Summary of proposed EV requirement changes

	Previous Recommendation	New Recommendation	Rationale for Changes
Residential Uses	100.0 per cent ***EV-ready*** or ***EVSE-installed***	Low-density residential: • Indoor Parking: one stall ***EV-ready***	New single and semi-detached dwellings typically come with 200A panels, which make it easier to accommodate level 2 EV infrastructure. These types of homes may be more likely to be purchased by those in higher income brackets, who also tend to be early adopters of EVs. Where multiple parking stalls per unit are provided, only one of those stalls is required to be level 2 EV ready to reduce the risk of overbuilding EV infrastructure today for units where retrofits are technically easier, although more costly.
		Medium-density residential: • Indoor Parking: 100% of stalls enabled with ***Level 1 charging*** • Outdoor Parking: 25% ***EV-capable***	Metering for these housing forms can make it challenging to provide level 2 EV infrastructure for all dwelling units. Level 1 charging can be easier to accommodate and may be able to meet a significant portion of charging demand with supplementation from public and workplace charging. Level 1 charging is proposed only for indoor parking stalls as it has limited value in outdoor parking because cold temperatures can slow the rate of charging. Where outdoor parking is provided, 25% of stalls are required to be EV capable. This reduces the costs of retrofits in the future and enables stalls to be upgraded as demand materializes.

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	Previous Recommendation	New Recommendation	Rationale for Changes
		High-density residential: • Indoor Parking: 100% of stalls enabled with ***Level 1 installed*** charging • Outdoor Parking: 25% of stalls ***EV-capable***, 2.5% ***EVSE-installed***	Through engagement, we heard that higher density residential is the hardest archetype for the provision of EV charging, so level 1 charging is proposed for indoor parking. Where outdoor parking is provided, 25% of stalls are required to be EV capable and 2.5% EVSE installed. These buildings may have hundreds of residents, meaning the impact of the lack of EV charging could be highly magnified. Requiring a small portion of stalls to be EVSE installed helps address this concern while being mindful of the challenges of installing chargers outdoors.
Commercial Uses	0.0 per cent for the first 5.0 ***motor vehicle parking stalls*** 20.0 per cent ***EV-ready*** or ***EVSE-installed*** for any amount over 5.0 ***motor vehicle parking stalls*** 80.0 per cent ***EV-capable*** for any amount over 5.0 ***motor vehicle parking stalls***	Retail: **No requirement**	Through engagement, we heard a desire to omit requirements for retail and service uses in favour of letting the market decide. Industry noted the current need for support from EV providers, such as Tesla, to install charging. Considering the need for partnerships to move projects along, requiring stalls to be EV ready can have limited impact on affecting the actual installation of stalls.
		Office: • Indoor Parking: 25% of stalls ***EV-capable*** 25% of stalls enabled with ***Level 1 installed*** charging • Outdoor Parking: 1% ***EVSE-installed***, 25% of stalls ***EV-capable***	Office uses tend to have longer dwell times, making them better candidates for charging compared to other commercial/retail uses. For indoor parking, 25% of stalls are required to have level 1 charging and 25% are to be EV capable, EV ready, or EVSE installed. This provides enough coverage for multiple variations and site layouts once parking stalls are assigned to businesses. EV capable stalls can enable stalls to be easily upgraded to EVSE installed as demand comes online and level 1 charging can be used from day one. Where outdoor parking is provided, 25% of stalls are required to be EV capable and 1.0% EVSE installed to address cold weather charging considerations.

	Previous Recommendation	New Recommendation	Rationale for Changes
Industrial Uses	5.0 per cent ***EV-ready*** or ***EVSE-installed***	**No requirement**	Industrial uses often use their parking lot area for operational purposes other than parking so requiring EV infrastructure in these developments may not result in the desired benefit.
Specific Institutional Uses: **Health Care Facility, Library** **Protective & Emergency Services** **Religious Facility, School**	5.0 per cent ***EVSE-installed***; 10.0 per cent ***EV-ready;*** and, 85.0 per cent ***EV-capable***	**No requirement**	Developments for institutional uses are not very common and often already have some form of EV charging infrastructure requirements through other relevant policies. Provincial infrastructure is typically required by Alberta Infrastructure to be built to a LEED Silver standard, which often results in some form of EV charging capability being built at schools, healthcare facilities, etc. City-owned and partner facilities (e.g. libraries, fire halls, etc.) would be subject to the Calgary Sustainable Building Policy, which requires some form of EV charging infrastructure.
Other Institutional Uses	**No requirement**	**No requirement**	

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Charging definitions

Term	Definition
	The parking stall is equipped with a fully operational level 2 Electric Vehicle Supply Equipment (EVSE) – aka charging station.
EVSE-installed	Level 2 EVSE is a charging method that utilizes a dedicated 208V or 240V circuit, similar to those used for clothes dryers. (a) Charge Method: (i) Nominal Supply Voltage (V): 208V to 240V, 1 phase maximum Current (Amps-continuous): ≤80A (ii) The amperage rating for EV circuits required by most ***Level 2 EVSE*** is 40A, although this may vary depending on the specific system design.
EV-ready	The parking stall is constructed with a fully operational energized outlet that can support a level 2 EVSE in the future
EV-capable	The parking stall has adequate electrical panel capacity, wiring and/or continuous raceway from the panel to a junction box. There is also adequate space for all additional electrical infrastructure to supply power to a future ***Level 2 EVSE***. Sometimes referred to as a “rough in”.
Level 1 installed	The parking stall is equipped with a fully operational energized outlet NEMA 5-20 outlet with an amperage rating of 20A

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