

# EV Readiness in the Asheville Area

- First *Chevy Volt* owner in Asheville Area
- Asheville Area Electric Vehicles Committee
  - DOE *Clean Cities* designation
  - EV Working Group participation
  - EV Committee website and EVSE map
- Upcoming Events
- EV Readiness Q&A
- *Advanced Energy* project



# First Volt owner in Asheville Area

- “Moving from Oil to Electric”

- <http://www.facesofgm.com/2011/03/04/moving-from-oil-to-electric/>

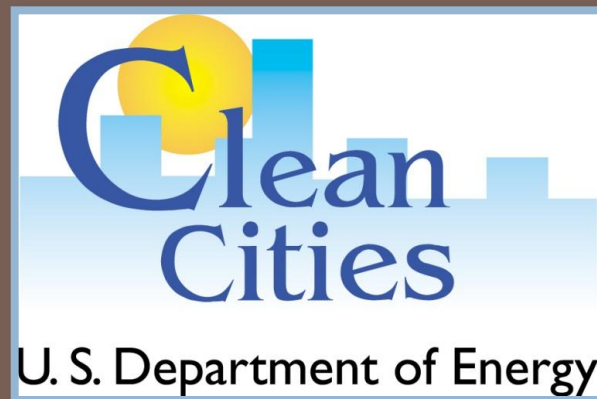


# Asheville Area EV Committee

- Facilitate EV Committee meetings to identify and remove barriers to EV adoption in Asheville Metro Area
- Establish an infrastructure of public charging stations
  - ▣ *Advanced Energy Charging Station project*
- Educate key stakeholders on EV technology and viability
  - ▣ *Two Asheville Get Ready Forums , EV Committee website*
- Streamline permitting and inspection process for charging station installation
  - ▣ *Technical Forum for Electrical Inspectors and EVSE Installers*

