

SOUTHEAST REGIONAL EV READINESS WORKBOOK

SECTION 3



U.S. DEPARTMENT OF
ENERGY



June 2013
2nd Edition

Southeast Regional EV Readiness Workbook

Section III

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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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Section III

Section III of the Southeast Regional EV Readiness Workbook provides documents for use by communities to develop their own EV Readiness plans. The following table provides a list of documents included as references in the *Southeast Regional EV Readiness Workbook*. The documents are organized into guideline templates, sample forms/documents, case studies and incentives. The documents provided can be copied and modified to develop customized EV Readiness deliverables for your community.

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Section 3.1.1 – On-Street Charging Equipment Installation Considerations

There are a number of steps to consider when installing on-street charging equipment. There are also different scenarios under which on-street charging equipment might be installed. The following list describes some of the steps, activities, and scenarios that you may need to follow in order to complete on-street installation. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations. You should also consult an electrical contractor.

1. Municipally owned EVSE:
 - a. Determine the appropriate technology for the use
 - i. See Section 3.1.4 for Choosing Appropriate Charging Station Level
 - b. Determine best charger structure for use:
 - i. Conductive: Pedestals and Wall Mounts
 - ii. Inductive: Wireless Charging Stations
 - c. Procure electric vehicle charging station (A sample RFP is included in Section 3.2.7 if a bidding process is required)
 - d. Make sure your charger has been certified for EV use. The equipment will be marked by a Nationally Recognized Testing Laboratory (i.e. UL and/or ETL)
2. 3rd-Party Operated Systems:
 - a. An RFP for a management company ought to be issued
 - b. Managing company is responsible for:
 - i. Usage monitoring
 - ii. Rate collection
 - iii. Maintenance and upgrades of the equipment
 - iv. Identification of appropriate software for data collection (*if data collection is necessary for your charging equipment*)
3. Installation Site
 - a. Determine if street is city owned or state owned. This will determine which entity will grant you an encroachment agreement, if needed
 - b. Locations in certain zoning categories will require approval and additional requirements; check with the appropriate contact in your community
 - c. Location Considerations (see Section 3.1.1 for On Street EVSE Location Selection):
 - i. Proximity to power source
 - ii. Visibility
 - iii. Equipment protection
 - iv. User Accessibility
 - v. Existing Landscape
 - vi. Water Patterns



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4. Determine proper signage and space use
 - a. Information that should be displayed on each EVSE device and be easily visible in all conditions:
 - i. A contact number for customer support
 - ii. A unit identification number that can be easily located and read
 - iii. Fees and terms of use
 - b. Signs to be installed adjacent to the device (Refer to Section 3.1.12 for Signage Guide):
 - c. Proposed signage information requirements are included in Section 3.2.5
 - d. Proposed EV parking enforcement in Section 3.2.4
5. Public Accessibility Determinations
 - a. Metered space
 - b. Non-metered space
6. Privately or commercially owned EVSE installed in the public right-of-way
 - a. Obtain approval from [\[Insert appropriate contact for your community\]](#)
 - b. Obtain a Qualified Contractors Permit
 - c. Obtain a Lane/Sidewalk Closure Permit if the installation will require blocking the sidewalk
 - d. Right of way easements (See Section 3.2.6 for Proposed Sample Encroachment Agreement)
7. Complete electrical permitting guide (See Section 3.1.9 for Permitting Process for EVSE in a Commercial Location)
 - a. Contact contractor (unless using Level 1 and do not need to re-route)
 - b. Contact Utility Planner (if upgrade needed)
 - c. Contractor presents to the customer Statement of Work with cost estimate
 - d. Upon customer approval, contractor submits Statement of Work and electrical permit application form
 - e. Permit approved/denied
8. Installation
 - a. See Section 3.1.5 for Installation Considerations
9. Follow applicable codes and regulations for your jurisdiction

Section 3.1.2 – Off-Street Charging Equipment Installation Considerations

There are a number of steps to consider when installing off-street charging equipment. There are also different scenarios under which off-street charging equipment might be installed. The following list describes some of the steps, activities, and scenarios that you may need to follow in order to complete off-street installation. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations. You should also consult an electrical contractor.

1. Commercial and Multi-Family Lot Owners Only: Obtain permission from your property owner, homeowner's association, or parent company prior to installation.
2. Procure electric vehicle charging station (EVSE)
 - a. Send out a request for proposals (RFP) for equipment specifying requirements, if necessary (see Section 3.2.7 for a sample RFP)
 - b. Make sure your equipment has been certified for EV use. The equipment will be marked by a Nationally Recognized Testing Laboratory (i.e. UL and/or ETL) Determine best charger structure for use:
 - i. Conductive: Pedestals & Wall mounts
 - ii. Inductive: Wireless Charging Stations
 - c. Determine the appropriate technology for the use
 - i. See Section 3.1.4 for Choosing Appropriate Charging Station Level
3. If municipality owns but does not operate the equipment, an RFP for a management company ought to be issued (or included in the RFP for the charging station).
 - a. Managing company is responsible for:
 - i. Usage monitoring
 - ii. Rate collection
 - iii. Maintenance of the equipment
 - iv. Any other items dictated in the contract agreement.
4. Installation Site
 - a. Locations in special planning zones need approval from [\[Insert appropriate contact for your community\]](#)
 - b. Considerations (see Section 3.1.7 for Off Street EVSE Location Selection)
 - i. Proximity to power source
 - ii. Visibility
 - iii. Equipment protection
 - iv. ADA Accessibility
 - v. User Accessibility
 - vi. Existing Landscape
 - vii. Water Patterns
5. Determine proper signage and space use
 - a. Information that should be displayed on each EVSE device and be easily visible in all conditions:
 - i. A contact number for customer support



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- ii. A unit identification number that can be easily located and read
 - iii. Fees and terms of use
- b. Signs to be installed adjacent to the device (Refer to Section 3.1.12 for Signage Guide):
- c. Proposed signage information requirements are included in Section 3.2.5
- d. Proposed EV parking enforcement in Section 3.2.4
- 6. Public Parking
 - a. Metered space
 - b. Non-metered space
- 7. Complete sample electrical permitting guide (See Section 3.1.9 for EVSE Permitting Process in a Commercial Location or Section 3.1.10 for EVSE Permitting Process in a Multi-Family Location).
 - a. Contact contractor (unless using Level 1 and do not need to re-route)
 - b. Contact Utility Planner (if upgrade needed)
 - c. Contractor presents to the customer Statement of Work with cost estimate
 - d. Upon customer approval, contractor submits Statement of Work and electrical permit application form
 - e. Permit approved/denied
- 8. For commercially and privately owned EVSE that is installed on public property, complete appropriate easement request
- 9. Installation
 - a. See Section 3.1.5 for Installation Considerations
- 10. Follow applicable codes and regulations for your jurisdiction

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Section 3.1.3 – Residential Charging Equipment Installation Considerations

There are a number of steps to consider when installing residential charging equipment. There are also different scenarios under which residential charging equipment might be installed. The following list describes some of the steps, activities, and scenarios that you may need to follow in order to complete on-street installation. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations. You should also consult an electrical contractor.

1. If residence is regulated by a homeowner's association (HOA) or exists in a special zoning district, identify requirements set forth by the appropriate entity
 - a. If location is in a Special Planning district, obtain design approval through the [\[Insert appropriate contact for your community\]](#)
 - b. A proposed ordinance defines permitted locations
 - i. See Section 3.2.5 for Proposed Model Zoning Code Update Ordinance
2. Purchase electric vehicle charging station (EVSE)
 - a. Determine the appropriate technology for the use
 - i. See Section 3.1.4 for Choosing Appropriate Charging Station Level
 - b. Determine best structure for technology
 - i. Conductive: Pedestal or Wall Mount
 - ii. Inductive: Wireless Charging
 - b. Make sure your charger has been certified for EV use. The equipment will be marked by a Nationally Recognized Testing Laboratory (i.e. UL and/or ETL)
3. Installation Site (see Section 3.1.8 for Residential EVSE Location Selection)
 - a. Indoors: inside of an enclosed garage. The charging equipment is inside and the charging occurs inside of the garage where the device is not exposed to the environment
 - b. Outdoors: outside of any environmental protection, carports, and situations where the EVSE is inside a conditioned space (i.e. a garage) but charging occurs outside
 - c. Considerations:
 - i. Location (indoor/outdoor)
 - ii. Placement
 - iii. Distance from electricity source
 - iv. Visibility
 - v. Existing landscape
 - vi. Flood zones
4. Complete electrical permitting guide (See Section 3.1.11 for EVSE Permitting Process in a Single Family Residence)
 - a. Contact contractor (unless using Level 1 or do not need to re-route electrical wires)
 - b. Contact Utility Planner (if upgrade needed)
 - c. Contractor presents to the customer a Statement of Work with cost estimate
 - d. Upon customer approval, contractor submits Statement of Work and electrical permit application form



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- e. Permit approved/denied
- 5. Complete easements request
 - a. Contact: [\[Insert appropriate contact for your community\]](#)
 - i. If installation requires access to, or construction through the public right-of-way, complete right of way easement request

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Section 3.1.4 – Choosing Appropriate Charging Station Level

Charger Type	Feature	Best Use
 <p>AC Level 1</p>	<ul style="list-style-type: none"> > 120V, 16A (dedicated circuit). Designed for the standard American home. > Typically uses the standard three-prong plug (NEMA 5-15/20P) > Takes 8-22 hours to charge a full battery (battery-size dependent) > Simple and easy accessibility and installation > Uses a SAE J1772 plug for the vehicle 	<ul style="list-style-type: none"> > Residential Applications > Long Term Parking > Workplace Applications
 <p>AC Level 2*</p>	<ul style="list-style-type: none"> > 208/240 VAC, up to 80 A, but typically at around 40 A – 60A > Takes 2-4 hours for full charge > Uses SAE J1772 > Safety requirements described in the National Electric Code 625, 2008 and beyond 	<ul style="list-style-type: none"> > Residential Applications > Workplace Applications > Commercial Applications > On Street Parking
 <p>DC Fast Charge*</p>	<ul style="list-style-type: none"> > 480VOC, 100+ A > 80% charge in 30 minutes > Existing equipment uses CHAdEMO Connectors 	<ul style="list-style-type: none"> > Retail Applications > Commercial Applications > On Street Parking
 <p>Wireless/Inductive Charger*</p>	<ul style="list-style-type: none"> > 208/240V electrical outlet to your vehicle's existing on-board battery charger. > Charging time depends on the battery capabilities of the vehicle. 	<ul style="list-style-type: none"> > Home > Parking garages > Fleet Parking

*require electrical contractor for installation

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Section 3.1.5 – Installation Considerations^{1,2}

The following installation considerations are provided as examples. Codes and regulations vary greatly by jurisdiction. It will be important for you to consult with your jurisdiction to determine the appropriate installation requirements.

On-Street Placement and Clearance

- Intersections: Signs may be no closer than:
 - 20' from the closest edge of a cross walk or
 - 30' from the corner of an intersection if no cross walk exists
- Fire Hydrant: Signs may be placed 15' from either side of a fire hydrant
- Driveway/Curb: Signs may be placed 10' from a driveway/curb cut
- ADA: signs shall not be placed within 48" of another pole, parking meter, or EVSE
- EVSE will typically be located 12" from the outside edge of the curb with a tire bumper; the center of the EVSE shall be placed 36" from a curb without a tire bumper

I. Residential Placement and Clearance

- Outlets ought to be installed no less than 4' from the surface to avoid vehicle damage that would expose dangerous wiring

II. Electricity

- It is strongly suggested that a licensed electrician perform EVSE installations
- Refer to sample Single Family Residence – EV Permitting Guide (Section 3.1.11), Multi-Family Residence – EV Permitting Guide (Section 3.1.10), and Commercial (non-residential) Area – EV Permitting Guide (Section 3.1.9)
 - ❖ Single phase device: The figures below are the most common service transformer secondary wiring formats in the United States. One wire (the Neutral) must be earth grounded in order to ensure ground-fault protection. If no ground is provided by the electrical service, a grounding stake must be driven into the ground nearby in accordance with local electrical codes. The grounding stake must be connected to the ground bar in the main breaker panel, and the Neutral Connected to the ground at that point.
- Possible Existing Electricity Sources that could supply EVSE with power
 - Street lights
 - Traffic lights
 - Electric parking meters
 - Electric box

III. ADA Compliance: Reach Range and Operable Parts

- See [2010 ADA Standards for Accessible Design](#)

¹ Note: Always follow installation instructions provided by the equipment manufacturer.

² All installations shall adhere to local codes. *Example:* the City of Atlanta adheres to the National Electric Code.

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IV. Installing Wall-Mounted EVSE (see Figure 1 for a typical installation)

Location

- A minimum height of 18" from the bottom of the EVSE to the ground is suggested
- For ADA standards, see item IV of the appendix or summary of relevant 2010 ADA Standards

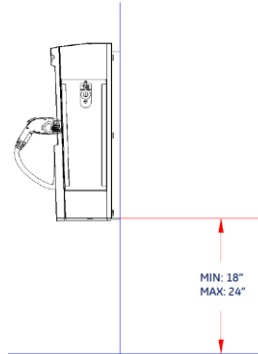


Figure 1. Side View of a Wall-Mounted EV Charging Station

- *Hollow-Wall Mounting*
 - Locate the device such that no fewer than 2 mounting holes take advantage of solid structural frames inside of the wall
 - Holes which do not engage support structures must use proper anchoring hardware such as drywall toggles or molly bolts.
- *Solid-Wall Mounting*
 - Pre-drills hole that are sized for the hardware required
 - Use multi-set or wedge anchor hardware for all points
 - Sleeve anchors ought to be used in brick or stone walls

V. Installing Pole-Mounted EVSE (see Figure 2 for a typical installation)

Location

- A minimum height of 18" from the bottom of the EVSE to the ground is suggested
- A high tension-banding tool is required for this type of installation
- Charging anchor shall be no more than 36" from the ground (See 2010 ADA Standards)



Figure 2. Pole-Mounted EV Charging Station

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VI. Installing a Pedestal (see Figure 3 for a typical installation)

- Standard mount is 2'x2'x2'. Subcontractors will apply for easements if there are obstacles (i.e. underground subway, other electrical conduit)

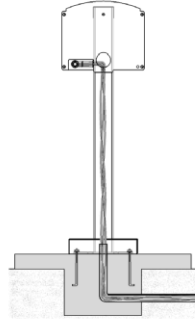


Figure 3. Cross Section of an Installed Pedestal

- The pedestal can be located in between two spaces, if electrical availability allows, to access two spaces
 - The center of the pedestal shall be installed 36" from the edge of the curb or 12" from the curb if a tire stop exists (for pull-in spaces only). See Figure 4

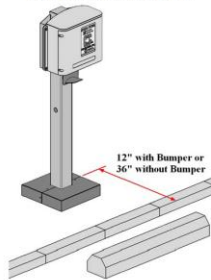


Figure 4. Suggested Distance from Curb³

VII. Installing Wireless Charging Pads (See Figure 5 for a typical installation)

- It is suggested to place charging pads in the center of the width of the parking space and 3' from the front of the space. Avoid forcing drivers to back into spaces
- Designed to be embedded into the road and flush
- Will withstand snowplows and other maintenance vehicles
- Consult manufacturer's installation guide for specific installation

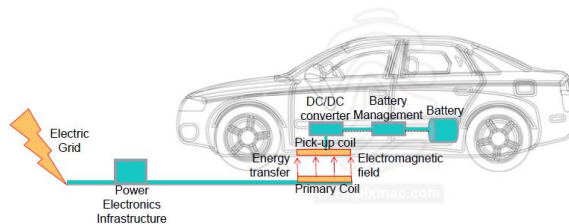


Figure 5. Installation of a wireless charging pad

³ Clipper Creek. 2011. Standard EVSE Pedestal Installation Guide v1 1 (2)

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Section 3.1.6 – On-Street EVSE Location Selection Considerations⁴

The following list describes some of the steps, activities, and scenarios that you may need to follow in order to complete on-street EVSE location selection. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations. You should also consult an electrical contractor.

Power Accessibility

- Distance from power source determines cost of installation
 - As the distance from a power source increases, so does the cost of installation due to the cost of excavation and/or piping of electric lines
- When to install a new meter:
 - When pulling power from a source that is not already metered
 - New service shall be established with *the local utility company*
- If planning new electrical service, your electrical contractor must coordinate with the [\[Insert appropriate contact for your community\]](#)
- Identify if remote communication with the EVSE is required



Visibility

- Location ought to be easily located from the road
- Provide adequate lighting – this reduces tripping, EV/EVSE damage, and safety concerns
- See Section 3.1.12 for signage guide

Protection of EV and EVSE

- It is suggested that concrete bollards be installed to protect cords, reduce tripping hazard, and protect equipment
- Bollards:
 - Should not block access to the EVSE
 - Should not hinder path to the vehicle's charging block
 - Should impede pedestrian flow to prevent tripping and maintain ADA compliance
 - If the equipment is built to the strength of a bollard, less expensive structures may be used to block pedestrian traffic across the path of the cord

ADA for On Street EVSE installation

- See 2010 ADA Standards for Accessible Design for ADA Compliance: Reach Range and Operable Parts

⁴ See Section 3.2.2 Installation Considerations for sample measurement specifications

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User Accessibility

- Conductive⁵: Locate the charger in between two parking spaces to maximize chargers' usability
- Conductive chargers should not obstruct minimum pedestrian clearance widths as defined by your jurisdictions code
- All conductive chargers must have a cord management device to prevent cords from lying on the ground
- Cord management may include retractable cords, coiling cords, springy cords, and hanging devices



- Inductive (wireless): Place the wireless charger such that it correlates with the location of the receiver plate on the vehicle. (See Installation Considerations in Section 3.1.5)

Flood Zones

- Identify flood zones
- The Code of Federal Regulations, *Title 44 Emergency Management and Assistance, Part 60 Criteria for Land Management and Use* states: "If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall be:
 - Designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy
 - Constructed with materials resistant to flood damage
 - Constructed by methods and practices that minimize flood damages
 - Constructed with electrical heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding
- Methods of protection for pedestals include "Wet flood proofing" (elevation of the equipment), "Component Protection" (waterproofing techniques), and "Dry flood proofing" (combination of wet flood proofing and component protection)
- Ensure no water puddles where drivers will stand

⁵ Includes chargers that plug in to the vehicle

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Section 3.1.7 – Off-Street EVSE Location Selection Considerations: Parking lots and decks

The following list describes some of the steps, activities, and scenarios that you may need to follow in order to complete off-street EVSE location selection. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations. You should also consult an electrical contractor.

Power Accessibility

- ❖ Distance from power source determines cost of installation
 - As the distance from a power source increases, the cost of installation also increases due to the cost of excavation and/or piping of electric lines
- ❖ Electric wires can be run through conduit (generally less expensive) or under the concrete (generally more expensive).
- ❖ Example: City of Raleigh connected their charging stations to streetlights.

Visibility

- Location should be easily visible from the road
- Provide adequate lighting – this reduces tripping, EV/EVSE damage, and safety concerns
- See Section 3.1.12 for signage guide



Protection of EV and EVSE

- ❖ It is suggested that concrete bollards be installed to protect cords, reduce tripping hazard, and protect equipment
- ❖ Bollards:
 - Should not block access to the charging equipment
 - Should not hinder path to the vehicle's charging block
 - Should impede pedestrian flow to prevent tripping and maintain ADA compliance
 - If the equipment is built to the strength of a bollard, less expensive structures may be used to block pedestrian traffic across the path of the cord

ADA Accessibility

- See 2010 ADA Standards for Accessible Design for ADA Compliance: Reach Range and Operable Parts

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User Accessibility

- Non-Wireless: Locate the charger in between two parking spaces to maximize chargers' usability
- Non-Wireless chargers should not obstruct minimum pedestrian clearance widths as defined by your municipality
- Wireless: Place the wireless charger such that it correlates with the location of the receiver plate on the vehicle.
- Pull in spaces only: Consider locating the charging station to maximize user accessibility
 - Example: hang the charger from the ceiling so the charger can reach charging portals on all vehicles
 - Example: place the EVSE in between spaces so that cords can easily reach to the rear of a vehicle
- ❖ It is suggested to minimize impact on existing infrastructure and environment when deciding the location
- ❖ All conductive chargers must have a cord management device to prevent cords from lying on the ground
 - Cord management may include retractable cords, coiling cords, springy cords, and hanging devices



Flood Zones

- ❖ Identify flood zones
- ❖ The Code of Federal Regulations, *Title 44 Emergency Management and Assistance, Part 60 Criteria for Land Management and Use* states: "If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall be:
 - Designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy
 - Constructed with materials resistant to flood damage
 - Constructed by methods and practices that minimize flood damages
 - Constructed with electrical heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding

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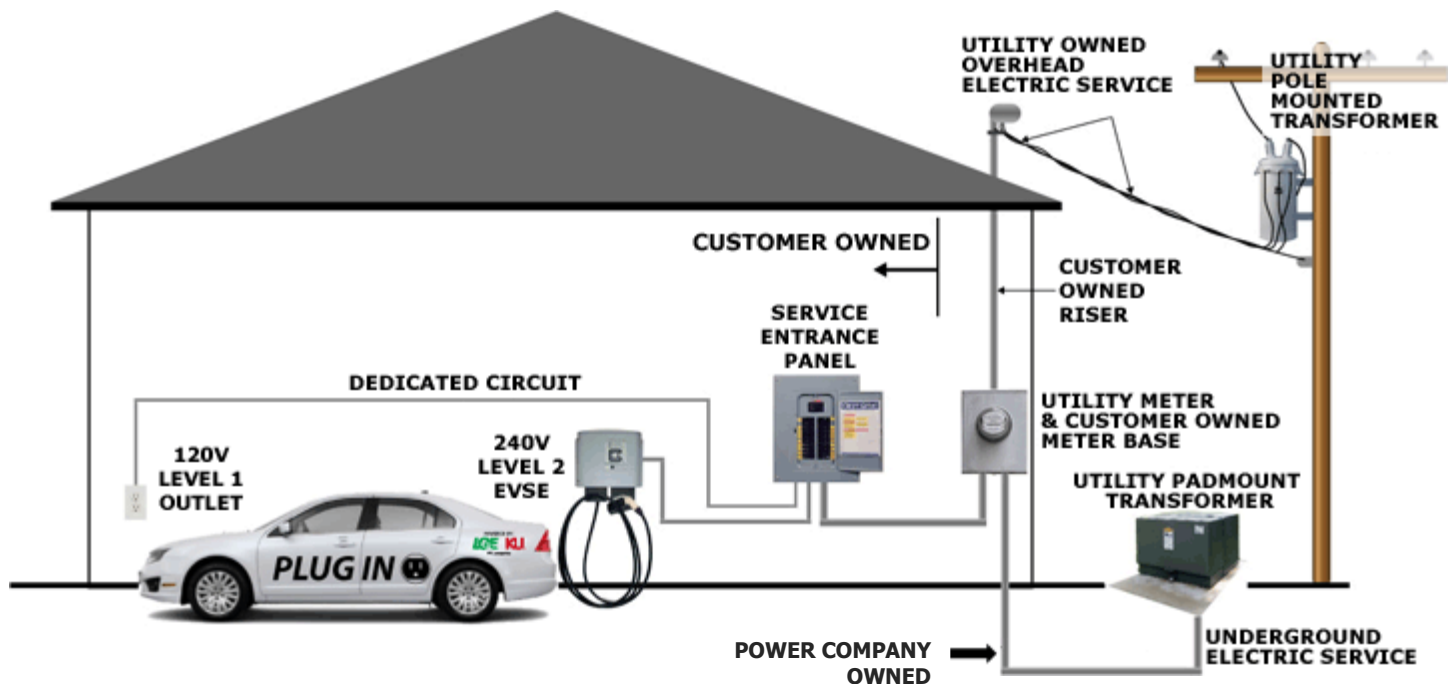
- ❖ Methods of protection for pedestals include "Wet flood proofing" (elevation of the equipment), "Component Protection" (waterproofing techniques), and "Dry flood proofing" (combination of wet flood proofing and component protection)
- ❖ Ensure no puddling occurs where wireless chargers are installed

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Section 3.1.8 – Residential EVSE Location Selection Considerations

The following list describes some of the steps, activities, and scenarios that you may need to follow in order to complete residential EVSE location selection. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations. You should also consult an electrical contractor.



