

Electric Vehicle Infrastructure

A Guide for Local Governments in Washington State



JULY 2010

Model Ordinance, Model Development Regulations, and Guidance Related to Electric Vehicle Infrastructure and Batteries per RCW 47.80.090 and 43.31.970



Department of Commerce
Innovation is in our nature.

Puget Sound Regional Council
PSRC

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Summary

Model Ordinance, Model Development Regulations, and Guidance Related to Electric Vehicle Infrastructure and Batteries per RCW 47.80.090 and 43.31.970

Electric vehicles and electric vehicle charging stations are coming to Washington State. In 2009 the Washington State Legislature recognized this as both an economic and environmental priority and with the support of the Governor, enacted a new law designed to encourage electric vehicles.

To create a consistent regulatory framework that would help this industry grow across Washington State, the legislature required the Puget Sound Regional Council and Department of Commerce to develop guidance for local governments.

To meet this requirement, the Puget Sound Regional Council and Department of Commerce formed a broad-based technical advisory committee made up of local governments, charging equipment vendors, utilities, ports, state agencies, and consumer interests.

The state's new electric vehicle law requires that all local governments in Washington State allow electric vehicle charging stations in most of their zoning categories. Allowing charging stations creates the need to address a number of issues beyond zoning. These include on-street and off-street signage, charging station design standards, parking enforcement, accessibility for all users, SEPA exemptions, and more. These issues are addressed in this document.

The guidance includes the following:

- A discussion of the context within which charging stations are provided **(Introduction)**.
- A model ordinance **(Section 1)**.
- Model development regulations and, for topics where regulations may not be required or standards do not yet exist, information that is provided as guidance **(Section 2)**.
- A set of resource documents and glossary **(Section 3)**.
- Under a separate cover, the guidance includes a set of appendices that include templates, checklists, and research findings.

By addressing topics beyond allowed uses and zoning, the guidance provides options for local governments that want to go further than the minimum to support an efficient roll-out of electric vehicles and electric vehicle charging stations in their jurisdiction.

Introduction

In 2009 the Washington State Legislature passed and the Governor signed into law House Bill 1481 an Act relating to electric vehicles.¹ The law addresses electric vehicle infrastructure which are defined as the structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

The purpose of the law is to encourage the transition to electric vehicle use and to expedite the establishment of a convenient and cost-effective electric vehicle infrastructure that such a transition necessitates. The Legislature agreed that the development of a convenient infrastructure to recharge plug-in electric vehicles is essential to increase consumer acceptance of these vehicles.

As the state agency with expertise in land use and electric vehicle infrastructure, Section 18 of HB 1481 (codified as RCW 43.31.970) requires the Washington State Department of Commerce (Commerce) to distribute to local governments model ordinances, model development regulations, and guidance for local governments for siting and installing electric vehicle infrastructure, in particular battery charging stations, and for appropriate handling, recycling, and storage of electric vehicle batteries and equipment.

