British Columbia

EV Ready, and Infrastructure REBATES Webinar

For condo owners, rental apartment building owners and property managers

VANCOUVER ELECTRIC VEHICLE ASSOCIATION

Presentation Host

https://veva.ca/

Thank you to our webinar partner

Electric Vehicle Society

https://evsociety.ca/

Welcome

VANCOUVER ELECTRIC VEHICLE ASSOCIATION

Agenda

- **Opening Remarks - John Stonier, President VEVA**

- **Presentation by Plug-In BC – Mahdis Araujo** Plug In BC

- **Expert Panel Q&A**
  - **Mahdis Araujo**
  - **Don Chandler**

Our Panelists

VANCOUVER ELECTRIC VEHICLE ASSOCIATION

- **Mahdis Araujo**
- Mahdis is an EV Advisor with the Fraser Basin Council's Climate Change and Air Quality Program, supporting electric vehicle initiatives under the Plug In BC program. As an EV Advisor, Mahdis lends support to a range of audiences on electric vehicle and charging applications, and contributes to the design and refinement of the CleanBC EV Charger Rebate Program.
- Prior to joining FBC, Mahdis worked at the City of Port Coquitlam as a Program Ambassador, where she designed and executed sustainable community programs and produced large-scale community events.

- **Don Chandler**
- Don is an EV specialist with a focus on removing barriers to adoption, particularly infrastructure.
- As a member of CSA committees, Don has drafted revisions to the electrical codes and standards that enable load management of EV charging equipment.
- He has been involved in BC municipal by-law enhancements that now provide for pre-wiring of 100% of parking stalls in new MURBs.

Why prepare for an electric car future?

New BC City By-Laws

15 BC Cities now have By-Laws in place that require 100% of stalls to be EV Ready

Table 1: List of BC municipalities with EV-ready requirements for multi-unit residential buildings (MURBs)

Municipality	Residential Requirement	Policy type
City of Burnaby	100% energized	Zoning bylaw 13903, No 24
District of Central Saanich	100% energized	Bylaw 2061, 2020
City of Coquitlam	100% dwelling units energized	Zoning bylaw 4897
City of Port Coquitlam	100% “roughed in”	Zoning bylaw 3630, No. 4035
Township of Langley	100% energized	Zoning Bylaw 2500
City of New Westminster	100% energized	Zoning bylaw amendment 8040
City of Maple Ridge	100% “roughed in”	Zoning Bylaw 4350 - 1990
City of Port Moody	100% energized	Zoning Bylaw 2937
City of Richmond	100% energized	Zoning bylaw 8500
District of Saanich	100% dwelling units energized	Zoning Bylaw 9627 and 9644
City of Surrey	100% energized	Zoning Bylaw 12000
City of Vancouver	100% energized	Building bylaw 10908
City of North Vancouver	100% energized	Zoning Bylaw 1995 No 6700
District of West Vancouver	100% energized	Bylaw 4662, 2010, Bylaw 5055
City of Victoria	100% energized	Bylaw 20-075

Garage Orphans: “legacy” MURBS

- EV’s charge when parked, not generally while ‘en route’
- Charging at residences represents 80% of total charging

How to solve this problem?

