



Equitable Electric Vehicle Ready Parking in Columbus

Roundtable #5

March 23, 2022

A few Zoom reminders for today

Roundtable attendees:

- **Please mute** when not speaking
- Please *also* use the chat function to react, ask questions, and comment!
- Please **rename yourself with name, org, and pronouns** by right clicking on the 3 dots on your image

Refresh: How we are working together

The role we hope you will play

1. Share how you are approaching the transition to electric vehicles
2. Work together to co-create an Equitable EV Ready Parking Ordinance

Suggested group norms

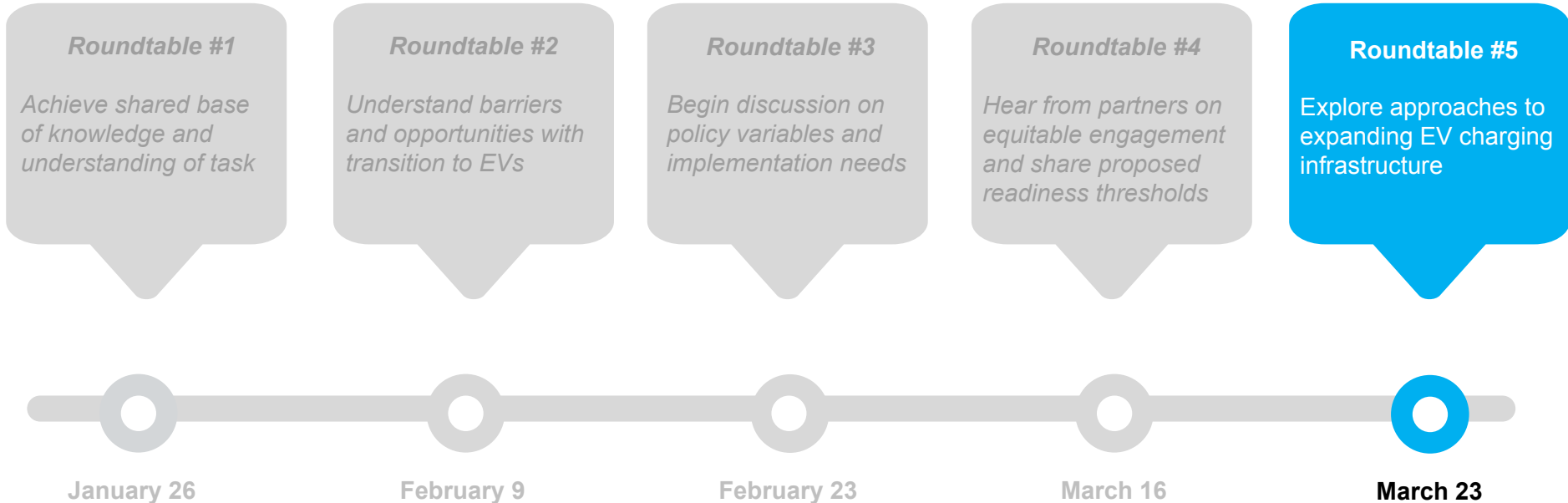
1. Use video whenever possible
2. Minimize distractions
3. Practice the democracy of time
4. Be respectful of opinions
5. *Anything else?*

Together, we hope to accomplish the following today

- Share feedback from 3/16 roundtable meeting on proposed readiness thresholds and other policy variables
- Present updated readiness thresholds based on feedback from 3/16 roundtable meeting
- Engage in small group discussions

This collaboration will advance a policy approach

Where we are in the process






Roundtable #6: April 6, 2022 (2 - 3:30 PM) - discuss programs to support EV charger installation

Agenda

- *Welcome and introduction*
- **Refresh: what we shared last meeting**
- Recap: what we heard last meeting
- Updated EV readiness thresholds
- Small group discussions
- Summary and next steps




Proposed policy parameters - 2023

Applies to newly constructed parking:

Building Type	EV Capable 	EV Ready 	EVSE Installed 	Cumulative amount of parking enabled for EV charging
1, 2, 3 family dwelling	N/A	One EV ready space per dwelling unit	N/A	One EV ready space per dwelling unit
4 or more family dwelling and Office and workplace	20%	10%	5% (level 2)	35%
All other commercial	15%	10%	2% (level 2)	27%
Certified affordable multifamily	10%	5%	N/A	15%

