



**INTERNATIONAL  
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January 28, 2022

**VIA EMAIL**

Ms. Stephanie Pollack  
Deputy Administrator  
Federal Highway Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, DC 20590

**Re: IBEW Comments Responding to Request for Information on  
Development of Guidance for Electric Vehicle Charging  
Infrastructure Deployment, Docket No. FHWA- 2021-0022**

Dear Deputy Administrator Pollack:

The International Brotherhood of Electrical Workers (IBEW) appreciates this opportunity to respond to the Federal Highway Administration's (FHWA's) Request for Information: Development of Guidance for Electric Vehicle Charging Infrastructure Deployment (RFI).<sup>1</sup> Thanks to the historic passage of the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58, the U.S. Department of Transportation (DOT), in coordination with the Department of Energy (DOE), has the opportunity to be at the forefront of ushering in a new era of worker-centric prosperity characterized by good union jobs.

The IBEW is a labor organization that represents approximately 775,000 active and retired members, including nearly 400,000 electrical workers employed in the construction industry who are ready and able to build and maintain the infrastructure necessary to achieve the Administration's clean energy goals. The IBEW's tradesmen and women are electrical professionals employed in all facets of electrical construction who routinely assemble, install, erect, and maintain electrical distribution systems, transmission lines, and all types of power generation equipment.

Combating climate change is a matter of the utmost urgency. It is therefore essential that all clean energy projects – including electric vehicle (EV) charging stations – are completed successfully, on-time, on-budget, and in such a way that produces a return on public investment, particularly in historically marginalized and underserved communities. DOT must harness the authority granted by the IIJA to implement innovative policy solutions that will ensure that the electric vehicle market is not plagued by cost overruns, delays, and safety issues.

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<sup>1</sup> *Request for Information on Development of Guidance for Electric Vehicle Charging Infrastructure Deployment, Docket No. FHWA 2021-0022, 86 Fed. Reg. 67782 (Nov. 29, 2021).*





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Accordingly, the IBEW's comments will focus on describing how – under *both* the National Electric Vehicle Formula Program (EV Charging Program) and Charging and Fueling Infrastructure Program – the utilization of highly-trained and highly-skilled electricians is essential to the safe and “long-term operation and maintenance” of EV charging infrastructure (Statutory Consideration No. 5). We will recommend methods for requiring grantees to utilize an appropriately trained workforce and discuss how workforce needs can be met using these methods. We will also explain how, under the EV Charging Program, Congress has given DOT broad discretion to require that grantees use responsible law-abiding contractors in the installation and maintenance of federally assisted EV charging infrastructure. In addition, we review how implementing these recommendations will promote equity in the deployment of EV charging infrastructure under these programs.

***I. Background: Inherent safety risks of electrical construction, particularly EV-related work***

Electrical construction, particularly the installation of Electric Vehicle Supply Equipment (EVSE) is an extremely safety-sensitive endeavor. Utilization of an untrained workforce in the buildout of EVSE has the potential to be catastrophic, resulting in loss of life, injury, and significant property loss. Without proper training, workers in this high-hazard industry run the risk of electrical shocks, burns and/or electrocution, which is the third leading cause of death in construction.<sup>2</sup> In addition, faulty electrical installations often prove to not only be hazardous, but tremendously expensive, leading to crippling cost overruns for project owners.

Proper and specific training is a key factor in reducing EV-related structure fires, which have been reported in several states, including California, Connecticut, Florida, North Carolina, and Texas, which have all reported fires that originate in a structure's electrical system while an electric vehicle is charging.<sup>3</sup> Moreover, electrical fires consistently rank among the leading causes of commercial and residential fires, often resulting in death, injury, and property loss. According to the National Fire Protection Association (NFPA), between 2011 and 2015, U.S. fire departments reported an estimated 37,910 fires at commercial properties each year,

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<sup>2</sup> CPWR, *The Construction Chart Book: The US Construction Industry and Its Workers*, 6th ed., at 43 (Feb. 2018), [https://www.cpwr.com/wp-content/uploads/publications/The\\_6th\\_Edition\\_Construction\\_eChart\\_Book.pdf](https://www.cpwr.com/wp-content/uploads/publications/The_6th_Edition_Construction_eChart_Book.pdf).

