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Authored by:



#### **Submitted to:**

# **EV Charging Process Streamlining Project Advisory Committee**

- City of Coquitlam
- City of Richmond
- City of Port Moody
- District of North Vancouver
- Metro Vancouver

## Funding support provided by: BC Hydro's Sustainable Communities Program

Dunsky Project Number: 24151

## **Prepared by:**



## **Dunsky Energy + Climate Advisors**

50 Ste-Catherine St. West, suite 420 Montreal, QC, H2X 3V4

www.dunsky.com | info@dunsky.com + 1.514.504.9030

This Toolkit was developed based on a literature review of emerging best practices, a focus group with municipal staff, a focus group with EV charging developers, municipal staff interviews, and insights from the project advisory committee.

## **Executive Summary**

Municipalities across British Columbia are receiving requests from electric vehicle (EV) charging proponents or developers who want to build public EV charging stations. Yet, many local governments do not have a consistent, clear process to guide their response to these requests. This Toolkit provides municipal staff with a recommended approach to navigate these requests and streamline your response.

## Who is this Toolkit for?

 Municipal staff whose role touches on EV charging

### Which kinds of EV charging?

 Publiclyaccessible charging installed offstreet on private land

## What is the challenge?

- Regulations silent or unclear on EV charging, leading to uncertainty for staff and developers
   Increased
- time and cost
  •Less charging
  developed

# What does streamlining mean?

- •Clarity in regulations,
- Defined process (without or with a permit), and
- Clarified approval responsibilities and timeline

# How does streamlining help?

- •This Toolkit provides staff with the knowledge to assess, improve and manage processes for these requests
  •Streamlining can enable
- can enable more charging and reduce staff time

The Toolkit defines principles for you to assess your current process for EV charging equipment (EVCE) approvals to understand the extent to which it is streamlined, or to design a new or revised approval process. The principles are:

- 1. EV Charging Stations are Defined and Allowed Widely in Zoning
- 2. EV Charging Process is Clarified and Delegated to Staff
- 3. EV Charging Review Is Timely

If the current process does not meet these principles, the Toolkit **recommends two streamlined approval options**, with Option 1 as the preferred option:

#### **OPTION 1**

# No Permit/As-Rights Public EV Charging Permit

- ➤ **No permit (1A):** establish criteria (Toolkit Section 4.2) that are enforced on the basis of complaints or audits, as is common for many local bylaws.
- ➤ As-rights permit (1B): applicants are automatically issued a permit provided they attest that they meet certain criteria (Toolkit Section 4.2). This approach could allow local governments to track EV charging deployment while offering fast approvals.

### **OPTION 2**

# Standalone Public EV Charging Permit

- To be used if Option 1 is not meeting needs or is otherwise considered insufficient.
- One-window application.
- A dedicated local government team coordinates review, establishes clear criteria for approval (Toolkit Section 4.2), and clear service standards and timeline commitments.
- Depending on the local government's context and practices, the standalone permit could be a new unique Public EV Charging Permit, or created as a subtype of development permit (DP) or other existing permit.

The Toolkit also includes **example criteria** for the above options that provide direction on which potential impacts to include, how to develop binary (yes/no) criteria, and additional context to support local criteria development. Guidance on ten criteria is provided, including landscaping, drive aisle, signage, and accessibility. It also identifies which charging station characteristics are not appropriate for local governments to regulate, such as parking impacts or studies, user fees and reliability.

The Implementation section provides high-level guidance on how to secure Council direction, provide practical support to applicants, and build internal staff capacity.

This Toolkit provides actionable guidance for local governments looking to create more effective processes to enable public charging while protecting the public interest.

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# 1. Why Use this Toolkit

Municipalities across British Columbia (BC) are receiving requests from electric vehicle (EV) charging proponents or developers who want to build public EV charging stations. Yet, many local governments do not have a consistent, clear process to guide their response to these requests. This Toolkit provides you (municipal staff) with a recommended approach to navigate these requests and streamline your response. The current challenge and the streamlining solution are summarized in Figure 1.

## Who is this Toolkit for?

• Municipal staff whose role touches on EV charging

# Which kinds of EV charging?

 Publiclyaccessible charging installed offstreet on private land

## What is the challenge?

- •Regulations silent or unclear on EV charging, leading to uncertainty for staff and developers
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# What does streamlining mean?

- •Clarity in regulations,
- •Defined process (without or with a permit), and
- •Clarified approval responsibiliti es and timeline

# How does streamlining help?

- •This Toolkit provides staff with the knowledge to assess, improve and manage processes for these requests
  •Streamlining can enable
- can enable more charging and reduce staff time

Figure 1. Overview of the current challenge and potential solutions addressed in this Toolkit



By streamlining EV charging approval processes, municipalities can achieve two main benefits: more public charging with reduced staff time.

# 1.1 Enable More Public EV Charging in Alignment with Policy Goals

The EV market share in BC is growing rapidly thanks to EVs' cost benefits and supportive policy at the federal, provincial and local levels. Many municipalities have policy direction to support this transition in climate action plans, transportation strategies, official community plans or other community policies.

There are many benefits to EV adoption: EVs have a lower total lifetime cost relative to internal combustion engine vehicles. EVs do not emit tailpipe emissions, improving local air quality. For local businesses, EV charging attracts residents and visitors, which can support local economic development. Transportation is the largest greenhouse gas contributor in BC – and when charged on the province's low-carbon grid, EVs' lifecycle GHG emissions are ~80% lower than gasoline vehicles on a life cycle basis. <sup>2</sup>

## Fast-growing EV adoption means growing charging demand

In 2024, nearly one in four vehicles sold in BC was an EV.<sup>3</sup> The Province's *Zero Emission Vehicles Act* and Canada's *Electric Vehicle Availability Standard* together will require that 90% of vehicles sold in 2030, and 100% in 2035, are zero emissions.

This market share translates to a growing number of EVs on the road. Guidance produced for Metro Vancouver municipalities forecasts that within 15 years over 60% of vehicles on the road will be an EV.<sup>4</sup> Put another way, over 60% of vehicles in any given parking lot may be looking to plug in by 2040. The share of EVs on the road will be similar, but slightly lower outside of Metro Vancouver.

