



# **Kentucky EV Infrastructure Stakeholder Meeting #4**

**Dec. 1, 2022**





# Introductions



# Introductions



**Justin Harrod**  
EV Charging  
Infrastructure Planning  
and Deployment Lead  
KYTC



**Robert Frazier**  
EV Charging Planning  
Consultant Team  
Project Manager  
HDR



**Mark Polston**  
EV Charging Procurement  
Consultant Team  
Project Manager  
WSP

# Agenda

01

EV Overview and  
Barriers to EV  
Adoption & EV  
Infrastructure

02

Review of KY's  
EV Plan and  
Federal Funding

03

Process and  
Schedule

04

Possible Station  
Locations and  
Opportunities  
for Market  
Participants

05

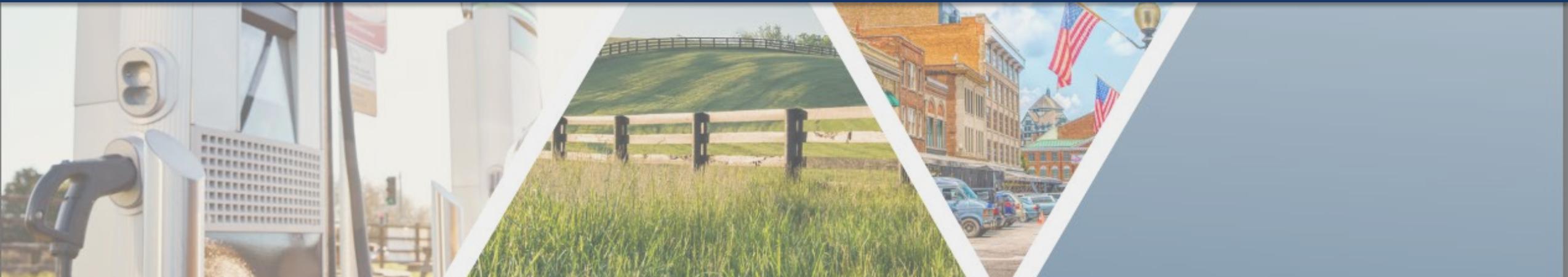
Procurement,  
RFI and RFP  
Process, and  
Participant  
Involvement

06

Discussion,  
Questions, and  
Next Steps



# EV Overview



# EV Overview



## BEV

### Battery Electric Vehicle

- + Battery Power Only
- + Typical Range 150-400 miles



## PHEV

### Plug-In Hybrid Electric Vehicle

- + Battery Power and Internal Combustion Engine (ICE)
- + Typical Battery Range 20-40 miles



## HEV

### Hybrid Electric Vehicle

- + Internal Combustion Engine (ICE) Only
- + Battery Charges by Regenerative Braking or Using Engine as a Generator
- + Battery Allows for Smaller Engine and Reduces idling

# EV Overview

Level 1	Level 2	Level 3- DC Fast Charger
		 <p data-bbox="2084 396 2351 496">Initial Years of NEVI Funding are for Level 3 DCFCs</p>
<ul data-bbox="249 872 856 1029" style="list-style-type: none"><li>+ Standard Outlet</li><li>+ Slowest Charging</li><li>+ 250 miles in 48-72 hours</li></ul>	<ul data-bbox="963 872 1498 1029" style="list-style-type: none"><li>+ "Dryer Outlet"</li><li>+ Slow Charging</li><li>+ 250 miles in 10 hours</li></ul>	<ul data-bbox="1671 872 2346 1086" style="list-style-type: none"><li>+ Direct Current Fast Charger (DCFC)</li><li>+ Fastest Charging</li><li>+ 250 miles in 30 minutes</li></ul>



# **Barriers to EV Adoption and EV Infrastructure**







# Review of KY's EV Plan and Federal Funding

# Federal Funds for EV Infrastructure

## 2021 Infrastructure Investment and Jobs Act (IIJA)

also known as **Bipartisan Infrastructure Law (BIL)**

# Federal Funds for EV Infrastructure

**2021 Infrastructure Investment and Jobs Act (IIJA)**

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**National Electric Vehicle Infrastructure (NEVI) Program**

# Federal Funds for EV Infrastructure

## 2021 Infrastructure Investment and Jobs Act (IIJA)

also known as **Bipartisan Infrastructure Law (BIL)**

## National Electric Vehicle Infrastructure (NEVI) Program

### NEVI Formula Funds

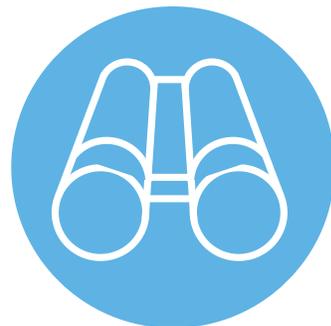
Kentucky's Share - \$69.5M  
\$5.0 Billion Nationally

### NEVI Discretionary Grant Funds

Competitive Grants  
\$2.5B Available Nationally  
Guidance Expected in Late 2022

