



Legislative Fiscal Bureau

One East Main, Suite 301 • Madison, WI 53703 • (608) 266-3847 • Fax: (608) 267-6873

January 30, 2008

TO: Members
Joint Committee on Finance

FROM: Bob Lang, Director

SUBJECT: Assembly Bill 294 and Senate Bill 167: Regulation of Electrical Wiring, Electricians, Electrical Contractors, and Electrical Inspectors

Assembly Bill 294 and Senate Bill 167 would make several changes related to the regulation of electrical wiring in structures, electricians, electrical contractors, and inspectors of electrical wiring.

SB 167 was introduced on April 26, 2007, and referred to the Senate Committee on Commerce, Utilities and Rail. On October 25, 2007, the Committee on Commerce, Utilities and Rail took executive action to recommend adoption of Senate Amendments 1 and 3 by a vote of 7-0, and to recommend passage as amended by a vote of 7-0. On October 31, 2007, SB 167 was referred to the Joint Committee on Finance.

AB 294 was introduced on April 30, 2007, and referred to the Assembly Committee on Labor and Industry. On November 28, 2007, the Committee on Labor and Industry took executive action to recommend adoption of Assembly Amendments 1 and 2 by a vote of 8-0, and to recommend passage as amended by a vote of 8-0. On December 6, 2007, AB 294 was referred to the Joint Committee on Finance.

SB 167, as amended by SA 1 and SA 3, and AB 294, as amended by AA 1 and AA 2, are identical. The remainder of this bill summary refers to both bills as "the bill."

CURRENT LAW

Currently, the Department of Commerce (Commerce) is required to promulgate administrative rules for electric construction in public buildings and places of employment and in places where farming is conducted. A public building includes any structure used for lodging,

trade, traffic, occupancy, or use by the public or by three or more tenants. A place of employment includes any place where any industry, trade, or business is carried on, and where any person is employed by another (but does not include private domestic service).

Commerce administers a voluntary certification program for master electricians, electrical contractors, journeymen electricians, and beginning electricians. The program has a uniform examination for certification of master electricians, and specifies that only master electricians and persons who employ at least one master electrician may be certified as electrical contractors. The program also establishes certification requirements for journeymen electricians and beginning electricians. A municipality is authorized (but not required) to enact an ordinance requiring the licensure of electrical contractors if the contractor employs at least one person certified by Commerce as a master electrician. Many electricians and electrical contractors use the Commerce certification to obtain a license in municipalities that require a license. Commerce estimates that most of the 310 municipalities that regulate commercial electrical installation currently license electrical contractors.

Commerce has promulgated administrative code chapter Comm 16 as the state electrical code. Any person who does any electrical wiring is required to comply with the state electrical code. Comm 16 generally incorporates the National Electrical Code, NEC-2005, with a few changes. The National Electrical Code is a U.S. standard for electrical installation and wiring which is developed by the National Fire Protection Association. Commerce also requires, under the state one- and two-family dwelling code (also known as the uniform dwelling code, or UDC), that electrical wiring, installations, equipment and materials used in the construction of one- and two-family dwellings subject to the UDC (those constructed after June 1, 1980) must meet the state electrical code.

A municipality is authorized to enact an ordinance regulating the inspection of electrical construction if the ordinance meets minimum state requirements. If a municipality enacts such an ordinance, and requests Commerce to provide for inspection of electrical construction, Commerce must contract with the municipality for the inspections.

The Public Service Commission (PSC) regulates, through a separate electrical code, the electrical equipment and wiring used by a public utility for the generation, transmission, or distribution of electricity to users.

SUMMARY OF BILL

Regulation of Electrical Wiring

The bill would expand Commerce's duty related to promulgating rules for electric construction in public buildings and places of employment to require Commerce to promulgate a state electric wiring code that establishes standards for installing, repairing, and maintaining any electrical wiring. This would make it clear that work on all buildings would be subject to the

electrical wiring code, including one- and two-family dwellings constructed before the uniform dwelling code went into effect on June 1, 1980. The rule would be required to, where feasible, reflect nationally recognized standards.

Electrical wiring would be defined as all equipment, wiring, material, fittings, devices, appliances, fixtures, and apparatus used for the production, modification, regulation, control, distribution, utilization, or safeguarding of electrical energy for mechanical, chemical, cosmetic, heating, lighting, or similar purposes, as specified under the state electrical wiring code that would be promulgated under the bill. Electrical wiring would not include the equipment and wiring used by a public utility, an electric cooperative, or a wholesale merchant operator for the purpose of generating, transmitting, or distributing electricity to its customers or members. (A wholesale merchant plant is a plant that is generally not owned by a public utility and that provides service to wholesale customers.)

The authority of municipalities would also be expanded from exercising jurisdiction over electrical construction to enacting an electrical code or exercising jurisdiction over electrical wiring and inspection of electrical wiring. An electrical wiring ordinance adopted by a municipality could not be less restrictive than state standards. The bill would retain the current authority that if a county adopts an ordinance, the county ordinance would apply in any city, village or town which has not adopted a separate ordinance.