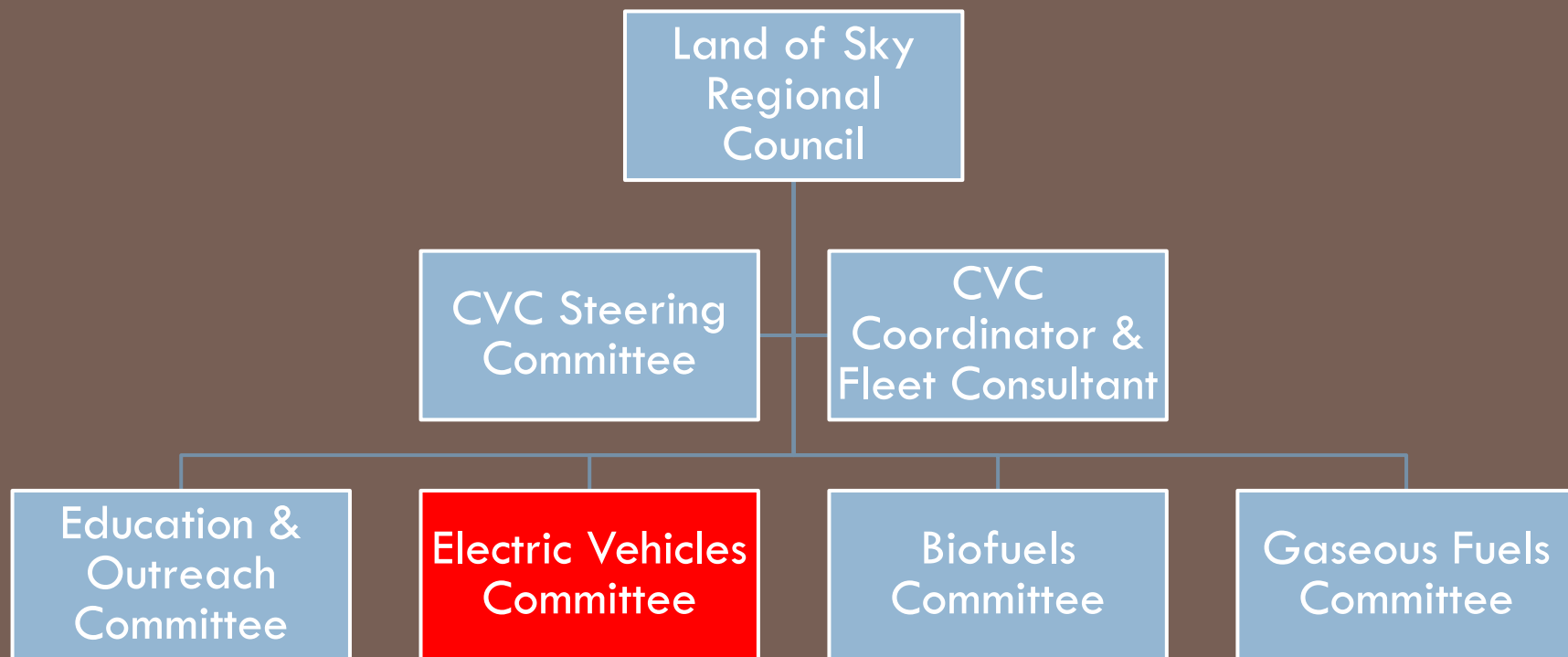
# DOE *Clean Cities* Designation

- Clean Vehicles Coalition seeking DOE *Clean Cities* designation
  - Goal of *Clean Cities* program
  - Networking and funding opportunities
  - Designation requires commitment & program plan



# LOSRC Clean Vehicles Coalition

## Organizational Structure



- **Recruiting EV stakeholders to participate in bi-monthly working group meetings**

# EV Committee Website

- [www.advantagegreennetwork.org/group/ashevilleareaevcommittee](http://www.advantagegreennetwork.org/group/ashevilleareaevcommittee)
  - Access EV Committee documents and other resources
  - Find funding and training opportunities
  - Post EV related questions and comments
  - Stay updated on latest EV news and events
  - Get involved with EV Readiness activities
    - Google map of potential public EVSE sites

# Site considerations for public EVSE

- Dwelling time
  - ▣ How long are vehicles left parked at location?
- Visibility
  - ▣ Is EVSE site visible to EV users and general public?
- Cost-effective / feasible installation
  - ▣ Is a utility service upgrade required?