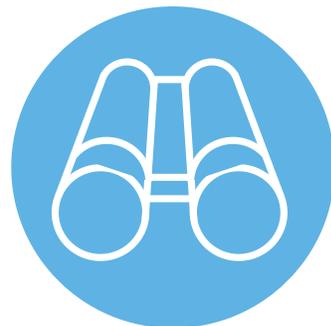
# Kentucky's EV Plan Vision

A reliable, accessible, convenient, and affordable EV charging network that supports transportation choices, energy diversification, economic development, and environmental sustainability for all Kentuckians



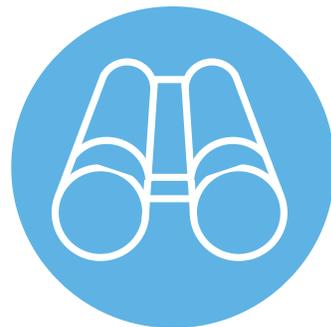
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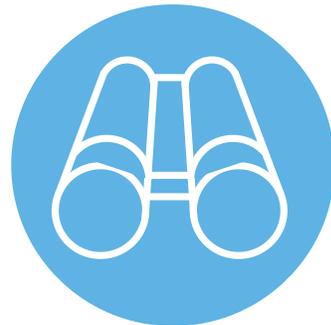
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# EV Infrastructure Plan Approved

- Received Federal Approval on September 14<sup>th</sup>
- First group of states to be approved
- Secured First \$25 Million in NEVI Federal Formula Funding (FY 22 & 23)



## OFFICE OF GOVERNOR ANDY BESHEAR

FOR IMMEDIATE RELEASE

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### **Gov. Beshear: Kentucky to Receive Nearly \$70 Million to Develop Statewide Electric Vehicle Charging Network**

*Federal government approves Kentucky's plan, further cementing the state's status as a leader in EV revolution*

**FRANKFORT, Ky. (Sept. 15, 2022)** – Today, Gov. Andy Beshear announced that Kentucky, having already attracted more than \$9 billion of investments from electric vehicle battery makers and automotive suppliers, has received federal approval to develop a nearly \$70 million electric vehicle charging network.

# Expected Federal Funds

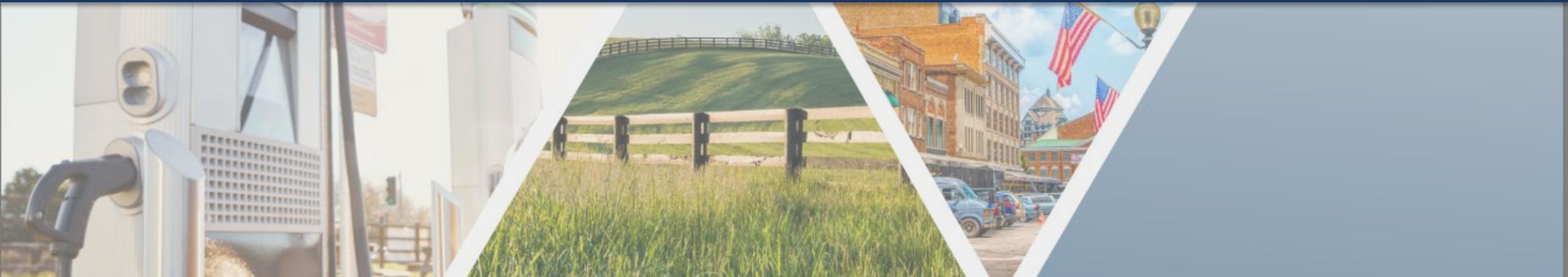
Fiscal Year	2022	2023	2024	2025	2026	Totals
EV Infrastructure Plan Elements	Phase 1: Primary Interstates (~\$17M)		Phase 3: Other Priority Highways (\$TBD)			
	Phase 2: Parkways/Other Freeways (~\$23M)		Phase 4: Community/Park Chargers (\$TBD)			
	P1 & P2 Combined (~\$40M)					
Federal Funds	\$10.3	\$14.8	\$14.8	\$14.8	\$14.8	\$69.5
Non-Federal Funds	\$2.6	\$3.7	\$3.7	\$3.7	\$3.7	\$17.4
Total Funds	\$12.9	\$18.5	\$18.5	\$18.5	\$18.5	\$86.9

All Numbers in Millions

Projected Build-Out of AFCs in ~2024



# Process and Schedule



# Process and Schedule





# Possible Station Locations and Opportunities for Market Participants



# Initial Stations Must be on AFCs Until AFC Build-Out

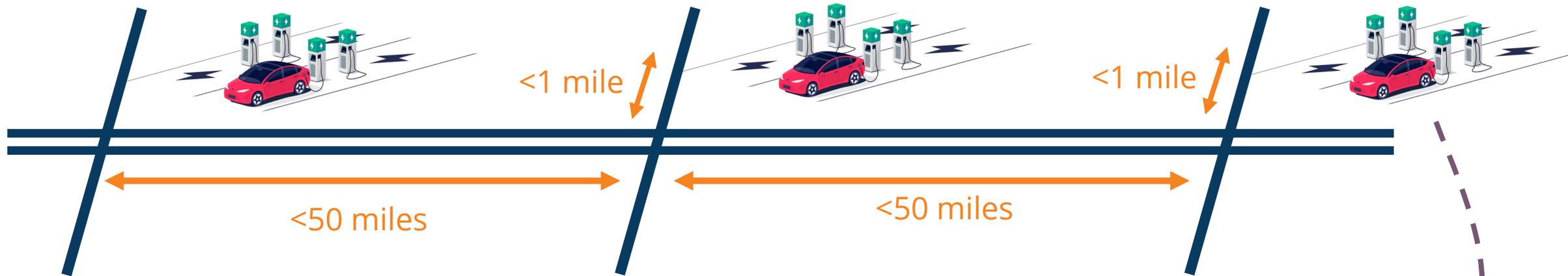
- Existing NEVI Compliant Level 3 (DCFC) Station
- EV Alternative Fuel Corridor - Kentucky
- EV Alternative Fuel Corridor - Out of State

