



Stakeholder Meeting #3

June 22, 2022

Kentucky's Electric Vehicle Infrastructure Deployment Plan



Agenda

- Introductions
- Plan Status
- Stakeholder Feedback
- New Federal Guidance
- Draft EV Infrastructure Deployment Plan
- Next Steps
- Questions / Discussion



Task Leads



John Moore
Cabinet Lead



Justin Harrod
Planning Lead



Robert Frazier
Project Manager



Ameerah Palacios
Stakeholder Outreach and Branding



Thomas Stout
EV/EVSE Analysis
and Locations



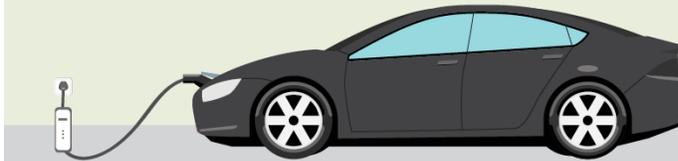
Justin Robbins
Policy and Implementation



EV Charging Stations

Level 1

AC Level One



- Standard Outlet
- Slowest Charging
- 250 miles in 48-72 hrs
(~5 miles/hr of charge)

Level 2

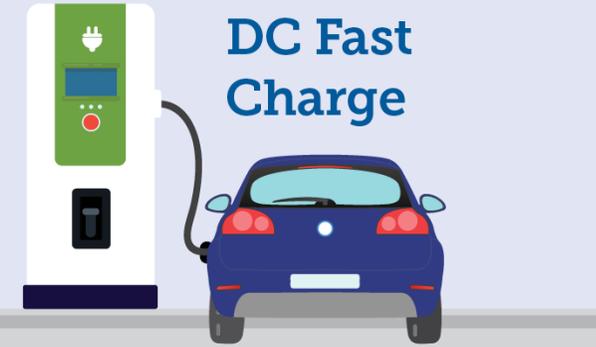
AC Level Two



- “Dryer Outlet”
- Slow Charging
- 250 miles in 10 hours

Level 3

DC Fast Charge



- Direct Current Fast Charging (DCFC)
- Fastest Charging
- 250 miles in 30 minutes



Plan Status



**Kentucky's Electric Vehicle
Infrastructure Deployment Plan**

Plan Status

Meeting or Deliverable	Date
<i>Large Group Stakeholder Meeting</i>	<i>March 23</i>
<i>Numerous Small Group Meetings/Events</i>	<i>March – May</i>
<i>Alternative Fuel Corridor Nominations to USDOT</i>	<i>May 13, 2022</i>
<i>Large Group Stakeholder Meeting</i>	<i>May 18</i>
<i>Small Group Stakeholder Meetings/Events</i>	<i>June</i>
Large Group Stakeholder Meeting #3	June 22
Draft Final Plan Under Review	June/July
EV Infrastructure Deployment Plan to USDOT	Prior to August 1, 2022

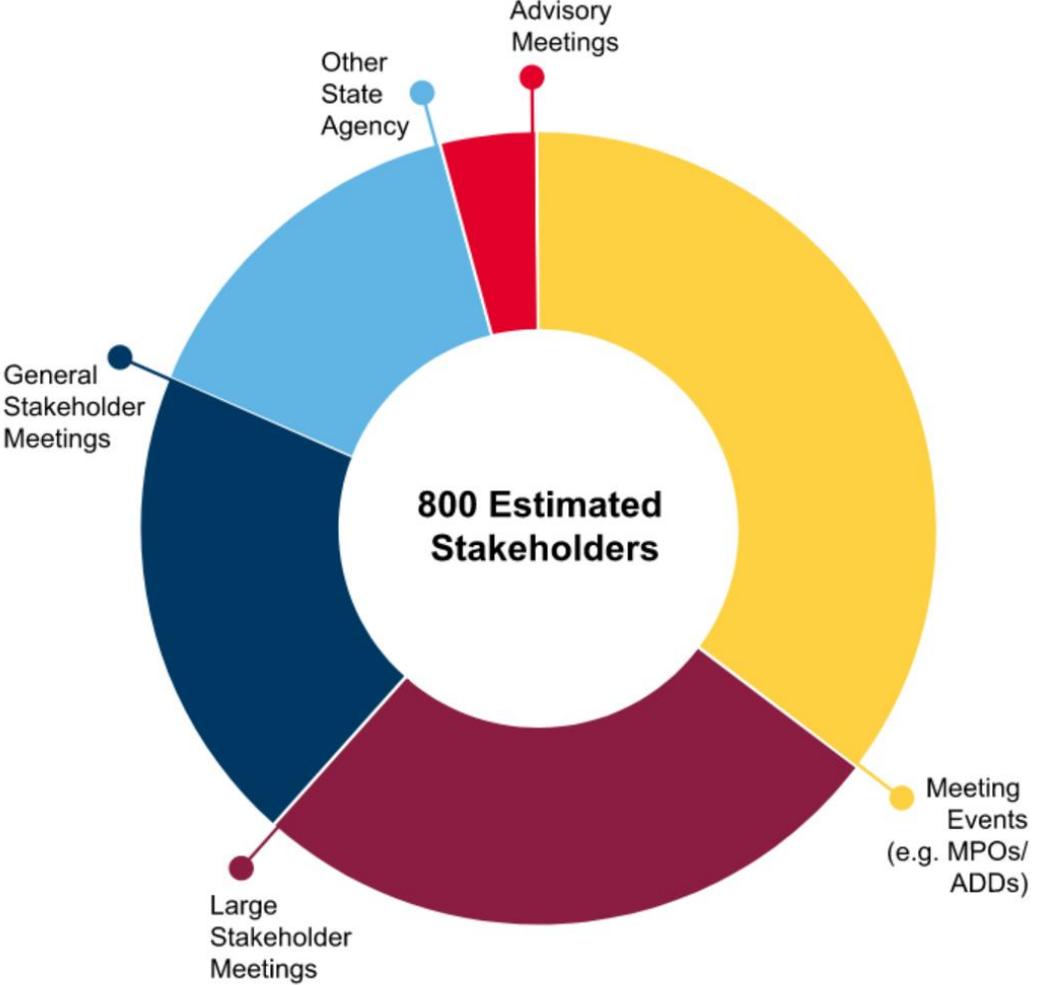
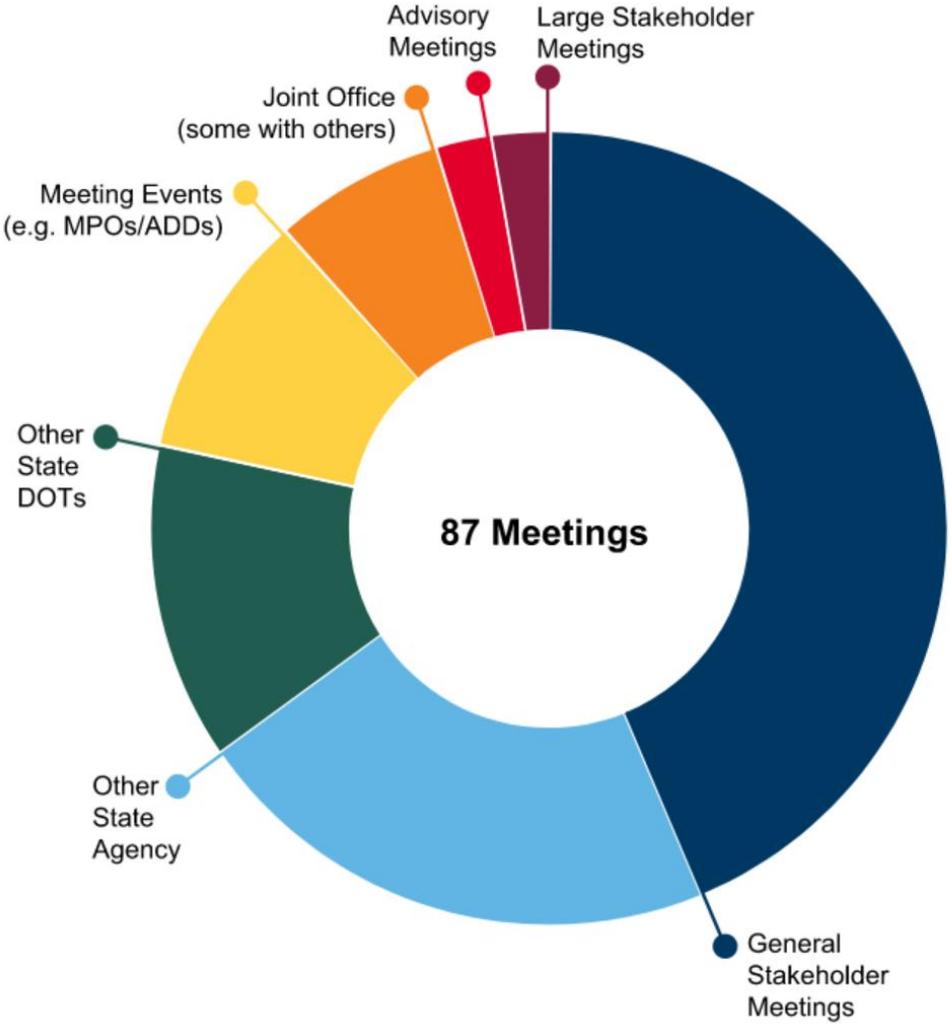


