Equitable Electric Vehicle Ready Parking in Columbus

Roundtable #4

March 16, 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

- Hear from partners about their work on equitable engagement and vehicle electrification

- Share input collected from the roundtable group last week on policy parameters and an implementation strategy

- Present initial findings of proposed readiness thresholds

This collaboration will advance a policy approach

Agenda

- **Welcome and introduction**

- Partner presentations

- Recap: what we heard last meeting

- Proposed EV readiness thresholds discussion

- Summary and next steps

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

Agenda

- Welcome and introduction
- **Partner presentations**
- Recap: what we heard last meeting
- Proposed EV readiness thresholds discussion
- Summary and next steps

Partner share-outs

1. CommEN Strategies resident focus groups ([report download](#))
2. Clean Fuels Ohio mobility hubs and community needs assessment
3. IMPACT Community Action community advocates

EV Columbus Resident Learnings December 2021

CommEN Strategies

The Assignment

Columbus is exploring the adoption of a standardized, equitable electric vehicle (EV) charging infrastructure strategy that would significantly increase the number of, and access to, EV charging stations community-wide. By 2030-35, US major car manufacturers have a goal to have all electric vehicles. This means in the next 10 years, most cars will run on batteries and electric vehicles to reduce environmental impact.

CommEN Strategies is a women-and-minority-owned small business with a rich history of fortifying relationships between community partners. Through a series of resident conversations, the CommEN team will better understand what matters most to Columbus residents when it comes to personal transportation, as well as their perspective on EV pros and barriers. This direct input will inform a draft EV Readiness Ordinance for Columbus City Council consideration.

CommEN Strategies

Objective:

Share community EV learnings and suggested next steps for the City of Columbus to consider in its EV Readiness Ordinance.

Reach Criteria:

Columbus residents, primarily BIPOC
- Ages 18+
- Not gender specific
- Mixture of engaged and not engaged

Research Methodology:

Engagement: Focus groups (N=25)

"Today, people of color are far more likely to live in areas with higher rates of air pollution, toxic waste facilities, landfills, and lead poisoning."

- INSIDER

CommEN Strategies

Resident Thoughts About Transportation

1 **"It has to be great on gas."** Affordability consistently was the top thing residents viewed as most important in their personal transportation. Everyone sees transportation as critical to their lifestyle and something they all need it. However, being able to afford it, whether owned vehicle or public, is even more critical.

2 **"What is the purpose of transportation? My expectation is it does what it should do."** Nothing can disrupt a day more than unreliable transportation. Residents talked about having a vehicle to get them to point A to point B on time , whether it is their own car, public transit or carpool/taxi/assistance is key. Transportation should be thinkless and shouldn't add stress to our lives.

3 **"Transportation has given me access"** For many, transportation has not only met their functional needs, but also given them the ability to have a lifestyle, meet new people and have new experiences.

CommEN Strategies

Their Thoughts about EVs

1 **EVs sound cool, but what is the benefit to me above what I am getting from my current transportation? I understand the environmental impacts. I don't know the value it will add to me.**
Indicated Actions:
   1) Develop talk track and key messages of EV personal and environmental benefits and incentives.
   2) Implement engagement campaign to share out key messages with broader community.

2 **What is the true cost of EVs? Affordability is the number one priority to me. Further, beyond financial costs, what else will I be giving up? Time, variety in car choice?**
Indicated Actions:
   1) Build in EV talk track estimated costs, along with line by line items, to get and maintain an EV vehicle.
   2) In addition to outlining the EV benefits, it is helpful to understand impactful shifts consumers will experience (time to get gas vs time to recharge, etc.)

3 **IF the true objective is to reduce environmental impact, why are we only focused on individual EVs. What about EV public transit?**
Indicated Actions:
   1) Explore and communicate out EV opportunities within the public transit ecosystem. Be clear on timing and what is possible.

CommEN
Strategies

Their Thoughts about Evs Cont.

4 **What about those who work in the automotive industry now? What is their job protection plan? The entire industry, from the big box manufacturers to your neighborhood mechanics, has been built on natural gas. It seems their careers are at risk.**

Indicated Actions:
  1) Co-design educational programs to help the industry shift over to EV and support infrastructure costs to make that shift.

5 **Safety? When I think of electricity, I think of what could go wrong is water or force interacts with it. Further, not every neighborhood is safe enough to just leave my car anywhere outside. It feels like safety risks increase with an EV.**

Indicated Actions:
  1) Conduct a study to assess potential risk and engage residents along the way to address concerns.