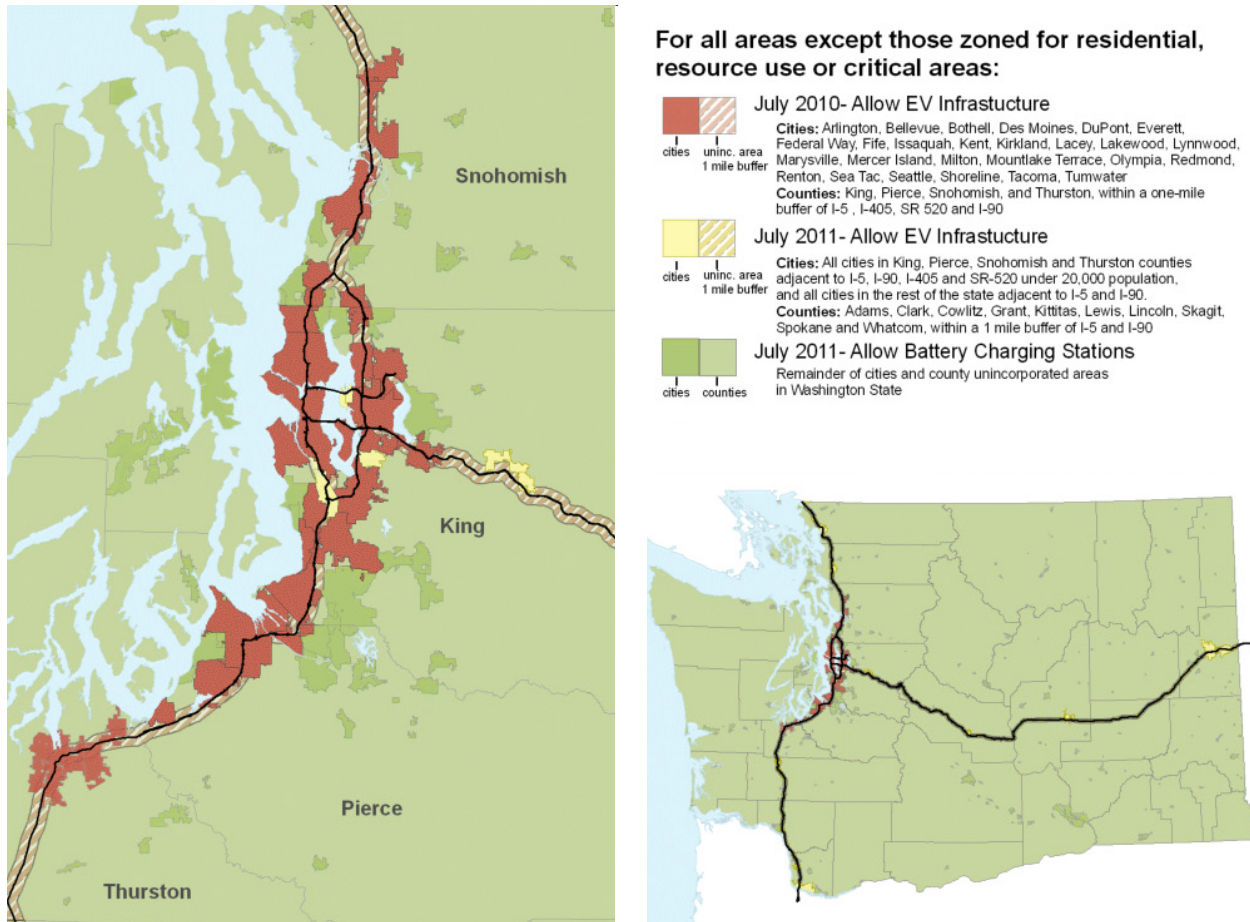
The law requires that local government development regulations allow electric vehicle infrastructure as a use in all zones except those zoned for residential, resource, or critical areas. This guidance extends the permitted use to these zones as well, although with some restrictions and limitations. The requirements apply to local jurisdictions as follows:

- By July 1, 2010, municipalities greater than 20,000 in population in King County that are adjacent to Interstate 5, Interstate 90, Interstate 405, or State Route 520, and all municipalities adjacent to I-5 in Pierce, Snohomish and Thurston Counties, must allow electric vehicle infrastructure (these municipalities are shown in red on the map on the following page).
- By July 1, 2011, municipalities less than 20,000 in population in King County that are adjacent to these freeways, and all municipalities statewide adjacent to I-5 and I-90 statewide, are required to allow electric vehicle infrastructure (shown in yellow).
- The remaining municipalities across the state are required to allow battery charging stations by July 1, 2011 (shown in green).
- For unincorporated county lands, the law imposes similar 2010 and 2011 deadlines for electric vehicle infrastructure, but only within a 1-mile buffer around these freeways (shown in red and yellow hatch-marks). For battery charging stations, the entire area of the county is affected — except those zoned for residential, resource, or critical areas — by 2011.

For both cities and counties, the law allows jurisdictions to adopt incentives programs as well as other development regulations that do not have the effect of precluding the siting of electric vehicle infrastructure in areas where that use is allowed.

