Electric Vehicle Infrastructure
Enabling Resiliency

Stephanie Weisenbach
Iowa Economic Development Authority
Synergies of Opportunity for EV Infrastructure

Iowa Clean Cities Coalition
Advancing Iowa's Electric Vehicle Market
July 2018

IOWA ENERGY PLAN
Collaborate locally. Grow sustainably. Lead nationally.
December 2020

Clean Cities
U.S. Department of Energy

ALTERNATIVE FUELS CORRIDOR

STATE OF IOWA
VOLKSWAGEN CLEAN AIR ACT PARTIAL SETTLEMENTS

U.S. Department of Transportation
Federal Highway Administration
Iowa’s EV Market Study

EVs on the Road in Iowa

- Low Scenario
- Medium Scenario
- High Scenario

Number of EVs on the Road

- 2012
- 2015
- 2018
- 2021
- 2024
- 2027
- 2030
- 2033
- 2036
- 2039
An EV in Iowa reduces both vehicle fuel costs and CO₂ emissions by more than 50%
Iowa’s EV Market Study

- Electric Highway Concept for Level 3/ DC Fast Charging Stations.
- Identified exits using criteria, including no further than 50 miles apart.
- A total of 19 locations, a minimum investment of $950,000 for one station/each.

Source: BCS, Incorporated
Iowa Energy Plan

- Led by Lt. Governor Kim Reynolds
  - IEDA and Iowa DOT
- 4 Working Groups of Iowans
- Year-long process
- Available at iowaenergyplan.org

One of the Plan’s Objectives and Priorities - *Expand the use of alternative fuel vehicles in Iowa.*

Strategies:

- Incentives for Infrastructure
- Business Model Development for the Electric Vehicle Market
- Plan for Electric Vehicle Charging Corridors
Volkswagen Settlement

» VW violated Clean Air Act, settled in court
» Funding for projects to reduce emissions of nitrogen oxides (NOx).

1. National Zero Emission Vehicle Investment (ZEV), *Electrify America*
   - 2 Billion nationally, 1.2 Billion spent outside CA
   - Targeted metros of high EV growth and cross-country travel fast charging corridors
     - Iowa proposal to VW identified property owner interest in DCFC

2. Environmental Mitigation Trust (EMT)
   - States receiving allocations, up to 10 years to spend
   - Iowa expecting $21 Million
   - Eligible projects targeting medium/ heavy duty diesel
   - Up to 15% can be spent on EVSE (3 Million)
   - Iowa DOT leading state agency working group
   - Survey administered to gather public input
FHWA Alternative Fuel Corridors

» FAST Act – Section 1413 Requirement to designate corridors to improve mobility of passenger and commercial vehicles that employ electric, hydrogen fuel cell, propane and natural gas fueling technologies.
  ▪ Identify near and long-term need for infrastructure
  ▪ At strategic locations along major national highways

» Designation of I-80 from Council Bluffs, IA to Manhattan, NY. Partnership with state DOTs, energy offices, Clean Cities, and industry stakeholders.
Signage for Alternative Fuel Corridors

» FHWA criteria for “Signage-Ready” and “Signage-Pending” based on fueling infrastructure availability

» Corridor signs can list beginning, mid-points, and end of corridor. Guidance memo provided by FHWA, decisions and implementation left to states.

» States control signs specific to a station near interstate exit.

» Questions exist on state signage procedures and signage implementation.
Next Steps

» Coordinate with Electrify America on I-35 and I-80
  ▪ Engage utilities and property owners
  ▪ Evaluate signage opportunities

» Evaluate public input received on state-level EMT and make recommendations to Governor’s office

» Nominate other interstates to FHWA for designation

» Evaluate signage needs/procedures for alternative fuel corridors and stations
Resources

» Case studies on EVs and resiliency (emergency response)
  » http://naseo.org/data/sites/1/documents/publications/iREV_BaselineAssessmentMemo_Final.pdf
  » http://naseo.org/data/sites/1/documents/publications/iREV%20EV%20Case%20Study.pdf
  » https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/
  » iowaenergyplan.org
  » iowadot.gov/vwsettlement/
Contact

Stephanie Weisenbach
Program Manager, Iowa Economic Development Authority
Coordinator, Iowa Clean Cities Coalition
Stephanie.Weisenbach@iowaeda.com
515.725.3007

http://www.iowaeconomicdevelopment.com/Energy/clean