

New York State Energy Research and Development Authority

Making the Right Connections: Ways to Improve Workforce Training to Better Meet Employer Needs in the Green Jobs-Green New York Program

Summary Report

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NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise and objective information so New Yorkers can make confident, informed energy decisions.

Our Mission: Advance innovative energy solutions in ways that improve New York's economy and environment.

Our Vision: Serve as a catalyst—advancing energy innovation and technology, transforming New York's economy, empowering people to choose clean and efficient energy as part of their everyday lives.

Our Core Values: Objectivity, integrity, public service, partnership and innovation.

Our Portfolios

NYSERDA programs are organized into five portfolios, each representing a complementary group of offerings with common areas of energy-related focus and objectives.

Energy Efficiency and Renewable Energy Deployment

Helping New York to achieve its aggressive energy efficiency and renewable energy goals – including programs to motivate increased efficiency in energy consumption by consumers (residential, commercial, municipal, institutional, industrial, and transportation), to increase production by renewable power suppliers, to support market transformation and to provide financing.

Energy Technology Innovation and Business Development

Helping to stimulate a vibrant innovation ecosystem and a clean-energy economy in New York – including programs to support product research, development, and demonstrations; clean-energy business development; and the knowledge-based community at the Saratoga Technology + Energy Park®.

Energy Education and Workforce Development

Helping to build a generation of New Yorkers ready to lead and work in a clean energy economy – including consumer behavior, youth education, workforce development and training programs for existing and emerging technologies.

Energy and the Environment

Helping to assess and mitigate the environmental impacts of energy production and use – including environmental research and development, regional initiatives to improve environmental sustainability and West Valley Site Management.

Energy Data, Planning and Policy

Helping to ensure that policy-makers and consumers have objective and reliable information to make informed energy decisions – including State Energy Planning; policy analysis to support the Regional Greenhouse Gas Initiative, and other energy initiatives; emergency preparedness; and a range of energy data reporting, including *Patterns and Trends*.

**MAKING THE RIGHT CONNECTIONS:
WAYS TO IMPROVE WORKFORCE TRAINING TO BETTER
MEET EMPLOYER NEEDS IN THE GREEN JOBS—GREEN NEW YORK PROGRAM**

Summary Report

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Notice

This report was prepared by Pace Energy and Climate Center (Pace) for the New York State Energy Research and Development Authority (“NYSERDA”). The opinions expressed do not necessarily reflect those of NYSERDA or the State of New York, and references do not constitute an implied or expressed recommendation or endorsement.

Making The Right Connections: Ways To Improve Workforce Training To Better Meet Employer Needs In The Green Jobs—Green New York Program

A New Report by Researchers led by the Pace Energy and Climate Center for the New York State Energy Research and Development Authority (NYSERDA)

NEW YORK is among the leading states in the green economy.¹

New York can strengthen its position by working with training providers to improve worker training and better match the needs of employers, enhance access to training for workers who are unable to pay, and better connect trained workers with employers who need them. Accomplishing these goals will require better connections between employers and training providers to ensure that training imparts skills that employers need. The findings of new research, summarized here, helps point the way.

There are gaps between the skills that clean energy employers operating in the Green Jobs—Green New York (GJGNY) program need and the skills possessed by jobseekers.² Filling these gaps should help make New York an even stronger engine for the green economy. This summary describes the key findings of this research along with a brief set of concrete action items to facilitate growth of the green economy through workforce readiness.

Employers surveyed overwhelmingly reported problems hiring adequately skilled workers (Figure S-1). A large majority of employers (86%) report that training programs are available in their region of the state. Employers also report using a wide array of methods to attract skilled workers.

If training is available to the vast majority of employers and there is reason to believe employers are looking in the right places for skilled workers, then why are employers having difficulty finding adequately trained workers? What are employers looking for in new hires?

When asked what qualities they seek in new employees, more than 90 percent of all employers said they prize interpersonal skills in new hires,

reflecting the need for these workers to interact directly with home and business owners, and also perhaps learn on the job (Figure S-2).

The other four key qualities can be seen as a proxy for good training—experience or on-the-job training (81%), formal training (67%), education (57%) and certifications (57%). Not surprisingly, for employers working in multilingual settings, language abilities are important (33%).

