



TEP Workforce Development: Home Energy General Contractor Fact Sheet

Introduction

This fact sheet describes the basic opportunities related to becoming a general contractor (GC). A GC can offer a “one-stop shop” experience to a homeowner interested in a whole-home energy retrofit. Due to an existing labor shortage, there is a need for more workers. In particular, there is a need for home energy GC’s.

General contractors manage the process between homeowners and subcontractors who have expertise in different energy technologies. They are also known as “prime” contractors. Additional contractors are called “subcontractors.” Subcontractors are not employees.

Total Energy Pathways (TEP) and TEP Workforce

Total Energy Pathways (TEP) provides a comprehensive, bundled approach to home energy upgrades. Customers interested in reducing their energy use and carbon footprint are often faced with multiple sales pitches and numerous possible first steps. TEP simplifies this process by providing homeowners with one certified general contractor.

In order to grow and maintain a skilled clean energy workforce, the TEP Workforce program educates and trains new workers who wish to enter the energy efficiency and energy technology workspace. Training resources can be found at: <https://neep.org/tep/total-energy-pathways-workforce-development>. The Building Performance Institute (BPI) TEP certificate is currently under development and will become available in December 2023.

Home Energy Field Work

A contractor/subcontractor can be someone who works in one of any number of building trades, some of whom must be licensed (electrician, plumber). Examples of jobs that fall into the energy efficiency and energy technologies field include:

- Home energy audits
- Weatherization
 - Perform air sealing
 - Install wall and pipe insulation
 - Repair/replace windows and doors



- Complete blower door testing
- Install or repair highly efficient mechanical systems (heat pumps, heat pump water heaters, programmable thermostats)
- Install energy efficient appliances and efficient light fixtures
- Install solar photovoltaic electricity generation
- Evaluate/upgrade electrical infrastructure and install an electric vehicle (EV) charging station

Pathways and Education to Become a Home Energy GC

Often, a person starts out as a contractor in a specific trade (see above) prior to becoming a general contractor. Common pathways to becoming a GC include apprenticeships within trades or with an existing GC. Home energy GCs should possess a general knowledge of many different trades and the overall home construction/renovation/retrofit process.

Educational requirements are usually a high school diploma or equivalent. Some states may require a bachelor's degree. Additionally, states usually require minimum relevant work experience. If the state requires a license, then this work experience must be under a licensed contractor. States or jurisdictions may require a GC to be licensed, registered, and/or certified, but this varies by state or jurisdiction.

Skills and Knowledge for a Home Energy GC

A home energy GC must have a holistic understanding of the process of performing whole-home energy retrofits. This includes evaluating existing conditions and infrastructure, prioritizing work within homeowner budgets, obtaining estimates from subcontractors, creating a schedule (for instance, energy auditing takes place before weatherization measures, and air sealing and insulation takes place before sizing a new mechanical system), coordinating subcontractor access and work, and understanding which permits, certifications and/or licenses are required.

Benefits of Becoming a Home Energy GC

Whole-home energy retrofits address a growing need. As more and more homeowners look to reduce their energy use, they will look for straightforward ways to handle the process. The main benefits to becoming a home energy GC are two-fold. First, individuals on the path to become a home energy GC will learn skills within a specific energy efficiency and energy technologies field which, in turn, builds an inherent skill set. Second, there is a waiting business opportunity with homeowners seeking easier ways to implementation energy saving measures in their homes.



Conclusion

In order to meet climate goals, reduce energy use, and save homeowners money, the workforce to perform whole-home retrofits must be scaled up. Homeowners wanting to conduct whole-home energy retrofits may be stymied and discouraged by the complexities of the process. While a home energy GC can fill the gap by managing the process on behalf of the homeowner, there is a scarcity of experienced GCs who can do this work. Through awareness and education, the TEP Workforce projects helps workers set out on the path to becoming home energy GCs. Adding workers to the home energy space, including home energy GCs, will provide opportunities to those individuals who had not previously considered these fields, while upgrading homes and contributing to the process of decarbonization.