<sup>3</sup> See, e.g., Katrina Webber & Ben Spicer, *Electric Car Overloaded Home's Electric System, Sparking Fire*, KSAT.com (Sept. 24, 2019) (Firefighter Battalion Chief urged public to seek the help of a professional electrician to be sure the EV charging system is installed properly); CBS Los Angeles, *Tesla Charging When Fire Breaks Out At Cerritos Garage, Child Injured* (Feb. 12, 2020); Anthony Faccenda, *Smart Car Battery Charger Causes Florida House Fire*, TorqueNews (Oct. 10, 2012).





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resulting in 273 civilian injuries and \$1.2 billion in direct property damage per year.<sup>4</sup> Electrical distribution systems – made up of a complex network of circuits, including wiring, circuit breakers, and fuses – are among the leading causes of such structural fires, accounting for over half (55%) of direct property damage.<sup>5</sup>

Of particular concern are the electrical systems of older structures, whether commercial or residential, that rely on original, outdated electrical wiring and components or which have suffered degradation due to age. This is particularly dangerous due to the concealed nature of any electrical system, where components and wiring are often concealed behind walls, within junction and outlet boxes or located in confined spaces. To mitigate electrical fire hazards, an EVSE installer must be trained to properly assess the whole of the electrical system in a structure. Often, aging, and outdated electrical systems cannot accommodate the demands of modern technology. Any EVSE buildout, no matter how well funded, will suffer significant delays, safety issues, and other problems in deployment if not installed and maintained properly, and the prevalence of such issues is sure to erode public confidence in the use of EVs.

Unfortunately, licensing requirements for individuals performing electrical work vary from state to state, and several states have no licensing standards for electricians at all. This means that many jurisdictions throughout the United States have no restrictions whatsoever on the electrical duties one can perform without meeting any experience, safety, or academic standards. This is true despite the fact that the number of deaths and injuries of electricians are among the highest in the construction industry and it is the craft with the highest level of regulation.<sup>6</sup> Additionally, the National Electric Code (NEC), the benchmark standard for safe electrical wiring and equipment, is not enforced throughout the United States.<sup>7</sup>

Electrical safety hazards can be prevented, however, by using highly trained electricians. Sections II and III, below, provide the IBEW's policy

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<sup>4</sup> NFPA, *Fires in Industrial and Manufacturing Properties* at 1 (Mar. 2019).

<sup>5</sup> *Id.* at 5. NFPA also ranks electrical failures and malfunctions as the second leading factor behind home fires. *Id.* at 3.

<sup>6</sup> Morris M. Kleiner and Kyoung Won Park, U.S. Bureau of Labor Statistics, Monthly Labor Review, "Life, limbs, and licensing: occupational regulation, wages, and workplace safety of electricians, 1992–2007," (Jan. 2014), <https://www.bls.gov/opub/mlr/2014/article/life-limbs-and-licensing.htm>.

<sup>7</sup> See National Fire Protection Agency "CodeFinder" available at: <https://codefinder.nfpa.org>. A review of the NFPA's "CodeFinder" tool shows that the NEC is not enforced in all U.S. states.





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recommendations for how DOT can ensure that EV charging infrastructure is installed and maintained by those with the appropriate training and expertise to do so safely and efficiently.

## **II. EV Charging Program Formula Grants**

### **A. Recommendations for ensuring predictable deployment and long-term operations and maintenance of EV charging infrastructure to avoid stranded assets and protect public investment (Statutory Consideration #5)**

To ensure the safe and efficient installation and maintenance of EV infrastructure, such work must be carried out by highly trained and highly skilled electricians. Specifically, such work must be performed by electricians certified under the Electric Vehicle Infrastructure Training Program (EVITP) – a federally recognized, non-profit, comprehensive training program for the construction and installation of EV charging infrastructure.

