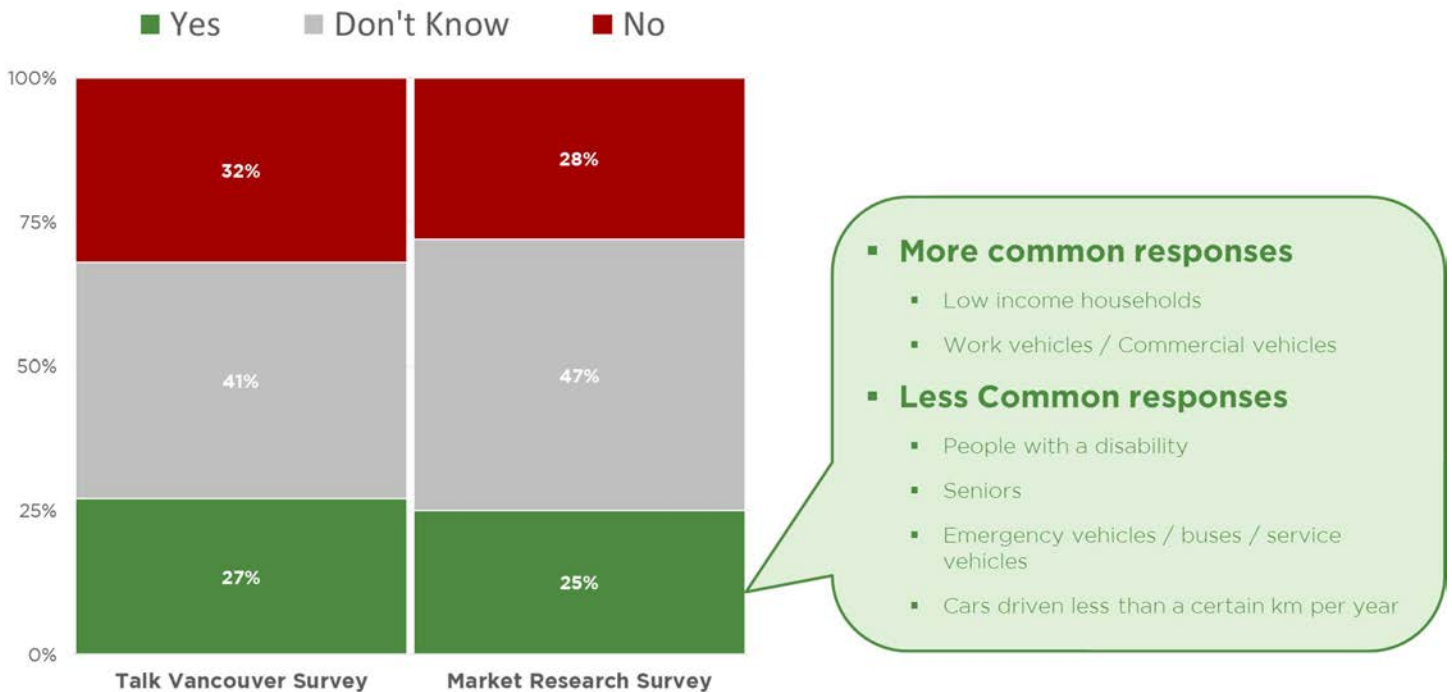


Figure 6. Are there additional exemptions to the pollution charge we should consider?⁶

⁶ These questions were asked of the 27% of Talk Vancouver survey respondents who agreed with, were neutral to, or unsure about the pollution charge, and of the 62% of market research survey respondents who agreed with or were neutral to the idea.

**Sentiment on proposed annual pollution charge rates
(from respondents open to the idea)**

Respondents to the survey who indicated they were not opposed to the idea of the pollution charge were asked whether additional exemptions should be considered, in addition to the ones already proposed (Figure 7).

The majority of these rates felt the rate should not change for Tier 1 (low-polluting) and Tier 2 (moderately-polluting) vehicles. However, there was significant openness to increasing rates for the most polluting vehicles (Tier 3).

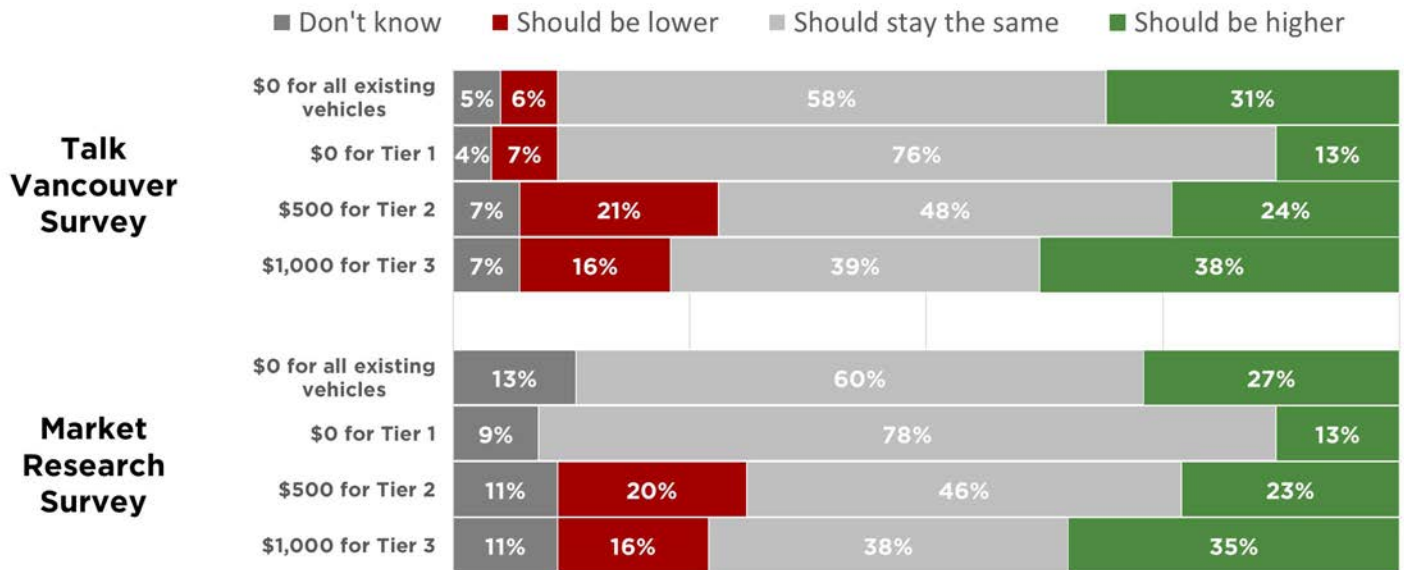


Figure 7. Sentiment on whether the proposed pollution charge rates should change, from respondents who were supportive or neutral on the general idea⁷

⁷ These questions were asked of the 27% of Talk Vancouver survey respondents who agreed with, were neutral to, or unsure about the pollution charge, and of the 62% of market research survey respondents who agreed with or were neutral to the idea.

Sentiment on the details of the new overnight permit zone (from respondents open to the idea)

Respondents to the survey who indicated they were not opposed to the idea of the new overnight permit zone were asked follow up questions to gauge perceptions on specific details of the proposal.

The results, summarized in *Figure 8* below, indicate that these respondents generally support:

- Allowing anyone who parks on the street during the day and early evening to park anywhere for free
- Requiring residents who park on the street overnight to purchase an annual permit
- Allowing visitors who park on the street overnight to park anywhere for a small overnight charge
- Defining 'overnight' as 10pm to 7am