Indoor or Outdoor Charging

- Garage/carport installations are generally wall-mounted installations
- Outdoor installations can be on pedestals. EVSE should be protected from damage due to temperature extremes by keeping the cord from freezing to the ground or submersion in water

Placement

- EVSE shall be placed in a location that does not impede driver's ability to park
- Location of the charging port on the vehicle should be taken into consideration
- EVSE shall be placed in a clutter-free location
- Wall-mounted EVSE shall be installed to meet jurisdictional requirements
- Place charger such that changes to the immediate environment are minimized

Power Accessibility

- Level 2 installations or greater requires hiring an electrician
- Place the EVSE as close to the utility panel and/or outlet as possible
 - As the distance from the power source increases, the cost of installation increases due to the cost of excavation and/or piping of electric lines
- Identify communication availability from the exact location of the EVSE
- When to install a new meter:

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- When pulling power from a source that is not already metered
- New service shall be established with the local utility company
- Installation of a new meter is an uncommon scenario in residential installations

Visibility

- ❖ Location ought to be well lit to reduce tripping hazard, EV/EVSE damage, and entanglement with other garage accessories

Flood Zones

- Identify flood zones in your area
- The Code of Federal Regulations, *Title 44 Emergency Management and Assistance, Part 60 Criteria for Land Management and Use* states: "If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall be:
 - Designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy,
 - Constructed with materials resistant to flood damage
 - Constructed by methods and practices that minimize flood damages
 - Constructed with electrical heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding
- Methods of protection for pedestals include "Wet flood proofing" (elevation of the equipment), "Component Protection" (waterproofing techniques), and "Dry flood proofing" (combination of wet flood proofing and component protection)
- Ensure no water puddles where drivers will stand

Section 3.1.9 – Permitting Process for Charging Equipment in a Commercial Location

Commercial charging equipment permitting occurs when a property owner in a non-residential area wants to install charging equipment in the parking area of their property. Plug-in electric vehicles (PEVs) with internal charging units that plug into existing 120 volt receptacles do not require modification to your electrical system; this is called Level 1 EV charging.

Charging equipment that must be wired directly to the electrical system is considered Level 2 charging and above; these installations will require a permit. Level 2 charging equipment is designed to accommodate destination-charging scenarios.

More information about EV charging can be found at the U.S. Department of Energy's Alternative Fuel Data Center. Visit: http://www.afdc.energy.gov/fuels/electricity_infrastructure.html

It is important to note that permitting processes will vary by jurisdiction. Please consult the appropriate officials to determine the specific requirements for your jurisdiction.

Steps for Permitting Commercial EVSE

- Property owner selects a licensed electrical contractor to assess charging equipment installation site
- Property owner fills out the appropriate jurisdictional forms with their electrical contractor
- The contractor will submit the completed application; fees are due to the **[INSERT CONTACT]** at this time
- Permit is issued
- Electrical contractor installs charging equipment
- ❖ Property inspection conducted by **[INSERT CONTACT]**
 - Failed inspections, the **[INSERT CONTACT]** will likely grant additional inspections
 - A charge may be applied for every re-inspection
- ❖ Note: newly installed Level 2 charging equipment may be added to the Department of Energy's Alternative Fuels and Advanced Vehicles Data Center by completing the [Fueling Station Submission Form](#).

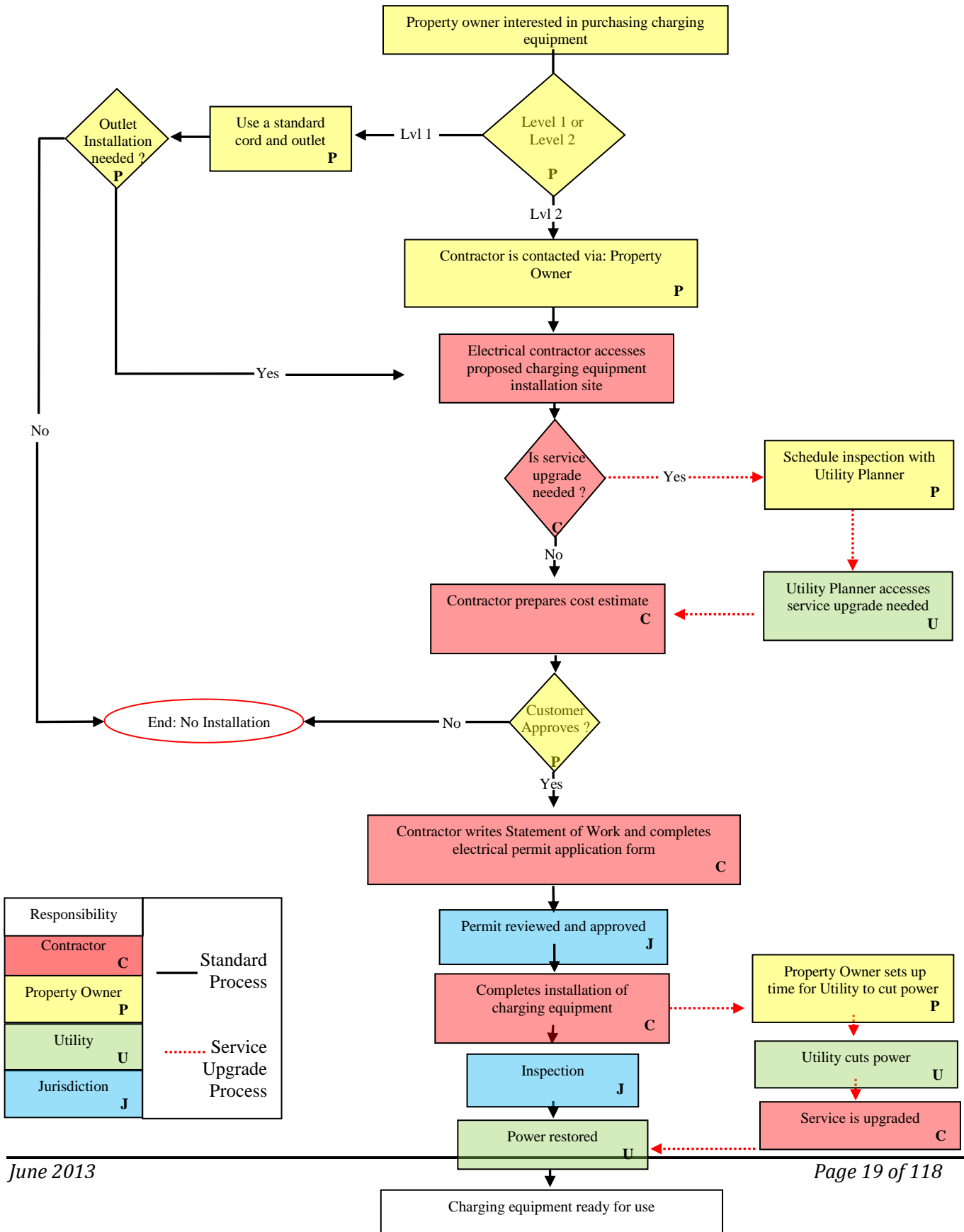
Key Considerations for Property Owners Installing Level 2 Charging Equipment

- ❖ Know Level 2 charging equipment guidelines
 - Charging equipment varies by manufacturer. Consult the manufacturer's guidelines and jurisdictional requirements for proper installation
- ❖ Prepare property to meet charging equipment requirements
 - As you plan to install Level 2 charging equipment, coordinate with licensed electric contractors and charging equipment providers to avoid miscommunication and avoid delay

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Sample Permitting Process for Commercial Installation of Charging Equipment:



Section 3.1.10 – Permitting Process for EVSE for a Multi-Family Residence

Multi-family Residence charging equipment permitting occurs when a tenant and/or of an apartment or condominium wants charging equipment installed in the parking area they rent from. EVs with internal charging units that plug into existing 120 volt receptacles do not require modification to your electrical system; this is called Level 1 EV charging.

Charging equipment that must be wired directly to the electrical system is considered Level 2 charging and above; these installations will require a permit. Level 2 charging equipment is designed to accommodate destination-charging scenarios.

More information about EV charging can be found at the U.S. Department of Energy's Alternative Fuel Data Center. Visit: http://www.afdc.energy.gov/fuels/electricity_infrastructure.html

It is important to note that permitting processes will vary by jurisdiction. Please consult the appropriate officials to determine the specific requirements for your jurisdiction.

Steps for Permitting Multi-Family EVSE

- Tenant must identify their charging equipment requirements and communicate these to the property owner
- Property owner selects a licensed electrical contractor to assess EVSE installation site
- Then fills out an Electrical Permit Form with their electrical contractor
- Afterwards the contractor will submit the completed application; fees are due to the [INSERT CONTACT] at this time
- Permit is issued
- Electrical contractor installs EVSE
- Property inspection conducted by [INSERT CONTACT]
 - Cost of the initial inspection may be included with the permit fee
 - If the initial inspection fails there may be a cost for the follow up inspection(s)

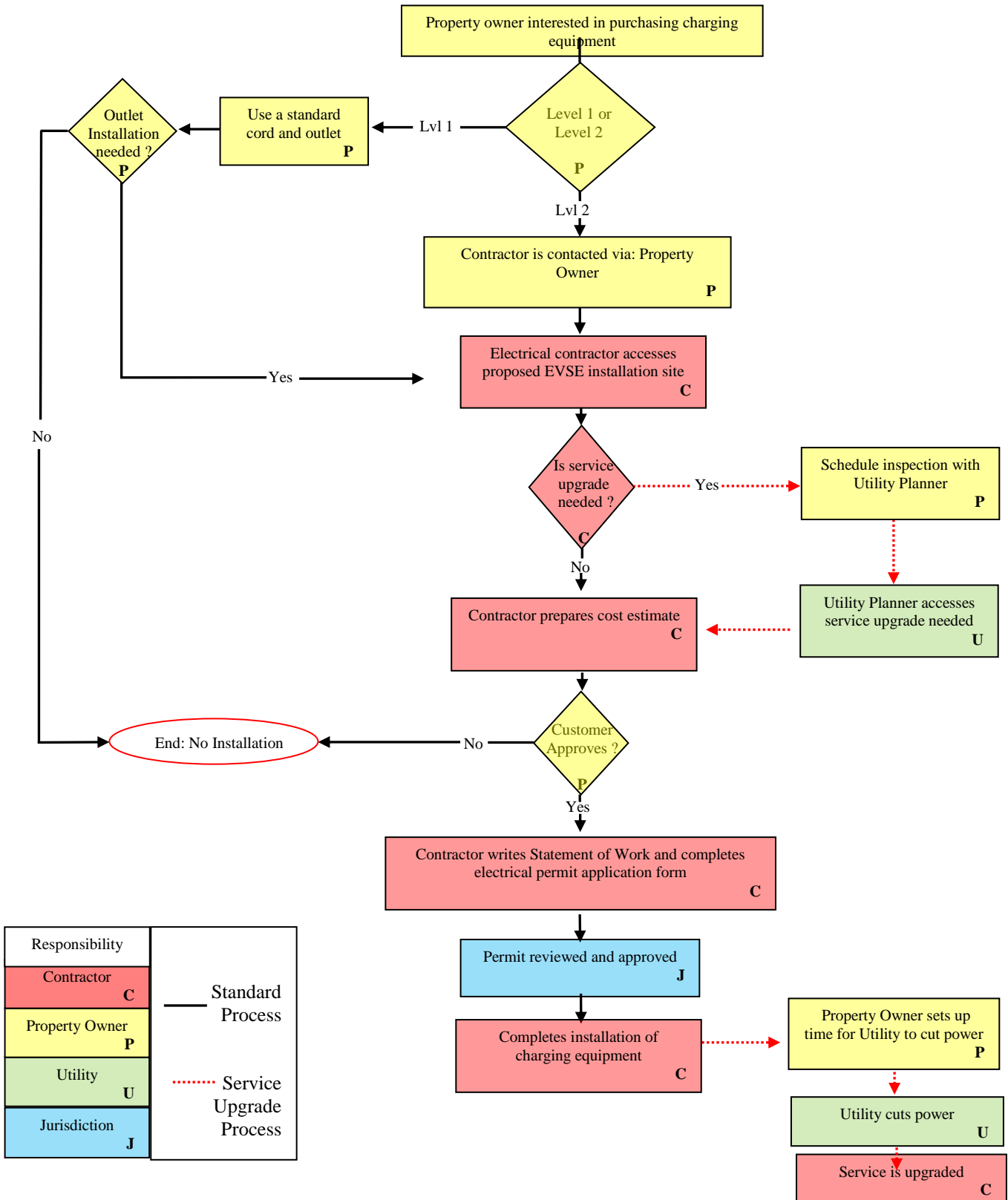
Key Considerations for Property Owners Installing Level 2 Charging Equipment

- Know Level 2 charging equipment guidelines
 - Charging equipment varies by manufacturer. Consult the manufacturer's guidelines and jurisdictional requirements for proper installation
- Prepare property to meet charging equipment requirements
 - As you plan to install Level 2 charging equipment, coordinate with licensed electric contractors and charging equipment providers to avoid miscommunication and avoid delay

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Sample Permitting Process for Multi-Family Residence to Install Charging Equipment:



Section 3.1.11- Permitting Process for EVSE in a Single-Family Residence

Single-family residence EVSE permitting occurs when a homeowner wants EVSE installed on their property. EVs with internal charging units that plug into existing 120-volt receptacles do not require modification to your electrical system; this is called Level 1 EV charging.

EVSE that must be wired directly to the electrical system is considered Level 2 and above; these installations will require a permit. Although faster than Level 1 PEV charging, Level 2 charging is best utilized in destination-charging scenarios from 4-6 hours.

More information about EV charging can be found at the U.S. Department of Energy's Alternative Fuel Data Center. Visit: http://www.afdc.energy.gov/fuels/electricity_infrastructure.html

It is important to note that permitting processes will vary by jurisdiction. Please consult the appropriate officials to determine the specific requirements for your jurisdiction.

Steps for Permitting Single-Family EVSE

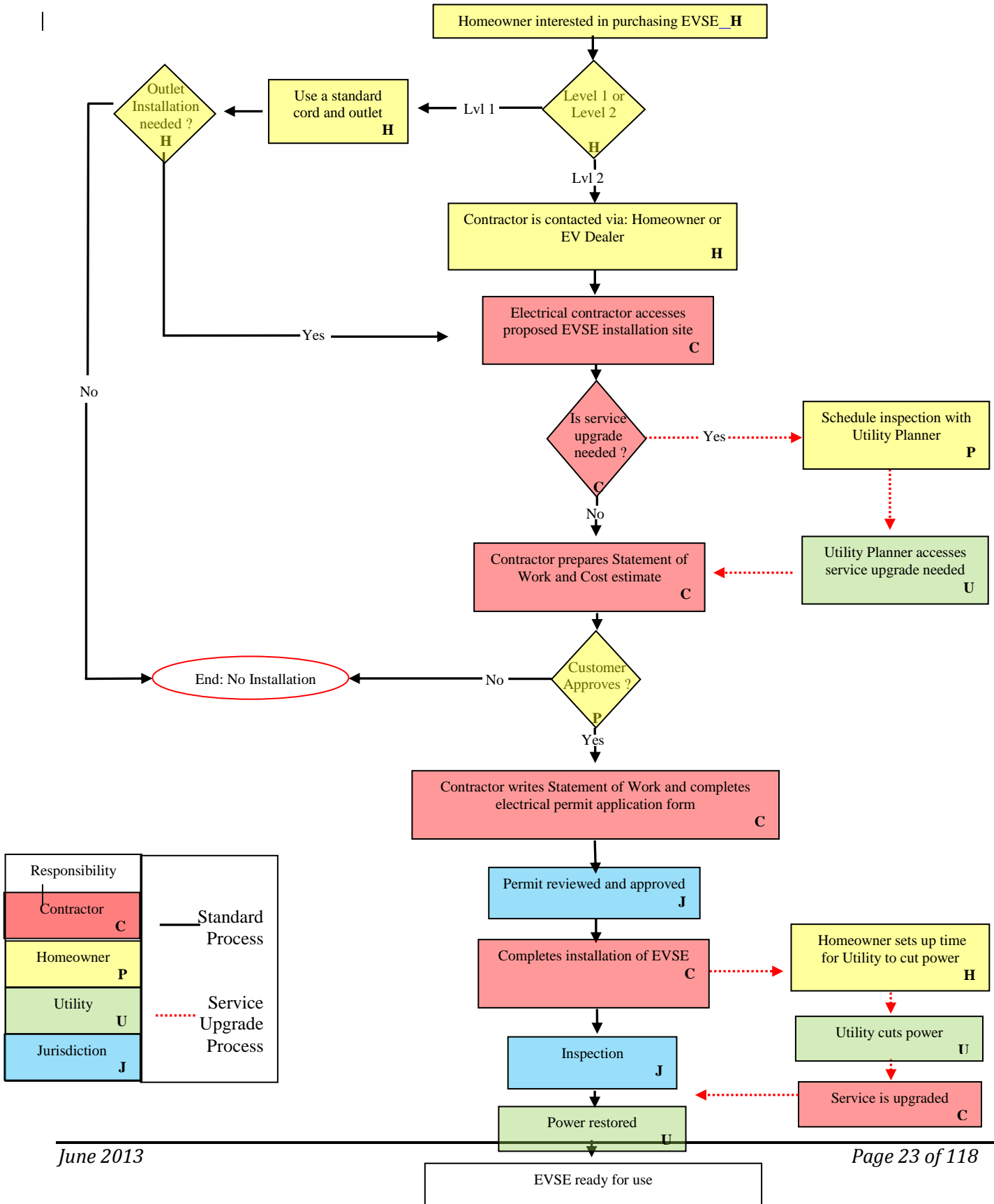
- Homeowner selects a licensed electrical contractor to assess EVSE installation site
- Then fills out an Electrical Permit Form with their electrical contractor
- Afterwards the contractor will submit the completed application; fees are due to the [INSERT CONTACT] at this time
- Permit is issued
- Electrical contractor installs EVSE
- Property inspection conducted by [INSERT CONTACT]
 - Cost of the initial inspection may be included with the permit fee
 - If the initial inspection fails there may be a cost for the follow up inspection(s)

Key Considerations for Property Owners Installing Level 2 Charging Equipment

- Know Level 2 charging equipment guidelines
 - Charging equipment varies by manufacturer. Consult the manufacturer's guidelines and jurisdictional requirements for proper installation
- Prepare property to meet charging equipment requirements
 - As you plan to install Level 2 charging equipment, coordinate with licensed electric contractors and charging equipment providers to avoid miscommunication and avoid delay

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Sample Permitting Process for Single-Family Residence to Install EVSE:



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Section 3.1.12 – Sample Signage Guide

The following list describes some of the step and activities you may need to follow in order to create and install signage for charging stations and EV parking. The specifications provided are included as examples only. It is important to note that requirements may vary by jurisdiction—it is your responsibility to comply with all applicable federal, state, and local regulations.

As of June 2013, the Federal Highway Administration has created a standard for regulatory signing for use at on-street electric vehicle charging and parking sites. The current Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) addresses the extreme variations in legends and formats of official EV traffic signs. For more information on current formatting and appropriate signage guidelines, please visit http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm.

1. Placement and Clearances:

- a. Signs should be no smaller than 12"W x 18"H
- b. Bottom of sign shall be 7' above ground
- c. Poles shall be located from 24" from the curb
- d. Signs shall not be hidden by other signs or objects
- e. Intersections: Signs may be no closer than:
 - i. 20' from the closest edge of a cross walk or
 - ii. 30' from the corner of an intersection if no cross walk exists
- f. Fire Hydrant: Signs may be placed 15' from either side of a fire hydrant
- g. Driveway/Curb: Signs may be placed 10' from a driveway/curb cut
- h. ADA: signs shall not be placed within 48" of another pole
- i. Right-of-way considerations

2. Sign installation

- a. Where possible, signs shall be attached to City light poles or u-channel poles
- b. If existing poles do not correlate with the placement of the EVSE, new u-channel poles shall be installed; other signs that are not location-sensitive will be moved to the new pole
- c. Signs shall not be adhered to wooden poles, trees, or way-finding signs
- d. If two or more signs exist on the same pole, then parking restriction signs (red) shall be placed above general service signs or regulatory signs (green)
- e. If two or more signs exist on the same pole, then parking restriction signs (red) shall include a 6"x12" sign with a RED arrow indicating where the restriction applies with respect to the sign

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Signage is an important component to raise awareness of EV infrastructure. The more people see the signage, the more aware they become, and consistent signage across the Tri-State region will further enhance familiarity. The following examples are suggested signage for use in the tri-state region.

Way-finding Signs

Advance Turn and Directional Arrow Auxiliary Signs for use with General Service Signs

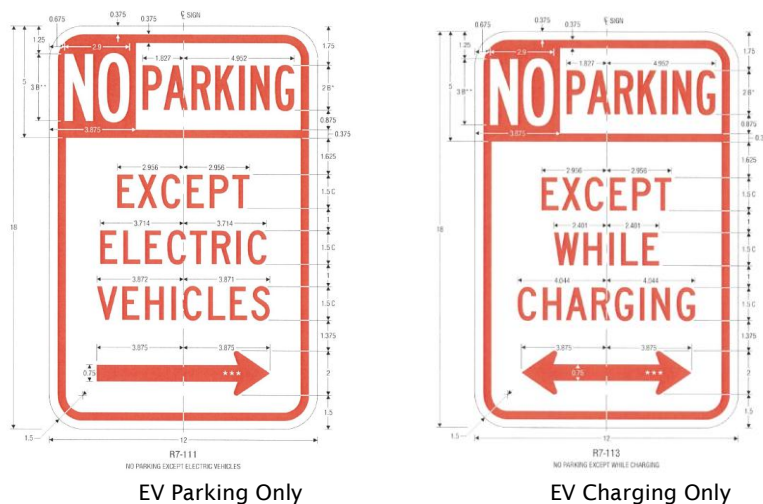


General Service Signs



EV Charging (MUTCD)⁶

Regulatory Signage



EV Parking Only

EV Charging Only

⁶ Sign placed along the interstate to indicate fueling stations at the next exit (Manual on Uniform Traffic Control Devices).

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Example Signage



EV Parking Only²



EV Charging Station³

² King of Prussia Mall, Upper Merion Township, PA, 2011

³ Contra Costa County, CA

Section 3.2.1 – Sample Electric Permit Application

Form: CMC.E - Rev. 3/12

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Section 3.2.2 – Building Ordinance

A MODEL ORDINANCE RELATING TO THE DEVELOPMENT OF AN ELECTRIC VEHICLE CHARGING INFRASTRUCTURE, AMENDING THE BUILDING CODE TO REQUIRE ELECTRICAL CONDUIT/CABLE RACEWAY READINESS; TO SET INSTALLATION AND PROCESS REVIEW REGULATIONS RELATED THERETO; TO REQUIRE MINIMUM ELECTRIC VEHICLE PARKING REQUIREMENTS IN CERTAIN PARKING FACILITIES; AND TO SET DESIGN STANDARDS FOR ON-STREET ELECTRIC VEHICLE CHARGING STATIONS.

[RECITALS should be included to explain the need to develop and adopt this model ordinance.]

