

# Electrify Heartland Plan

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## Appendix O: EV Ready Communities



**Project title:** Kansas – Missouri  
Community Readiness for EV and EVSE

**Funded by:** US DOE DE-EE0005551

**By:** Metropolitan Energy Center  
and Kansas City Regional Clean Cities Coalition

**With:** Black & Veatch





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# Electrify Heartland Plan

## Electrify Heartland Project Abstract

Electrify Heartland is an electric vehicle planning project managed by Metropolitan Energy Center. It is a product of the Greater Kansas City Plug-In Readiness Initiative, co-chaired by Kansas City Regional Clean Cities Coalition. Our goal is to produce a regional plan to prepare public resources and secure the economic and environmental benefits of plug-in vehicles within targeted metro areas with estimated 2.7M population. The targeted metro areas include Kansas City, MO & KS; Jefferson City, MO, Wichita, KS; Salina, KS; Lawrence, KS; and Topeka, KS. (14 Counties: Cass, Clay, Cole, Douglas, Jackson, Johnson, Leavenworth, Miami, Platte, Ray, Saline, Sedgwick, Shawnee, Wyandotte).

## Electrify Heartland Steering Committee

Team	Organization	Name
Charging Stations	Initiatives	Troy Carlson
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Charging Stations	Logios	Gustavo Collantes
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Project Administration	Metropolitan Energy Center	Kelly Gilbert
Public Education	Nation Ranch Marketing, Inc.	Bill Patterson
Training	Kansas City Kansas Community College	Bob McGowan
Training	National Electrical Contractors Association	Jim Cianciolo
Utility Grid	Black & Veatch	Sam Scupham
Vehicle & Fleet	University of Missouri at Kansas City	Henry Marsh

Exhibit i-i. Electrify Heartland Steering Committee Members



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# Appendix O: EV Ready Communities

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## Synopsis:

This appendix to the Electrify Heartland Plan defines a program to recognize cities and counties for achieving electric vehicle readiness.

## Section Author:

Ruth Redenbaugh, Metropolitan Energy Center

## 1. Benefits of EV Ready Communities

**1.1. Listing in ElectrifyHeartland.org Website on champion marquee**

**1.2. Ability to use ElectrifyHeartland.org link, logo and QRC on designee's signage and Website to reduce effort of recreating electric vehicle definitions and content**

**1.3. Kansas City Regional Clean Cities Coalition presentation of award**

**1.4. Listing as EV Ready to US Department of Energy**

**1.5. Framework for Action, Education, Public Image, Citizen Pride, and Publicity of sustainable actions to reduce petroleum and improve air quality**

## 2. Criteria of EV Ready Communities

### 2.1 Update National Electric Code

2.1.1 NEC 2011 is the first of the annual updates to include information specific to electric vehicle supply equipment (EVSE).

2.1.2 Being sensitive to cost constraints, if not updating electrical code to NEC 2011, adopt Article 625 of the 2011 revisions.

2.1.3 Encourage use of certified equipment such as ETL and UL.



## **2.2 Adopt EVSE permitting, zoning and code regulations.**

2.2.1 Staff and plan for 2- to 3-day completion of permit requests.

2.2.2 Assign registration numbers to each EVSE permitted. The registration numbers can then be used by the public or first responders to report problems.

2.2.3 Create parking citation classification for public parking other than an electric vehicle while charging in an EVSE location.

2.2.4 Require permit requester to register publically accessible EVSE location on AFDC's EVSE locator site ([http://www.afdc.energy.gov/fuels/electricity\\_stations.html](http://www.afdc.energy.gov/fuels/electricity_stations.html)) so it may be included on site searches to be located by the public.

2.2.5 Permit form requires notification of all EVSE installations, public and private, to utility, in order to assist in forecasting possible impacts to electricity transformers and grids. Residential data will not be made public. Specify the data to be included as well as the anticipated date that the EVSE will be operable.

2.2.6 Plan for the forecasted national average of 1.5 EVSE per EV, including residential and public sites. This forecast will help with planning for job creation and staffing required for EVSE deployment.

2.2.7 Include EVSE or EVSE Ready aspects in multifamily, mixed use and commercial/retail development plans.

2.2.8 Forecast total passenger cars and trucks registered at the national average of approximately 80% of total population and .41% (.0041) vehicles to be replaced by electric vehicles by 2015. These forecasts will help with planning for staffing required for electric vehicle deployment.

