SOUTHEAST REGIONAL EV READINESS WORKBOOK

SECTION 4

U.S. DEPARTMENT OF ENERGY

Clean Cities
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Disclaimer

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Questions? Corrections? Suggestions?

Please send an e-mail EVReadiness@cte.tv with any suggestions for improvements or new case studies for future editions of the Southeast Regional EV Readiness Workbook.

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Introduction to Section IV

Section IV introduces the Plug-In Electric Vehicle Readiness Scorecard. The U.S. Department of Energy developed the scorecard as a tool to help a community assess their readiness for plug-in electric vehicles and the infrastructure needed to support the vehicles. The scorecard encompasses all the components necessary for a community's EV Readiness, including

- Charging Infrastructure
- Planning
- Regulations
- Support Services

With the help of the scorecard, a community can evaluate its EV Readiness, receive feedback on its strengths and areas in which they can improve, and record and track their progress towards EV Readiness.

The Plug-In Electric Vehicle Readiness Scorecard highlights the actions that help a community become EV Ready. **Communities choosing to evaluate their EV Readiness are encouraged to contact the Clean Cities Coalition supporting their state. The Clean Cities Coalition can provide valuable assistance and access to resources to help a community improve its EV Readiness. Contacts for the Clean Cities are included below.**

Alabama Clean Fuels Coalition	http://www.alabamacleanfuels.org/
Clean Cities Atlanta	http://www.cleancitiesatlanta.net/
Palmetto State Clean Cities	http://www.palmettocleanfuels.org/

Getting Started with the Plug-In Electric Vehicle Readiness Scorecard

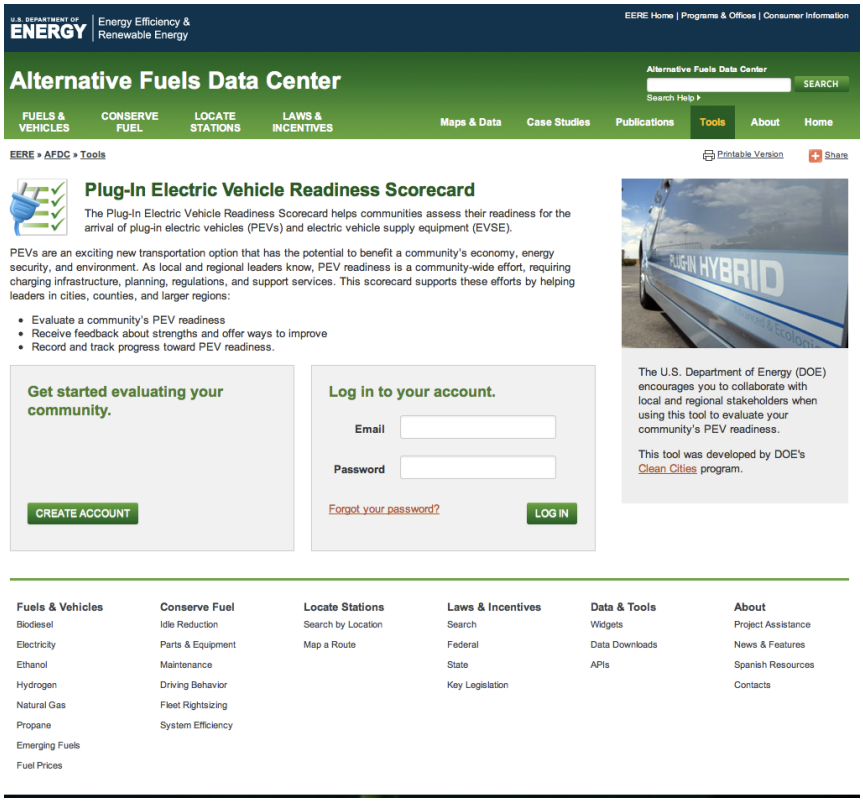
A community that wants to assess its level of EV Readiness can create a Plug-In Electric Vehicle Readiness Scorecard account. It is important to note that the scorecard is designed to assess a community's EV Readiness, not the readiness of individual agencies, organizations, or entities that contribute to a community's EV Readiness. Therefore, there should be a **single scorecard** for the community as a whole. If you are aware of others in your community who are involved in EV Readiness activities, you should coordinate with them to create the account for your community. Also, contact your Clean Cities Coalition to let them you know you plan to evaluate your community's readiness using the scorecard. They may be able to tell you if a scorecard already exists for your community or put you in touch with others who are contributing to EV Readiness in your area.

