



Written Submission for the Pre-Budget Consultations in Advance of the Upcoming Federal Budget

Submitted on October 7, 2022

By: FLO



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About FLO

FLO welcomes the opportunity to submit comments and recommendations to Finance Canada for its Pre-Budget consultations in advance of the upcoming federal budget.

Founded in 2009 in Québec, FLO is a leading North American electric vehicle (EV) charging network operator and a major provider of smart charging software and equipment. Our headquarters, network operations and R&D centres are based in Quebec City, and our assembly plants are in Shawinigan (Quebec) and Auburn Hills (MI). The company also has offices in Montreal and Vancouver, and regional teams located in Ontario and in major markets across the U.S.

FLO is a proud Canadian company focused on helping advance Canadian transportation electrification, while at the same time creating good jobs and economic growth in what will be a key industry in the coming decades, both domestically and internationally. Every month, FLO enables hundreds of thousands of charging events thanks to over 70,000 high-quality stations deployed on public networks and commercial and residential installations both in Canada and in the United States. Since 2009, our corporate family has grown to over 450 direct jobs, effectively doubling in size over the last 18 months.

Our written feedback is provided below.

List of Recommendations

- **Recommendation 1:** That the government continues building on the significant investments made towards electric vehicle (EV) charging infrastructure from Budget 2022, specifically funding provided to the Canada Infrastructure Bank (CIB) and the Zero Emission Vehicle Infrastructure Program (ZEVIP)
- **Recommendation 2:** That the government dedicates more funding to support light duty vehicle (LDV) charging infrastructure, recognizing the important role that LDVs will play in greenhouse gas (GHG) emissions reduction
- **Recommendation 3:** That the government leads by example on providing access charging infrastructure: ensuring that government installations have charging stations for employees and citizens, that the federal fleet is electrified, and that government lands are made available for public charging deployment

Recommendation 1: That the government continues building on the significant investments made towards electric vehicle (EV) charging infrastructure from Budget 2022, specifically funding provided to the Canada Infrastructure Bank (CIB) and the Zero Emission Vehicle Infrastructure Program (ZEVIP)

Budget 2022 provided \$400 million over five years for Natural Resources Canada to continue funding the flagship Zero Emission Vehicle Infrastructure Program (ZEVIP). It also announced that the Canada Infrastructure Bank (CIB) would invest \$500 million towards large-scale urban and commercial ZEV charging and refuelling infrastructure, recently launched as the *Charging and Hydrogen Refuelling Infrastructure Initiative (CHRI)*.¹ FLO would like to begin by applauding these two commitments from Budget 2022, as these are measures that the EV industry has been calling for every year and we are pleased to see the government take action to fund the continued rollout of a nationwide charging network. This work is crucial as more and more Canadians choose EVs as their choice of personal transportation.

The adoption of electric vehicles is accelerating. The first quarter of 2022 saw a 55.2 per cent increase in battery electric vehicles (BEVs) compared to the previous year, according to Statistics Canada.² This is a trend that will continue, and it is vital that Canada's charging infrastructure meets demands. While most Canadians will charge their vehicles at home, knowing that a cross country network exists and is readily available to consumers will help spur continued adoption of EVs and continue to alleviate fears of range anxiety or forcing major changes in transportation habits. The continued support and funding of programs like ZEVIP is important so that momentum is not stalled, and so that Canada has a real shot at meeting its ambitions ZEV adoption targets.