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL [or its equivalent] **OF THE CITY _____**, as follows:

SECTION 1. Electric vehicle charging infrastructure readiness requirement.

(a) All new construction, both residential and non-residential, are required to include electric vehicle charging infrastructure readiness plans to accommodate the future hardwire installation of EVSE in or near parking areas. Electric vehicle charging infrastructure means space, electrical conduit or cable raceway, electrical banks, and access points.

- (1) For single-family and multi-family residential projects, the electric vehicle charging infrastructure shall extend to all parking spaces in a residential building.
- (2) For the non-residential portion of mixed-use buildings, as well as for commercial and retail facilities, the electric vehicle charging infrastructure should extend as follows:

<u>Total Number of Parking Spaces</u>	<u>Number of Required Spaces</u>
<u>10-25</u>	<u>2</u>
<u>26-50</u>	<u>4</u>
<u>51-75</u>	<u>6</u>
<u>76-100</u>	<u>8</u>
<u>101-150</u>	<u>11</u>
<u>151-200</u>	<u>16</u>
<u>201 and over</u>	<u>At least 8 percent of total</u>

(b) Electric conduit or cable raceways installed pursuant to subsection (a) shall be of sufficient size to hold electrical wiring as necessary depending on size of parking area, but should be no less than trade size 1. Any electrical conduit shall be securely fastened at the main service or subpanel and shall terminate in close proximity to the proposed location of the charging equipment in a listed cabinet, box, or enclosure. All cable raceways are required to be continuous at enclosed or concealed areas and spaces. For residential projects,

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a cable raceway may terminate in an attic or other approved location when it can be demonstrated that the area is accessible and no removal of materials is necessary to complete the final installation.

- (c) All new single-family and multi-family residential dwellings with garages or adjacent, off-street parking are required to be constructed to provide a 220-240 volt/40 amp outlet on a dedicated branch circuit and in close proximity to the designated vehicle parking area to accommodate the potential future hardwire installation of EVSE.
- (d) All new and expanded non-residential development parking facilities are required to provide the electric capacity to accommodate the future hardwire installation of charging stations, including a receptacle to accommodate use by EVSE. Site design and plans must include the location(s) and type of conduit or raceway method(s), wiring schematics (if any), and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all future electric vehicle charging stations at a minimum of Level 2 charging levels.
- (e) The electrical room in a multi-family building, or in the multi-family component of a mixed-use building, must include sufficient space for the future installation of electric equipment necessary to provide a receptacle to accommodate use by EVSE for 100 percent of the parking stalls that are used by owners or occupants of the building or of the residential component of the building.

SECTION 2. Installation and process of review.

- (a) Installation of a charging station associated with the construction of a new residential or non-residential property shall be processed in association with the underlying permit(s).
- (b) Installation of a charging station associated with the retrofitting of a single-family home shall require an electrical permit if the installation requires setting up a 220-240 volt/40 amp outlet on a dedicated circuit.
- (c) Retrofitting a commercial site, multifamily residential or community site in a residential land division requires an electrical permit and an applicant to submit a site plan showing the location and scope of the proposal. The Director of Community Development will use the site plan to determine if the retrofitting for a charging station(s) in an existing commercial, multifamily, or community site in a residential land division could significantly impact parking, landscaping, signing, drainage, or other public interest concerns. If the Director of Community Development determines a retrofit will not adversely impact any issues of public interest, the electrical permit will be issued and the retrofitting may proceed. If the retrofitting is determined to adversely impact issues of public interest, then the proposal will be reviewed and must be approved by the City's Site Plan Review process prior to issuing of the electrical permit.
- (d) If a facility includes a battery exchange station, an application for an electrical permit shall require review and approval by the City's General Plan and Site Plan Review process.

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SECTION 3. Minimum electric vehicle charging station requirements.

- (a) All parking facilities, including public, private, and government parking facilities, that are available for use by the general public and have at least one hundred parking spaces available for public accommodation shall designate the minimum number of parking spaces required in Table 16-XXX exclusively for electric vehicles by MONTH 20XX.
- (b) Where parking facilities are required to designate electric vehicle parking spaces in accordance with subsection (a), at least one of the electric vehicle spaces shall be equipped with an electric vehicle charging station by MONTH 20XX.
- (c) Owners of multiple parking lots within the city of Atlanta may designate and electrify fewer parking spaces than required in one or more of their owned properties as long as the scheduled requirements of subsections (a) and (b) are met for the total number of aggregate spaces on all of their owned properties.

SECTION 4. On-street electric vehicle charging stations – General Design Standards.

- (a) Where on-street parking spaces are designated and equipped to be electric vehicle charging stations, such spaces are for the exclusive purpose of electric vehicle charging.
- (b) Electric vehicle charging stations should be installed to use the last space on a block face in the direction of travel. Locating charging stations as such will reduce cable management issues and place the electric vehicle charging station closer to crosswalks and curb ramps.
- (c) In parallel parking configurations, electric vehicle supply equipment should be installed near the front of the electric vehicle charging station based on the direction of travel.
- (d) In perpendicular or angle parking configurations, electric vehicle supply equipment should be centered, or to the left, in front of the electric vehicle charging station for single connectors, and placed between two electric vehicle charging stations for dual connectors.
- (e) When electric vehicle supply equipment is placed in a sidewalk or walkway adjacent to the on-street electric vehicle charging station, it should not interfere with the minimum pedestrian clearance widths as defined in Chapter 11B of the American Disability Act Standard. Cords, cables, and connector equipment should not extend across the path of travel within the sidewalk or walkway.
- (f) Retraction devices or a place to hang permanent cords and connectors when not in use sufficiently above the pedestrian surface should be provided.

Section 3.2.3 – Ordinance for Per Session Fee Charge

MODEL ORDINANCE RELATING TO THE DEVELOPMENT OF AN ELECTRIC VEHICLE CHARGING INFRASTRUCTURE, AUTHORIZING A PER-SESSION FEE FOR ELECTRIC CHARGING PURPOSES TO BE CHARGED AT CITY-OWNED OR OPERATED ELECTRIC VEHICLE CHARGING STATIONS; AUTHORIZING THE COMMISSIONER OF PUBLIC WORKS TO SET THE PER-SESSION FEE; AND DEFINING GUIDELINES FOR DETERMINING THE AMOUNT OF AND THE ANNUAL REVIEW OF THE PER-SESSION FEE.

[RECITALS should be included to explain the need to develop and adopt this model ordinance]

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL [or its equivalent] OF THE CITY OF _____, as follows:

SECTION 1. Public Electric Vehicle Charging Station Per-Session Use Fee Rates – authority to set.

The Commissioner of Public Works is authorized to set rates for publicly available electric vehicle charging stations, as defined in Section XXXX, in parking facilities owned or controlled by the City of _____.

SECTION 2. Public Electric Vehicle Charging Station Per-Session Use Fee Rates – guidelines.

- (a) A per-session fee for public use of electric vehicle charging stations in parking facilities owned or controlled by the City of _____ shall be set based on expected operation costs and expected vehicle charging station use. For the purpose of this subsection, “operation costs” shall include electricity costs related to the charging stations, and may include the department of public works’ cost of planning and administration, fees charged by vendors for management services and routine maintenance of the charging stations, facility enforcement costs, and other reasonable costs associated with the electric vehicle charging station operations.
- (b) The Commissioner of Public Works shall consult with the Office of Sustainability and the Department of Finance to identify a single per-session electric vehicle charging fee to be used at all City-owned or operated electric vehicle charging stations that is no higher than \$4.00 per session (Maximum electric vehicle charging station per-session fee) and, when charging fees are in effect, no lower than \$1.50 per session (Minimum electric vehicle charging station per-session fee). The Commissioner is authorized to set the electric vehicle public charging use fee at the level identified during the consultation. All electric vehicle charging station fees will be in addition to general parking fees and inclusive of any taxes. After MONTH 20XX, the Commissioner of public works is authorized to set electric vehicle charging station fees without regard to the maximum and minimum electric vehicle charging per-session fee set forth in this subsection.

SECTION 3. Public Electric Vehicle Charging Station Per-Session Use Fee Rates – report.

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The Commissioner of Public Works, the Office of Sustainability; and the Department of Finance will gather data on the use and costs of electric vehicle charging stations. By MONTH 20XX, the directors will provide a report to the Council addressing the use of the charging stations, City operations, and maintenance costs for the stations, revenue obtained from the charging stations, and the customer experience in using the stations. If warranted, the report also will include recommendation to change fees, or the range of fees, to improve customer service and recover City costs.

SECTION 4. Public Electric Vehicle Charging Station Per-Session Use Fee Rates – penalties.

The base monetary penalty for violation of the provision related to electric vehicle charging station shall be in accordance to those set in section XXXX

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Section 3.2.4 – Traffic Ordinance

EXECUTIVE SUMMARY

The proposed ordinance will amend the traffic and road rules of the City Code by adding language to:

- (a) Authorize designated stalls or spaces in any parking facility owned or operated by the City for the exclusive purpose of parking electric vehicles.
- (b) Authorize designated stalls or spaces equipped with an EVSE in any parking facility owned or operated by the City for the exclusive purpose of charging and parking an electric vehicle that is connected for electric charging purposes.
- (c) Authorize removal of a vehicle (after notification to police) parked in a designated EV parking or charging space where the vehicle is not connected for electric charging purposes.
- (d) Requiring sign posting warning that unauthorized vehicles not connected for electric charging purposes to be towed away at the owner's expense.
- (e) Prohibit a person from parking or leaving standing a vehicle in a designated EV parking or charging space unless the vehicle is connected for electric charging purposes.
- (f) Prohibit a person from obstructing, blocking, or otherwise barring access to designated stall.
- (g) Setting penalty for violations upon conviction of \$75.

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A MODEL ORDINANCE RELATING TO THE DEVELOPMENT AN ELECTRIC VEHICLE CHARGING INFRASTRUCTURE, AMENDING THE TRAFFIC CODE TO DEFINE TERMS AND REGULATIONS RELATED TO SPACES RESERVED FOR ELECTRIC VEHICLE PARKING AND CHARGING ONLY.

[RECITALS should be included to explain the need to develop and adopt this model ordinance, such as:

WHEREAS, the City of _____ has taken actions to update its zoning code to develop the City's electric vehicle charging infrastructure by allowing the use of electric vehicle supply equipment throughout the City's zoning districts, with limitations where appropriate; and

WHEREAS, certain incentives proposed by the City of _____ to promote electric vehicle adoption require regulations and enforcement mechanisms to be implemented in order to achieve the intended goals of the policies to develop the City's electric vehicle charging infrastructure...]

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL [or its equivalent] OF THE CITY OF _____, as follows:

SECTION 1. Electric vehicle parking and charging places.

- (a) Electric vehicles may park in any space designated for public parking, subject to the restrictions that would apply to any other vehicle that would park in that space.
- (b) The Director of Public Works is authorized to designate stalls or spaces in any parking facility owned or operated by the City or any on-street parking space for the exclusive purpose of parking an electric vehicle.
- (c) The Director of Public Works is authorized to equip electric vehicle parking stalls or spaces with EVSE in any parking facility owned or operated by the City or any of its on-street parking spaces for the exclusive purpose of charging and parking a vehicle that is connected for electric charging purposes.
- (d) Parking stalls or spaces marked as "electric vehicle parking space" are exclusively reserved for the parking of an electric vehicle.
- (e) Parking stalls or spaces equipped with EVSE are reserved exclusively for the charging and parking of a vehicle that is connected for electric charging purposes. These stalls or spaces shall be marked as "electric vehicle charging stations."
- (f) At the direction of the Director, the City Public Works Engineer shall cause appropriate signs and markings to be placed in and around spaces designated and reserved for electric vehicle parking, indicating prominently thereon the parking regulations. The signs shall define time limits, as applicable, and shall state that the parking space is reserved for electric vehicles only.

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SECTION 2. Notification and Signage.

- (a) At the direction of the Director, the City Public Works Engineer shall cause appropriate signs and marking to be placed in and around electric vehicle charging station, indicating prominently thereon the parking regulations. The signs shall identify the voltage and amperage levels; define time limits, fees, and hours of operation, as applicable; and state that the charging station space is reserved for charging purposes only, which is to be defined as occurring when a vehicle is connected to the EVSE for electric charging purposes.
- (b) Parking signage related to electric vehicle parking and charging stations in public parking facilities or on public roads shall accurately reflect the City's Code of Ordinances provisions as applied to days and times of parking enforcement under City Code sections XXXX. If there is a conflict between on-street parking signage and associated electric vehicle parking spaces and charging stations with respect to days, hours of enforcement, and/or maximum parking times, the information contained in the parking signage shall apply.

SECTION 3. Prohibitions.

- (b) When a sign authorized under Section 2 above provides notice that a space is designated as electric vehicle parking or an electric vehicle charging station, no person shall stop, stand, or park any non-electric vehicle, or otherwise block access to parking, in any such designated parking space or charging station.
- (c) When a sign authorized under Section 2 above provides notice that a space is designated as electric vehicle charging station, it is unlawful to park or permit to be parked any vehicle, including an electric vehicle, if such electric vehicle is not in the process of charging.
- (d) Only one electric vehicle should occupy any space marked as an electric vehicle parking space or charging station, and no person should park except within the boundaries of the space defined.

SECTION 4. Enforcement.

- (a) Electric vehicle parking spaces and charging stations shall be enforced by any police officer, parking enforcement officer, or parking management service, as defined in Code section XXXX.
- (b) Violations of this chapter shall be punishable in accordance with Code sections XXXX. Each day such violation is committed shall constitute a separate offense and shall be punishable as such.
- (c) In addition to a fine, a person who has parked or left a vehicle standing upon a street, alley, or City parking lot or garage in violation of this paragraph is subject to having the vehicle removed from the street, alley, or City parking lot or garage in accordance to Code section XXXX.
- (d) If removal provisions are to be enforced by the property owner, such action must be in accordance to the procedures to abate a nuisance."

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Section 3.2.5 – Zoning Code Update

PROPOSED ORDINANCE

Executive Summary

Proposed ordinance relating to updating zoning district regulations for the development of an electric vehicle charging infrastructure includes the following:

1. Amendment to Definitions to include terms relating to electric vehicle.
2. Amendment to District Regulations to include electric vehicle charging stations (i.e., parking equipped with level-1 and level-2 EVSE) as a permitted accessory use and structure in all districts.
3. Amendment to District Regulations to include electric vehicle charging stations equipped with DC Fast Charge EVSE as a permitted accessory use and structure in the following districts: Residential General; Office-Institutional; Commercial; Industrial; certain Special Purpose Interest Districts; Neighborhood Commercial; Live Work; Mixed Use Planned Developments; and Mixed Residential Commercial.
4. Amendment to District Regulations to include electric vehicle battery exchange stations (termed as “battery exchange stations”) as a permitted principal use and structure in the following districts: Commercial; Industrial; SPI-11, -15, -16, -18, -20, -21, and -22; and Mixed Residential Commercial. The battery exchange stations were limited to districts where automobile service stations are a permitted principal use and structure.
5. Amendment to Application of Zoning Regulations to create an incentive program that reduces the number of parking spaces necessary to meet minimum parking requirements. This program would count each parking space that is converted to or newly constructed as an electric vehicle parking space and/or electric vehicle charging station as three regular parking spaces in calculating whether minimum off-street parking requirements have been met. The program would apply in all districts and would be subject to certain limitations, while allowing the Department to reduce the incentive where the total number of parking spaces, including EV parking/charging stations, is inadequate for needs as determined through results of the incentive program.
6. Amendment to add General Design standards and criteria related to electric vehicle parking and charging stations in parking facilities. The design standards would be in the General and Supplementary Regulations section of the Zoning Code and detail aspects as location of EVSE installation, criteria for EVSE installation, wayfinding signs, example of signage to be used, etc.

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A MODEL ORDINANCE RELATING TO THE DEVELOPMENT OF THE CITY OF _____'S ELECTRIC VEHICLE CHARGING INFRASTRUCTURE, AMENDING THE ZONING CODE TO PROVIDE DEFINITIONS RELATED TO ELECTRIC VEHICLE CHARGING AND TO DEFINE CERTAIN REGULATIONS RELATED THERETO.

WHEREAS, the Environmental Protection Division (OR ITS EQUIVALENT) of the state of _____ has assessed the air quality in the city of _____ as a "nonattainment" area for ozone; and

WHEREAS, a substantial percentage of all air pollution and greenhouse gas emissions in the city of _____ is derived from emissions in the transportation sector; and

WHEREAS, air pollution, in high levels, has been shown to cause premature death and to aggravate lung illnesses such as acute respiratory infections, asthma, chronic bronchitis, emphysema, and lung cancer, all of to which children and the elderly are more susceptible; and

WHEREAS, the use of alternative fuels, such as electricity, for transportation reduces air pollutants, including greenhouse gases, emitted from said sector; and

WHEREAS, the city of _____ can reduce air pollution and greenhouse gas emissions by encouraging the transition to electric vehicle use and facilitating the development of a convenient, cost-effective, citywide electric vehicle charging infrastructure; and

WHEREAS, the driving distance between battery charges in current, commercially available electric vehicle models is limited, which limited driving distance is a fundamental disadvantage to broad consumer adoption of electric vehicles, and in order to eliminate this disadvantage and to increase consumer acceptance and usage of electric vehicles, an infrastructure of convenient electric vehicle charging opportunities is essential and must be developed; and

WHEREAS, the use of alternative fuels, such as electricity, which are domestically produced, also reduces the reliance on imported sources of energy for transportation; and

WHEREAS, electricity is a sustainable and domestically produced source of transportation fuel that may be used to power motor vehicles with zero or ultra-low tailpipe emissions; and

WHEREAS, the use of vehicles with zero or ultra-low tailpipe emissions will help not only to improve air quality and to reduce greenhouse gas emissions, but will also help to create local jobs as more electric vehicles are adopted and transportation fuel expenditures are reinvested in domestic sources of energy; and

WHEREAS, the city of _____'s economic security is jeopardized by its near total reliance on imported petroleum for transportation purposes, and which supply of imported petroleum is vulnerable to interruptions, making its price extremely volatile; and

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WHEREAS, the use of electricity as a source of transportation fuel diversifies the supply of transportation fuels available, resulting in a more stable and secure base for the local economy; and

WHEREAS, the cost of gasoline in the city of _____ has been volatile but remains at price levels above \$3.00 per gallon; and

WHEREAS, the cost of electricity to recharge an electric vehicle is much cheaper than gasoline, the equivalent of paying \$_____ per gallon of gasoline; and

WHEREAS, the market for electric vehicles in the United States, including the city of _____, has steadily increased since the introduction of commercially available models in 2011, and with new industry standards that ensure universal compatibility between vehicle manufacturers, more residents and businesses have purchased or have started to consider the purchase of an electric vehicle as a means of transportation; and

WHEREAS, electric vehicles need to be electrically recharged; and

WHEREAS, because the electric charging for private electric vehicles will take place mostly in residential settings, including those located in mixed-used districts and those without access to attached garages, allowing and defining regulations for an electric vehicle charging infrastructure in these districts of the city of _____ is in the public interest; and

WHEREAS, because businesses in non-residential areas may want to install electric vehicle infrastructure for their business uses or for their clients and/or employees to use, allowing and defining regulations for an electric vehicle charging infrastructure in these districts of the city of _____ is in the public interest; and

WHEREAS, the development of an electric vehicle charging infrastructure and of related regulations will allow the residents and businesses of the city of _____ to have and use safe electric vehicle charging equipment at their place of residence and employment, will give the opportunity for commercial and industrial projects to provide electrical vehicle charging services to customers and employees, and will allow businesses to set up charging equipment to supply their electric vehicle fleets; and

WHEREAS, the development of an electric vehicle charging infrastructure will create jobs and foster economic growth as the automobile industry transitions to this technology because local retailers and contractors will be required to sell, install, maintain, and repair these electric vehicles and the charging equipment; and

WHEREAS, the development of zoning regulations related to electric vehicle charging will foster economic growth through streamlining the process of installing charging equipment with clear and definitive regulations related to electric vehicle charging equipment and the districts in which the use of such equipment is allowed; and

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WHEREAS, the city of ____ is committed to increasing and improving the City's sustainability goals, including improving air quality by reducing pollutants, and making possible sustainable land use and transportation policies by incorporating development standards that are appropriate for urban uses; and

WHEREAS, it is in the best interest of the city of _____ to define terms related to electric vehicles and their charging infrastructure, to refine the definitions of "permitted accessory use and structure" in all zoning district regulations, and to refine regulations related thereto; and

WHEREAS, the City Council (OR ITS EQUIVALENT) adopts this Ordinance pursuant to its police power to provide for the public, health, safety, and welfare;

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF _____, as follows:

SECTION 1. Chapter ____, Definitions, of the Zoning Code of the City of _____, is hereby amended to read as set forth below.

"(4) *Automobile*: Any vehicle propelled by its own motor and operating on ordinary roads. As used herein, the term includes passenger cars, trucks, motorcycles, motor scooters, motorized bicycles and the like. For purposes of this part, classes of automobiles may be separately controlled or regulated (as for example passenger cars, trucks and motorcycles).

(a) *Battery electric vehicle (BEV)*: Any motor vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle's battery, and produces zero tailpipe emissions or pollution when stationary or operating.

(b) *Electric vehicle*: Any motor vehicle that is licensed and registered to operate on public and private highways, roads, and streets, and operates either partially or exclusively on electrical energy from the grid, or an off-board source, that is stored on-board for motive purpose. Electric vehicle includes battery electric vehicles and plug-in hybrid electric vehicles.

(c) *Plug-in hybrid electric vehicle (PHEV)*: An electric vehicle that (1) contains an internal combustion engine and also allows power to be delivered to drive wheels by an electric motor; (2) charges its battery primarily by connecting to the grid or other off-board electrical source; (3) may additionally be able to sustain battery charge using an on-board internal-combustion-driven generator; and (4) has the ability to travel powered by electricity.

...

(14)(c) *Service station*: An establishment where gasoline, oil, grease, batteries, tires and automobile accessories may be supplied and dispensed at retail, and in connection with which is performed general automotive servicing as distinguished from automotive repairs. Battery exchange stations as defined in this section shall be construed as a service station.

...

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(56) *Alternative fuel vehicle charging station:* A place or area which enables a vehicle to refuel itself with non-gasoline and non-diesel alternative fuels. Alternative fuels include pure methanol, denatured ethanol, and other alcohols; mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels (including E85 and M85); natural gas and liquid fuels domestically produced from natural gas (including compressed natural gas and liquefied natural gas); liquefied petroleum gas (including propane); hydrogen; biodiesel (B100); fuels other than alcohol derived from biological materials; electricity (including electricity from solar energy); P-series fuels; and any other fuel the United States Secretary of Energy determines by rule is substantially not petroleum and would yield substantial energy security benefits and substantial environmental benefits.

(a) *Electric vehicle charging station:* A public or private parking space that is served by electric vehicle supply equipment that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery in an electric vehicle.

(b) *Electric vehicle charging station — restricted use:* An electric vehicle charging station that is (1) privately owned and restricted access (e.g., single-family home, designated employee parking) or (2) publicly owned and restricted (e.g., fleet parking with no access to the general public).

(c) *Electric vehicle charging station — public use:* An electric vehicle charging station that is (1) publicly owned and publicly available (e.g., on-street parking and city-owned parking facilities) or (2) privately owned and publicly available (e.g., shopping center parking, non-reserved parking in multi-family parking lots).

(d) *Charging:* When the connector from an electric vehicle supply equipment (or standard outlet) is inserted into the electric vehicle inlet, and electrical power is being transferred for the purpose of recharging the batteries on board the electric vehicle.

(e) *Charging level:* The standardized indicators of electrical force, or voltage, at which an electric vehicle's battery is recharged.

1. Level 1 is considered slow charging, typically requiring a 15 or 20 amp breaker on a 120-volt AC circuit and standard outlet.