CommEN
Strategies

Additional Resident Learnings about EVs

6 **Are they concerned about being left out or left behind?**

1) Key finding- residents 55+ plus don't see electric vehicles as obtainable. They fear the learning curb around renewable energy and EV cars will leave them behind. "I have trouble working my phone how will I work a car" (resident "southside")

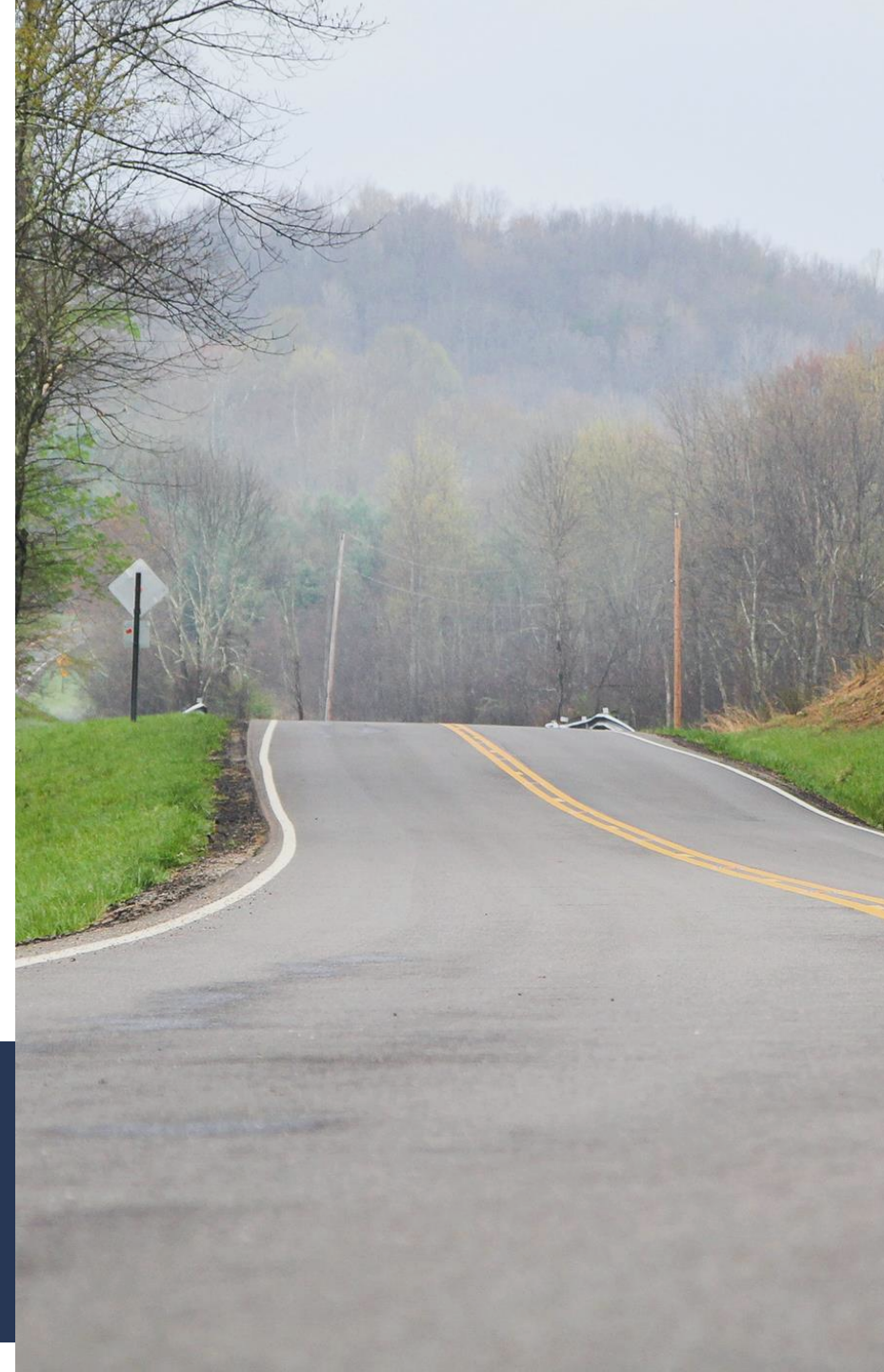**7** **Is having a electric car obtainable?**

1) College student: "electric cars are not affordable" needs to be more accessible to different economic class ." I can't afford a used vehicle, my apartments don't have charging stations." (resident MLK/ Bronzeville)

2) Carbon footprint will still be high with EV cars because most cities don't use renewable energy to power city. Reduction of carbon footprint not that effective.

3) Some residents wanted to see a even playing field with manufacturers of Electric Vehicles. They don't support Elon Musk , and would buy from another company (not Tesla).