Creating an Account

To create an account for your community, visit the U.S. Department of Energy's Alternative Fuels Data Center website at:

https://www.afdc.energy.gov/pev-readiness

Click on "CREATE ACCOUNT"



Completing the Plug-In Electric Vehicle Readiness Scorecard

Once you create your community's scorecard account, you can evaluate the level of readiness within the **Scorecard Topics**. Once you input your performance in each of the topic areas, you can view your community's **Results**. Results are shown along a color-coded spectrum. This part of the assessment also allows you to access examples and resources for the areas in which your community needs to improve. Many of the examples included the **Results** section of the PEV Readiness Scorecard are referenced in Section II of this workbook and also included in Section III. Section III also includes other resources to assist a community in becoming EV Ready. Finally, you can create a snapshot of your **Community Progress** to see where your community is now in its EV Readiness and track your progress and improvements.

Scorecard Topics

Through the scorecard, communities can assess their EV Readiness under six topic areas:

1. Electric Vehicle Supply Equipment (EVSE) Permitting and Inspection
2. Laws, Incentives, and Financing
3. Education and Outreach
4. Utility Involvement
5. Plug-In Vehicle Market Conditions
6. Long-Term Vehicle and Infrastructure Planning

1. Electric Vehicle Supply Equipment (EVSE) Permitting and Inspection

This section of the scorecard includes metrics related to permitting, installation, and inspection processes. The activities included in this part of the assessment are largely the responsibility of local governments. Specifically, the PEV Scorecard captures information on the following aspects related to permitting and inspection of EVSE:

- Application Process
- Information Access and Assistance
- Permit and Inspection Fees
- Installation Workforce Training

Stakeholder Roles

- **Local governments** are largely responsible for the activities assessed in this section of the PEV Scorecard.
- **EVSE manufacturers** and dealers and **EVSE/electrical contractors** may be able to influence the assessment of Installation Workforce Training in a community.

Questions in the assessment of Electric Vehicle Supply Equipment (EVSE) Permitting and Inspection include:

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) PERMITTING AND INSPECTION

Application Process: Paperwork and Process

- In your area, what is the average time it takes for an electric vehicle supply equipment (EVSE) owner or site manager to compelt the permitting, installation, and if applicable, inspection process?
- What are the options for submitting and EVSE permitting application?
- Indicate all the types of EVSE installation permit applications you have that are separate form general electical work permit applications.

Information Access and Assistance: Guidance and Assitance

- How is the information describing the permitting process made available?
- Is there an accesible, designated poing of contact for questions about the electric vehicle supply equipment (EVSE) permitting process?

Permit and Inspection Fees: Cost to Consumers/Fleets

- What is the average fee for a residential electric vehicle supply equipment (EVSE) permit and inspection in your area? If you area charges a separate fee for these two services, add the two together.
- What is the average fee for a commercial electrical vehicle supply equipment (EVSE) permit and inspection in your area? If your area charges a separate fee for these two services, add the two together.

Installation and Workforce Training

- Are there electric vehicle supply equipment (EVSE) installer training or certification programs available for electricians in your area?
- Have permitting inspectors in your area been trained on the specifics of EVSE installations?

2. Laws, Incentives, and Financing

The Laws, Incentives, and Financing section of the PEV Scorecard assesses a community's readiness in regards to both financial and non-monetary incentives for EVs and related infrastructure as well as policies which are favorable to EV use. It also addresses financing and purchase options available within a community. The scorecard captures the availability of the following:

- Laws and Incentives: Available Funds
- Financing: Loans or Credits

Stakeholer Roles

- **Local and state governments** are largely responsible for the activities assessed in this section of the PEV Scorecard.
- **EV manufacturers and dealers** as well as **EVSE manufacturers and dealers** may be able to offer financing or purchase options for EVs and EVSE.