2. Level 2 is considered medium charging, typically requiring a 40 amp to 100 amp breaker on a 240-volt AC circuit.

3. DC Fast Charge is considered rapid charging, typically requiring a 60 amp or higher dedicated breaker on a 480-volt or higher three-phase circuit with special grounding equipment. DC Fast Charging uses an off-board charger to provide the AC to DC conversion, delivering AC directly to the car battery.

...

(80) *Electric vehicle infrastructure:* The structures, machinery, and equipment necessary and integral to support an electric vehicle, including the electrical conduit and premises wiring requirements for the installation of electric vehicle supply equipment, as well as battery exchange stations.

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(81) *Electric vehicle supply equipment (EVSE)*: The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle conductors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for purposes of delivering energy from the premises wiring to the electric vehicle, complying and conforming with National Electric Code Article 625 and Society of Automotive Engineers J1772 Standard.

(82) *Battery exchange station*: A facility where an electric vehicle with a swappable battery can enter and exchange its depleted battery with a fully charged battery through a fully automated process.”

SECTION 2. The Zone District Regulations of the Zoning Code of the City of _____ are hereby amended to include electric vehicle charging stations as defined in section XXXX(56) that are equipped with Level 1 and Level 2 EVSE as a “permitted accessory use and structure” in all zoning districts.

SECTION 3. The Zone District Regulations of the Zoning Code of the City of _____ are hereby amended to include electric vehicle charging stations as defined in section XXXX(56) that are equipped with DC Fast Charge EVSE as a “permitted accessory use and structure” in the following districts: Residential General; Office-Institutional; Commercial; Industrial; Neighborhood Commercial; Live Work; Mixed Use Planned Developments; and Mixed Residential Commercial.

SECTION 4. The Zone District Regulations of the Zoning Code of the City of _____ are hereby amended to include electric vehicle charging stations as defined in section XXXX(56) that are equipped with EVSE as a “permitted principal use and structure” in the following districts: Commercial; Industrial; and Mixed Residential Commercial. If a parcel of land is to be used primarily for the retail electric charging of vehicles as a principal use and structure, then the use shall be equivalent to an automobile service station for zoning purposes, located only in zoning districts that permit service stations and subject to all rules and regulations applicable to automobile service stations.

SECTION 5. The Zone District Regulations of the Zoning Code of the City of _____ are hereby amended to include electric vehicle battery exchange stations as defined in section XXXX(82) as a “permitted principal use and structure” in the following districts: Commercial; Industrial; and Mixed Residential Commercial. Battery exchange stations are specifically prohibited in exclusively residential zones and Historic/Landmark districts.

SECTION 6. Section XXXX of the Zoning Code of the City of _____ is hereby amended to read as set forth below.

“No existing off-street parking or loading space, and no off-street parking or loading space hereafter provided, which meets all or part of the requirements for off-street parking or loading space set forth in these regulations, shall be reduced or eliminated by private action unless no longer required by these regulations, or unless alternative parking or loading space meeting requirements of these regulations is provided. Electric vehicle parking or charging station spaces are included and counted for minimum parking requirements as set forth in

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these regulations. For effect of reduction by public action, see section XXXX, 'Nonconforming characteristics of use.'"

SECTION 7. Section XXXX relating to Residential General districts of the Zoning Code of the City of _____ is hereby amended to read as set forth below.

"Defined: An off-street parking space is garage, carport or other uncovered off-street parking space, including electric vehicle charging stations, together with appropriate access and maneuvering ways."

SECTION 8. Section XXXX, Off-Street Parking Requirements, of the Code of Ordinances, City of Atlanta, Georgia, is hereby amended to read as set forth below.

"Incentive program related to minimum off-street parking requirements – applicable to the conversion of parking spaces to or the new construction of electric vehicle parking and charging stations: The City of _____ is committed to becoming one of the top ten sustainable cities in the United States of America and supports the development of alternative fuel vehicle infrastructures. There is established an incentive program for the reduction in the number of car spaces and off-street parking spaces required in each zoning district to meet applicable minimum parking requirements, whereby each parking space that is converted to or is constructed newly as an electric vehicle parking space and/or an electric vehicle charging station, as defined in section XXXXXX, counts as three parking spaces toward meeting the off-street parking requirements as stated in these regulations. The incentive program is subject to the following limitations:

- (a) The provisions of this section shall apply to any building, commercial establishment, or property for which a permit for new construction is issued following the effective date of this part, and to the alteration of existing buildings in all cases where sufficient space exists to provide such parking facilities.*
- (b) Electric vehicle parking spaces shall be reserved for the exclusive parking of an electric vehicle.*
- (c) Electric vehicle charging stations shall be reserved exclusively for the charging and parking of a vehicle that is connected to the EVSE for electric charging purposes.*
- (d) If the Department or board of zoning adjustment considers the incentive program to result in inadequate off-street parking for occupants, visitors, and/or employees considering the character or use of the building, the Department or board of zoning adjustment is hereby empowered to require a modification of the number of parking spaces that may be reduced pursuant to this section.*

...

Other limitations on use of off-street parking and loading areas: No required unenclosed off-street parking and loading area shall be used for the sale, repair, dismantling or servicing of any vehicles, equipment, materials or supplies; and no other area on a lot shall be used for such purposes. The restrictions in this subsection do not apply to the electrical charging or servicing of electric vehicles in spaces equipped with EVSE or electric vehicle charging stations..."

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SECTION 9. Chapter ____, General and Supplementary Regulations, of the Zoning Code the City of _____ is hereby amended by adding a new section, which section reads as set forth below.

“Section XXXX. - Design standards and other criteria for electric vehicle parking and charging facilities.”

(1) The following design criteria apply to parking facilities offering electric vehicle parking and charging services for public use:

(a) Electric vehicle parking and charging stations, as defined in section XXXX(56), should be equal to parking space size and performance standards as provided in these regulations. The installation of an EVSE should not reduce the electric vehicle charging station’s length to below off-street parking space size and standards required under Section XXXX.

(b) Where electric vehicle charging stations are provided:

(1) Installation of EVSE shall meet National Electric Code Article 625;

(2) Charging station outlets and connectors shall be no less than 36 inches and no higher than 48 inches from the surface where mounted;

(3) Equipment mounted on pedestals, lighting posts, bollards, or other device shall be designated and located as to not impede pedestrian travel or create trip hazards on sidewalks;

(4) Adequate electric vehicle charging station protection, such as concrete-filled steel bollards, should be used where warranted. Curbing may be used in lieu of bollards, if the battery charging station is setback a minimum of 24 inches from the face of the curb; and

(5) Adequate site lighting should be provided unless charging is for daytime purposes only. Higher lighting levels are encouraged to improve visibility of cables, charging equipment, and vehicle inlets.

(c) Way finding signs should be installed at the parking facility entrance and at appropriate decision points to effectively guide the motorists to the electric vehicle parking space and/or charging station.

(d) Each electric vehicle parking space and charging station shall be designated, clearly marked with appropriate signage indicating the space is an “electric vehicle reserved parking” or is an “electric vehicle charging station”. If time limits or vehicle removal provisions are to be applied, regulatory signage including parking restrictions, hours and days of operations, towing, and contact information shall be installed immediately adjacent to, and visible from, the electric vehicle parking or charging station.

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(e) Electric vehicle charging station should be maintained in all respects, including the functioning of the EVSE. A phone number or other contact information shall be provided on the equipment for reporting when it is not functioning or other problems are encountered.

(2) On-street electric vehicle charging stations.

(g) Where on-street parking spaces are designated and equipped to be electric vehicle charging stations, such spaces should be for the exclusive purpose of electric charging.

(h) Electric vehicle charging stations should be installed to use the last space on a block face in the direction of travel. Locating charging stations as such will reduce cable management issues and place the electric vehicle charging station closer to crosswalks and curb ramps.

(i) In parallel parking configurations, electric vehicle supply equipment should be installed near the front of the electric vehicle charging station based on the direction of travel.

(j) In perpendicular or angle parking configurations, electric vehicle supply equipment should be centered, or to the left, in front of the electric vehicle charging station for single connectors, and placed between two electric vehicle charging stations for dual connectors.

(k) When electric vehicle supply equipment is placed in a sidewalk or walkway adjacent to the on-street electric vehicle charging station, it should not interfere with the minimum pedestrian clearance widths as defined in Chapter 11B of the American Disability Act Standard.

(l) Retraction devices or a place to hang permanent cords and connectors when not in use sufficiently above the pedestrian surface should be provided. Cords, cables, and connector equipment should not extend across the path of travel within the sidewalk or walkway.

(3) Electric vehicle parking or charging structures as either principal or accessory use: In addition to Section XXXX relating to Parking Structures, the following regulations shall apply:

(a) When located immediately adjacent to any public right-of-way, public park, private street, or adjacent R-1 through R-5, RLC, R-G, MR, or PD-H District:

(1) Shall be delineated to, and including, the third story above the sidewalk-level executed through windows, belt courses, cornice lines or similar architectural detailing and shall conceal automobiles from view. Said structure shall have an appearance similar to that of the adjoining or attached residential, commercial or mixed-use structure.

(2) Parking structure façades shall have openings screened with mesh or decorative panels, tinted or sandblasted glass, or similar screening elements so as to prevent views into the parking structure.

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(3) Parking decks shall be illuminated with uplighting or shall contain shielded internal light bulbs to eliminate light spillage outside the structure.

(b) Along all façades not along any public right-of-way, public park, or private street, a continuous landscaped strip between the structure and property line should be planted as follows:

(1) As to not impede visibility within visibility triangles at street intersections, as measured from the curb, between the heights of two and one-half feet and eight feet above grade; otherwise, a continuous minimum five feet wide landscaped strip shall be provided between the structure and the public sidewalk, except at ingress and egress points into the structure. Said landscaped strip shall be planted with street trees spaced a maximum distance of 20 feet on center. The landscape strip shall also be planted with evergreen ground cover such as mondo grass, liriope spicata, ivy or evergreen shrubs with a maximum mature height of 24 inches. All plantings, planting replacement and planting removal shall be approved by the city arborist.

(2) To meet an active-use depth requirement from said parking structure façade at sidewalk-level, except at ingress and egress points into said parking structures. When two or more floors meeting the definition of sidewalk-level exist within the same building, this requirement shall only apply to the frontage of each floor located within five vertical feet above or below the grade of the adjacent sidewalk. For the purposes of this chapter active uses shall be serviced by plumbing, heating, and electricity and are limited to residential, retail, eating and drinking establishments, museum, gallery, office, institutional, auditorium, library, hotel lobby, or cultural facility uses, and shall not include parking, non-residential storage areas, driveway or queuing lanes parallel to the adjacent street. Minimum active-use depths shall be provided as follows:

(i) Residential uses: Minimum depth of ten feet.

(ii) All other uses (as specified above): Minimum depth of 20 feet.

(4) Signage

(a) All signage must comply with the Sign Ordinance of the City .

(b) Placement and Clearances:

(1) Signs should be no smaller than 12"W x 18"H

(2) Bottom of sign shall be 7' above ground.

(3) Poles shall be located from 24" from the curb.

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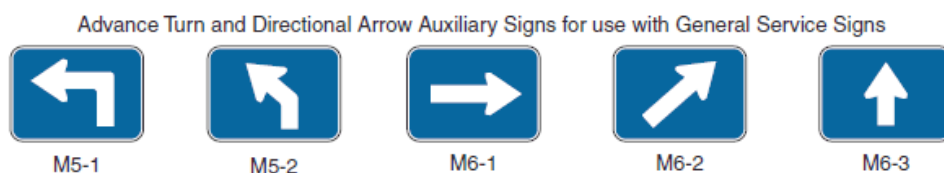
- (4) Signs shall not be hidden by other signs or objects.
- (5) Intersections: Signs may be no closer than 20' from the closest edge of a cross walk or 30' from the corner of an intersection if no cross walk exists.
- (6) Fire Hydrant: Signs may be placed 15' from either side of a fire hydrant.
- (7) Driveway/Curb Cut: Signs may be placed 10' from a driveway/curb cut.
- (8) ADA: signs shall not be placed within 48" of another pole.

(c) Sign Installation

- (1) Signs to be placed and installed within right-of-way must comply with Section XXX.
- (2) Where possible, signs shall be attached to light poles or u-channel poles.
- (3) If existing poles do not correlate with the placement of the EVSE, new u-channel poles shall be installed. Other signs that are not location-sensitive will be moved to the new pole.
- (4) Signs shall not be adhered to wooden poles, trees, or way-finding signs.
- (5) If 2 or more signs exist on the same pole, then parking restriction signs (red) shall be placed above general service signs or regulatory signs (green).
- (6) If 2 or more signs exist on the same pole, then parking restriction signs (red) shall include a 6"x12" sign with a RED arrow indicating where the restriction applies with respect to the sign.
- (7) Way-finding signs associated with EVSE general service signs will utilize WHITE arrows with BLUE background unless otherwise directed by the City of .

(d) Examples of Signs

(1) Way-finding Signs



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(2) General Service Signs



(3) Regulatory Signage



i. EV Parking Only



ii. EV Charging Only

(4) Striping



(5) Minimum landscaping requirements for surface electric vehicle parking and charging station lots. The requirements of City Code of Ordinances, chapter ____ vegetation, article II, tree protection, section XX, parking lot requirements, shall apply to electric vehicle parking and charging station lots in addition to the street tree planting requirements, with additional requirements as follows:

- (a) Said surface parking lot requirements shall apply to all lots regardless of size;

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(b) Existing parking lots shall not be required to reduce the number of parking spaces by more than three percent as a result of implementing the following surface parking lot landscaping regulations:

- (1) All parking bays shall be terminated with a landscape strip a minimum width of five feet and equal to the length of the parking bay.
- (2) All required landscaped areas shall be planted with evergreen groundcover or shrubs with a maximum mature height of 30 inches; and
- (3) All required landscaped buffer strips, regardless of length, shall have a minimum of one tree planted per 30 feet of length with a minimum caliper of two and one-half inches."

SECTION 10. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed only to the extent necessary to give this Ordinance full force and effect.

SECTION 11. If any section, clause, or provision of this Ordinance shall be declared to be unconstitutional, void, illegal, or ineffective by any court of competent jurisdiction, such section, clause, or provision declared unconstitutional, void, or illegal shall thereby cease to be a part of this Ordinance, but the remainder of this Ordinance shall stand and be in full force and effect.

SECTION 12. The proceedings pending and all rights and liabilities existing, acquired, or incurred at the time this Ordinance takes effect are saved and may be consummated according to the law when they were commenced.

SECTION 13. The provisions of this Ordinance are hereby ordered to take effect upon the publication in the manner prescribed by the Charter of the City of _____.

SECTION 14. This Ordinance is hereby declared to have been adopted by the City Council of the City of _____, at a meeting thereof duly called and held on _____ day of _____, 20____, and ordered to be given publication in a manner prescribed by the Charter of the City of _____.

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Section 3.2.6 – Sample Encroachment Agreement

ENCROACHMENT AGREEMENT

This Encroachment Agreement (“Agreement”) is entered into as of the ____ day of _____, 201__, between the City of Atlanta, a municipal corporation, chartered pursuant to the laws of the State of Georgia (hereinafter “City”), and _____, (“Electric Vehicle Supply Equipment Owner”).

WITNESSETH:

WHEREAS, in 2010, the City of Atlanta City Council passed the City’s Sustainability Plan, which read that “Atlanta’s sprawl growth pattern and dependence on cars continue to be [the City’s] most significant obstacle to top tier sustainability ranking” and therefore, “aims to “enhance citizens’ health, maintain clean air, and stabilize contributions to climate change” by “... implementing cutting edge policies (i.e., green building ordinances; electric vehicle infrastructure)...”; and

WHEREAS, the installation of electric vehicle supply equipment throughout the City, including in the public right-of-way, will encourage the increase the public’s interest and awareness with regard to the purchase of electric powered vehicles; and

WHEREAS, the increase in usage of electric vehicles by the public will decrease pollution, decrease our dependence on foreign supplies of oil and gasoline; and

WHEREAS, the City has entered into a Memorandum of Understanding with Electric Vehicle Supply Equipment Owner wherein said party will be installing new electric vehicle supply equipment on private property and in the public right-of-way; and

WHEREAS, Electric Vehicle Supply Equipment Owner wishes to install fifteen (15) charging stations equipped with AC Level 2 electric vehicle supply equipment at locations throughout the City as set out in Exhibit “A” attached hereto (the “Encroachments” and/or “Charging Stations”); and

WHEREAS, the Commissioner of the Department of Public Works has reviewed the plans for the Encroachments and has determined that the installation of electric vehicle supply equipment will not adversely impact the ability of the affected right-of-way to handle pedestrian traffic or otherwise to perform its intended public function; and

WHEREAS, Electric Vehicle Supply Equipment Owner desires to both install and to maintain the Encroachments; and

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WHEREAS, the Encroachments will constitute a non-conforming use under the City of Atlanta Code of Ordinances and laws of the State of Georgia and Electric Vehicle Supply Equipment Owner is legally responsible to either accept responsibility for proper installation and continued maintenance of said Encroachments; and

WHEREAS, the City of Atlanta Code of Ordinances, at Sections 138-20, 138-22 and 138-24, require that an Encroachment Agreement be entered into between the City and Electric Vehicle Supply Equipment Owner for authorization to install and maintain the Encroachments; and

WHEREAS, the City Council has authorized the Mayor, by Resolutions, to enter into an Encroachment Agreement for Non-Conforming Uses with Electric Vehicle Supply Equipment Owner, allowing Electric Vehicle Supply Equipment Owner to install, maintain, operate and use the aforesaid Encroachments in the public right-of-way; and

WHEREAS, said request was granted and authorized by a Resolution (No. 12-R-____) adopted on _____, 2012 by the Council of the City and became effective on _____, 2012, and a true and correct copy of said Resolution is attached hereto as Exhibit "B" and by this reference made a part hereof (hereinafter referred to as the "Resolution"); and

WHEREAS, said permission was contingent upon an agreement being entered into by and between the City and the Electric Vehicle Supply Equipment Owner containing the conditions set forth in the Resolution; and

WHEREAS, the parties desire to enter into this Agreement in order to implement all provisions of the Resolution.

NOW, THEREFORE, for and in consideration of the mutual agreements between the parties hereinafter set forth and for other good and valuable consideration, the parties covenant and agree as follows:

1. **Public Benefit of Encroachments.** In the opinion of the Commissioner of City's Department of Public Works ("Commissioner"), the continued use, operation and maintenance of the Encroachments, as shown on the attached Exhibit "A", will constitute a benefit to the public so long as the Encroachment does not pose a risk to the health, welfare and safety of the public.
2. **Grant of Rights in Encroachment Areas.** The City grants to Electric Vehicle Supply Equipment Owner the right to operate, use, repair and maintain the Encroachments, as shown on the attached Exhibit "A". The Commissioner has reviewed the plans and has determined that the Encroachments will not adversely impact the ability of the affected right-of-way to handle vehicular or pedestrian traffic or otherwise to perform its intended public function. Accordingly, Electric Vehicle Supply Equipment Owner shall not operate, use, repair or maintain any Encroachment not listed on the attached Exhibit "A".
3. **Agreement is Condition Precedent to Continued Use.** In addition to Electric Vehicle Supply Equipment Owner satisfying all other applicable legal, administrative or other requirements to ensure that the Encroachment Area is and will continue to be structurally sound, the execution of this Agreement by Electric Vehicle Supply Equipment Owner is a condition precedent to the City allowing the continued use and

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operation of the Encroachment Areas. This Agreement will bind Electric Vehicle Supply Equipment Owner, and Electric Vehicle Supply Equipment Owner's legal successors in interest or until the Agreement is terminated or otherwise expires.

4. **Plans, Calculations and Technical Specifications.** The Electric Vehicle Supply Equipment Owner shall submit plans, calculations, and technical specifications prepared by a professional engineer licensed to practice in the State of Georgia, establishing that the Encroachments are sufficiently structurally sound. Such plans and specifications are subject to approval by the Commissioner, pursuant to the standards set forth in or promulgated under Chapter 138 of the City's Code of Ordinances and, when applicable, all other appropriate legal requirements or administrative rules, including, but not limited to, the standards of the Georgia Department of Transportation or the Federal Highway Administration, or any other governmental agency having jurisdiction over the right-of-way or Encroachment Areas.

5. **Public Liability Insurance.** Electric Vehicle Supply Equipment Owner agrees that it is required to indemnify and hold the City harmless from all claims arising out of the use of the Encroachment Areas and the construction, maintenance, or removal of the Encroachments in the Encroachment Area, and to maintain a policy of public liability insurance, at no expense to the City, satisfactory to the City, and naming the City as an additional named insured, in an amount of at least \$_____ per occurrence subject to a \$_____ general aggregate amount as required by the City's Risk Manager.

6. **Removal From and Restoration of Encroachment Area and Right-of-Way.** Electric Vehicle Supply Equipment Owner agrees to remove, at its cost, any or all of the Encroachments as described on Exhibit "A" and to replace any area beneath and including the right-of-way where the Encroachments are located, to a condition satisfactory to the City within ninety (90) days after being notified to do so by the Commissioner, without cost to the City, and to ensure that the facilities constructed and installed in the Encroachment Areas are removed and the Encroachment Areas and right-of-way returned to a condition satisfactory to the Commissioner under the following circumstances:
 1. When the City's Department of Public Works determines that removal is required because of repairs that must be made to the right-of-way or because of infrastructure changes that must be made to the right-of-way; or
 2. When the City's Department of Public Works determines that the Encroachment ceases to have continuous use, has a change in the type or degree of use, or if the structural or functional soundness of the Encroachment deteriorates due to lack of maintenance, damage by fire, flood, wind, or other act of God; or
 3. When the City's Department of Public Works determines that removal is required for the safe and efficient use of the right-of-way by the public; or

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4. When the City's Department of Public Works determines that removal is required to maintain the health, safety, property or welfare of the public.

Any notice issued by the City's Department of Public Works to remove the Encroachment for the reasons set out in subsections 6.1 through 6.4 above will not be issued except when no other reasonable option is available to the City's Department of Public Works.

7. **Compliance with the City's Code of Ordinances.** Electric Vehicle Supply Equipment Owner agrees at all times during the term of this Agreement to comply with all of the terms of the City's Code of Ordinances applicable to this Agreement, including, but not limited to Chapter 138.
8. **Compliance with Applicable Law; Reparation of Facilities and Utilities.** Electric Vehicle Supply Equipment Owner agrees to conduct all activities within the Encroachment Areas and right-of-way in accordance with all applicable local, state, and federal rules, regulations, and standards. Electric Vehicle Supply Equipment Owner agrees to maintain the private utilities and facilities installed and constructed in the Encroachment Areas in good condition, and will require its contractors to repair any damage to any City facilities caused by the contractor, and any public or private utilities.
9. **Reimbursement of Damages to the City.** Electric Vehicle Supply Equipment Owner agrees to require its contractors to repair any damage to the right-of-way or Encroachment Areas resulting from the contractors' use of the Encroachment Areas or the maintenance, repair or use of the utility facilities in the Encroachment Area and will require Electric Vehicle Supply Equipment Owner's contractors to reimburse the City for any damage to the right-of-way or Encroachment Areas resulting from the contractors' use of the Encroachment Areas or the construction, installation, maintenance, repair or use of the Encroachment Areas.
10. **Application Fee and Annual Inspection Fee.** Electric Vehicle Supply Equipment Owner agrees to pay to City, in advance of construction and or installation of the Encroachments, a one-time application fee of \$1,300.00 and a yearly inspection fee of \$100.00. The payment of the application fee is a condition precedent to the execution of this Agreement by the City.
11. **Annual Inspection.** Electric Vehicle Supply Equipment Owner agrees to provide an annual inspection of the Encroachment Areas to ensure that the same is in a safe and suitable condition for public use and travel, and to provide to the City a written report upon request.
12. **Non-Exclusivity Of Agreement.** This Agreement is not exclusive and does not negate any past, present, or future agreement that the City may enter into with any other utility and/or electric vehicle supply equipment owner or provider for use of the right-of-way.
13. **Notices.**

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A. **Addresses:** The City and Electric Vehicle Supply Equipment Owner agree that all notices, demands, and requests required under this Agreement must be in writing and sent to the City or to Electric Vehicle Supply Equipment Owner addressed as follows:

TO THE CITY:

Commissioner
City of Atlanta, Department of Public Works
55 Trinity Avenue, S.W.
Atlanta, Georgia 30303

TO ELECTRIC VEHICLE

Electric Vehicle Supply Equipment Owner

SUPPLY EQUIPMENT OWNER

PLEASE INCLUDE MAILING ADDRESS HERE

B. **Delivery.** All notices given by either party to the other under this Agreement must be in writing and may be delivered by:

1. regular mail, first class, postage prepaid;
2. certified or registered mail;
3. facsimile, with a hard copy sent within 24 hours of transmission by one of the other permitted delivery means; or
4. hand-delivery, to the parties at the addresses and facsimile numbers specified in the Clause titled "Addresses".

