



Initiative for Resiliency in Energy through Vehicles (iREV)



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National Association of State Energy Officials (NASEO)

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Project ID: TI069

This presentation does not contain any proprietary, confidential, or otherwise restricted information.

**All data contained in this presentation is current as of April 2016, unless otherwise noted.*

Timeline *(as of April 2016)*

Start: May, 2015
End: May, 2017
Complete: 11 months (45%)
3 major deliverables

Budget *(as of February 2016)*

Total Funding: \$1,001,235 (\$201,235 match)
Year 1 Funding: \$427,741 (\$72,322 match)
Year 2 Funding: \$573,494 (\$128,913 match)
Spent to Date: \$192,288

Barriers Addressed

- 1. Consumer reluctance to purchase new technologies
- 2. Lack of technical experience with new fuels and vehicle technologies
- 3. Maintenance of local coalition effectiveness

Partners

Project Lead: NASEO

Project Partners:

- International Association of Emergency Managers
- Concurrent Technologies Corporation
- Vermont Energy Investment Corporation
- National Governors Association - CBP
- Center for Sustainable Energy
- Five alternative fuel trade associations
- Three state energy offices
- Seven Clean Cities Coalitions



Project Objectives

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- Year 1: Create customized tools (including the iREV-T Tool) and information for emergency management decision-makers to examine the potential costs, benefits, and trade-offs of incorporating alternative fuels into their plans.
- Year 2:
 - Promote interstate and intrastate coordination and education among emergency response and planning entities at the local, state, and regional level on key issues and strategies associated with the incorporation of alternative fuels into their plans, and;
 - Increase the prevalence of alternative fuels in existing and future state and local emergency response and planning operations using a multi-pronged approach.

Vehicle Technologies Office Goals/Priorities

- Achieve petroleum reduction of at least 2.5 billion gallons/year by 2020 through voluntary adoption of AFVs and infrastructure.
- Promote replacement of petroleum motor fuels with replacement fuels to the maximum extent practicable
- Offer technical and problem solving assistance to address market barriers.



Approach: Key Tasks

Task 1: Project Management and Planning (NASEO)

- Manage project planning and execution activities, including development of a detailed spend plan, execution of contracts or memoranda of understanding with project partners, and administrative tasks associated with government cost monitoring and reporting.

Task 2: Create Tools and Resources (NASEO, VEIC, CTC, CCC)

- Develop customized resources and tools for emergency management community to examine the potential costs, benefits, and trade-offs of incorporating alternative fuels into their plans. Work with VEIC, CTC, Clean Cities, and others to develop and launch iREV webpage and social media; develop four policy- and plan-oriented case studies; create a baseline study for inclusion of AFVs and infrastructure into Emergency Operations Plans; collect AFV data from partner locations; create iREV-T Tool.

Task 3: Educate and Promote Coordination (NASEO, IAEM, CSE, CCC, States)

- Solicit feedback and interest through regional iREV “Ready for Day 1” workshops; develop a “Workshop in a Box,” and; obtain commitments from emergency preparedness and response entities to support creation of iREV Policy and Planning Toolkit.





Task 4: Incorporate iREV Tools/Recs into Em. Prep. Channels (NASEO, NGA)

- Create customized toolkits; update baseline matrix; create iREV Course Package and incorporate into partners’ education/certification programs; create Insight Briefs that synthesize project findings; disseminate briefs.



Milestones

Table of non-Project Management/Reporting Milestones and Deliverables

T	Milestone or Deliverable	 Status
Year 1	Form iREV Steering Committee	 Completed 06/15
	Distribute Case Studies	Expected 05/16
	Pilot AFV and Fleet Data Collection Program	 Completed 02/16
	Baseline Study	Expected 05/16
	Validate iREV-T Decision Support Data	 Completed 03/16
Year 2	Hold Approximately Four iREV Regional Workshops	Expected 11/16
	Obtain Partner Commitments	Expected 11/16
	Create Customized iREV Toolkits	Expected 03/17
	Incorporate iREV Into Education and Certification Programs	Expected 05/17

