

Community Excellence Awards

2018 Application Form

Please complete and return the application form by Friday, May 25, 2018. All questions are required to be answered by typing directly in this form. If you have any questions, contact awards@ubcm.ca or (250) 356-5193.

SECTION 1: Applicant Information

Local Government: City of Richmond

Complete Mailing Address:

6911 No 3 Road

Richmond, B.C. V6Y 2C1

Contact Person: Peter Russell

Position: Sr Manager, Sustainability & District Energy

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SECTION 2: Category

- Excellence in Governance.** *Governance processes or policies that are outcomes-based and consensus oriented; support and encourage citizen participation in civic decision-making; are efficient, equitable and inclusive, open and transparent; and exemplify best practices in accountability, effectiveness, and long term thinking.*
- Excellence in Service Delivery.** *Projects/programs that provide effective services in a proactive manner, demonstrate benefit to the community, and utilize performance measures, benchmarks and standards to ensure sustainable service delivery.*
- Excellence in Asset Management.** *Projects/programs that demonstrate a comprehensive system of asset management policies and practices, meeting and/or exceeding accepted best practices.*
- Excellence in Sustainability.** *Projects/programs that incorporate a long-term sustainability lens by considering cultural, social, economic and environmental issues in planning, policy and practice.*

SECTION 3: Project/Program Details

1. Name of the Project/Program:

Leadership in Electric Vehicle Charging Infrastructure Requirements

2. Project/Program Summary. Please provide a summary of your project/program in 150 words or less.

The City of Richmond, BC, is proud to be a leader in climate action, and to support its community members in adopting electric vehicles (EVs). On December 18th, 2017, Richmond City Council made history, becoming the first jurisdiction in North America (and possibly the world) to require that all residential parking spaces in new developments feature an energized electrical outlet capable of providing “Level 2” EV charging. This policy is critical to enabling all households to adopt an EV.

Richmond developed this requirement through a rigorous multi-stakeholder consultation process and a ground-breaking costing study. The City built consensus around a solution to the “EV readiness” problem, ultimately garnering the support of the development and homebuilding community, EV advocates, and members of the public.

Richmond’s EV charging infrastructure requirement is viewed as one of the single most important actions a local government can take to support adoption of EVs and pursue climate targets. It has already inspired multiple local governments to follow suit, including the City of Vancouver and the District of West Vancouver. The requirement is readily transferable to other jurisdictions.

3. Demonstrating Excellence. Please describe how your project/program demonstrates excellence in meeting the purposes of local government in BC and provides promising practices for others to follow.

Richmond's development and implementation of EV charging infrastructure requirements in the Richmond Zoning Bylaw exemplifies the purpose of local governments in BC, namely good governance, stewarding public assets, fostering sustainability. This requirements enables all drivers who park in new residential buildings to adopt an EV into the future, enabling the transition to more sustainable zero-carbon transportation systems in the years and decades to come. It will also catalyze growth in EV charging services that can then be applied in existing multifamily buildings. Richmond's requirements are readily transferable to any other community in British Columbia. Indeed, it has already inspired very similar requirements for 100% of all residential parking to feature an outlet for EV charging have since been adopted by the City of Vancouver, and are under consideration by multiple other local governments across the province.

4. Category Criteria.

A. Please describe how your project/program meets the objectives of the category you have applied under. Refer to S. 3 of the Program & Application Guide.

Richmond's development of EV charging infrastructure requirements for new developments exemplified excellent civic governance, achieving an outcome that benefits our community's long-term sustainability through citizen participation and

collaborative, deliberative, consensus-based decision-making.

Richmond hosted a thorough public engagement to develop its policy. It included:

- A public open house.
- Online survey through the Let's Talk Richmond webpage.
- Internal coordination across the City's Law, Transportation, Building Approvals, Development Applications, Policy Planning, Engineering and Sustainability departments, to identify the appropriate mechanisms and approvals processes to implement an EV charging infrastructure requirement.
- Over two dozen workshops and meetings with key stakeholders, including the Urban Development Institute (UDI), the Richmond Home Builders Group, BC Hydro, EV advocacy groups, the Condominium Home Owners Association, the Richmond Chamber of Commerce, EV charging service providers, and other local governments.

A combined 517 people accessed the Let's Talk Richmond page or attended the Open House, with 168 completing the City's survey. The survey provided important insights - 97% of respondents supported requiring Level 2 charging, to better enable EV uptake. 97% supported requirements applying to all residential building types, and 60% supported all parking stalls being energized.