C. **Receipt.** Notices sent by mail will be deemed received three (3) days after deposit in the mail, properly addressed. Notices sent by certified or registered mail will be deemed to be received upon the date of the acknowledgment. Notices sent by facsimile will be deemed to be received upon successful transmission to the proper facsimile number; if the sender can produce a facsimile transmission confirmation report. Notices delivered by hand-delivery will be deemed to be received upon written acceptance by the respective party.

D. **Change of Address or Facsimile Number.** Either party may, at any time, change its respective address or facsimile number by sending written notice to the other party of the change.

14. **Default and Termination of Agreement.** If Electric Vehicle Supply Equipment Owner defaults in its performance of this Agreement, and fails to cure the default within thirty (30) days of the City's written notice to Electric Vehicle Supply Equipment Owner of the default [or if such default is not capable of being cured within thirty (30) days], Electric Vehicle Supply Equipment Owner has not commenced curing the default and diligently pursued such cure to completion within a reasonable amount of time), this Agreement may be terminated by the City upon ten (10) days prior written notice to Electric Vehicle Supply Equipment Owner. Upon termination of this Agreement by the City, Electric Vehicle Supply Equipment Owner must

TITLE: _____

Section 3.2.7 – EVSE and Installation RFP (Durham County, NC)



REQUEST FOR PROPOSALS

DURHAM COUNTY ELECTRIC VEHICLE SUPPLY EQUIPMENT AND INSTALLATION

SCOPE OF WORK

PURPOSE: The purpose and intent of this Request for Proposals (RFP) is to solicit proposals from qualified Contractor(s) to establish a contract to provide Level II Electric Vehicle Supply Equipment (EVSE) stations at multiple County facilities, along with turnkey installation services.

BACKGROUND: Durham County has a history of promoting environmental sustainability, including reducing air pollution from vehicles. As part of that continuing commitment and in preparation for the arrival of electric vehicles to the local market, Durham County is interested in installing EVSE at up to 6 (six) facilities. Durham County is eligible for American Recovery and Reinvestment Act (ARRA) funding to cover some of the cost of EVSE installation and equipment.

STATEMENT OF NEED: The County of Durham is seeking a qualified contractor that will manage, perform, and document the Electric Vehicle Charging Station Project. The contractor selected must demonstrate an understanding of the electrical EVSE industries and have demonstrated skills in managing similar projects.

Six (6) County facilities are currently candidates for provisioning of EVSE equipment. Each of these facilities are included in this RFP as potential candidates for implementation, however the County may decide to implement EVSE at a subset of these facilities in the initial contract. Each facility will have varying parking configurations requiring a variety of approaches to implementation, including wall and pedestal mounting of single or multiple station EVSEs. This request is not limited to one EVSE manufacturer.

The response to this RFP should assume the implementation EVSE charging capability for two vehicle parking spaces at each facility using the most cost effective and/or desirable solution based on the facility's specific conditions.

Additionally, the County will also consider a proposal for enabling four parking spaces at a facility using a four-station EVSE where the layout is appropriate and cost effective.

The proposal should include all required electrical provisioning to the point of installation, appropriate signage, protection bollards, etc. for a complete, turnkey solution that complies with all applicable national, state and local code requirements. The amount of electrical design and provisioning will vary based on the requirements stated for each facility.

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Pricing and analysis should be provided separately for each of the proposed facilities.

Additionally, the RFP response should discuss the bidder's approach and fees related to ongoing support and maintenance.

PROPOSAL FORM

The County of Durham invites your sealed proposal to provide Level II electric vehicle supply equipment (EVSE) stations at multiple County facilities, along with turnkey installation services.

In accordance with the attached instructions, terms, conditions, and specifications, we submit the following proposal to the County of Durham.

PROPOSED COST

<u>Facility</u>	<u>EVSE Equipment</u>	<u>Ancillary Equipment/Services</u>	<u>Total Cost</u>
a) Human Services	\$ _____	\$ _____	\$ _____
b) Courthouse	\$ _____	\$ _____	
	\$ _____		
c) South Library	\$ _____	\$ _____	\$ _____
d) North Library	\$ _____	\$ _____	\$ _____
e) Main Library	\$ _____	\$ _____	\$ _____
f) Southwest Library	\$ _____	\$ _____	\$ _____

Total Cost

\$ _____

I certify that the contents of this proposal are known to no one outside the firm, and to the best of my knowledge all requirements have been complied with.

Date: _____ Authorized Signature: _____

DETAILED REQUIREMENTS

Facility Descriptions

The County is committed to installing EVSE in locations that can be used by citizens for short-term opportunity charges during the day. The County's preference is for dual-stations (one physical pole set to serve two parking spaces so that two cars can charge simultaneously) because this arrangement seems to provide the most electric vehicle charging parking places for the money. However, proposals may include pricing for both single and multiple EVSE charging stations.

Viewing of the facilities, including the electrical closets will require prior approval and coordination through County staff.

Durham County Human Services Complex – 400 Main Street, Durham, NC

This building is currently under construction on the 400 block of Main Street. The EVSE's will be located in an adjacent surface parking lot which is located on the 500 block of Main Street. Six one inch conduits have been placed at six designated locations for EVSEs for the provision of electrical power. Conduits have also been placed at each designated location for a future data connection to the ESVEs. The response to this RFP should address the provisioning of ESVE equipment at a single designated parking location, serving two adjacent parking spaces. The additional designated locations will be implemented at a future date. For this facility, the RFP response should identify the power requirements needed to satisfy the proposed ESVE equipment. The actual implementation of the electrical circuit to the ESVE equipment location will be performed by the current building contractor under a change order issued by the County.

Durham County Courthouse – Mangum Street, Durham, NC

This building is currently under construction on a site adjacent to the Durham County Jail, on a block bordered by Dillard, Mangum, and Roxboro Streets. The EVSE's will be located in an adjacent multi-level parking garage. Parking spaces have been designated for ESVE equipment and conduit has been run to the wall locations in front of each designated space for electrical power and future data connections. ESVEs are intended to be wall-mounted. The response to this RFP should address the provisioning of ESVE equipment to serve two designated parking locations, with either a single or two-station ESVE. The additional designated locations will be implemented at a future date. For this facility, the RFP response should identify the power requirements needed to satisfy the proposed ESVE equipment. The actual implementation of the electrical circuit to the ESVE equipment location will be performed by the current building contractor under a change order issued by the County.

Durham County Library – South Regional Branch – 4505 S. Alston Avenue, Durham, NC

This building was recently completed. The EVSE's will be located in a surface parking lot. Four one inch conduits have been placed from the electrical closet in the building to a parking lot island adjacent to the designated location of the ESVEs. Two of the conduits are designated for ESVE power and the other two are designated for a future data connection to the ESVE. The spaces are laid out such that a two-station ESVE could serve two adjacent spaces, or optionally, a four- station ESVE could serve those two spaces and two additional spaces on the opposite side of the island. Electrical power requirements for the ESVEs will need to be assessed and provided for this facility as part of the RFP response.

Durham County Library – North Regional Branch – 221 Milton Road, Durham, NC

This building was completed in the last four years. The EVSE's will be located in a surface parking lot. No conduits or other provisioning has been provided for the implementation of ESVE equipment. The spaces are laid out such that a two-station ESVE could serve two adjacent spaces, or optionally, a four- station ESVE could serve those two spaces and two additional spaces on the opposite side of the island. Electrical power requirements for the ESVEs will need to be assessed and provided for this facility as part of the RFP response.

Durham County Library – Main Library – 300 N. Roxboro Street, Durham, NC

The EVSE's will be located in a surface parking lot. No conduits or other provisioning has been provided for the implementation of ESVE equipment. The spaces are laid out such that a two-station ESVE could serve two adjacent spaces. Electrical power requirements for the ESVEs will need to be assessed and provided for this facility as part of the RFP response.

Durham County Library – Southwest Regional Branch – 3605 Shannon Road, Durham, NC

This building was recently completed. The EVSE's will be located in a surface parking lot. Two one inch conduits have been stubbed out of the building foundation from the electrical closet for support of ESVE equipment. One of the conduits is designated for ESVE power and the other is designated for a future data connection to the ESVE. The spaces are laid out such that a two-station ESVE could serve two adjacent spaces. Electrical power requirements for the ESVEs will need to be assessed and provided for this facility as part of the RFP response.

Proposed Solution

The RFP response should include a description of the proposed solution for each facility and

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any considerations that may warrant a revised location for the EVSE placement, location adequacy, or ability to meet NEC 625 or comply with local requirements.

3. EVSE Selection and Requirements

The County of Durham is seeking quality EVSEs for its countywide infrastructure. The selected EVSE Provider must be able to deliver and service high quality products beyond the installation period.

The following tables contain a list of specific requirements for the EVSE consideration that should be addressed as part of the RFP response:

EVSE REQUIREMENTS	MEETS
	REQ(Y/N)
GENERAL EVSE REQUIREMENTS	
Equipment must be durable to withstand area's extreme weather conditions	
EVSEs that will accommodate the needs of the full range of vehicles requiring access to electrical charging, including plug-in hybrids and all-electric vehicles.	
EVSEs that universally accommodate vehicles from all manufacturers, and that comply with all applicable building codes, SAE standards, UL safety codes, ADA requirements and industry standards.	
EVSEs that meet customers' EV charging needs in any or all key locations including commercial garages and parking lots, transit hubs, workplace locations, and on-street parking in residential neighborhoods.	
Use of "smart charging" concepts to minimize charging during on-peak hours and to maximize customer convenience, and which are compatible with the utility industry's Advanced Metering Infrastructure systems ("smart meters")	
Provision of attractive EV charging with conventional billing rates for customers, and convenient billing systems.	
Consideration of means to accommodate the extended-range needs of EV drivers, such as fast charging.	
Provisions for maintenance requirements and other ancillary services provided by vendor or distributor.	
Warranty period for equipment and installation of equipment.	

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TECHNOLOGY ENVIRONMENT FOR EVSE REQUIREMENTS	
Specify Applicable Technical EVSE specifications, listing and testing such as:	
SAE Standards met:	
SAE J551 Electromagnetic compatibility standards	
SAE J1772™ Conductive 5-pin coupling for EVSE	
SAE J1850 Communication network between EVSE and the EV	
SAE J2178 Message format for the communication network	
SAE J2293 Energy transfer system, umbrella document for EV standards	
SAE J2294 Onboard power charger quality	
SAE J2836 Digital communications use case between EVSE and vehicle	
SAE J2847 Digital communications specifications	
UL Listed / Tested	
UL 2202 Safety of EVSE	
UL 2231 Shock prevention measures for EVSE	
UL 2251 Safety of cord set	
Circuit re-closure – remote or automatic re-energized after a fault has cleared	
Cold load pickup (random restart after power outage)	
Load management connection (for future utility control)	
Input voltage and amperage range	
Self testing – diagnostics, safety, ground monitor, etc.	
Diagnostic status indicator	
Operating temperature range	
Mounting – wall, pedestal, other	
Equipment must meet the emerging open standard of the industry and avoids proprietary subscriber networks	
Equipment that can communicate the EVSEs availability is preferred yet not necessary	
Equipment that can accept payment is not necessary for this project but having the ability to do so in the future is preferred	
Charge status display	
EVSE dimensions	
EVSE footprint dimensions (for installation)	

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Project Deliverables

The overall goal of the project is a turnkey design and implementation of an electric vehicle charging infrastructure at multiple selected facilities within the County. The following table contains a list of specific deliverables to be included in the project, although the list should not be considered to be exhaustive. The scope of some items will vary depending on the requirements stated for each facility.

As part of the RFP response, the bidder should provide a proposed schedule for the work.

DELIVERABLES
[Deliverable Group #1] (ESVE Equipment)
Purchase of Level II Electric Vehicle Service Equipment Units as approved by County
[Deliverable Group #2] (Installation, for each of the candidate facilities)
1. Load calculation and electrical drawings
2. Required permits – e.g. electrical, right of way
3. Location of underground utilities
4. Installation of conduit groundwork
5. Installation of spare conduit for future EVSE
6. Proper scheduled inspections
7. Electrical disconnect within site of unit, if required
8. Installation of EVSE equipment
9. Signage – EVSE identification sign, directional signage and ADA signage
10. Proper striping of parking spaces
11. Protection of EVSE unit from potential physical damage (i.e. bollards)
12. Repair of sidewalks, landscaping upon completion of the EVSE installation
13. Skills transfer to County employees
14. Closeout Documents typical of a construction project (O&M Manuals, Warranties, Contractor/Subcontractor Affidavits, Record Drawings)

Finalists / Vendor Short List

Proposals will be examined promptly after opening and a selection committee will be organized to evaluate the responses. Based on the evaluation of the proposals, the County will select a short list of vendors and invite them for an interview, and optionally an onsite functional and technical demonstration of the proposed EVSE product. Vendors who are not selected for interviews will also be notified of their status.

Price Proposals

The County's objective of the evaluation will be to achieve the best balance of the performance and price for this effort. The County requires that all requested elements requested in the RFP be addressed.

Final Selection

The selection committee will interview the short list candidates and make a selection for discussions leading to a contract, and the remaining firms will be notified of their status. The prices quoted must be held firm for 180 days after the proposal is due. The County reserves the right to make an award without further discussion of the proposal submitted. The County shall not be bound or in any way obligated until both parties have executed a contract. The County also reserves the right to delay contract award, not to make a contract award, or to make a separate award for the purchase of EVSEs or the installation of said equipment.

The general conditions and specifications of the RFP and the successful vendor's response, as amended by agreement between the County and the vendor, including e-mail or written correspondence relative to the RFP, may become part of the contract documents. Failure of the vendor's products to perform as represented may result in elimination of the vendor from competition or in contract cancellation or termination.

Special Provisions Relating to Work Funded Under American Recovery and Reinvestment Act of 2009 (May 2009)

Preamble

The American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (Recovery Act) was enacted to preserve and create jobs and promote economic recovery, assist those most impacted by the recession, provide investments needed to increase economic efficiency by spurring technological advances in science and health, invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits, stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive State and local tax increases. Recipients shall use grant funds in a manner that maximizes job creation and economic benefit.

The Recipient shall comply with all terms and conditions in the Recovery Act relating generally to governance, accountability, transparency, data collection and resources as specified in Act itself and as discussed below.

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related guidance. For projects funded by

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sources other than the Recovery Act, Contractors must keep separate records for Recovery Act funds and to ensure those records comply with the requirements of the Act.

The Government has not fully developed the implementing instructions of the Recovery Act, particularly concerning specific procedural requirements for the new reporting requirements. The Recipient will be provided these details as they become available. The Recipient must comply with all requirements of the Act. If the recipient believes there is any inconsistency between ARRA requirements and current award terms and conditions, the issues will be referred to the Contracting Officer for reconciliation.

Definitions

For purposes of this clause, Covered Funds means funds expended or obligated from appropriations under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5. Covered Funds will have special accounting codes and will be identified as Recovery Act funds in the grant, cooperative agreement or TIA and/or modification using Recovery Act funds. Covered Funds must be reimbursed by September 30, 2015.

Non-Federal employer means any employer with respect to covered funds -- the contractor, subcontractor, grantee, or recipient, as the case may be, if the contractor, subcontractor, grantee, or recipient is an employer; and any professional membership organization, certification of other professional body, any agent or licensee of the Federal government, or any person acting directly or indirectly in the interest of an employer receiving covered funds; or with respect to covered funds received by a State or local government, the State or local government receiving the funds and any contractor or subcontractor receiving the funds and any contractor or subcontractor of the State or local government; and does not mean any department, agency, or other entity of the federal government.

Recipient means any entity that receives Recovery Act funds directly from the Federal government (including Recovery Act funds received through grant, loan, or contract) other than an individual and includes a State that receives Recovery Act Funds.

Special Provisions

A. Flow Down Requirement

Recipients must include these special terms and conditions in any subaward.

B. Segregation of Costs

Recipients must segregate the obligations and expenditures related to funding under the Recovery Act. Financial and accounting systems should be revised as necessary to segregate, track and maintain these funds apart and separate from other revenue streams. No part of the funds from the Recovery Act shall be commingled with any other funds or used for a purpose other than that of making payments for costs allowable for Recovery Act projects.

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C. Prohibition on Use of Funds

None of the funds provided under this agreement derived from the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may be used by any State or local government, or any private entity, for any casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool.

D. Access to Records

With respect to each financial assistance agreement awarded utilizing at least some of the funds appropriated or otherwise made available by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, any representative of an appropriate inspector general appointed under section 3 or 8G of the Inspector General Act of 1988 (5 U.S.C. App.) or of the Comptroller General is authorized --

(1) to examine any records of the contractor or grantee, any of its subcontractors or subgrantees, or any State or local agency administering such contract that pertain to, and involve transactions that relate to, the subcontract, subgrant, grant, or subgrant; and

(2) to interview any officer or employee of the contractor, grantee, subgrantee, or agency regarding such transactions.

E. Publication

An application may contain technical data and other data, including trade secrets and/or privileged or confidential information, which the applicant does not want disclosed to the public or used by the Government for any purpose other than the application. To protect such data, the applicant should specifically identify each page including each line or paragraph thereof containing the data to be protected and mark the cover sheet of the application with the following Notice as well as referring to the Notice on each page to which the Notice applies:

Notice of Restriction on Disclosure and Use of Data

The data contained in pages ---- of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data here to the extent provided in the award. This restriction does not limit the Government's right to use or disclose data obtained without restriction from any source, including the applicant.

Information about this agreement will be published on the Internet and linked to the website www.recovery.gov, maintained by the Accountability and Transparency Board. The Board may exclude posting contractual or other information on the website on a case-by-case basis when necessary to protect national security or to protect information that is not subject to disclosure under sections 552 and 552a of title 5, United States Code.

F. Protecting State and Local Government and Contractor Whistleblowers.

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The requirements of Section 1553 of the Act are summarized below. They include, but are not limited to:

Prohibition on Reprisals: An employee of any non-Federal employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or other person working for the employer who has the authority to investigate, discover or terminate misconduct), a court or grand jury, the head of a Federal agency, or their representatives information that the employee believes is evidence of:

- gross management of an agency contract or grant relating to covered funds;
- a gross waste of covered funds;
- a substantial and specific danger to public health or safety related to the implementation or use of covered funds;
- an abuse of authority related to the implementation or use of covered funds; or
- as violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to covered funds.

Agency Action: Not later than 30 days after receiving an inspector general report of an alleged reprisal, the head of the agency shall determine whether there is sufficient basis to conclude that the non-Federal employer has subjected the employee to a prohibited reprisal. The agency shall either issue an order denying relief in whole or in part or shall take one or more of the following actions:

- Order the employer to take affirmative action to abate the reprisal.
- Order the employer to reinstate the person to the position that the person held before the reprisal, together with compensation including back pay, compensatory damages, employment benefits, and other terms and conditions of employment that would apply to the person in that position if the reprisal had not been taken.
- Order the employer to pay the employee an amount equal to the aggregate amount of all costs and expenses (including attorneys' fees and expert witnesses' fees) that were reasonably incurred by the employee for or in connection with, bringing the complaint regarding the reprisal, as determined by the head of a court of competent jurisdiction.

Nonenforceability of Certain Provisions Waiving Rights and remedies or Requiring Arbitration: Except as provided in a collective bargaining agreement, the rights and remedies provided to aggrieved employees by this section may not be waived by any agreement, policy, form, or condition of employment, including any predispute arbitration agreement. No predispute arbitration agreement shall be valid or enforceable if it requires arbitration of a dispute arising out of this section.

Requirement to Post Notice of Rights and Remedies: Any employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, shall post notice

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of the rights and remedies as required therein. (Refer to section 1553 of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, www.Recovery.gov, for specific requirements of this section and prescribed language for the notices.).

G. Reserved

H. False Claims Act

Recipient and sub-recipients shall promptly refer to the DOE or other appropriate Inspector General any credible evidence that a principal, employee, agent, contractor, sub-grantee, subcontractor or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity or similar misconduct involving those funds.

I. Information in Support of Recovery Act Reporting

Recipient may be required to submit backup documentation for expenditures of funds under the Recovery Act including such items as timecards and invoices. Recipient shall provide copies of backup documentation at the request of the Contracting Officer or designee.

J. Availability of Funds

Funds obligated to this award are available for reimbursement of costs until 36 months after the award date.

REPORTING AND REGISTRATION REQUIREMENTS UNDER SECTION 1512 OF THE RECOVERY ACT

(a) This award requires the recipient to complete projects or activities which are funded under the American Recovery and Reinvestment Act of 2009 (Recovery Act) and to report on use of Recovery Act funds provided through this award. Information from these reports will be made available to the public.

(b) The reports are due no later than ten calendar days after each calendar quarter in which the Recipient receives the assistance award funded in whole or in part by the Recovery Act.

(c) Recipients and their first-tier subrecipients must maintain current registrations in the Central Contractor Registration (<http://www.ccr.gov>) at all times during which they have active federal awards funded with Recovery Act funds. A Dun and Bradstreet Data Universal Numbering System (DUNS) Number (<http://www.dnb.com>) is one of the requirements for registration in the Central Contractor Registration.

(d) The recipient shall report the information described in section 1512(c) of the Recovery Act using the reporting instructions and data elements that will be provided online at <http://www.FederalReporting.gov> and ensure that any information that is pre-filled is corrected or updated as needed.

NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS

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It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

*Special Note: Definitization of the Provisions entitled, “REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009” and “REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS) – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009” will be done upon definition and review of final activities.

REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

(a) *Definitions.* As used in this award term and condition—

(1) *Manufactured good* means a good brought to the construction site for incorporation into the building or work that has been—

(i) Processed into a specific form and shape; or

(ii) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

(2) *Public building and public work* means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

(3) *Steel* means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Domestic preference.* (1) This award term and condition implements Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) (Pub. L. 111–5), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States except as provided in paragraph (b)(3) and (b)(4) of this section and condition.

(2) This requirement does not apply to the material listed by the Federal Government as follows:

To Be Determined

(3) The award official may add other iron, steel, and/or manufactured goods to the list in paragraph (b)(2) of this section and condition if the Federal Government determines that—

(i) The cost of the domestic iron, steel, and/or manufactured goods would be unreasonable.

The cost of domestic iron, steel, or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the cost of the overall project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

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(c) *Request for determination of inapplicability of Section 1605 of the Recovery Act.* (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(3) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(3) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, and/or manufactured goods material shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods is noncompliant with section 1605 of the American Recovery and Reinvestment Act.