Comment: *For the jurisdictions required to allow electric vehicle infrastructure, the definition includes Battery Charging Stations (referred to as Level 1, Level 2, and Rapid charging), Rapid Charging Stations (referred to as Level 3 or Fast charging), and Battery Exchange Stations. For the jurisdictions required to allow Battery Charging Stations, the definition does not include Battery Exchange Stations (see Section 2, Chapter 1: Definitions).*

Figure 1. Electric Vehicle Infrastructure Requirements for Cities and Towns (per RCW 35.63.126, 35A.63.107, 36.70A.695) and for Counties (per RCW 36.70.695, 36.70A.695, 35.63.127)



An additional requirement under Section 7 (codified as RCW 43.19.648) is that by June 2015 local governments and state agencies must satisfy 100% of their fuel usage for operating publicly owned vessels, vehicles, and construction equipment from electricity or biofuel, to the extent determined practicable by rules adopted by Commerce (RCW 43.325.080). An interim requirement of 40% is set for state agencies for June 2013. Commerce has not yet initiated this rulemaking; however, Commerce is considering strategies to implement Section 7 as part of the State Energy Strategy (SES) update currently underway.²

To assist local jurisdictions in meeting the requirements set for them under the law, Section 2 (codified as RCW 47.80.090) requires that the Puget Sound Regional Council, in collaboration with representatives from the Department of Ecology, the Department of Commerce, local governments, and the Office of Regulatory Assistance, seek federal or private funding for the planning for, deployment of, or regulations concerning electric vehicle infrastructure. In particular, Section 2 of 47.80.090 includes the development of model ordinances and guidance for local governments for siting and installing electric vehicle infrastructure, in particular battery charging stations, and appropriate handling, recycling, and storage of electric vehicle batteries and equipment. When completed, PSRC is to submit the guidance to the state legislature, local jurisdictions within its jurisdiction, and to Commerce for distribution statewide.

In the fall of 2009, Commerce identified Energy Efficiency Community Block Grant (EECBG) funds to begin planning for deployment of and regulations for electric vehicle infrastructure. With the assistance of a consultant team, a Technical Advisory Committee representative of key stakeholders and jurisdictions from across the state (see inside of front cover for a list of committee members), and input from a broader set of

public and private entities in the electric vehicle industry and state agencies including the Department of Transportation, Department of Ecology, State Building Code Council, and Labor & Industries, PSRC and Commerce prepared model guidance. The model ordinance, model development regulations, and guidance is written so that individual sections can be lifted out and modified to suit local government needs while still meeting the requirements of the new law.

The Purpose of These Model Provisions

Several car manufacturers are preparing to commercialize electric-drive vehicle models. By 2012, an estimated 10 to 12 models of highway capable electric vehicles (EVs) will be available to consumers. Electric vehicle infrastructure (EVI) is necessary to serve this growing consumer base, and HB 1481 recognizes this need by requiring that local governments allow EVI. A review of local government codes indicates that there does not currently seem to be prohibitions to EVI. However, there is a need for local governments to adopt regulations to provide for consistency in the installation of EVI across the state to assist in quicker transition to electric vehicle use. In addition to development regulations, local governments may want to consider the use of guidance documents and other written materials that explain EVs and EVI (see Appendix B. Model Installation Guides for Charging Stations).

To assist local governments in meeting the purpose and requirements of the new law, the model provisions in this document include three key sections. These sections, and the use of “**Comments**” within each of these sections, are explained further below.

- **Model Ordinance (Section 1).** This section provides language that jurisdictions may include in their adopting ordinances for electric vehicle infrastructure. This language can be used unchanged or may be modified to suit local government needs. The model ordinance includes “Whereas” findings for both “fully planning” and “partially planning” jurisdictions.³
- **Model Development Regulations and Guidance (Section 2).** These regulations and guidance include and build on provisions in statute (see Appendix A for where the sections of HB 1481 have been codified in the RCW). The model regulations and guidance are summarized in Table 1 and include regulations that are designed to ensure that a local jurisdiction is consistent with the required provisions in RCW. In some cases, they include options which jurisdictions may choose to include in their development regulations that provide for additional allowance of EVI (for example, allowing for EVI in areas including those zoned for residential and some critical areas).

