

Electrical Inspector Qualifications (RCW 19.28.321)

2024 Report to the Legislature

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Executive Summary

Introduction

On March 19, 2024, Engrossed Senate Bill 6089 (ESB 6089), eliminating certain minimum requirement equivalencies for electrical inspectors, was signed into law by Gov. Jay Inslee. Section 2 directs the Department of Labor & Industries (L&I) and the Association of Washington Cities (AWC) to work with cities that issue their own electrical permits and perform their own electrical inspections to identify appropriate pathways to qualify as an electrical inspector.

This report summarizes the workgroup's effort, research, findings, and recommendations, as required by the newly enacted law.

Current State

L&I is dedicated to maintaining the highest qualifications for state and local inspectors. RCW 19.28.321 includes the requirements to be an electrical inspector for the state. The law currently requires:

- four years experience as journey level electrician in the electrical construction trade installing and maintaining electrical wiring and equipment; or
- four years experience as a journey level electrician performing the duties of an electrical inspector employed by the department or a city or town with an approved inspection program under RCW 19.28.141.

L&I employs 89 electrical inspectors and 43 lead electrical inspectors who perform approximately 264,500 inspections annually, 43,350 of which are virtual inspections. In addition, there are 25 cities and one utility that conduct their own electrical inspections in the state.

Those cities and L&I have faced difficulties filling openings for electrical inspectors. A journey level electrician with four years of experience commands a higher salary than a state or city inspector. Washington state has seen a boom in electrical work, making the demand — and salaries — for electricians even higher. Public salaries have not kept up, resulting in the need to consider additional ways to maintain the integrity of the inspection process while making more electricians eligible for the position.

Recommendations

L&I, AWC, and associated cities considered a series of ideas to identify appropriate pathways to qualify as an electrical inspector. The following are the workgroup's recommendations:

- accept experience outside Washington state to qualify as an electrical inspector; and
- seek funding to raise local inspector salaries.

Other options were also discussed, including:

- researching other states' practices to identify new options;
- allowing residential specialty electricians to qualify as a residential inspector and perform a limited range of inspections;
- creating an apprenticeship program to train properly certified electricians to become electrical inspectors; and
- allowing journey level electricians from out of state to qualify to become electrical inspectors in Washington.

However, the group did not endorse these additional options. Described in more detail later in the report, they were not ultimately included in the recommendations from the full workgroup.

Introduction

In 2024, L&I requested ESB 6089 to eliminate the pathways for allowing a combination of engineering school experience and work experience as a minimum employment requirement to be a state or local electrical inspector. These pathways caused confusion about who could be hired as an electrical inspector. The new law resulted in two remaining pathways to qualify as an electrical inspector. Those are in RCW 19.28.321:

- four years experience as journey level electricians in the electrical construction trade installing and maintaining electrical wiring and equipment; or
- four years experience as a journey level electrician performing the duties of an electrical inspector employed by the department or a city or town with an approved inspection program under RCW 19.28.141.

During the 2024 legislative session, cities raised concerns about the ability to find qualified electrical inspectors and expressed interest in working with L&I to discuss the challenges and develop solutions. In response to concerns, the legislation was amended to direct L&I to work with AWC and cities to find new pathways to qualify as an electrical inspector.

L&I, AWC, and other individual cities began meeting in June 2024, and met once a month for four months. L&I facilitated these meetings with the workgroup and presented information covering several topics. This included an overview of current inspection workload, inspector qualifications, and expected outcomes. L&I also conducted research to present to the workgroup regarding other states' qualifications for electrical inspectors, if other states allow residential specialty electricians to complete residential inspections, a process to create apprenticeship for inspector candidates, and any states with reciprocal agreements with Washington. (*See appendix.*)

The workgroup reviewed the material presented and removed previously developed recommendation proposals that would be unfeasible to create appropriate pathways. These topics are in the *Recommendations* section.

Background

L&I employs 89 electrical inspectors and 43 lead electrical inspectors performing approximately 264,500 inspections annually, 43,350 of which are completed through virtual inspections. L&I manages the standards for 15 different electrician certifications, adopts the statewide electrical code based on the National Electric Code, and enforces apprenticeship standards. The 25 cities and one utility that conduct their own electrical inspections in the state are required to enforce an equal, higher, or better standard than that which is required in the RCW. These local jurisdictions include:

- Aberdeen
- Bellingham
- Bellevue
- Burien
- Des Moines
- Everett
- Federal Way
- Kirkland
- Lacey
- Lynwood
- Marysville
- Mercer Island
- Milton
- Mountlake Terrace
- Normandy Park
- Olympia
- Port Angeles
- Redmond
- Renton
- Sammamish
- SeaTac
- Seattle
- Spokane
- Tacoma Power
- Tukwila
- Vancouver

All electrical inspectors in Washington, regardless of whether they work for the state or municipalities, are required to meet the same standards for hire.

Workgroup Members

L&I initiated the workgroup in June 2024 to identify pathways to qualify as an electrical inspector. With the assistance of staff from the AWC, city representatives were recruited. In addition, a representative from the Washington Association of Building Officials (WABO) was invited.