CommEN
Strategies

DRIVE ELECTRIC OHIO

Our comprehensive approach to accelerating EV adoption across the state

DRIVE ELECTRIC OHIO

Our comprehensive approach to

accelerating EV adoption across the state

1. Grassroots consumer education

2. Local, state, and federal policymaker education

3. EV dealer and manufacturer engagement

4. Electric utility, co-op, and regulator engagement

5. EVSE infrastructure development

6. Fleet electrification

7. Ensuring equity and access
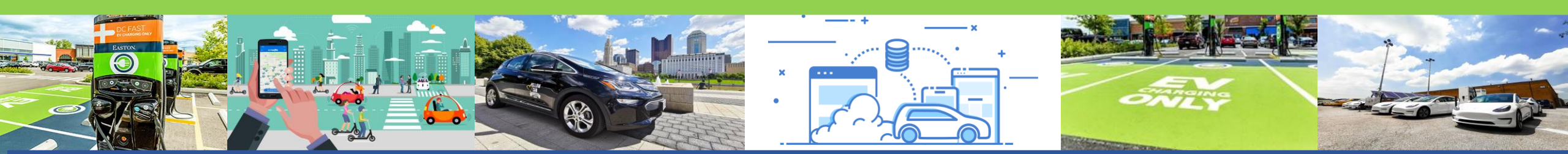
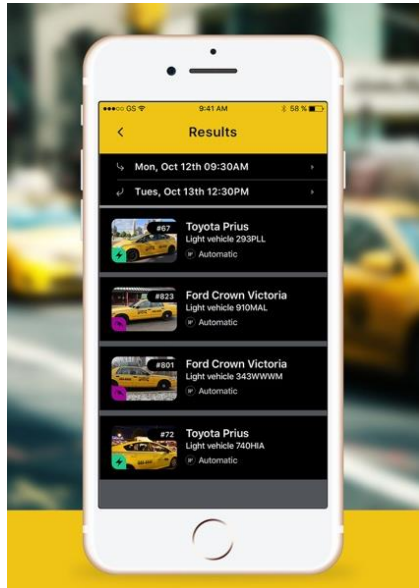# Columbus Yellow Cab EV Mobility Hubs
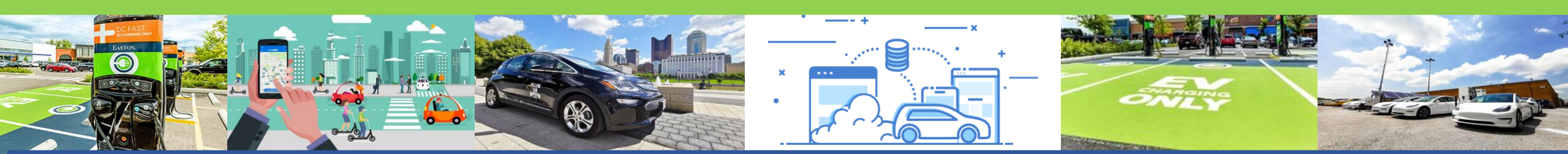
Accessibility Features