  - ▣ How close is the site to the electric service supply?

# Upcoming Events

- DOE Clean Cities EV webinar (3/28 at 1 pm)
  - <http://www1.eere.energy.gov/cleancities/toolbox/webinars.html#upcoming>
- EVSE Knowledge Sharing conference calls
- Advanced Energy EVSE site selection (April)
- May EV Committee meeting
- Plug-In 2011 Conference (7/18 to 7/21)
  - <http://www.plugin2011.com/>



# EV Readiness Q&A

- EV Committee activities
- Electric vehicles: availability, features, cost, charging time, fuel savings
- Charging stations: levels, features, hardware cost
- Installation of public charging stations: Site considerations, installation cost variables, signage, reserving parking, charging fees, maintenance
- Permitting and inspection process: residential, commercial, municipal
- Incentives: federal, state, utility

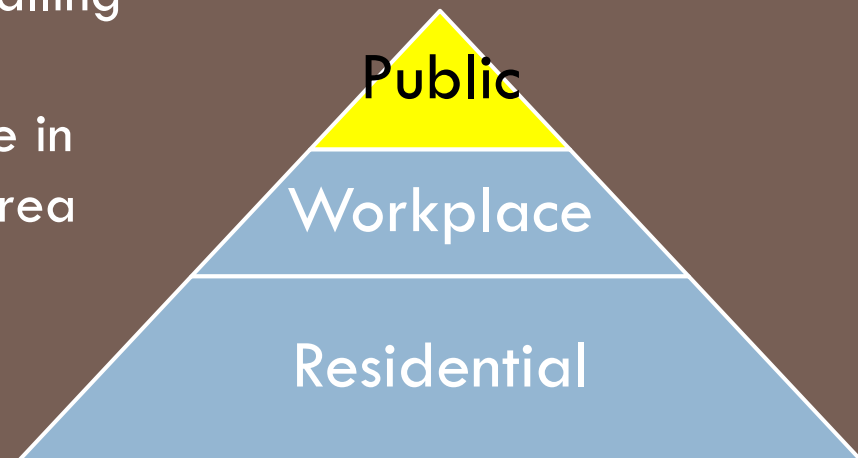
# Advanced Energy Project

## “Charging Station and Plug-In Electric Vehicle Incentives: Accelerating the Transition to PEVs”

Advanced Energy awarded a grant from SEO to promote and research EV and EVSE use in Asheville and the RTP