+ Accomplishments and Progress: Launch Steering Committee

Lead: NASEO; Task: Customize Tools and Resources; Status: Complete



+ Accomplishments and Progress: iREV Website

Lead: NASEO; **Task:** Customize Tools and Resources; **Status:** Complete

Initiative for Resiliency in Energy through Vehicles



The Initiative for Resiliency in Energy through Vehicles (iREV) brings together a unique cross-section of practitioners in emergency management, energy assurance, homeland security, and transportation to support the incorporation of alternative fuel vehicles in emergency response and preparedness operations.

iREV supports state and local emergency management decision makers by providing customized tools, information, and strategies about alternative fuel vehicle technologies, infrastructure, and potential uses in emergency scenarios. iREV's resources and technical assistance aid emergency management entities in examining the potential costs, benefits, and interdependencies associated with diversifying their fleets, reducing dependence on petroleum, and investing in electric, natural gas, propane, and biodiesel vehicles and infrastructure in support of energy security.

AFVs in
Emergency Situations

iREV
Resources

iREV
in the News

iREV
Partners

AFVs in Emergency Situations

Motorweek's National Preparedness Month: the Role of AFVs in Emergencies



Send Us Your Stories

Is your community using alternative fuel vehicles in their emergency planning and response activities? Help emergency planners and contribute to iREV by sending us your stories.

» [Submit Story](#)

How Do I Get Started?

Is your fleet or community interested in using AFVs for emergency response? Would you like to learn more about iREV and put our resources to the test? For more information, see our [iREV brochure](#) and follow the link below.

» [Get Involved](#)

Quick Links

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- » [U.S. State Energy Program](#)
- » [State Energy Plans](#)
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- » [State Energy Financing Programs](#)
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+ Accomplishments and Progress: Case Studies

Lead: NASEO & VEIC; **Task:** Customize Tools and Resources; **Status:** Draft Being Finalized

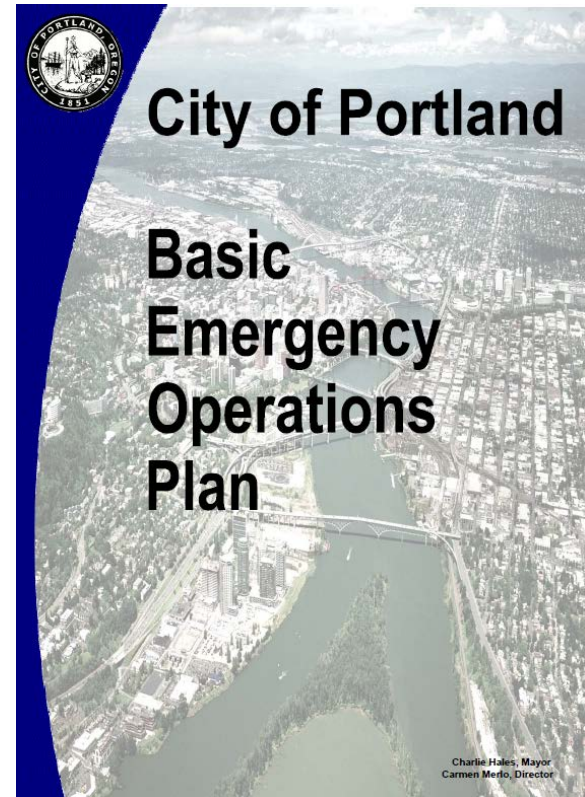
- Create four policy- and plan-oriented case studies on propane, natural gas, biodiesel, and electric vehicles
- Disseminate case studies to emergency management community



+ Accomplishments and Progress: Baseline Study

Lead: NASEO; Task: Customize Tools and Resources; Status: Draft Being Finalized

- Review emergency plans from 50 states and largest 20 municipalities
- Create baseline for inclusion of AFVs in emergency planning
- Use baseline to identify opportunities for future inclusion of AFVs, and as metric for Year 2 of iREV