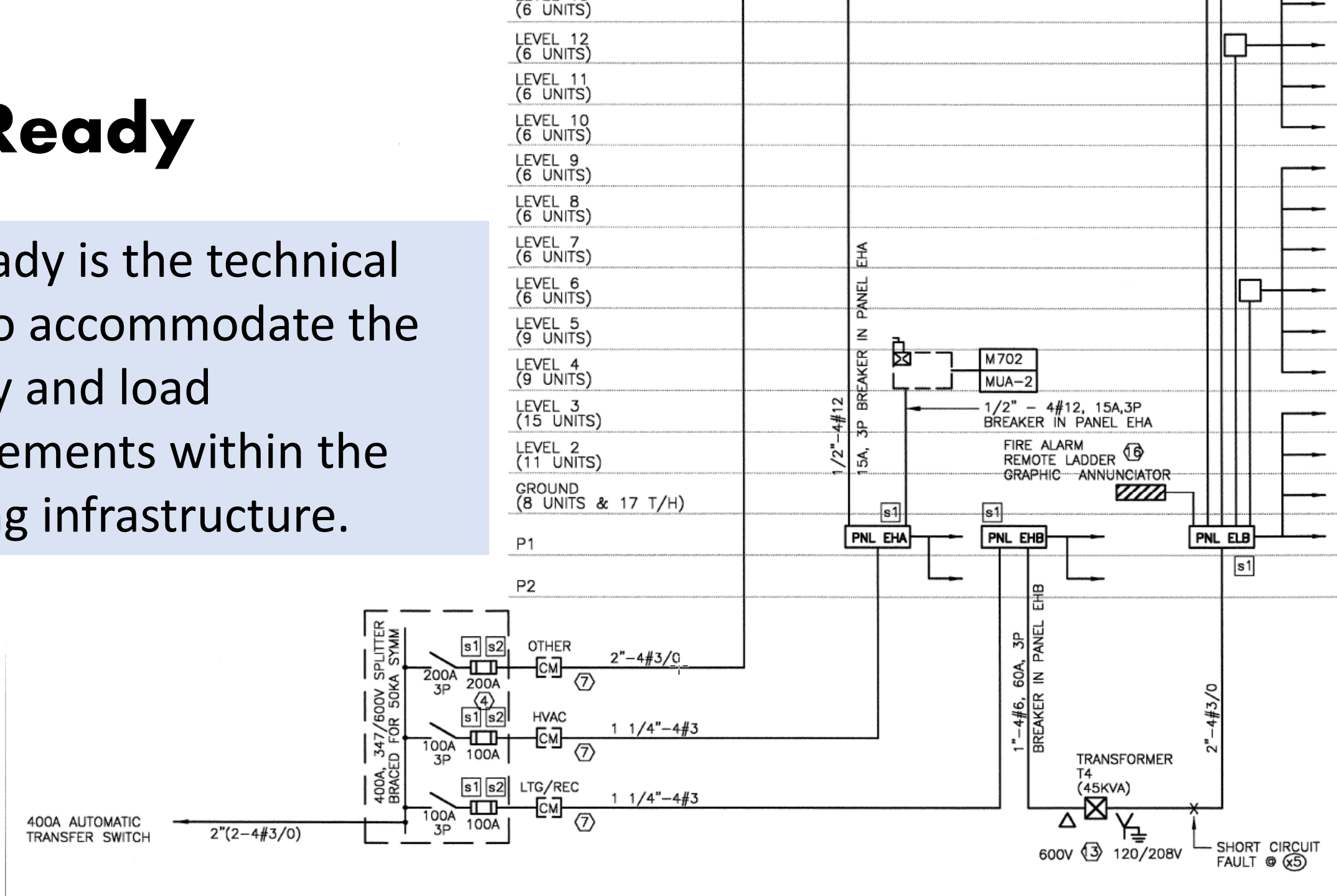
- **Chargers aren’t required for every suite now**, but **the wiring infrastructure has to be planned** to accommodate building maximum electricity capacities.

- **Right to Charge Legislation**
  - One-offs, and partial retrofits are expensive, and may require expensive future upgrades when the remaining parking spots require upgrade.

- **A whole building approach for wiring.**
  - The goal to equalize legacy buildings with new building standards of 100% parking coverage
  - Minimum standard – that each suite in a MURB building is wired for EV charging
  - Other benefits (not part of the EV Ready/Infrastructure program)

EV Ready

EV Ready is the technical plan to accommodate the energy and load requirements within the existing infrastructure.



EV Infrastructure

EV Infrastructure is the wiring, conduit, junction boxes and load management systems to bring electricity to each of the parking spots to be wired.

