

# **UCLA**

## **Policy Briefs**

### **Title**

Assessing the Feasibility of a Manufacturing Worker Co-Operative in Crenshaw

### **Permalink**

<https://escholarship.org/uc/item/3c11d94r>

### **Author**

Izuogu, Antonia

### **Publication Date**

2023-07-06

# Assessing the Feasibility of a Manufacturing Worker Co-Operative in Crenshaw

Antonia Izuogu, MURP • 2023

## Issue

According to the U.S. Census, the median household income in Crenshaw is nearly 39% lower than that of the City of Los Angeles. Further, 20% of Crenshaw residents live below the poverty level.<sup>1</sup> This large disparity suggests an increasing need to investigate creative strategies for community wealth-building. Cooperatives are one such strategy that utilize a shared ownership business model to generate community wealth. Communities create cooperative businesses to produce goods and services, create local jobs, and gain high profit margins, among other reasons.

This brief is based on a feasibility study of worker cooperatives in the emerging sectors of electric vehicle supply and electrician industries in Crenshaw and the South Los Angeles area. The research behind this report aims to aid Downtown Crenshaw Rising’s efforts to build Black-centered and -led cooperative businesses that will sustain growth, pay livable wages, and operate under eco-friendly standards.

## Study Approach

The researcher used quantitative data, secondary sources, and expert interviews to research each sector. More specifically, she conducted sectoral analysis on electric vehicle charging station manufacturing, also known as electric vehicle supply equipment (EVSE), and electrician industry sectors. The remaining research was done through secondary sources such as industry reports, company profiles, and supply chain information. In addition to online data, experts in the EVSE field for manufacturing and electricians were interviewed to collect further context and insight.

## Research Findings

**Given current circumstances, electric vehicle charging manufacturing is not a recommended industry for Downtown Crenshaw Rising to pursue.**

In February 2023, the Biden administration announced a federal goal to build a network of 500,000 EV chargers across America’s highways and communities by 2030. Currently, there are around 130,000 chargers that have been built. The Infrastructure Investment and Jobs Act (2021) is directing federal funds toward supporting production, largely in California. But, tapping into this industry is capital intensive, as it requires a large investment of millions to operate as an EVSE manufacturer. Also, the supply chain for EV chargers is not transparent. These barriers may explain why there are only two EVSE manufacturers currently based in the Los Angeles region: Andromeda Power and Tritium Technologies, LLC.

**Installing and fixing stations is a more feasible business model for providing high-quality jobs.**

To meet federal goals, installing and fixing electric vehicle charging stations will become increasingly important. Charger installers make \$80,000 annually, depending on the level of the charging station. For example, installing Level 1 chargers typically used in homes can be \$1,000-\$1,700 per charging station. This goes up to \$1,200-\$2,000 per Level 2 stations used in work establishments and multifamily housing, and to around \$50,000 for each Level 3 station for large fleets.<sup>2</sup> Amateur and existing electricians within the Crenshaw and South Los Angeles area may be interested in joining the electrician cooperative, given the potential pay and access to benefits of a cooperative business.

## Training workers to become electricians is a viable way to get involved in the larger EV charging economy.

Often, prospective electricians pursue pre-apprenticeship training to understand if the electrician field is the right fit for them, or to prepare for the state certification content. The Los Angeles Cleantech Incubator (LACI) offers an EVSE technician fellowship and a project management training course to train technicians and those who are looking to manage EVSE maintenance projects under LACI's Green Jobs Workforce programming.

State certified electricians are required to pass the state certification test with 8,000 hours of supervised on-the-job experience. Electrician trainees and apprentices are eligible to take the state electrical certification test once completing their respective training paths. Unions also have apprenticeship programs, such as IBEW Local 11, which offer free training and beneficial connections. Once an electrician is certified, they can complete the Electric Vehicle Infrastructure Training Program (EVITP) to be certified to install and maintain electric vehicle charging stations, specifically.

## Recommendations

Manufacturing electric vehicle charging stations is a timely industry, but has many barriers to entry. Such manufacturing is capital-intensive and calls for operational knowledge to access financing and understand the supply chain. For Downtown Crenshaw Rising, a more feasible and relevant cooperative would focus on installing and maintaining charging stations. The most opportune scenario is to create a cooperative of certified electricians.

Considering that it can take years to become an electrician, Downtown Crenshaw Rising should ensure member-owner interest, then explore buying an existing electrician company. Based on the research detailed throughout this report, they should also utilize a multi-generational approach, with existing

electricians as the founding worker-owners, while beginners matriculate through the training process as electrician trainees or apprentices. Under ideal circumstances, the launch of the electrician cooperative could begin as soon as 2025.

## For More Information

Izuogu, A. (2023). EVSE Worker Co-operative in Crenshaw: A Feasibility Study (Master's capstone, UCLA).

Retrieved from: <https://escholarship.org/uc/item/7vr1s7xf>

## References

<sup>1</sup>U.S. Bureau of Labor Statistics. (2023, May 15). *Electricians*. Occupational Outlook Handbook: <https://www.bls.gov/ooh/construction-and-extraction/electricians.htm>

<sup>2</sup>Courtney, C. (2021, July 19). *How much does it cost to install an EV charger?* Carvana Blog | The New Way to Buy a Car. <https://blog.carvana.com/2021/07/how-much-does-it-cost-to-install-an-ev-charger/>