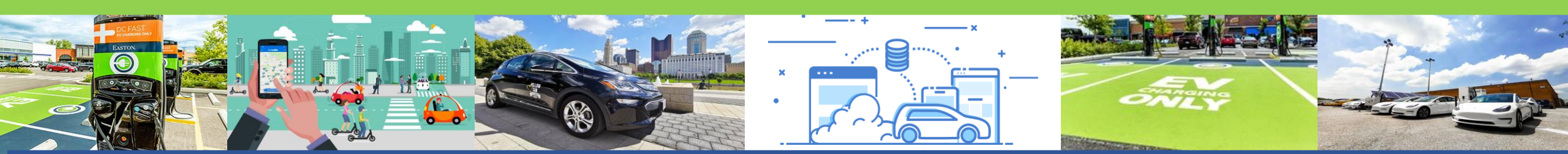## EVs

EVSE

On-site Amenities

- App Based EV Reservation
- Keyless Entry
- Paperless Transactions

- Publicly Available
- App Based EVSE Reservation
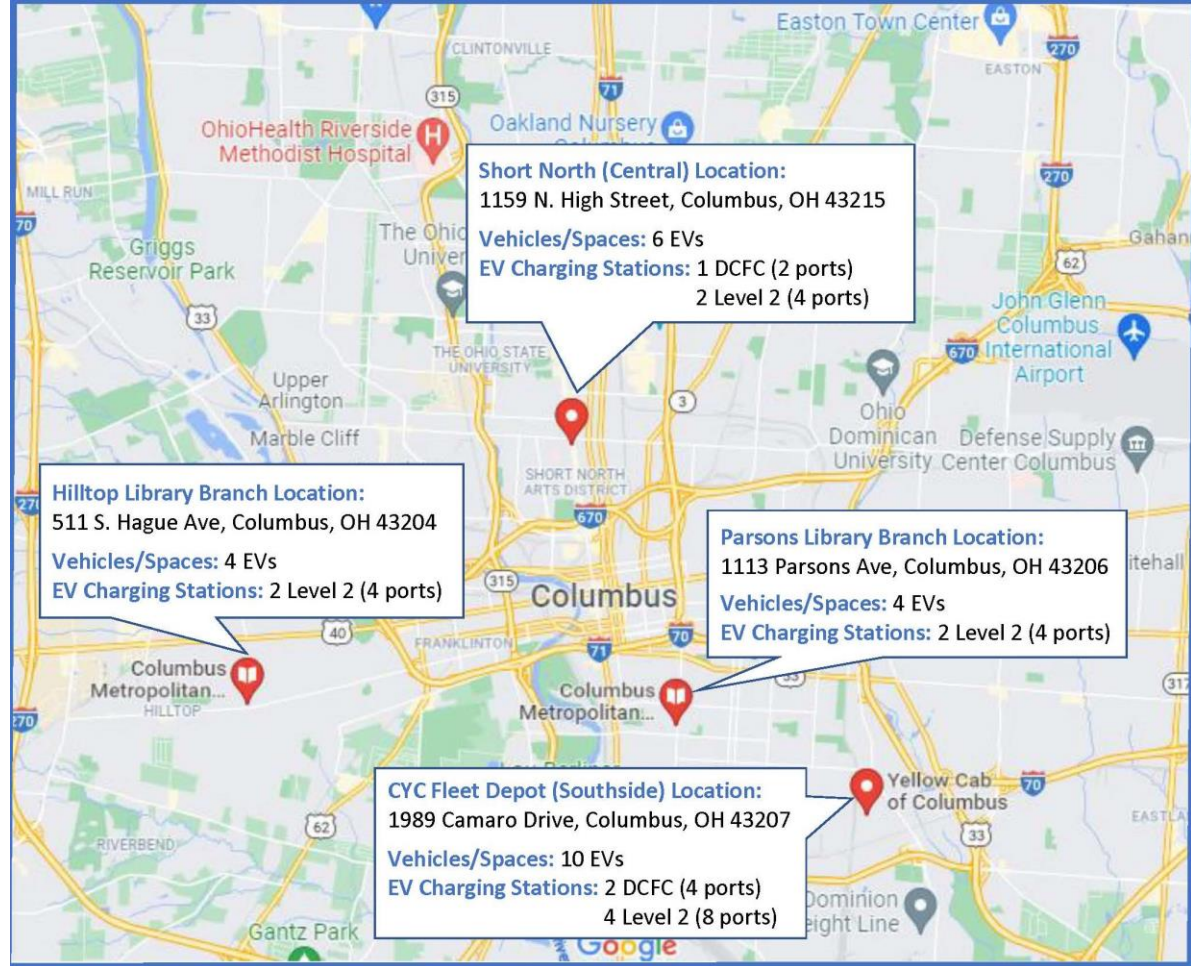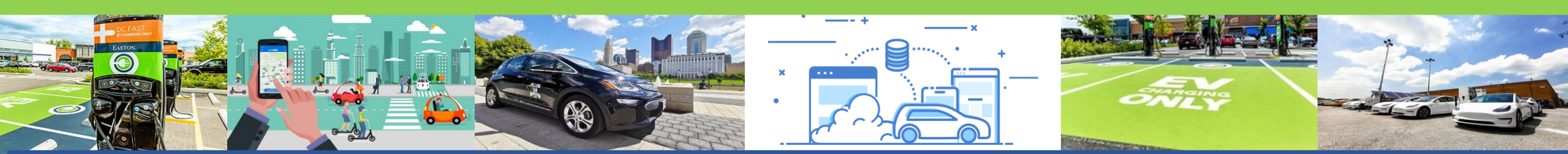- Paperless Transactions

- Future in-hub, on-site reservation accessibility
- Paperless Transactions
- Micro-Mobility (Scooters/Bikes)

Mobility Hubs & EVs for Any Use Case

Short North (Central) Location:
1159 N. High Street, Columbus, OH 43215

Vehicles/Spaces: 6 EVs
EV Charging Stations: 1 DCFC (2 ports)
2 Level 2 (4 ports)

Hilltop Library Branch Location:
511 S. Hague Ave, Columbus, OH 43204

Vehicles/Spaces: 4 EVs
EV Charging Stations: 2 Level 2 (4 ports)