The full list of participants is:

- Dan Berlin, City of Sammamish
- Brandy DeLange, AWC
- John Grotte, City of Bellevue
- Matthew Henry, City of Spokane
- John Hosea, City of Kirkland
- Steve Leighton, City of Bellevue
- Mary Kate McGee, City of SeaTac
- Doug Powell, City of SeaTac
- David Rankin, City of Seattle
- Carl Schroeder, AWC
- James Tumelson, City of Edgewood and WABO representative

Process

The workgroup began this effort by developing a common understanding of the workgroup's task, deliverables, and timeline. L&I then provided an overview of the current requirements to become an electrician and an electrical inspector. To be a journey level electrician, a worker must:

- complete 8,000 hours of supervised electrical work, 4,000 of which must be in commercial or industrial applications;
- complete 96 hours of classroom training; and
- pass the Washington certification exam.

To be an electrical inspector, an electrician must also have at least four years of experience as a journey level electrician in the electrical construction trade in Washington installing and maintaining electrical wiring and equipment.

With that as background, the group then brainstormed a list of possible options for further research and consideration. Those were:

- research what other states do;

- establish an apprenticeship program for inspectors;
- allow residential specialty electricians to qualify to do residential inspections;
- explore the history and benefit of the requirement regarding the additional four years' experience as a journey-level electrician in Washington state to qualify as an electrical inspector;
- explore allowing journey level electricians with at least four years of experience from states with a reciprocal agreement;
- allow journey level electricians from out of state to qualify as Washington inspectors; and
- seek state funding to raise local inspector salaries.

Each of these topics was then scheduled for further discussion, research, and prioritization. Over the course of the summer, the workgroup held four meetings from June through September.

Options

The L&I team was asked to research how other states qualify electrical inspectors. Four states were chosen as a comparison: Oregon, Idaho, Michigan, and Colorado. Of these states, Oregon and Idaho have nearly identical requirements as Washington, while Michigan and Colorado do not require additional experience beyond the 8,000 hours required to be a journey level electrician. Colorado recently removed a national certification as qualifying, and allows local jurisdictions to add requirements.

In addition, the L&I team looked at 14 states to see if they created a residential electrical inspector position. Only four of the 14 had a residential electrical inspector. (Two of the four do not have state electrical licensing or certification.) All four of the states required a journey level or equivalent certification to be a residential electrical inspector.

Additional information is provided in Appendix A. Ultimately, other states' practices were deemed to be either similar or higher than Washington's requirements.

After presenting this research, the first option identified was to **establish an apprenticeship program for inspectors**. A registered apprenticeship combines on-the-job training with related classroom instruction, all under the supervision and mentorship of a journey-level professional. Apprentices receive a wage while they learn and develop knowledge, skills, and abilities in a new career field.

Washington state now requires any journey level electrician to complete a registered apprenticeship program. That includes completion of at least 8,000 supervised hours of electrical work, 4,000 of which must be in commercial or industrial applications and a minimum 720 hours of education. In addition, to qualify to be an electrical inspector, that apprenticeship graduate must also have at least 4 years of experience while certified in Washington. After a presentation by the L&I Apprenticeship section, the group concluded the most viable pathway forward would be to establish an apprenticeship program for journey level electricians so that they might then learn the process and protocols needed to perform inspections. However, this presented several obstacles, including:

- expecting an electrician who had completed an apprenticeship program to join a *second* apprenticeship program to become an inspector was unlikely;
- establishing an apprenticeship program would require the sponsoring entity — a city or the state — to also provide supervision for the inspector apprentice and would therefore raise costs for those jurisdictions beyond what they could bear; and
- it would not address the issue that the journey level electrician would earn a higher salary as an electrician than as an apprentice inspector.

The next option explored was **to allow residential electricians to qualify to do residential inspections**. This option would allow specialized electrical inspectors, who are limited to inspecting

only residential buildings, to increase the possible number of inspector candidates. A residential specialty inspector could help with how quickly residential projects are inspected, freeing a journey level electrical inspector to focus on more complicated inspections. However, a residential specialty inspector would be limited in the scope of work they could inspect and the potential of two inspectors needing to go to the same jobsite on the same day.

Journey level electricians are certified to work in all phases and types of electrical and telecommunications installations. There are no limits to the types of buildings or ways a journey level electrician can install electrical wiring or equipment. Specialty electricians are limited to only the work described in their specific specialty. The residential specialty electrician is limited to the wiring of one and two family dwellings and some multifamily dwellings. The residential specialty electrician scope of work is limited to a very narrow field of what buildings they can wire and what materials they can install. A complete description of the residential specialty electrician can be found in WAC 296-46B-920(2)(a).

The third option **explored allowing journey level electricians with at least four years of experience from states with a reciprocal agreement to qualify as an electrical inspector in Washington.** However, the only state Washington reciprocates with is Oregon. This option could boost recruitment in jurisdictions along the Washington/Oregon border and help recruit candidates to relocate from Oregon. The work group thought this would not expand the pool of applicants as much as desired.