Stakeholder Feedback

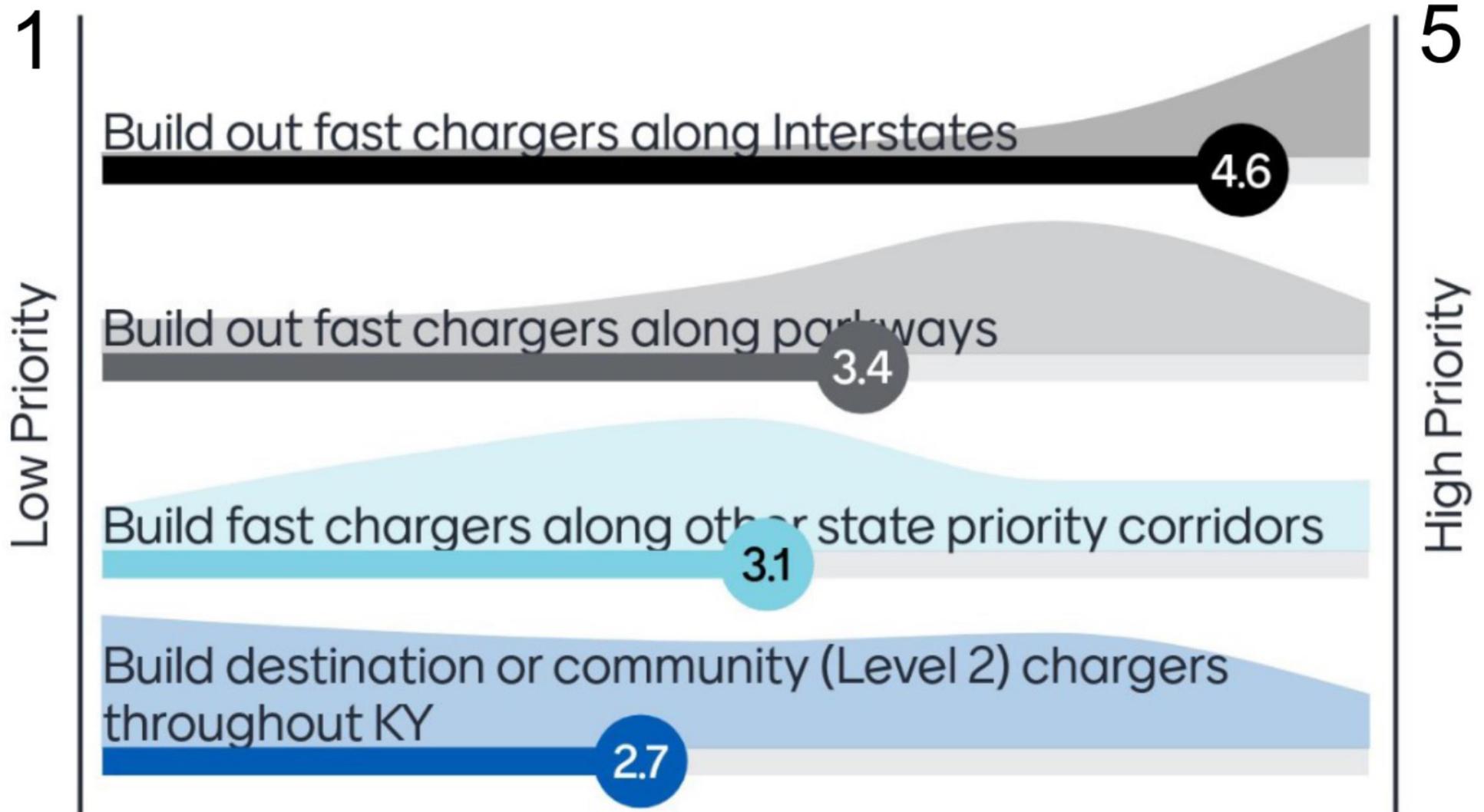


**Kentucky's Electric Vehicle
Infrastructure Deployment Plan**

Stakeholder Meetings



Corridor Prioritization



Fast Charging Site Characteristics

Characteristic	Weighted Average
Service to long-distance travelers	8.0
Plugging Gaps (smaller sites on more corridors)	6.7
Proximity to businesses and services	6.6
Near high-density population centers	6.2
Near tourist areas and attractions	5.9
Direct access for site ingress and egress	5.8
Service to rural or underserved areas	5.7
Building Capacity (bigger sites on fewer corridors)	3.9



Stakeholder Responses: Themes



Power
Availability &
Grid Capacity



Prioritize Station
Coverage



Traveler Amenities



Station
Accessibility



Economic
Opportunity



Rural & Justice40
Communities



Community
Assets



Destinations



Partnerships, Education
& Engagement



June 9th NEVI Notice of Proposed Rule Making



**Kentucky's Electric Vehicle
Infrastructure Deployment Plan**

June 9th NEVI Notice of Proposed Rule Making

Proposes Consistent Minimum Standards in Six Areas:

1. Installation, operations and maintenance
2. Interoperability
3. Traffic control and signs
4. Data
5. Network connectivity
6. Public information



NEVI Q&A also Published

Not Formal Guidance - just additional context and background

- NEVI is an annual planning effort for 5 years
- Clarified eligible costs (considerable flexibility)
- NEVI funds are federal aid funds; standard policies apply
- Public engagement and equity are important to plan development and will remain important in the future



Draft EV Plan



**Kentucky's Electric Vehicle
Infrastructure Deployment Plan**

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1. Introduction
2. State Agency Coordination
3. Public Engagement
4. Plan Vision and Goals
5. Contracting
6. Existing and Future Conditions Analysis
7. EV Charging Infrastructure Deployment
8. Implementation
9. Civil Rights
10. Equity considerations
11. Labor and Workforce Considerations
12. Cybersecurity
13. Program Evaluation
14. Discretionary Exceptions



Today's Update

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2. State Agency Coordination
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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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Plan Goals

GOAL 1:

A corridor-based EV charging system that supports interstate and regional travel

GOAL 2:

A local EV ecosystem that serves Kentucky's communities and travelers

GOAL 3:

A comprehensive system that supports transportation choices for all of Kentucky's residents

GOAL 4:

An interconnected, reliable, and resilient vehicle fueling system that can adapt to changes in market conditions and transportation technologies

