REPORT TO COUNCIL
Text Amendment

Date:	September 25, 2023
To:	Council
From:	City Manager
File No.:	TA23-0009

1.0 Recommendation

THAT Zoning Bylaw Text Amendment Application No. TA23-0009 to amend the City of Kelowna Zoning Bylaw No. 12375 by changing Section 8 – Parking and Loading as identified in Schedule "A" and outlined in the Report from Development Planning and Climate Action and Environmental Stewardship Departments dated September 25th, 2023, be considered by Council;

AND THAT the Zoning Bylaw Text Amending Bylaw be forwarded to a Public Hearing for further consideration;

AND FURTHER THAT final adoption of the Zoning Bylaw Text Amending Bylaw be considered subsequent to the approval of the Ministry of Transportation and Infrastructure.

2.0 Purpose

To amend the Zoning Bylaw to include Electric Vehicle (EV) Readiness requirements in all new residential developments.

3.0 Development Planning

Council endorsed the City's Community EV & E-Bike Strategy in September 2021, which has an overarching vision of Kelowna being a city where charging an EV is easy, convenient and affordable. One of the key objectives of this Strategy is to increase access to EV charging on private property, particularly in residential properties. In 2022, Council directed staff (R0087/22/02/07) to include residential EV readiness requirements as part of Kelowna Zoning Bylaw 12375. "EV Readiness" means that a parking space features an energized electrical outlet capable of charging an EV, when charging equipment is installed in the future.

Based on stakeholder engagement and policy evaluation completed, staff recommends inclusion of the following residential EV readiness requirements, defined in Section 8 (Parking and Loading) of Kelowna Zoning Bylaw 12375 (bylaw amendment in Schedule "A"):

- New residential developments – minimum of one energized electric vehicle outlet per dwelling unit.
- Exception for "rental only" zones, where a minimum 25% of required parking spaces require an energized electric vehicle outlet.

This approach was based on balancing the following objectives:

- **Minimize upfront costs for builders/developers:** EV charging infrastructure inevitably has a cost; however, Kelowna seeks to balance policies that minimize upfront costs while not pushing these costs onto EV owners and strata's in the future.

- **Minimize costs for EV owners:** Installing EV charging at the time of construction can significantly reduce overall cost of EV charging infrastructure (compared to retrofitting in the future).
- **Simple for strata's to administer:** It is difficult, or legally impossible, for strata's to fairly allocate access to EV charging among a limited number of stalls or to allow owners to change stalls. Rental buildings do not have the same legal barriers to swap parking spaces, or strata governance complexities, and therefore reduced EV ready requirements are recommended for rentals.
- **Equitable for residents:** Ensure residential charging is available in all newly constructed residential buildings for every dwelling.
- **Future-proofing:** EV ready infrastructure anticipates technology trends and accommodates addition of suitable EV charging systems as they change overtime.

3.1 Background

BC leads all Canadian provinces in EV registrations. Nearly one fifth of all new vehicle purchases in 2022 were EVs. Rapid sales growth aligns with strong federal and provincial legislation, which requires 100 per cent of passenger vehicle sales to be zero emissions vehicles (ZEV) by 2035. In anticipation of increasing EV ownership, over 15 BC jurisdictions have already implemented EV ready polices for new residential developments in recent years, demonstrating the technical and practical feasibility of EV ready infrastructure in the residential sector.

Home charging availability will be required for wider scale EV adoption. Kelowna's 2021 EV engagement survey estimates that 84 per cent of current EV charging is done at home. Seventy per cent of non-EV owners identified an EV as their first choice for their next new automobile. Charging availability at home will be critical to enable the transition to EVs from now through 2035.

Retrofitting existing buildings will remain a persistent, frustrating challenge for many Kelowna residents. Legal complexity, strata decision-making gridlock, and high costs to retrofit are persistent barriers that will be amplified as EV sales continue to grow. EV readiness ensures that newly constructed single-family and multi-family buildings are "future-proof" for resident needs.

