

BCIT NRCan EVID Project Workshop Session 1: Overview of EV Charging Challenges in MURBs

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Agenda:

- What is a MURB?
- What makes MURBs different?
- MURBs Challenges for Stratas
- Challenges: Examples from the field
- MURBs: Challenges project tackled
- Right-to-charge legislation
- Starting resources for Strata's challenges
- Q&A



What is a MURB?

- Acronym for 'Multi-Unit Residential Building'
- Owned or rented condominiums, apartments, housing co-operatives.
- Project focus is on strata buildings
- Different kinds of strata housing and strata corporations



What Makes MURBs Different?

- Majority of existing building stock not designed with EVs in mind.
- Different legal frameworks - strata, rental, or co-op buildings.
- Run by strata councils or management companies whose approval is required to install EVSEs.



Image source: Photo by [Dylan Gillis](#) on [Unsplash](#)

MURBs: Challenges for Stratatas

- Different parking configurations and designations.
- Budgets vary. Unclear who pays.
- Council may have no EV governance strategy.
- Quick easy fixes generally aren't what they appear.
- ZEV future is near. Room to grow is important.



Challenges: Examples from the Field

- Installer didn't consider existing panel loads or future charger installs.
- Meters installed but no strata monitoring so no billing and collection.
- Residential receptacles used instead of industrial – not EV charger quality.
- No permits pulled. Strata left with no load calculations or drawings for future work.



Source: PowerPros Electric

MURBS: Challenges Project Tackled

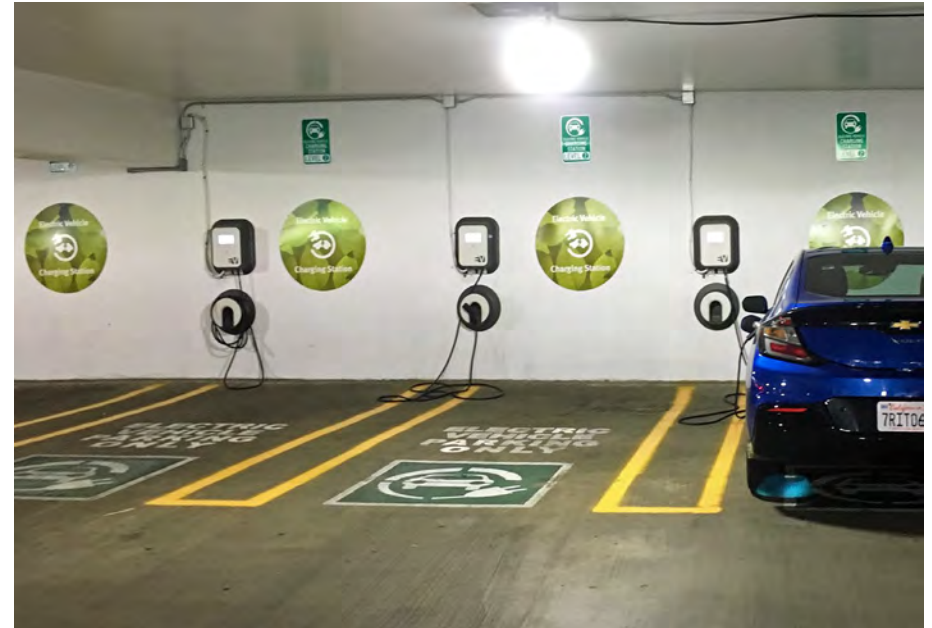
- Limitations with existing building electrical capacity.
- Proprietary data communication protocols by vendors presents maintenance challenges.
- No easy way to measure the electricity used in a charging session and bill for use.



Image source: Photo by [Emmanuel Ikwuegbu](#) on [Unsplash](#)

Right-to-Charge Legislation

- Can help prevent strata councils from unreasonably blocking tenants' ability
- Doesn't require council or building owners to pay
- Can provide residents with rights to install a charging station
- May not address all of the technical, logistical and financial issues



Starting Resources for Strata's Challenges

- **BCIT Website - “Next Generation EV Charging Infrastructure Project” - Slides from Today’s Workshop** published shortly. (Technical reports are in progress - to be published end of March 2022):
<https://www.bcit.ca/applied-research/smart-microgrid/projects/electric-vehicle-infrastructure/>
- **Vancouver Island Strata Association Website: “Electric Vehicle Charging fro Stratas”**:
https://www.visoa.bc.ca/?page_id=10774
- **Metro Vancouver “Electric Vehicle Charging in Condos, Apartments and Townhomes”**:
[http://www.metrovancouver.org/services/air-quality/climate-action/climate-solutions/ev-strata-condo/Pages/default.aspx?utm_source=google&utm_medium=sem&utm_campaign=evcondo&utm_term=evterms.](http://www.metrovancouver.org/services/air-quality/climate-action/climate-solutions/ev-strata-condo/Pages/default.aspx?utm_source=google&utm_medium=sem&utm_campaign=evcondo&utm_term=evterms)
- **CleanBC “EV Ready Plans for Condominium Stratas”**: https://www.visoa.bc.ca/wp-content/uploads/2021/11/VISOA-CleanBC_EV-Ready-Plans-for-Condominium-Stratas_slides.pdf
- **Natural Resources Canada "Guide to Electric Vehicle Charging in Multi-Unit Residential Buildings"**:
https://www.nrcan.gc.ca/sites/nrcan/files/energy/pdf/Revised_Guide_to_EV_Charging_in_MURBs_ENG_ACC.pdf

Q&A on EV Charging Challenges in MURBs