Table 1. Suggested Model Regulations and Guidance

CHAPTER	REGULATION	GUIDANCE
Definitions	EV and EVI related terms	None
Vehicles and Traffic	EV Enforcement	None
Zoning	Allowed Uses Off-street Parking Design	Accessibility Off-street Signage
Street, Sidewalks and Public Places	On-street Parking Design	On-street Signage
Buildings and Utilities	None	Battery Recycling and Handling State EVI Rules
SEPA	Categorical exemptions	None

- **Comments.** *The guidance also includes a variety of comments that provide supporting information and serve as a resource to local government for consideration in the adoption of development regulations and guidance for EVI. The comments generally provide information as to why the model development regulation and/or guidance are necessary and what the source is (e.g., best practice or regulation from another jurisdiction which has EVI).*
- **Resources (Section 3).** This section contains a listing of all the supporting resource documents, a glossary of terms, and the footnotes.
- **Appendices.** These support the model ordinance, model development regulations, and guidance. It includes the research documents, including a code compilation and listing of practices for local, regional, and state agencies identified from the code compilation, interview results, battery research, and a web-based EV driver survey. Appendix B includes EVI Model Installation Guides for single family and commercial parking lots that local jurisdictions can use at their permit counters.

Identification of Existing Codes

The consultant team researched codes, ordinances, incentives, state laws, standards, white papers, and other guiding documents from past efforts of jurisdictions and other agencies across the country, as well as some international, national, and local jurisdictions. The task included examining the known universe of ordinances, regulations, and guidance and evaluating which aspects of the research would be most useful for inclusion in the models and guidance.⁴ Part of this research also included identification of those codes that would provide the highest value for follow-up with agencies to discuss and document best practices and lessons learned.⁵ Once this research was completed, PSRC and Commerce convened a meeting with a Technical Advisory Committee to review the results of the research and begin the process of identifying what to include in the model ordinance, model development regulations, and guidance. The TAC included representatives of local governments, charging station vendors, utilities, state agencies, ports, and consumer groups working on deployment of electric vehicles in Washington State.

State Law

The consultant team also assessed any unique provisions of planning laws and regulations in states or provinces identified from the document research described above and compared them to Washington’s planning statutes. This assessment included identification of any necessary adaptations statewide, given Washington’s planning statutes. Based on a review of the documents, the consultant team concluded that none of the adopted or draft codes poses major conflicts with Washington planning statutes, such as the various planning enabling acts (including the Growth Management Act (GMA), and the State Environmental Policy Act (SEPA). However, as discussed, these statutes contain procedural requirements for the adoption of development regulations.

Growth Management Act

The legislation applies to all local governments in Washington State, including those planning under Washington’s GMA, and those planning under other statutes. For GMA “Fully Planning” jurisdictions, the development regulations must be consistent with its comprehensive plan,⁶ and therefore GMA’s procedural requirements for comprehensive plans may affect the timing of a jurisdiction’s adoption of development regulations for EVI.

Local governments planning under GMA should ensure that their comprehensive plans include policies that support the adoption of the proposed regulations. EVI considerations could affect several different elements of the comprehensive plan, including land use, capital facilities, utilities, and transportation. If the comprehensive plan already includes such policies or the policies are broadly stated to support EVI, the jurisdiction can adopt the proposed regulations at any time. However, if the comprehensive plan does not include such policies, the plan may need to be amended before the adoption of development regulations. Because the GMA generally allows comprehensive plan amendments to be adopted only once a year,⁷ jurisdictions should plan ahead and evaluate the need for a comprehensive plan amendment well in advance of the adoption of development regulations for EVI.

In the situation where a jurisdiction wishes to implement the regulations outside the annual cycle, GMA allows amendments or revisions whenever an emergency exists or to resolve an appeal.⁸ It is possible that an amendment outside the regular annual cycle could be justified by an “emergency” need to ensure consistency between the comprehensive plan, development regulations, and the requirements imposed by RCW 36.70A.695. In declaring such an emergency, the jurisdiction should be sure to adopt findings explaining the reasons for its declaration.