Table 1. Forecast share of EVs on the road by year

	2025	2030	2035	2040	2045	2050
Metro Vancouver <sup>1</sup>	6%	18%	40%	61%	81%	91%

## Critical role of public charging

Most charging will take place at home, but public charging plays a crucial role. For people deciding on their next vehicle, a strong public charging network signals that they can safely make the change to an EV. Even more importantly, for people without home charging, public charging at work, in their neighbourhood, or on the road supplies all their energy needs.

Local governments play a defining role in deployment because they control land use and other tools that influence where and whether charging can be installed. Local governments

<sup>&</sup>lt;sup>4</sup> Dunsky Energy + Climate Advisors. 2023. <u>Keeping it Current: Guidance for Collaborative Deployment of EV Charging in Metro Vancouver</u>. Published for Metro Vancouver.



<sup>&</sup>lt;sup>1</sup> Clean Energy Canada. 2022. <u>The True Cost.</u> Accessed online July 17, 2025.

<sup>&</sup>lt;sup>2</sup> TD Economics. 2025. <u>Cradle to grave: Lifecycle emissions of electric versus gasoline vehicles in</u> Canada.

<sup>&</sup>lt;sup>3</sup> Transport Canada. <u>ZEV Council Dashboard: Light-Duty ZEV Market Share</u>. Accessed online May 9, 2025.

can use these tools to encourage more EV charging in their communities and to ensure development is in the public interest and aligns with policy goals.



By clarifying the requirements and process, you can send a clear signal to the market that enables EV charging developers to effectively plan and build EV charging in your community.

#### **COMPATIBILITY WITH REDUCING CAR USE**

Many local governments are seeking to reduce auto-dependence and increase the share of trips by walking, rolling, and transit. Key strategies include land use regulations that foster intensive infill development, mixed uses that increase accessibility to jobs and amenities for residents, and investments in transit, shared mobility solutions like carshare and active transportation.

Additionally, reducing (or at least not growing) the number of parking spaces is a key strategy to reduce car use, while simultaneously increasing affordability and public amenities. Local governments can:

- Encourage car share systems and car share electrification.
- Eliminate or reduce parking requirements for new construction.
- Enable businesses and residents to repurpose their existing parking.
- Steadily reduce the amount of public space devoted to parking through redevelopment.

**Widely enabling EV charging is compatible with these municipal actions.** Even if car use is significantly reduced, remaining vehicles on the road will transition to EVs. Wherever parking will remain for ten years or more (the approximate lifetime of charging equipment), EV charging is appropriate. Municipalities can use policy, like curbside management strategies, to ensure that charging sites do not displace or interfere with active transportation or other plans.

## 1.2 Reduce Staff Time as Requests Increase

The number of requests for EV charging is expected to increase as vehicles electrify.

Today, there are 7,000 public charging ports available in BC, including both Level 2 and direct-current fast charging (DCFC) ports as shown in Figure 2.5 By 2030, demand for public

<sup>&</sup>lt;sup>5</sup> Natural Resources Canada. <u>Electric Charging and Alternative Fuelling Stations Locator.</u> Accessed online May 2, 2025. Does not include charging in multi-family buildings.



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charging is expected to be on the order of 28,000 public ports, which is four times the supply today. By 2040, the expected number of ports needed will be over 63,000 ports.<sup>6</sup>

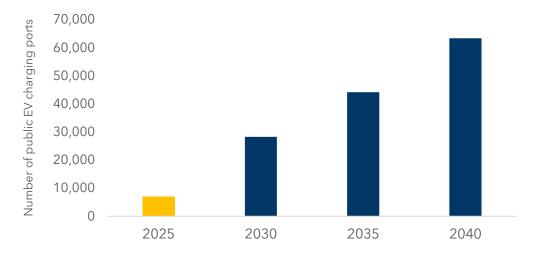


Figure 2. Number of public EV charging ports available in BC in 2025<sup>3</sup> and the forecast number of ports needed to meet demand in 2030 to 2040.<sup>4</sup>

Public EV charging stations can be installed in a wide range of locations as a parking amenity. Typically, the addition of charging is a minor, low-risk addition to a site. However, the process for approving new charging is not clear to staff or EV charging developers in many municipalities. In others, the current process is time-consuming for both parties due to multi-departmental reviews. Detailed review and approval processes are not necessary for most EV charging stations and are not sustainable for municipal staff at the scale needed to meet the EV transition, particularly as many municipalities are experiencing staff capacity constraints.



A streamlined process provides clarity to EV charging developers on the process and requirements for EV charging. You should communicate the process publicly and allow EV charging developers to respond and prepare accordingly.

The streamlined process reduces staff time by reducing the volume of questions or clarifications from EV charging developers, as well as the need for interdepartmental discussions to clarify processes and roles. Further, this clarity reduces the time required for staff to review individual EV charging submissions.

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<sup>&</sup>lt;sup>6</sup> Dunsky Energy + Climate Advisors. 2024. <u>Electric Vehicle Charging Infrastructure for Canada</u>. Published for Natural Resources Canada.

#### STREAMLINING OTHER MUNICIPAL PROCESSES

Streamlining municipal processes is not just a focus for EV charging. The Province of British Columbia initiated the Development Approvals Process Review (DAPR) in 2019 to streamline the process of approving developments. While DAPR is focused on accelerating housing, the intent and <u>guiding principles</u> are in alignment with the content of this Toolkit.

## 1.3 Who Should Use this Toolkit?

This Toolkit is intended for:

- Municipalities of all sizes
- Municipal staff from departments including (but not limited to):
  - Planning and Development
  - Climate Action and Sustainability
  - Engineering
  - Transportation
  - Inspections & Permitting
  - Electrical Permitting, if in your municipality's jurisdiction.

### This Toolkit will help you to:

- 1. Assess to what degree your municipality's current process for EV charging approvals is streamlined.
- 2. Identify roadblocks that might be preventing or delaying charging deployment.
- **3.** Design and implement processes to facilitate EV charging development that align with your municipality's goals, while building internal capacity and support.