Proposed policy parameters - 2026

Applies to newly constructed parking and major renovations:

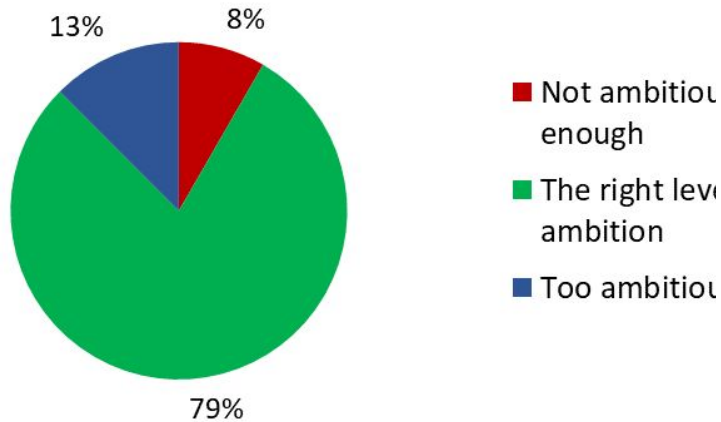
Building Type	EV Capable 	EV Ready 	EVSE Installed 	Cumulative amount of parking enabled for EV charging
1, 2, 3 family dwelling	N/A	One EV ready space per dwelling unit	N/A	One EV ready space per dwelling unit
4 or more family dwelling and Office and workplace	30%	20%	10% (level 2)	60%
All other commercial	25%	15%	5% (level 2)	45%
Certified affordable multifamily	20%	10%	2% (level 2)	32%

Agenda

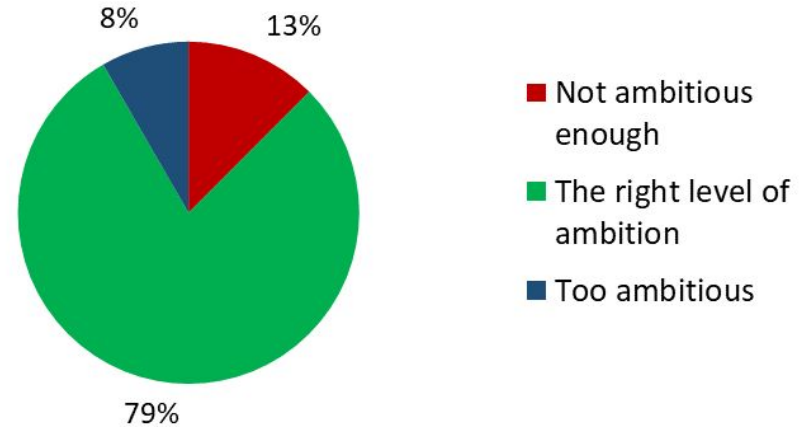
- *Welcome and introduction*
- *Refresh: what we shared last meeting*
- **Recap: what we heard last meeting**
- Updated EV readiness thresholds
- Small group discussions
- Summary and next steps

Poll results - initial reactions to proposed thresholds

What is your initial reaction to the proposed readiness thresholds for 2023?