Sources: KYTC, EEC

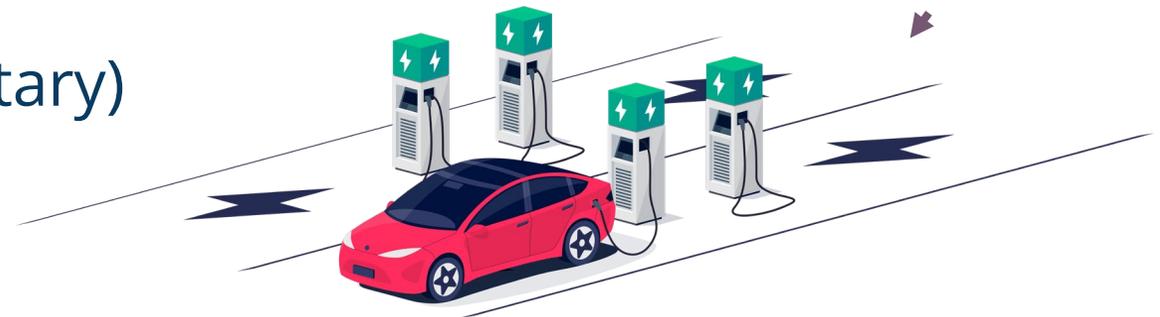
Designated Alternative Fuel Corridors (AFCs)  
NEVI Guidance Requires Build-out of AFCs First  
AFCs Approved on July 7, 2022



# DCFC Stations on AFCs



- + <50 Mile Spacing; <1 Mile From Corridor
- + At Least (4) 150 kW DC Fast Charging Ports (600kW Total)
- + Open to General Public (Not Proprietary)



# Potential NEVI-Funded DCFC Locations

- **Suitable Locations – Where can stations go?**

Power Availability / Reliability; Distance to NEVI Stations;  
Long-Distance Trips