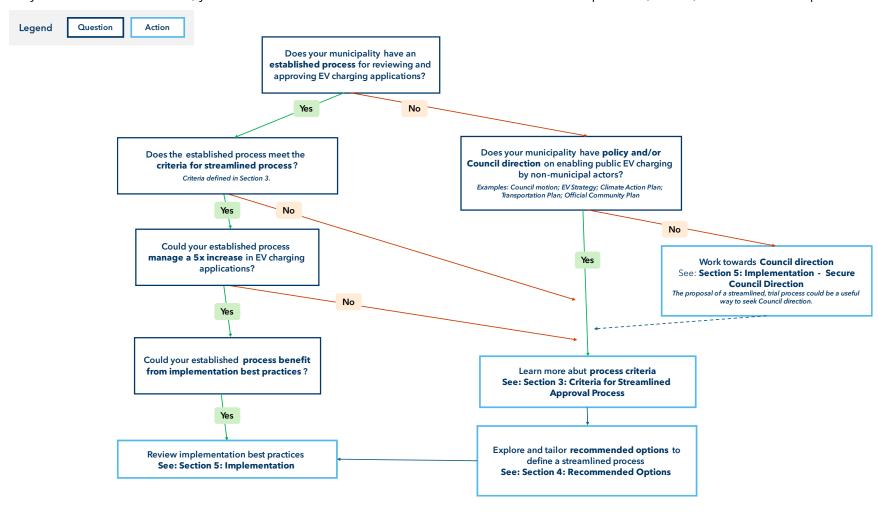
EV charging stations can generally be located anywhere there is parking available. This Toolkit focuses on **publicly accessible charging that is installed off-street.** It does not directly address private charging (e.g. in restricted-access residential and commercial buildings), nor charging in the road right-of-way (i.e. curbside charging).

For background information on EV Charging Types, check out the **Appendix** and **EV Charging Basics** (Section 2) in <u>Keeping it Current: Guidance for Collaborative</u> <u>Deployment of EV Charging in Metro Vancouver.</u>



## 2. How to Use This Toolkit

The following flowchart can help you assess your municipality's current process for standalone public EV charging applications (where public EV charging isn't associated with a larger project which already requires a development or building permit). Based on your current assessment, you can find the most relevant sections of this Toolkit to help assess, revise, or establish that process.



# 3. Principles for a Streamlined Process

The following principles have been developed by a review of emerging literature and best practices relating to EV charging regulation and approvals:

- 1. EV Charging Equipment (EVCE) is defined and allowed widely in zoning
- 2. EVCE approval process is clarified and delegated to staff
- 3. EVCE application review is timely

You can use these principles to assess your current process for EV charging approvals to understand the extent to which it is streamlined, or to design a new or revised approval process. They are described in the following sections. First, some helpful definitions:

## **KEY DEFINITIONS**<sup>7</sup>

<u>"Electric vehicle charging equipment (EVCE)"</u> means the equipment necessary to deliver electric vehicle charging on a site including all conductors, connectors, devices, apparatus, and fittings.

**"EV charging developer"** means a public or private entity that installs charging stations, often a station development company, manufacturer of electric vehicle supply equipment, investor-owned or publicly-owned utility (i.e. BC Hydro), automaker, nonprofit, or other interested party or proponent. EV charging developers have a variety of business models, with some engaging in every step of the development process and owning and operating their stations, while others only engage in parts of the process.

A complete list of definitions is provided in the Appendix.

<sup>&</sup>lt;sup>7</sup> Definitions adapted from LPDD. 2019. <u>Model Law: Local Ordinance Expediting Permitting for EV Charging Stations</u> and California GO-Biz. 2023. <u>Electric Vehicle Charging Station Permitting Guidebook</u>



# 3.1 EV Charging Equipment (EVCE) is Defined and Allowed Widely in Zoning

A streamlined approval process is founded in the underlying regulations. Therefore, EVCE should be **defined** and **allowed widely** in zoning and other land use regulations.



#### Defined

Zoning or other land use bylaws include a definition of EVCE. For example, it should not be classified as a gas station.



## Allowed Widely

EV charging is allowed generally in any land use where parking is allowed. EV charging is defined as a permitted accessory use and is allowable in most or all zones in the zoning bylaw. Alternatively, EV charging could be defined as a component of parking (rather than a distinct accessory use) and, similarly, allowed wherever parking is allowed.

Today's Roadblocks	Desired Outcome
Indicative of when principles are not met	When principles are met
<ul> <li>Different staff interpret the zoning for EVCE in different ways due to the lack of clarity.</li> </ul>	<ul> <li>Municipal staff have clarity on how EVCE is defined and allowed in the municipality, ensuring consistent treatment.</li> </ul>
<ul> <li>A narrow interpretation of zoning limits where EVCE is allowed.</li> <li>Staff treat EVCE as a fueling station (i.e., a gas station with specific environmental impacts and other business functions such as snack sales), business, or a utility.</li> </ul>	<ul> <li>✓ EV developers can easily understand what the municipality considers EVCE (vs. other land uses).</li> <li>✓ EVCE can be supported and enabled in as many areas of the municipality as possible.</li> </ul>
<ul> <li>The lack of clarity discourages EV development due to mixed messages or lengthy delays for clarification.</li> </ul>	possible.

# 3.2 EVCE Approval Process is Clarified and Delegated to Staff

The EV charging review process (if any) should be **clarified** and **delegated to staff** to reduce the level of effort and time required to prepare submissions by applicants and to accept, review and approve submissions by staff.



## Clarified

The process to develop EVCE on private land is defined, easy to understand, and publicly available (e.g., bulletins). One department is defined as responsible for receipt and approval of applications and coordinates internal review, as needed.



## Delegated to Staff

EVCE approval decisions are delegated to staff. The process is administrative by default, articulating the conditions or outcomes for no (or minor) administrative review. If the application does not meet those criteria, then it would require discretionary staff approval.

## See the recommended permitting process structures in Section 4.

<b>Today's Roadblocks</b> Indicative of when principles are not met	<b>Desired Outcome</b> When principles are met
<ul> <li>EV charging developers and municipal staff are uncertain about the approval process.</li> <li>Different departments receive EVCE installation requests or submissions without clarity on approval</li> </ul>	<ul> <li>✓ One staff team leads all reviews and coordinates comments from other pre-identified groups as the application requires.</li> <li>✓ EV charging developers understand the process and need no or minimal</li> </ul>
responsibility.  X EV charging developers experience a different process from one application to the next.	<ul><li>guidance to submit a complete application.</li><li>✓ Municipal staff provide administrative approval for the large majority of EVCE.</li></ul>
× All EV charging applications require a detailed or staff-intensive review, similar to the process for a building, regardless of their location or complexity.	✓ Discretionary approval or additional permit requirements are applied only for a few, complex sites.
× Complexity and uncertainty lead to long review times, additional requests, and unexpected costs that can negatively affect the business case. Consulting fee costs from requests can add significantly (e.g. 5% to 50%+) to the total project costs. EVCE projects are delayed or cancelled.	