Example Strata Parameters

Building Description
Strata Condo

- **165 suites & Townhomes**
- 8 TH w/ Excl. Parking
- 157 suites with common area parkade stalls.
- 258 stalls in common area parkade

Example Strata Parameters

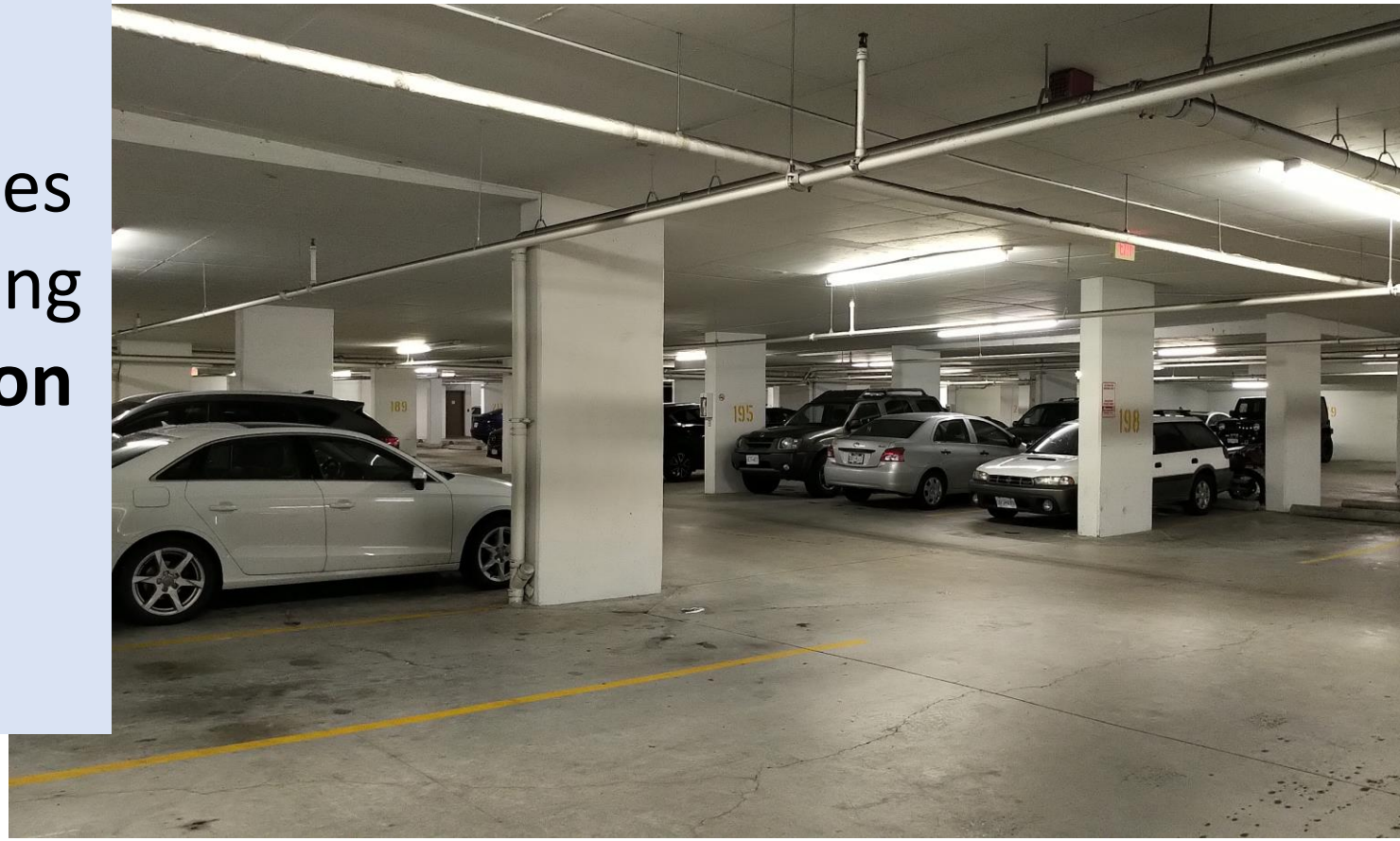
Building Description
Strata Condo

- 165 suites & Townhomes
- **8 TH w/ Excl. Parking**
- 157 suites with common area parkade stalls.
- 258 stalls in common area parkade