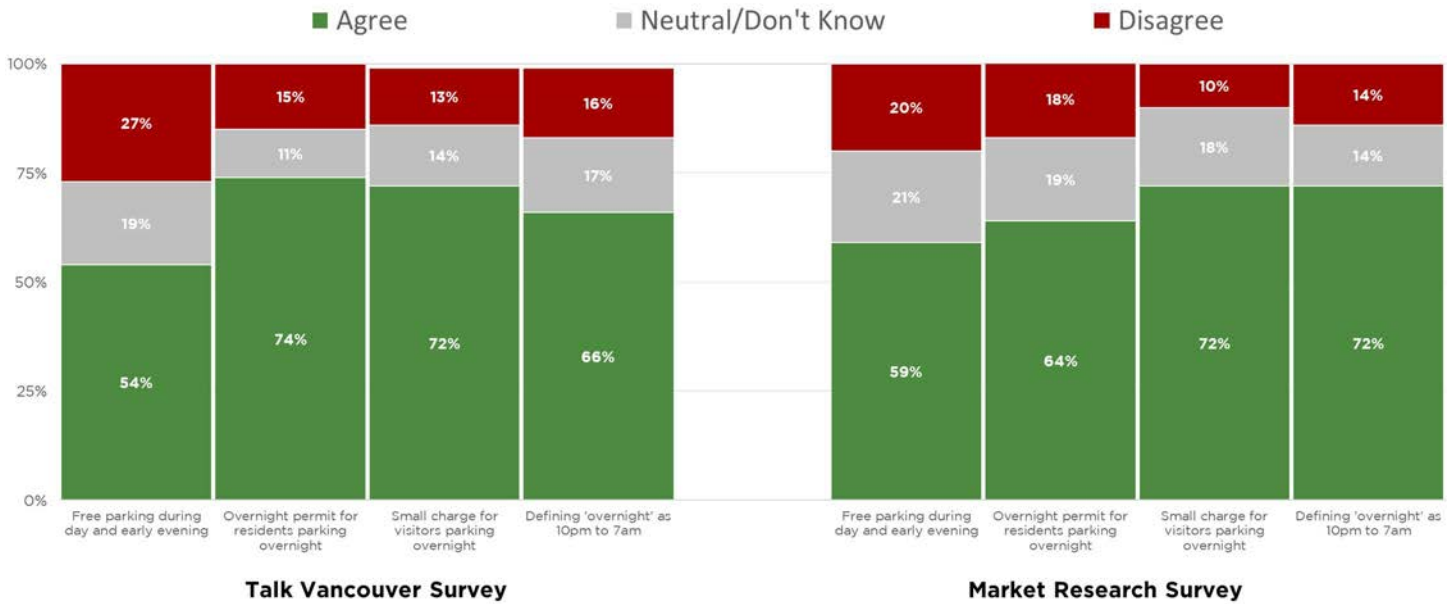


Figure 8. Sentiment on the details of the new overnight permit zone, from respondents who were supportive or neutral on the general idea⁸

⁸ These questions were asked of the 20% of Talk Vancouver survey respondents who agreed with, were neutral to, or unsure about the pollution charge, and of the 45% of market research survey respondents who agreed with or were neutral to the idea.

**Sentiment on the proposed base rate for annual overnight permits
(from respondents open to the idea)**

Respondents who indicated they were not opposed to the idea of the new overnight permit zone were asked whether the base rates should change (Figure 9).

For the public survey, most respondents indicated the fee should be higher. For the market research survey, more felt it should stay the same.

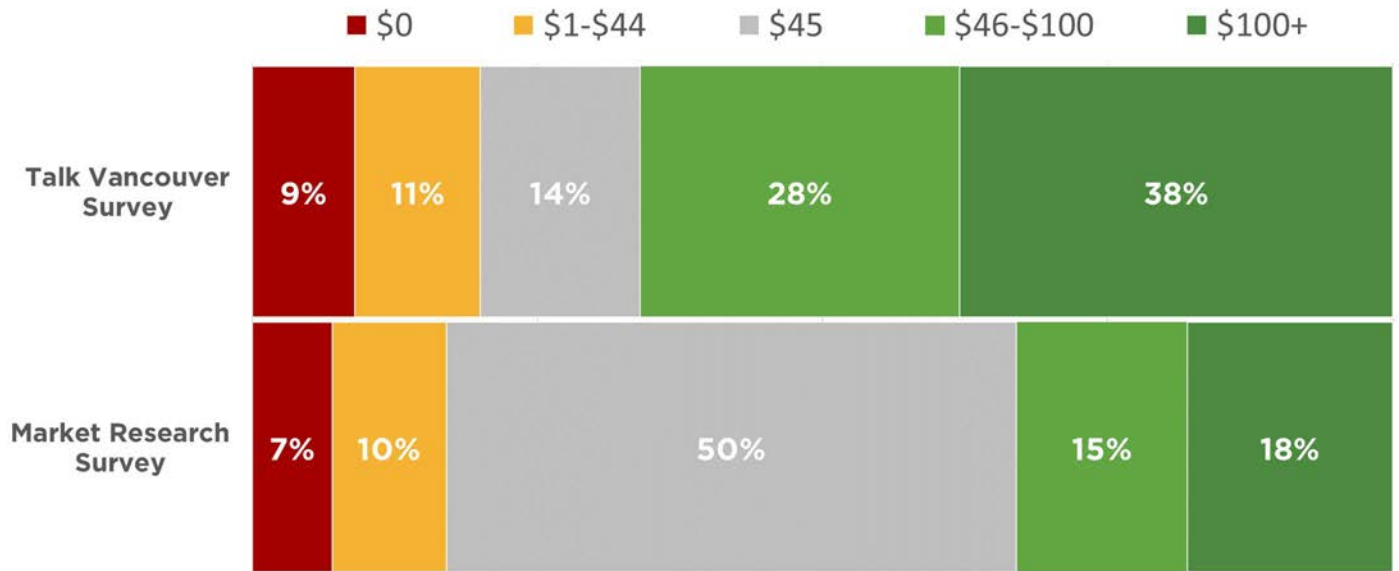


Figure 9. Sentiment on whether the proposed annual base permit rate should change, from respondents who were supportive or neutral on the general idea.⁹

⁹ These questions were asked of the 20% of Talk Vancouver survey respondents who agreed with, were neutral to, or unsure about the pollution charge, and of the 45% of market research survey respondents who agreed with or were neutral to the idea.

Sentiment on the proposed rate for overnight visitor parking (from respondents open to the idea)

Respondents who indicated they were not opposed to the idea of the new overnight permit zone were asked whether the base rates should change (*Figure 10*).

For the public survey, most respondents were split on whether the fee should stay the same or increase. For the market research survey, more felt it should stay the same.

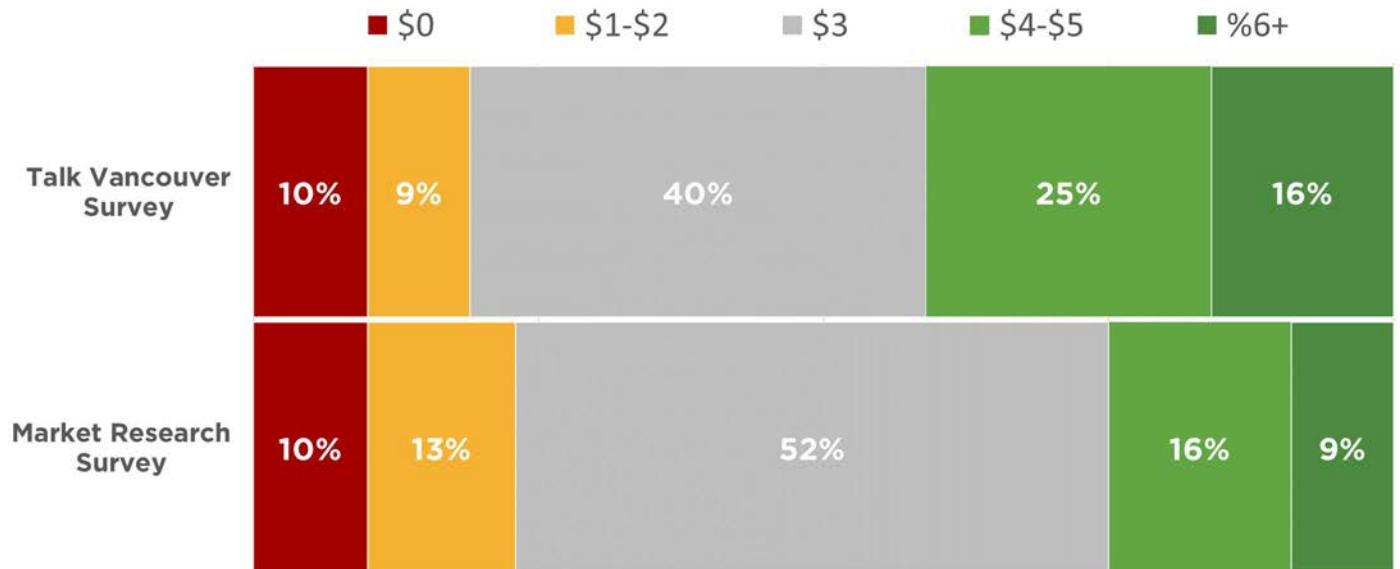


Figure 10. Sentiment on whether the proposed annual base permit rate should change, from respondents who were supportive or neutral on the general idea.¹⁰

¹⁰ These questions were asked of the 20% of Talk Vancouver survey respondents who agreed with, were neutral to, or unsure about the pollution charge, and of the 45% of market research survey respondents who agreed with or were neutral to the idea.