*Example: Emergency Operation
Plan from City of Portland, Oregon*

+ Accomplishments and Progress: Pilot Data Collection Program

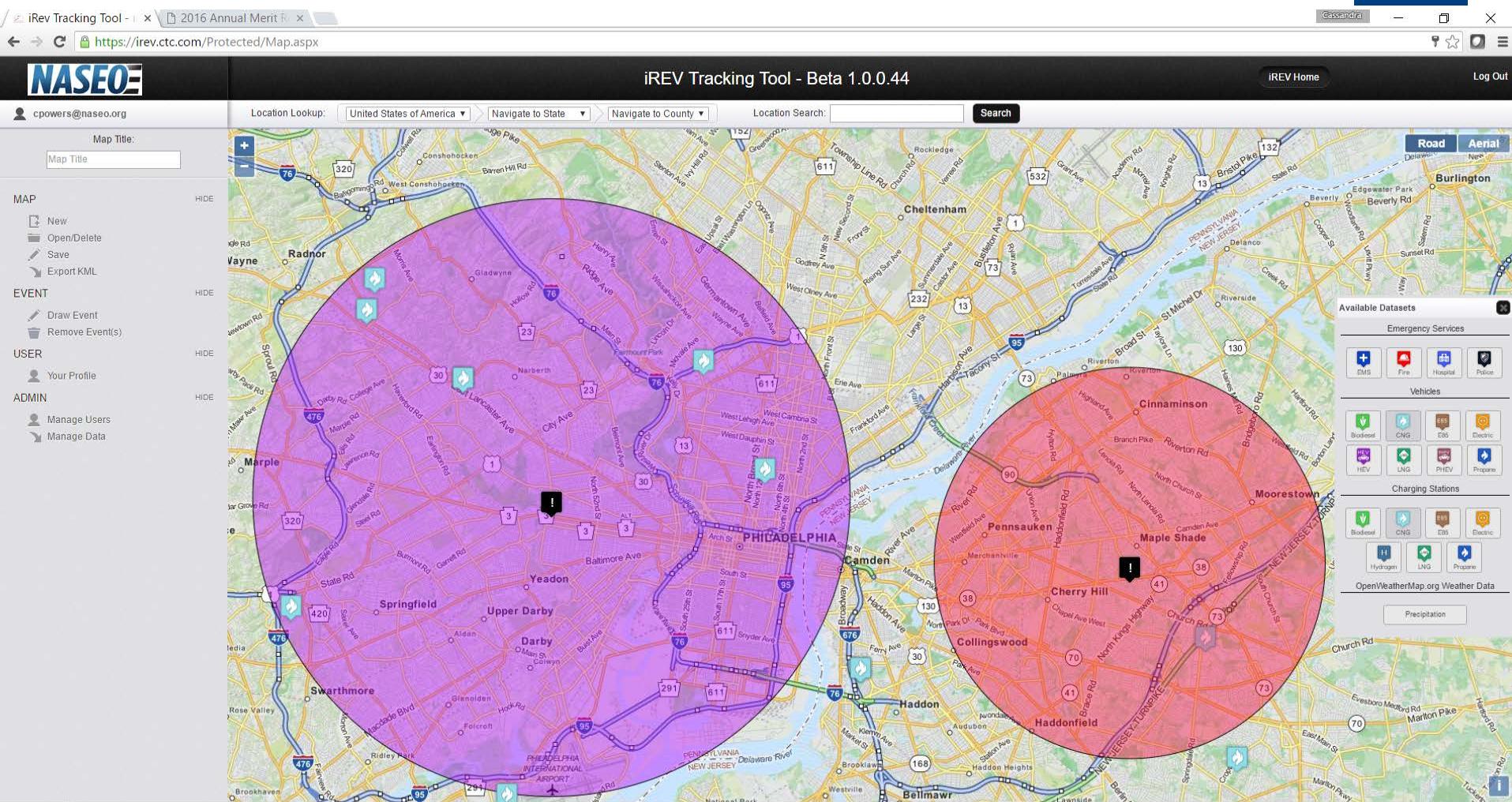
Lead: NJCCC; Task: Customize Tools and Resources; Status: Complete

- Work with Tri-State Clean Cities to collect AFV fleet and alt fuel infrastructure data from New York, New Jersey, and Pennsylvania
- Develop data collection process that emergency managers can replicate
- Use pilot data in beta-version of iREV Tracking Tool



+ Accomplishments and Progress: Validate iREV-T Tool

Lead: CTC; Task: Customize Tools and Resources; Status: Complete



+ Accomplishments and Progress: iREV Workshops

Lead: NASEO; Task: Educate and Promote Coordination; Status: Active

- Hold approximately four workshops with emergency managers and other stakeholders across the country
- Workshop goals:
 - Educate emergency managers on the value of AFV inclusion in emergency plans;
 - Solicit feedback on iREV resources and tools;
 - Gauge interest in participation in the iREV Pilots
- NASEO working with the International Association of Emergency Managers (IAEM) to co-locate iREV Workshops and IAEM Conferences, to maximize emergency manager involvement
- *Status: Workshops will be held from August – November, 2016*