While ZEVIP has seen successes so far, as funds get disbursed to NRCan, careful considerations should be given to a few points:

- *Increasing project cap size* – As currently designed, the program is limited by the total funding amounts that a project can receive. Due to the current maximum spending and funding limits, partners are unable to apply with larger projects in mind, whether those be at one location or across several locations leading to slower rollout of charging infrastructure. FLO believes that ZEVIP needs to have the capability to provide funding for larger projects, which will help partners reduce red tape and costs associated with applying;
- *Encouraging infrastructure maintenance* – The warranty costs and preventive maintenance costs payable at the time of purchase of the station should be considered as eligible expenses to encourage planned and intentional maintenance of the infrastructure, for a more reliable charging network; and
- *Strengthening the business case* – As currently designed, the repayment requirements require the applicants to repay any profits yielded on the project in the proportion of the initial ZEVIP contribution. This requires both onerous reporting over

¹ <https://cib-bic.ca/en/projects/green-infrastructure/charging-and-hydrogen-refuelling-infrastructure-initiative/>

² <https://www150.statcan.gc.ca/n1/daily-quotidien/220721/dq220721d-eng.htm>

10+ years and significantly undermines the business case of any project. We recommend removing these requirements or better carve the specific cases NRCan is trying to prevent.

Beyond programs like ZEVIP, continued support is also needed for other innovative funding options, like what the CIB has put together. By providing unique funding options, FLO believes that programs like CHRI will lead to further development of public charging infrastructure due to having a reliable partner to share in some of the risks of being an early participant in the buildout of Canada’s EV charging network. The government should ensure that programs like the one the CIB offers does not prevent partners from applying for other government programs at the same time, like ZEVIP.

Finally, for Canada to be able to support the growth in EV ownership, we recommend that the federal government sets clear deployment targets in accordance with the recently published report by Natural Resource Canada (*Canada’s Public Charging Infrastructure Needs, Updated Projections*).³ Also below. Targets will help keep all levels of government as well as ecosystem players on track and regular reporting of progress will allow the public to see what actions have been taken to improve public charging infrastructure in Canada. Moreover, setting infrastructure deployment targets help define a clear horizon for private investors and financial institutions who want to support the transition to EVs in our country.

Table ES- 2: Estimated total charging infrastructure needs and EV-to-charger ratios for Canada.

		2025	2030	2035	2040	2045	2050
Scenario 1: High access to home charging	Public DCFC	4,300	13,800	32,000	50,200	62,700	69,000
	Public L2	48,000	181,000	410,000	593,000	673,000	658,000
	Total Public Ports	52,000	195,000	442,000	643,000	736,000	727,000
	Total MURB Ports	515,000	1,302,000	2,189,000	3,191,000	4,326,000	5,610,000
	EVs/Level 2	21	26	30	35	40	47
	BEVs/DCFC	180	250	300	330	350	380
	EVs/Public Port	20	24	28	32	37	43
	EVs/Total Ports	2	3	5	5	5	5
Scenario 2: Low access to home charging	Total DCFC	4,300	14,100	33,700	55,100	72,500	84,900
	Total L2	49,000	186,000	436,000	659,000	791,000	830,000
	Total Ports	53,000	201,000	469,000	714,000	864,000	914,000
	Total MURB Ports	46,000	152,000	499,000	886,000	1,318,000	1,799,000
	EVs/Level 2	21	25	28	31	34	37
	BEVs/DCFC	170	240	280	300	300	310
	EVs/Public Port	20	23	26	29	31	34
	EVs/Total Ports	11	14	13	13	13	12

³ <https://www.nrcan.gc.ca/sites/nrcan/files/energy/cpcin/2022-ev-charging-assesment-report-eng.pdf>

Recommendation 2: That the government dedicates more funding to support light duty vehicle (LDV) charging infrastructure, recognizing the important role that LDVs will play in greenhouse gas (GHG) emissions reduction

FLO also recommends that sufficient funding be continually provided to ensure that Canada reaches the following targets for public charging:

2025 target: 52,000 to 53,000 public ports
 4,300 DCFC at \$100,000 per DCFC: \$430 million
 48,000 L2 at \$10,000 per L2 charger: \$480 million
Total: \$910 million

2030 target: 195,000 to 201,000 public ports
 14,000 DCFC at \$100,000 per DCFC: \$1,4 Billion
 184,000 L2 at \$10,000 per L2: 1,84 Billion
Total: \$3.24 Billion

There are significant challenges facing decarbonization of medium and heavy-duty vehicles (MHDVs). While FLO believes that solving this problem will make a large impact on reducing GHG emissions and helping Canada reach climate agreement targets, the solution to decarbonizing LDVs is readily available. Adoption of EVs will increase at a faster and more rapid pace with the proper charging infrastructure available and help to pave the way for MHDVs and the full ecosystem of electrification.