Sentis Follow-up Survey

Feedback from both original surveys indicated that many respondents weren't clear on how the proposed parking program would work (see *Figure 4*,

Table 5, and *Table 6* in this report). In particular, many respondents:

- Believed that the pollution charge would apply to existing vehicles; in fact it would only apply to vehicles in the future (model years 2023 and afterwards)
- Believed that the only vehicles falling under the \$0 tier would be expensive electric vehicles; in fact, most economy cars and many vehicles suitable for families would fall under the \$0 tier)
- Seemed not to understand (or believe) how revenue from the program would be used to fund climate actions

The feedback from the initial surveys also indicated common concerns around affordability.

To address this, the City asked Sentis to reach out to respondents from the original representative survey to clarify these points, propose some modifications to the original plan, and re-capture their opinions.

The follow-up survey was conducted by Sentis in August 2021. A total of 390 responses were received, with a margin of error of +/- 6.2% 19 times out of 20. As with the original Sentis market research survey, results were weighted by dwelling type (ground-oriented vs other), household income, and city sub-region to accurately reflect the City of Vancouver adult population.

Clarifying common misperceptions about the proposed annual pollution charge

All follow-up survey respondents were asked about specific details relating to the pollution charge, some of which were frequently misunderstood in the original surveys (*Figure 11*).

The results indicated respondents like the ideas proposed in Phase 2 to:

- Not charge a pollution fee for existing vehicles (the fee would apply to future vehicles, starting with model year 2023 and beyond)
- Not charge a pollution fee for low-polluting vehicles, including most economy vehicles and many vehicles suitable for families (*Figure 4* in this report was used to help clarify which future vehicles the charge would apply to)
- Not charge a pollution fee for vehicles specialized for people with disabilities

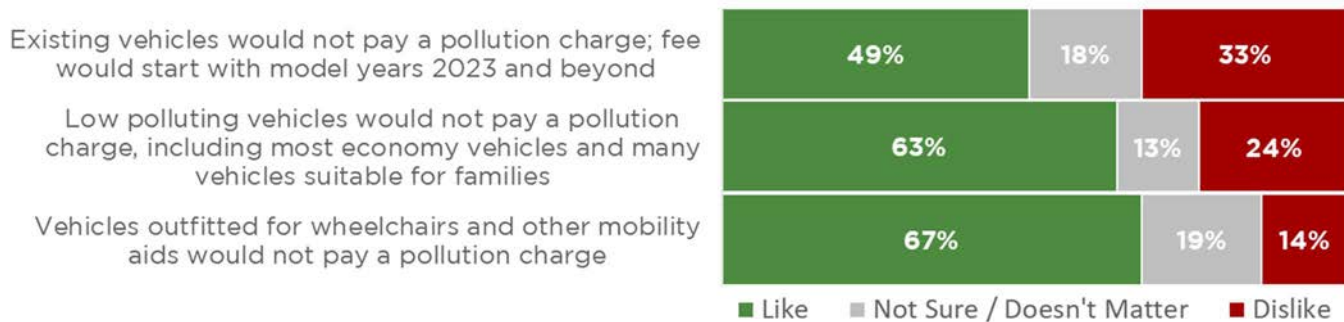


Figure 11. Support for pollution charge component details¹¹

¹¹ Sentis follow-up survey, based on 390 demographically representative responses. The question was posed as follows: "How do you feel about these provisions relating to the proposed vehicle pollution charge?"

Support for modifications to the proposed new overnight permit zone

To address concerns relating to affordability, the follow-up survey proposed some modifications to the proposed new overnight permit zone (*Figure 12*).

The results indicated respondents:

- Like the idea of reducing the base fee for the new overnight permit zone for low income households (from the proposed \$45 annual fee)
- Like the idea of reducing the time the new zone would be in effect, from 10pm-7am to midnight-7am
- Do not like the idea of reducing the overnight fee for visitors (from the proposed \$3 nightly fee)

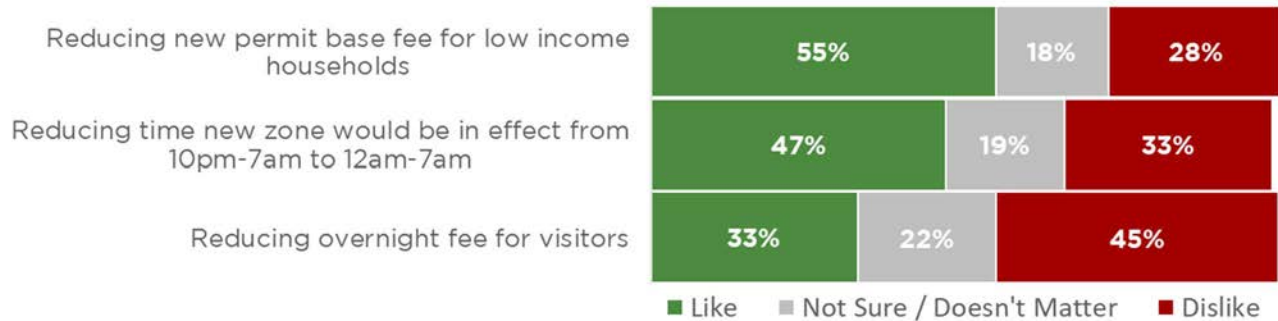


Figure 12. Support for potential modifications to the proposed new overnight permit zone¹²

¹² Sentis follow-up survey, based on 390 demographically representative responses. The question was posed as follows: "How would you feel about these modifications to the proposed overnight permit system?"

Questions relating to how funding could be used

The initial surveys indicated many people were concerned with how the revenue would be spent. Some did not understand or believe the proposal that the revenue would be used towards climate actions outlined in the Climate Emergency Action Plan; others felt the program was a 'tax grab.'

Clarification questions relating to funding were asked to help clarify program understanding and better understand perceptions (see *Figure 13*) in the follow-up survey indicated most respondents:

- Like using revenue from the program to fund key climate actions (59% like, 26% dislike)
- Like the idea that revenue from the program would mean the City would not have to raise as much funding from other sources, such as property taxes, to fund key climate actions (52% like, 25% dislike)

An additional question was asked to gauge how people would feel if program revenue were used to offset property tax increases *rather than* fund climate action. Responses were mixed, with equal numbers of people expressing that they would be more comfortable or less comfortable with the program if this change was made.

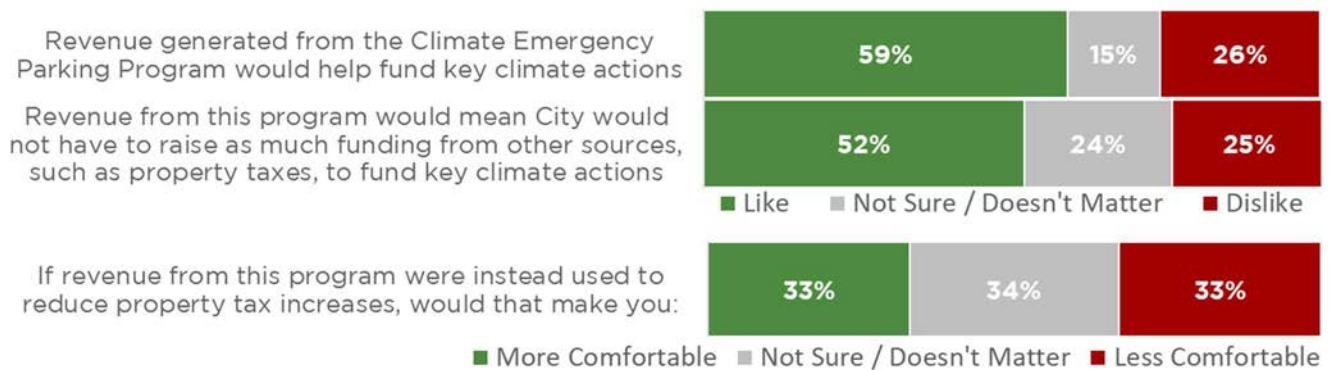


Figure 13. Feelings on how revenue would be used¹³

¹³ Sentis follow-up survey, based on 390 demographically representative responses.

Support for program as a whole and main components

After the aforementioned questions aimed at clarifying common misunderstandings and testing potential program modifications, survey respondents were asked for their overall opinion on the Climate Emergency Parking Program component as a whole, as well as on the two main components of the program.