+ Accomplishments and Progress:

Obtain Commitments and Develop Toolkits

Lead: NASEO; Task: Incorporate iREV Tools and Recommendations into Emergency Preparedness Channels; Status: Not Yet Started

- Obtain commitments from 3-4 cities and/or states to participate in the “iREV Pilot.” Pilot communities will work with the iREV project team to incorporate AFVs into emergency planning and response activities.
 - Commitments will be obtained through iREV workshops
- NASEO will work with pilot communities to develop customized iREV Policy and Planning Toolkits. These will identify ways that communities can use iREV resources to incorporate AFVs into emergency planning.
- *Status: Pilot partners will be identified at the iREV Workshops, held August – November 2016; toolkits will be developed from November, 2016 – March, 2017.*

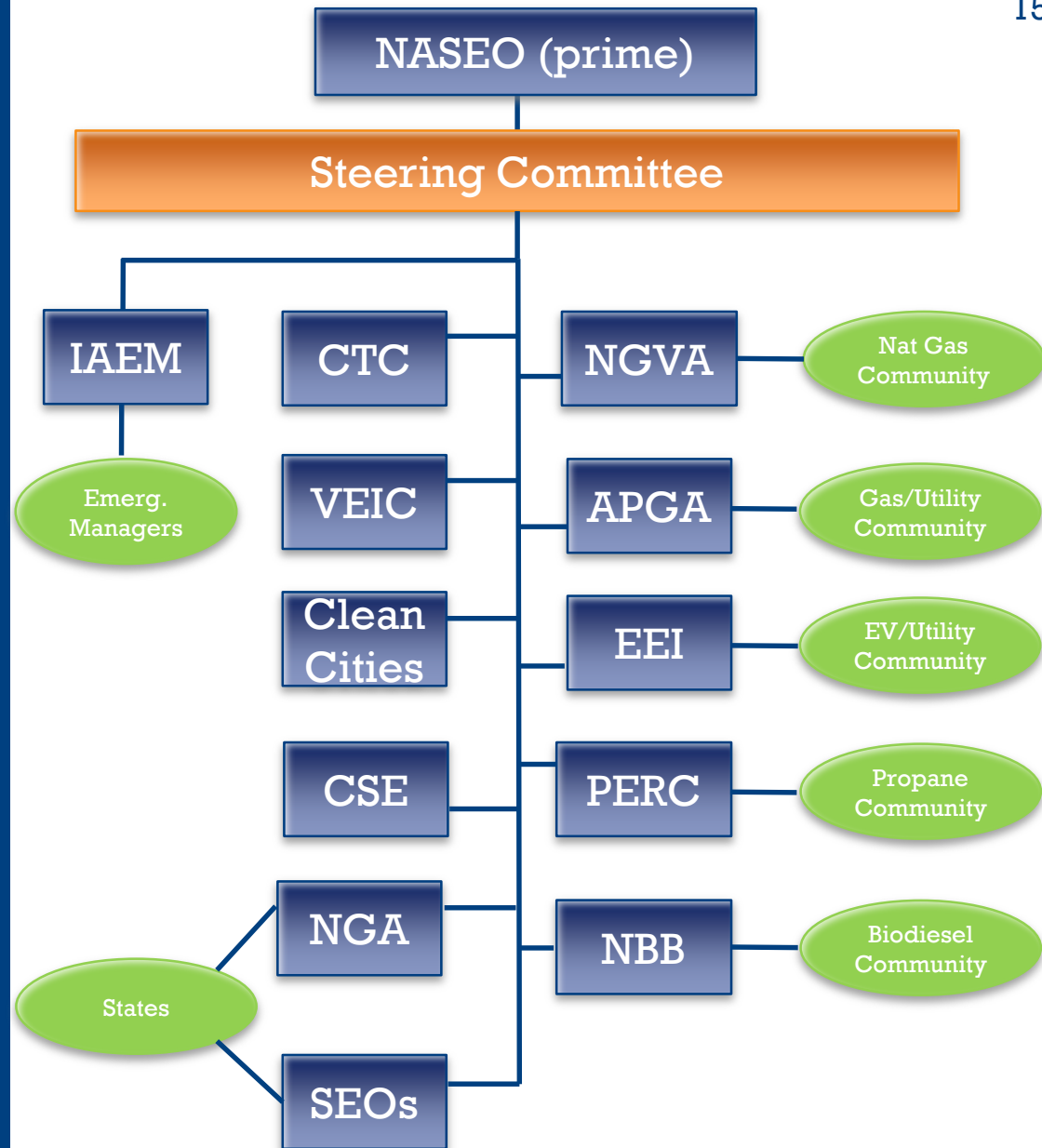
+ Accomplishments and Progress: Course Package and Certification Programs