Parsons Library Branch Location:
1113 Parsons Ave, Columbus, OH 43206

Vehicles/Spaces: 4 EVs
EV Charging Stations: 2 Level 2 (4 ports)

CYC Fleet Depot (Southside) Location:
1989 Camaro Drive, Columbus, OH 43207

Vehicles/Spaces: 10 EVs
EV Charging Stations: 2 DCFC (4 ports)
4 Level 2 (8 ports)

Survey Communities & Refine Workplan

(Phase I: Completed June 1, 2022)

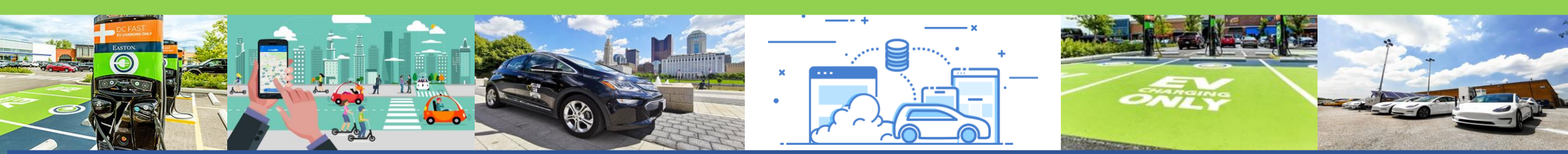*Work to Secure Additional Community Partners*

(Phase I: Completed June 1, 2022)

Perform EV Mobility Hub Educational Outreach Activities

(Phase II: Completed July 1, 2022)

Host EV Mobility Hub Expos, Showcases, User Trainings

(Phase III: Completed October 1, 2022)

Certify EV Hub Community Ambassadors

(Phase IV: Completed December 31, 2022 and Beyond)
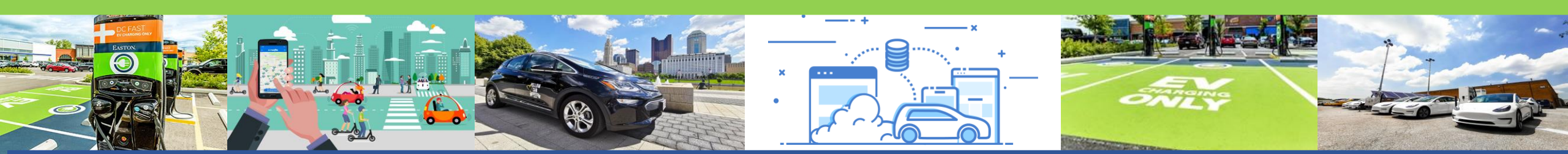
Questions and follow-up:

Tim Cho

Project Manager

tim@cleanfuelsohio.org

Equity-Focused Community Collaboration

Phase 1: Stakeholder engagement and community listening

Phase 2: Collaboratively design projects with communities

Phase 3: Project implementation

THANK YOU!

Brendan Kelley

Director, Drive Electric Ohio

(614) 884-7336 [ext. 305]

Brendan@CleanFuelsOhio.org

Agenda

- Welcome and introduction
- Partner presentations
- **Recap: what we heard last meeting**
- Proposed EV readiness thresholds discussion
- Summary and next steps

Policy: building types

| Non-residential focus only | Non-residential and limited residential | All types |

Fewer building types		**More building types**	
Pros	**Cons**	**Pros**	**Cons**
• Ease of Implementation • Less opposition from unique stakeholder groups • Shopping centers: constant flow, no worry to constantly move car	• Limited access • Equity concerns	• Equitable access to EV charging • Reduces range anxiety • Charging at home, work, shopping is critical	• Can complicate implementation by means of affordability • Likely to encounter more opposition • Policy varies between types

Policy: building types

Non-residential focus only

Non-residential and limited residential

All types

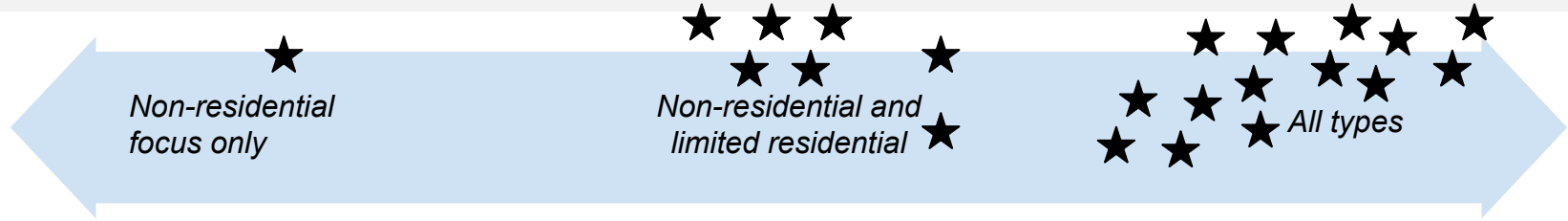| Fewer building types		More building types	
Pros	**Cons**	**Pros**	**Cons**
• Ease of Implementation • Less opposition from unique stakeholder groups • Shopping centers: constant flow, no worry to constantly move car	• Limited access • Equity concerns	• Equitable access to EV charging • Reduces range anxiety • Charging at home, work, shopping is critical	• Can complicate implementation by means of affordability • Likely to encounter more opposition • Policy varies between types