#### WHAT ARE BC MUNICIPALITIES DOING TODAY?

Today in BC, the EV charging review process varies widely, depending on local context, policies and authorities. Current approaches include requiring some or all of the following: an electrical permit, development permit or variance/amendment, building permit, zoning review or rezoning, business licenses for each charging station, or no permit required.

For example, the **City of Vancouver** currently requires an electrical permit as the sole permit for EV charging, as the City is the Authority Having Jurisdiction (AHJ) on electrical permitting. However, the Zoning and Development By-law was silent on EV charging. So, in June 2025, the City <u>amended its Zoning and Development By-law</u> to clarify that **EV charging is exempt from development permits**. In preparation for the amendment, Vancouver staff completed a review of each zone and found that the risk of negative impacts is low. This amendment now provides further clarity to staff and EV charging developers.

The **Cities of Burnaby, Richmond and Surrey** include provisions for EV charging in the Parking & Loading sections of their Zoning By-laws. These provisions function to clarify that **EV charging is allowed city-wide**, including in all residential zones.



### WHAT ABOUT PERMITS FOR BC HYDRO AS AN EV CHARGING DEVELOPER?

As a leading deployer of public charging infrastructure in BC communities, BC Hydro works with municipal governments to align on EV charging siting and design with local interests and priorities. Generally, the utility works within the processes established by the municipality. However, it should be noted that as a crown corporation, BC Hydro is governed by the Hydro and Power Authority Act and is not bound by any provincial statute except as explicitly provided under the Act (refer to section 32 of the Act for a comprehensive list). This means that BC Hydro is not bound by the Local Government Act, the Vancouver Charter, or any municipal bylaws, including for public EV charging projects. Local government staff working with BC Hydro to implement BC Hydro-owned and operated public EV charging projects should be aware of this exemption in order to streamline project timelines.

## 3.3 EVCE Application Review Is Timely

To be expedient, municipal service standards for review and approval of applications are **timely**.



## **Timely**

Service standards for review, inspections, and approvals are defined and communicated publicly.

By delegating to staff and having administrative approval for most applications, as outlined in the principles above, the review burden is reduced, making it easier to respect the standard.

<b>Today's Roadblocks</b> Indicative of when principles are not met	<b>Desired Outcome</b> When principles are met
× Applications take 6 to 8 months or more before a decision is provided to the applicant.	✓ Municipal staff provide timely review and approval of EV charging applications.
× Similar applications receive different response times.	✓ Staff have clarity on their review role and turnaround to meet service standards.
X Applicants do not know when they will receive a response from the municipality.	✓ Timely review provides certainty to EVCE developers to support planning and business decisions.
<ul> <li>Lengthy reviews and uncertainty on timelines lead to delays or cancellations in EVCE development.</li> </ul>	✓ Any changes to the timeline should be clearly communicated to the applicant.

## 4. Recommended Approval Processes

## 4.1 Options for streamlined approvals

Public EV charging will bring an important service to residents and businesses. But like any public infrastructure, chargers must be sited and designed appropriately and in line with your other community goals and priorities.

One way you can ensure EVCE applications are appropriate is to **clearly communicate your expectations ahead of time**, for example, by publicly providing a checklist of criteria that must be met. Such a checklist can help build literacy among staff and EV charging developers about what the municipality will accept.

Secondly, it is important to be able to screen out applications that may have **specific**, **adverse impacts** from those which do not. A checklist for this purpose is presented in section 4.2.

#### **KEY DEFINITION**

<u>"Specific, adverse impact"</u> means a significant, objective, identified, quantifiable, direct and detrimental impact, based on applicable public health or safety standards, policies, or conditions as they exist on the date the application was deemed complete.<sup>8</sup>

A complete list of definitions is provided in the Appendix.

For applications that are not expected to have specific, adverse impacts, you should offer **streamlined approvals** to avoid spending unnecessary staff time and resources – and so that deployment can happen at scale.

Typically, approvals will be offered via permits. Some municipalities in BC administer electrical permits. In these municipalities, the electrical permit process is sufficient for review of **private** charging (e.g. in a residential setting). Electrical permitting can also be used as the only process for **public** charging (i.e. Vancouver's existing process). This option is discussed further in the textbox below.

For **public** charging, your municipality may also desire a process to ensure that the non-electrical aspects of an EVCE align with other City policies. There are **two recommended streamlined approval options (for the non-electrical permits):** 

<sup>&</sup>lt;sup>8</sup> Definition adapted from LPDD, 2019.



#### **OPTION 1**

# No Permit/As-Rights Public EV Charging Permit

- ▶ **No permit (1A):** establish criteria (Toolkit Section 4.2) that are enforced on the basis of complaints or audits, as is common for many local bylaws.
- ➤ **As-rights permit (1B):** applicants are automatically issued a permit provided they attest that they meet certain criteria (Toolkit Section 4.2). This approach could allow local governments to track EV charging deployment while offering fast approvals.

## No Permit (1A):

- ▶ No submission by EV charging developer
- ► No review by staff

## **As-Rights Permit (1B):**

- ▶ Developer submits attestation confirming that they conform to defined criteria.
- Attestation form reviewed by staff OR automatically (via electronic submission). If attestation is complete, permit is issued.

#### **OPTION 2**

# Standalone Public EV Charging Permit

- To be used if Option 1 is not meeting needs or is otherwise considered insufficient.
- One-window application.
- A dedicated local government team coordinates review, establishes clear criteria for approval (Toolkit Section 4.2), and clear service standards and timeline commitments.
- Depending on the local government's context and practices, the standalone permit could be a new unique Public EV Charging Permit, or created as a sub-type of development permit (DP) or other existing permit.

## Standalone Permit Process & Review

- Developer submits completed application checklist.
- Reviewed by staff for completion. If complete, permit is approved.
- The defined criteria for a streamlined approval would not require any civil or mechanical drawings to be reviewed.

**Option 1 is preferred.** If your community is weighing the two Options presented here, consider that it is always possible to begin with a No Permit/As-Rights Permit system (Option 1). Both Option 1 variations (1A and 1B) are strong choices, though Option 1A is the most streamlined. More staff-intensive permitting processes for public EV charging (Option 2) can be adopted in the future if necessary.