- **Priority Locations – Where are they most needed?**

Distance to Other Stations; Rural Designation;  
Justice40 Designation



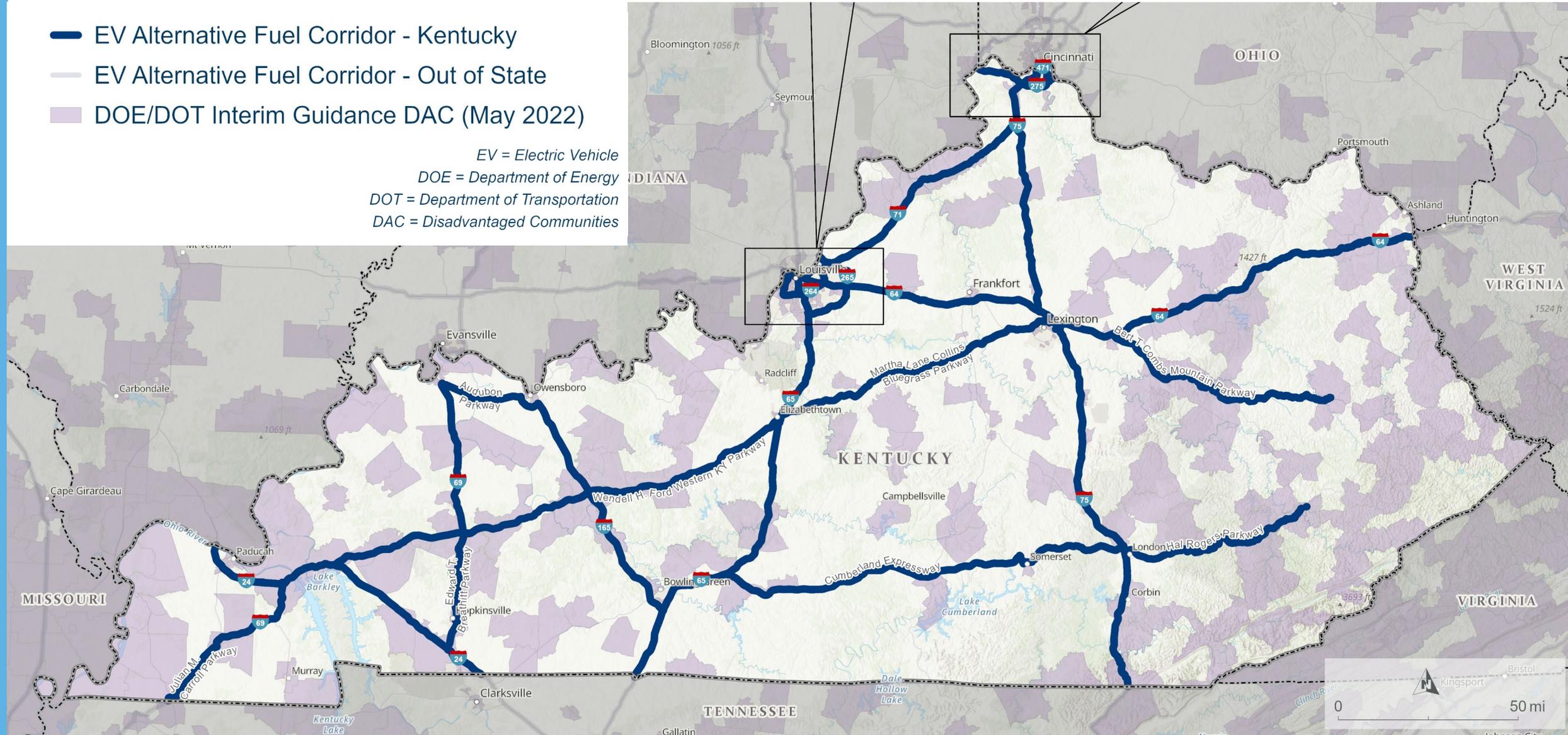


# Disadvantaged Community Map (Justice40) TEAM KENTUCKY

TRANSPORTATION CABINET

- EV Alternative Fuel Corridor - Kentucky
- EV Alternative Fuel Corridor - Out of State
- DOE/DOT Interim Guidance DAC (May 2022)

*EV = Electric Vehicle  
 DOE = Department of Energy  
 DOT = Department of Transportation  
 DAC = Disadvantaged Communities*



# Potential NEVI-Funded DCFC Locations

**KYTC will Not Own, Operate, or Maintain Stations**

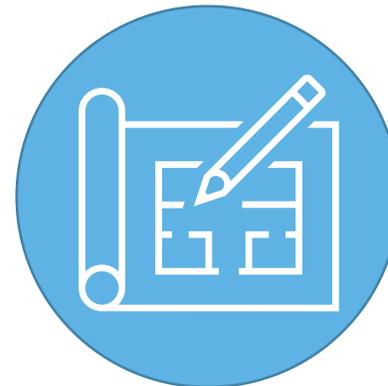
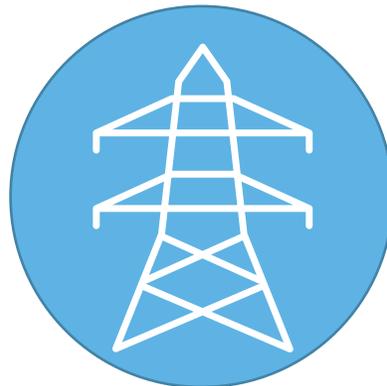
Private Firms will be Involved in

- Procurement
- Contracting
- Implementation
- Site Selection



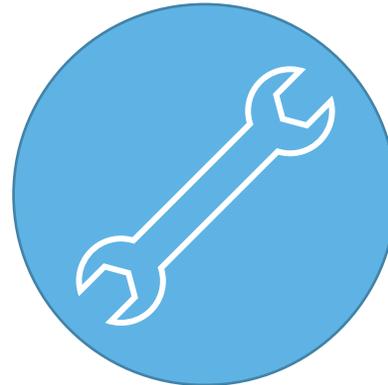
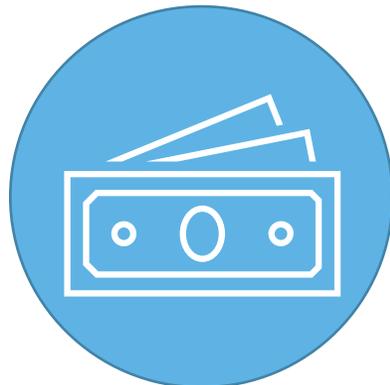
# Charging Station Costs

- Capital Cost – Approx. \$800,000 to \$1.2 Million per Station
- Final Cost will Depend on
  - Power Availability
  - Site Design/Layout
  - Any Additional Station Features