The utilization of EVITP-certified electricians will ensure the “long-term operations and maintenance” of EV charging infrastructure as required by the IIJA.<sup>8</sup> Such a requirement is also consistent with the IIJA’s directive to DOT to, in consultation with DOE and other “relevant stakeholders” “develop minimum standards and *requirements related to...the installation, operation, or maintenance by qualified technicians* of electric vehicle charging infrastructure...”<sup>9</sup> The IIJA also establishes the Joint Office of Energy and Transportation to address issues of “joint concern” between DOT and DOE, including the “development and *deployment of training and certification programs*.”<sup>10</sup>

In our view, these provisions in the IIJA provide ample authority for DOT to condition the formula grants provided by the EV Charging Program on compliance with the requirements discussed below.

#### **1. Require EVITP certification to ensure safety, efficiency, and long-term operation of EV infrastructure**

<sup>8</sup> Pub. L. No. 117-58, 135 Stat. 1423.

<sup>9</sup> *Id.* at 135 Stat. 1424.

<sup>10</sup> *Id.* at 135 Stat. 1425 (emphasis added); *see also* 23 U.S.C. 140(b) (DOT may partner with any organization for skill improvement programs).





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Improperly installed and maintained EV charging infrastructure poses risks to the safety of the public, workers and first responders. The risks associated with the lack of best practice standards within the industry, especially at the federal level, can be mitigated by requiring the deployment of a qualified workforce.

Through the EVITP, the IBEW works collaboratively with automobile manufacturers, utilities, energy storage device manufacturers, electrical contractors, state and local electrical inspectors, and the National Fire Protection Agency to develop and implement training standards to ensure that EV charging equipment is installed to the highest standards of safety, performance, and quality. EVITP, which has now been active for over a decade, is a non-profit training program that incorporates the necessary technical requirements, safety imperatives and performance integrity for the installation of Electric Vehicle Supply Equipment (EVSE) for EV charging stations, electric recharging points, charging points. EVITP is a nationally recognized training standard for EVSE installation, commissioning, and maintenance and an industry-standard for the proper credentialing of EVSE electricians. The EVITP program is one-of-a-kind; the curriculum simply does not have a suitable comparison within the industry.

EVITP certification ensures that site installations and charging stations are constructed, installed, and maintained safely and reliably. This advanced skill program builds on the existing platform of qualified electricians' extensive knowledge, skills, and experience. The prerequisites require that the electrician is appropriately licensed or, in jurisdictions without electrical licenses, has received a minimum of 8,000 hours of on-the-job training. The curriculum addresses the technical requirements, safety imperatives, and performance integrity of industry partners and stakeholders.<sup>11</sup> Participants receive an overview of the EV industry as a whole, along with an extensive section on customer relations and customer satisfaction. Upon completing written and hands-on lab testing, those passing the course receive certification through EVITP. The comprehensive curriculum trains and credentials electricians to safely perform EV infrastructure work. The curriculum includes, but is not limited to:<sup>12</sup>

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<sup>11</sup> A foundational key to the success of EVITP is the program's eligibility requirements: in order to be accepted, an individual must have the foundational electric knowledge of a journey-level electrician. The program is available to electricians in compliance with the mandatory licensing requirements of each state/municipal jurisdiction in the United States and Canada. In jurisdictions without mandatory electrical licensing or certification, at least 8,000 hours of documented on-the-job electrical training in a federally approved Registered Apprenticeship Program is required.

<sup>12</sup> Details on the EVITP training program are available at: <https://evitp.org/training/>.





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- AC EVSE level one, two and high power;
- DC Fast Charging, both high power and overhead;
- Wireless charging;
- EVSE communications and networks;
- The National Electrical Code (NEC); and
- Load calculations based on the National Electrical Code.