2.2.9 Encourage EVSE installation by certified electricians to improve public safety and meet standards. Certification is available from the EVITP.

2.2.10 Establish standards for inspections of public and private EVSE.

## **2.3 Install a minimum of one EVSE available for public charging.**

Announce the availability of public charging via a press release. Provide information via <http://www.electrifyHeartland.org> or <http://AFDC.energy.gov> so the public is aware of public availability of EVSE. AFDC also provides a mobile app for viewing the charging locations on a wireless device or phone.



## **2.4 Encourage consistent signage for EVSE available for public charging.**

2.4.1 Directional signage at major cross roads near EVSE and on major highways near EVSE. These signs will direct electric vehicle drivers to publically accessible charging equipment.

2.4.2 Markings at the parking space including on the pavement and vertical signage at the curbing or wheel stops. The signage includes a registration number for identification purposes and a notice regarding the citation for parking other than an electric vehicle while charging.

2.4.3 Americans with Disability Act compliant signage to accommodate electric vehicle drivers with disabilities.

## **2.5 Educate and count electric vehicle through public events and EV census.**

2.5.1 Offer public education about electric vehicles and charging options. An electric vehicle rear view mirror hang tag was designed to educate the public about incentives, differences to consider for electric vehicle ownership and sources of additional information.

2.5.2 Report count and model of electric vehicle registrations on member pages of ElectrifyHeartland.org. These counts will assist with gauging effectiveness of forecasting EV adoption and budgeting the jobs needed to support the industry. Counts at an aggregate level will also be shared with electric utilities to assist in determining potential grid impacts. No residential or commercial private data will be shared.

## **2.6 Purchase at least one electric vehicle.**

If EV is for fleet or public transit use, apply for Mid-America Green Fleet designation with Kansas City Regional Clean Cities Coalition.

## **2.7 Train first responders about EV and EVSE.**

Emergency medical technicians, firefighters and police officers need to be aware of differences in electric transportation. Training is offered by National Alternative Fuel Training Center (NAFTC) and by the National Fire Protection Agency (NFPA). Contact the Kansas City Regional Clean Cities Coalition or these links for schedules of classes.

<http://www.naftc.wvu.edu/cleancitieslearningprogram>

<http://www.nfpa.org>

<http://metroenergy.org/kccleancities.aspx>



## **2.8 Identify future EVSE needed at employers, entertainment districts and travel corridors.**

Assist Electrify Heartland in identifying feasible EVSE locations and encouraging partners to engage in EV Business Coalition.

## **2.9 Develop incentives for EV and EVSE owners**

Examples of incentives include premium parking, use of HOV lanes, or thank you letter from official for improved air quality.

## **2.10 Become a member of Kansas City Regional Clean Cities Coalition.**

Contact your Clean Cities Coordinator for benefits and membership levels. Here are links to the US DOE site for Clean Cities Program information and Kansas City Clean Cities.

<http://energy.gov/articles/clean-cities-expands-and-strengthens-nationwide-partnerships>

<http://metroenergy.org/kccleancities.aspx>

## **3.0 Levels of EV Ready Communities**

### **3.1 Level 1 is the 1-star Award for beginning activities toward EV Readiness.**

Choose at least three of the recommendations in the Criteria Section. Implement activities. Outline achievements on electrifyHeartland.org blog. A representative will assist with a press release, schedule presentation of your award, and gather info such as logo for placement on the Website.

### **3.2 Level 2 is the 3-star Award for progressing activities toward EV Readiness.**

Choose 4-7 of the recommendations in the Criteria Section. Implement activities. Outline achievements on electrifyHeartland.org blog. A representative will assist with a press release, schedule presentation of your award, and gather info such as logo for placement on the Website.

### **3.3 Level 3 is the 5-star Award for advanced activities toward EV Readiness.**

Choose more than seven of the recommendations in the Criteria Section. Implement activities. Outline achievements on electrifyHeartland.org blog. A representative will assist with a press release, schedule presentation of your award, and gather info such as logo for placement on the Website.





## 4.0 Get started

Cities and counties in the Electrify Heartland planning area are encouraged to apply for EV Readiness status, which recognizes your community's commitment to creating energy independence for America while improving the environment at the same time.

When an authorized representative completes the application, an Electrify Heartland team member will contact you to review your application. For a guide to help you complete the application and step by step entry of accomplishments toward EV Readiness, please use this link. <http://electrifyheartland.org/is-your-city-ev-ready/>