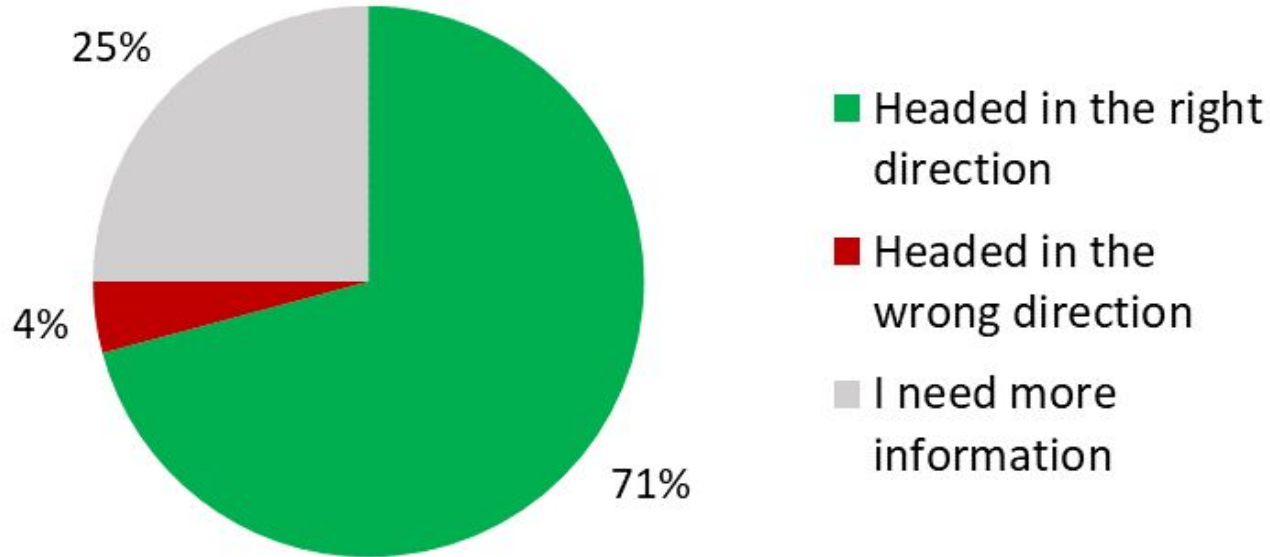


What is your initial reaction to the proposed readiness thresholds for 2026?



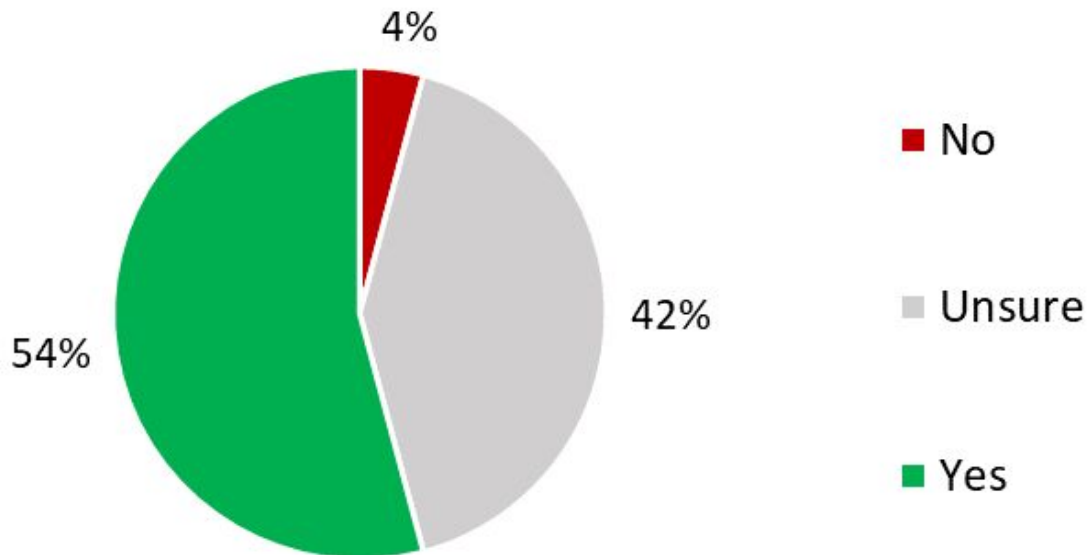
Poll results - co-creation process direction

Thinking about the co-creation process, we are...



Poll results - major renovation approach (following a model similar to Orlando and Denver)

Is this type of approach the right one for Columbus?