Policy: charging level

EV Capable   EV Ready   EVSE Installed

Lower charging requirements	
Pros	**Cons**
- More affordable - More flexible - Meets people where they are - Foot in the door - Economical for builders	- Less prepared for EVSE installation - Less incentive to implement charging

Higher charger requirements	
Pros	**Cons**
- Able to implement faster - Quicker EV adoption - Fosters future ready thinking	- Difficult to pass legislation - Can be expensive - May be met with resistance - Potential to be underutilized

Policy: charging level

Lower charging requirements	
Pros	**Cons**
• More affordable • More flexible • Meets people where they are • Foot in the door • Economical for builders	• Less prepared for EVSE installation • Less incentive to implement charging

Higher charger requirements	
Pros	**Cons**
• Able to implement faster • Quicker EV adoption • Fosters future ready thinking	• Difficult to pass legislation • Can be expensive • May be met with resistance • Potential to be underutilized

Policy: construction phase

Only new construction ← → *New construction AND major renovations*

Fewer construction phases	
Pros	**Cons**
- Lower cost of entry/readiness - Can write into lending requirements - Easier for new construction	- Missed opportunities for installing EVSE in existing structures - Funding challenges

More construction phases	
Pros	**Cons**
- Fosters more access to charging - Quicker market transition	- Retrofitting not easy - Can take up prominent spaces - Traffic generation - Additional costs, historic preservation

14

Policy: construction phase

Only new construction ←————————————————→ New construction AND major renovations

Fewer construction phases	
Pros	**Cons**
- Lower cost of entry/readiness - Can write into lending requirements - Easier for new construction	- Missed opportunities for installing EVSE in existing structures - Funding challenges

More construction phases	
Pros	**Cons**
- Fosters more access to charging - Quicker market transition	- Retrofitting not easy - Can take up prominent spaces - Traffic generation - Additional costs, historic preservation

Policy: effective date

Grandfather certain projects → *Require x% for first x years, then y% after* → *Make ordinance effective immediately*

Gradual phase-in	
Pros	**Cons**
- Avoids complicated funding stacks - Can minimize opposition - More time for compliance - Flexible for smaller businesses	- Delays effectiveness and impact - Can fall behind despite increasing EV adoption - Does not mitigate current range anxiety

Faster implementation	
Pros	**Cons**
- Inspires faster EV adoption - Can meet immediate demand quicker - Ohio EV adoption rate is higher	- Challenges with technology changes - Developer resistance - Cost to adjust current development plans

Policy: effective date

Grandfather certain projects

Require x% for first x years, then y% after

Make ordinance effective immediately

Gradual phase-in		Faster implementation	
Pros	**Cons**	**Pros**	**Cons**
• Avoids complicated funding stacks • Can minimize opposition • More time for compliance • Flexible for smaller businesses	• Delays effectiveness and impact • Can fall behind despite increasing EV adoption • Does not mitigate current range anxiety	• Inspires faster EV adoption • Can meet immediate demand quicker • Ohio EV adoption rate is higher	• Challenges with technology changes • Developer resistance • Cost to adjust current development plans

Implementation

Funding, Financing, and Incentives

- Small business incentives
- EV Charging incentives
- Local Green Fund
- Ohio EPA funding opportunities
- National EV infrastructure formula program

Compliance Resources

- EV Readiness Guide
- City of Columbus EV ROW charging guide
- Dedicated city webpage
- Help staff to help developers with compliance

Community Impacts

- Community education programs
- Ride and Drive events
- Stipends/grants for community leaders
- Dealer education
- Financing options for EV ownership
- High level of listening

Agenda

- Welcome and introduction
- Partner presentations
- Recap: what we heard last meeting
- **Proposed EV readiness thresholds discussion**
- Summary and next steps