GOAL 5:

A transportation system that reduces tailpipe emissions and promotes clean air in Kentucky

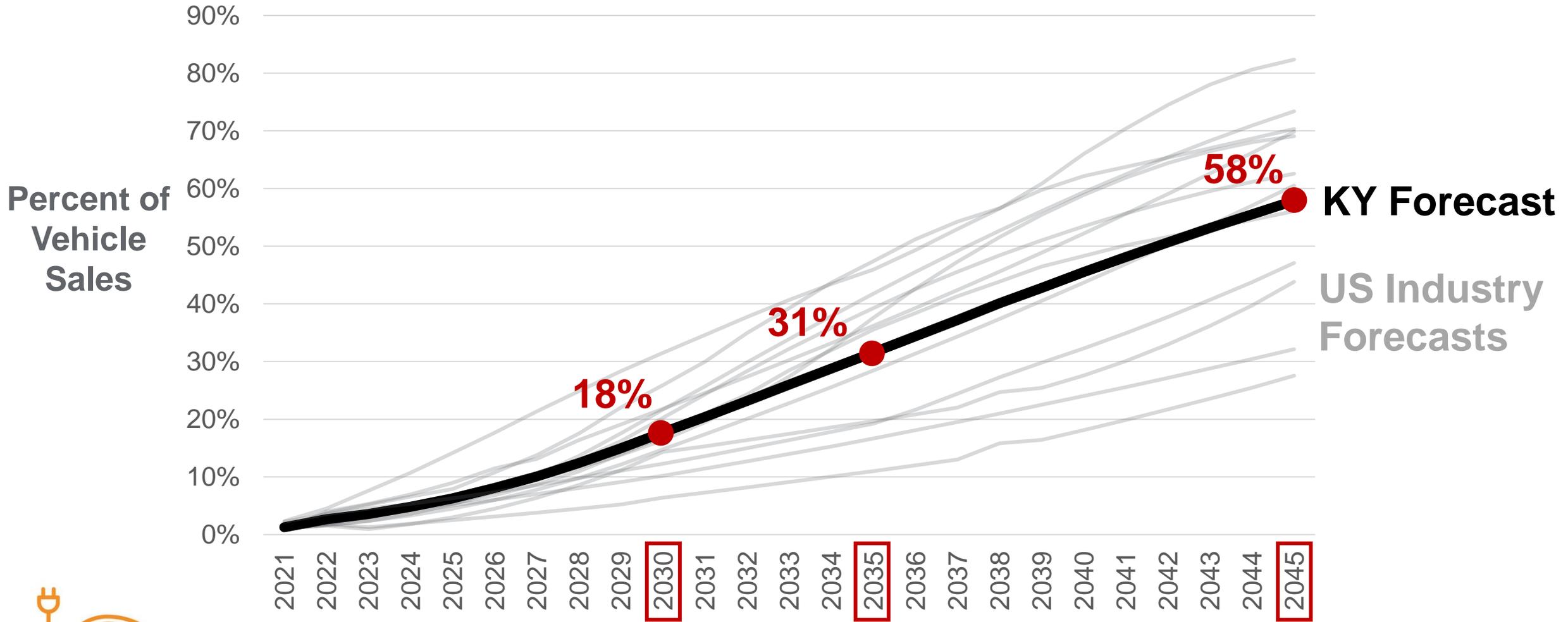


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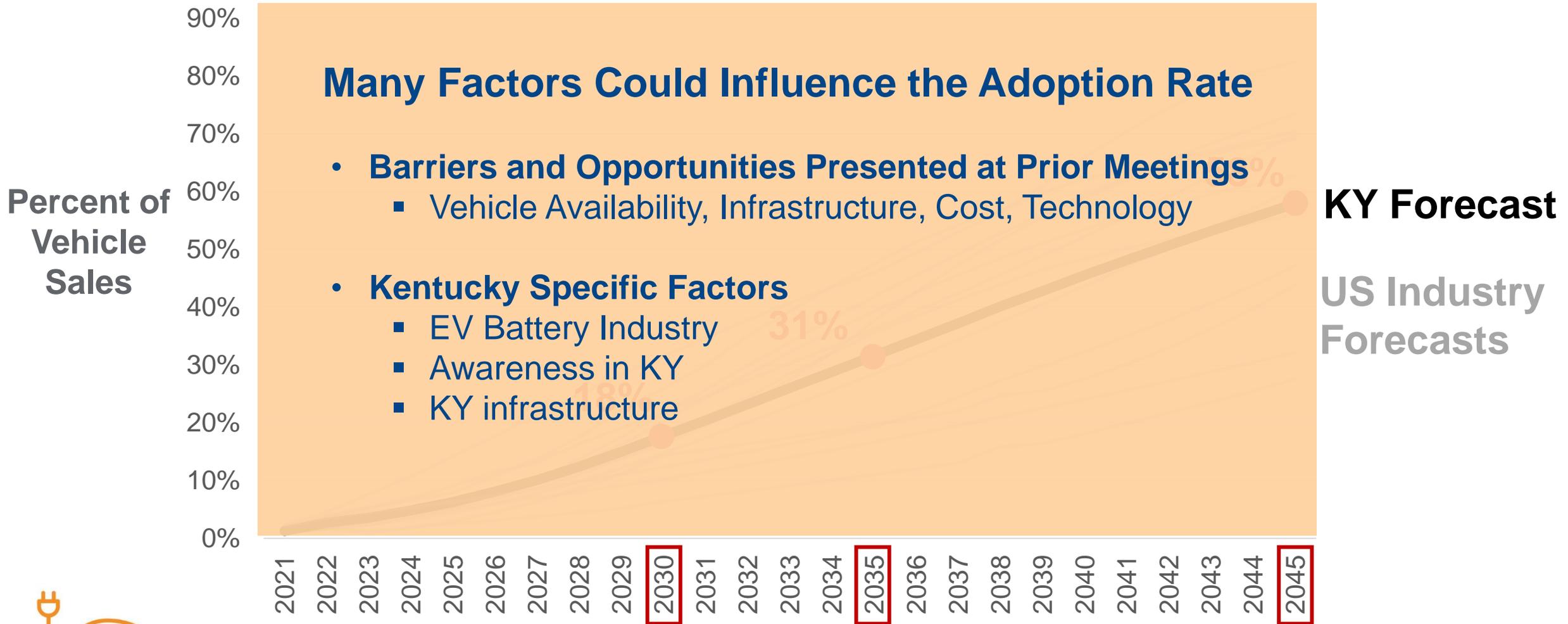
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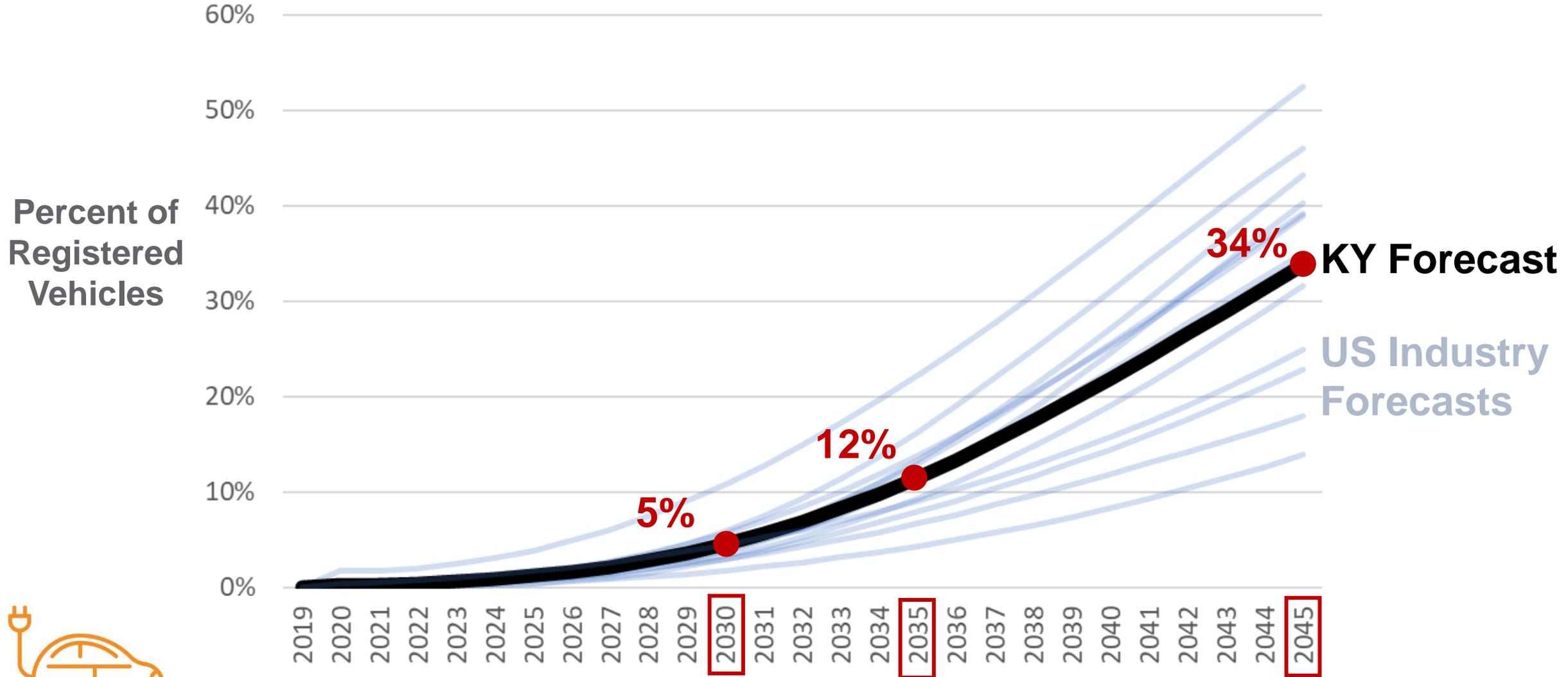
DRAFT KY BEV Market Sales Forecast