Questions in the assessment of Laws, Incentives, and Financing include:

LAWS, INCENTIVES, AND FINANCING

Laws and Incentives: Available Funds

- Does your area offer a tax incentive, grant, or rebate to purchase highway-certified, plug-in electric vehicles?
- Does your area have a tax incentive, grant, or rebate for residential or public charging equipment?
- What low-cost or non-monetary incentives for plug-in electric vehicles does your area offer?
- Does your area have any existing policies that benefit plug-in electric vehicles an infrastructure use (for example, local fleet mandate to use electric vehicles, low carbon fuel standards, greenhouse gas emission regulations, planning/zoning requirements for new construction to include EVSE provisions, etc.)?
- Are there any future laws, policies, or incentives pending or planned that would affect the deployment of plug-in electric vehicles?

Financing: Loans or Credits

- Does your area have any attractive financing or special purchase options for plug-in electric vehicles or electric vehicle supply equipment (EVSE)?

3. Education and Outreach

This section of the PEV Scorecard titled Education and Outreach assesses a community's level of readiness in terms of educating the community about EVs and EVSE. The PEV Scorecard looks at the various means information is disseminated throughout the community.

Stakeholer Roles

- **Government, fleets, property and facility managers, utilities, EV manufacturers and dealers, EVSE manufacturers and dealers, and EVSE/electrical contractors** can all participate in education and outreach activities within their community.

Questions in the assessment of Education and Outreach include:

EDUCATION AND OUTREACH

Education and Outreach

- Does your area host a website for the general public that provides local information about plug-in electric vehicles and charging infrastructure?
- Does your area make use of Clean Cities educational resources for plug-in electric vehicles, such as the Alternative Fuels Data Center website, FuelEconomy.gov, or local coalition websites?
- Is your area connected with a national outreach program to encourage use of plug-in electric vehicles (such as Clean Cities, Project Get Ready, or National League of Cities)?
- Are educational efforts in your area coordinated at the regional or state level?

4. Utility Involvement

The Utility Involvement section of the PEV Scorecard assesses utility involvement in a community's EV Readiness, including the availability of special rate plans to encourage adoption of EVs. The PEV Scorecard also weighs whether or not the utility is an active participant in a community's efforts to become EV Ready.

Stakeholer Roles

- **Utility providers** are responsible for activities under this section of the PEV Scorecard. In socme communities, the utility may be a public-sector entity.

Questions in the assessment of Utility Involvement include:

UTILITY INVOLVEMENT

Electricity Rates and Programs: Rates and Programs

- Do utilities in your area have a program in place to address grid infrastructure requirements and operational impacts of charging for plug-in electric vehicles?
- Do utilities in your area offer a separate rate structure for plug-in electric vehicles?
- Do utilities in your area offer any tools to help the consumer understand the costs and benefits of plug-in electric vehicles under different rate structures?

Utility Planning and Implementation: Involvement and Attitude

- How engaged are the utility in local efforts to deploy plug-in electric vehicles and charging infrastructure (for example, participation in planning efforts, working with local jurisdictions to understand building permitting and codes, or working with public utility commissions on how to help with plug-in electric vehicle rollouts)?
- Have the utilities in your area analyzed the impacts of plug-in electric vehicles on the local grid or forecasted the location of potential plug-in electric vehicle concentrations?
- Have the utilities in your area developed a procedure for customers (directly or indirectly) to notify the utility before installing EVSE, so the utility can plan for additional demand?
- Have the utilities in your area deployed "smart grid" technologies (such as smart meters) to assist with development of future plug-in electric vehicle markets and capabilities?

5. Plug-In Vehicle Market Conditions

In this section of the PEV Scorecard, communities are able to create an inventory of the existing EV and EVSE market while also reporting projections for future deployment.

Stakeholer Roles

- It is recommended that a single entity within the community be responsible for colleting the inventory of EV **and EVSE, however the inventory itself is reflective of all the community's EV/EVSE acitivity. Government, fleets, property and facility managers, utilities, EV manufacturers and dealers, EVSE manufacturers and dealers, and EVSE/electrical contractors** can provide input into developing projections for future EV/EVSE deployment.