KEY TAKEAWAYS FROM THIS RESEARCH

- New York State should continue to support clean energy worker training so that employers can grow their businesses and drive growth of the green economy.
- The cost of training keeps some would-be workers out of training classes and contributes to an undersupply of well-trained workers. New York should consider ways to reduce this cost to increase access by the disadvantaged, underemployed and unemployed in the State—a key goal of the Green Jobs-Green New York Act of 2009.
- Apprenticeships and on-the-job training programs that lower the cost of training workers would make it more likely for employers to invest in untrained or undertrained workers.
- Communication between employers and training providers is essential and must be improved. Training providers need to hear what employers need from new hires, and better connect employers to newly-trained workers.
- A more integrated network among employers, job-seekers, training providers and constituency-based organizations will result in better trained workers landing jobs with employers who need them. Such a network would also make apprenticeships and on-the-job training programs easier to manage.
- State program planners at NYSERDA and the Department of Labor should develop mechanisms for regular communication among the clean energy jobs community to provide ongoing training improvement and stronger opportunities for new entrants to transition into clean energy jobs.

Where do employers hear about training? Most hear from NYSERDA directly (76%), others from training websites and web-based advertisements (38%) or by word-of-mouth (24%).

When asked what training-related problems prevent them from hiring new workers or retaining existing workers, employers once again emphasized the lack of soft skills (85%; Figure S-3). Other “deal breakers” according to at least half of the employers responding include a lack of hands-on experience (65%), sufficient reading and writing skills (60%), ability to stay up-to-date on changing regulations (55%) and oral language skills (50%). Cost of training also prevents hires and retention of untrained workers (50%). Some employers (30%) indicated that the availability of “appropriate” training is a barrier to hiring or retaining employees even though the vast majority (86%) indicated that some kind of training is available in their region. What training did employers wish were available but is not?

When asked what specific types of training they wish they could find for their workers, more than half of the employers surveyed indicated training on energy-specific finance (67%) is needed (Figure S-2). A review of current training curricula revealed a general lack of courses to train workers on ways property owners can finance energy efficiency measures and also a lack of on-the-job training. In New York, many options for financing exist, including on-bill cost recovery, NYSERDA loan products and private loan products.

FIGURE S-1

Employers, do you experience any difficulty hiring adequately skilled applicants?

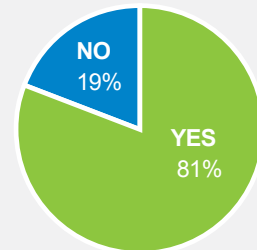


FIGURE S-2

Employers, what are the most important qualities that lead to hiring an employee?

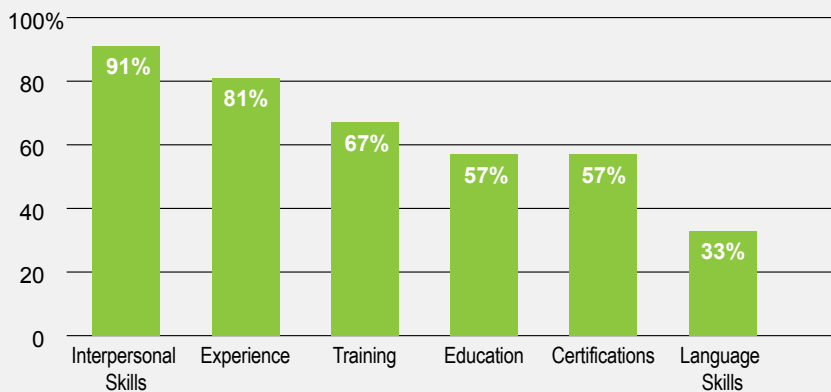
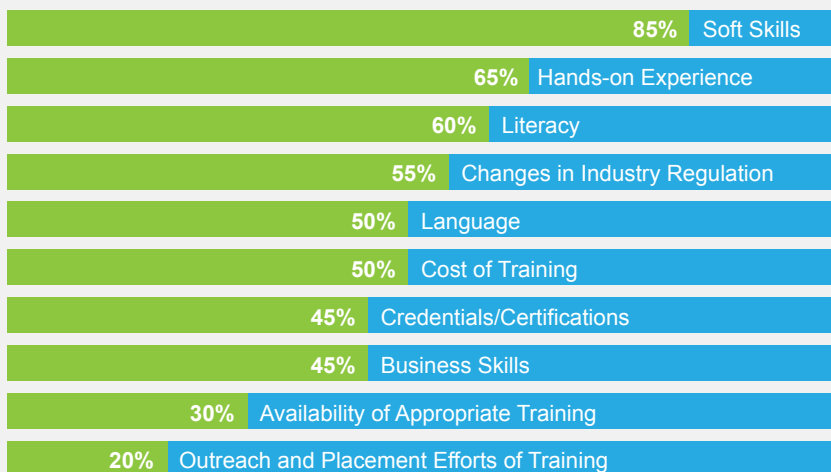