Readiness thresholds Q&A

Questions on proposed readiness thresholds:	Columbus reply:
<p>Undue cost burden on affordable housing that have been approved by OHFA or with applications that have been submitted for this current round of tax credits. Consider incentive for 2023 instead of requirement.</p>	<p>Requirements would go into effect for all Building Permits (1-3 dwelling) and Site Plans (all other building types) submitted to Building and Zoning Services on or after January 1, 2023. The City is exploring a number of opportunities to offset the cost of installing EV charging stations at affordable housing.</p>
<p>How often are major renovations? If every 5-10 years, we need to build projected adoption in for 2027 or 2032.</p>	<p>Major renovation for commercial and multifamily typically occurs to increase density and is infrequent on a building-by-building basis. We're working with Building and Zoning Services to pull a report with additional detail.</p>
<p>Will the data be tracked to see whether demand is already met by continued new construction without needing to expand to major renovations?</p>	<p>Yes, the City will track of number of EV-capable, EV-ready, and EV-installed spaces added through the ordinance requirements. There is also publicly available data on the number of chargers installed locally.</p>
<p>Can this follow the adoption curve of EVs? It would make sense to leave flexibility to adjust.</p>	<p>Yes, the proposed readiness thresholds follow the projected EV adoption rates. EV adoption rates and charger needs will be evaluated over time.</p>
<p>Is there a benchmark group or best practice group in the Midwest that we can learn from?</p>	<p>While Columbus is the Midwest leader in EV adoption, we have taken best practices from peer cities with EV ready parking policies, including St. Louis, Denver, Orlando, Pittsburgh, Chicago, and Atlanta.</p>


Readiness thresholds Q&A

Questions on proposed readiness thresholds:	Columbus reply:
<p>For single/duplex/triplex Columbus does not have its own building code - like all local governments Columbus has a state building code. What is the mechanism to enforce the requirement for this building classification?</p>	<p>Columbus maintains a building code that augments the State code. EV readiness requirements can be added to the Columbus Building Code.</p>
<p>Is Columbus willing to invest with a focus on communities that are underinvested in? The proposed policy is focused on making sure the "haves" have more, while the "have-nots" still aren't being guaranteed access to EV charging.</p>	<p>The EV readiness requirements will significantly expand the number of EV chargers and geographic distribution of chargers in Columbus, including in zip codes that currently have few-to-none chargers. By requiring, at minimum, EV-capable and EV-ready infrastructure in all new construction and major renovation development, we ensure that all developments can easily and affordably convert regular parking to EV charging parking as the cost of electric vehicles come down and adoption rate increases.</p>
<p>I'm interested in the poll completed for individuals residing in our affordable housing communities. The responses didn't appear to be supportive on utilizing or purchasing an electric vehicle due to costs. With the 2023/2026 requirements for EV in affordable housing, are these numbers too aggressive for this type of housing product?</p>	<p>The EV readiness requirements for certified affordable housing are scaled up over time to allow the used EV market to expand and for new EVs to reach cost parity with gas-powered cars (expected within the next 3-5 years). As parking lots and garages are typically built to last decades, building with EV-capable and EV-ready infrastructure will ensure that the housing complex can easily and affordably convert regular parking to EV charging parking as the cost of electric vehicles come down and adoption rate increases.</p>

Readiness thresholds Q&A

Questions on proposed readiness thresholds:	Columbus reply:
<p>Is EV capable include a plug to actually charge? Is EV installed more for parking lots vs residential 1-3 unit buildings?</p>	<p>EV-capable does not require an outlet; it only includes the panel-specific infrastructure (conduit, breaker space, etc.). EV-installed requires a level 2 charging station (typically found at a commercial building or multifamily parking lot/garage). For 1-3 unit buildings, EV-ready means a 220/240v outlet.</p>
<p>How should charging be made available to those in single family homes, but without garages or guaranteed parking? (German Village, Italian Village, Clintonville, etc...)</p>	<p>The EV readiness requirements will apply to commercial, office, retail, and workplace developments across the City to help ensure that residents have access to charging at work and while running errands, in addition to charging at home (if available/feasible). In addition, the Department of Public Service is working to expand access to chargers by working directly with EV charger vendors to install chargers in the public right of way throughout Columbus. This month, public DCFC and level 2 chargers were installed at 424 W Town St (Franklinton), 295 E Long St (downtown), and 48 W Poplar St (Goodale Park).</p>