EVITP certification requirements ensure that EV infrastructure is installed safely and in accordance with the applicable codes and regulations, and that the electricity dispensed from charging stations is safely delivered. Further, EVITP requirements protect buyers and end-users from hazards posed by marginally trained technicians. By requiring EVITP certification, FHWA can avoid the expected consequences of substandard electrical work, including the ramifications for improper EVSE installation, which can be catastrophic. Importantly, EVITP training devotes considerable time to properly and accurately performing load calculations, which are essential to avoiding electrical fires and to the responsible deployment and operation of EV charging infrastructure.<sup>13</sup>

EVITP certification requirements have been adopted by numerous local, state, and federal agencies because they have been found to improve safety, performance, and reliability, and reduce liability and risks to people and property. California has the most experience with EVs and charging infrastructure. For example, the public utility San Diego Gas & Electric (SDG&E) has installed over 3,000 electrical vehicle charging ports under its Power Your Drive Program with an EVITP requirement. Southern California Edison (SCE) – Southern California’s primary electricity supply company – also requires EVITP-certification for the installation of EV charging stations under its Charge Ready program. EVITP certification is also required by the cities of Carson, Pico Rivera, Long Beach, Maywood, Montebello, Petaluma, Santa Rosa and the ports of Long Beach and Los Angeles, California. EVITP certification is also required for EV infrastructure installations on the Nevada Electric Highway, and in federally funded EVSE installations in Columbus, Ohio, where it was the winner of the National Smart City Challenge. EVITP also assisted the U.S. Department of Energy (DOE) in developing and producing various DOE Plug-In Electric Vehicle Handbooks and is

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<sup>13</sup> An electrician must determine if an existing electrical system can accommodate additional EV load or if upgrades to the system must be performed to ensure safety and functionality. Proper site assessments and load calculations require electrical expertise, experience, and advanced math skills. If site assessments and load calculations are not performed properly – or not performed at all – the system can be overloaded by the additional load and start a fire. One quarter of the EVITP training curriculum is devoted to site assessments and load calculations.





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the only national training provider featured in those publications.<sup>14</sup> In all, EVITP requirements have led to the successful installation of tens of thousands of electrical charging ports.

EVITP leaders have calculated that it would take between 4,500 and 5,200 EVITP certified electricians to build a nationwide network of 500,000 charging stations over a period of three (3) years, depending on the type of EVSE being installed.

The prerequisites of state licensure or 8,000 hours of on-the-job training ensure that the electricians performing the duties of EVSE installation are highly skilled and capable of performing this work safely and effectively. By requiring EVITP, DOT can avoid the expected consequences of substandard electrical work, including the ramifications of improper EVSE installation, which can be disastrous.

With its proven track record of success, using EVITP will ensure that a qualified, American workforce performs this work to the highest industry standards available. The IBEW therefore encourages DOT to require that grantees *self-certify as part of the application process* that they will utilize EVITP certified electricians to construct, install and maintain EV infrastructure funded by this program. In addition, DOT should require grantees to report regularly on their continued use of EVITP certified electricians to ensure ongoing compliance. Not only will this greatly improve the likelihood that workers will be paid good, family, sustaining wages and stay safe on the job, but by requiring grantees to self-certify as part of their application, DOT can easily streamline the implementation process with little to no administrative burden on the government.

**2. Require use of Registered Apprenticeship Programs to ensure safety, an adequate supply of skilled labor, and improved diversity and equity outcomes**

Constructing any type of electrical infrastructure requires a workforce that knows and understands the implications of load changes to the bulk power system, including, at minimum: utility interconnect policies and requirements; integration of electric vehicle infrastructure with distributed generation; National Electric Code standards and requirements; compliance with National Fire Protection Association

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<sup>14</sup> U.S. DOE, *Plug-In Electric Vehicle Handbook for Public Charging Station Hosts* at 2, 15 (Apr. 2012); U.S. DOE, *Plug-In Electric Vehicle Handbook for Electrical Contractors* at 18 (Apr. 2012).