Questions in the assessment of Plug-In Vehicle Market Conditions include:

Plug-In Vehicle Market Conditions

Plug-In Vehicle, EVSE, and Service Availability: Product Availability

- How many models of plug-in electric vehicles do you expect to be available for purchase of lease in your area during the next one to two years?
- How many dealerships in your area are currently selling plug-in electric vehicles?
- Approximately how many public electric vehicle supply equipment (EVSE) charging points ('ports" or "outlets," not just "stations") are currently in service in your area?
- Approximately what percentage of plug-in electric vehicle buyers are installing residential level 2 (240 V) EVSE in your local jurisdiction?
- How many public electric vehicle supply equipment (EVSE) charging points ("ports" or "outlets," not just "stations") do you anticipate will be constructed in your area during the next one to two years?
- How many workplace EVSE charging points ("ports" or "outlets," not just "stations") do you anticipate will be constructed in your area during the next one to two years?

Plug-In Vehicle Projections: Vehicle Technology Acceptance and Market Indicators

- Approximately how many plug-in electric vehicles do government fleets (federal, state, and local) in your area use?
- Approximately how many plug-in electric vehicles do private fleets (including utility fleets) in your area use?
- Approximately how many plug-in electric vehicles do government fleets (federal, state, and local) in your area plan to add in the next one to two years?
- Approximately how many plug-in electric vehicles doe private fleets (including utility fleets) in your area plan to add in the next one to two years?

6. Long-Term Vehicle and Infrastructure Planning

The final section of the PEV Scorecard helps communities determine its readiness in terms of long-term deployment of vehicle and infrastructure planning.

Stakeholer Roles

- As with the assessment related to a community's Plug-In Market Conditions, it is recommended that a single entity be responsible leading the efforts related to long-term planning. It will be important for g**overnment, fleets, property and facility managers, utilities, EV manufacturers and dealers, EVSE manufacturers and dealers, and EVSE/electrical contractors** to participate in these planning efforts.

Questions in the assessment of Long-Term Vehicle and Infrastructure Planning include:

Long-Term Vehicle and Infrastructure Planning

Planning and Collaboration: Strategy and Oversight

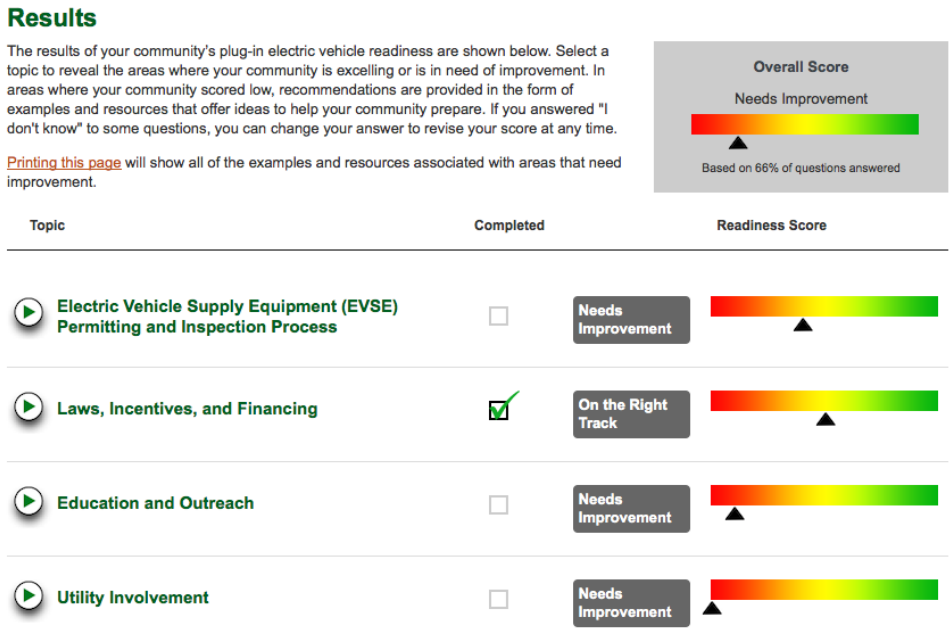
- Does your area have (or is it in the process of creating) a comprehensive plan for plug-in electric vehicle infrastructure deployment?
- Has your area created a collaborative group of local stakeholders to help align diverse plug-in electric vehicle interests and plan for deployment?
- Has an elected leader in your area (mayor, governor, etc.) appointed a single agency or person to oversee the development and implementation of a plug-in electric vehicle deployment plan?
- How many public electric vehicle supply equipment (EVSE) charging points ("ports" or "outlets," not just "stations") do you anticipate will be constructed in your area during the next one to two years?