DRAFT KY BEV Market Sales Forecast



DRAFT KY BEV Adoption Forecast

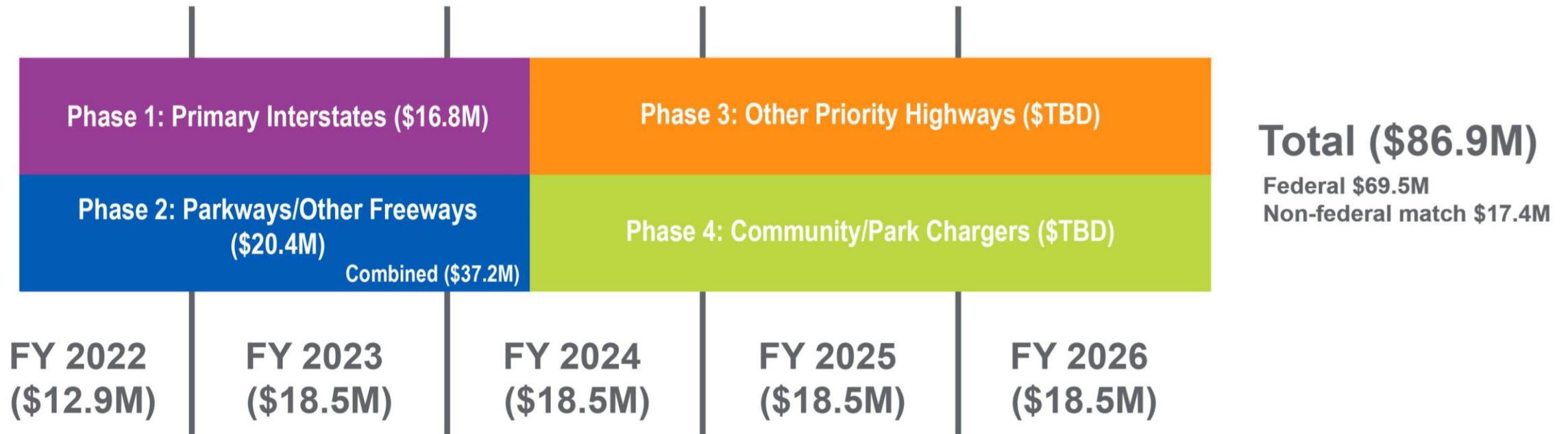


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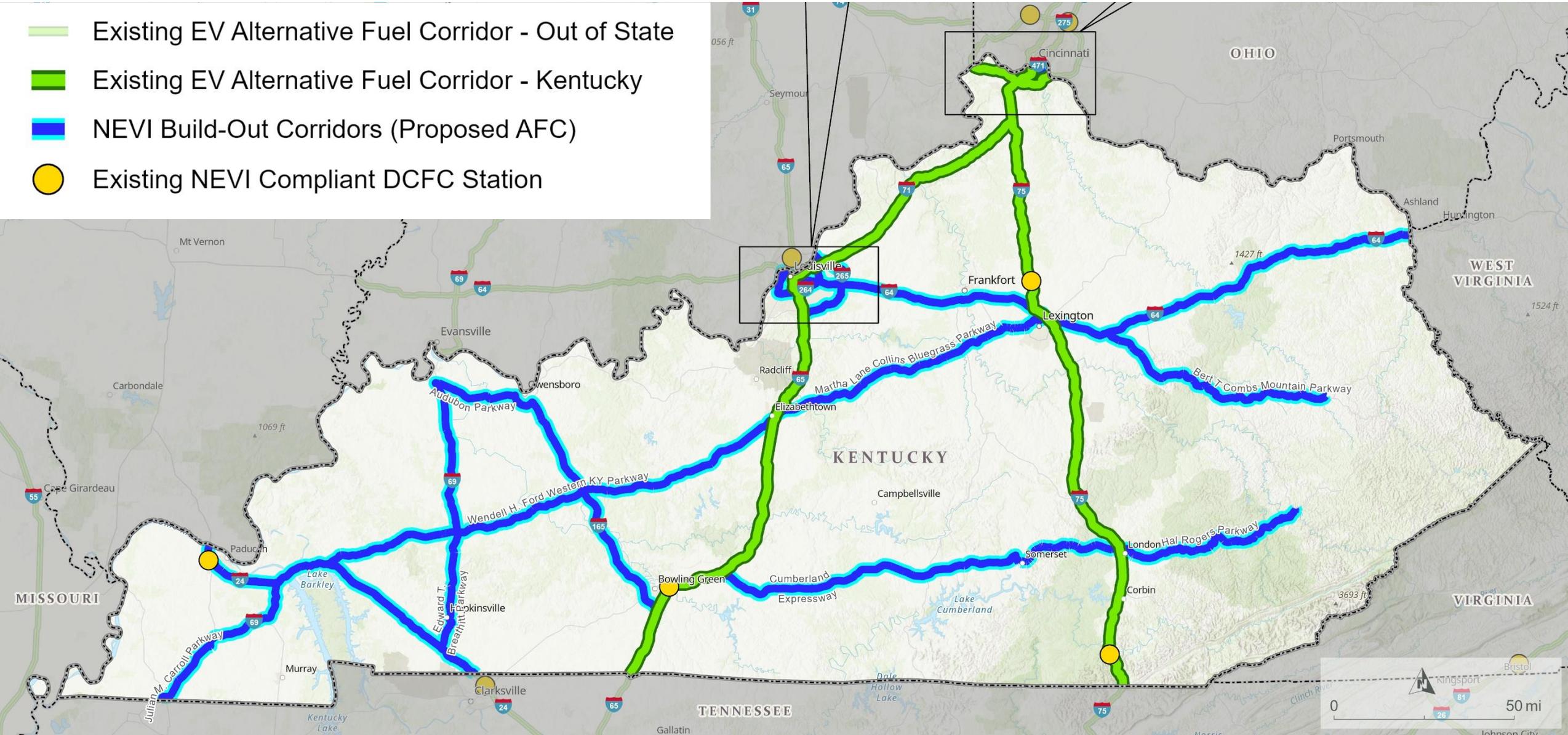