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70E requirements;<sup>15</sup> Occupational Safety and Health Administration training and compliance; first responder safety; and fire hazard training.

Data from the U.S. Bureau of Labor and Statistics shows that 34.9% of new, untrained construction workers are injured during their first year on the job,<sup>16</sup> and research has shown a *positive exponential relationship* between increased skilled craft labor recruiting difficulty and Occupational Safety and Health Administration (OSHA) incidents.<sup>17</sup> Skilled craft labor variability not only poses major risks to project safety, it also leads to significantly higher growth in cost overrun, time overrun, and reduced productivity.<sup>18</sup> These risk factors compound each other; for example, because projects with skilled craft worker shortages face scheduling constraints, workers are frequently scheduled to work overtime, which “can cause physical fatigue on craft workers [and] seriously affect implementation of construction site safety.”<sup>19</sup> Empirical studies have shown, however, that apprenticeship requirements on public works projects can mitigate the risks of skilled labor variability and produce significant benefits for procurement authorities.<sup>20</sup> In addition to mitigating the risk factors discussed above, research has

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<sup>15</sup> Originally developed at OSHA's request, NFPA 70E helps companies and employees avoid workplace injuries and fatalities due to shock, electrocution, arc flash, and arc blast, and assists in complying with OSHA 1910 Subpart S and OSHA 1926 Subpart K.  
<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70E>.

<sup>16</sup> Keith Maciejewski, *The Skilled Labor Shortage: Implications for Construction Businesses*, Construction Executive (2020), <https://www.constructionexec.com/article/the-skilled-labor-shortage-implications-for-construction-businesses>.

<sup>17</sup> Hossein Karimi, *Quantitative Analysis of the Impact of Craft Labor Availability on Construction Project Performance*, University of Kentucky (2017), [https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1059&context=ce\\_etds](https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1059&context=ce_etds).

<sup>18</sup> *Id.* See also Allison L. Huang, et al., U.S. Department of Commerce, National Institute of Standards and Technology, Office of Applied Economics, *Metrics and Tools for Measuring Construction Productivity: Technical and Empirical Considerations* (Sept. 2009), [http://www.nist.gov/customcf/get\\_pdf.cfm?pub\\_id=903603](http://www.nist.gov/customcf/get_pdf.cfm?pub_id=903603).

<sup>19</sup> Karimi, *supra* note 18 at 7 (internal citations omitted).

<sup>20</sup> See Washington State Department of Labor and Industry & Washington State Department of General Administration, *Apprenticeship Utilization 2009 Legislative Update* (Dec. 2009); Washington State Department of Transportation, *Apprenticeship Utilization Advisory Committee Report* (Jan. 2008). See also U.S. Office of Management and Budget, *Task Force on Apprenticeship Expansion: Final Report to the President of the United States* (2018), <https://omb.report/icr/201812-1205-001/doc/88448201> (apprenticeship programs increase productivity and are a “key tool for addressing America’s skills gap.”); U.S. Department of Commerce and Case Western Reserve







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shown that apprenticeship requirements generally increase the number of project bidders and reduce bid costs for affected projects.<sup>21</sup>

The Electrical Training Alliance (Alliance) was created over 70 years ago as a joint training program between the IBEW and the National Electrical Contractors Association (NECA) and has developed into the largest apprenticeship and training program of its kind, having trained over 350,000 apprentices to journeyman status through local affiliate programs. The IBEW and our construction employer-partners are the largest private sector trainer of electrical workers in the nation. Together, we operate nearly 300 construction training centers<sup>22</sup> and invest nearly \$200 million in apprenticeship training efforts per year, at no cost to participants or taxpayers. Apprentices learn while they earn, including health and retirement benefits.