Electrical permits (EPs) must be reviewed and completed for any EVCE project, whether administered by the municipality or Technical Safety BC. However, the EP would be a **separate** process from this permit.

Given the expected continued growth in EV adoption and charging demand, any selected process must be able to be scaled up to meet expected demand for charging as EV adoption increases.



Description



#### WHAT ABOUT ELECTRICAL PERMITS?

An electrical permit is necessary for most public EV charging deployments. In most communities in BC, Technical Safety BC administers electrical permitting. However, eight BC municipalities have delegated authority under the *Safety Standards Act* to administer electrical permitting. In these communities, it is expected that electrical permitting for EV charging would continue in parallel to any approvals process for the non-electrical aspects. It is recommended that electrical permit processes continue to cover *only* electrical safety (e.g. compliance with the BC Electrical Code) and that any further permitting regime encompassing the other issues would be conducted by a different team at the municipality, particularly one that has the responsibility and skills for circulating and managing approvals and interfacing with applicants.

### WHAT ABOUT DEVELOPMENT PERMITS?

Many BC local governments have designated development permit areas (DPAs) to protect natural environments, manage form and character, and support climate action in new development. Local governments have the authority to establish a new permit as described in Option 2 above, but some may opt to tailor an existing development permit (DP) process for EVCE. A modified version of a DP (e.g., a streamlined DP) is needed to target EVCE, as described in the following section.

<sup>&</sup>lt;sup>9</sup> According to the <u>TSBC website</u>, the local governments are: City of Burnaby, City of Maple Ridge, City of North Vancouver District of North Vancouver, City of Surrey, City of Vancouver, City of Victoria, and District of West Vancouver.

# 4.2 Example Criteria and Situations Requiring Additional Review

The table below summarizes when a streamlined approvals process is acceptable and when there may be **specific**, **adverse impacts** that warrant additional local government oversight. It notes common by-laws and policies that can be applied (and may need to be amended) to provide an appropriate suite of regulations that enable EV charging while ensuring alignment with other community priorities.

For each potential impact, the table shows:

- **Example criteria** for streamlined approvals that indicate an application has a minimal chance of specific, adverse impacts. This is intended to be "yes/no" criteria that could be included in an EVCE checklist for streamlined approval. These criteria may be different based on the local government's existing bylaws, but they should be designed to be as permissive as possible.
- **Additional process** that should be considered for those applications that do *not* meet the proposed criteria.
- **Notes and implementation considerations** that describe the rationale for the proposed example criteria, as well as guidance for municipalities in implementing the criteria.

**Table 2. Example criteria for a streamlined process** 

Potential impact	Example Criteria for No Permit / Streamlined Stand- Alone Permit	Additional Process	Notes & Implementation Considerations
Canopy or out-building	Do the works include the construction or alteration of a canopy (intended to shelter a person or EV) or out-building structure (that a person can fully enter)?  Yes: consider additional process  No: streamlined process	Building permit and/or development permit	<ul> <li>EVCE (EV service equipment, transformer boxes, concrete pads, and kiosks housing electrical infrastructure that people do not fully enter into) are not buildings. A building permit (BP) should not be applied to these works.</li> <li>A BP is strongly discouraged for the majority of EVCE.</li> </ul>
Landscaping	Will the works contravene established Tree Bylaw or Landscaping Development Permit criteria?  Yes: consider additional process  No: streamlined process	Tree/landscape removal permit or landscaping development permit exemption/variance, if removals above threshold are necessary	<ul> <li>EVCE (EV service equipment and electrical infrastructure) is sometimes best located in landscaped areas.</li> <li>Consider interpreting Tree Removal Bylaw or equivalent flexibly.</li> <li>It is recommended to set clear criteria for the conditions under which additional process (e.g., some form of tree removal / landscaping permit) will be necessary. The following sample criteria for municipalities where the Tree Removal Bylaw or Landscaping DP criteria are not sufficiently clear for applicant attestation:</li> <li>Will the works:</li> <li>Remove a tree &gt;x cm in diameter at breast height (DBH)<sup>10</sup> OR</li> <li>Displace &gt;x m<sup>2</sup> of planted area?</li> <li>Yes: consider additional process</li> <li>No: streamlined process</li> </ul>

<sup>&</sup>lt;sup>10</sup> Values range but are typically from 20 to 35 cm DBH based on a scan of Bylaws in the Lower Mainland. Other minimums may prevail in tree protection by-laws, etc.



Potential impact	Example Criteria for No Permit / Streamlined Stand- Alone Permit	Additional Process	Notes & Implementation Considerations
Other form, character & function	Will the works contravene established form, character and/or function bylaws (e.g. Sign Bylaws, Light Pollution Bylaws, Unsightly Premises Bylaws)?  Yes: consider additional process  No: streamlined process	Bylaw exception/exemptio n permits; minor DP amendment for urban design requirements	<ul> <li>Support applicants by ensuring any criteria referenced are sufficiently specific to allow a yes and no response.</li> <li>Review and revise urban design guidelines to provide clarity of EVCE being supported and avoid frequent contraventions, as necessary. EVCE should generally be exempt from urban design requirements. For example, screening, painting or other forms of visual mitigation should not be required for EVCE.</li> <li>Additional process may not be required if applicant is willing to revise proposed design.</li> </ul>
Traffic	It is generally <b>not</b> recommended to limit the amount of EV charging deployment based on traffic generation concerns. The impacts are usually modest, and there is no basis to accurately estimate impacts in established methodologies (e.g. ITE traffic manuals). Therefore, it is not recommended to include traffic impacts as an EVCE criteria. <sup>11</sup>	Transportation planning review	<ul> <li>Requiring traffic generation studies for EV charging infrastructure is not recommended and can add significant cost to a project.</li> <li>The ITE traffic manual has not yet developed trip generation rates for EVCE (work is underway in the U.S.); attribution is difficult.</li> <li>A low supply of charging can exacerbate queuing and related concerns.</li> <li>The criteria below are provided if a local government instead elects to have consideration of traffic in its criteria:</li> <li>Is the EVCE primarily intended to serve pre-existing visitors and parking users? OR Does the site meet at least 1 of these criteria:</li> <li>L2 only (typically more queuing for DCFC)</li> <li>Sites with &lt;10 charging stations</li> <li>Sites where there is already an excess of parking per the bylaw Yes: streamlined process</li> <li>No: consider additional process</li> </ul>