DRAFT Funding and Phasing



DRAFT Alternative Fuel Corridors

- Existing EV Alternative Fuel Corridor - Out of State
- Existing EV Alternative Fuel Corridor - Kentucky
- NEVI Build-Out Corridors (Proposed AFC)
- Existing NEVI Compliant DCFC Station

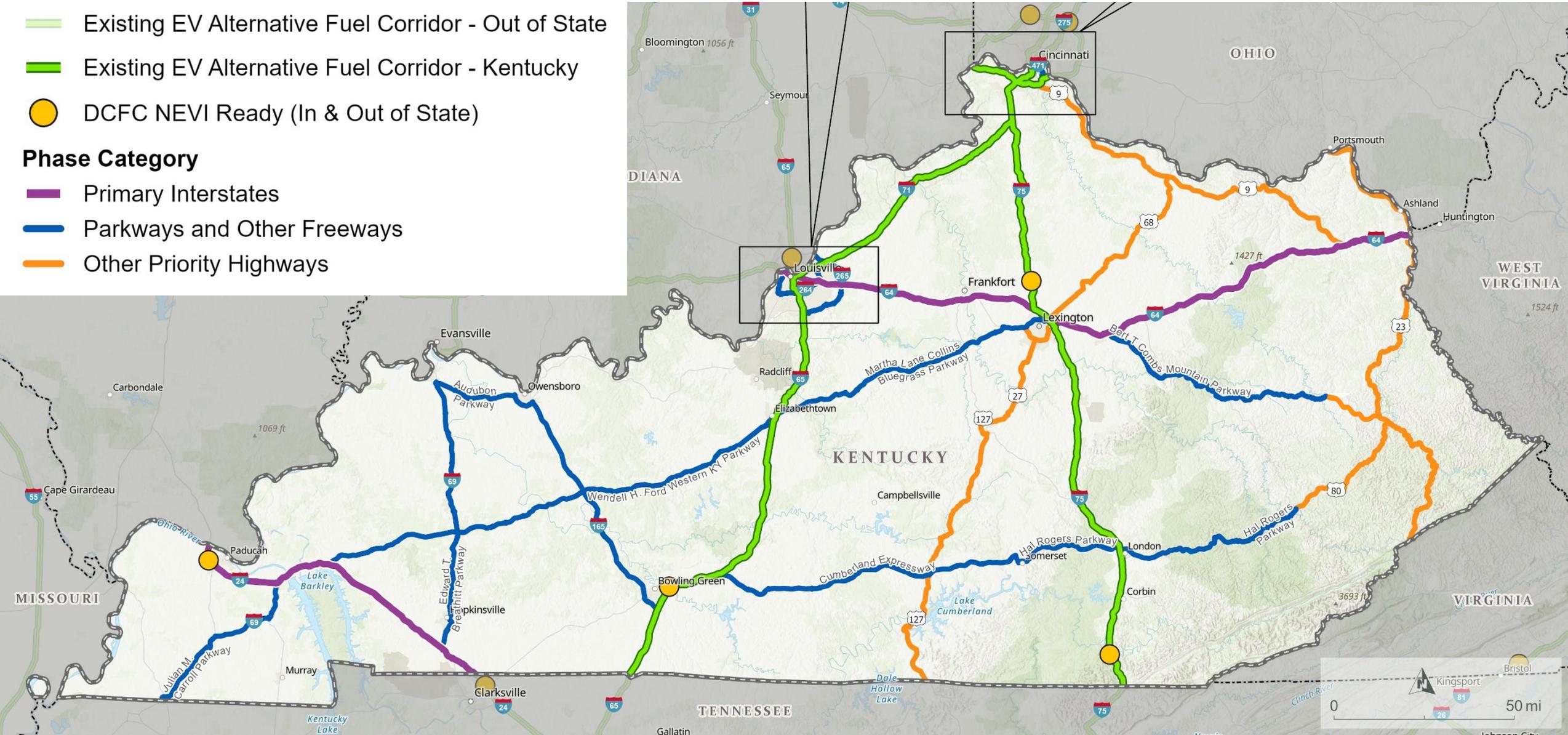


DRAFT Other Priority Corridors

- Existing EV Alternative Fuel Corridor - Out of State
- Existing EV Alternative Fuel Corridor - Kentucky
- DCFC NEVI Ready (In & Out of State)