Since 2012, the Alliance has performed training and supported certification in the electric vehicle infrastructure market. In 2021, with renewed legislative attention to this ever-evolving market, the Alliance created new tools to better assist the local area in training for the marketplace. The use of self-paced online training tools allow for a more flexible training experience. This methodology, computer mediated learning (CML); allows for both traditional in-classroom training as well as individual, “just in time” type training when a conventional in-person class is not available, yet job call demand dictates a need for training to become certified. Thousands of IBEW members have been trained, resulting in hundreds of third-party certified installers throughout the United States.

To combat the inherent safety risks of electrical construction and ensure that projects are completed successfully, journey-level IBEW members obtain numerous safety and technical certifications as part of their apprenticeship training. Students of IBEW apprenticeship programs receive hands-on experience as well as classroom fundamentals of electrical, mechanical and construction theory, including training on how to properly install EV charging equipment. The typical IBEW apprenticeship program is three to five years in length. Apprentices also train in blueprint reading, mathematics, electrical code requirements, safety, first aid, and the installation of conduit, wiring, outlets, and switches. Apprentices furthest along

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University, *The Benefits and Costs of Apprenticeship: A Business Perspective* (2016), <https://files.eric.ed.gov/fulltext/ED572260.pdf> (apprenticeship programs are cost-effective due to higher worker productivity, improved safety and project quality, reliable project staffing, and reduction in employee turnover).

<sup>21</sup> *Id.*

<sup>22</sup> A map of the joint training programs of the National Electrical Contractors Association (NECA) and the IBEW is available at <http://www.electricaltrainingalliance.org/locateaTrainingCenter/Inside>.





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in their training work on planning the construction and testing the operation of an entire electrical system. IBEW electricians also obtain additional qualifications in various continuing education courses due to the ever-evolving technological advancements and safety imperatives that arise frequently within the electrical field.

Apprenticeships are vital to creating a strong economy and rebuilding the middle class. The IBEW therefore urges DOT to require the use of Registered Apprenticeship programs to ensure that work is performed by highly skilled, trained personnel and provide a reliable supply of workers that can successfully complete construction projects, thereby ensuring a return on the public investment in EV charging infrastructure.

In addition, numerous studies of Registered Apprenticeship Programs around the country show that these programs can have a significant impact on improving diversity and equity in the workforce.<sup>23</sup> One such study compared union and nonunion construction apprenticeship programs in the Portland, Oregon area, and found that union apprenticeship programs provide significantly better outcomes overall for women and people of color compared to nonunion programs, and that union programs have greater apprenticeship diversity in terms of both gender and race.<sup>24</sup> Research shows that joint labor-management Registered Apprenticeship Programs in construction are not only more racially diverse than nonunion programs, but produce significantly better labor market outcomes for participants: participants in union apprenticeship programs go on to earn wages on par with

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<sup>23</sup> See, e.g., Frank Manzo and Robert Bruno, *The Apprenticeship Alternative: Enrollment, Completion Rates, and Earnings in Registered Apprenticeship Programs in Illinois*, Illinois Economic Policy Institute (Jan. 2020), <https://illinoisepi.files.wordpress.com/2020/01/ilepi-pmcr-the-apprenticeship-alternative-final.pdf> (finding that between 2000 and 2016, more than 74,000 construction apprentices [97%] were enrolled in joint labor-management programs, compared to less than 2,000 in employer-only programs, with joint programs enrolling 98% of all women, 99% of all African American apprentices, 98% of all Latino apprentices, and 97% of all military veterans); Building Trades of Minnesota, “Registered Apprenticeship in the Construction Trades,” <https://mntrades.org/apprenticeship/> (Approximately 5% of the total construction workforce are people of color, compared to 20.5% of union construction apprentices; apprenticeship completion rates for minority apprentices increased 339% between 2012 to 2019); Lawrence Mishel, Economic Policy Institute, *Diversity in the New York City Union and Nonunion Construction Sectors* (Mar. 2017), <https://www.epi.org/publication/diversity-in-the-nyc-construction-union-and-nonunion-sectors/>.