The results indicated:

- **52% support for program as a whole (37% opposed)**
- 63% support for the pollution charge (28% opposed)
- 45% support for the new overnight permit zone (47% opposed)

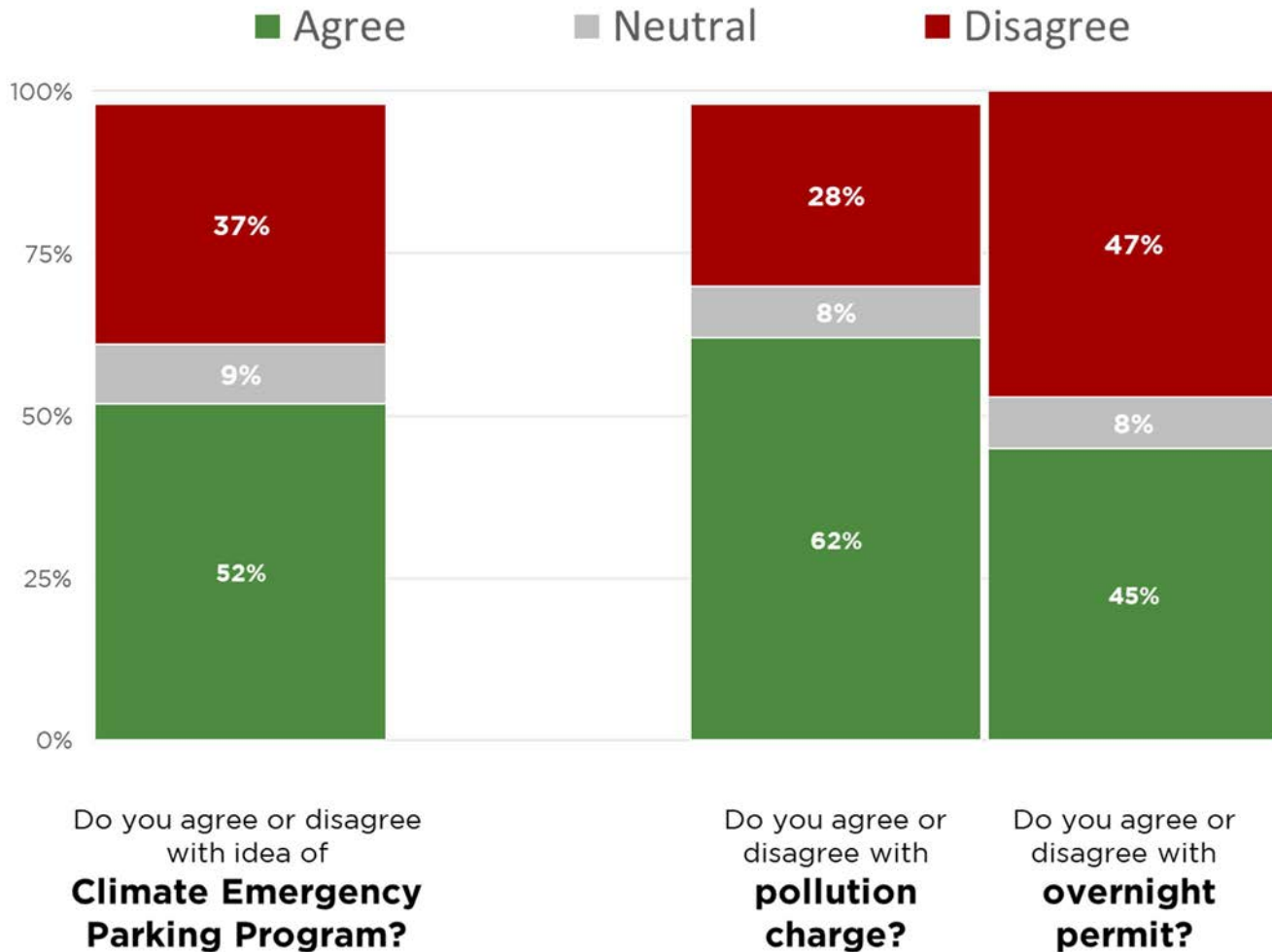


Figure 14. Support for the pollution charge, overnight permit zone, and program as a whole¹⁴

¹⁴ Sentis follow-up survey, based on 390 demographically representative responses. The question was posed as follows: “Alright, now that we’ve clarified some details and if the discussed modifications were made, do you agree or disagree with the idea of a Climate Emergency Parking Program? / More specifically, how do you feel about each of the two components? When it comes to the idea of [a pollution charge / an overnight permit system], I...”

Results were further analyzed by individual responses (*Figure 15* below). The results indicated:

- **50% support (or don't object to) both the pollution charge and the new overnight permit zone**
- 22% support (or don't object to) just the pollution charge
- 3% support (or don't object to) just the new overnight permit zone
- 25% reject both the pollution charge and the new overnight permit zone

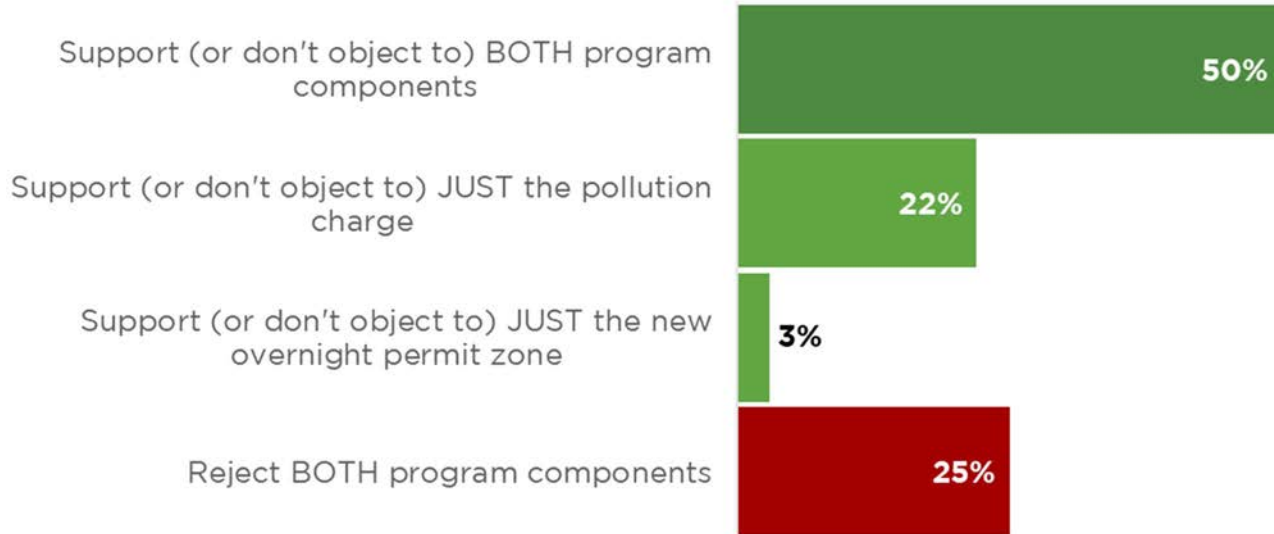


Figure 15. Percent supporting or not objecting to each program component¹⁵

¹⁵ Sentis follow-up survey, based on 390 demographically representative responses. The question was posed as follows: "Alright, now that we've clarified some details and if the discussed modifications were made, do you agree or disagree with the idea of a Climate Emergency Parking Program? / More specifically, how do you feel about each of the two components? When it comes to the idea of [a pollution charge / an overnight permit system], I..."

Support by various demographic factors

As with the initial surveys, results were further analyzed by various factors. *Figure 16* indicates support for the program as a whole, and *Figure 17* indicates support for the individual program components.

As with the initial surveys, the results indicated **higher levels of support from renters** (compared to homeowners), **people living in non-ground oriented housing** (compared to ground-oriented housing), and **car-free households** (compared to car-owning households):

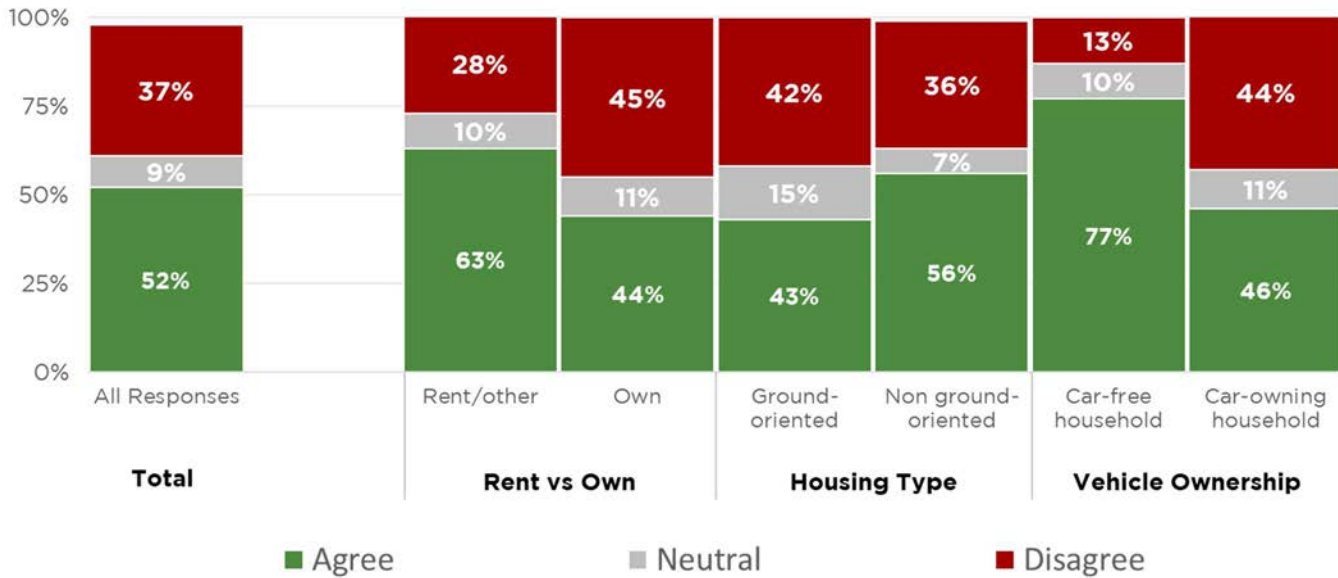


Figure 16. Follow-up survey: overall support for the program, analyzed by various factors¹⁶