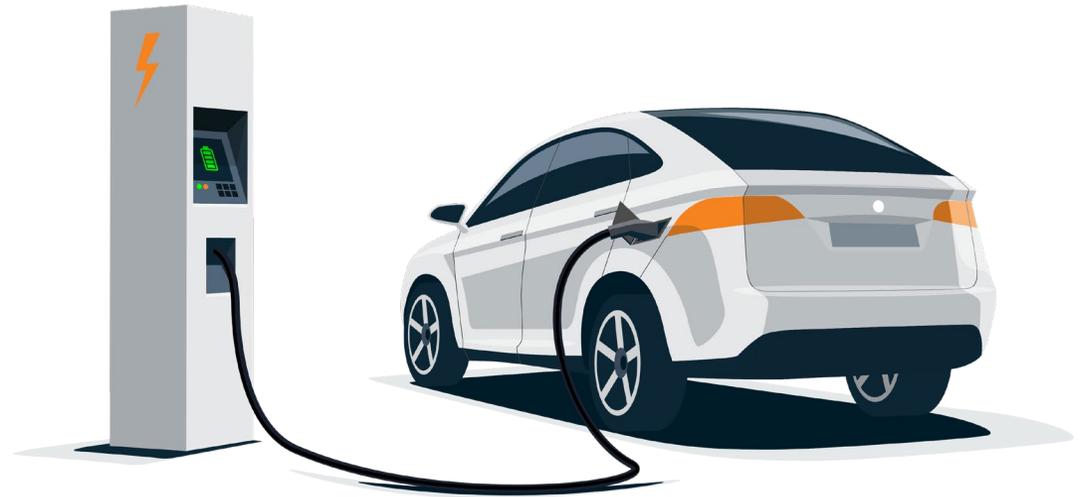
# Charging Station Costs

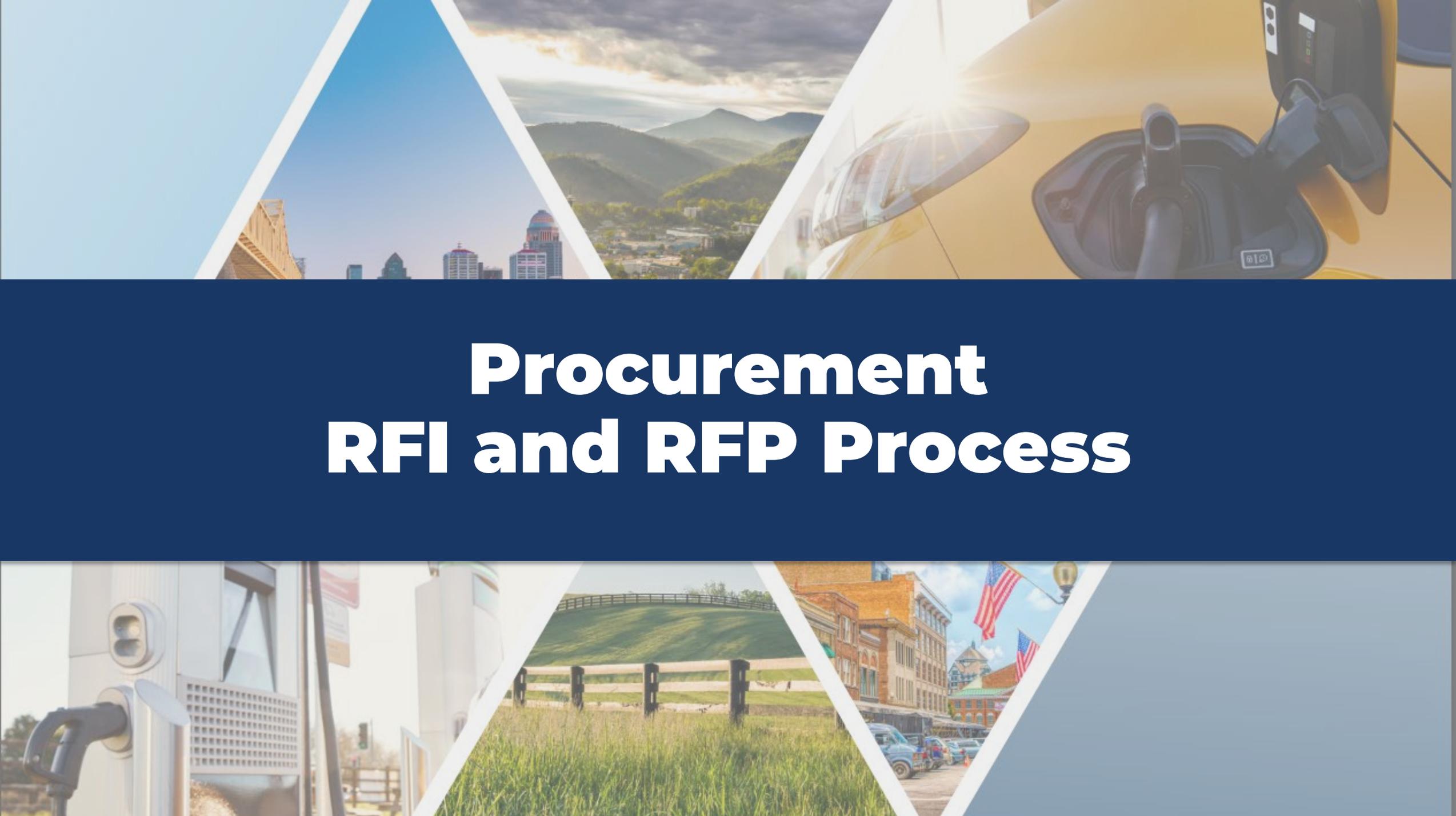
- Total Capital Cost to Build-Out AFCs is Estimated at ~\$40M
- Operating and Maintenance Costs
  - Currently Uncertain
- Considerable Market Volatility Affecting Capital and O&M Costs



# Other EV Charging Initiatives

- VW Settlement Funds (EEC)
  - + Expected Soon
- NEVI Competitive Grant Funding
  - + Expected Soon
- Tennessee Valley Authority
- KY Clean Fuels Coalition
- Evolve KY