Regulation of Electricians and Electrical Contractors

The bill would require that persons working as an electrician or as an electrical contractor must be licensed by Commerce or registered as a beginning electrician by the Department, beginning five years (the first day of the 61st month) after publication of the act. A person who is not a master electrician could not install, repair, or maintain electrical wiring unless a master electrician is at all times responsible for the person's work.

Commerce would be required to promulgate administrative rules that establish criteria and procedures for the: (a) licensing of electrical contractors; (b) examination and licensing of journeymen electricians and master electricians; (c) registration of beginning electricians; and (d) suspension or revocation of licenses or registrations to electricians and electrical contractors. Commerce would also be required to promulgate rules that establish requirements for the supervision of beginning electricians. The Department rules would also differentiate between the scope of installation, repair, or maintenance of electrical wiring that may be performed by electrical contractors and by different types of electricians, including beginning electricians, journeymen electricians, and master electricians.

The Commerce rules governing the licensing of journeymen electricians would have to require that an applicant for licensure who is not a residential journeyman electrician (for example, a person who works on commercial or industrial structures rather than on residences) meet at least one of the following qualifications: (a) completion of an apprenticeship program in installing,

repairing, and maintaining electrical wiring that is at least four years long and that is approved by the U.S. Department of Labor and by the Wisconsin Department of Workforce Development; or (b) experience in installing, repairing, and maintaining electrical wiring for at least 60 months and passage of an examination required by Commerce. The bill would require applicants for licensure as a residential journeyman electrician (a person who works on residences) to complete a three year apprenticeship program (rather than four years for a nonresidential journeyman electrician), or have experience for at least 36 months (rather than 60 months for a nonresidential journeyman electrician) and pass an examination. Currently, an applicant for a journeyman electrician license must meet both of the following qualifications: (a) completion of a four-year apprenticeship program approved by the U.S. Department of Labor and Commerce or passage of an inside journeyman wireman examination; and (b) experience in installing electrical wiring for at least 48 months and in maintaining and repairing electrical wiring for at least one month.

The bill would repeal the authority for a municipality to license an electrical contractor. The bill would also specifically prohibit municipalities from registering, licensing or certifying electricians or electrical contractors. Any municipal ordinance that exists on the effective date of the bill, related to licensure or certification of electrical contractors or electricians, would remain in effect without being amended or repealed for five years (until the first day of the 61st month beginning after the effective date of the bill). After the five years, the local ordinance would no longer be in effect.

The bill would also repeal the authority for any county with a population of 500,000 or more (currently only Milwaukee County) to license and regulate heating and air conditioning contractors. This provision would take effect five years after publication of the act.

Several exemptions would be created from the licensing or registration requirements for electricians (but not from the licensing requirements for electrical contractors), including a person who performs electrical work (install, repair or maintain electrical wiring) on: (a) the person's own residence; (b) premises owned or leased by the person; (c) elevators and escalators; (d) systems that operate at 50 volts or less; (e) an electronic emergency alarm system for a premises; (f) transmission facilities; (g) equipment or a system that is not primarily electrical in nature, if the work does not involve the delivery of electrical current to the equipment or system; (h) a manufactured home or building while the structure is at or in the facility at which it is being manufactured; (i) electric wiring, if the person is employed by an electricity provider or a subcontractor of an electricity provider, and the work is done within the scope of the person's employment; (j) lighting or signals for public thoroughfares and airports; and (k) the utility side of substations and other distribution facilities owned or operated by customers or members of electricity providers.

Inspections of Electrical Wiring

The bill would require Commerce to promulgate administrative rules establishing criteria and a process for certifying all electrical inspectors of electrical wiring, and for revoking such certifications. (Currently, Commerce administers criteria for certifying inspectors of public

buildings.) All inspections of electrical wiring would have to be made by persons certified by the Department.

The bill would also require the Department to promulgate rules establishing standards and a process for the inspection of electrical wiring, including the inspection of electrical wiring for which a municipality does not provide inspection.

A municipality could exercise jurisdiction over electrical wiring, and could, by ordinance, establish and collect fees to defray the cost of inspection. The bill would repeal the current authority for a municipality to contract with Commerce for inspection services. It would also repeal the authority of Commerce to contract to provide inspection services, at municipal expense, to any municipality which requests that Commerce provide inspection services. The Commerce fiscal estimate indicates the Department anticipates it would contract directly with an entity to provide for inspections in municipalities that do not provide such inspections.

Administrative Rules

The bill would require Commerce to submit proposed administrative rules to the Legislative Council staff for review no later than the first day of the 12th month after the effective date of the bill. This would include proposed rules related to: (a) a state electrical wiring code that establishes standards for installing, repairing, and maintaining electrical wiring; (b) criteria and procedures for the registration of beginning electricians and for the examination and licensing of different types of electricians; (c) requirements for the supervision of beginning electricians; (d) criteria and procedures for the licensing of electrical contractors; (e) criteria and procedures for the certification of electrical inspectors who inspect electrical wiring; and (f) standards and a process for the inspection of electrical wiring.