This discussion naturally led into the next option, which was **to allow journey level electricians from out of state to qualify as Washington electrical inspectors.** Current Washington law requires four years of experience certified as a journey level electrician in Washington to qualify to be an inspector. With a change in the law, Washington could accept experience from outside the state.

Finally, the group considered **seeking state funding to increase local electrical inspector salaries.**

Recommendations

ACCEPT EXPERIENCE FROM OUTSIDE WASHINGTON STATE TO QUALIFY TO BE AN ELECTRICAL INSPECTOR

Allowing experience from another jurisdiction would widen the candidate pool for inspectors for both L&I and local jurisdictions. At the same time, it would not change the qualification that a journey level electrician has at least four years of electrical experience. It was noted that many states do not license electricians, which would make it difficult or impossible to verify the number of hours electricians from non-licensing states accrued. Therefore, this recommendation includes the requirement that any experience used to qualify must be gained in a licensing state. In addition, a process must be developed so that either L&I or the local jurisdiction is able to verify these hours. Finally, this recommendation would require a change to RCW 19.28.321.

SEEK STATE FUNDING TO INCREASE THE RATE OF PAY FOR LOCAL ELECTRICAL INSPECTORS

The workgroup discussed the difficulty in attracting and hiring qualified electricians as inspectors due to the lack of competitive wages with the private sector. The workgroup identified the want for state funding to help municipalities increase electrical inspector salaries. This recommendation would not require a change to statute, but it would require new funding.

Conclusion

This report examines the information and discussions held by the workgroup created by passage of ESB 6089 in 2024. The findings and recommendations in this report identify appropriate pathways to qualify as an electrical inspector in Washington, with the goal of addressing staff shortage at the state and local levels.

After four meetings, the workgroup agreed to the following as appropriate pathways to qualify as an electrical inspector in Washington:

- Accept experience outside Washington State to qualify as an electrical inspector.
- Seek state funding to increase the rate of pay for local electrical inspectors.

L&I thanks the members of the AWC and associated cities that participated in the workgroup and who volunteered their time and energy.

Appendix

Selected State Comparison

Washington	Oregon	Idaho	Michigan	Colorado
4 years Washington Journey Level Electrician experience in either: <ul style="list-style-type: none"> The trades; or For a municipality 	<p><i>Oregon Experience:</i> 4 years as an Oregon journey level electrician or 2 years plus state approved education.</p> <p><i>Out of State:</i> 10 years inspecting electrical installations or 8 years plus approved education.</p>	4 Years as a licensed Journeyman or Master Electrician in Idaho.	Licensure as an Electrical Journeyman or Master Electrician in Michigan.	Licensure as an Electrical Journeyman or Master Electrician in Colorado; or Persons who have passed the residential wireman's exam.
RCW 19.28.321	ORS 479.810 Oregon Cert. Manual	54-1019 Idaho Statutes	MCL 339.6021 and 6022	CRS 12-115-119
	<ol style="list-style-type: none"> Has a reciprocal agreement with Washington. May add requirements by rule, per statute. 			<ol style="list-style-type: none"> Another pathway allowing persons endorsed by a national certification authority was removed in 2023. Locals can add additional requirements but must meet statute.

Residential Inspectors

State	Licensing state	Types of electrician licenses with the state	Qualifications for JL less than 4 years	Residential Inspectors
Idaho	Yes	Apprentice, Journeyman, Master Electrical Contractor	No	No classification for residential electrical inspectors
Michigan	Yes	Journeyman, Master, Electrical Contractor	No	No classification for residential electrical inspectors
Minnesota	Yes	Class A Journeyman, Class A Master Electrical contractor	Yes and No	No classification for residential electrical inspectors
North Dakota	Yes	Journey, Class B, Master	No	No classification for residential electrical inspectors
Ohio	Yes	Electrical Contractor	No	No - Residential Mechanical (HVAC only)
Oregon	Yes	Journeyman, Supervising, Electrical Contractor	Yes	Yes – 2yrs limited residential JL, General JL, Licensed JL w/ 4 yrs experience, completion of apprenticeship program w/ 2 yrs JL
Rhode Island	Yes	Journeyman, Electrical Contractor	No	No classification for residential electrical inspectors
South Dakota	Yes	Journey, Class B, Electrical Contractor	No	Yes – Class B (01 in WA)
Texas	Yes	Apprentice, Journeyman, Master	No	Yes – through the cities/municipalities general requirements certified through ICC, JL or master
Wyoming	Yes	Journeyman, Master	No	No classification for residential electrical inspectors

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<p>RCW 19.28.321</p>	<p>ORS 479.810 Oregon Cert. Manual</p>	<p>54-1019 Idaho Statutes</p>	<p>MCL 339.6021 and 6022</p>	<p>CRS 12-115-119</p>
	<ol style="list-style-type: none"> 1. Has a reciprocal agreement with Washington. 2. May add requirements by rule, per statute. 			<ol style="list-style-type: none"> 1. Another pathway allowing persons endorsed by a national certification authority was removed in 2023. 2. Locals can add additional requirements but must meet statute.