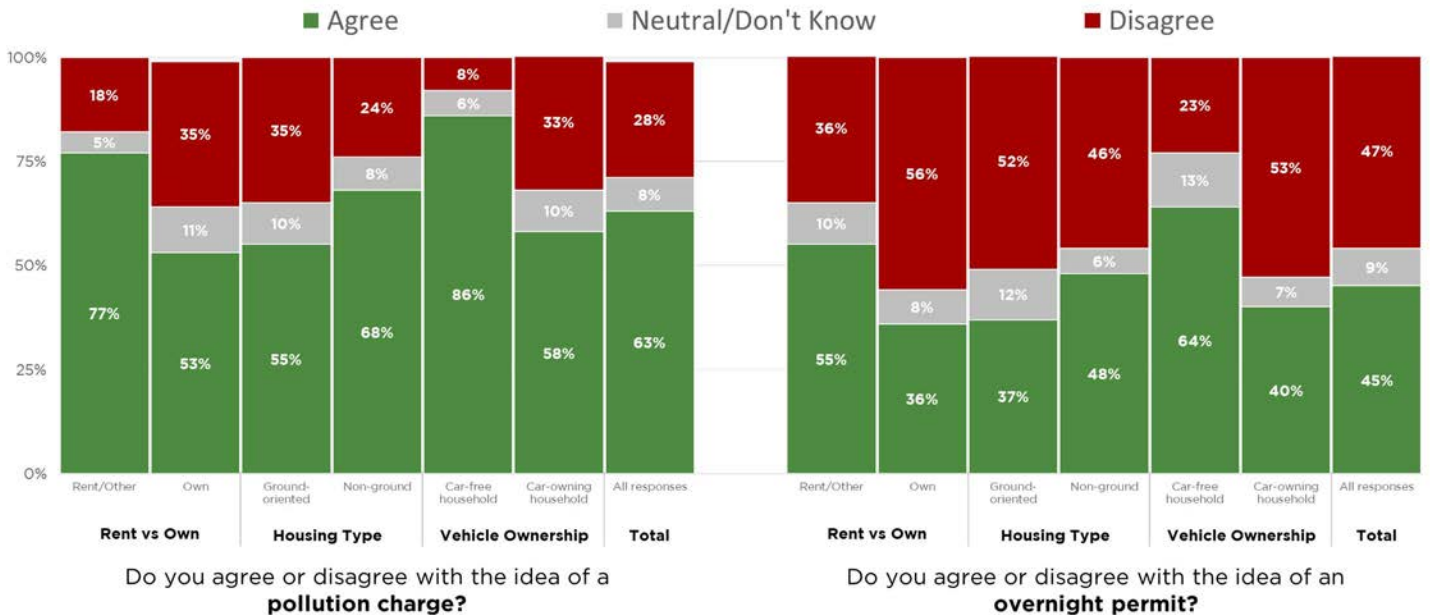


Figure 17. Follow-up survey: support for the program components, analyzed by various factors¹⁷

¹⁶ Sentis follow-up survey, based on 390 demographically-representative responses. The question was posed as follows: "Alright, now that we've clarified some details and if the discussed modifications were made, do you agree or disagree with the idea of a Climate Emergency Parking Program? / More specifically, how do you feel about each of the two components? When it comes to the idea of [a pollution charge / an overnight permit system], I..."

¹⁷ Ibid.

Comparing the three surveys

Figure 18 below compares high-level results from the three surveys.

Support was lowest in the Talk Vancouver survey. This could in part be explained by:

- The large over-representation in the public survey from homeowners, low density housing types, high vehicle ownership households (see *Table 3* earlier)—groups that were less likely to support the initiative
- Common misperceptions that the pollution charge would apply to existing vehicles (in fact, they would be exempt) and that only expensive vehicles would fall under the \$0 pollution charge tier (in fact, most economy vehicles and many family-oriented vehicles would fall under \$0 tier)

The initial market research survey by Sentis indicated higher levels of support, but not as high as in the follow-up survey. This could be explained by:

- Responses more closely reflecting actual city demographics, weighted by factors including dwelling type, income, and sub-region within the city (see *Table 3* earlier)
- The same common misperceptions as with the Talk Vancouver survey

Support was highest in the Sentis follow-up survey, which used the same demographically representative approach as the initial Sentis survey and also:

- Attempted to clarify common misunderstandings (*Figure 11*)
- Proposed potential program modifications to address concerns relating to affordability (*Figure 12*)

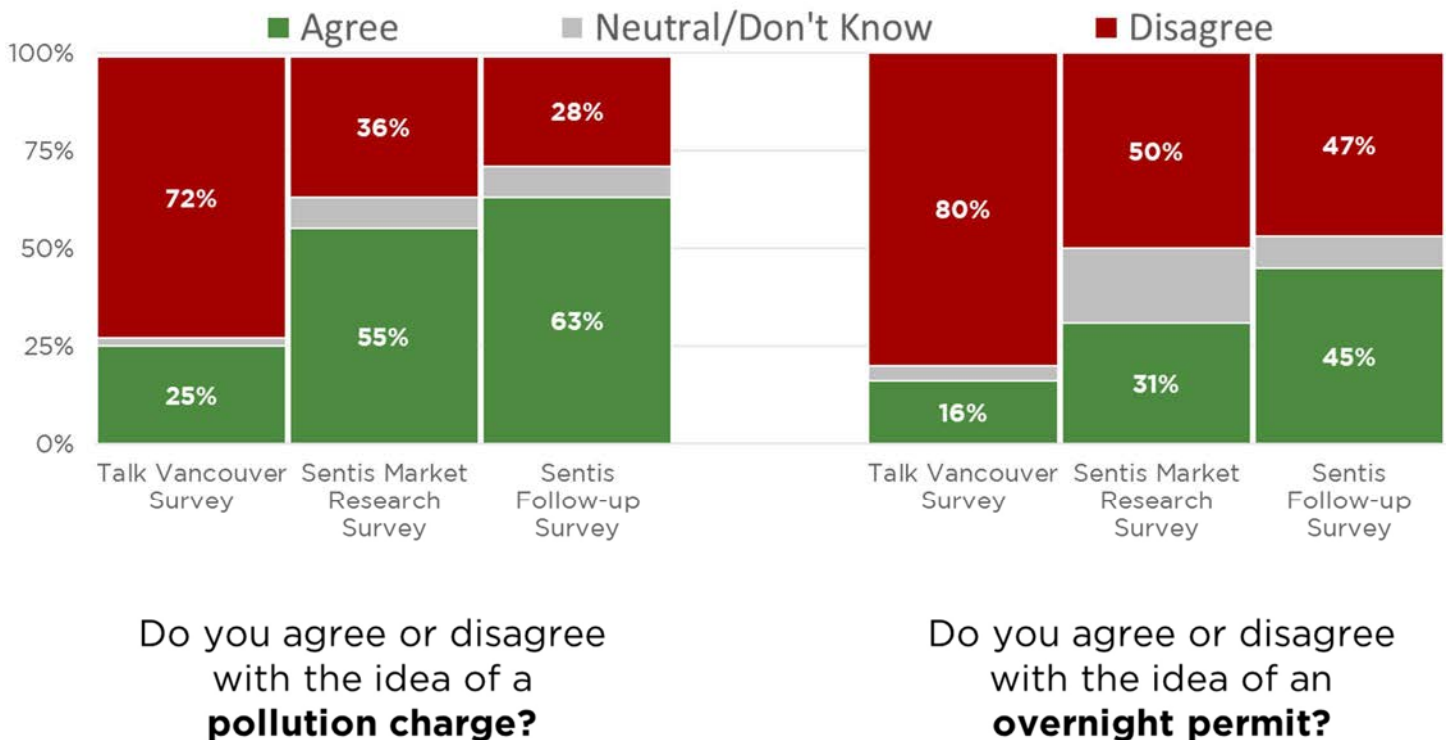


Figure 18. Support for program components – comparing the three surveys¹⁸

¹⁸ Talk Vancouver survey results based on 18,923 total responses. Initial market research survey administered by Sentis and based on 521 demographically representative responses. Follow-up survey administered by Sentis and based on 390 demographically representative responses, from same cohort as initial market research survey.

