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Executive Director

PARTNERS FOR CLEAN AIR

April 26, 2016

Clean Cities Mission

To advance the energy, economic, and environmental security of the U.S. by supporting local decisions to reduce petroleum use in transportation.

- Sponsored by the DOE's Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Office
- Established in 1993 in response to the Energy Policy Act (EPACT) 1992
- Companion program to the EPACT mandates requiring certain fleets to acquire AFVs (Federal, State, and Fuel Provider Fleets)
- Provides a framework for businesses and governments to work together as a coalition to enhance markets
- *Major Emphasis:* Deployment of alternative fuels and advanced vehicle technologies (i.e. vehicles and fueling infrastructure)
- *Program Goal:* Reduce U.S. petroleum use by 2.5 billion gallons per year by 2020

Alternative Fuels and Vehicles

- Biodiesel
- Electricity
- Ethanol (E85)
- Hydrogen
- Natural gas
- Propane



Fuel Blends

- Biodiesel/diesel blends (B2, B5, B20)
- Ethanol/gasoline blends (E10)
- Hydrogen/natural gas blends (HCNG)

Hybrids

- Light- and Heavy-duty HEVs
- PHEVs

Fuel Economy

- Fuel efficiency
- Behavioral changes
- Vehicle maintenance initiatives
- Vehicle miles traveled (VMT)

Idle Reduction

- Heavy-duty trucks
- School buses
- Truck stop electrification

Leveraging national policies and resources at the local level to facilitate change

Local

Franchise model - coalitions adapt consistent approaches and messages to local market conditions and priorities

National

- Conduct mass media and online outreach for consumers and fleets
- Provide unbiased tools and experts for technical assistance
- Develop national partnerships with industry and corporate fleets
- Provide financial assistance to incentivize private investment

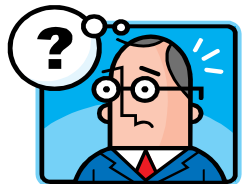




Local Community/Coalition Support: DOE helps convene key community and business leaders to develop and implement projects, leverage resources, and address local barriers



Public Information, Outreach, and Education: DOE-developed tools help consumers save money on fuel cost and help fleets understand their options for cost-effective alternatives to gasoline and diesel fuel



Technical & Problem Solving Assistance: DOE experts help local leaders address permitting and safety issues, technology shortfalls, and other project implementation barriers



Competitively-Awarded Financial Assistance: Federal cost-share encourages initial private sector match and long-term investment

(1) Local Community / Coalition Support: Project Development



(1) Local Community / Coalition Support: Develop/Strengthen Local Markets

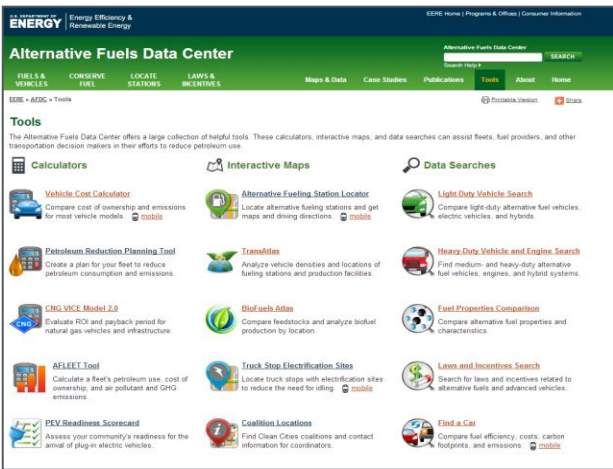
- Identification of potential fleet and funding partners
- Connecting fleets with fuel providers and industry partners, promoting INDIANA.
- Facilitating Infrastructure development projects
- Training and information
- Technical assistance
- Education and outreach to decision makers, fleets, and the public
- Coordination with key community and business leaders
- Collecting data and tracking progress