**Charging Stations:** Installing 25 Level 2 Charging Stations for public use in the Asheville metro area



# Advanced Energy Project

- **Advanced Energy**, based in Raleigh, is an independent, non-profit organization established in 1980 to create economic, environmental and societal benefits through innovative and market-based approaches to energy issues.



# Advanced Energy project

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- **What is the benefit of the grant to participants?**
  - ▣ This grant provides a subsidy of 50% of total equipment and installation costs, up to \$6,000 per charging station (or charging cord).
  - ▣ AE defines the number of charging stations as the number of vehicles that can simultaneously charge at Level 2, so in practical terms the number of charging stations is equivalent to the number of Level 2 charging cords. Note that some equipment models provide two or more charging cords per "dock" or pedestal.

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- **What is the benefit of the grant to participants?**
  - The grant subsidy will be paid to the **station owner**
  - The grant states (p. 19, Proposal Summary Sheet for Supporters) that the subsidy goes to the owner of the equipment, who also manages the installation:
  - "Advanced Energy will receive all funds and then reimburse our partner organizations for documented expenses. This means that the charging stations are yours and you own the equipment and manage the installation."
  - Note that this also indicates that there will not be advance or "up-front" payments

# Advanced Energy Project

## Anticipated project timeline

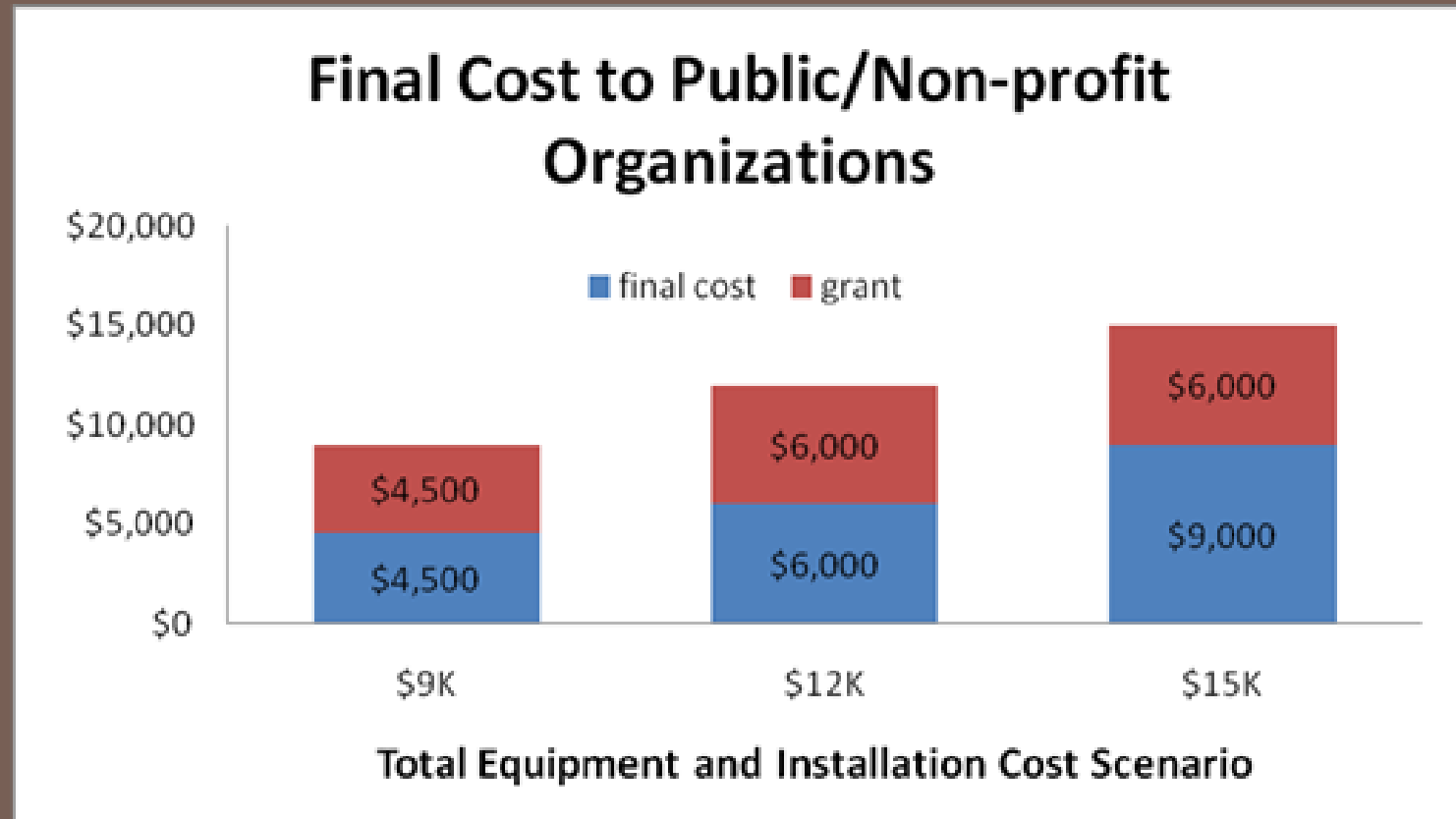
March	Finalize recruitment and contracting documents
April	Identify projects and start establishing contracts and orienting partners
May	Finish contracting and providing orientation to partners, begin site assessments and creation of RFPs
June	Begin installations
September	September 30th deadline for installation of all Level 2 charging stations