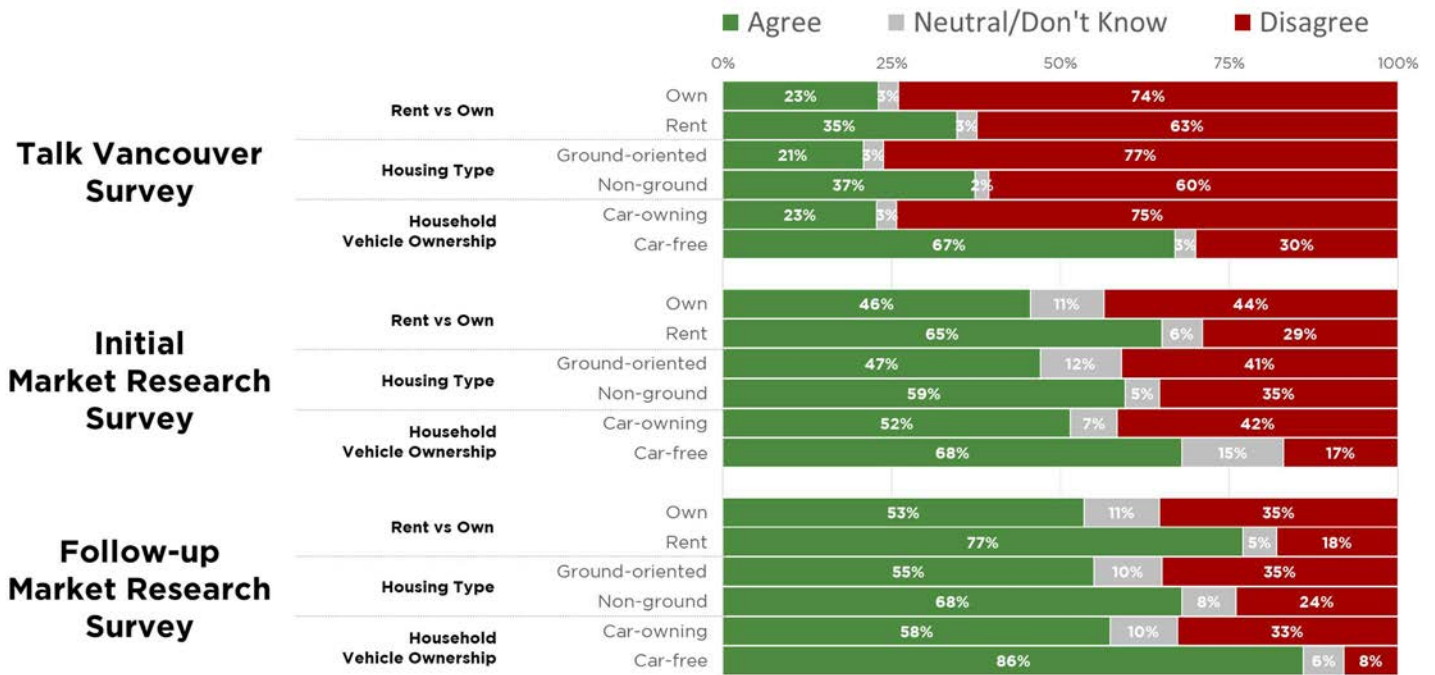


Figure 19. Support for the pollution charge across all three surveys, analyzed by various factors¹⁹

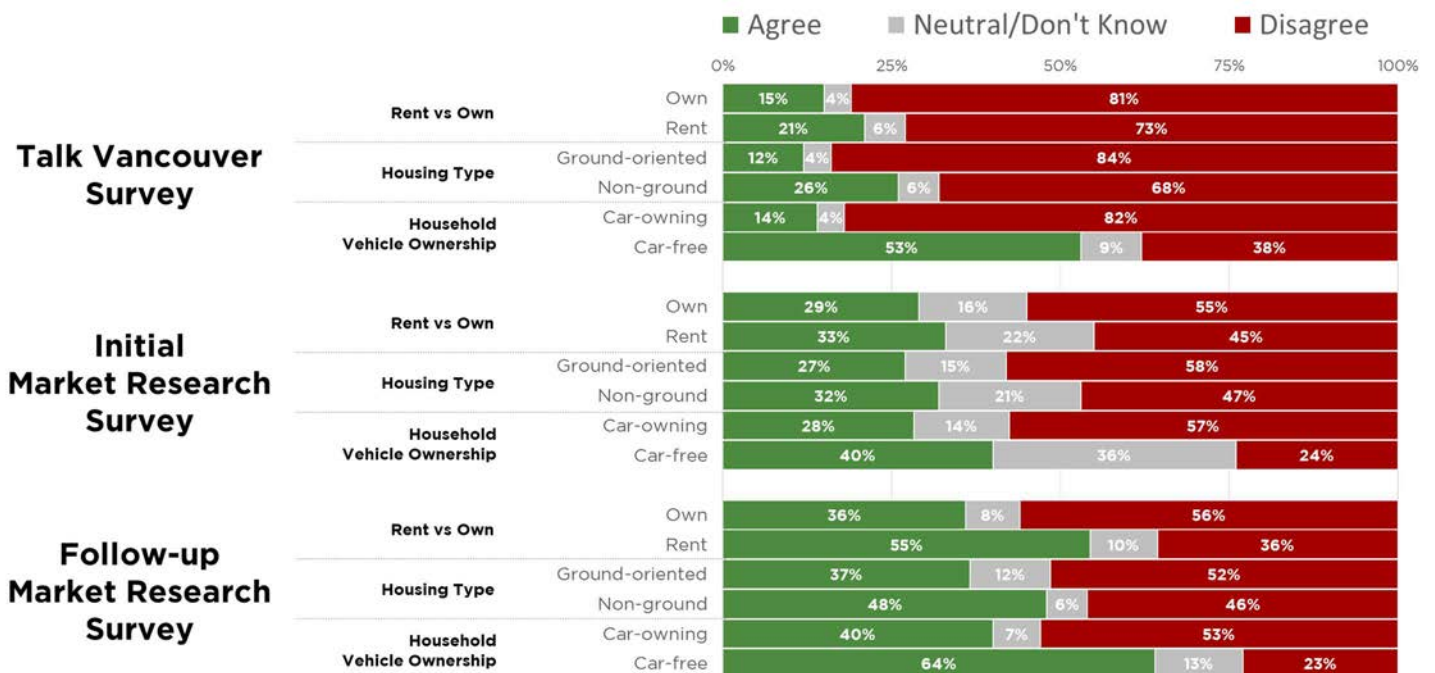


Figure 20. Support for the new overnight permit zone across all three surveys, analyzed by various factors²⁰

¹⁹ Talk Vancouver survey results based on 18,923 total responses, including: 5,076 'Rent/Other' responses (where 'other' includes co-op, unsheltered, or write-in responses), 12,598 'Own' responses, 13,313 'Ground-oriented' responses, 4,951 'Non-ground-oriented' responses, 971 'Car-free household' responses, and 17,953 'car-owning household' responses. Initial market research survey administered by Sentis and based on 521 demographically representative responses. Follow-up survey administered by Sentis and based on 390 demographically representative responses, from same cohort as initial market research survey.

²⁰ Ibid.

Next Steps

Public and stakeholder input has been used to inform final recommendations for the Climate Emergency Parking Program.

Appendix E – Proposed Implementation Plan

To minimize the required implementation resources, three new parking zones would be created to implement the overnight residential parking permit zone – each with unique deadlines, starting with the zone with the lowest number of permits (Zone 2). Table 1 provides a summary of the three zones and permit roll-out schedule. City staff are estimating up to 90% of sales would be completed online, based on the statistics of the Empty Home Tax.

Table 1 – Roll-out zones

Overnight Residential Parking Permit Zone	Area of city	Percentage of permits	Deadline to purchase permit
Zone 1	Streets west of Cambie to UBC	30%	March 31, 2022
Zone 2	Streets between Cambie and Knight + downtown	30%	February 28, 2022
Zone 3	Streets east of Knight Street to Boundary Rd.	40%	April 30, 2022

An extensive communications campaign will be developed to support the phased permit sales (see Table 2).