(2) Consumer Information, Outreach, and Education



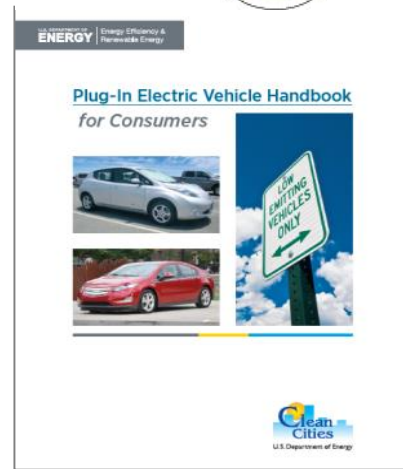
- Non-biased source of VT data and information
- Fuel Economy Guide (FE.gov), Alt-Fuel Data Center (AFDC)
- On-line tools and cost calculators, other web resources
- Fact Sheets, publications, handbooks, success stories
- Technical Response Service and Hotline
- Public workshops, webinars, industry technical conferences



Online Tools



Technical Response Service



Publications

(3) Technical and Problem Solving Assistance

- Capture lessons learned and develop best practices
- Technical Forums and User Groups and National Partnerships
- Address unforeseen permitting and safety issues
- Identify chronic vehicle or infrastructure field problems
- Incident investigations (technology failures)



Model EVSE Permit

Application for Installation of Electric Vehicle Charging Equipment

NOTICE: The system must be installed in compliance with the National Electric Code® (NFPA 70, Article 625 Electric Vehicle Charging System or applicable electrical code currently adopted and enforced within the jurisdiction of installation. All associated work with circuits, electrical service and meters shall be completed in compliance with NFPA 70, national electric code, or applicable electrical code currently adopted and enforced within the jurisdiction of installation.

Section 1: Permit Applicant Information

Name:		
Installation Street Address (P.O. box not acceptable):	Contact Person:	Phone Number:
City:	County:	State: ZIP Code:
Owner Name:	Street Address:	Phone Number:
City:	State:	ZIP Code:
Submitter's Name/Company:	Street Address:	Phone Number:
City:	State:	ZIP Code:
General description of equipment to be installed:		