<sup>24</sup> Larissa Petrucci, PhD, *Constructing a Diverse Workforce: Examining Union and Non-Union Construction Apprenticeship Programs and their Outcomes for Women and Workers of Color*, University of Oregon, Labor Education and Research Center (2021), [https://cpb-us-e1.wpmucdn.com/blogs.uoregon.edu/dist/a/13513/files/2021/11/Constructing\\_A\\_Diverse\\_Workforce.pdf](https://cpb-us-e1.wpmucdn.com/blogs.uoregon.edu/dist/a/13513/files/2021/11/Constructing_A_Diverse_Workforce.pdf).





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college graduates, while employer-only (nonunion) apprentices generally earn wages similar to high school graduates.<sup>25</sup>

**A. *Other factors DOT should consider in developing guidance  
(Statutory Consideration #9)***

With respect to the implementation of the EV Charging Program, the IIIJA gives DOT broad discretion and authority to consider “any other factors, as determined by the Secretary”<sup>26</sup> and should therefore consider including the following requirements in future guidance on EV Charging Program grants:

**1. Responsible contractor requirements**

A recent study by the Center for American Progress Action Fund reveals that, despite protections to ensure federal contractors pay decent wages, provide safe workplaces, and respect workers’ rights on the job, the government frequently contracts with companies with long records of workplace violations.<sup>27</sup> Contracting with such companies “frequently results in poor performance of federal contracts and waste of public resources,” while, conversely, policies that “increase compliance with worker protection laws may result in improved contract performance and support good value for public investments.”<sup>28</sup>

Given the foregoing, the IBEW urges DOT to adopt responsible contracting requirements to ensure that EV infrastructure is developed by responsible companies that have sufficient qualifications, resources and personnel needed for successful project delivery. In addition, by ensuring that EV developers have the proper certifications to perform work in a given jurisdiction, adopting such a policy can also have the effect of increasing the use of domestic labor.

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<sup>25</sup> Frank Manzo and Erik Thorson, *Union Apprenticeships: The Bachelor’s Degrees of the Construction Industry*, Illinois Economic Policy Institute (Sept. 2021), <https://faircontracting.org/wp-content/uploads/2021/10/ilepi-union-apprentices-equal-college-degrees-final.pdf>.

<sup>26</sup> Pub. L. No. 117-58, 135 Stat. 1423.

<sup>27</sup> Karla Walter, et. al, *Federal Contractors are Violating Workers’ Rights and Harming the U.S. Government*, Center for American Progress Action Fund (Jan. 21, 2022), <https://www.americanprogressaction.org/issues/economy/reports/2022/01/21/181133/federal-contractors-violating-workers-rights-harming-u-s-government/>.

<sup>28</sup> *Id.*





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The IBEW therefore recommends that future guidance on the EV Charging Program include a responsible contractor policy that requires, at minimum:

- a. Labor standards compliance self-certification and exclusion of serial law violators: as part of the grant application, project owners/contractors and subcontractors must attest, under penalty of perjury, that they have had no project defaults or law violations of any kind that have resulted in penalties, back pay, etc. over a specified amount (i.e., \$5,000) within the last three (3) years.
- b. Use of Registered Apprenticeship Programs: require contractors to self-certify that they participate in Registered Apprenticeship Programs, which will ensure all construction work is performed by appropriately skilled and trained personnel, leading to successful and timely project delivery.
- c. Self-certification by project owner/contractor and subcontractors that they possess all necessary licenses, registrations, certificates or permits as required by applicable state or local law.
- d. Self-certification by project owner/contractor that they possess all technical and industry-specific qualifications, equipment, financial resources, and personnel needed to successfully complete the project.
- e. Monitoring and enforcement provisions, including disqualification/debarment and penalties for those that submit false or inaccurate information.