Table 2 – Communications campaign summary

Phase	Approximate timeframe	Communications objective
Phase 1	October / December 2021	Awareness of the Council-approved program, new parking zones, roll-out schedule and overnight residential parking permit purchasing schedule
Phase 2	January 2022 (Phase 2 will commence when 80% of the notices have been mailed out)	<ul style="list-style-type: none"> Action is required of vehicle owners – particularly for Zone 2 due to first deadline on Feb 28 Alert public to limited in-person purchasing schedule Alert public that passes are available for online purchase for all 3 Zones
Phase 3	February 2022	Reinforcement of CEPP messaging and reminder of Feb 28 deadline for Zone 2 permits
Phase 4	March 2022	Reinforcement of CEPP messaging and March 31 deadline for Zone 1 permits
Phase 5	April 2022	Reminder for April 30 deadline for Zone 3 permits
Ongoing	May 2022+	Targeted reminders of CEPP rules and regulations on an as needed basis

Appendix F – Further insights into concerns related to households with low-income, renters, used vehicles, and vehicles used for work

Households with low-income

Some feedback received from the engagement processes identified affordability as an issue for low-income households for the annual pollution charge and overnight residential parking permit. The following has been considered when making recommendation to Council:

1. 50% of households in Vancouver with incomes under \$50,000 do not own a vehicle and would not be affected by this program. Given the relatively high proportion of household income that vehicle ownership represents for low-income households, continuing to build a city that does not require owning a vehicle would advance equity goals. The revenue generated by the CEPP could be used to further this goal by expanding active transportation and transit infrastructure.
2. Residents in the low-income households would be highly unlikely to be assessed the Pollution Charge (\$500 or \$1,000/year) due to the following:
 - All existing vehicles would be exempted from annual pollution charges
 - For residents who choose to purchase a new vehicle (2023 model year or newer), there are multiple options available which would result in a \$0 annual pollution charge. When examining 2020 vehicles, it was found that 100% of the 2020 make/model combinations that have a manufacturer's suggested retail price (MSRP) under \$20,000 are low-polluting vehicles which would not be subject to a pollution charge. Of the 145 make/model combinations with MSRPs between \$20k and \$30k, 91 (or close to 63%) would not pay an annual pollution charge. Electric vehicles currently have an upfront cost premium relative to gas/diesel vehicles, but those premiums are steadily coming down and used electric vehicles are more affordable and increasingly available as the sale of new electric vehicles increases
3. Many low-income residents currently live in denser parts of the city where there are already permit zones and are charged \$45-\$90/year. In addition, the proposed overnight residential parking permit fee of \$45/year represents a fraction of a cost of owning a vehicle, which typically exceeds \$3,000/year when combining the costs of insurance (base premium \$1,063/year)¹⁵, fuel (\$1,500/year)¹⁶, and regular maintenance like oil changes (\$500 - \$700/year)¹⁷.

City staff reviewed several options to further address the affordability concern:

1. **Implement an income test to reduce rates for low-income residents:** the CEPP could include a low-income exemption for the overnight residential parking permit, similar to the program currently implemented in the West End. This solution would include a self-declaring system at the time of permit purchase with City staff auditing such declarations during the year. Such an approach would target the population specifically requiring the exemption and, as such, is being recommended in this report.

¹⁵ <https://www.icbc.com/insurance/costs/drivers-experience-crash-history/Pages/default.aspx>

¹⁶ <https://www.bcaa.com/blog/2018/auto/the-true-cost-of-owning-a-vehicle>

¹⁷ <https://www.bcaa.com/blog/2018/auto/the-true-cost-of-owning-a-vehicle>

2. **Consider an overnight residential parking permit cost below \$45/year:** Another solution could be to reduce the overnight residential parking permit cost from \$45 to a lower amount. This would result in a reduction of revenue (~\$0.75M for each \$5 reduction in the permit cost) and would not provide benefits to those specifically seek the low-income exemption. This solution would still allow implementation of the annual pollution charge, and would provide a tool to manage local parking issues.

Renters

Staff have engaged with the Renters Advisory Committee throughout the development of the CEPP, who have generally supported the program. City staff also considered the following:

- Many renters live in denser parts of the city which already have permit parking with permit costs ranging from \$45 to \$400 per year or live in areas where no on-street parking options are available and must park off-street. Extending permit parking across the city to include low density areas is expected to impact single-family homeowners more than rental buildings.

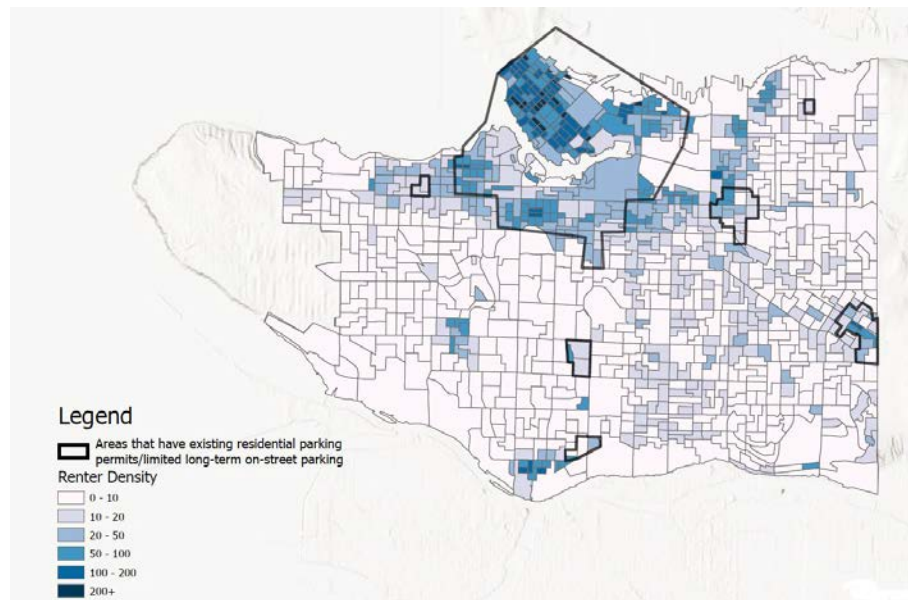


Figure 1. Renter density¹⁸ and areas that have existing residential parking permits/limited long-term on-street parking

- Although, on average, renters have lower incomes than home owners, they have a spectrum of household income. Low-income renters are unlikely to be assessed pollution charges for the reasons outlined in the previous section.
- Through the first round of engagement, staff identified that renters typically pay \$300 - \$1,200/year (\$25-100/month) to park off-street. The \$45/year (\$3.75/month) fee is a fraction of this cost. Residents who choose to buy brand-new high polluting vehicles may

¹⁸ Source: Statistics Canada, Census of Population, 2016

still choose to park on the street as the pollution charges may still be lower in cost than the off-street parking rate.

- In addition, through the engagement Phases 1 and 2 and in both online and market research surveys, it was identified that renters' support for the CEPP is higher than home-owners'

Used vehicles

Some concerns have been raised that households that purchase used vehicles may not have sufficient access to options that would fall into Tier 1. Using Autotrader.ca in early August 2021, staff searched for used vehicles within a 50 km radius from Vancouver's City Hall, and found a significant selection of used vehicles under \$20,000 with emissions intensities low enough to qualify for Tier 1. This included 221 Honda Civics and Toyota Corollas (two of the top selling cars in Canada), and 166 Honda CRVs and Nissan Rogues (two of the top selling SUVs in Canada). There is also a growing market for used electric vehicles in Vancouver, and at the time of review, 16% of the 221 available were selling for less than \$20,000.

Using vehicles for work

Staff have received concerns from the public that vehicles used for work (e.g. tradespeople/ health care workers) may be subject to the annual pollution charge.

For passenger vehicles, the framework of the proposed program means that people using these vehicles can continue to use their existing vehicles, which would be exempted from pollution charges. Should they choose to purchase a new vehicle, they will have many options available to purchase a vehicle in Tier 1 with a \$0 annual pollution charge.

For larger work vehicles, such as pick-up trucks, staff have heard concerns that there are currently few viable electric or low-polluting alternatives and that these vehicles are difficult to park off the street. As with other existing vehicles, trucks people currently own would be exempted from pollution charges. Large vehicles are not inexpensive: pick-up trucks from model year 2020 had an average MSRP of \$44,000 and only two were under \$30,000.

While there are currently no pick-up trucks available that would be efficient enough to have no pollution charge applied, by model year 2023 at least five electric pick-up trucks are expected to be available, including the Ford F150, the Chevrolet Silverado and the Tesla Cybertruck. Electric pick-up trucks are expected to have upfront cost premiums relative to gas/diesel trucks until around 2030, but the fuel and carbon tax savings are more significant. There are also electric work vans and SUVs coming onto the market in 2023.

Impact on residents

Overall projected impact on vehicles in the next two years is summarized in the table below.