State Environmental Policy Act

SEPA requires state and local agencies to give proper consideration to environmental matters before taking major actions. If the initial environmental review of a proposed action (the “threshold determination”) indicates that the action will have probable and significant adverse environmental impacts, a detailed environmental impact statement (EIS) must be prepared.⁹ SEPA’s procedural requirements, including the requirement to prepare a threshold determination, apply to “proposals for legislation and other major actions.”¹⁰ “Actions” include “[n]ew or revised agency rules, regulations, plans, policies, or procedures.”¹¹ Thus, before adopting development regulations for EVI, jurisdictions must first prepare a threshold determination under SEPA. Given the limited scope of the suggested model regulations and anticipated minor impacts associated with the adoption of such regulations, SEPA review would not likely require the preparation of an EIS. Rather, it is anticipated jurisdictions would complete a non-project SEPA checklist that results in a Determination of Non-Significance or Mitigated Determination of Non-Significance.

It should also be noted that SEPA amendments (RCW 43.21C.410) provide that battery charging stations and battery exchange stations will not lose their categorically exempt status under the SEPA rules as a result of their being part of a larger proposal. This amendment regarding exemption status will be relevant when jurisdictions review proposals to construct projects that include battery charging stations and battery exchange stations. Model development regulations are provided in this document in regard to this categorical exemption (see Section 2, Chapter 5: SEPA).

Relationship to Other Codes and Standards

As noted above, the model ordinance, model development regulations, and guidance are written so that individual sections can be tailored to the particular needs and characteristics of a community, while still providing for cross-jurisdictional consistency for some standards (e.g., signage) to provide for the establishment of convenient, cost-effective electric vehicle infrastructure. Additionally, the code structure of local governments varies and the model development regulation text may need to be modified for local government use (for example, some jurisdictions have permitted uses in table format, others utilize text format, while others use a combination of both formats. Additionally, some public works standards are contained within code or in a separate design manual, or a mix of both). For development and construction permit reviews, local jurisdictions also rely upon state and national standards (see Section 2, Chapter 6: State Battery, Building and Electrical Provisions).

In regard to incentives for electric vehicles and infrastructure, potential conflicts with the constitutional prohibition against the gifting or lending of public funds could be raised,¹² for example in the context of various incentives offered to encourage the use of EVs, such as providing free parking spaces to EV users. Washington courts have held, however, that if public funds are being expended to carry out a fundamental purpose of the government, then no gift of public funds has been made.¹³ The Legislature addressed a component of this issue in 2007 with the passage of Engrossed Second Substitute Bill 1303, section 206 (codified at RCW 43.01.250), which specifically authorizes the state to purchase electric power for the purpose of charging electric vehicles at state office locations for state vehicles or private vehicles of those conducting business with the state.

The potential impact of the regulatory authority of the Washington State Utilities and Transportation Commission, which has broad authority to regulate the rates, services, and practices of companies providing electricity service in Washington was also assessed.¹⁴ This regulatory authority could be implicated by certain aspects of EVI and incentives. For example, private companies that charge customers for electricity provided at EV charging stations could be subject to the UTC's jurisdiction. UTC staff indicated verbally that they have not yet addressed this issue, which could require rulemaking by UTC or legislation in order to clarify that operators of EVI are not subject to UTC jurisdiction. Other states, such as Hawaii and California, have addressed this issue by passing laws that exclude operators of EVI from the definition of "public utility."¹⁵

Electric utilities that are subject to UTC jurisdiction may be constrained in their ability to charge preferential rates or subsidies for electricity used by EVs. In an analogous context, the UTC has previously ruled that electric utilities may not impose a surcharge on its users to subsidize construction costs for compressed natural gas vehicle refueling stations.¹⁶ This issue may also require clarification through UTC rulemaking or legislation. It should be noted that the UTC recently adopted rules (WAC 480-100-505) requiring electric utilities to submit periodic reports evaluating certain "smart grid" technologies, including EVs.¹⁷ These reports will assist the UTC in evaluating EVI issues and provide additional information that may be helpful to local and state government entities attempting to encourage EV use.