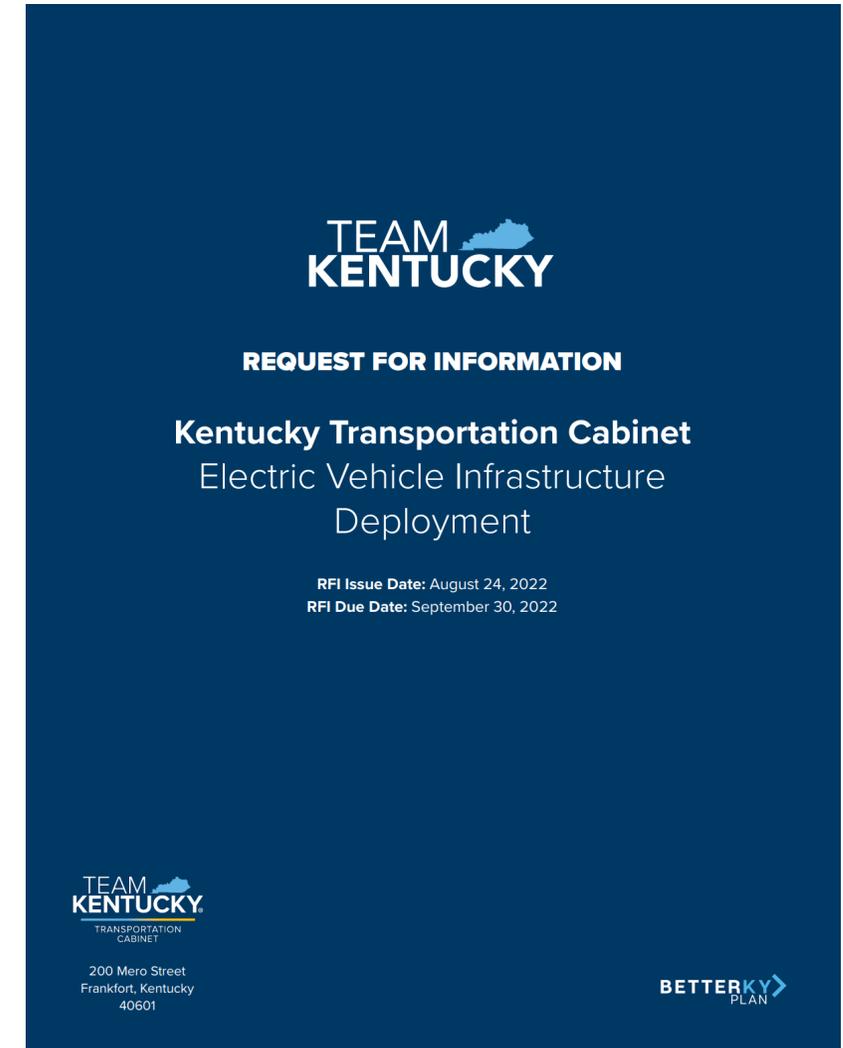




# Procurement RFI and RFP Process

# Request for Information (RFI)

- Issued August 24
- Sent to potential EV industry partners
- Solicited input on potential procurement and contracting methods and issues
- Deadline was September 30



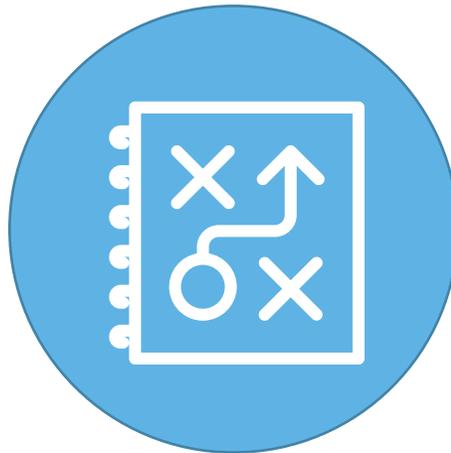
# 36 RFI Responses Across 8 Market Categories

1. Charge Network Providers
2. Contractors/Installers
3. EV Equipment Suppliers
4. Electric Utilities
5. Site Hosts
6. Non-Profits
7. Consultant
8. Others

Follow-up meetings with firms were designed to allow respondents to provide more detailed responses

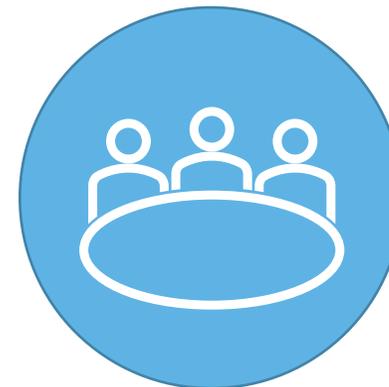
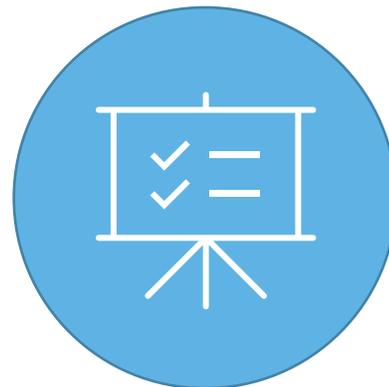
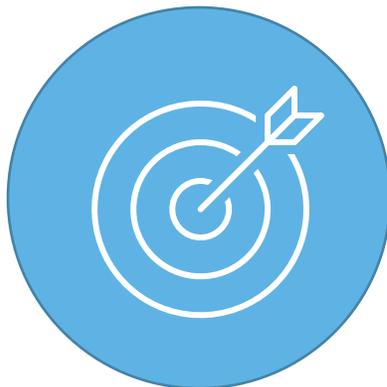
# Request for Proposal (RFP) Development