Workshops with key stakeholders were also critical to the initiative's success. Notably, the City hosted four workshops with the UDI and other representatives of the multifamily development industry, and provided three additional updates to Richmond's UDI Liaison Committee. Initially, the development industry expressed concerns about cost, and uncertainty about how EV charging can be implemented in multifamily buildings. However, over the course of the engagement, participants noted their appreciation of the City's rigour in documenting how EVEMS can be implemented while minimizing costs for new development. They also commended the City's openness to development industry concerns, and proactive efforts to find solutions. For example, the development industry noted they would value more guidance on how electrical designs can be made compatible with multiple EVEMS systems, and the development model strata rule language to ensure successful implementation of EV charging; the City then secured funding and initiated a project to develop these materials (see below).

The proposed policy also elicited strong support from the Richmond Home Builders Group – this group recognized that providing an energized outlet is quite simple and low cost in single family homes (some estimate approximately \$50) and is important to sustainability.

Following adoption of its requirement, the City is continuing collaboration-based good governance. Workshops with Development Applications and Building Approvals staff are being conducted to ensure understanding of the requirement, and appropriate guidance to permit applicants.

The City is also working with a multistakeholder advisory committee comprised of representatives of the development industry, local EV advocates, and other local governments to develop tools to better enable developers and multifamily stratas to implement EV charging in multifamily buildings. The City has secured a \$35,000 grant from BC Hydro to support other local governments interested in implementing similar

policies, and provide useful information to multifamily developers. This project will:

- Compare different designs for EV energy management system configurations and delivery models, providing a comprehensive review of technology options and their implications from a development industry as well as end-user perspective.
- Develop of model strata rule/bylaw content to support governance of EV charging infrastructure.
- Develop a guide for local governments on establishing such requirements.

These resources will be freely available to the public in summer 2018.

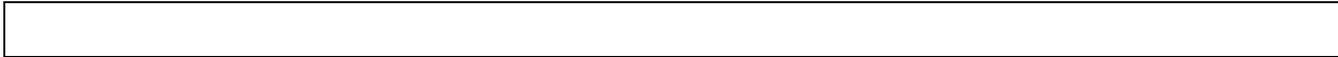
B. In many cases projects may meet the criteria of more than one category. If applicable, please describe how your project meets the criteria of one or more other categories.

This initiative also exemplifies excellence in sustainability. The potential for Richmond's new policy to enhance long-term community sustainability is profound. EVs realize near-zero GHG and zero air contaminant emissions when using power from BC's relatively clean electric grid. As personal transportation accounts for 42% of Richmond's community GHG emissions inventory, supporting adoption of EVs is a critical climate action priority.

The market for EVs is growing rapidly. As of June 2017, EVs comprised over 4% of passenger cars sold in BC. In 2017, EVs market share grew 68% compared to 2016. A number of analyses, including those by Morgan Stanley, BNP Paribas, Bloomberg New Energy Finance, and others, project that EVs could comprise 50% or more of the new vehicles sold worldwide by 2040. Given their climate and air quality benefits, a growing number of countries have announced they will phase out sales of gasoline-only vehicles, including China, England, France, Norway, and other countries.

However, EV adoption is threatened when new buildings, particularly multifamily buildings that represent the majority of new housing in many BC communities, are not constructed as "EV ready". One of the most important factors determining whether a household will adopt an EV is whether they have access to "at home" EV charging. At home charging comprises the large majority of all EV charging, and the vast majority of potential EV drivers will not adopt an EV without access to charging at home. Most EV ownership is currently concentrated in single family and townhome housing with individual garages, as these household currently have access to EV charging. Conversely, EV ownership in multi-family buildings is less common, due to difficulties to date in renovating buildings to provide charging infrastructure. Indeed, a study published by the Condominium Home Owners Association of BC estimated it costs \$8,500-\$13,000 to implement a single EV charging station in typical multifamily parking areas that are not properly future-proofed and made "EV ready". This cost, combined with the complexities of making changes to common property, present significant barriers to the adoption of EVs.

Given these factors, requiring EV charging infrastructure in new residential buildings, particularly multi-unit residential buildings with shared parking areas, is one of the most powerful climate action and community sustainability initiatives that local governments can implement.



SECTION 4: Program Criteria

- 5. Leadership.** Describe the extent to which your local government acted as a local or regional leader in the development or implementation of the project/program.