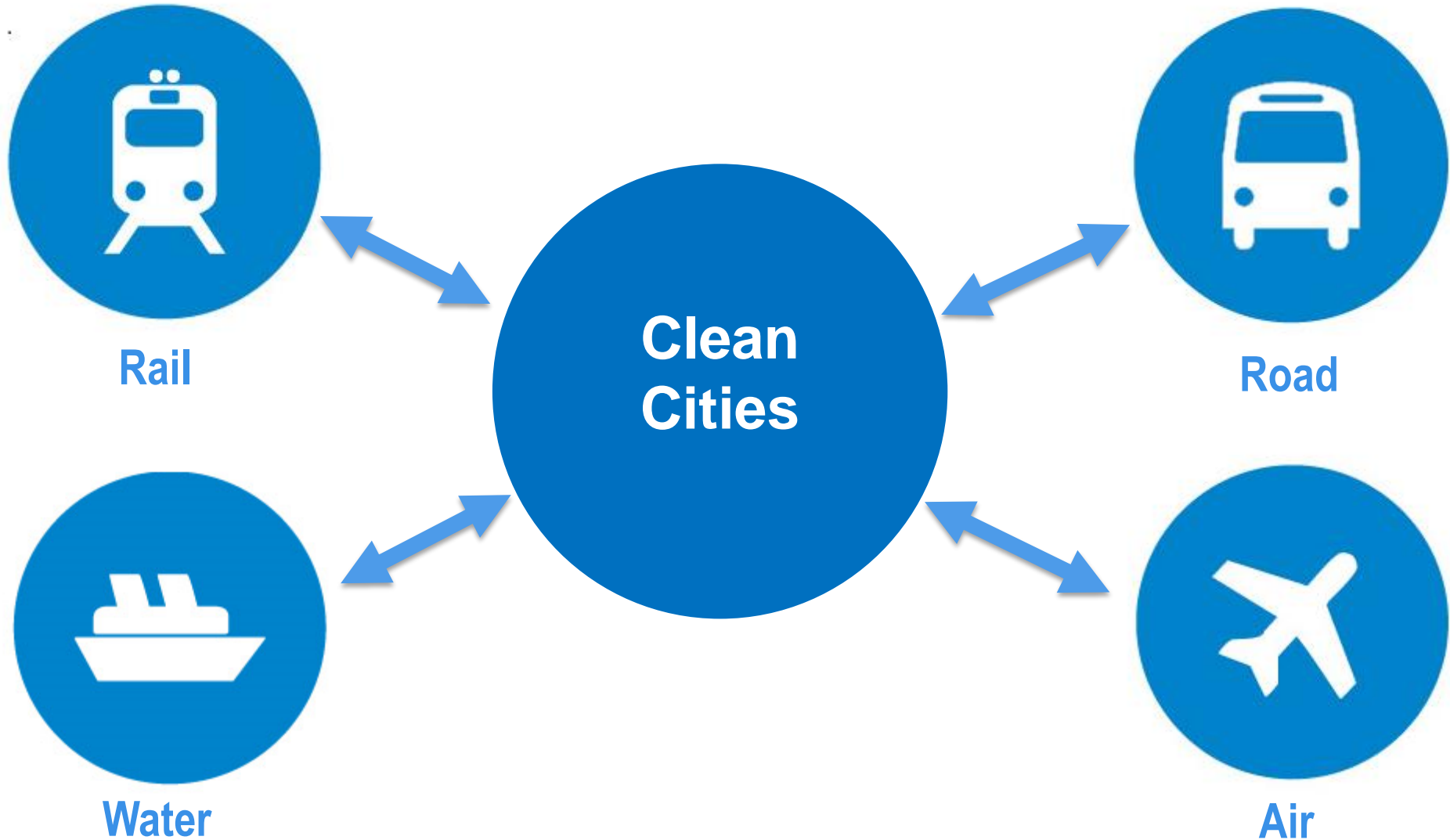
Section 2: Permit Code Information

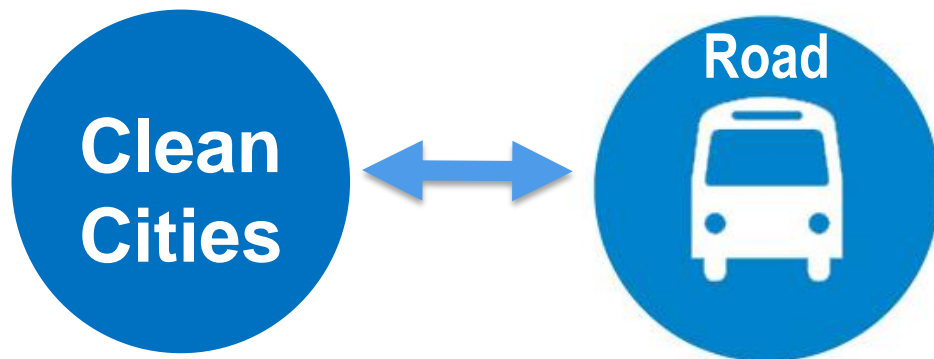
Requirements for wiring a charging station are taken directly out of the 2011 edition of the National Electrical Code® (NEC) (NFPA 70, Article 625 Electric Vehicle Charging System). This article does not provide all of the information necessary for the installation of electric vehicle charging equipment. Please refer to the current edition of the electrical code adopted by the local jurisdiction for additional installation requirements. Reference to the 2011 NEC may be made at www.nfpa.org/70.

NEC Chapter or Article	DESCRIPTION
Chapter 2 and 3	Branch Circuit A new electrical box added on a branch circuit shall comply with NFPA 70 National Electrical Code®: Chapter 2 Wiring and Protection and Chapter 3 Wiring Methods and Materials and all administrative requirements of the NEC or the electrical code in effect in the jurisdiction.
625.4	VOLTAGES Unless otherwise specified, the nominal ac system voltages of 120, 120/240, 208Y/120, 240, 480Y/277, 480, 600Y/347, and 600 Volts shall be used to supply equipment.
625.5	LISTED OR LABELED All electrical materials, devices, fittings, and associated equipment shall be listed or labeled.