Example Strata Parameters

Building Description
Strata Condo

- 165 suites & Townhomes
- 8 TH w/ Exclusive Parking
- **157 suites with common area parkade stalls.**
- 258 stalls in common area parkade



Example Strata Parameters

Building Description
Strata Condo

- 165 suites & Townhomes
- 8 TH w/ Exclusive Parking
- 157 suites with common area parkade stalls.
- **258 stalls in common area parkade**

Sample Grant Calculations

No. of Stalls to be wired	
165	Suites
-8	TH w/ exclusive parking
157	Min. stalls to be wired
258	Total Common area stalls
-157	Min stalls to be wired
101	2nd or 3rd suite stalls
1.64	stalls/suite on average

Minimum Coverage for Rebate			
	Typical Cost		
157	$ 1,200	**$**	**188,400**
	Max Grant		
133	-$ 600	**-$**	**80,000**
	Net total cost	**$**	**108,400**
	Cost per suite	**$**	**690.45**

Maximim Stall Coverage Rebate			
	Typical Cost		
157	$ 1,200	**$**	**188,400**
101	$ 1,200	**$**	**121,200**
	Max Grant		
133	-$ 600	**-$**	**80,000**
	Net total cost	**$**	**229,600**
	Cost per suite	**$**	**1,462.42**

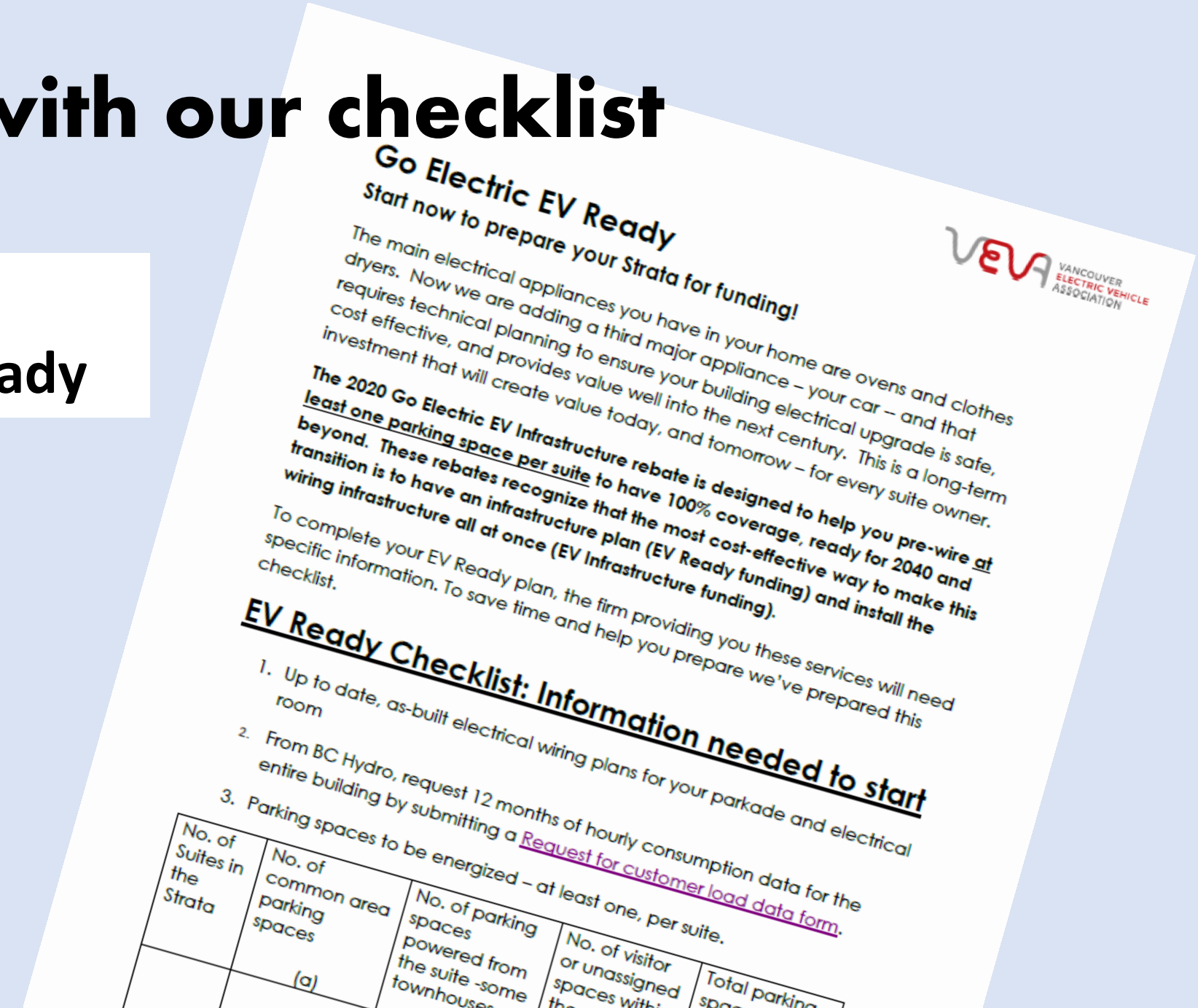
Question: What is the value to each suite holder for this expenditure?