FIGURE S-3

Employers, do any of the following training-related issues prevent you from hiring or retaining employees?



Aside from how to finance projects, employers would like to see hands-on apprenticeships (60%) and technology training on specific equipment or systems (60%; Figure S-4). Others indicated a need for energy-specific marketing (53%). These answers reflect the multi-faceted nature of these clean energy jobs, where a contractor must, for example, conduct an energy audit and identify potential improvements, and then counsel decision makers on what fits their property best and how to finance the work.

When asked which training formats work best for them, all employers (100%) indicated that in-house, on-the-job training is their preferred training method, while a smaller number also chose classroom training (45%) and formal in-house training through a provider (25%). These training preferences are consistent with the 50% of employers indicating cost of training is a barrier to hiring untrained workers (Figure S-4). While 86% of employers surveyed said energy-related training is available in their region of the State, just over half (52%) of the employers indicated that training programs do not adequately prepare workers for jobs with them (Figure S-5).

If more than half of employers surveyed feel training is inadequate, how are training programs designed? Are employers' needs taken into account? When training providers were asked how they develop their course offerings, a large majority (85%) said they consult with contractors (Figure S-6). Other important factors in deciding on courses include institutional decision-making (80%), NYSERDA program requirements (75%),³ what other training providers offer (70%) and what students demand (70%).

FIGURE S-4

Employers, what types of training do you wish were available but have been unable to find?

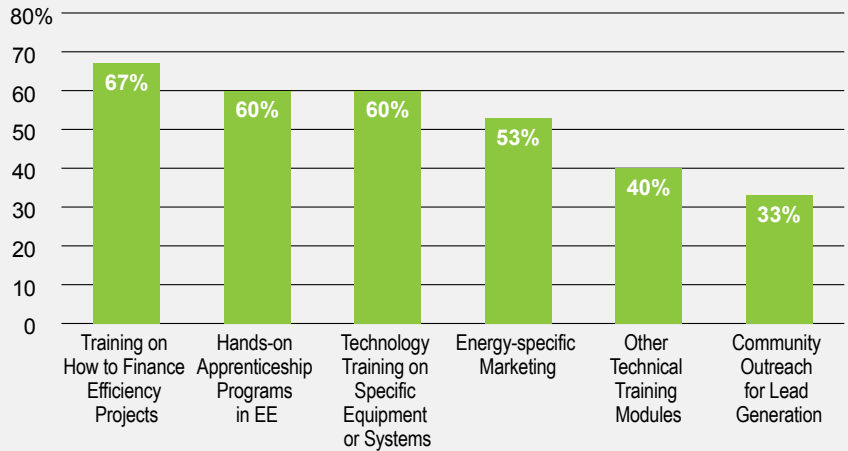


FIGURE S-5

Employers, do training programs adequately prepare workers for positions at your company?

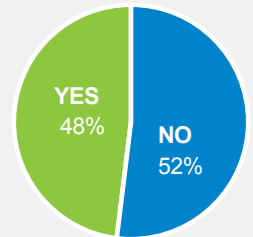


FIGURE S-6

Training providers, how do you decide what training programs and/or courses to offer?