AE understands the scheduling challenge that some organizations will have due to when local funds were/are budgeted. It may not be feasible for a partner to participate if they have to spend their funds by the end of June, but AE and LOS will try to accommodate such proposals.

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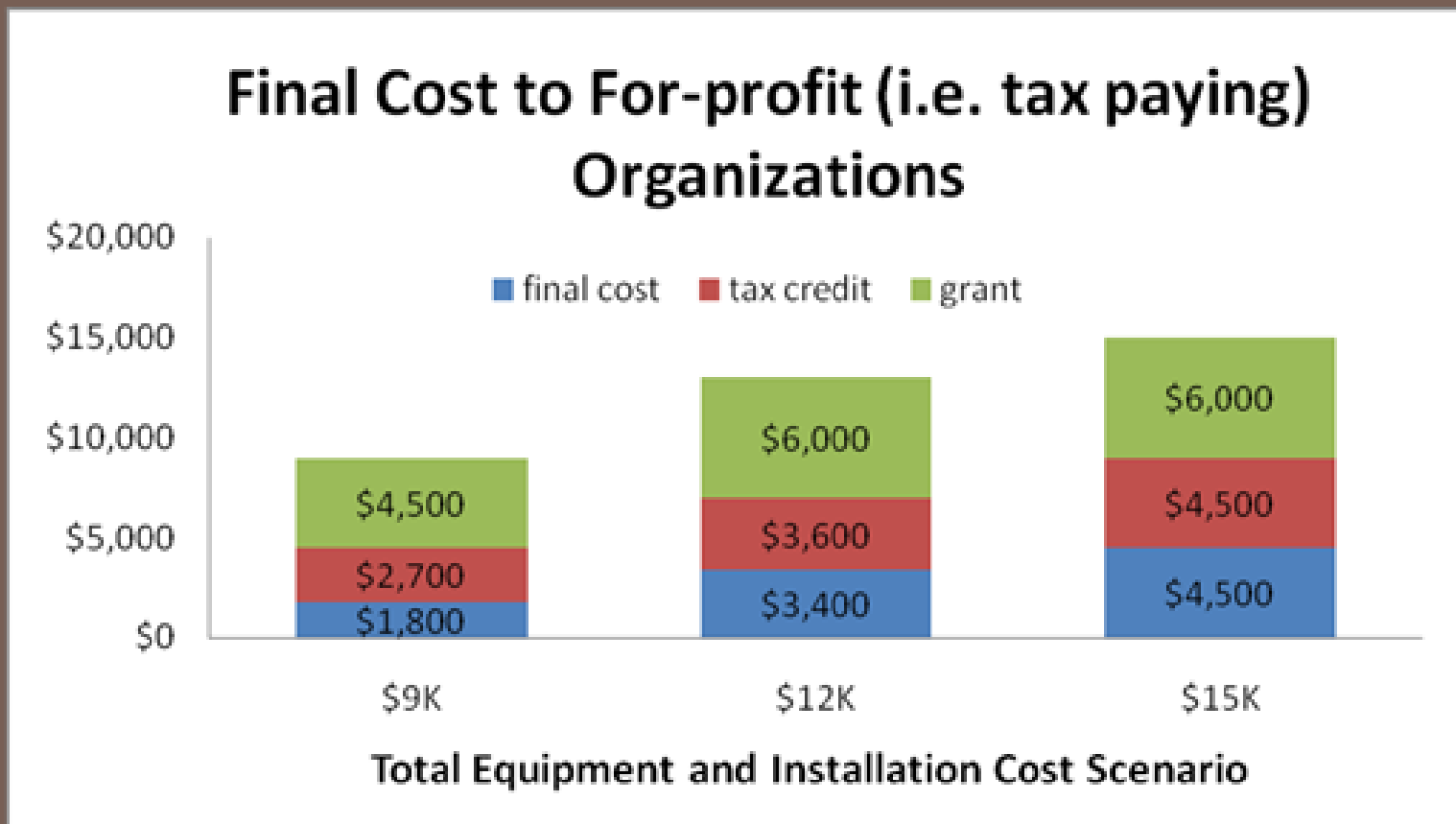
- Final Cost Scenario for Public and Non-profit organizations



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- Final Cost Scenario for For-profit organizations





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- Final Cost Scenarios
  - ▣ The owner's share of the total costs can come from any source available to them. Their costs are not "matching funds" for the purpose of this grant, so there are no restrictions on their source. In-kind contributions of labor, materials, etc. **may** count towards the total equipment & installation cost for the purpose of calculating the grant subsidy and (if applicable) 30% federal tax credit. **AE still awaits confirmation of this point from the NC SEO.**

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- EVSE Site Requirements
  - Equipment installed must provide Level 2 AC charging
  - Charging site should support a minimum two hour charge time
  - Equipment must be available for public use
    - Equipment can also be used by municipal vehicles
    - Equipment can be installed at sites that charge for access to parking (e.g. a parking deck)
    - Equipment cannot be for residential or fleet-only use

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- EVSE Site Requirements continued
  - ▣ Stations must have an onboard data logger or be sub-metered to record kWh used.
  - ▣ NC EVSE manufacturers (e.g. Eaton, GE, Schneider) are strongly preferred for purchases
    - AE will provide manufacturer/vendor contact information
    - AE approval is required for use of any equipment not manufactured in NC

# Advanced Energy project

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- EVSE Site Requirements continued
  - ▣ ADA accessibility requirements should be considered
    - Generally applies to parking lots/decks more so than on-street installations
    - In the short term, spaces could be sized for ADA but just not labeled/restricted as such, which should allow transition to ADA status in the future if desired/required.
    - Most equipment being produced will meet ADA requirements for height, etc.

# Advanced Energy project

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- EVSE Site Requirements continued
  - ▣ Site must qualify for NEPA categorical exclusion under group A-7c
    - AE will provide background on this and help verify qualification.
  - ▣ Restriction on assessing fees for public use of charging stations
    - Public use of the station must be free until at least 6/30/2012. If the host assesses fees for use in the future, those fees cannot be based on the actual amount of electricity used for charging. In NC that ability is reserved for licensed electric utilities.