Other issues that need to be dealt with

- Should all spaces be done at the same time?
- Obtaining strata owner approval for capital expenditure
- Settlement of common charging electricity costs
- Visitor spaces

Get Started with our checklist

Download it at https://veva.ca/EV-Ready



Go Electric EV Ready

Start now to prepare your Strata for funding!

VANCOUVER ELECTRIC VEHICLE ASSOCIATION

The main electrical appliances you have in your home are ovens and clothes dryers. Now we are adding a third major appliance – your car – and that requires technical planning to ensure your building electrical upgrade is safe, cost effective, and provides value well into the next century. This is a long-term investment that will create value today, and tomorrow – for every suite owner.

The 2020 Go Electric EV Infrastructure rebate is designed to help you pre-wire at least one parking space per suite to have 100% coverage, ready for 2040 and beyond. These rebates recognize that the most cost-effective way to make this transition is to have an infrastructure plan (EV Ready funding) and install the wiring infrastructure all at once (EV Infrastructure funding).

To complete your EV Ready plan, the firm providing you these services will need specific information. To save time and help you prepare we've prepared this checklist.

EV Ready Checklist: Information needed to start

1. Up to date, as-built electrical wiring plans for your parkade and electrical room
2. From BC Hydro, request 12 months of hourly consumption data for the entire building by submitting a Request for customer load data form.
3. Parking spaces to be energized – at least one, per suite.

No. of Suites in the Strata	No. of common area parking spaces (a)	No. of parking spaces powered from the suite -some townhouses	No. of visitor or unassigned spaces	Total parking

Further Information

Contact VEVA at mailto:stratacharging@veva.ca

Go Electric Program webpage: links to your utility provider, BC Hydro, or FortisBC
https://goelectricbc.gov.bc.ca/

BC Hydro Alliance of Energy Professionals – Find a qualified firm for electrical planning and installations.
https://www.bchydro.com/work-with-us/alliance.html
How to make a referral
After completing the online referral form, you'll be referred to two suitable Alliance members. You will choose who you want to work with.
BC Hydro doesn't endorse or recommend specific contractors, consultants or products, but by working with an Alliance member, you're assured they've met a list of qualifications.
Request a referral today