**2. Preference for contractors that participate in pre-apprenticeship programs to promote diversity and equity**

In addition, we recommend that preference for EV Charging Program formula grants be given to contractors that participate in pre-apprenticeship programs with organized labor to target historically marginalized community groups.





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As noted above, the Electrical Training Alliance (Alliance) was created over 70 years ago as a joint training program between the IBEW and the National Electrical Contractors Association (NECA) and has developed into the largest apprenticeship and training program of its kind, having trained over 350,000 apprentices to journeyman status through local affiliate programs. The Alliance also sponsors its own Pre-Apprenticeship Program that is aimed at increasing the participation rates of underrepresented and historically marginalized populations into IBEW/NECA Registered Apprenticeship Programs. The program is available exclusively to women, people of color and veterans. The Alliance's pre-apprenticeship program includes analysis of pre-apprentices' deficiencies in core subject areas through standardized assessment instruments and individualized instruction. Once identified, individuals are given assistance to help prepare for the rigors of the 5-year registered apprenticeship program. Training involves basic electrical-industry standards and job-readiness skills and ETA's network of over 100 industry partners provide workforce knowledge and on-the-job work training to prepare pre-apprentices for Registered Apprenticeship Programs.

IBEW also partners with other pre-apprenticeship programs focused on creating career pathways into the building trades for underserved populations. For example, the Pathways to Apprenticeship program (P2A) in Syracuse, New York works to assist individuals from low-income communities, including the formerly incarcerated, to be admitted into a building trades apprenticeship program.<sup>29</sup> At present, 23% of program participants are women, and 93% are people of color.

Pre-apprenticeship programs offer a direct entry point into apprenticeship programs upon completion, and thus can create an effective vehicle to streamline the recruitment process and provide a clear pathway for underrepresented populations to secure apprenticeships and career placements.

### ***III. Charging and Fueling Infrastructure Program Discretionary Grants***

#### ***A. Best practices for project development of EV charging infrastructure (Statutory Consideration #10)***

With respect to the discretionary grants provided under the Charging and Fueling Infrastructure Program, the IJA provides that grant applicants must, among other things, include in their application a description of how they have "considered engagement" with "*labor organizations*" "*to ensure that a properly trained workforce is available* to construct and install electric vehicle charging

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<sup>29</sup> Additional information on P2A can be found at: <https://p2atrades.org/>.





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infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, or natural gas fueling infrastructure...<sup>30</sup>

As such, the IBEW recommends that DOT require applicants for the Charging and Fueling Infrastructure Program to engage with the IBEW and EVITP as part of the application process to ensure that a properly trained workforce is available and adequately prepared to complete the projects that will be funded by that program.

***B. Suggested topics for future guidance on project development to allow for predictable deployment (Statutory Consideration #11)***

As with the EV Charging Program, the IJA directs DOT to consider “the ***long-term operation and maintenance*** of the electric vehicle charging infrastructure...” with respect to the discretionary Charging and Fueling Infrastructure Program.<sup>31</sup> The RFI only lists that consideration in reference to the formula grants under the EV Charging Program. That factor, however, also applies to the discretionary grants under the Charging and Fueling Infrastructure Program.

In the interest of encouraging the predictable deployment of projects funded by the Charging and Fueling Infrastructure Program, the IBEW therefore recommends that future DOT guidance include provisions that address long-term operation and maintenance considerations, namely, an EVITP certification requirement and a requirement to utilize Registered Apprenticeship Programs, as discussed in detail in Section II.

Once again, we appreciate this opportunity to comment and look forward to assisting the Administration in meeting its renewable energy goals.

Sincerely yours,

Lonnie R. Stephenson  
International President

LRS:jrl

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<sup>30</sup> Pub. L. No. 117-58, 135 Stat. 548 (to be codified at 23 U.S.C. §151(f)(4)(A)(ii)(IV)) (emphasis added).

<sup>31</sup> *Id.* at 135 Stat. 549 (to be codified at 23 U.S.C. §151(f)(4)(A)(v)) (emphasis added).

