Employers throughout New York State report they are facing labor shortages, as they attempt to hire skilled trade workers.

- This is expected to worsen in the coming years due to retiring baby boomers (avg. construction worker age: 43), and the increasing demand for skilled labor (17% projected growth through 2024).

We have a unique opportunity to help shape the construction workforce of tomorrow, and arm them with the knowledge skills and abilities needed to achieve the 80 X 50 target.
Building Operations and Maintenance

- Operations and maintenance has a profound impact on building energy consumption.
  - Building O&M staff make decisions daily, that directly affect the comfort and safety of residents and the building’s energy use.

- Improving operations and maintenance strategies can yield 5% - 20% reduction in energy use without significant capital improvement.

Effect of Adequate and Timely Maintenance and Repairs
Building Operations and Maintenance

- In order to achieve and sustain optimal operational efficiency, the management structure must provide a framework for an integrated and holistic approach to building O&M.

- The variety of stakeholders involved in building operation must “buy-in” to this approach and provide the information and support needed to achieve success.
  - Empower the building operator by providing the tools and training needed to be successful.
Building Operator Training
Key Components of Successful Training Programs

- Developed and continually updated with industry stakeholder and subject matter expert feedback.
- Instructional delivery incorporating adult learning best practices.
- Third party certification.
Deep energy retrofits can yield a 40% - 60% reduction in building energy consumption. For these retrofit strategies to be successful, a “fabric first” approach must be taken.

Implementing deep energy retrofits at scale will require significant education and training to prepare the industry for a paradigm shift.
Passive House

- Low Energy Use
- No Condensation Risk
- Comfortable Surface Temps
- Cost Effective
- Air Sealing for Durability

HERS Index

- Improved Building Enclosure
- Plus PV

Energy Consumption
- Household
- Ventilation
- Hot Water
- Heating
- Renewable Energy

Cost of Ownership
- 95% Reduction

Old Building
- Typical House
- Energy Star
- Building America Program
- Passive House
- Net Zero

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Passive House Deep Energy Retrofits

Images courtesy of Baxt Ingui Architects
Passive House Tradesperson Training
Passive House Tradesperson Training

Images courtesy of Passive House Academy