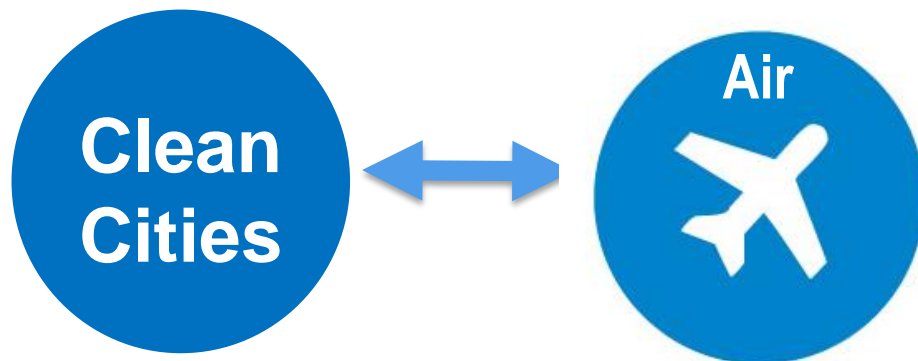
Clean Cities Stakeholders Facilitate Alt Fuels Deployment Across Multiple Modes





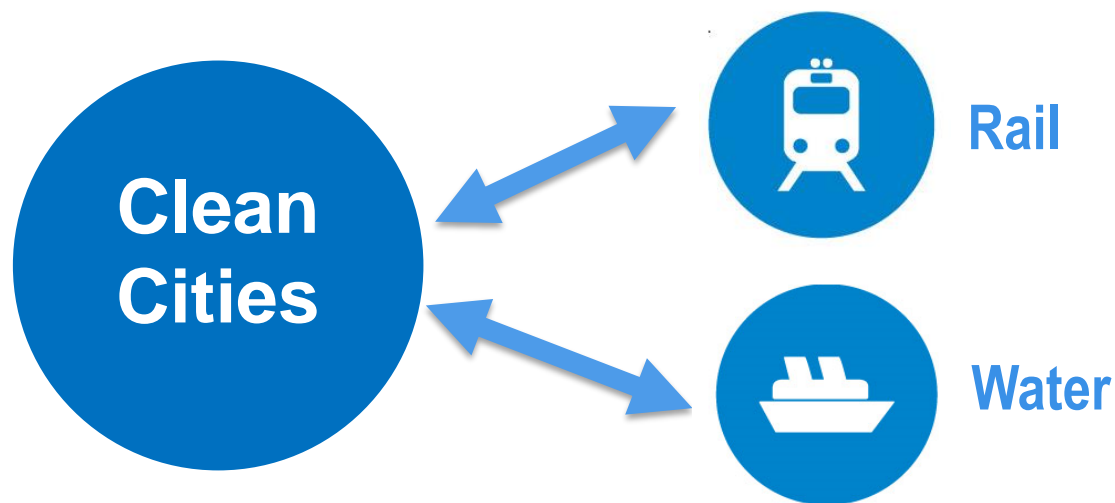
Clean Cities Supports Vehicle Deployment & Fueling Infrastructure Development:

- Transit
- Long Haul/ Regional Haul/ Delivery
- Government
- Anchor Fleets: Refuse, Taxis
- General Public Passenger Vehicles: EV & E85, Propane, CNG
- Identification of Funding Sources: DOE, DOT CMAQ, EPA, State, etc.



Clean Cities Supports Vehicle Deployment & Fueling Infrastructure Development:

- Ground Support Equipment
- Airport Ground Fleet/Circulator Buses
- Passenger Shuttles/Taxi
- Identification of Funding Sources: DOE, FAA VALE, EPA, State, etc.



