Charter of the New Hampshire Energy Sector Partnership

PURPOSE

The New Hampshire Energy Sector Partnership (NHESP) will position the state to meet the skilled workforce needs of businesses in the state's energy efficiency and renewable energy sectors.

GOALS

The NHESP aims to both help reduce the state's overall carbon gas emissions and to prepare a skilled workforce prepared to support and sustain the emerging energy efficiency and renewable energy industries. In order to accomplish this, the NHESP will work to reach the following goals:

1. Develop comprehensive energy efficiency and renewable energy training and career pathways to eliminate talent gaps and help workers gain the skills required by New Hampshire businesses in the emerging green economy.
2. Recruit, place and retain highly skilled employees in the energy efficiency and renewable energy sectors by providing a comprehensive set of supportive services to manage barriers to employment and/or training.
3. Work with the emerging green industries to deploy skilled workers to strengthen New Hampshire's aging and inefficient infrastructure by improving the energy efficiency of residential, public and commercial buildings.

KEY FUNCTIONS

The NHESP will engage in the following activities to ensure that the partnership meets its goals:

- Analyze skill gaps within the energy efficiency and renewable energy sector;
- Review and approve relevant training and education programs;
- Develop curricula to address gaps between available training and required skills;
- Align training programs with available and emerging occupational opportunities in the energy efficiency and renewable energy sectors;
- Create an overall message for New Hampshire's energy efficiency and renewable energy sectors;
- Coordinate workforce, training and supportive services across local programs and resources; and
- Establish clear and accelerated career pathways in the energy efficiency and renewable energy sectors.

MEMBERSHIP

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

*1. Type of Submission:	*2. Type of Application	* If Revision, select appropriate letter(s)
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	*Other (Specify)
☐ Changed/Corrected Application	☐ Revision	

3. Date Received:	4. Applicant Identifier:

5a. Federal Entity Identifier:	*5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

*a. Legal Name: Department of Resources and Economic Development

*b. Employer/Taxpayer Identification Number (EIN/TIN):	*c. Organizational DUNS:
02-6 000 618	787-504 158

d. Address:

*Street 1:	172 Pembroke Road
Street 2:	P.O. Box 1856
*City:	Concord
County:	Merrimack
*State:	New Hampshire
Province:	
*Country:	United States
*Zip / Postal Code	03302

e. Organizational Unit:

Department Name:	Division Name:
Department of Resources and Economic Development	Office of Workforce Opportunity

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:		*First Name:	Jackie
Middle Name:			
*Last Name:	Heuser		
Suffix:			

Title: Director of Operations

Organizational Affiliation:

*Telephone Number: 603-229-3470 Fax Number: 603-228-8557

*Email: jackie.heuser@dred.state.nh.us

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

***9. Type of Applicant 1: Select Applicant Type:**

A.State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*Other (Specify)

State Workforce Investment Board

***10 Name of Federal Agency:**

Department of Labor - Employment and Training Administration

11. Catalog of Federal Domestic Assistance Number:

17.275

CFDA Title:

ARRA State Energy Sector Partnership (SESP) and Training Grants

***12 Funding Opportunity Number:**

SGA/DFA PY-08-20

*Title:

ARRA State Energy Sector Partnership (SESP) and Training Grants

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

State of New Hampshire - Hillsborough, Rockingham, Merrimack, Belknap, Strafford, Coos, Cheshire, Sullivan, Grafton, Carroll Counties

***15. Descriptive Title of Applicant's Project:**

New Hampshire State Energy Sector Partnership - this project will permit New Hampshire to develop training programs to address the energy efficiency and renewable workforce development needs across the state utlizing various tools and methods of education under industry leadership and direction. The NHSESP will be coordinated by the Offfice of Workforce Opportunity, DRED, the WIB for the State of New Hampshire.

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

16. Congressional Districts Of:

*a. Applicant: NH-all *b. Program/Project: NH-all

17. Proposed Project:

*a. Start Date: 01/01/2010 *b. End Date: 12/31/2012

18. Estimated Funding ($):

*a. Federal	2,750,000.00
*b. Applicant	
*c. State	
*d. Local	
*e. Other	
*f. Program Income	
*g. TOTAL	2,750,000.00

***19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on _____

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E. O. 12372

***20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

☐ Yes ☒ No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U. S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions

Authorized Representative:

Prefix: _____ *First Name: George

Middle Name: _____

*Last Name: Bald

Suffix: _____

*Title: Commissioner

*Telephone Number: 603-271-2411 | Fax Number: 271-2629

* Email: george.bald@dred.state.nh.us

*Signature of Authorized Representative: George L Bald *Date Signed: 10/9/2009

Application for Federal Assistance SF-424 Version 02

***Applicant Federal Debt Delinquency Explanation**

The following should contain an explanation if the Applicant organization is delinquent of any Federal Debt.

Budget Narrative:

Personnel: The New Hampshire Office of Workforce Opportunity, Department of Resources and Economic Development (DRED) will require funds for OWO staff members' time to administer this grant. These staff members include a full time Energy Efficiency Training Project Grant Administrator and Administrative Support Staff time.

Fringe Benefits: Fringe benefits are rated at 27% per state benefit percentages.