<sup>&</sup>lt;sup>11</sup> See: ITE. 2023. <u>ITE Parking Generation Manual.</u>



Potential impact	Example Criteria for No Permit / Streamlined Stand- Alone Permit	Additional Process	Notes & Implementation Considerations
Drive aisle	Will the works contravene the municipality's regulations around drive aisle width?  Yes: consider additional process  No: streamlined process	Parking / zoning bylaw / development permit variance/exemption	<ul> <li>To accommodate EV service equipment and/or electrical infrastructure, parking spaces may sometimes need to extend out, thereby narrowing drive aisles.</li> <li>Some local bylaws have drive aisle widths that are wider than best practice. This can encourage speeding/unsafe driving in these areas. It can also limit EVCE deployment in preferred locations.</li> <li>It is recommended to update bylaws so that narrower drive aisles can be accommodated and/or provide exceptions for EV charging infrastructure.</li> <li>Alternatively, the following sample criteria are recommended where municipalities may prefer more permissive allowances than established regulations to encourage EVCE:</li> <li>Will the works involve reducing off-street parking drive (i.e. manoeuvring) aisles to:</li> <li>&lt;6.1m (minimum parking space width 2.7m) for right-angle parking 12</li> <li>For other parking orientations (e.g. 45 degree) consider local minimums or transportation planning best practices.</li> <li>Yes: consider additional process</li> <li>No: streamlined process</li> </ul>
Parking	It is generally <b>not</b> recommended to limit the amount of EVCE based on parking supply concerns. Site owners/tenants should have control over how they manage parking. Therefore, it is not	It is appropriate to not have any maximum for the number of parking spaces that can be designated "EV only" by private	<ul> <li>EVs will rapidly grow as a proportion of all vehicles on the road. In 2-3 decades, once the transition is (near) complete, it would not be disruptive for almost all parking to feature EV chargers and be labeled "EV Only".</li> <li>Local governments should enable (including in bylaw, if deemed necessary) land owners/managers to designate as much parking on their premises as they wish "EV Only". Local</li> </ul>

 $<sup>^{\</sup>rm 12}$  Derived from City of Vancouver minimum allowable drive aisle widths.



Potential impact	Example Criteria for No Permit / Streamlined Stand- Alone Permit	Additional Process	Notes & Implementation Considerations
impact		landowners, and thereby not trigger any additional process.  Otherwise, potential parking loss can be managed through a minor parking bylaw variance or development permit variance.  Alternatively, municipalities could consider an interim approach during the transition where they limit the number of parking stalls that can be marked as EV only, while not	<ul> <li>bylaws need not enforce "EV Only" designation; it is a designation by the private land owner.</li> <li>If a local government elects to have consideration of parking impacts, the criteria below:</li> <li>Will the works:</li> <li>Immediately reduce the number of parking spaces available to non-EVs in a 400m radius by &gt;50%? AND</li> <li>Result in the ratio of parking spaces for EV charging to parking spaces without EV charging within a 400m radius to exceed 3 times to community population of EVs to non-EVs? (Refer to Table 1 to guide calculation.)</li> <li>Yes: consider additional process</li> <li>No: streamlined process</li> <li>No: streamlined process</li> <li>No: streamlined process</li> <li>No: streamlined process</li> </ul>
		capping the supply of EVCE.	• The proposed criteria are intended to enable a steady growth in the number of ports and EV-designated parking, without revising the criteria. These should be specified in parking bylaws for non-residential premises, if enforced.
			• It is not appropriate to include any restriction on the number of residential parking spaces that include EVCE. Residential parking can readily feature EVCE, while still housing fossil vehicles for a few years.



Potential impact	Example Criteria for No Permit / Streamlined Stand- Alone Permit	Additional Process	Notes & Implementation Considerations
Accessibility	Has the applicant followed prevailing best practice for universal design of EVCE (e.g., BC Hydro EV Fast Charging - Design & Operational Guidelines, US Access Board Design Recommendations for Accessible Electric Vehicle Charging Stations)*?  Yes: streamlined process  If no, has the applicant made reasonable efforts to incorporate prevailing best practice for universal design of EVCE given site constraints?  Yes: streamlined process  No: consider additional process  *Note: CSA Group is developing a Canadian-focused technical specification on installing accessible EVCE, which is expected to be published in 2026.	Site design review or revision with staff	<ul> <li>Incorporating accessible design into EV parking stalls involves offering wider access aisles, unobstructed reach and accessible operable parts, as well as accessible interfaces on the EV service equipment.</li> <li>Universal design should be required by the municipality wherever possible. These criteria could be referenced in parking requirements (Zoning/Parking bylaws) Development Permit Guides.</li> <li>Some accessibility criteria can be difficult to meet on smaller sites. Exemptions for smaller sites from accessibility criteria (allocated sparingly) will enable total build out of public charging to increase and reduce congestion at other EV charging sites that do feature accessibility.</li> <li>Best practices do not recommend converting designated accessible parking spaces to EVCE at this stage in the transition.</li> <li>This requirement is interlinked with the parking impacts criteria because wider charging sites can impact the total number of spaces.</li> </ul>



Potential impact	Example Criteria for No Permit / Streamlined Stand- Alone Permit	Additional Process	Notes & Implementation Considerations
Statutory rights of way (ROWs) for local infrastructure	Does the applicant attest that they have reviewed rights of way (ROWs) on the property and will take responsibility for any costs to EV charging works if the local government, or other party, must use statutory ROWs on their property?  Yes: streamlined process  No: consider additional process	Permission from the local government to infringe on ROW	This provision allows the applicant to decide whether to assume any financial risk.
Signage	Does the EV charging signage adhere to City signage bylaws and use Motor Vehicle Act preapproved wayfinding standards?  Yes: streamlined process  No: consider additional process	Minor signage by- law variance/exemption	
Land Hazard	If the works are located in a land hazard area (e.g. Creek Hazard Area; Floodplain; etc.), does the owner acknowledge and assume all financial and liability risks?  Yes: streamlined process.  No: consider additional process.	Development Permit amendments	<ul> <li>Electrical works in floodplains, creek hazard/landslide areas, etc. are presumably at greater risk of damage.</li> <li>Electrical protection is a requirement in the BC Electrical Code and other relevant electrical regulations/standards to minimize the risk of electrocution, fire, etc. in the event of damage in a natural disaster. Provided other works served by electricity are pre-existing in such areas, it is unclear that further municipal process (beyond established electrical permitting) provides safety benefits.</li> </ul>