Phase Category

- Primary Interstates
- Parkways and Other Freeways
- Other Priority Highways



DCFC Deployment Questions

1. What do we need? (demand)
2. Where can it go? (suitability)
3. Where is it most needed?
(prioritization)

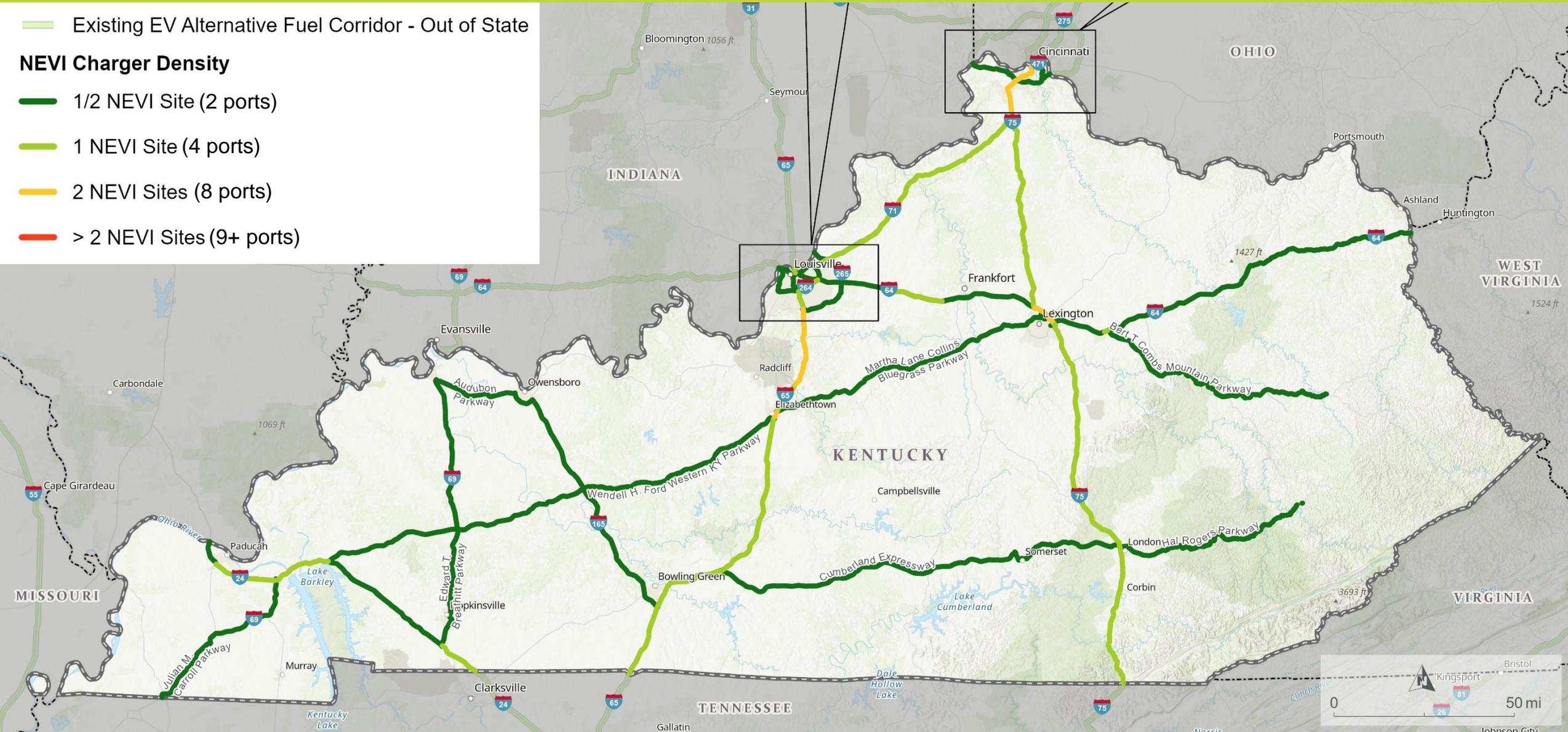


DRAFT Required Density – 2025

Existing EV Alternative Fuel Corridor - Out of State

NEVI Charger Density

- 1/2 NEVI Site (2 ports)
- 1 NEVI Site (4 ports)
- 2 NEVI Sites (8 ports)
- > 2 NEVI Sites (9+ ports)

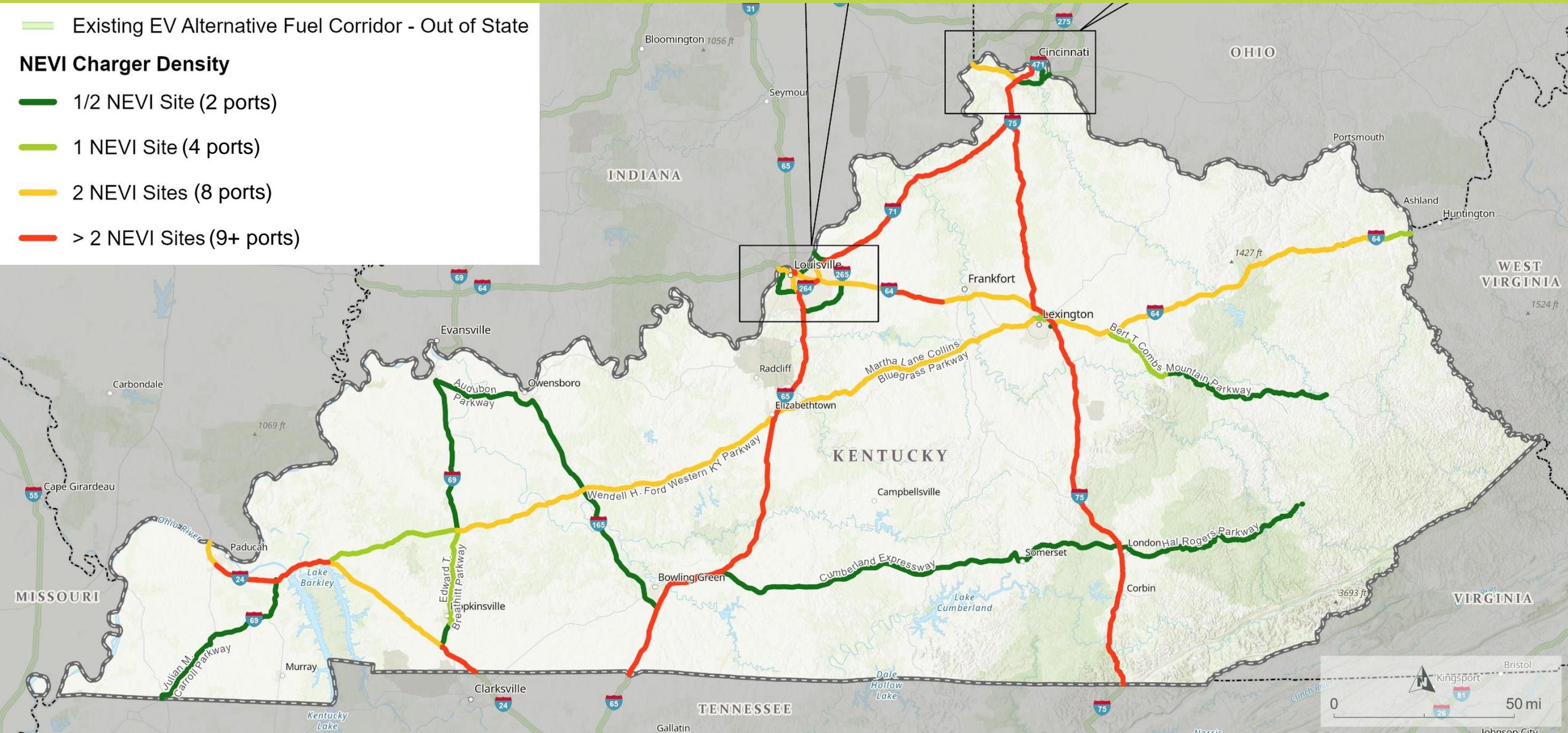


DRAFT Required Density – 2030

Existing EV Alternative Fuel Corridor - Out of State

NEVI Charger Density

- 1/2 NEVI Site (2 ports)
- 1 NEVI Site (4 ports)
- 2 NEVI Sites (8 ports)
- > 2 NEVI Sites (9+ ports)