To the best of the City’s knowledge, it is the first jurisdiction in the world, and certainly North America, to adopt a requirement that all residential parking stalls feature an energized outlet for the purposes of EV charging. Richmond’s leadership is enabling others to take action (See Transferability section). The popular Cleantechica news website noted:

“The city of Richmond, Canada, recently gave us a ‘Roger Bannister moment’ for EV charging access. It passed a zoning bylaw that requires energized-from-day-one Level 2 infrastructure for 100% of parking spaces in all new apartments, condos, and townhouses with shared garages. That’s really, really cool. Because until now, most cities had settled for 20%. It’s a “Roger Bannister moment” in the sense that, once Roger Bannister proved that you could run a 4 minute mile, suddenly a lot of runners started to achieve it.”

Through a rigorous costing study and stakeholder engagement, the City helped demonstrate that using new “EV Energy Management Systems” can allow for 100% of parking stalls to feature an energized outlet, at a cost comparable to energizing just 20% of parking stalls with dedicated electrical circuits, as has been required in the City of Vancouver (amongst other jurisdictions) since 2011.

- 6. Partnerships and collaboration.** Describe the breadth and depth of community and/or regional partnerships that supported the project/program and the extent to which internal and/or external collaboration was evident.

City staff collaborated closely with both external and internal stakeholders throughout the develop of the requirement, and continue to do so as it is implemented and as enabling tools are developed. These requirements are the product of a rich public engagement process, and a deliberative multistakeholder engagement including the development and homebuilding industry, EV charging service providers, electrical engineering designers, BC Hydro and other utilities. City staff also have coordinated closely between Richmond's Sustainability, Building Approvals, Development Applications, Policy Planning, Transportation and Law departments to develop and implement the requirement.

- 7. Innovation and promising practices.** Describe the degree to which the project/program demonstrated creativity and innovation, and contributed to increased efficiency or effectiveness.

This requirement is a highly innovative policy - as noted above, the City was the first jurisdictions to require that all residential parking spaces in new developments feature an energized outlet for existing buildings. This requirement effectively solves to challenge facing residents of multifamily developments to undertake expensive

renovations in order to adopt EVs in new developments going forward, helping the City effectively pursue its climate action and affordability goals.

The use of local governments authority to regulate parking design requirements in the Richmond Zoning Bylaw is an innovative means of securing EV readiness. Previously, most local governments had used either policy applied at rezoning or requirements in building bylaws to establish these standards; a parking design requirement is recognized as a more efficient mechanism, as it allows for differentiation based on land use (which is more difficult to establish in building bylaw), applies to all new developments, nor does it require negotiating legal agreements as is typical of zoning bylaws.

8. Public engagement and communications. Describe the extent to which public engagement was foundational to the success of the project/program, including the use of communication tools such as social media.

Public engagement was critical to the success of this initiative. As noted above, the City solicited public feedback through a Let's Talk Richmond Survey and a well-attended Public Open House to explore and solicit feedback on potential policy directions for EV readiness. These opportunities were widely communicated via Richmond's social media accounts. Sharing through pre-existing relationships with citizens interested in these issues was also critical to the input and success of these events.

The feedback received during public input underscored for the City the importance of providing "Level 2" EV charging infrastructure to support EV adoption, and that all residential parking stalls should feature outlets for EV charging.

9. Transferability. Describe the degree to which the process or outcomes of the project, or other learnings, could be conveyed to other UBCM members.

Richmond's requirement can be readily adopted by other local governments across BC, Canada and around the world. The replication of this requirement will help municipal administrators better support the economic and environmental sustainability of their communities, by providing residents the choice to drive an EV and charge at home. This requirement has already been replicated by the City of Vancouver, and many other local governments are in the process of considering and adopting it.

The City has made a variety of efforts to share the information its developed as part of its stakeholder engagement process. Notably, the City has secured funding from BC Hydro to develop a guide for local governments on establishing EV charging infrastructure requirements.

SECTION 5: Additional Information

10. Please share any other information you think may help support your submission.

EVs are an important component of a low carbon future, and access to "at home" charging is critical to their adoption. Richmond's EV charging infrastructure requirement for new residential developments represents one of the most innovative and impactful

opportunities to reduce emissions available to local governments.

SECTION 6: Signature

Applications are required to be signed by an authorized representative of the applicant.

Name: Brendan McEwen

Title: Sustainability Manager

Signature:



Date: May 25 2018

All applicants are required to submit:

- Signed application form. Applications should be submitted as Word or PDF files.
- Five representatives photos of the project. Photos should be submitted as JPEG files.

If you choose to submit your application by e-mail, hard copies do not need to follow.

Submit applications to Local Government Program Services, Union of BC Municipalities

E-mail: awards@ubcm.ca

Mail: 525 Government Street, Victoria, BC, V8V 0A8