## 4.3 Elements Municipalities Should Not Regulate

Certain charging station characteristics are **not** appropriate for local governments to regulate, and they should not be considered as part of an approvals process. Municipalities should not regulate:

**Regulatory issues and standards** that are best regulated through provincial and/or national standards associations and consumer protection agencies:

- Commitments on uptime and other service standards
- EV connector standards (e.g. J1772, NACS, CCS)
- Open network standards
  - However, for EVCE owned by municipalities, it is good practice to specify (or strongly encourage) full OCPP implementation and certification from the OCA.
- EV user fees

**Safety requirements** that are covered by other regulatory processes (the exception is municipalities that administer electrical permits and **are** responsible for electrical safety):

- Fire safety: covered by the Canadian Electrical Code.
- Site safety design: covered by existing rules for parking space safety (e.g. lighting, sightlines, etc.)

### **Individual business licences:**

 If the EVCE operator already has a business licence, it does not need a new one for a new location. EVCE should be considered a parking amenity (like lighting) which sometimes introduces new payment mechanisms (e.g. a business adding a new payment option like ApplePay).

## Redevelopment impacts from EV charging installation:

 While municipalities often encourage parking to be transformed to higher and better use, redevelopment considerations should not be assessed or managed through a streamlined EV charging process. EV charging permitted on parking lots does not typically disrupt redevelopment plans because the EV charging investment is minor relative to a development project. The estimated lifespan of charging equipment is ten years.

# 5. Implementation

A streamlined process requires implementation support to be effective. This section defines implementation considerations to support the approval process.

## 5.1 Secure Council Direction, Where Needed

## Council Direction to broadly support EVCE Development

Staff should seek Council direction on supporting public EV charging. Some municipalities have direction to generally support transportation electrification under climate action or transportation plans. Direction should be explicit about EV charging development, providing staff with a specific mandate to encourage or enable EV charging by non-municipal actors. This clarity ensures that enabling EV charging is within the municipal staff mandate.

You could seek Council direction on EV charging during ongoing policy review processes. For example, such direction could be provided as part of an Official Community Plan (OCP); an action in a Community Energy & Emissions Plan; a Sustainability Plan or EV Charging Strategy; and/or as an independent Council policy to streamline permitting.

## **Council Direction on EV Charging Regulation**

If you have Council direction on EV charging development, you can focus on providing zoning bylaw clarity and a streamlined process.

Providing clarity on the definition of EV charging as a land use can be done either as a specific motion or as part of an ongoing/broader zoning bylaw update. Staff should propose a definition of EVCE and allow it widely, in alignment with the principles defined in Section 3. Sample definitions are presented in the Appendix.

Developing a new or revised process for EVCE approvals requires an effort to get internal alignment and clarity before proceeding to Council with a proposed process. This work could include engaging with staff across multiple departments to understand what is and is not working with the current process. This feedback can inform the selection of one of the recommendation options (Section 4) or a variation that still meets the streamlined process principles (Section 3). Council report material can be supported by content within the main text of this guide as well as in the Appendix.

The conditions for streamlined permit requirements for submission can be shared in an EVCE checklist for streamlined approval based on the criteria outlined in Section 4.2.

You may be able to provide clarity to EVCE developers without Council direction or action. For example, you may be able to provide guidelines for EVCE development in a bulletin or guidance document leveraging established policy and best practices from this Toolkit.

## **5.2 Provide Support to Applicants**

With a clarified and consistent process in place, staff can focus on providing communication, guidance and support to applicants.

#### **Communication**

The streamlined process and documents should be publicly available and easy for EV charging developers to find. This communication could be a bulletin or notice. A new or existing page of the municipal website could be updated to describe the process, such as an Electric Vehicles or Permit page. This guidance can also be sent out to known EV charging developers.

Staff can publish a guidance document, such as a process checklist, for EV charging developers. The document should summarize the process steps to be completed by the developer and define which information and documents must be provided (and at which stages) to the municipality to complete the application. This document should be specific to EV charging (rather than a range of permits or uses).

#### Service Standard

Staff should define standards for:

- The maximum time for an initial response to the application
- The maximum time for a final decision on the application

#### **SETTING REVIEW TIMELINES IN CALIFORNIA**

California law requires local governments to review an EVCE application for completeness within 5 or 10 business days (based on the size of the project) and approve or deny within 20 or 40 business days (based on the size of the project).<sup>13</sup>

### **Application Support**

Beyond timely review of applications, you can provide application support to EV charging developers.

For developers preparing to apply, staff could provide guidance on potentially subjective elements of an application and provide clarity, prior to submission. Once an application is submitted, the applicant should receive responses according to the defined service standard, but if not, there should be clear communication on any delays and the updated timelines.

EV charging developers should be able to file any applications or submissions online.

<sup>&</sup>lt;sup>13</sup>California Governor's Office of Business and Economic Development. 2023. <u>Electric Vehicle Charging Station Permitting Guidebook</u>.



## **5.3 Train Staff to Support the Process**

Municipal staff need to be familiar with the streamlined process to complete their work. Training for front counter staff can include guidance on what kinds of requests would fall under this process and how to provide high-level process support to applicants. It may also be valuable to provide staff with training or a guide on EV charging basics to field inquiries.

For staff who are involved in the review, inspection or approval process, training can include guidance on how to manage the requests, support to ensure service standards are met, and clarity on departmental roles (e.g., approval vs. review). This training should provide sufficient guidance on the permit conditions or considerations to empower staff to provide administrative and discretionary approval of stations.

#### **ON METRICS**

If municipal staff are looking to track key performance indicators (KPIs) on a streamlined EV charging approval process, we recommend aligning the KPIs with the service standards:

- The maximum time for an initial response to the application
- The maximum time for a final decision on the application

If a permit is implemented and a fee collected, the funds could be used to support staff training as well as for staff time in providing support to applicants.

# **Appendix**

## **Purpose Statements**

Purpose statements can be used to support preambles for regulatory updates or internal bulletins that support EV application streamlining. The <u>LPDD Model Ordinance</u> provides useful template wording for municipal purpose statements.