The importance of public charging availability cannot be stressed enough due to the large number of Canadians who will not have reliable access to home charging. However, as highlighted in the recent NRCan report (*Canada's Public Charging Infrastructure Needs, Updated Projections*),⁴ supporting the early deployment of residential charging can significantly reduce the investments needed in public charging. Currently, home charging can be a costly retrofit and surprisingly, is a retrofit that does not qualify for the government's signature retrofit program, the *Canada Greener Homes Grant*. The government needs to ensure that installation of home EV charging is a part of retrofit grants, along with further assistance for those who need electric panel upgrades to meet requirements, and for large buildings like condominiums and apartments. As identified in the recently released *Canada Green Buildings Strategy Discussion Paper*, retrofits are going to be an important part of the picture if Canada is to reach net-zero. EVs need to be a part of the retrofit discussion.

Another important aspect to consider when looking at providing incentives for home charging is that programs should encourage the installation of networked – or “smart” – charging stations. Smart stations can communicate with a charging network and its members, and in some cases, with utilities or distributed energy resource management system providers. This will help with demand on power and strain on grids, as smart charging supports on-site power management and utility demand response programs. Non-networked EV charging stations do

⁴ <https://www.nrcan.gc.ca/sites/nrcan/files/energy/cpcin/2022-ev-charging-assesment-report-eng.pdf>

not have this functionality and not all networked chargers have the same “smart charging” capabilities. It is important for any future retrofit program – or changes to current ones – to emphasize and prioritize the installation of smart chargers at home due to the added benefits. A way of doing this would be to provide additional consumer incentives for purchasing and installing a smart charger.

Finally, Budget 2021 provided additional funding for Measurement Canada to look at developing a set of codes and standards for retail ZEV charging and fueling. FLO believes that the government needs to move more rapidly on developing these standards as EV adoption rates continue to increase. The current pace of development is a roadblock in the creation of a cross country charging network by partners. FLO hopes for continued support for rapid and constructive progress on this matter.

Recommendation 3: That the government leads by example on providing access charging infrastructure: ensuring that government installations have charging stations for employees and citizens, that the federal fleet is electrified, and that government lands are made available for public charging deployment

The Government of Canada can significantly catalyze transport electrification, leading by example in electrifying its fleets and parking lots.

With EV sales projected to increase year-over-year and with its own clear target of 100% ZEV sales by 2035, as a large employer, the federal government will need to address the issue of employees needing charging infrastructure at the workplace.

- FLO recommends the government sets a 100 per cent ZEV target for any new federal light-duty vehicles;
- FLO recommends having all new parking spots dedicated to the federal fleet be “EV-ready” and to have 40 per cent of existing parking spots retrofitted to include the basic electrical infrastructure needed for EV charging by 2035; and
- FLO recommends the government has 15 per cent of parking spots “EV-ready” by 2025, increasing gradually to 40 per cent by 2035.

The government needs to ensure that all its departments are provided with information about how to electrify parking lots and effectively deploy charging infrastructure. Since departments will be responsible for undertaking this on their own, the government should consider making educational materials and training sessions available to department leads who will be responsible for the procurement of EV charging equipment. The government should work with industry to ensure that requirements are realistic so that targets can be achieved. Due to the number of charging stations the government would procure, FLO also recommends the government only use networked charging stations, as these will best serve fleet charging applications, employee, and public charging.

The government should also ensure that high traffic locations like Service Canada and Parks Canada locations are equipped with EV charging infrastructure available for public usage. Identifying public locations on state-owned or state-operated locations could catalyze deployments across the country, including near rural and remote places.

Conclusion

Thank you for the opportunity to submit comments. FLO looks forward to reading the committee's final report and is available to answer further questions.

For further information:

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