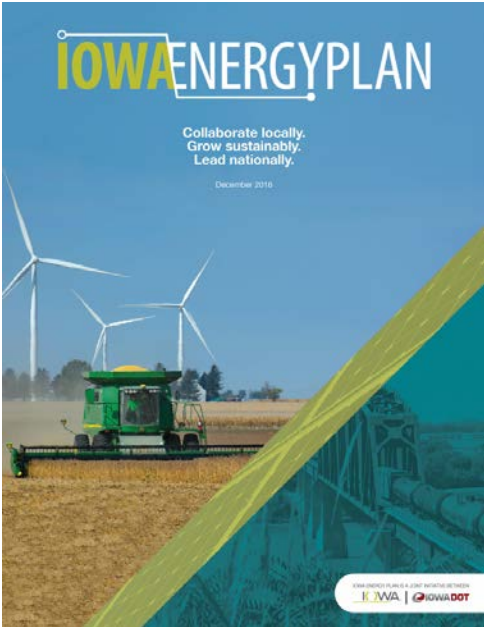


# Electric Vehicle Infrastructure Enabling Resiliency

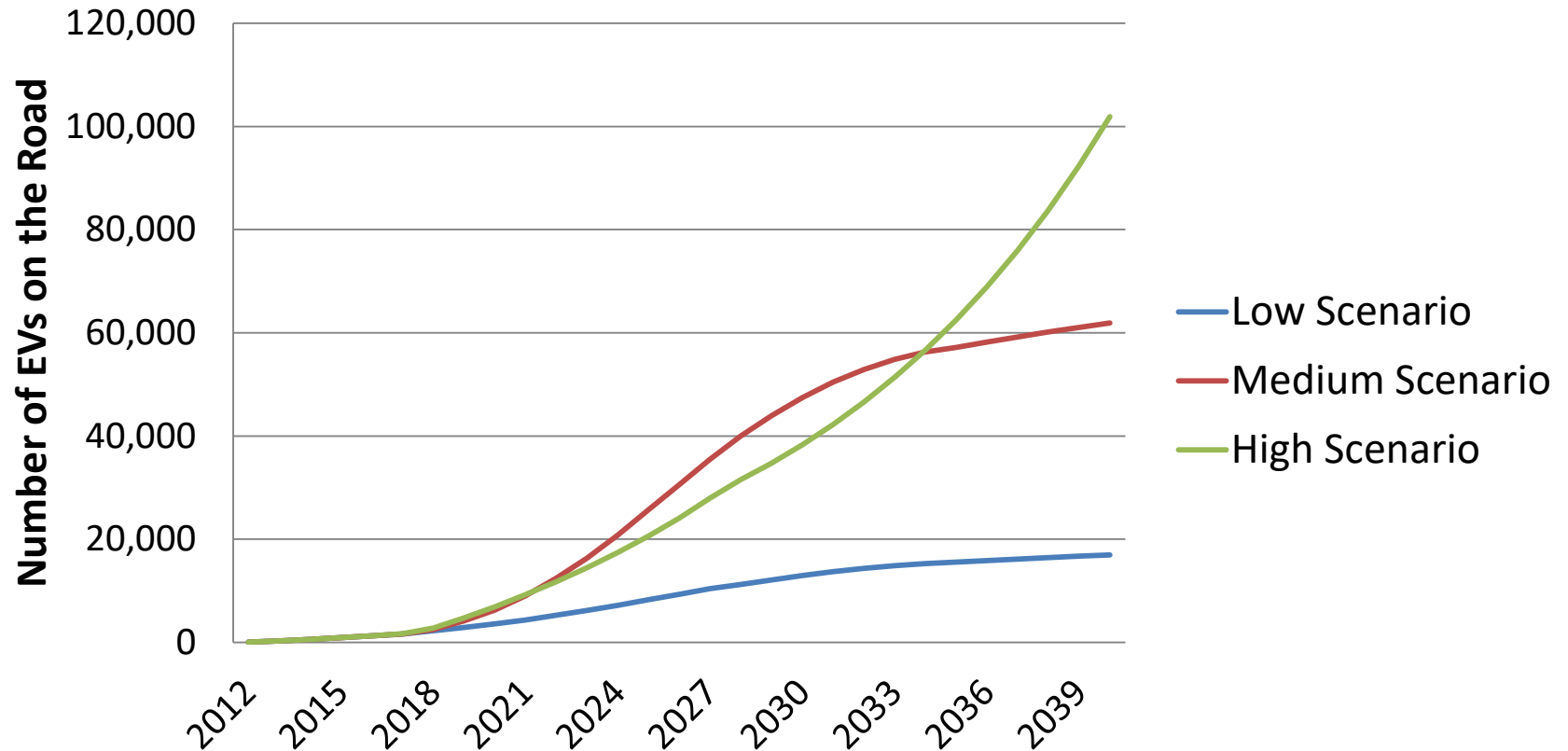
Stephanie Weisenbach  
Iowa Economic Development Authority