Other outstanding questions

Additional questions:	Columbus reply:
 Is there room for incentives for low-income census districts?	The City is exploring a number of opportunities to offset the cost of installing EV charging stations at affordable housing. This will be discussed in more depth during the April 6 meeting.
Do these thresholds include charging for public transit ?	No, transit agencies will be responsible for installing chargers to support electric public transit expansion.
What about public transit? For people who may not own their vehicle.	LinkUS is a joint initiative between the City and COTA to expand high-capacity public transportation. Learn more at https://linkuscolumbus.com/ .
What offsets the additional cost to develop EV-ready so that affordable housing can get developed to stay affordable?	For installation of EV charging stations, the City is looking at a number of opportunities to offset the cost. This will be discussed in more depth during the April 6 meeting.
What is the net community investment that will be required to meet future demand v. what would be required to "future-proof"?	Columbus will need 21,000 level 2 EV chargers to meet expected future demand of 15% EV adoption by 2030 (we have 400 as of 2022). We will need 50,000+ of level 2 chargers to "future-proof" increased adoption numbers through 2050.
How will renewable energy be integrated into this process? i.e. Will EV chargers be linked to solar and eventually driven by 100% renewables?	EV chargers installed at buildings served by Clean Energy Columbus will be powered by 100% local renewable energy. Chargers at buildings served by Columbus Department of Power are served by 20% renewable energy (will increase to 50% in 2023). AEP Ohio-powered chargers are served by the default grid mix.

Opportunities and excitement

Really excited about the opportunity to have more charging for EVs and what that can mean for our carbon footprint

I'm excited for a chance to make a difference in underinvested communities. We'll need to push more for resident benefits over developer profit margins.

Success stories. How has installing these chargers impacted your business?

Excited about the funding from the feds to support EV charging. It is a great - one in a lifetime opportunity

Excited that the momentum is strong toward positive environmental impact in our community

Might recommend a midwest collaboration to meet twice a year to discuss learning form implementation.

Really love the idea about increasing EV charging stations and would be excited to understand partnerships to assist in financing with affordable housing deals

Excited to see equity in contracting and jobs as a central element of your work. This can serve as a tangible example of equity as more than subsidies and affordability programs.

This is a complete overhaul in how we think about transportation. It's nice to see the larger collaboration

Agenda

- *Welcome and introduction*
- *Refresh: what we shared last meeting*
- *Recap: what we heard last meeting*
- **Updated EV readiness thresholds**
- Small group discussions
- Summary and next steps

Updated readiness thresholds - 2023

Applies to newly constructed parking:

Building Type	EV Capable	EV Ready	Level 2 charger installed	Cumulative EV charging enabled
1, 2, 3 family dwelling	N/A	One EV ready space per dwelling unit	N/A	One EV ready space per dwelling unit
4 or more family dwelling, office, and workplace	20%	10%	5%	35%
All other commercial	15%	10%	2%	27%
Certified affordable multifamily	10%	5% 10%	N/A 2%*	15% 22%

For 1-3 family dwellings, the date a Building Permit is submitted determines if/what readiness thresholds apply. For all other building types, the date the Site Plan is submitted determines if/what readiness thresholds apply.

*Level 2 charging installation is subject to availability of funding.

Proposed policy parameters in 2026 - *for discussion*

Applies to newly constructed parking and major renovations:

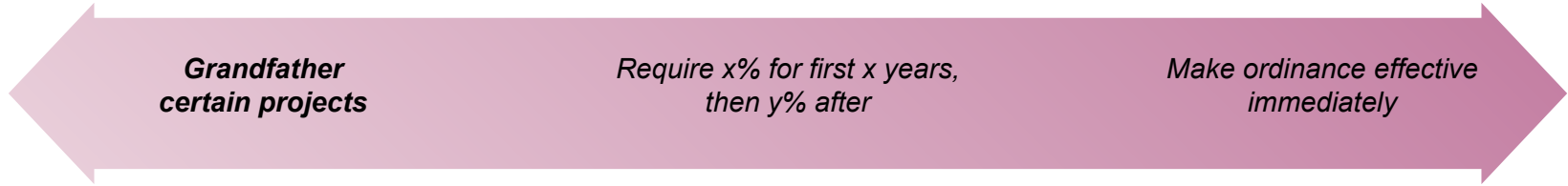
Building Type	EV Capable	EV Ready	Level 2 charger installed	Cumulative amount of parking enabled for EV charging
1, 2, 3 family dwelling	N/A	One EV ready space per dwelling unit	N/A	One EV ready space per dwelling unit
4 or more family dwelling and Office and workplace	30%	20%	10%	60%
All other commercial	25%	15%	5%	45%
Certified affordable multifamily	20%	10%	2%	32%