EV ready new buildings are cost-effective. In multi-family buildings, electrical loads are commonly shared across numerous EV chargers, through use of an Electric Vehicle Energy Management System (EVEMS – or, "smart charging"). Numerous studies estimate costs $1,800 or less, per parking stall, regardless of building type (low, mid, high-rise). Costs for EV readiness in new single-family homes will typically be significantly less than multi-family buildings, ranging from $200-$500, depending up the site configuration, calculated load, and panel sizing.

EV readiness unlocks a significant source of greenhouse gas (GHG) reductions in Kelowna. Transitioning personal vehicles to EVs represents the most impactful GHG emissions reduction opportunity in Kelowna in the coming decades, representing nearly 50 per cent of our modelled emissions reductions by 2050. Without EV ready residential buildings, Kelowna is unlikely to meet our 2030 and 2050 community GHG emissions reduction targets.

EV charging availability is a valuable asset that increases desirability and livability of new homes. Kelowna's 2040 Official Community Plan (OCP) growth projections assume that 76 per cent of new units over

the next 20 years will be in the form of multi-family housing. As EVs become more prevalent and Kelowna increases in density, EV ready buildings will be increasingly sought out by buyers and renters.

3.2 Stakeholder Engagement

- The City facilitated public engagement on its Community EV & E-Bike Strategy from December 2020 – April 2021, which included public comment on EV readiness initiatives.
- After public engagement, from September through October 2021, staff collected feedback on EV ready initiatives from numerous interested groups, predominantly represented by the development industry.
- City staff also engaged with FortisBC on considerations for Kelowna's power supply and electricity grid impacts throughout 2021 through 2023.
- Staff conducted further industry engagement in April 2023 to provide education and awareness of EV ready initiatives, policy drivers, and technical considerations, with collaboration of third-party experts at FortisBC, Plug in BC, and Prism Engineering.

4.0 Current Development Policies

4.1 Kelowna Official Community Plan (OCP)

Objective 12.1 Design the community to be more resilient to a changing climate	
Policy 12.1.1 GHG Emissions Reduction Targets	In partnership with senior governments; local citizens and businesses; non-profits; external agencies; and utility providers; work towards reducing absolute community greenhouse gas emissions below 2007 levels by: • 4 per cent below 2007 levels by 2023; • 25 per cent below 2007 levels by 2033; • 80 per cent below 2007 levels by 2050 Note: new targets were endorsed by Council in 2022 - 40 per cent below 2007 levels by 2030 and net-zero by 2050. Further community engagement is needed before updating the OCP.
	EV ready policy unlocks significant GHG emissions reductions in the transportation sector through personal EV use; upwards of 50 per cent of Kelowna's community reductions by 2050.
Objective 12.7 Support the transition to emerging low-emission transportation technologies	
Policy 12.7.1 Low Carbon Fuels	Support the expansion and use of low carbon fuels (e.g., electricity, hydrogen, etc.) as one way of reducing GHG emissions from the transportation sector.
	EV ready policy is critical to enable Kelowna residents to transition to EVs and electricity use as a low carbon fuel.
Policy 12.7.2 Electric Mobility	Provide infrastructure to support and expand electric vehicle (EV) and E-Bike ownership through the following initiatives: • Residential charging infrastructure: Ensure access to appropriate EV and e-bike charging infrastructure (such as Level 2 conduits for EVs), in new construction
	EV ready policy directly supports this OCP objective.

4.2 Imagine Kelowna

Kelowna community vision: take action in the face of climate change.

5.0 Stakeholder Engagement

Text Amendment Application:	July 12, 20223
EV Strategy Public Engagement Session:	December 2020 – April 2021
Development Industry Engagement Session 1:	September - October 2021
Development Industry Engagement Session 2:	April 18, 2023
FortisBC engagement collaboration:	2021 through 2023 (numerous)

Please refer to Attachment "A" for a summary of 2023 development industry engagement and Attachment "B" for FortisBC letter of support.

Report prepared by:	Todd Brunner, Community Energy Specialist
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Approved for Inclusion:	Ryan Smith, Divisional Director, Planning & Development Services

Attachments:

- Schedule A: TA23-0009 - Schedule A – Proposed Text Amendments
- Attachment A: Summary of 2023 Engagement Feedback
- Attachment B: FortisBC Letter of Support

For additional information, please visit our Current Developments online at www.kelowna.ca/currentdevelopments.