(d) *Data.* To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the Recipient shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Items Cost Comparison

Description	Unit of measure	Quantity	Cost (dollars)*
Item 1:			
Foreign steel, iron, or manufactured good			

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Domestic steel, iron, or manufactured good			
<i>Item 2:</i>			
Foreign steel, iron, or manufactured good			
Domestic steel, iron, or manufactured good			

List name, address, telephone number, email address, and contact for suppliers surveyed.

Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

**Include all delivery costs to the construction site.*

REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS) – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

(a) *Definitions.* As used in this award term and condition—

Designated country — (1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein,

Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom;

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or

(3) A United States-European Communities Exchange of Letters (May 15, 1995) country: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and United Kingdom.

Designated country iron, steel, and/or manufactured goods — (1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a manufactured good that consist in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different manufactured good distinct from the materials from which it was transformed.

Domestic iron, steel, and/or manufactured good — (1) Is wholly the growth, product, or manufacture of the United States; or

(2) In the case of a manufactured good that consists in whole or in part of materials from another country, has been substantially transformed in the United States into a new and different manufactured good distinct from the materials from which it was transformed. There is no requirement with regard to the origin of components or subcomponents in manufactured goods or products, as long as the manufacture of the goods occurs in the United States.

Foreign iron, steel, and/or manufactured good means iron, steel and/or manufactured good that is not domestic or designated country iron, steel, and/or manufactured good.

Manufactured good means a good brought to the construction site for incorporation into the building or work that has been—

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- (1) Processed into a specific form and shape; or
- (2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

Public building and *public work* means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works. *Steel* means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Iron, steel, and manufactured goods.* (1) The award term and condition described in this section implements—

(i) Section 1605(a) of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111–5) (Recovery Act), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States; and

(ii) Section 1605(d), which requires application of the Buy American requirement in a manner consistent with U.S. obligations under international agreements. The restrictions of section 1605 of the Recovery Act do not apply to designated country iron, steel, and/or manufactured goods. The Buy American requirement in section 1605 shall not be applied where the iron, steel or manufactured goods used in the project are from a Party to an international agreement that obligates the recipient to treat the goods and services of that Party the same as domestic goods and services. This obligation shall only apply to projects with an estimated value of \$7,443,000 or more.

(2) The recipient shall use only domestic or designated country iron, steel, and manufactured goods in performing the work funded in whole or part with this award, except as provided in paragraphs (b)(3) and (b)(4) of this section.

(3) The requirement in paragraph (b)(2) of this section does not apply to the iron, steel, and manufactured goods listed by the Federal Government as follows:

To Be Determined

(4) The award official may add other iron, steel, and manufactured goods to the list in paragraph (b)(3) of this section if the Federal Government determines that—

(i) The cost of domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, and/or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the overall cost of the project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.* (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured

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goods in accordance with paragraph (b)(4) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(4) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, or manufactured goods shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other appropriate actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods other than designated country iron, steel, and/or manufactured goods is noncompliant with the applicable Act.

(d) *Data*. To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the applicant shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Items Cost Comparison

Description	Unit of measure	Quantity	Cost (dollars)*
Item 1:			

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Foreign steel, iron, or manufactured good			
Domestic steel, iron, or manufactured good			
<i>Item 2:</i>			
Foreign steel, iron, or manufactured good			
Domestic steel, iron, or manufactured good			

List name, address, telephone number, email address, and contact for suppliers surveyed.

Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

**Include all delivery costs to the construction site.*

WAGE RATE REQUIREMENTS UNDER SECTION 1606 OF THE RECOVERY ACT

(a) Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in

29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of \$2,000 for construction, alteration or repair (including painting and decorating).

(b) For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of Davis-Bacon requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.

RECOVERY ACT TRANSACTIONS LISTED IN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS AND RECIPIENT RESPONSIBILITIES FOR INFORMING SUBRECIPIENTS

(a) To maximize the transparency and accountability of funds authorized under the American Recovery and Reinvestment Act of 2009 (Pub. L. 111–5) (Recovery Act) as required by Congress and in accordance with 2 CFR 215.21 “Uniform Administrative Requirements for Grants and Agreements” and OMB Circular A–102 Common Rules provisions, recipients agree to maintain records that identify adequately the source and application of Recovery Act funds. OMB Circular A–102 is available at <http://www.whitehouse.gov/omb/circulars/a102/a102.html>.

(b) For recipients covered by the Single Audit Act Amendments of 1996 and OMB Circular A–133, “Audits of States, Local Governments, and Non-Profit Organizations,” recipients agree to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF–SAC) required by OMB Circular A–133. OMB Circular A–133 is available at

<http://www.whitehouse.gov/omb/circulars/a133/a133.html>. This shall be accomplished by identifying expenditures for Federal awards made under the Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF–SAC by CFDA number, and inclusion of the prefix “ARRA-” in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF–SAC.

(c) Recipients agree to separately identify to each subrecipient, and document at the time of subaward and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of Recovery Act funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to subrecipients shall distinguish the subawards of incremental Recovery Act funds from regular subawards under the existing program.

(d) Recipients agree to require their subrecipients to include on their SEFA information to specifically identify Recovery Act funding similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor subrecipient expenditure of ARRA funds as well as oversight by the Federal awarding agencies, Offices of Inspector General and the Government Accountability Office.

DAVIS-BACON ACT REQUIREMENTS

Note: Where necessary to make the context of these articles applicable to this award, the term "Contractor" shall mean "Recipient" and the term "Subcontractor" shall mean "Subrecipient or Subcontractor" per the following definitions.

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Recipient means the organization, individual, or other entity that receives an award from DOE and is financially accountable for the use of any DOE funds or property provided for the performance of the project, and is legally responsible for carrying out the terms and conditions of the award.

Subrecipient means the legal entity to which a subaward is made and which is accountable to the recipient for the use of the funds provided. The term may include foreign or international organizations (such as agencies of the United Nations).

Davis-Bacon Act

(a) Definition.--"Site of the work"--

(1) Means--

(i) The primary site of the work. The physical place or places where the construction called for in the award will remain when work on it is completed; and

(ii) The secondary site of the work, if any. Any other site where a significant portion of the building or work is constructed, provided that such site is--

(A) Located in the United States; and

(B) Established specifically for the performance of the award or project;

(2) Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided--

(i) They are dedicated exclusively, or nearly so, to performance of the award or project; and

(ii) They are adjacent or virtually adjacent to the "primary site of the work" as defined in paragraph (a)(1)(i), or the "secondary site of the work" as defined in paragraph (a)(1)(ii) of this definition;

(3) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal award or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the "site of the work." Such permanent, previously established facilities are not a part of the "site of the work" even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a award.

(b) (1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued

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by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the award was performed at that site and shall be incorporated without any adjustment in award price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.

(2) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this article; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

(3) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the article entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(4) The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this article) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(c) (1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the award shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:

*Wage and Hour Division
Employment Standards Administration
U.S. Department of Labor
Washington, DC 20210*

The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (c)(2) and (c)(3) of this article shall be paid to all workers performing work in the classification under this award from the first day on which work is performed in the classification.

(d) Whenever the minimum wage rate prescribed in the award for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(e) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

Rates of Wages - Prior Approval for Proceeding with Davis-Bacon Construction Activities

If the Recipient determines at any time that any construction, alteration, or repair activity as defined by 29 CFR 5.2(j) (<http://cfr.vlex.com/vid/5-2-definitions-19681309>) will be performed during the course of the project, the Recipient shall request approval from the Contracting

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Officer prior to commencing such work. If the Contracting Officer concurs with the Recipient's determination, the Recipient must receive Contracting Officer approval to proceed with such activity, and must comply with all applicable Davis-Bacon requirements, prior to commencing such work. A modification to the award which incorporates the appropriate Davis-Bacon wage rate determination(s) will constitute the Contracting Officer's approval to proceed. If the Contracting Officer does not concur with the Recipient's determination, the Contracting Officer will so notify the Recipient in writing.

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Section 3.3.1 – Case Study – Atlantic Station (Commercial)

CB Richard Ellis Investors opened Atlanta's first public EV charging station on August 31, 2011 in Atlantic Station (on 17th Street across from the Millennium Gate).

Electric Vehicle Support Equipment Information

Type(s) of Unit(s)	240 volt level-2
Model	CS
Manufacturer	Clipper Creek
Number of Units	
Contact	Greg Crittenden

Ongoing Unit Management Company and Responsibility (Who is responsible for ongoing maintenance and paying for the electricity?):

CB Richard Ellis (CBRE)

Who funded the project? (Example: owner funded, DOE funded, etc)

CBRE

Information about the units installed and why these were chosen for this location:

The units were chosen at this location to provide convenience to visitors of Atlantic Station.

Did you prepare a plot plan for this installation? If so, please provide supporting documentation that outlines the technical specifications of the EVSE installation.

The units were designed to be a part of a solar canopy

Installation Information

Start date	N/A
Completion date	N/A
Consultant (if applicable)	Gary Daniels (770-318-3459)
Installer	Ace Electrical (770-971-8767)
Contractor	Ace Electrical

Description of signage:

"The Charging Spot" posted on backboard behind chargers

Parking information (Will there be a fee for parking? Will there be a fee for charging? If so what rate/method):

Fee for parking

Information about the installation process (barriers to success, achievements, unique issues that were overcome):

The challenges were created by the installation and permitting of the solar canopy, no special circumstances surrounded the installation of the EV chargers

Who are the expected consumers? How often do you expect charging to occur?

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Consumers are expected to be shoppers and restaurant visitors of Atlantic Station - Daily



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Section 3.3.2 – Case Study – Georgia Tech (Parking Garage)

Georgia Tech installed its first public PEV charging station on December 5, 2011 in the Georgia Tech Hotel and Conference Center parking deck located at 806 Spring St. NW in Atlanta.

This installation currently supports 2 vehicles charging at 220v (Level II) and uses a payment system designed by Recharge Solutions Int'l, LLC. These public chargers will be available to the University's faculty, students and visitors 24/7. Users can register for short or long term charging and pay by credit card on an hourly or monthly basis.

The Recharge Solutions Electric Vehicle Charging System is the only electric vehicle charger that is specifically designed for multi-level garages. It is scalable so that it can be expanded as additional demand develops and is the most technologically advanced electric vehicle charging system in the United States.

Recharge Solutions is also working on a private 110v (Level I) charging implementation in this same parking deck to support Georgia Tech's growing fleet of PEVs. This fleet system will enable the University to effectively monitor the usage and costs of its electric vehicle fleet.

White Electrical Construction, Inc. accomplished the physical installation for both systems on a sub contract with Recharge Solutions. The installation took about 2 months from initial project kickoff to the Grand Opening on December 5th. This is the pilot installation for Recharge Solutions and most of the installation time was spent testing and debugging their software systems.

Aaron Fowler is the Alternative Transportation Coordinator for the Georgia Tech Department of Parking and Transportation and can be reached at 404-385-6030 or aaron.fowler@parking.gatech.edu.

Vince Wood is the contact for White Electrical Construction, Inc. and can be reached at 404-925-1687.



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Section 3.3.3 – Case Study – Hilton Garden Inn (Hospitality)

Hilton Garden Inn installed their 1st public PEV charging stations on September 6th 2011 in the parking lot located at 3045 Windy Hill Rd. Atlanta GA. 30339. Eric Gray, General Manager with Hilton Garden Inn.

Electric Vehicle Support Equipment Information

Type(s) of Unit(s)	Pedestal Mount DuraStations Level 2
Model	
Manufacturer	General Electric
Number of Units	2
Contact	Chris Crawford

Ongoing Unit Management Company and Responsibility (Who is responsible for ongoing maintenance and paying for the electricity?):

Hilton Garden Inn will be responsible for providing the electricity and routine maintenance. Cole Technology will be responsible for any warranty issues (Cole also can provide for a fee routine maintenance).

Information about the units installed and why these were chosen for this location:

Installed two pedestal mounted DuraStations. These stations are both level 2 stations with the SAE approved J1772 connector.

Did you prepare a plot plan for this installation? If so please provide supporting documentation that outlines the technical specifications of the EVSE installation.

There was not a plot plan developed for this installation.

Installation Information

Start date	September 6, 2011
Completion date	October 10, 2011
Consultant (if applicable)	N/A
Installer	Cole Technology Inc. (404-472-1213)
Contractor	Ken Adams, Cole Technology Inc. (404-472-1213)

Description of signage:

Green and white "Reserved Parking Electric Vehicles Only"

Parking information (Will there be a fee for parking? Will there be a fee for charging? If so what rate/method):

Currently there is no fee for parking and from my understanding there are no plans for a fee in the future.

Information about the installation process (barriers to success, achievements, unique issues that were overcome):

The installation did not pose any significant obstacles. Although the location chosen for the stations was across the parking lot from the building so power had to run underground for approximately 125 feet. We accomplished this using a boring machine to bore under the drive and lot so as not to disrupt the driveway and parking area. We installed two bollards for protection against impact from automobiles.

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Section 3.3.4 – Case Study – Kirk-Rudy (Employment Center)

Overview:

- Kirk-Rudy, a Green and Sustainability-oriented company, commissioned a Solar Parking Canopy with one EV charging station for the use of their employees and visitors.
- 100 kW Photovoltaic (PV) canopy (475 feet long); 432 solar panels; 12 inverters; shade for 50 parking spots.
- Cost: in excess of \$500,000 with investment payback expected to be 3.5 years.
- Parking canopy structurally easier to install than rooftop - less maintenance overall.
- Set up with Feed-In Tariff to GA Power at \$0.17/kWh.
- Tied directly to power grid w/ no tie-in to facility. This is a GA Power requirement for Feed-In Tariff. KR gets credit in the form of a monthly check intended to offset their electricity bill.
- The EVCS is a 208 Volt / 40 amp unit. Provides 6.6 kW of charging power. Connected directly to the facility's electrical system (behind the meter) and does not interface with the solar panel array at all. This is for the following reasons:
 - Feed-In Tariff requires the solar array to be completely isolated from all loads. In essence, this is a dedicated power station for GA Power.
 - Connecting the EVCS the grid is far cheaper than installing a battery back-up system for times of non-solar production.

Major Issues Encountered:

- Erroneous Plot Plans:
 - An erroneous plot plan incorrectly showed a large water drainpipe six feet south of actual position.
 - Pipe was damaged during footer drilling. Extensive time and cost required for repairs.
- Permitting:
 - Permitting offices were not sure how to classify parking canopy with solar PV panels.
- Inspections:
 - Inspectors were generally unfamiliar with solar and EV charging station installations. We had to identify the various components, explain their function, and educate them on code requirements.
- Electric Vehicle Charging Station:
 - The original contract called for a 100 amp charging station. During the electrical installation phase of construction it was discovered the facility's electric service could not handle the 100-amp load without installing another transformer – an expensive solution and not covered by GA Power.
 - The EVCS was swapped out for a 40 amp charging station.



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Section 3.3.5 – Case Study – UPS (Employer)

UPS installed a public PEV charging station in April 2012 in their employee parking garage.

Electric Vehicle Support Equipment Information

Type(s) of Unit(s)	240 volt level-2
Model	LCS-25
Manufacturer	Clipper Creek
Number of Units	1
Contact	Greg Crittenden

Ongoing Unit Management Company and Responsibility (Who is responsible for ongoing maintenance and paying for the electricity?):

United Parcel Service (UPS)

Who funded the project?

UPS

Information about the units installed and why these were chosen for this location:

The units were chosen at this location to allow employees to charge at their workplace.

Did you prepare a plot plan for this installation? If so please provide supporting documentation that outlines the technical specifications of the EVSE installation.

The units were installed at a standard parking spot in their employee parking garage.

Installation Information

Start date	April 2012
Completion date	N/A
Consultant (if applicable)	Gary Daniels (770-318-3459)
Installer	Ace Electrical (770-971-8767)
Contractor	Ace Electrical

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Section 3.3.6 – Case Study – Acworth (Residential)

Christian Beauregard installed his first PEV charging station on May 11, 2012 in his home in Acworth, Georgia.

Electric Vehicle Support Equipment Information

Type(s) of Unit(s)	Level 2, 240V/25 amp with J1772
Model	Clipper Creek LCS-25
Manufacturer	Clipper Creek
Number of Units	1
Contact	greg@metroplugin.com

Installation Information

Start date	May 11, 2012
Completion date	May 11, 2012
Consultant (if applicable)	N/A
Installer	Pat Murphy Electric
Contractor	

Information about the installation process (barriers to success, achievements, unique issues that were overcome):

The charging station provider recommended by Nissan, which is also taking care of arranging the installation, sent a retired electrician to survey the installation. After discussing my requirements, the original plan was to mount the charging station on the outside of the house because the Leaf would be parked in our driveway. It was determined that we could not mount it directly to our vinyl siding. I decided to put in a post and mount the charger on the post.

The project required HOA approval. I had to provide a schematic, along with an explanation, of the proposed installation to our HOA for approval. The plan was to install a 4" X 4" pressure treated post, 5 feet high, about 4 inches away from the outside front corner of the garage, and mount the charging station 4 feet from the ground. The post would be covered by a vinyl sleeve and cap, for better aesthetics. It took about 3 weeks to receive a written confirmation of the approval.

The recommended charging station provider gave us an estimate of \$1,500 for the installation alone, which I thought too expensive. We contacted Metro Plug-In who came out to the house and suggested we mount it inside the garage as the cable has more than enough length to reach a car in the driveway. Together we solved the issue of the cable traveling underneath the garage door – it needed a new seal and some minor adjustment in the stopping point. The total cost of this installation was less than \$700 and that included an upgrade to 40-amp wire for future upgrade.

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Section 3.3.7 – Case Study – Atlanta (Residential)

Stephen Taylor installed EVSE in his home in Atlanta, Georgia, as well as solar panels to offset electricity demand.

EVSE Installation Process:

- Step 1: Buy a unit from Clipper Creek
- Step 2: Buy a range cord from Lowes and wire it into the Clipper Creek EVSE.
- Step 3: Plug it into one of the 2 NEMA 14-50 outlets I already have in my garage.

Stephen uses the Tesla EVSE that came with his PEV and is capable of pulling 70 amps at 240 volts or almost 17 kW. A private electrician installed a 100-amp breaker in his panel, ran the line into the garage and mounted the EVSE.

Offsetting electricity demand with solar panels:

A company that is no longer in the business installed the old solar panels, and the newer solar panels were installed by Solar Energy USA (based in Alpharetta, GA). The old panels consist of 80 75-watt (6000 watts) panels feeding 2 inverters. The newest fixed array consists of 28 240-watt panels (6720 watts), and the tracking system consists of 12 230-watt panels (2760 watts).

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Section 3.3.8 – Case Study – Clemson Area Transit (Transit Facility)

Clemson Area Transit installed their first public PEV charging station on June 24, 2011 in the facility's staff/guest parking lot.

Electric Vehicle Support Equipment Information

Type(s) of Unit(s)	Single Pedestal EVSRN3 208-240V/30A 1 phase
Model	NEMA 3R
Manufacturer	General Electric
Number of Units	2
Contact	NA

Ongoing Unit Management Company and Responsibility (Who is responsible for ongoing maintenance and paying for the electricity?):

H & W Electrical is responsible for ongoing maintenance, and Clemson Area Transit/City of Clemson pays for the electricity (note: CAT has solar panels on the roof of its facility to offset electricity cost).

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Who funded the project? (Example: owner funded, DOE funded, etc)

The IT portion of the American Recovery and Reinvestment Act (ARRA)

Information about the units installed and why these were chosen for this location:

GE was advertising a new sleek design (WattStation), which was not available at the time we needed to purchase, but we were able to negotiate an even change with the present models when the new ones came out. Design and price were the top considerations in choosing a charging station.

Installation Information

Start date	June 23, 2011
Completion date	June 24, 2011
Consultant (if applicable)	Brian Edens
Installer	Thurso Power Systems, LLC
Contractor	Alan Holcomb, H & W Electrical (864-233-7227)

Description of signage:

A sign stating "Electric Vehicle Parking" was posted by each of the EV chargers.

Parking information (Will there be a fee for parking? Will there be a fee for charging? If so what rate/method):

There is no fee for parking or charging. CAT is a fare-free system and wants to encourage as many "green" options for transportation as possible.

Information about the installation process (barriers to success, achievements, unique issues that were overcome):

There were no issues with installation because the EV units were designed in tandem with the new facility.

Who are the expected consumers? How often do you expect charging to occur?

CAT expects Clemson University students and professors to use the charging stations as well as the general public. At this point there are very few vehicles powered exclusively by electricity thus very limited usage of the charges.

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Section III



Section 3.4.1 – EV Readiness in the Southeast - Incentives

Federal Incentives

I. Incentive: Up to \$7,500 income tax credit

- a. *Details:* The federal government provides a tax incentive towards the purchase of a new electric vehicle. This financial incentive takes the form of a tax credit, going towards the purchaser's tax bill for the year of purchase.
- b. *Instructions:* The credit is computed and claimed on Federal Form 8936.
 1. Visit <http://fueleconomy.gov/feg/taxcenter.shtml> to confirm that you qualify
 2. Download and complete the IRS "Qualified Plug-In Electric Motor Vehicle Credit" Form (IRS Form 8936) at http://www.irs.gov/pub/irs-access/f8936_accessible.pdf
 3. Submit the Federal Form 8936 along with your tax filing
- c. *Important Stipulations:*
 1. The Federal tax incentives only apply to purchasers of new electric vehicles. Pre-owned or leased vehicles do not apply. (Some leasing arrangements might provide credit towards the down payment.)
 2. The full balance of the tax credit must be put towards the current year's income tax; any remainder of the \$7,500 is otherwise forfeit, and will not be transferred to the following year.
 3. The vehicle must be used primarily in the United States.
 4. Plug-in hybrids and battery-electric vehicles must be equipped with battery packs rated for at least 4 kilowatt-hours or greater, and must be capable of being charged from an external source.

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Example completed Federal Form 8936

Form 8936 Department of the Treasury Internal Revenue Service	Qualified Plug-in Electric Drive Motor Vehicle Credit ▶ Attach to your tax return.	OMB No. 1545-2137 <div style="font-size: 2em; font-weight: bold;">2010</div> Attachment Sequence No. 125
Name(s) shown on return John R Smith		Identifying number

Note.

- Use this form to claim the credit for certain plug-in electric vehicles (other than two- or three-wheeled or low-speed four-wheeled vehicles).
- Claim the credit for certain two- or three-wheeled or low-speed four-wheeled plug-in electric vehicles on Form 8834.
- Claim the credit for certain alternative motor vehicles or plug-in electric vehicle conversions on Form 8910.

Part I Tentative Credit

Use a separate column for each vehicle. If you need more columns, use additional Forms 8936 and include the totals on lines 6 and 10.

	(a) Vehicle 1	(b) Vehicle 2	(c) Vehicle 3
1 Year, make, and model of vehicle	1 2012 Chevrolet Volt		
2 Enter date vehicle was placed in service (MM/DD/YYYY)	2 01 / 01 / 2012	/ /	/ /
3 Tentative credit (see instructions for amount to enter)	3 7,500		

Next: If you did NOT use your vehicle for business or investment purposes and did not have a credit from a partnership or S corporation, skip Part II and go to Part III. All others, go to Part II.