# Synergies of Opportunity for EV Infrastructure



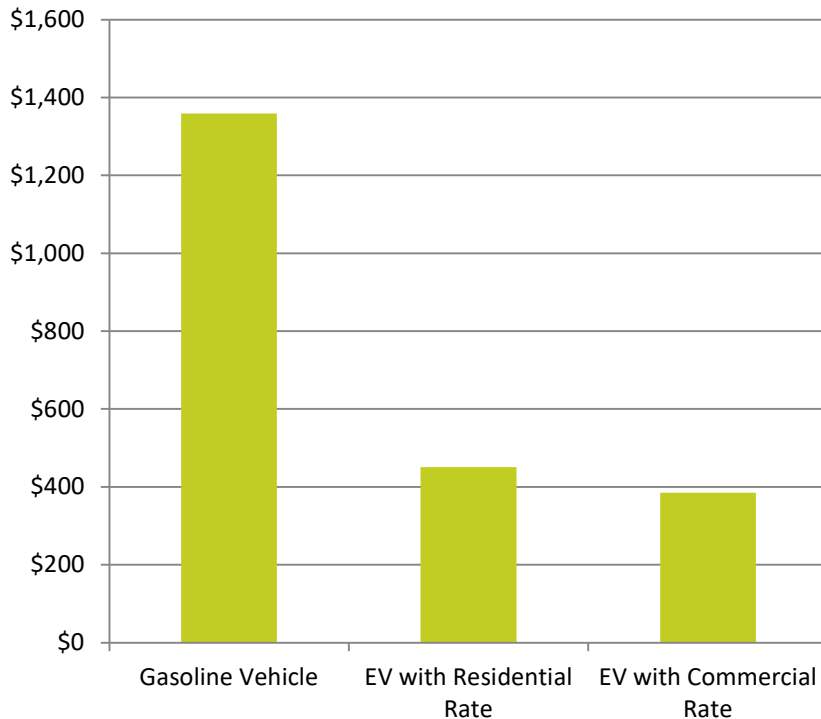
# Iowa's EV Market Study

## EVs on the Road in Iowa

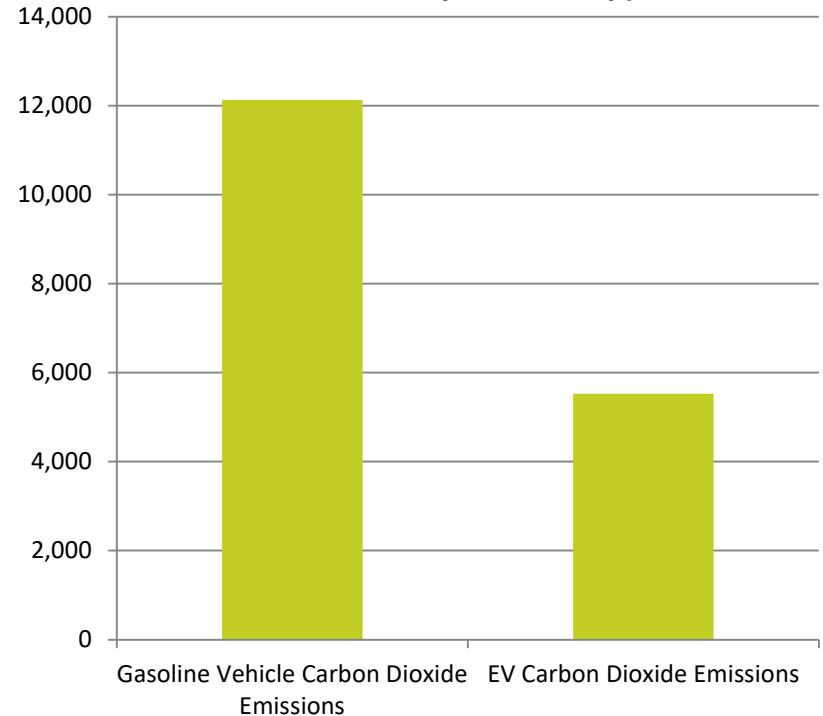


# Iowa's EV Market Study

Average annual cost of driving in Iowa

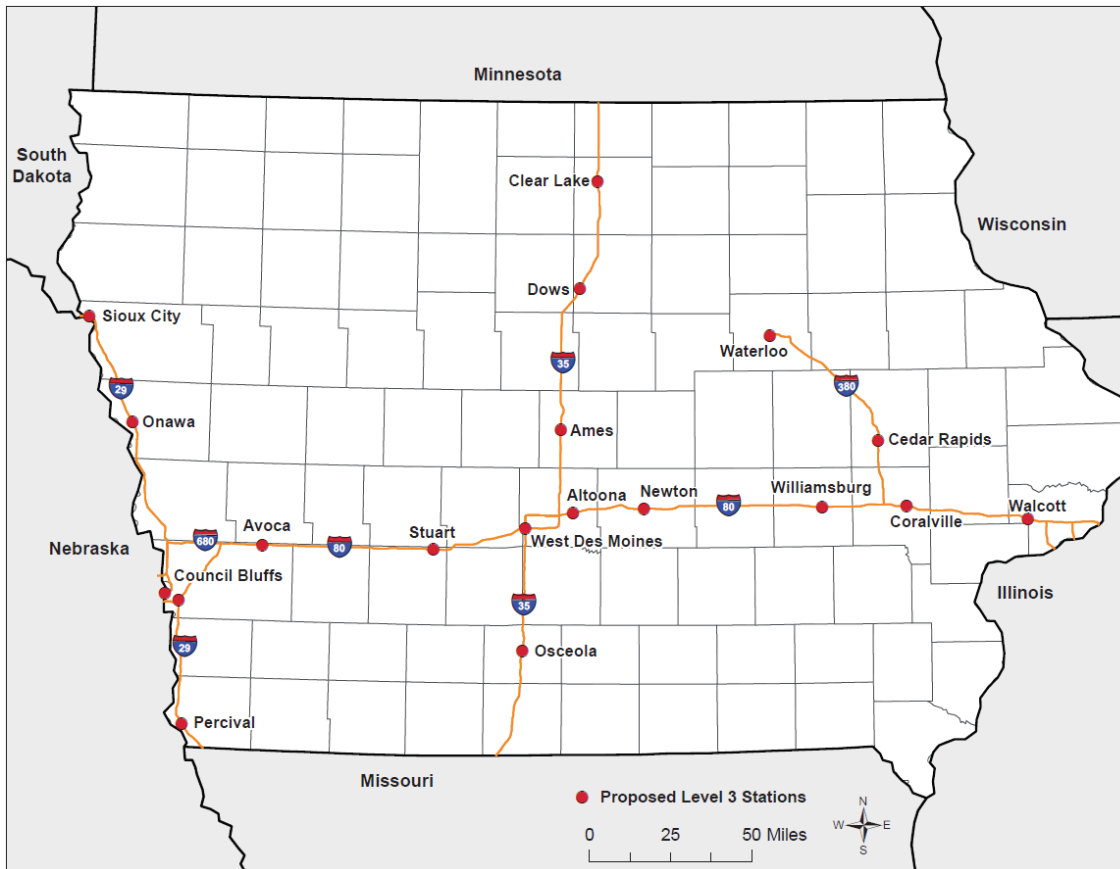


Average annual pounds of CO2 emissions by vehicle type



**An EV in Iowa reduces both vehicle fuel costs and CO<sub>2</sub> 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

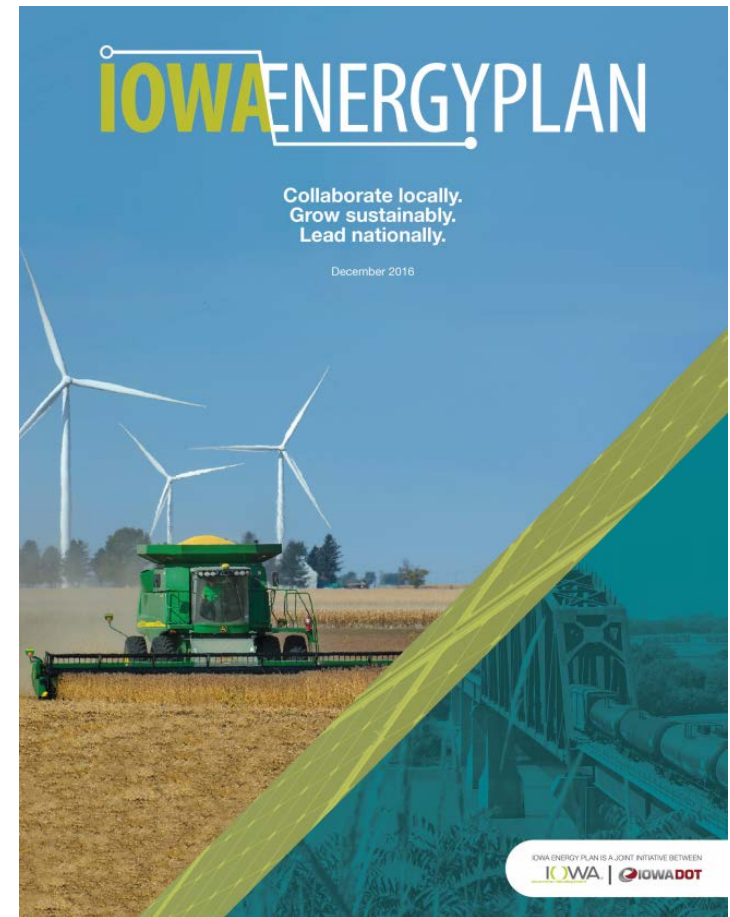
## Iowa Energy Plan

- Led by Lt. Governor Kim Reynolds
  - IEDA and Iowa DOT
- 4 Working Groups of Iowans
- Year-long process
- Available at [iowaenergyplan.org](http://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/AFV-EA%20Report%20FINAL1.pdf>
  - » [http://naseo.org/data/sites/1/documents/publications/iREV\\_BaselineAssessmentMemo\\_Final.pdf](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/](https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/)
- » [iowaeconomicdevelopment.com/userdocs/programs/AdvancingIowaElectricVehicleMarketReport.pdf](http://iowaeconomicdevelopment.com/userdocs/programs/AdvancingIowaElectricVehicleMarketReport.pdf)
- » [iowaenergyplan.org](http://iowaenergyplan.org)
- » [iowadot.gov/vwsettlement/](http://iowadot.gov/vwsettlement/)

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