Table 1 – Projected number of vehicles subject to annual pollution charge in 2022 and 2023

	2022	2023
Subject to Tier 2 Pollution Charge (\$500)	200 - 400	400 - 700
Subject to Tier 3 Pollution Charge (\$1000)	1,000 – 1,500	2,000 – 3,000

Appendix G – Scenario Analysis, Potential Impacts of Lowering or Increasing Fees

As part of the evaluation of the Climate Emergency Parking Program, staff estimated the potential impact of varying rates of annual pollution charges and overnight residential parking permits. These estimates can be found below in Table 1 and Table 2, respectively.

Table 1 – How different annual pollution charge rates would help reach targets for pollution reduction and fund Climate Emergency actions

Annual Pollution Charge			Carbon pollution reduced in 2030 (kilotonnes)*	% emission reduction targets	Revenue generated over 4 years from 2022 to 2025 (M = millions) ¹⁹	% of Climate Emergency Action Plan funding needs
Tier 1	Tier 2	Tier 3				
\$0	\$100	\$250	4 to 7	2 to 3%	\$4M to \$9M	2 to 4%
\$0	\$250	\$500	8 to 16	3 to 7%	\$9M to \$17M	4 to 8%
\$0	\$500	\$1,000	17 to 33	7 to 14%	\$16M to \$32M	7 to 14%
\$0	\$750	\$1,500	25 to 50	11 to 22%	\$22M to \$44M	10 to 19%
\$0	\$1,500	\$2,000	36 to 72	15 to 31%	\$28M to \$55M	12 to 24%

Table 2 - How different overnight residential parking permit costs would help fund Climate Emergency actions

Overnight Residential Parking Permit Cost	Revenue generated over 4 years from 2022 to 2025 (M = millions)	% of Climate Emergency Action Plan funding needs
\$0/year	\$0	0%
\$5/year	\$5M to \$8M	2 to 3%
\$20/year	\$14M to \$20M	6 to 9%
\$45/year	\$28M to \$40M	12 to 17%
\$75/year	\$45M to \$63M	20 to 27%
\$100/year	\$60M to \$83M	26 to 36%

¹⁹ * The carbon pollution reductions are projected to year 2030 because the City's climate targets are set for that year. The cumulative revenue is calculated for a four-year period from 2022 to 2025 because the investment needs in the Climate Emergency Action Plan have been estimated out to 2025.

Appendix H – Draft By-law Amendments

DRAFT

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

BY-LAW NO. _____

**A By-law to amend Street and Traffic By-law No. 2849
regarding miscellaneous and housekeeping amendments**

1. This By-law amends the indicated provisions of the Street and Traffic By-law.
2. Council adds two new definitions to section 3, in correct alphabetical order, as follows:

 “Low Income Overnight Permit Holder” means an overnight residential parking permit holder who is qualified to enrol in the Vancouver Park Board’s Leisure Access Program, or a substantially similar program.”;

 and

 “Residential Property” means real property used in whole or in part for a residential purpose.”.
3. Council strikes the definition of “Low Income Resident Permit Holder” from section 3 and substitutes the following new definition:

 “Low Income West End Resident Permit Holder” means a residential parking permit holder in the West of Denman, Nelson Plateau-Slopes or South of Davie-Beach areas who is qualified to enrol in the Vancouver Park Board’s Leisure Access Program, or a substantially similar program.”.
4. Council deletes the period “.” at the end of subsection 17.4(f)(ii), replaces it with a semi-colon” and inserts a new subsection 17.4 (g) as follows:

 “(g) on a portion of street where overnight residential parking permits are required by section 25.1, unless the vehicle is authorized by permit to park there or is stopped and actively engaged in loading or unloading merchandise or other commodities, or passengers.”.
5. Council strikes section 23.4 and replaces it as follows:

 “23.4 The annual fee for a permit authorizing parking under section 23.1(a)(i) or (ii), exclusive of all federal or provincial taxes is:

 (a) for parking of each vehicle belonging to an existing West End permit holder or to a long-term West End resident permit holder on streets located in the West of Denman, Nelson Plateau-Slopes or South of Davie-Beach areas,

as defined in Schedule D to this By-law, up to a maximum of the number of vehicles for which permits were obtained at the time the permit holder became an existing West End permit holder or a long-term West End resident permit holder

.....\$86.60;

- (b) for parking of each vehicle belonging to a new permit holder on streets located in the West of Denman, Nelson Plateau-Slopes or South of Davie-Beach areas, as defined in Schedule D to this By-law
..... \$382.03 annually;
- (c) for parking of each vehicle belonging to a resident on streets located in the Robson North area, as defined in Schedule D to this By-law
..... \$86.60;
- (d) for parking of each vehicle belonging to a resident on streets located in the area of the city bounded on the north by 6th Avenue, on the east by Cambie Street, on the south by 19th Avenue from Cambie Street to Oak Street, and by Douglas Crescent, Wolfe Avenue and Marpole Avenue from Oak Street to Granville Street, and on the west by Granville Street, except for the 500 and 600 blocks of West 18th Avenue and West 19th Avenue.....\$63.92;
- (e) for parking of each vehicle belonging to a resident on streets located in all other areas of the city.....\$43.29; and
- (f) for parking of each vehicle belonging to a Low Income West End Permit Holder on streets located in the West of Denman, Nelson Plateau-Slopes or South of Davie-Beach areas, as defined in Schedule D to this By-law
.....\$86.60”.

6. Council inserts a new section 25 and 26 as follows:

“OVERNIGHT RESIDENTIAL PARKING - UNSIGNED

25.1 If a portion of the street:

- (a) is on a city block where residential property abuts any portion of the street; and
- (b) has no other signed parking regulations except for regulations that restrict parking to residents only, but the regulations do not require a permit under this by-law;

a vehicle must display a parking permit to be parked on any such portion of street between 12:00 a.m. and 7 a.m, unless the occupants are actively engaged in loading or unloading merchandise or other commodities, or passengers.

25.2 The City Engineer may:

- (a) issue any parking permit required under section 25.1;
 - (b) determine the form of parking permit; and
 - (c) impose conditions related to:
 - (i) the area and period for which the permit is valid,
 - (ii) how the permit shall be displayed, and
 - (iii) such other safety concerns as are considered reasonable.
- 25.3 No holder of a parking permit required under section 25.1 that authorizes parking in an area specified in the permit may cause or allow the permit to be:
- (a) altered, copied, sold, assigned or otherwise transferred;
 - (b) placed on a vehicle other than the vehicle for which the permit was issued;
or
 - (c) used or displayed in contravention of the conditions of the permit.
- 25.4 No person may:
- (a) possess or display on a vehicle an unauthorized copy of a permit required under section 25.1;
 - (b) display a permit on a vehicle other than the vehicle for which it was issued;
or
 - (c) display a permit on a vehicle after the person is no longer eligible to hold the permit.
- 25.5 The annual fee for a permit authorizing parking issued under section 25.2(a), exclusive of federal or provincial taxes, is:
- (a) for parking of each vehicle belonging to a permit holder
.....\$43.29; and
 - (b) for parking of each vehicle belonging to a permit holder that is a Low
Income Overnight Permit
Holder.....\$5.00.
- 25.6 A permit holder may return a permit issued under section 25.2(a) prior to the permit expiry date, and the permit holder shall be refunded a pro-rated part of annual fee paid, calculated daily, less an administrative fee of \$5.00.
- 25.7 The City Engineer may issue a one-day permit for a vehicle required under section 25.2(a) for \$3.00.
- 25.8 No person may provide false information on an application for a permit issued under section 25.2(a).

- 25.9 Any person convicted of providing false information on an application for a permit issued under section 25 2 (a) may not apply for another permit for a period of 6 months.

POLLUTION CHARGE

- 26.1 Permits issued under section 23.1 or 25.2(a) are subject to an additional annual fee as follows, for vehicles that are model year:
- a) 2022 or older.....\$0
 - b) 2023 or newer and emit no more than 200 g/CO₂ per km as reported by the Government of Canada.....\$0
 - c) 2023 or newer and emit more than 200 g/CO₂ but less than 225 g/CO₂ per km as reported by the Government of Canada.....\$500
 - d) 2023 or newer and emit more than or equal to 225 g/CO₂ per km as reported by the Government of Canada\$1000
- 26.2 Vehicles that are modified to accommodate large personal mobility devices for use by persons with disabilities are not subject to an additional fee under Section 26.1.”
7. Council inserts “17.4(g),” after “17.4(f)(ii)” in section 103.
8. A decision by a Court that any part of this By-law is illegal, void, or unenforceable severs that part from this By-law, and is not to affect the balance of this By-law.
9. This By-law is to come into force and take effect on January 1, 2022.