Part II Credit for Business/Investment Use Part of Vehicle

4 Business/investment use percentage (see instructions)	4 0 %	%	%
5 Multiply line 3 by line 4	5 0		
6 Add columns (a) through (c) on line 5		6 0	
7 Qualified plug-in electric drive motor vehicle credit from partnerships and S corporations		7 0	
8 Business/investment use part of credit. Add lines 6 and 7. Partnerships and S corporations, report this amount on Schedule K; all others, report this amount on Form 3800, line 1y		8 0	

Part III Credit for Personal Use Part of Vehicle

9 If you skipped Part II, enter the amount from line 3. If you completed Part II, subtract line 5 from line 3	9 7,500		
10 Add columns (a) through (c) on line 9		10 7,500	
11 Enter the amount from Form 1040, line 46, or Form 1040NR, line 44		11 14,500	
12 Personal credits from Form 1040 or 1040NR (see instructions)		12 5	
13 Subtract line 12 from line 11		13 14,495	
14 Personal use part of credit. Enter the smaller of line 10 or line 13 here and on Form 1040, line 53, or Form 1040NR, line 50. Check box c on that line and enter "8936" in the space next to that box. If line 13 is smaller than line 10, see instructions		14 7,500	

For Paperwork Reduction Act Notice, see instructions. Cat. No. 37751E Form **8936** (2010)

Southeast Regional EV Readiness Workbook

Section III

Georgia Incentives

I. Tax Incentives:

a. Incentive: Up to \$5000 Zero Emission Vehicle (ZEV) income tax credit

- i. *Details:* The State of Georgia offers an income tax credit for 20% of the cost to purchase or lease a new Zero Emission Vehicle capped at \$5,000 per vehicle. All pure battery electric vehicles qualify as zero emission vehicles. Any portion of the credit not used in the year the ZEV is purchased or leased may be carried over for up to five years.
- ii. *Instructions:* The Georgia Environmental Protection Division (EPD) is responsible for issuing certificates for qualified vehicles. The certificate is used as verification that the taxpayer purchased/leased a qualified ZEV. The certificates are to be sent in with the taxpayer's income tax return in order to qualify for the tax credits. The State of Georgia Department of Revenue is responsible for approving and issuing the tax credit.
 - Obtain LEV/ZEV Certification Form from your dealer or EPD.
 - Complete the Certification Form and send the original to EPD along with copies of the following documents to EPD: (a) Bill of sale in the name of the taxpayer claiming the credit and (b) tag receipt or (c) Manufacturer Statement/Certificate of Origin. The form(s) and documents should be sent to the attention of James Udi, Georgia Environmental Protection Division, 4244 International Pkwy., Suite 134, Atlanta, Georgia 30354
 - EPD will review the completed form and documents. If all of the requirements have been met, EPD will sign the form and send it back to the taxpayer.
 - The taxpayer should attach the original approved Certification Form(s) to their Georgia Income Tax Return (Form 500) or Georgia Amended Tax Return (Form 500 X). Schedule 2 of the 500 form should reflect the amount of the anticipated credit (not to exceed your current year's tax liability). **Omission of the original Certificate Form(s) will result in the credit claimed being disallowed.**
- iii. *Important Stipulations:*
 - In no event shall the amount of this tax credit exceed the taxpayer's income tax liability. This tax credit may be carried forward for five years from the close of the taxable year in which the vehicle was purchased.
 - Hybrid-electric vehicles do not qualify for this incentive program. This includes Plug-in Hybrid Electric Vehicles (PHEV's) such as the Chevrolet Volt.
 - Low-speed vehicles do not qualify for this credit.

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Georgia EPD LEV / ZEV Certificate Form

LEV-_____	Georgia Department of Natural Resources Environmental Protection Division Mobile and Area Source Program - LEV Certification 4244 International Parkway, Suite 136, Atlanta, Georgia 30354 Mark Williams, Commissioner Judson H. Turner, Director (404) 363-7028										
LEV / ZEV Certification Form For State Tax Credit											
The following vehicle was tagged / registered in _____ County, Georgia:											
[Make]	[Model]	[Model Year]									
[Vehicle Identification Number (VIN)]	[Purchase Date]	[Fuel Type]									
is federally certified as an alternatively fueled LEV ILEV ULEV ZEV (circle one).											
This vehicle was purchased at:											
[Dealership Name]	[Dealership Contact]	[Phone #]									
[Street Address]	[City]	[State] [Zip]									
This vehicle was purchased by _____ (Company Name or Individual):											
[Social Security # or FEI]	[Company Contact]	[Phone #] [E-mail (optional)]									
[Street Address]	[City]	[State] [Zip]									
Under penalty of Georgia law, I hereby certify that the above-contained information is true and accurate to the best of my knowledge. I acknowledge that EPD will not accept this form unless it is completed, signed, and dated below.											
[Company Representative or Individual (print)]	[Signature]	[Date]									
<table border="1" style="width: 100%;"><tr><td colspan="2">EPD APPROVAL</td><td style="text-align: right;">For EPD Use Only</td></tr><tr><td><input type="checkbox"/> LEV Credit</td><td><input type="checkbox"/> ZEV Credit</td><td></td></tr><tr><td>EPD Associate (Print)</td><td>Signature</td><td>Date</td></tr></table>			EPD APPROVAL		For EPD Use Only	<input type="checkbox"/> LEV Credit	<input type="checkbox"/> ZEV Credit		EPD Associate (Print)	Signature	Date
EPD APPROVAL		For EPD Use Only									
<input type="checkbox"/> LEV Credit	<input type="checkbox"/> ZEV Credit										
EPD Associate (Print)	Signature	Date									

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b. Incentive: Up to \$2,500 Alternative Fuel Low Emission Vehicle (LEV) income tax credit

- i. *Details:* The State of Georgia offers an income tax credit for 10% of the cost to purchase or lease a new dedicated Alternative Fuel Low Emission Vehicle (LEV) or to convert a vehicle to operate solely on an alternative fuel that meets the standards for a low emission vehicle, up to \$2,500 per vehicle. It is important to note that this incentive does not apply to hybrid electric, flex fuel, or bi-fuel vehicles. Any portion of the credit not used in the year the LEV is purchased or converted may be carried over for up to five years.
- ii. *Instructions:* The Georgia Environmental Protection Division (EPD) is responsible for issuing certificates for qualified vehicles and conversions. **Detailed instructions are provided under the “Georgia Zero Emission Vehicle (ZEV) Income Tax Credit” section.**
- iii. *Important Stipulations:*
 - Vehicles that have been converted need to include a copy of the certificate of conformity from the manufacturer stating that the conversion will allow the vehicle to meet minimum LEV standards.
 - The Georgia Department of Natural Resources, Environmental Protection Division us the same form for both Zero Emission Vehicles (ZEV) and Alternative Fuel Low Emission Vehicles (LEV).
 - In no event shall the amount of this tax credit exceed the taxpayer’s income tax liability. This tax credit may be carried forward for five years from the close of the taxable year in which the vehicle was purchased or converted.
 - Hybrid-electric vehicles do not qualify for this incentive program. This includes Plug-in Hybrid Electric Vehicles (PHEV’s) such as the Chevrolet Volt.
 - Vehicles that qualify for the LEV tax credit typically include vehicles solely powered by natural gas or propane. Systems that convert a gasoline or diesel vehicle to an alternative fuel must be certified by the manufacturer to allow the vehicle to meet at a minimum low emission vehicle standards and the gasoline/diesel fuel system must be disabled or completely removed from the vehicle.

c. Incentive: Up to \$2,500 Electric Vehicle Supply Equipment (EVSE) Tax Credit

- i. *Details:* An eligible business enterprise may claim an income tax credit for the purchase or lease of qualified EVSE, provided the EVSE is located in the state and accessible to the public. The amount of the credit is 10% of the cost of the EVSE and installation, up to \$2,500.
- ii. *Instructions:* The Georgia Environmental Protection Division (EPD) is responsible for issuing certificates for qualified chargers. The certificate is used as verification that the taxpayer purchased and installed a qualified electric vehicle charger. The certificates are to be sent in with the taxpayer’s income tax return in order to qualify for the tax credits. The Department of Revenue is responsible for approving and issuing the tax credit.
 1. Obtain Electric Vehicle Charger Certification Form from your EVSE dealer or EPD.
 2. Complete the Certification Form and send the original to EPD along with a copy of the bill of sale in the name of the taxpayer claiming the credit. The form and document should be sent to the attention of James Udi, Georgia Environmental Protection Division, 4244 International Pkwy., Suite 134, Atlanta, Georgia 30354
 3. EPD will review the completed form and document. If all of the requirements have been met, EPD will sign the form and send it back to the taxpayer.

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4. The taxpayer should attach the original approved Certification Form(s) to their Georgia Income Tax Return (Form 500) or Georgia Amended Tax Return (Form 500 X). Schedule 2 of the 500 form should reflect the amount of the anticipated credit (not to exceed your current year's tax liability). **Omission of the original Certificate Form(s) will result in the credit claimed being disallowed.**
- iii. Important Stipulations:
 - Tax credits are allowed only for **non-retail** business enterprises.
 - The charger must be rated greater than 130 volts and must be designed to charge on-road vehicles.
 - The charger must be located for and allowed public access.

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Section III

Georgia EPD Electric Vehicle Charger Certificate Form

EVC-_____ **Georgia Department of Natural Resources**
Environmental Protection Division
Mobile and Area Source Program - LEV Certification
4244 International Parkway, Suite 136, Atlanta, Georgia 30354
Mark Williams, Commissioner
Judson H. Turner, Director
(404) 363-7028

Electric Vehicle Charger (EVC) Certification Form For State Tax Credit

The following electric vehicle charger:

[Manufacturer]	[Model]
[Serial Number]	[Seller (Company Name)]

was installed at the following location:

[Date Installed]	[Installation Location]	[Phone # At Location]
[Address]	[City]	[State] [Zip]
[Installed by (Company)]	[Company Contact]	[Phone #]

and was purchased by _____ (Company Name):

[Company Contact]	[Total Cost]	[Phone #]	[E-mail (optional)]
[Address]	[City]	[State]	[Zip]

Under penalty of Georgia law, I hereby certify that the above-contained information is true and accurate to the best of my knowledge. I acknowledge that EPD will not accept this form unless it is completed, signed, and dated below.

[Company Representative (print)]	[Signature]	[Date]
----------------------------------	-------------	--------

EPD APPROVAL	For EPD Use Only
_____ EPD Associate (Print)	_____ Signature _____ Date

Revised 01/12

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Miscellaneous Incentives:

- a. Incentive: State of Georgia Alternative Fuel Vehicle License Plate and HOV Lane Access
 - i. *Details:* The State of Georgia offers a special license plate for alternative fuel vehicles, which allows access to the designated HOV lanes. Any vehicle that has been certified by the EPA in accordance with the Federal Clean Air Act may apply for the Georgia AFV License Plate.
 - ii. *Instructions:* If you are purchasing a PHEV (such as the Chevy Volt), you must ensure that the car is registered properly by the auto dealer with the correct fuel code distinction ('O' for 'Other' or 'F' for 'Flex'), which will allow the car to qualify for the AFV License Plate. (Note that the default electric/gas designator is type 'B' which does not allow for issuance of the AFV Plate.)
 1. Print and complete the "Application and Verification for Issuance of an Alternative Fuel License Plate" form from the Georgia Department of Revenue website (http://motor.etax.dor.ga.gov/forms/pdf/motor/MV_Application_Verification_Alternative_Fuel_License_Form_AFV.pdf).
 2. Apply at any Georgia Department of Revenue County Tag Office. Note that certain costs are associated with the AFV License Plate, in addition to the standard annual registration fee. This includes a one-time Manufacturing Fee, and the Annual Special Tag Fee. If you prepaid the manufacturing fee please include your original receipt showing payment to avoid being charged twice.
 - iii. Important Stipulations:
 - Plug-In Hybrid Electric Vehicles (PHEVs) such as the Chevy Volt must be registered properly by the auto dealer with the correct fuel code distinction ('O' or 'F'). This fuel code cannot easily be changed after the vehicle's VIN is registered.
 - The Official Code of Georgia Annotated (O.C.G.A.) 40-2-76 defines an Alternate Fuel Vehicle for the purposes of the AFV License Plate as a vehicle that has been certified by the EPA in accordance with the Federal Clean Air Act. If you are unsure if your vehicle qualifies, you can verify eligibility with the Georgia Dept. of Natural Resources, Environmental Protection Division at 404-363-7028.
 - The owner must operate the vehicle on electric power not less than 85% of the total time the vehicle is in operation per year.

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Georgia AFV Tag Application



**Application and Verification for Issuance
of an Alternative Fuel License Plate**

Applicant's Full Legal Name:		
Applicant's Residence Address Including City, State & Zip Code:		County of Residence:
Daytime Telephone Number Including Area Code:	Owner's Driver's License Number:	
Make and Model of Vehicle	Year	Vehicle Identification Number (V.I.N.)

An Alternative Fueled vehicle is any vehicle fueled by an alternative fuel, as described in O.C.G.A. §40-2-76 (a)(2)(A) or (B).

Please check below the alternative fuel license type & location where you intend to purchase such fuel.

- ☐ Compressed Natural Gas (CNG) or Propane (LPG)
- ☐ Ethanol (E85)
- ☐ Electricity or Solar Energy

Brand of Fuel (except Electricity or Solar Energy):

Fuel will primarily be purchased in:

City

County

Applicants Verification of Information Provided

By signing this application, you are affirming that you:

1. Own and operate an approved alternative fuel vehicle
2. Will purchase approved alternative fuel primarily at the location indicated on this application
3. Will operate this vehicle on the alternative fuel checked above not less than 85% of the total time the vehicle is in operation.

By signing this application you are affirming, under penalties of false swearing, that the statement and answers made by you are true and correct, and that if there are any change in the facts represented on this application you shall immediately surrender the license plate to your county tag office or your registration shall be revoked.

Applicant's Signature:

Date:

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b. Incentive: Alternative Fuel Vehicle (AFV) High Occupancy Toll (HOT) Lane Exemption

- i. *Details:* Alternative fuel vehicles displaying the proper AFV license plate may use HOV lanes, regardless of the number of passengers. Alternative fuel vehicles displaying the proper alternative fuel license plate may also obtain a Peach Pass for toll exempt access on all Peach Pass controlled High Occupancy Toll (HOT) lanes.
- ii. *Instructions:* **Car owner must apply for the State of Georgia AFV-specific License Plate, detailed instructions are provided under the “State of Georgia Alternative Fuel Vehicle License Plate” section.**

There are 2 different **Peach Pass** options available: a “**Toll Exempt Account**” or a “**Personal Toll Account**.” The **Toll Exempt** account only exempts an AFV from the high occupancy restrictions on HOT lanes such as I-85 and does not exempt the AFV from paying tolls on roads without HOV requirements (e.g., GA 400). To use the **Peach Pass** on HOT lanes without paying a toll and still be able to use the **Peach Pass** to pay the toll on other roads, a **Personal Toll Account** must be set up.

The **Peach Pass** transponder is free but does require a minimum prepaid amount of \$20.00 for tolls. You must maintain sufficient funds in your Account to cover tolls and other charges resulting from your use of the Peach Pass.

Detailed instructions on obtaining a **Peach Pass** are available on-line at <http://www.peachpass.com/>.

After an account is established, customers will receive a **Peach Pass** transponder in the mail along with instructions for mounting the Peach Pass on their vehicle.

Once you have set up your **Personal Toll Account** and received your transponder, you must change the default mode of the **Peach Pass** to **Non-Toll** and set the duration for this change to **Indefinite**. This can be done on-line at the <http://www.peachpass.com/> web site under the “*Manage My Account*” option. A **Peach Pass** set up in this way will allow the AFV to use the HOT lane toll free and still automatically deduct the toll on GA-400.

- iii. Important Stipulations:
 - Car must display the appropriate AFV license plate
 - Do not travel in the I-75 / I-85 HOV / HOT lanes until *both* the **Peach Pass** and the permanent AFV license plate have been received and properly applied to the vehicle. A temporary AFV certificate is not acceptable.
 - Do not forget to set the mode to **Non-Toll** and the duration to **Indefinite**.

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c. Incentive: Plug-In Electric Vehicle Charging Rate Incentive - Georgia Power

- i. *Details:* Georgia Power offers a Plug-in Electric Vehicle (PEV) time-of-use electricity rate for residential customers who own an electric or plug-in hybrid electric vehicle which provides a discount on electricity during night time hours, 11 p.m. until 7 a.m. The PEV rate is optional and does not require a separate meter.
- ii. *Instructions:* Application must be completed on the Georgia Power website.
 1. Visit the Georgia Power website, and complete the given form at:
http://www.georgiapower.com/electricvehicles/plugin_application.asp
 2. You will be required to submit your account holder's name and account number, as well as your address and vehicle type.
- iii. *Important Stipulations:*
 - This rate is available to residential customers only.
 - This rate program for electric vehicles is purely voluntary, and must be applied for.
 - Participation in this program requires a 12-month commitment.

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South Carolina Incentives

I. Incentive: Up to \$2000 Plug-in Hybrid income tax credit

- a. *Details:* The State of South Carolina offers an income tax credit for plug-in hybrid vehicles equal to six hundred sixty-seven dollars, plus one hundred eleven dollars if the vehicle has at least five-kilowatt hours of battery capacity, plus an additional one hundred eleven dollars for each kilowatt-hour of battery capacity in excess of five-kilowatt hours. The maximum credit allowed by this section is two thousand dollars.
 - i. A plug-in hybrid vehicle is a vehicle that:
 - (1) Shares the same benefits as an internal combustion and electric engine with an all-electric range of no less than nine miles;
 - (2) Has four or more wheels;
 - (3) Draws propulsion using a traction battery;
 - (4) Has at least four kilowatt hours of battery capacity; and
 - (5) Uses an external source of energy to recharge the battery.
- b. *Instructions:* To claim the credit, the taxpayer must provide the South Carolina Department of Revenue with a certification from the vehicle manufacturer, or in the case of a foreign vehicle manufacturer, its domestic distributor, stating that the vehicle is a qualified plug-in hybrid as described above, and providing the vehicle's number of kilowatt hours of battery capacity.

Each individual's dealer is responsible for issuing certificates for qualified vehicles. The certificate is used as verification that the taxpayer purchased/leased a qualified plug-in hybrid vehicle. The certificates are to be sent in with the taxpayer's income tax return in order to qualify for the tax credits. The State of South Carolina Department of Revenue is responsible for approving and issuing the tax credit.

- Obtain certification from your dealer.
- Complete the Plug-in Hybrid Vehicle Credit Tax Form (TC 48).
- Complete the Tax Credits Schedule Form (SC1040 TC) for the credit you are claiming.
- The taxpayer should attach the certification form from the dealer, the Plug-in Hybrid Vehicle Credit Tax Form (TC 48), and the Tax Credits Schedule Form (SC1040 TC) to their Income Tax Return (SC 1040). **Credits may be disallowed if necessary schedules are not attached to your return.**

**Please note that these directions may change with the renewal of the incentive in May 2012*

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Alabama Incentives

I. Incentive: Plug-In Electric Vehicle Charging Rate Incentive - Alabama Power

- a. *Details:* Alabama Power offers a Business Electric Vehicle Time of Use (BEVT) rate for electricity purchased to charge PEVs used for non-residential purposes. The electricity used for vehicle charging is metered separately from all other electricity use.

*Please see sample form below

RATE BEVT BUSINESS ELECTRIC VEHICLE - TIME-OF-USE

By order of the Alabama Public Service Commission dated October 3, 2000 in Informal Docket # U-4226.

The kWh charges shown reflect adjustment pursuant to Rates RSE and CNP for application to monthly bills effective for April 2011 billings.

PAGE	EFFECTIVE DATE	REVISION
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AVAILABILITY

Available in all areas served from the interconnected system of the Company.

APPLICABILITY

Applicable for service in which charging the batteries of electric vehicles is necessary for non-residential customer use. The load will be separately metered from all other electrical load and used for the exclusive purpose of charging electric vehicle batteries. Service shall not be resold or shared with others.

CHARACTER OF SERVICE

Single or three phase service directly from the Company's 44 kV or higher transmission system (transmission) or distribution lines (primary). Single or three phase service at the secondary voltage of transformation facilities supplied from the Company's transmission system (primary) or distribution system (secondary).

MONTHLY RATE (SECONDARY)

Base Charge:
\$100 per customer; plus

Charge for Energy:

JUNE 1 through SEPTEMBER 30
17.8246¢ per kWh (on-peak)
7.3146¢ per kWh (intermediate period)
4.5246¢ per kWh (off-peak)

OCTOBER 1 through MAY 31
7.3146¢ per kWh (intermediate period)
4.5246¢ per kWh (off-peak)

DEFINITION OF TIME-OF-USE PERIODS

The on-peak period for June 1 through September 30 is defined as being those hours between 12:00 noon and 7:00 p.m., Monday through Friday. The intermediate period is defined as being those hours between 10:00 a.m. to 12:00 noon and between 7:00 p.m. to 9:00 p.m., Monday through Friday. All other hours are off-peak.

The intermediate period for October 1 through May 31 is defined as being those hours between 7:00 a.m. and 9:00 p.m., Monday through Friday. All other hours are off-peak.

RATE BEVT BUSINESS ELECTRIC VEHICLE - TIME-OF-USE

By order of the Alabama Public Service Commission dated October 3, 2000 in Informal Docket # U-4226.

The kWh charges shown reflect adjustment pursuant to Rates RSE and CNP for application to monthly bills effective for April 2011 billings.

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For the purposes of this rate, the following holidays are considered off-peak: New Year's Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When any of the foregoing holidays fall on Sunday, the Monday following shall be considered off-peak.

DETERMINATION OF BILLING CAPACITY

The monthly kW capacity shall be the measured maximum integrated fifteen (15) minute capacity during each billing period of approximately thirty (30) days measured in kW.

ADJUSTMENT FOR TRANSFORMATION FACILITIES

The monthly charges shall be reduced by fifty-four cents (54¢) per kW of billing capacity whenever the Consumer furnishes all required transformation facilities supplied from distribution lines. The monthly charges shall be reduced by one dollar and thirty cents (\$1.30) per kW of billing capacity whenever the Consumer furnishes all required transformation facilities supplied from transmission lines.

MINIMUM BILL

No monthly bill will be rendered for less than the Base Charge, plus \$2.00 times the monthly kW capacity, less applicable adjustments for transformation facilities, plus applicable provisions of Rate ECR (Energy Cost Recovery) and Rate T (Tax Adjustment).

PAYMENT

Bills for service rendered hereunder are payable within ten (10) days from the due date and if not paid within such period become delinquent and subject to charges as set forth in the Company's Rules and Regulations.

TERM OF CONTRACT

Service under this rate shall be for a minimum period of five (5) years. Service shall continue beyond the minimum period unless and until terminated by at least one (1) year's written notice by either party.

RATE BEVT BUSINESS ELECTRIC VEHICLE - TIME-OF-USE

By order of the Alabama Public Service Commission dated October 3, 2000 in Informal Docket # U-4226.

The kWh charges shown reflect adjustment pursuant to Rates RSE and CNP for application to monthly bills effective for April 2011 billings.

PAGE 3 of 3	EFFECTIVE DATE January, 2006 Billings	REVISION Fourth
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ENERGY COST RECOVERY

The amount calculated at the above rate will be increased under the provisions of the Company's Rate ECR (Energy Cost Recovery) by applying the effective Energy Cost Recovery Factor.

RATE STABILIZATION AND EQUALIZATION

Rate RSE (Rate Stabilization and Equalization Factor) is incorporated in this rate and will be applied to adjust (increase or decrease) kWh charges calculated hereunder.

ADJUSTMENT FOR COMMERCIAL OPERATION OF CERTIFICATED NEW PLANT

Rate CNP (Adjustment for Commercial Operation of Certificated New Plant) is incorporated in this rate and will be applied to increase kWh charges calculated hereunder.

NATURAL DISASTER RESERVE

The amount calculated at the above rate will be increased under the provisions of the Company's Rate Rider NDR (Natural Disaster Reserve) by applying the effective NDR Charge.

GENERAL

The amount calculated at the above rate is subject to possible tax adjustments as set forth in Rate T and to rules and regulations approved or prescribed by the Alabama Public Service Commission, including any Special Rules and Regulations governing the application of this rate.