For 1-3 family dwellings, the date a Building Permit is submitted determines if/what readiness thresholds apply. For all other building types, the date the Site Plan is submitted determines if/what readiness thresholds apply.

Definitions for major renovation - *for discussion*

	Definition / threshold to apply EV ready requirements during a renovation
Denver	<i><u>Level-3 Alterations:</u> where the work area exceeds 50 percent of the original building area or more than 10 parking spaces are substantially modified, are subject to the EV infrastructure requirements for both residential and commercial buildings.</i>
Orlando	<i><u>Substantial enlargement of structures:</u> which is the increase in the size of a building, structure or building site by more than twenty-five percent (25%) of its existing area. Only the new parking spaces added as part of a substantial enlargement are subject to this requirement.</i>
Possible Columbus approaches	<u>1-3 family dwelling:</u> EV readiness requirements would apply if a Building Permit is submitted for a garage or parking addition or renovation. <u>All other building types:</u> EV readiness requirements would apply if a Site Plan is submitted for an exterior parking renovation. Requirements would apply to the newly added or renovated parking spaces only.

Effective date - *for discussion*



For 1-3 family dwellings: the date a Building Permit is submitted determines if/what readiness thresholds apply.

For all other building types: the date the Site Plan is submitted determines if/what readiness thresholds apply. For example:

- Project Onyx (multifamily apartment building) submits a Site Plan on October 12, 2022 and **is not subject** to meeting the readiness thresholds.
- Project Skyline (commercial office building) submits a Site Plan on February 9, 2023 and **is subject** to meeting the '2023' readiness thresholds.

Agenda

- *Welcome and introduction*
- *Refresh: what we shared last meeting*
- *Recap: what we heard last meeting*
- *Updated EV readiness thresholds*
- **Small group discussions**
- Summary and next steps

Breakout discussions

Discussion prompts

- Share feedback on the proposed readiness thresholds for 2026
- Discuss additional policy variables such as major renovation definition

Suggested breakout group norms

1. Use video when possible
2. Practice the democracy of time
3. Be respectful of opinions
4. Use the chat + react functions

Post-breakout questions / open dialogue

Agenda

- *Welcome and introduction*
- *Refresh: what we shared last meeting*
- *Recap: what we heard last meeting*
- *Updated EV readiness thresholds*
- *Small group discussions*
- **Summary and next steps**

Where we are in the process

Roundtable #1

Achieve shared base of knowledge and understanding of task

Roundtable #2

Understand barriers and opportunities with transition to EVs

Roundtable #3

Begin discussion on policy variables and implementation needs

Roundtable #4

Hear from partners on equitable engagement and share proposed readiness thresholds

Roundtable #5

Explore approaches to expanding EV charging infrastructure



Roundtable #6: April 6, 2022 (2 - 3:30 PM) - discuss programs to support EV charger installation

April 6 meeting

Proposed Agenda:

1. Welcome and icebreaker (*5 mins*)
2. Preview of proposed policy language (*20 mins*)
3. Discussion on programs to support installation of EV charging stations (*35 mins*)
4. Next steps in process (*15 mins*)



THANK YOU!

Our contact information

- Bryan Clark (BMClark@columbus.gov)
- Jenna Tipaldi (JETipaldi@columbus.gov)
- Jordan Davis (JLD@smartcolumbus.com)
- Matt Stephens-Rich (mstephensrich@electrificationcoalition.org)

Additional Resources

- **Equitable EV Ready Parking [Website](#):**
 - Process overview
 - One-pager to download
 - Frequently Asked Questions document
- Examples of how other cities have approached EV Ready:

<https://www.swenergy.org/transportation/electric-vehicles/building-codes#who>