Lead: NASEO; Task: Incorporate iREV Tools and Recommendations into Emergency Preparedness Channels; Status: Not Yet Started

- Work with NGA, IAEM and others to incorporate tools and recommendations from iREV into their certification and training programs.
 - Develop a course package that participating organizations can use to update programs and educate participants on iREV and the value of AFVs in emergency preparedness and response
 - Work with participating organizations to incorporate course package and materials into curriculum
 - Update Baseline Matrix following certification program updates
- *Status: To be completed March – May, 2017*



Collaboration and Coordination with Project Partners and Stakeholders





Alternative Fuel Market Expansion Potential

■ Remaining Project Activities and Team Leads

- NJCCC, MADOER, FDACS, NGA, CSE: Host workshops in northeast, southeast, central, and western regions, in collaboration with IAEM and NASEO.
- NASEO: Develop Workshop in a Box, Toolkits, and updated Baseline, in collaboration with IAEM.
- NASEO, NGA, IAEM: Incorporate materials into education and certification programs for states and emergency managers, and disseminate materials.

■ Market Expansion Impacts and Opportunities

- Enabling emergency managers and state decision makers to incorporate AFVs and infrastructure into long-term emergency plans
- Enabling emergency managers to use hands-on tools during short- and medium-term emergency planning and management exercises
- Supporting coordination between state energy offices and emergency planning professionals on alternative fuel adoption and energy and resiliency planning
- Raising awareness of alternative fuels amongst a new stakeholder group (emergency planners) that previously had minimal exposure to AFVs, but have the potential to influence AFV adoption in their communities

■ Potential Future Work Directions

- Inclusion of AFVs in state and local emergency plans
- Increased coordination between state energy offices and emergency planners on long-term resiliency planning
- Technical assistance for states and communities on iREV tools and resources



Summary

Key takeaways concerning project objectives, approaches, and expected market outcomes.

Objectives	<ul style="list-style-type: none">• Create customized tools and information for emergency management decision-makers to examine the potential costs, benefits, and trade-offs of incorporating alt fuels into their plans.• Promote interstate and intrastate coordination and education among emergency response and planning entities at the local, state, and regional level on key issues and strategies associated with the incorporation of alt fuels into their plans.• Increase the prevalence of alt fuels in existing and future state and local emergency response and planning operations using a multi-pronged approach.
Approaches	<ul style="list-style-type: none">• Develop customized resources and tools for emergency management community to examine the potential costs, benefits, and trade-offs of incorporating alternative fuels into their plans. Products include iREV Website and social media presence; case studies; iREV-Tracking Tool; and Baseline Assessment.• Solicit feedback and interest through regional iREV “Ready for Day 1” workshops and develop “Workshop in a Box,” and obtain commitments from emergency preparedness and response entities to support creation of iREV Policy and Planning Toolkit.• Create customized toolkits; update baseline matrix; create iREV Course Package and incorporate into partners’ education/certification programs; create Insight Briefs that synthesize project findings; disseminate briefs.
Outcomes	<ul style="list-style-type: none">• Suite of resources, tools, and partnerships resulting from this project is readying the emergency management community for incorporation of AFVs in emergency plans, increased vehicle and infrastructure deployment.• Four states and/or communities will have adopted recommendations from iREV and incorporated AFVs into their emergency plans.• AFVs will be included in emergency planning certification programs amongst project partners, resulting in greater awareness of AFVs and their role in emergency response.