









Unlocking Private Sector Financing for Alternative Fuel Vehicles and Fueling Infrastructure

Presentation to EIS 2013 April 8, 2013



NASEO and the State Energy Offices (SEOs)

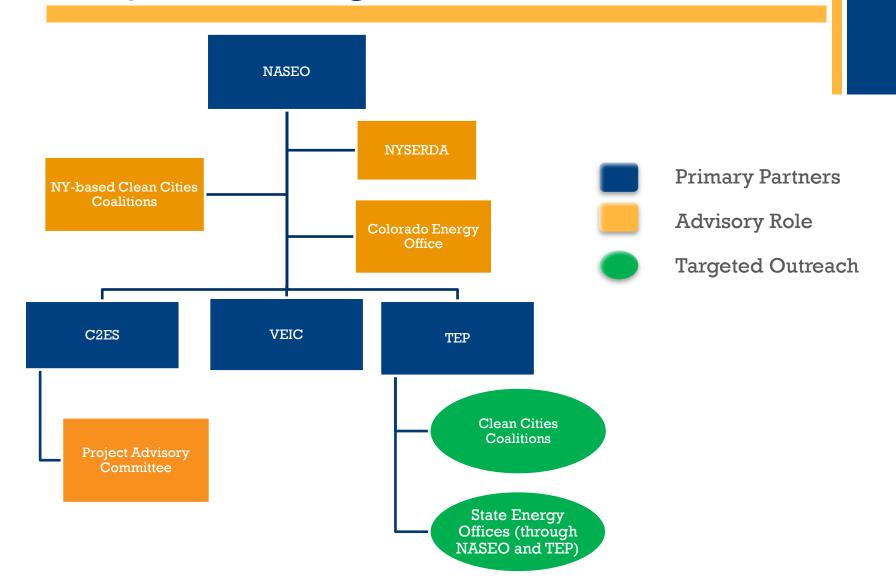
- Membership includes the 56 Governor-designated energy officials from each state and territory
- State Energy Offices were formed in response to the energy crisis of the early 1970s. SEOs are important agents of change that:
 - Advance practical energy policies and support energy technology research, demonstration, and deployment
 - Partner with the private sector to accelerate energy-related economic development and enhance environmental quality
 - Administer \$7 billion of funds derived from ratepayers and state appropriations annually
- NASEO is organized through a committee and regional structure

Project Overview

Objectives:

- Develop innovative vehicle and infrastructure financing models to make
 AFVs more accessible to consumers and fleet operators;
- Enable utilities and policy-makers to fund AFV and infrastructure incentives and investments with ratepayer dollars; and
- Assist states in developing comprehensive energy plans that support private sector investments in AFVs and associated infrastructure.
- 2 Years (February 2013 January 2015)
- Funded by the U.S. Department of Energy's Clean Cities program
- Electric, Natural Gas, Biofuels, and Hydrogen Vehicles and Infrastructure

+ Project Management



+

Project Deliverables

NASEO

- Policy guidance for state governments to consider when creating or revising their state's comprehensive energy plan that supports AFV and infrastructure deployment
- Transportation Committee (✓) comprised of State Energy Officials to provide input into work products and dissemination of final products

VEIC

- Document the role of electric vehicles in utilities' integrated resource plans
- Transportation Efficiency Technical Reference Manual
 - Quantifies the efficiencies of fuel-switching (gasoline to EV)
 - Quantifies the efficiencies of AC Level 1 and AC Level 2 charging relative to one another

■ C2ES

 Suite of innovative business models and implementation plans to support private sector vehicle and infrastructure financing pilot projects

■ TEP

- Presentations at the Energy Independence Summits in 2013 (️) and 2014
- 2 Regional Trainings for State and Local Stakeholders in Year 2



Thank you!

Julia Friedman, Program Manager (jfriedman@naseo.org)



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Nick Nigro

Energy Independence Summit 2013



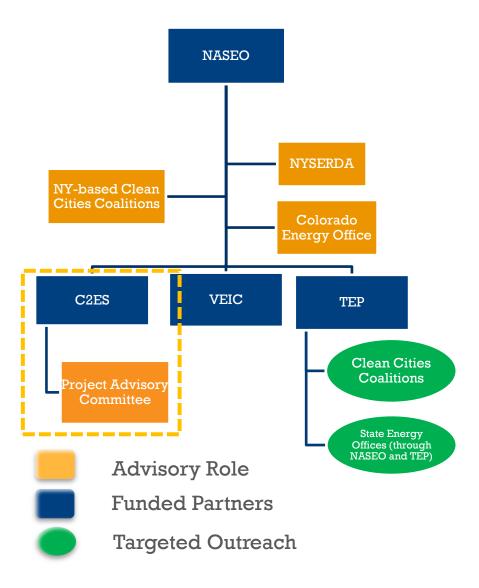
C2ES.ORG

About Center for Climate and Energy Solutions

- Independent, nonpartisan, nonprofit organization
- Working to advance strong policy and action to address the twin challenges of energy and climate change
- Founded in 1998 as the Pew Center on Global Climate Change
- Became C2ES in 2011

Project Overview

- Develop new business models for financing alternative fuel vehicles and infrastructure
- Create strategic plans to try out new business models
- Work with NASEO, TEP, Clean Cities, and the Project Advisory Committee throughout on all project deliverables



Project Motivation

- Public benefits of alternative fuels not captured today
 - Energy efficiency
 - Greenhouse gas reductions
 - Energy security
 - Local air quality
- Lack of available public funds for deployment; need new private funding mechanisms
- Exciting finance models are accelerating deployment of building efficiency and renewable energy technology

Project Timeline

Identify
Financial
Barriers to
Realizing
Public Benefits
Energy efficiency
improvements

Fuel savings

Operating cost savings

Environmental & energy security benefits



Prepare Case Studies

Existing AFVs or fueling infrastructure project

Apply mechanisms used to finance building energy efficiency to transportation



Develop Innovative Business Models

Fuel & vehicle value proposition

Target market

Cost structures & revenue streams

Implementation and/or demonstration guidance

Test model with hypothetical examples



Create Strategic Plans for Implementation

Identify location or marketspecific challenges & opportunities

Apply business model to a particular market

Develop guidance including key players, policy actions, cost & benefit, & anticipated results

Year 1

Year 2

Project Advisory Committee

- National, regional, and local stakeholders advisory group
 - Project Partners: NASEO, TEP, and Clean Cities
 - Public: state energy offices (New York, Colorado, Oklahoma) and California Governor's
 Office
 - Private: finance sector, vehicle and infrastructure purchasers, installers, and providers, etc.
- Committee will provide project team direction and feedback on private investment in AFV and fueling infrastructure related to:
 - Barriers
 - Possible solutions
 - Outreach activities
- Committee will disseminate lessons learned, enhance findings, and implement recommendations (e.g., pilot new business models)
- Communication among committee members and project team will occur throughout project
 - 2-3 in-person meetings
 - Frequent conference calls and/or webinars



FOR MORE INFORMATION

C2ES.ORG

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YOUR INPUT PLEASE

- Recommendations on entities for Project Advisory Committee
- What types of businesses or financial institutions not currently involved in financing AFV projects should we target?
- What financing issues or barriers have you faced in your efforts to deploy AFVs and infrastructure?
- > Are there specific business models that could work for this sector?
- What type of pilots would you like to see come from this project?
- How would you like to be kept informed?