Building type categories

Non-residential focus only → Non-residential and limited residential → All types

Building Category	Building types included in category
1, 2, 3 family dwelling	Single family home, duplexes, and triplexes
4 or more family dwelling and office and workplace	Market-rate multifamily buildings; Administrative offices, health care, financial offices, educational facilities, etc. (all C-2 Office Commercial District buildings in Zoning Code)
All other commercial	Retail, grocery, restaurants, etc. (all C-1, C-3, and C-4 Commercial Districts in Zoning Code); standalone surface lots and parking structures
Certified affordable multifamily housing	Certified affordable multifamily building

*Building categories and types are aligned with Columbus Building and Zoning Codes

Charging level

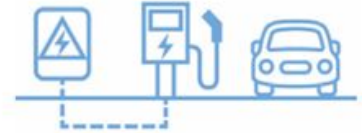EV Capable → EV Ready → EVSE Installed
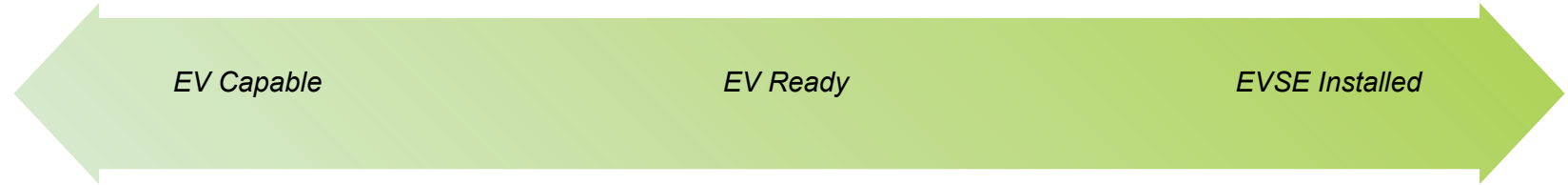
EV Capable

EV Ready

EVSE Installed

Thresholds for **all three levels of readiness** will be established for each building category that align with EV adoption rates and charging infrastructure needs

Construction phases

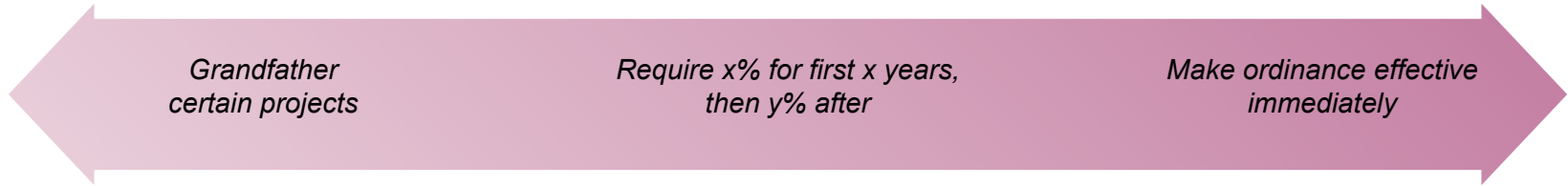*Only new construction* → *New construction AND major renovations*

Implementation Year	Construction Phase
January 2023	New construction only
January 2026	New construction and major renovation
January 2030	Stakeholder group will reconvene in 2026 to consider adjustments for 2030 implementation year, including: ● Reviewing EV adoption numbers and current charger distribution ● Determining if 2026 thresholds need to be increased ● Determining if readiness requirements for existing building retrofits need to be considered

Definitions for major renovation

	Definition / threshold to apply EV ready requirements during a renovation
Denver	Level-3 Alterations: 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.
Orlando	Substantial enlargement of structures: 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.