## **Supporting Definitions**<sup>14</sup>

"Connector"	means the plug interface by which an EV service equipment connects to an EV's inlet receptacle.  Note: Some DCFC EV service equipment offer two connector options (e.g. CCS and NACS) to support EVs that use different charging standards.
"Direct current fast charging (DCFC)"	means DC Fast Charging for an Electric Vehicle as defined by SAE International's J1772 standard.
"Electric vehicle (EV)"	means vehicle that uses electricity for propulsion, and that can use an external source of electricity to charge the vehicle's batteries.
"EV charging developer"	means a public or private entity that installs charging stations, often a station development company, manufacturer of electric vehicle supply equipment, investorowned or publicly-owned utility, automaker, nonprofit, or other interested party or proponent. EV charging developers have a variety of business models, with some engaging in every step of the development process and owning and operating their stations, while others only engage in parts of the process. <sup>15</sup>
"Electric vehicle charging equipment (EVCE)"	means the equipment necessary to deliver electric vehicle charging on a site including all conductors, connectors, devices, apparatus, and fittings. <sup>16</sup>
"L2/Level 2"	means a Level 2 electric vehicle charging level as defined by SAE International's J1772 standard and includes variable

<sup>&</sup>lt;sup>14</sup> Definitions are drawn from AES, 2021. "<u>EV Ready</u>" Requirements for New Buildings: A Best Practice <u>Guide for BC Local Governments</u> except where indicated otherwise.

<sup>&</sup>lt;sup>16</sup> City of Vancouver, 2025. "Amendments to Clarify EV Charging in the Zoning and Development By-Law."



<sup>&</sup>lt;sup>15</sup> California GO-Biz, 2023. <u>Electric Vehicle Charging Station Permitting Guidebook</u>

	rate charging that is controlled by an electric vehicle energy management system.
"Port"	means the connector used to charge one EV.
"Public charging"	means EVCE that can be used by members of the public without any special access permissions, whether provided on public or private lands. <sup>17</sup>
"Private charging"	means EVCE that is only available to certain users, for example building residents or employees.
"Specific, adverse impact"	means a significant, objective, identified, quantifiable, direct and detrimental impact, based on applicable public health or safety standards, policies, or conditions as they exist on the date the application was deemed complete. <sup>18</sup>

## **EVCE Types**

EV charging stations can generally be located anywhere there is parking available. This Toolkit focuses on **publicly accessible charging that is installed off-street,** it does not directly address private (e.g. residential) charging or charging in the right-of-way.

EVCE can include Level 2 ports, direct-current fast charging (DCFC), or both. EV charging developers will generally aim to align the time typically spent parking in a location with the charging time. For example, workplace charging is typically Level 2 because charging takes longer than a DCFC port.

Some EV service equipment allows power sharing (two cars can be plugged in and charging to the same unit at the same time). This means there are two ports in this charging unit. More conventional DCFC units offer two connector options (e.g. CCS and CHAdeMO) to support EVs that use different charging standards, but only one connector can be used at a time.

The following images illustrate the range of EVCE that could be addressed by streamlined permitting.

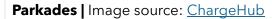
<sup>&</sup>lt;sup>17</sup> Note: some EVCS change between public and private access at different times of day or year. Workplace charging may be public or private depending on the access conditions. <sup>18</sup> LPDD, 2019.



## Workplaces | Image source: PlugIn BC



**Community centres and parks |** Image source: Norgate Park, District of North Vancouver





**Retail** | Image source: PlugShare



**Fast-Charging Station |** Image source: PlugIn BC





## **About On-Street (Curbside) Charging**

On-street charging is an important part of cities' efforts to enable EV adoption. Enabling on-street charging requires unique considerations that are outside the scope of this Toolkit. However, there are a few elements of this Toolkit that can be useful when developing on-street charging strategies.

Notably, developing processes that enable the private sector to implement on-street charging, municipalities could assess a draft process against the streamlining criteria in Section 4. The conditions for approval that are defined for the private land permits could be transferrable, in some cases, to curbside stations.

As an example, the City of Vancouver has developed guidance and conditions for third parties that are looking to install and own EVCE on City property in its Commercial Curbside EV Charging Program Guidelines.

## References

## **On EV Permitting Process**

- Berkeley Law. 2024. Case Studies: City Public & Curbside EV Charging Strategies
- California GO-Biz. 2023. <u>Electric Vehicle Charging Station Permitting Guidebook</u>
- Electrify the South. 2024. <u>Electric Transportation Toolkit for LGs to Accelerate EVs</u>
- Energy Ready. 2024. <u>Charge Smart Municipal Certification Program</u>
- LPDD. 2019. Model Law: Local Ordinance Expediting Permitting for EV Charging Stations
- Great Plains Institute. 2023. <u>EV Ordinance Considerations</u>
- IREC, RMI and SEAC. 2023. <u>Planning and Zoning Guidance for Electric Vehicle Charger Deployment.</u>
- Joint Office of Energy and Transportation. 2024. <u>Community Charging: Emerging Multifamily, Curbside, and Multimodal Practices</u>
- New Buildings Institute. 2024. <u>EVSE Permitting & Inspection Guidelines</u>
- Seattle Department of Transportation. 2019. <u>Electric Vehicle Charging in the Right-of-Way Permit Pilot (EVCROW)</u>: 1.0 Evaluation Report
- Sierra Club et al. AchiEVe: Model Policies to Accelerate Electric Vehicle Adoption
- UC Berkeley Centre for Law, Energy & Environment. 2024. Equitable EV Action Plan

## **On EV Charging Basics & Deployment**

• Dunsky Energy + Climate Advisors. 2023. <u>Keeping it Current: Guidance for Collaborative Deployment of EV Charging in Metro Vancouver</u>. Published for Metro Vancouver.

### On EV Charging Station Design, Including Accessibility

- BC Hydro. 2024. EV Fast Charging Design & Operational Guidelines.
- Capital Regional District. 2023. <u>Capital Region Public Electric Vehicle Charging Archetypes: Technical Guidelines.</u>
- U.S. Access Board. 2023. <u>Design Recommendations for Accessible Electric Vehicle Charging Stations.</u>



### "NO DISCLAIMERS" POLICY

This report was prepared by Dunsky Energy + Climate Advisors, an independent firm focused on the clean energy transition and committed to quality, integrity and unbiased analysis and counsel. Our findings and recommendations are based on the best information available at the time the work was conducted as well as our experts' professional judgment.

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