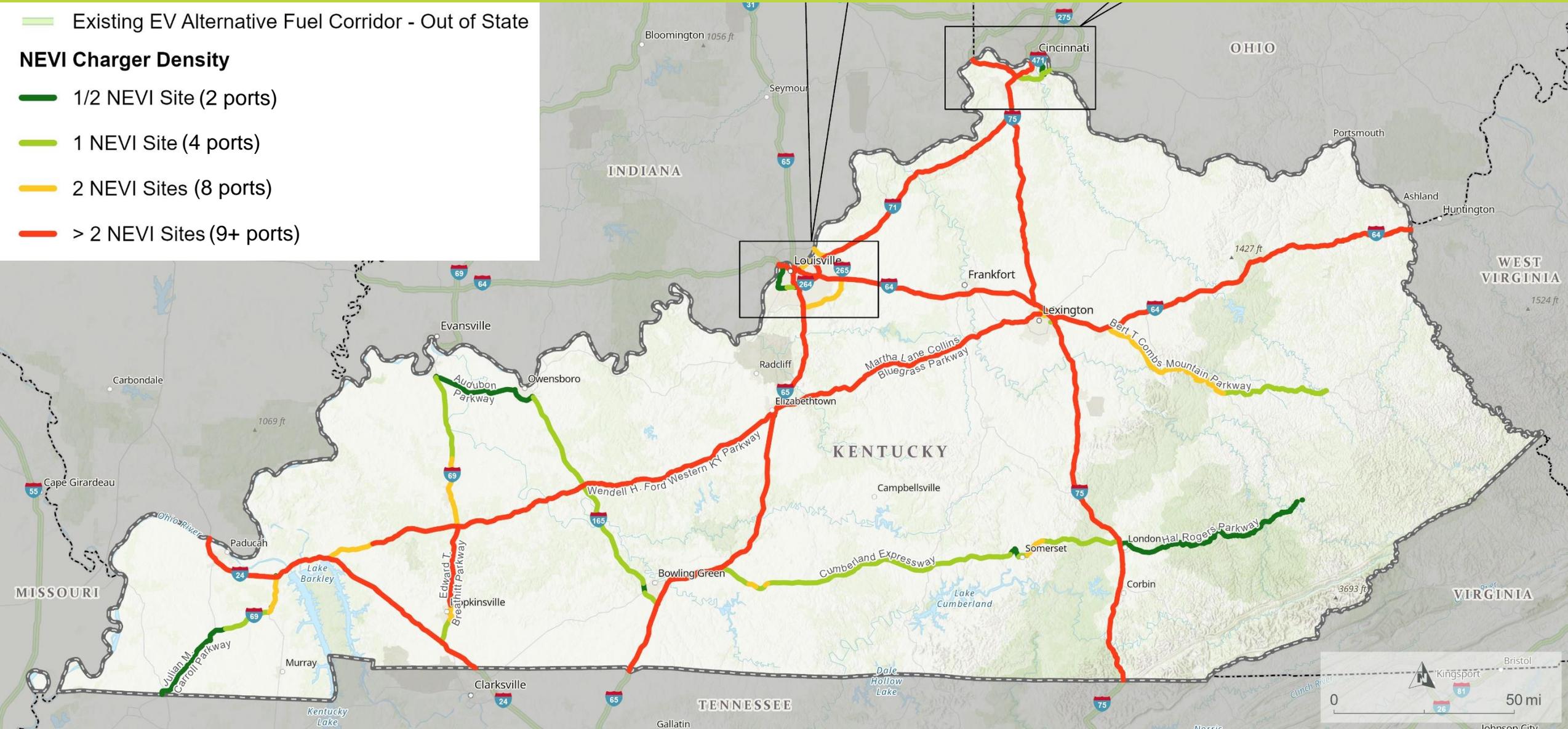


DRAFT Required Density – 2035

Existing EV Alternative Fuel Corridor - Out of State

NEVI Charger Density

- 1/2 NEVI Site (2 ports)
- 1 NEVI Site (4 ports)
- 2 NEVI Sites (8 ports)
- > 2 NEVI Sites (9+ ports)

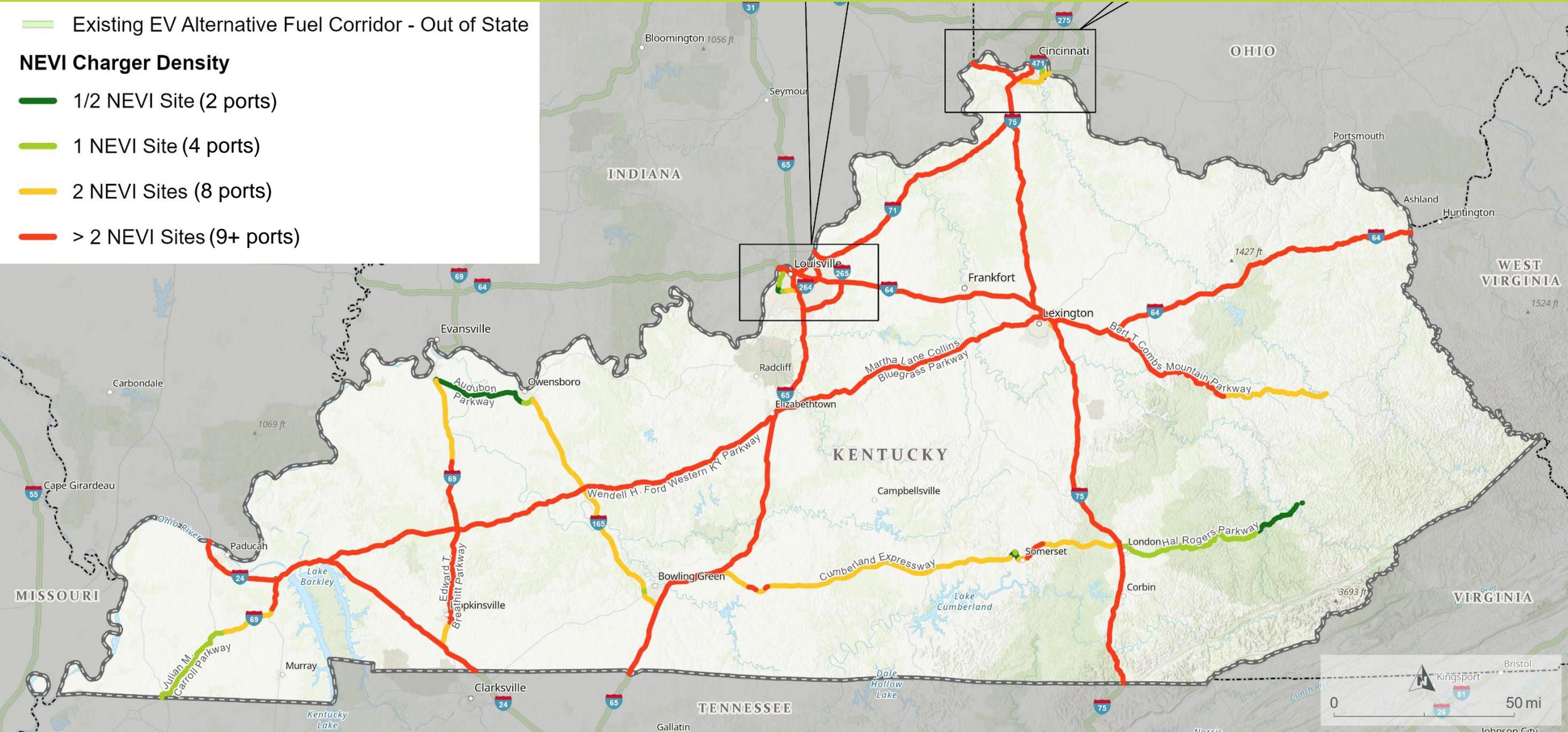


DRAFT Required Density – 2040

Existing EV Alternative Fuel Corridor - Out of State

NEVI Charger Density

- 1/2 NEVI Site (2 ports)
- 1 NEVI Site (4 ports)
- 2 NEVI Sites (8 ports)
- > 2 NEVI Sites (9+ ports)



DRAFT Interchange Priority

Existing EV Alternative Fuel Corridor - Out of State

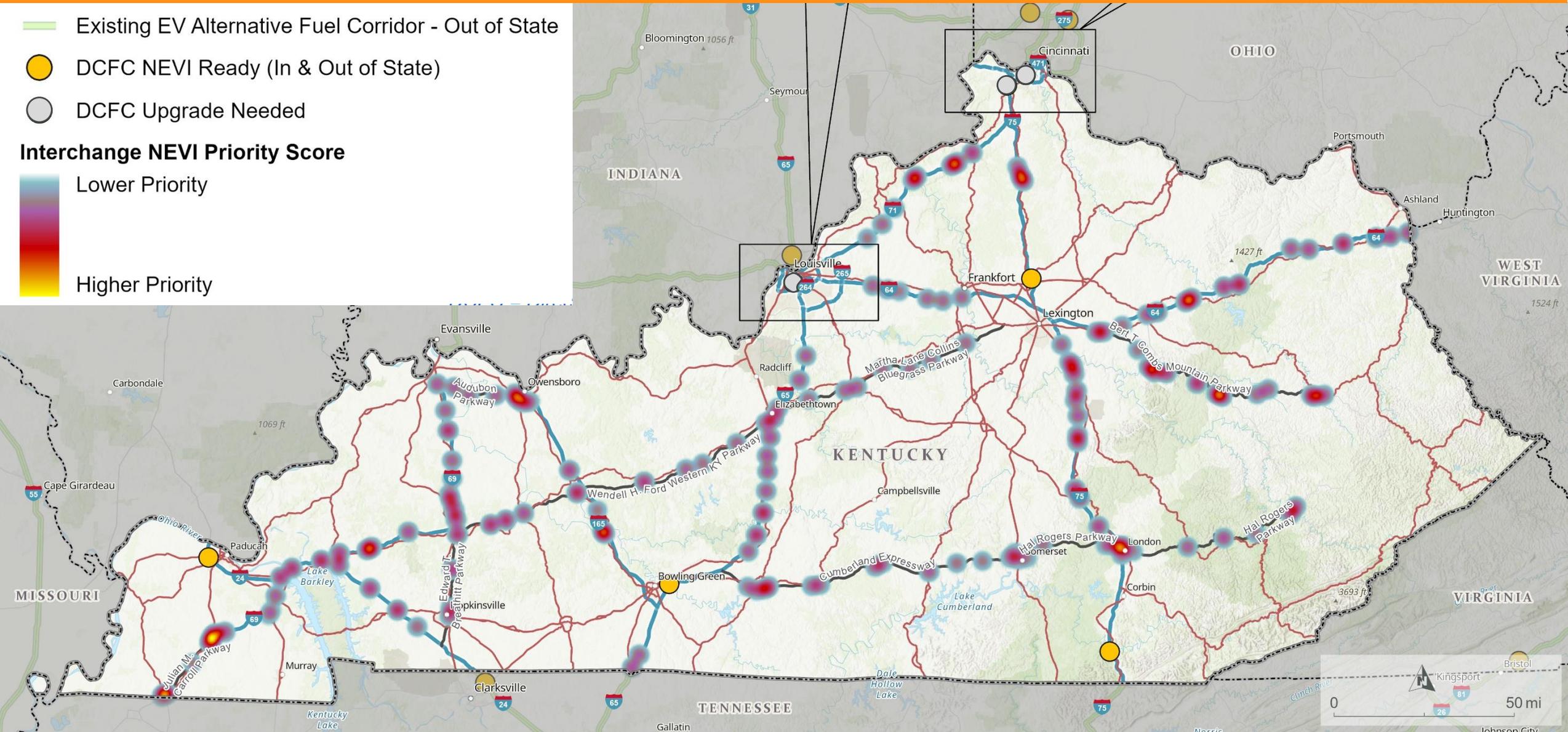
DCFC NEVI Ready (In & Out of State)