SUMMARY OF AMENDMENTS

Senate Amendment 1 to SB 167 and Assembly Amendment 1 to AB 294 are identical amendments, and include the following provisions:

1. The amendment would expand the definition of exclusions from "electrical wiring" to include equipment used for controlling heat, light, power, or natural gas to customers or members. This means that the utility-side wiring of all energy utility facilities would be excluded from the definition of electrical wiring, rather than just the utility-side wiring of electric utility facilities.

2. The bill exempts certain persons from the requirements that: (a) a person doing electrical work must be licensed as an electrician or registered as a beginning electrician by Commerce; and (b) that a person who is not a master electrician may only do electrical work if a master electrician is at all time's responsible for the person's work. The amendment would also exempt the same persons from the requirement that a person engaged in the business of electrical work be licensed as an electrical contractor by Commerce.

3. The amendment would reword an exemption from the licensure requirements for employees or subcontractors of electricity providers who work on electric wiring "for equipment that is installed in the normal course of providing utility services by the electricity provider."

4. An exemption from the licensure requirements for employees or subcontractors of electricity providers would be reworded to apply to persons working on electric lines rather than on electric wiring under the bill.

5. Additional exemptions would be created from the licensure requirements for employees or subcontractors of electricity providers who do either of the following: (a) work on primary voltage electric facilities that are owned by the electricity provider and that operate at greater than 600 volts; or (b) restore service during an emergency.

6. An exemption from the licensure requirements would be provided for a person doing electrical work on equipment or systems that operate at 100 volts or less, rather than 50 volts or less under the bill. This would exempt persons who perform activities such as install home audio visual, electronic security, and fire alarm systems.

7. The amendment would also revise wording in the bill to clarify that a municipality could not repeal or amend any local ordinance existing on the effective date of the bill related to licensure or certification of electrical contractors, electricians, or electrical inspectors during the five years after the effective date of the bill, and that, after five years, the ordinance would no longer be in effect and the municipality could not impose any registration, licensing or certification requirements on electrical contractors, electricians, or electrical inspectors.

Senate Amendment 3 and Assembly Amendment 2 are identical amendments that clarify the wording of an exemption from the licensure and certification requirements related to a person installing, repairing, or maintaining equipment or a system that is not primarily electrical in nature, such as an electric appliance.

FISCAL EFFECT

SB 167 and AB 294 would create workload for Commerce staff in the Safety and Buildings Division program revenue (PR) administrative appropriation. The bill would also generate fee revenue from license and certification fees that would be deposited in the same appropriation. Revenues would be deposited in the Safety and Buildings Division PR appropriation. Revenues deposited in the safety and buildings appropriation are provided from several plan review and inspection activities related to construction such as commercial buildings, multi-family and manufactured dwellings, plumbing, private sewage systems, electrical and heating systems, and elevators.

Commerce submitted a fiscal estimate which indicates the Department would need 3.0

positions with \$268,700 annually to implement the provisions of the bill, and would receive additional revenue of approximately \$458,500 annually. The bill does not appropriate funds or authorize positions to implement the provisions of the bill. Thus, Commerce would have to reallocate resources from current plan review, inspection and certification activities to the activities required by the bill, or seek additional expenditure and position authority under s.16.505/515 or future budget legislation.

Commerce estimates that an additional 10,000 electricians and electrical contractors would obtain a license. The Department estimates this would generate additional revenues of \$458,500 annually, based on current certification fee amounts that range from \$80 for a beginning electrician to \$200 for master electricians and electrical contractors for a four-year term. Commerce officials indicate that the change under SA 1 and AA 1 to make the exemption from licensing requirements apply to people who work on systems with under 100 volts rather than under 50 volts would result in no change to the fiscal estimate. The Commerce original fiscal estimate assumed home audio visual, electronic security, and fire alarm systems operated with under 50 volts, but the amendment recognizes that some newer systems operate with between 50 and 100 volts.

Commerce indicates that the 3.0 positions would include one support staff person, with annual costs of \$56,900, to administer the licensing requirements of the bill. Commerce anticipates it would need two electrical consultants, with annual costs of \$211,800, to establish and implement administrative rules for a statewide electrical wiring inspection program. The electrical consultants would: (a) develop administrative rules; (b) consult with municipalities that provide inspection; (c) administer contracts with entities that perform inspections in municipalities that do not provide inspections; (d) audit municipal and contract inspection providers; and (e) enforce the licensing, and registration requirements for electricians and electrical contractors. The Department anticipates it would contract to provide for inspections of electrical wiring in municipalities that do not provide inspections.

Prepared by: Kendra Bonderud