- Building on the Plan and the RFI process, KYTC is developing an RFP to implement a NEVI program-compliant EV charging station network



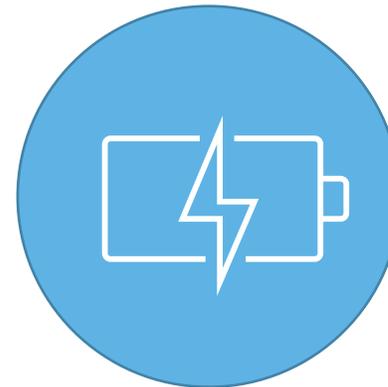
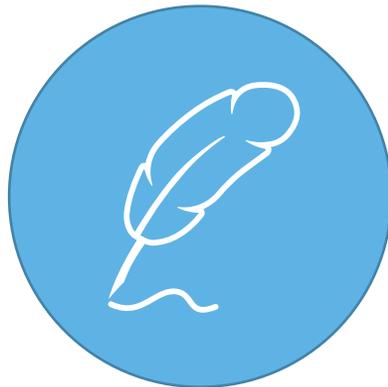
# RFP Purpose

- Establish the goals, objectives, and requirements for charging station network implementation
- Allow for the private sector to conduct all activities other than KYTC's federal funds administration and oversight role



# RFP Purpose

- Seek proposals from industry to construct, operate, and maintain charging stations
- Establish a process and conditions for KYTC's evaluation of proposals
- Include a term sheet or draft contract with relevant commercial, legal, technical, and financial terms and conditions



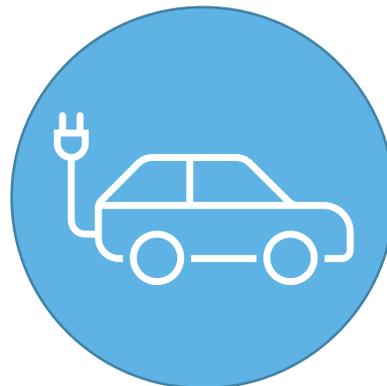
# RFP Outcomes

- Private firms will be chosen to receive KYTC's allocation of NEVI funds on a site-by-site basis
- These firms will be completely responsible for construction of NEVI-compliant charging stations for the sites they are selected to build



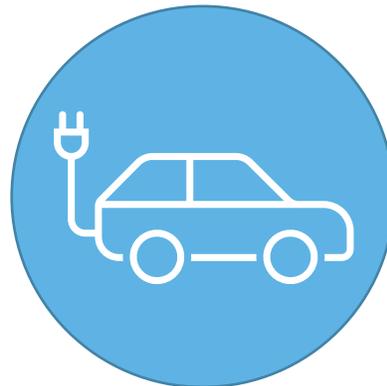
# RFP Outcomes

- Firms will be required by contract to operate and maintain the stations during the NEVI funding period
- They must also show longer-term operations and maintenance commitments to ensure network vitality over the longer term
- Selection will likely occur over two or more rounds of RFP issuances



# Pending from FHWA

- Final Notice of Proposed Rulemaking
- Buy America
- Confirmations to Kentucky Specific Questions
- Discretionary Grant Funding





# How Can Market Participants Prepare?

# Available Resources

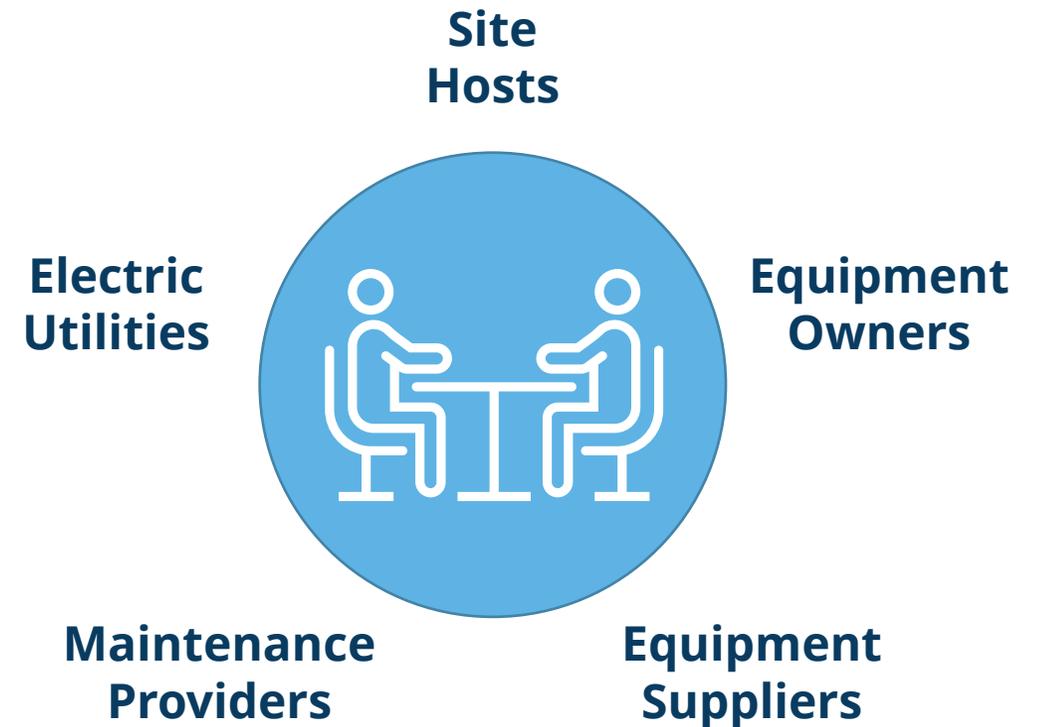
- Review KY's EV Infrastructure Deployment Plan
- One page information sheets on KYTC's website
- Familiarize yourself with the Alternative Fuel Corridor (AFC) Map
  - 30 to 32 stations are needed to build out the AFC corridors
- RFP (when issued later this month)
- Upcoming New Kentucky EV Infrastructure Website