DCFC Upgrade Needed

Interchange NEVI Priority Score

Lower Priority

Higher Priority



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NEVI Formula Fund Program Guidance

Equity Objectives

“... the NEVI Formula Program will emphasize equity considerations at its inception to avoid exacerbating existing disparities in the transportation system and **to develop a convenient, reliable, affordable, and equitable charging experience for all users.**” (pg. 18)

Equity Considerations in the Plan

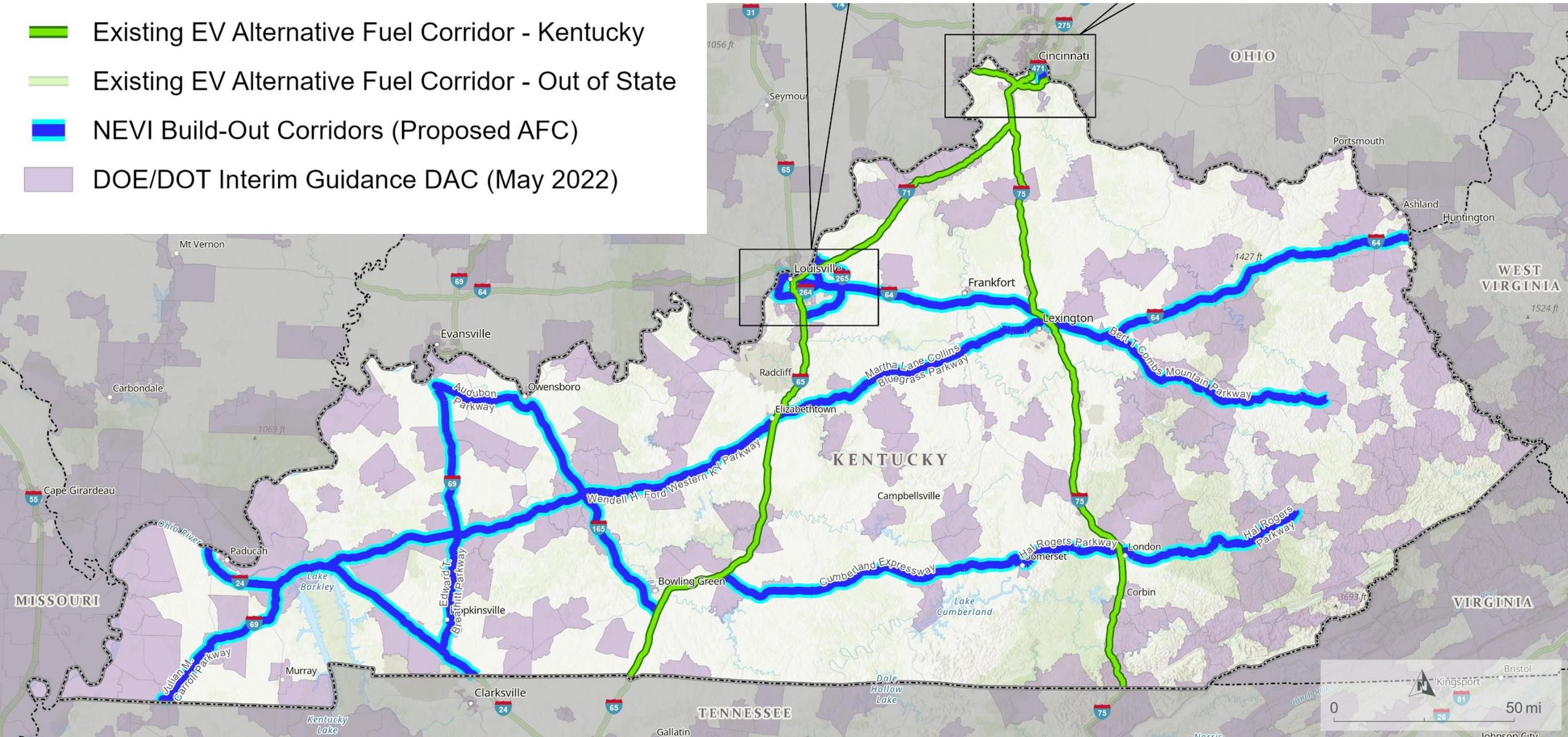
“The Plan should be developed through engagement with rural, underserved, and disadvantaged communities and stakeholders...” (pg. 17)

* Quotes from NEVI Formula Program Guidance issued February 10, 2022



Equity Considerations – EV Justice40 Map

-  Existing EV Alternative Fuel Corridor - Kentucky
-  Existing EV Alternative Fuel Corridor - Out of State
-  NEVI Build-Out Corridors (Proposed AFC)
-  DOE/DOT Interim Guidance DAC (May 2022)

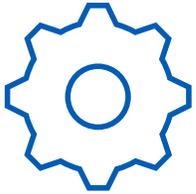


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Labor and Workforce Strategies



Leverage statewide workforce initiatives



Bolster equity and accessibility to the workforce



Educational collaboration



Inclusive input and outreach



Leveraging the energy industry



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DRAFT Program Evaluation

Kentucky EV Goal	Indicator
Goal 1: A corridor-based EV charging system that supports interstate and regional travel	Network Coverage (includes minimum viable network completion)
Goal 2: A local EV ecosystem that serves Kentucky's communities and travelers	Network Access
	Job Creation and Workforce
	Customer Satisfaction
Goal 3: A comprehensive system that supports transportation choices for all of Kentucky's residents	Equity
Goal 4: A resilient vehicle fueling system that can adapt to changes in market conditions and transportation technologies	Reliability
	Utilization
	Payments
Goal 5: A transportation system that reduces tailpipe emissions and promotes clean air in Kentucky	EV Adoption
	Air Quality



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Discussion



KY EV Plan Contact Email:
EVPlan@ky.gov

Weblink to sign up for future emails:
Transportation.ky.gov/Planning/Pages/EVPlan.aspx



Questions?



Kentucky's Electric Vehicle Infrastructure Deployment Plan