Market Potential and Analysis: EVSE Placement

- Has someone in your area performed an analysis to select the best locations for initial public electric vehicle supply equipment (EVSE)?
- Has your area selected a comprehensive set of signage to designate and direct drivers to electric vehicle supply equipment?

Results

As you respond to questions in each topic area of the PEV Scorecard, you can track your community's progress. The **Results** section of the scorecard will give you an overall score of your readiness and tell you the percentage of scorecard questions that you have answered. In addition, the **Results** section will indicate if you have completed the topic area and will provide you with a readiness score by each topic area based on your responses. Your readiness scores will be depicted on a color-coded spectrum as shown below.



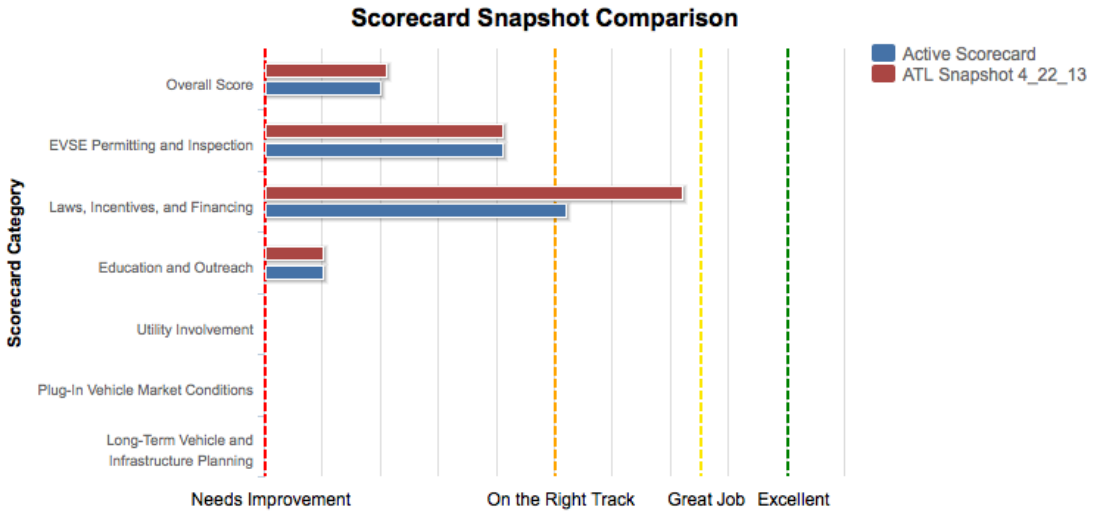
Your score will be along a range that includes:

- Needs Improvement
- On the Right Track
- Great Job
- Excellent

You have the option of printing your results. If you decide to print the **Results** page, you will create a document that shows examples and resources in each of the topic areas in which your community needs improvement. Many of the resources and examples are included throughout this workbook and include a reference to the PEV Scorecard. For topic areas in which your community is performing well, you will receive a "thumbs-up" with a "Well Done."

Community Progress

The PEV Scorecard allows you to continually track your community's progress by creating Snapshots of your scorecard under the **Community Progress** section. You can save your community's snapshots so that you can monitor your readiness progress. In tracking your progress, you'll receive a Scorecard Snapshot Comparison that graphically depicts your progress based on your current scorecard as well as show your progress against previously saved snapshots. You will also have the option to view, print, or download your Snapshot. The document provides you with your responses to each question on the PEV Scorecard. Finally, you have the option to delete any Snapshots you decide you do not want to save.



Next Steps

As you monitor your progress, you are strongly encouraged to stay in contact with your Clean Cities Coalition. **The Clean Cities Coalition can provide valuable assistance and access to resources to help a community improve its EV Readiness. Contacts for the Clean Cities are included below.**

Alabama Clean Fuels Coalition	http://www.alabamacleanfuels.org/
Clean Cities Atlanta	http://www.cleancitiesatlanta.net/
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