Clean Cities Stakeholders Supports Various Deployment Projects:

- CNG/LNG/Biodiesel use in locomotives
- LNG use in ships
- Idle Reduction/Shorepower
- Ports: Various Technologies Being Deployed
- Identification of Funding Sources: DOE, CMAQ, MARAD, EPA, State, etc.

- **FAST Act**
- Signed by President Obama on December 4, 2015
- First long-term authorization act in a decade
- Result of bipartisan cooperation and compromise
- Provides 5 years of funding certainty for infrastructure planning and investment
- Authorizes \$305 B (all modes) over FY 2016-2020
- \$70 B in transfers to keep the Highway Trust Fund solvent; fully “paid for” (offset) by unrelated savings

\$305 B (all modes) over FY2016-2020 Program 5-Year Funding (billions)

• Federal Highway Administration	\$ 226.3
• Federal Transit Administration	61.1
• Federal Motor Carrier Safety Administration	3.2
• Pipeline and Hazardous Materials Administration	0.4
• National Highway Traffic Safety Administration	4.7
• Federal Railroad Administration	10.3
• Total	305.0

- **FAST Act Section 1413: Alt Fuel Corridors**
 - **Requirements:** Designation of national electric vehicle, hydrogen, propane, and natural gas fueling corridors within one year of enactment (Dec. 2016)
 - Corridor designations should identify near-and long-term need for, and location of fueling infrastructure and standardization needs for the above fuels
 - DOT must update and re-designate the corridors within five years of establishing the initial corridors, and every five years thereafter
 - DOT must solicit nominations for corridors from State and local officials and involve a range of stakeholders
 - **Important Details:** No specific funding included for implementation/designations
 - FHWA will identify actions that could add value (e.g. workshops, technical assistance, etc.)
 - CMAQ funding priority will be given to designated corridors (EV and CNG)

- Midwest Drives –Opportunity for Business or Government Entity to test an alternative fueled vehicle. Sign Up Today
- Green Fleet –Opportunities for grants/greening of fleets throughout Northern Indiana.
 - --(School Bus Heater Program \$ 200 k)-(Lake & Porter Counties)
- RSC CADER Program –Spencer County/Evansville =\$ 150 k
- Diesel Wise Across Indiana
- Hoosier Homegrown Fuel Blender Pump Grant
- Indiana Clean Community Challenge Grant
- NIPSCO EV Charging Station Program Incentive
- DOE –National Park Grant Opportunity

- SSCC worked with our partners to bring over \$ 10 million in grant funding in 2015.
- Our goal is to have each and every community and business GREEN.
- Education –We are the resource for GREEN!
- Collaboration, working with ALL to assist in moving green and reducing carbon footprint
- Celebration –finding organizations/individuals doing things right
- Green Radio Network –AM1420 WIMS RADIO
- LET US BE YOUR RESOURCE!

- Analysis & Planning
- Taxes & Grants/Incentives
- Market Research
- New Vehicle/New Technology Identification
- Policies and Procedure Development
- Demonstrations for Members
- Economic Development
- Mechanic Training
- Financing Opportunities
- Specification Development
- GREEN –SOLAR/WIND/RENEWABLES/BUSINESS ENERGY

- May 2 -5 –Act Conference –(Long Beach California)
- May 19th –Green Drive\$ Conference -Lake Michigan Consortium (Naperville Illinois)
- May 19th –State of Indiana Hoosier Homegrown Celebration
- GREEN FLEET SUMMER TOUR –EVENTS THRU DEC 16
- (Events will cover Propane, Electric, CNG, Bio Products, Shop Safety, First Responder Training
- 100 Year Celebration of the National Parks
- 200 Year Anniversary of Indiana
- Midwest Drives Event Across Indiana

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Clean Cities Website: www.cleancities.energy.gov

Alternative Fuels and Advanced Vehicles Data Center: www.afdc.energy.gov

Fuel Economy: www.fueleconomy.gov

Clean Cities Technical Response Service: info@southshorecleancities.org, 219-644-3690



U. S. Department of Energy