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Section III

State Incentives: Best Practices in the United States

Visit the Alternative Fuels Data Center web site for information on laws and incentives throughout the United States:

<http://www.afdc.energy.gov/laws>

Oregon

- I. Incentive: Business Tax Credits
- II. Details: Oregon business owners and others who invest in new hybrid-electric vehicles for business use can get a state Business Energy Tax Credit. **Qualifying hybrid-electric vehicles are pre-certified for the Oregon Department of Energy's Business Energy Tax Credit**
 - a. *EV Purchase*: Up to 35% of the incremental cost between an internal combustion vehicle and an EV in Oregon Business Energy Tax Credits (BETC).
 - b. *Charging Station*: Up to 35% of the eligible costs in Oregon Business Energy Tax Credits (BETC).
- III. Point of Contact: Bob Repine, Director, Oregon Department of Energy
Email: bob.repine@odoe.state.or.us

Nebraska

- I. Incentive: Dollar and Energy Savings Loan Program
- II. Details: BEVs and PHEVs qualify for Nebraska's Dollar and Energy Saving Loan Program. Maximum loan amount is \$750,000 per borrower, at an interest rate of 5% or less.

*Please see sample form below



Dedicated Alternate Fuel Vehicle and/or Alternate Fueling Facility Projects Application

FORM
7

APPLICANT INFORMATION

Name

Mailing Address

INSTRUCTIONS

Dedicated alternate fuel projects may be financed under this program in four ways:

- Replacement of traditional-fuel with dedicated alternate fuel vehicles (complete parts 1 & 2)
- Purchase of new dedicated alternate-fuel vehicles (complete part 2)
- Conversion of traditional-fuel vehicles to operate solely on an alternate fuel (complete parts 1 & 3)
- Establishment of an dedicated alternate fueling facility or purchase of dedicated alternate fueling equipment (complete part 4)

Alternate fuel means ethanol, methanol, electricity, compressed natural gas, liquefied natural gas, propane, and any other alternate fuel recognized by the United States Department of Energy. Dedicated means vehicle cannot operate on gasoline or diesel fuel.

WHO MAY APPLY. Only legal residents of Nebraska may apply for loans. A legal resident is a Nebraska taxpayer, a Nebraska partnership, a Nebraska-chartered corporation, a subdivision of Nebraska government (except public school districts) or a person

who has maintained a permanent residence and lived in the state for more than six months. Residency requirements may differ for ENERGY STAR® business or non-profit partners.

GETTING BIDS. You need to get bids or quotes first, so you will have them available for your lender.

TERMS. Maximum loan terms are: three years for conversion equipment, five years for new dedicated alternate fuel vehicles under 8,500 lbs. gross vehicle weight, seven years for new dedicated alternate fuel vehicles 8,500 lbs. gross vehicle weight or over, and ten years for dedicated alternate fuel stations and equipment. Minimum monthly payments apply.

WHERE TO FILE. Take this completed form and the accompanying bids or quotes to your local lender for loan processing. If the lender of your choice is not participating in this program, contact the Nebraska Energy Office to receive the name of a participating lender.

FOR INFORMATION. Contact the Nebraska Energy Office, P.O. Box 95085, Lincoln, NE 68509-5085, Phone: (402) 471-2867, Fax: (402) 471-3064, Email: energy@nebraska.gov Loan Program: <http://www.neo.ne.gov/loan/index.html>

PART 1. EXISTING VEHICLES

List Number, Manufacturer, Make, Model, Fuel Type and Year of Each Existing Vehicle to be Replaced or Converted:

1. ☐

Existing Vehicle(s) will be	<input type="checkbox"/> Converted to Alternate Fuel	<input type="checkbox"/> Replaced with New Alternate Fuel Vehicle(s)	Passenger Capacity	Ownership <input type="checkbox"/> Owned <input type="checkbox"/> Leased
-----------------------------	--	--	--------------------	--

2. ☐

Existing Vehicle(s) will be	<input type="checkbox"/> Converted to Alternate Fuel	<input type="checkbox"/> Replaced with New Alternate Fuel Vehicle(s)	Passenger Capacity	Ownership <input type="checkbox"/> Owned <input type="checkbox"/> Leased
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3. ☐

Existing Vehicle(s) will be	<input type="checkbox"/> Converted to Alternate Fuel	<input type="checkbox"/> Replaced with New Alternate Fuel Vehicle(s)	Passenger Capacity	Ownership <input type="checkbox"/> Owned <input type="checkbox"/> Leased
-----------------------------	--	--	--------------------	--

PART 2. NEW VEHICLES

List Number, Manufacturer, Make, Model, Fuel Type, and Year of Each Vehicle to be Purchased or Leased:

1. ☐

New Vehicle(s) will	<input type="checkbox"/> Replace Existing Vehicle(s) <input type="checkbox"/> Increase Fleet Size	Expected Life	Passenger Capacity	Ownership <input type="checkbox"/> Owned <input type="checkbox"/> Leased	Cost per Vehicle \$
---------------------	--	---------------	--------------------	---	---------------------

2. ☐

New Vehicle(s) will	<input type="checkbox"/> Replace Existing Vehicle(s) <input type="checkbox"/> Increase Fleet Size	Expected Life	Passenger Capacity	Ownership <input type="checkbox"/> Owned <input type="checkbox"/> Leased	Cost per Vehicle \$
---------------------	--	---------------	--------------------	---	---------------------

3. ☐

New Vehicle(s) will	<input type="checkbox"/> Replace Existing Vehicle(s) <input type="checkbox"/> Increase Fleet Size	Expected Life	Passenger Capacity	Ownership <input type="checkbox"/> Owned <input type="checkbox"/> Leased	Cost per Vehicle \$
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Section III

FORM
7
(cont.)

PART 3. VEHICLE CONVERSIONS

1. ☐ List Number of Vehicles to be Converted and Describe Mechanical Conversion to be Performed:

Fuel Type	Expected Life	Passenger Capacity	Ownership	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Conversion Cost per Vehicle \$
-----------	---------------	--------------------	-----------	---	--------------------------------

2. ☐ List Number of Vehicles to be Converted and Describe Mechanical Conversion to be Performed:

Fuel Type	Expected Life	Passenger Capacity	Ownership	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Conversion Cost per Vehicle \$
-----------	---------------	--------------------	-----------	---	--------------------------------

3. ☐ List Number of Vehicles to be Converted and Describe Mechanical Conversion to be Performed:

Fuel Type	Expected Life	Passenger Capacity	Ownership	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Conversion Cost per Vehicle \$
-----------	---------------	--------------------	-----------	---	--------------------------------

PART 4. ALTERNATE FUELING FACILITIES

1. ☐ Describe the Current Facility, if Any:

☐ Describe the Proposed Facility and/or Equipment:

Proposed Fueling Facility Street Address or Physical Location

Alternate Fuel Type	Number of Vehicles to be Served	Estimated Life Expectancy	Estimated Cost \$
---------------------	---------------------------------	---------------------------	-------------------

2. ☐ Describe the Current Facility, if Any:

☐ Describe the Proposed Facility and/or Equipment:

Proposed Fueling Facility Street Address or Physical Location

Alternate Fuel Type	Number of Vehicles to be Served	Estimated Life Expectancy	Estimated Cost \$
---------------------	---------------------------------	---------------------------	-------------------

3. ☐ Describe the Current Facility, if Any:

☐ Describe the Proposed Facility and/or Equipment:

Proposed Fueling Facility Street Address or Physical Location

Alternate Fuel Type	Number of Vehicles to be Served	Estimated Life Expectancy	Estimated Cost \$
---------------------	---------------------------------	---------------------------	-------------------

SIGNATURE

I certify all the information supplied above is true and correct to the best of my knowledge and belief and that I will permit my lender and the Nebraska Energy Office, as they deem necessary, to have access to the subject property and records in order to make on-site inspections of the improvements or replacements I am making under the program. I also agree to respond to any follow-up survey conducted by the Nebraska Energy Office on fuel use, cost patterns and vehicle performance and that the project described above will be completed within 5 months after my lender receives a signed commitment from the Energy Office..

Point of

sign
here

Signature

Date

Take this completed form and bids or price quotes to your lender when you apply for your loan.

You may NOT contract for or undertake the project you propose in this application prior to the Energy Office signing a Commitment Agreement (FORM 10) with your lender to participate in the loan.

If you do so, you will lose your eligibility to finance the project with a low interest loan.

You may accept a bid, contingent on the Energy Office's signed commitment of funding, to lock in the price, but you may not proceed with the work or contractually obligate yourself to proceed until your lender notifies you that the Energy Office has signed the Commitment Agreement on your loan.

This material was prepared with the support of the U.S. Department of Energy (DOE) Grant No. DE-FG48-97R802105 and Oil Overcharge Escrow funds. However, any opinions, findings, conclusions or recommendations expressed herein are those of the author and do not necessarily reflect the views of DOE.

Contact: Jack Osterman, Nebraska Energy Office
Email: osterman@mail.state.ne.us

Municipal Incentives: Best Practices in the United States

Los Angeles

- I. Incentive: LADWP Residential EV & Charger Installation Incentives
- II. Details: Rebates worth up to \$2,000 for the first one thousand Los Angeles Department of Water and Power (LADWP) customers who install electric charging station at their home.
 - Time of Use Rates
 - Many utilities, including the Los Angeles Department of Water and Power and Southern California Edison, offer special rates for electricity used to charge your PEVs through “time of use” rates, which offer a financial incentive to use electricity during “off-peak” hours, when charging is most likely to happen.
- III. Point of Contact: Beth Jines, Director of Sustainability City of Los Angeles
Email: Beth.Jines@lacity.org

*Please see sample form below

Residential Customer Incentives & Rates

Electric Vehicle Program

LADWP RESIDENTIAL EV INCENTIVES

Residential customers in Los Angeles who are among the first to own new Plug-in Electric Vehicles (PEV) can take advantage of new lower incentive rates for electricity through the LADWP and soon will be able to participate in the LADWP EV Home Charger incentive program, which will help offset the purchase and installation costs of PEV chargers for 5,000 qualifying residential customers. LADWP's special EV rate discount is 2.5 cents/kilowatt-hour (kWh). In addition, there is a federal government tax incentive for PEVs, a state rebate, and other incentives, such as access to high occupancy vehicle lanes.

RESIDENTIAL CHARGER INSTALLATION

LADWP has partnered with other City Departments to streamline the process of providing electric service for residential home chargers. For basic installations, the process will be completed within 7 days.

We encourage any customer buying an EV to schedule a preliminary check to identify potential issues regarding the charger installation. With just one call to 1-800-DIAL DWP you will be connected to an EV program representative, who can answer questions on rates, incentives, the charger installation process, and help to schedule an assessment with field personnel.

IMPORTANT: For charger installations, a Department of Building and Safety permit is required and can be obtained by your contractor online at <https://www.permitla.org>. Permits for Home Charger Incentive participants will be obtained by ECOTality.

EV OFF-PEAK CHARGING DISCOUNT RATE

LADWP encourages charging of EVs during off-peak, nighttime hours and on weekends. This not only reduces strain on the grid but also maximizes the use of clean, green, wind energy, which is abundant at night. LADWP offers an off-peak charging discount of 2.5 ¢/kWh off of our base time-of-use (TOU) rate. If you're currently on our Standard rate (as most customers are), your rate goes up as you use more energy. If you choose one of our TOU rates, you will pay higher rates during the day and lower rates at night with an additional discount for EV charging at night. The basic Standard and TOU rates are as follows:

R-1: RATE A - STANDARD RESIDENTIAL RATE

Zone 1* (kWh)	Tier 1 < 350	350 < Tier 2 < 1050	Tier 3 > 1050
High Season (June-Sept)	13.2 ¢/kWh	14.7 ¢/kWh	18.1 ¢/kWh
Low Season (Oct-May)	13.2 ¢/kWh		
Zone 2* (kWh)	Tier 1 < 500	500 < Tier 2 < 1500	Tier 3 > 1500
High Season (June-Sept)	13.2 ¢/kWh	14.7 ¢/kWh	18.1 ¢/kWh
Low Season (Oct-May)	13.2 ¢/kWh		

R-1: RATE B - TIME-OF-USE SERVICE

TOU	AM											PM												
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
	BASE											LOW	HIGH			LOW	BASE							
High Season (June-Sept)	10.8 ¢/kWh											14.3 ¢/kWh		22.2 ¢/kWh			14.3 ¢/kWh		10.8 ¢/kWh					
Low Season (Oct-May)	12.7 ¢/kWh																							

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TIME-OF-USE RATE OPTIONS:

Option 1: Electric Vehicle Time-of-Use - Keep your house on the Standard rate and install a separate service for your EV to be on a TOU rate with the discount on off-peak charging (weekdays, 8 pm to 10 am, and all day on weekends). Option 1 requires a qualified electrician to install a second service at your house to exclusively serve the EV charger. You'll want to consult your electrician to see if the upfront cost is justified based on your expected energy usage and discount. All charging during the off-peak period would have the 2.5 cent discount applied for an average rate of 9.5 ¢/kWh. Please note that Solar customers with net metering must use Option 1 in order to take advantage of the EV discount.

Option 2: Residential Time-of-Use and Electric Vehicle Discount - Move your whole house to a TOU rate and receive a block of energy at a discount during off-peak periods. Option 2 requires a TOU meter change by LADWP. This rate is best for customers who use most of their energy at night, during off-peak hours, when the rate is lower. Through this rate, you are given a block of energy at the 2.5 cent/kWh discount. Currently, the block is 500 kilowatt-hours (kWh).*

A service fee of \$8/month applies to both options.

* Zones are defined by zip code on www.ladwp.com. Generally, Zone 1 applies in non-Valley areas and Zone 2 in the Valley.

* Subject to change



For more information please visit our website at

www.ladwp.com/ev

www.socalev.org

or email us directly at PluginLA@ladwp.com

or call 1-800-DIAL DWP



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New York City

- I. Incentive: New York City Private Fleet Program
- II. Details: The New York City Private Fleet Program provides significant incentives for the purchase of medium- and heavy-duty electric vehicles.

The public-private partnership of The New York State Energy Research and Development Authority (NYSERDA) with the New York City Department of Transportation (NYC DOT) is designed to encourage the use of alternative-fuel vehicles (AFVs) and emission controls by private-sector companies and non-profit entities operating vehicles in New York City.

NYSERDA will fund up to:

- 50% of the incremental cost of acquiring or converting one or more new, dedicated-compressed natural gas (CNG) or electric light-duty vehicles (gross vehicle weight # 14,000 pounds);
- 80% of the incremental cost for acquiring one or more new, dedicated-CNG, electric, or hybrid-electric, medium- and/or heavy-duty vehicles (gross vehicle weight > 14,000 pounds);
- 80% of the cost of converting one or more medium- and/or heavy-duty vehicles to dedicated-CNG use or to dual-fuel technology optimized to use 80% CNG; and
- 50% of the cost for equipment and installation of CNG refueling equipment or electric vehicle charging equipment up to a maximum of \$300,000 per project (Total combined amount awarded under the infrastructure category for all projects awarded funding in this round will not exceed \$600,000).

- III. Point of Contact: Ari Kahn, Electric Vehicle Policy Analyst, New York City Sustainability Office
Email: AKahn2@cityhall.nyc.gov

Cincinnati

- I. Incentive: All-Electric Vehicle Free Parking Program
- II. Details: The City's All-Electric Vehicle Incentive Pilot Program offers FREE parking to all-electric vehicles at three City-owned garages and one City-owned parking lot located in the downtown area.

This incentive program also includes free parking to all-electric vehicles at any parking meter within the Cincinnati city limits.

- III. Point of Contact: Larry Falkin, Director, Office of Environmental Quality
Email: larry.falkin@cincinnati-oh.gov

*Please see sample form below

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Section III



Electric Car Incentive Program

Free Parking



Application

PLEASE PRINT

Applicant Name	
Street Address	
City, State Zip	
E-mail	
Phone	
Cell Phone	

Agreement: I have read and understand the City of Cincinnati's Electric Car Incentive Program policies and procedures. By signing this document I acknowledge that I received a copy of the City of Cincinnati Electric Car Incentive Program policies and procedures and will adhere to said policies and procedures. I also understand that my parking permit will expire on January 1, 2012.

Applicant Signature		
Permit Number Issued	Permit No. _____	A copy of the Electric Car Incentive Program policies and procedures was given to the permit holder on _____ (Date)
Make/Model		
VIN Number		
License Plate Number		
Employee Signature		

Electric Vehicle Inspection:

I, _____ (Employee) on _____ (Date)
physically inspected the following vehicle for eligibility to participate in the City of Cincinnati Electric Car Incentive Program.

The vehicle listed below is _____ / is not _____ an ALL Electric Vehicle and is _____ / is not _____ eligible for free parking in the identified City owned downtown facilities and all parking meters located within the City of Cincinnati city limits in accordance with the Electric Car Incentive Program policies and procedures.

Southeast Regional EV Readiness Workbook

Section III

References

Federal Incentives

- <http://www.law.cornell.edu/uscode/text/26/30D>
- <http://www.fueleconomy.gov/feg/taxevb.shtml>
- <http://www.edmunds.com/fuel-economy/the-ins-and-outs-of-electric-vehicle-tax-credits.html>

Georgia Incentives

Income Tax Credits

- <http://www.afdc.energy.gov/afdc/laws/law/GA/5180>
- http://www.gaepd.org/Files_PDF/forms/apb/apb_levzevfs.pdf
- http://www.gaepd.org/Files_PDF/forms/apb/apb_LEVZEVTAX.pdf

Miscellaneous Incentives

Alternative Fuel Vehicle License Plate and HOV Lane Access

- <http://motor.etax.dor.ga.gov/motor/plates/platesamples.aspx>

Alternative Fuel Vehicle (AFV) High Occupancy Toll (HOT) Lane Exemption

- <http://www.afdc.energy.gov/afdc/laws/law/GA/5183>
- <http://motor.etax.dor.ga.gov/motor/plates/platesamples.aspx>
- <http://www.peachpass.com/about/exempt-vehicles>
- <http://www.peachpass.com/peach-pass-customers/get-a-peach-pass>

Plug-In Electric Vehicle Charging Rate Incentive - Georgia Power

- http://www.georgiapower.com/electricvehicles/rate_options.asp
- <http://www.afdc.energy.gov/afdc/laws/law/GA/9372>

South Carolina Incentives

Income Tax Credit

- http://www.scstatehouse.gov/sess119_2011-2012/bills/3059.htm
- <http://www.sctax.org/Forms+and+Instructions/2011/taxCredits/default.htm>

Alabama Incentives

Plug-In Electric Vehicle Charging Rate Incentive - Alabama Power

- <http://www.afdc.energy.gov/afdc/laws/law/AL/9374>

State Incentives

Comprehensive List

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- <http://www.pluginamerica.org/incentives>

Oregon

- <http://www.chargeportland.com>
- [One-step Application for Hybrid-Electric Vehicles Oregon Business Energy Tax Credit.pdf](#)
- <http://www.oregon.gov/energy>

Nebraska

- <http://www.neo.ne.gov/loan/>
- http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=NE01F

Municipal Incentives

Los Angeles

- <http://www.socalev.org/plugin/incentives.htm>
- <https://www.ladwp.com/ladwp/faces/ladwp/residential>

New York City

- <http://www.nyserda.ny.gov/Funding-Opportunities>
- <http://www.nyserda.ny.gov>

Cincinnati

- <http://www.cincinnati-oh.gov/cmgr/pages/-36360-/>

Section 3.4.2 – Charging Locations in the Tri-State Region (June 2013)

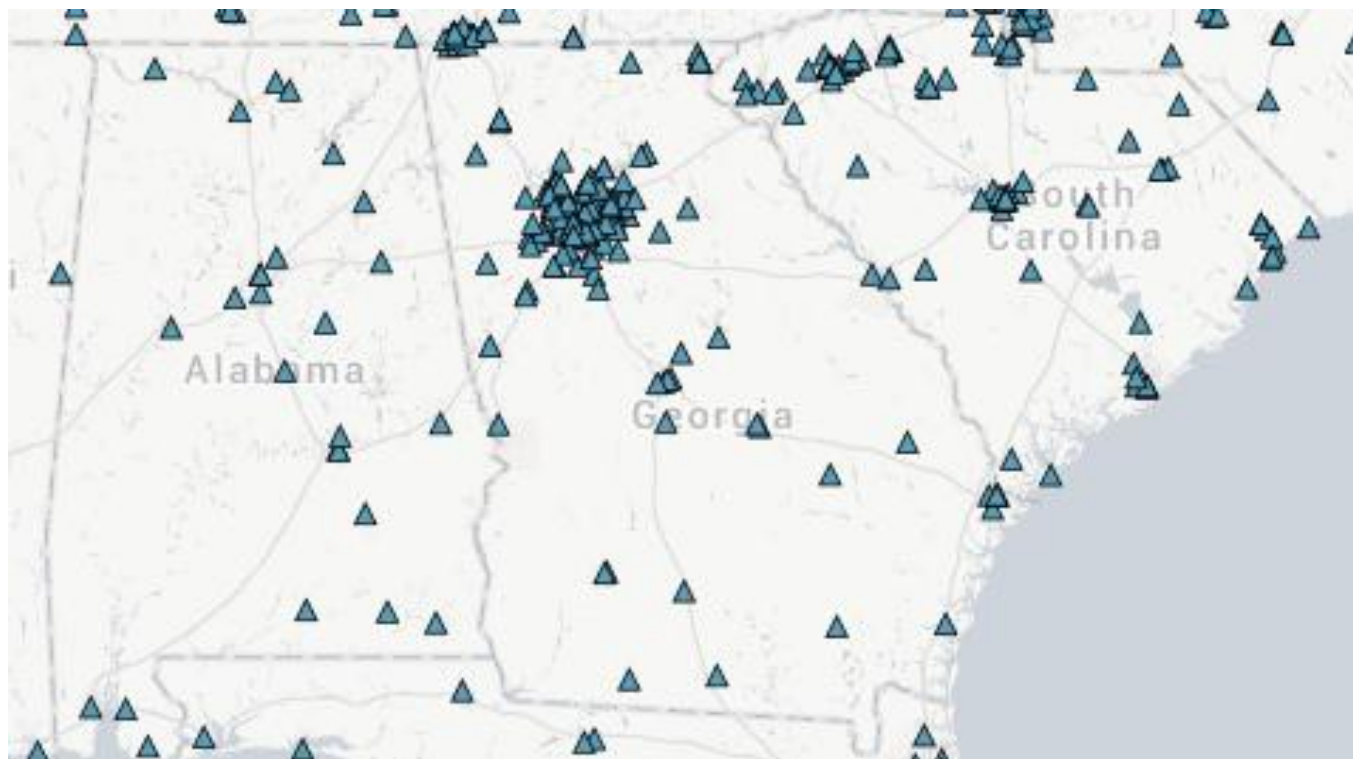


Figure 5. Map showing charging locations in the Southeast (each triangle represents one charger).⁸

Current Charging Station Availability in the Southeast

As of October 2012, the Alternative Fuels and Advanced Vehicle Data Center reported that there were 44 publically available charging stations in the state of Alabama, 166 in the state of Georgia, and 200 in the state of South Carolina, totaling 410 electric vehicle charging stations in the tri-state region.

The Alternative Fuels Data Center obtains information about new stations from trade media, Clean Cities coordinators, a form on the AFDC website, and through collaborating with infrastructure equipment and fuel providers. Currently, EVSE data is updated twice a month. Additional details are provided to indicate the number of stations (Posts), and the number and type of charging outlets at each site. A station locator can be found at AFDC's [Alternative Fueling Station Locator](http://www.afdc.energy.gov/locator/stations/):

<http://www.afdc.energy.gov/locator/stations/>

⁸ U.S. DOE Alternative Fuels Data Center, "Alternative Fueling Station Locator." Accessed October 18, 2012.
<http://www.afdc.energy.gov/locator/stations/>