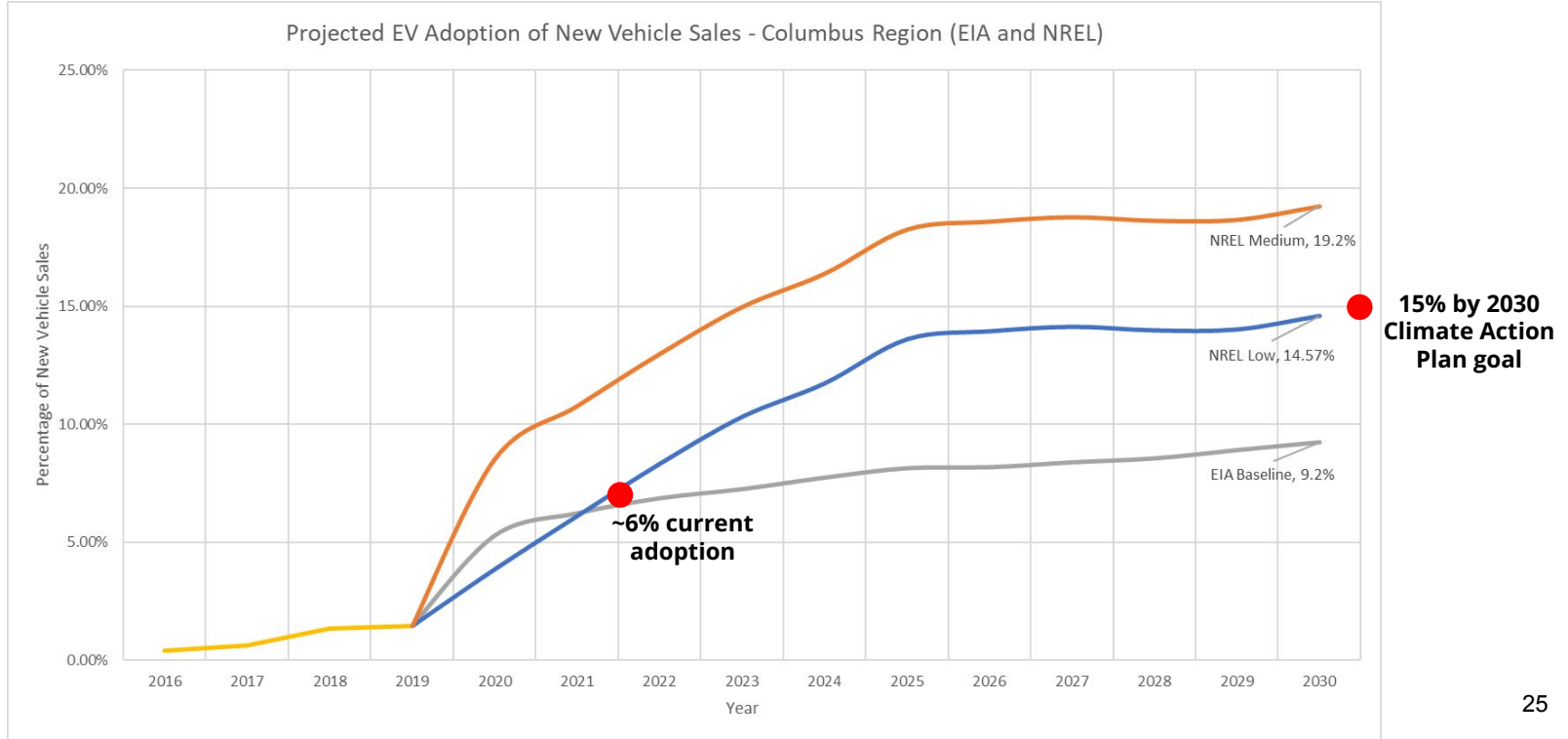Zoom poll: is this type of approach the right one for Columbus?

Effective date

Grandfather certain projects → Require x% for first x years, then y% after → Make ordinance effective immediately

Building Type	Beginning January 2023: applies to all new construction	Beginning January 2026: applies to all new construction and *major renovations*
Office and workplace	Initial thresholds determined: ● x% EV capable ● x% EV ready ● x% EVSE installed	Thresholds increase in 2026 to align with projected EV adoption rate and charging infrastructure needs
Example Office Building (numbers are illustrative)	● 3% EV capable ● 2% EV ready ● 1% EVSE installed	● 5% EV capable ● 3% EV ready ● 2% EVSE installed

Projected EV adoption rate

- Updated adoption projections - Columbus on-target for reaching 2030 EV adoption goal

Projected EV Adoption of New Vehicle Sales - Columbus Region (EIA and NREL)

NREL Medium, 19.2%

15% by 2030
Climate Action
Plan goal

NREL Low, 14.57%

EIA Baseline, 9.2%

~6% current
adoption

Bringing together stakeholder input and data

Stakeholder input and equity lens

- Feedback from roundtable meeting participants
- Focus on charging at home and at work

+

EV data inputs

- Current and future EV adoption rate
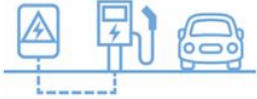- Current and future EV charger needs

→

Proposed policy and implementation strategy

- Stakeholder and data informed readiness thresholds
- Implementation strategy that provides near-term certainty and flexibility for the future as technology and data evolve
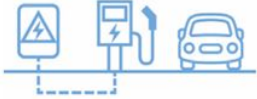
Proposed readiness thresholds - beginning 2023

Applies to newly constructed parking:

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

27

Proposed readiness thresholds - beginning 2026

Applies to newly constructed and significantly renovated parking:

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

28

Group discussion + prep for next week

Today*
1. Clarifying questions (chat + aloud) 2. Initial reactions (Zoom poll) 3. Guided questions (Mural)

Next Wednesday
1. Small group discussions on the proposed readiness thresholds and implementation strategy 2. Next steps

*Questions collected today will inform the small group discussion next week

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