# Partnering Opportunities

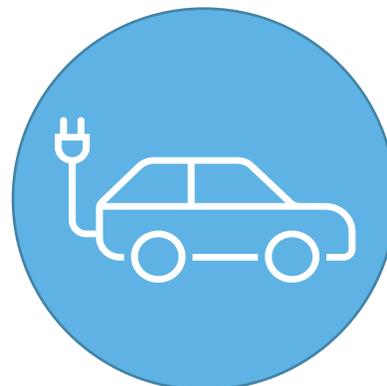
- Talk with potential partners to prepare for participation in the upcoming RFP
- A Partnering Forum is being planned for Mid to Late January

Potential Roles include



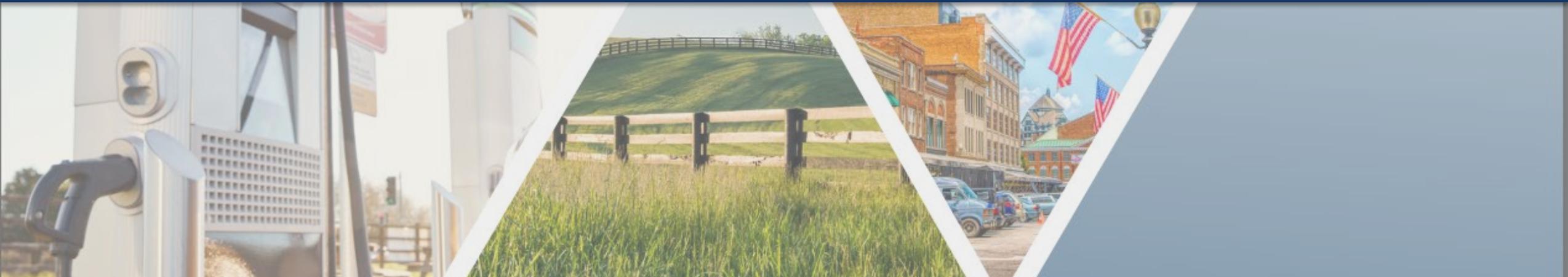
# For Site Managers and Owners

- Do you want to host or own/operate a DCFC charging station?
- Is your site within 1 mile of an AFC?
- Can your site(s) help meet the 50-mile spacing requirement?
- *Note: spacing is by corridor (e.g., I-75, I-24, or Cumberland Exp.)*
- [Kentucky Electric Vehicle Charging Station Site Interest Form](#)



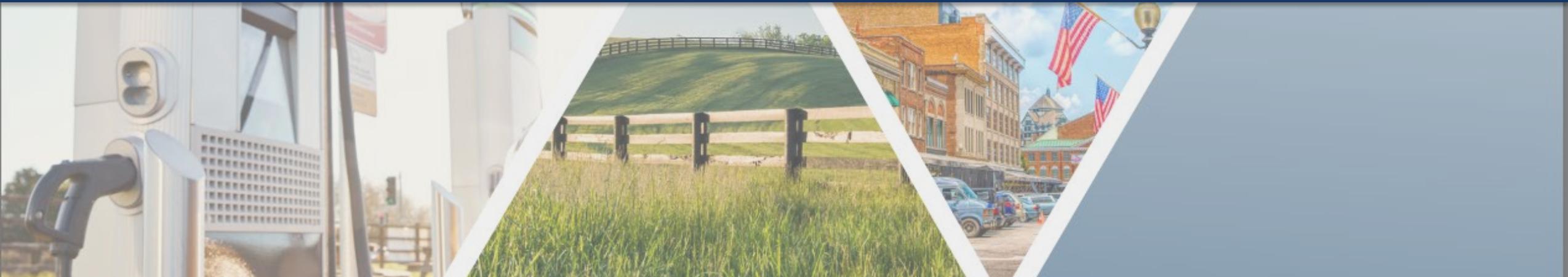


# Discussion





**Questions?**



# Submit Questions to

KY EV Plan Contact Email:  
[EVPlan@ky.gov](mailto:EVPlan@ky.gov)

Weblink to sign up for future emails:  
[transportation.ky.gov/planning/pages/evplan.aspx](https://transportation.ky.gov/planning/pages/evplan.aspx)



# Next Steps



# Process and Schedule





# Adjourn