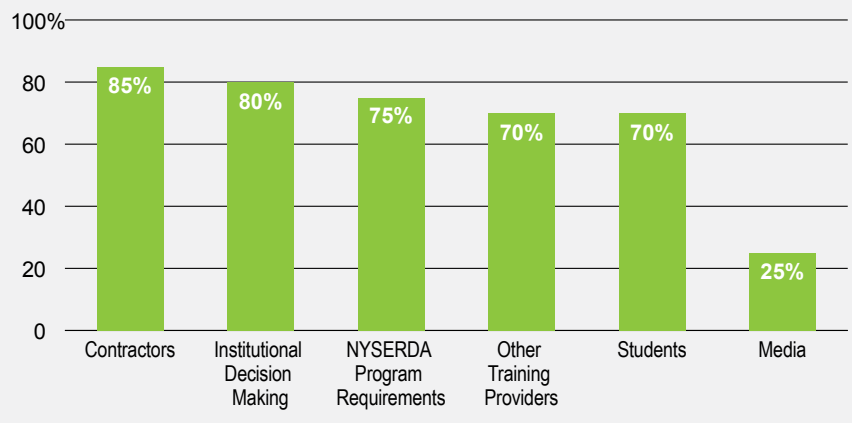
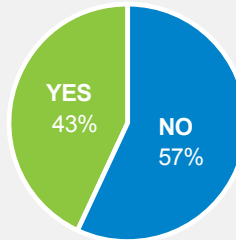


FIGURE S-7

Employers, do you communicate with training providers about the training you think workers need?



Although training providers overwhelmingly stated that they consult contractors in deciding what courses to offer, the fact that the resulting training programs satisfy less than half of the surveyed employers (48%) suggests some failure in communication (Figure S-5). Training providers and employers do not communicate enough to give training providers a full sense of employer needs. Additional survey results bear this out, as the majority of employers (57%) surveyed responded that they do not communicate with training providers about the skills they need to see in workers (Figure S-7). This could also mean that adequate training may not be possible solely through classroom teaching. It may be that course offerings must move in the direction of more on-the-job training and hands-on training.

This communication problem extends to connecting jobseekers with employers. Nearly two-thirds of employers (65%) report a lack of connection between training providers and employers when it comes to connecting potential new hires to employers. Communication between employers and training providers must be improved if training providers

are to offer the right courses, teach the skills needed by employers, and connect employers to the newly trained.

Improved communication, however, will not be enough. Cost plays a big role in whether training providers are used by employers and whether would-be workers seek training in the first place. Indeed, half of the employers surveyed said the cost of training prevents them from hiring and retaining workers that need training (Figure S-4). When training providers were asked what prevents students from seeking training, a large majority (80%) reported cost as a principal barrier. Thus, the cost issue must also be addressed if the gaps between employer needs and training are to be closed.

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ENDNOTES

1. Muro, Mark, Jonathan Rothwell, and Devashree Saha. "Sizing the Clean Economy: A National and Regional Green Jobs Assessment," Brookings Institution, 2011, at pp. 25-26, http://www.brookings.edu/~media/Series/resources/0713_clean_economy.pdf. As the Brookings authors recognize, defining the terms "green" and "clean" is important and difficult given the varied use of the terms in the literature and public discourse. The Brookings authors chose a definition of "green economy" that is broadly defined to include economic activities well outside the scope of the GJGNY programs focused on in this report.
2. Muro, Mark, Jonathan Rothwell, and Devashree Saha. "Sizing the Clean Economy: A National and Regional Green Jobs Assessment," Brookings Institution, 2011, at pp. 25-26, http://www.brookings.edu/~media/Series/resources/0713_clean_economy.pdf. As the Brookings authors recognize, defining the terms "green" and "clean" is important and difficult given the varied use of the terms in the literature and public discourse. The Brookings authors chose a definition of "green economy" that is broadly defined to include economic activities well outside the scope of the GJGNY programs focused on in this report.
3. As a State authority, NYSERDA takes stakeholder input into account in deciding on its requirements, including input from employers and training providers.

For more detailed findings from this research, please consult the full report on NYSERDA's website, www.nyserda.ny.gov

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce their reliance on fossil fuels. NYSERDA professionals work to protect our environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York since 1975.

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Andrew M. Cuomo, Governor

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