Travel: Travel is budgeted to include travel across the state for grant administration and for travel to attend grantee seminars and workshops, as required by the Department of Labor.

Equipment: The Office of Workforce Opportunity will need to purchase a new computer, desk and office equipment for the Energy Efficiency Training Project Grant Manager.

Supplies: Supplies include traditional office supplies and consumables.

Contractual: Contractual are associated with the various providers as follows:

- Program/Training—Costs associated with direct program delivery include:
    - Associated program costs for NH Works to provide staffing and program administration ($593,000) and state level program delivery ($282,000) for recruitment, assessment, counseling, testing, placement assistance and follow-up. Associated costs also include any additional computer and data access expenses to meet the data requirements of this grant.
    - Funds targeted toward training of individuals through the major providers as described in the narrative totaling$1,452,379.
- Supportive Services— Any appropriate and eligible supportive services needed under this grant, will be subcontracted with the NHWorks based on their experience, efficiency and accountability at 4.6% of the grant or 150 persons at $850 each.
- Other Charges—Other grant charges include meeting expenses for the New Hampshire Energy Sector Partnership ($250 per quarter for 12 quarters for $3,000). The state is reserving $17,121 to support further strategic planning for the New Hampshire Energy Sector Partnership.

Leveraged Funds: The Office of Workforce Opportunity will be working with and utilizing funds from the following resources in this grant:

- A partnership between the Department of Resources and Economic Development (DRED) and Lakes Region Community College (LRCC) will develop and deliver

training for energy efficiency improvements in buildings, including “train the trainer” sessions ($174,000).

- The New Hampshire Electric Utilities (National Grid, NH Electric Cooperative, Public Service of New Hampshire (PSNH), and Unitil) are expanding the Core Efficiency programs to include various areas applicable to the grant, including retro-commissioning for large businesses, no interest loans through fixed monthly payments on customers’ bills (including non-residential); air conditioner and refrigerator recycling programs, and expanded job training programs ($7,646,020).
- The Lakes Region Community College will provide 50% of the cost per participant for BPI certification training ($155,000)
- The $1,000,000 New Hampshire Job Training Fund will be available on a match basis to the state’s energy sector employers to upgrade the energy efficiency skills of incumbent workers ($1,000,000)
- The Office of Workforce Opportunity, DRED currently plans to utilize up to $300,000 in WIA discretionary funds to develop state sector strategies in multiple industries including energy efficiency and sustainable energy strategies ($300,000).

These State Energy Sector Partnership funds from the Department of Labor will serve as the glue to bring these related programs together as one integrated project coordinated by the Office of Workforce Opportunity. Total funds leveraged amount to $9,293,020.

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. SGA/DFA PY08-20	17.275	$	$	$ 2,750,000.00	$	$ 2,750,000.00
2.						0.00
3.						0.00
4.						0.00
5. Totals		$ 0.00	$ 0.00	$ 2,750,000.00	$ 0.00	$ 2,750,000.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	Total (5)
a. Personnel	$ 136,500.00	$	$	$	$ 136,500.00
b. Fringe Benefits	36,855.00				36,855.00
c. Travel	15,000.00				15,000.00
d. Equipment	7,000.00				7,000.00
e. Supplies	9,036.00				9,036.00
f. Contractual	2,525,488.00				2,525,488.00
g. Construction					0.00
h. Other	20,121.00				20,121.00
i. Total Direct Charges *(sum of 6a-6h)*	2,750,000.00	0.00	0.00	0.00	2,750,000.00
j. Indirect Charges					0.00
k. TOTALS *(sum of 6i and 6j)*	$ 2,750,000.00	$ 0.00	$ 0.00	$ 0.00	$ 2,750,000.00
7. Program Income	$	$	$	$	$ 0.00

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. SGA/DFA PY-08-20	$	$	$	$ 0.00
9.				0.00
10.				0.00
11.				0.00
12. TOTAL *(sum of lines 8-11)*	$ 0.00	$ 0.00	$ 0.00	$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 500,000.00	$	$	$ 250,000.00	$ 250,000.00
14. Non-Federal	0.00				
15. TOTAL *(sum of lines 13 and 14)*	$ 500,000.00	$ 0.00	$ 0.00	$ 250,000.00	$ 250,000.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.SGA/DFA PY-08-20	$ 500,000.00	$ 1,000,000.00	$ 1,000,000.00	$ 250,000.00
17.				
18.				
19.				
20. TOTAL *(sum of lines 16-19)*	$ 500,000.00	$ 1,000,000.00	$ 1,000,000.00	$ 250,000.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges:
23. Remarks:	

The New Hampshire Energy Efficiency Training Project

1. Statement of Need

New Hampshire is in a precarious energy position. Not only is the state a regional leader of greenhouse gas emissions,[1] it also lacks the skilled workforce needed to meet the growing demand for energy efficiency and sustainable energy solutions. Further, climate change shortens the outdoor recreation season, threatening the state's vital winter economy.[2] New Hampshire requires a solution that safeguards its economic outlook by reducing carbon use, increasing energy efficiency, and preparing workers to meet the growing demand for these efforts.

Like most states, the current economic environment is presenting New Hampshire's workers and employers with growing challenges. While New Hampshire's unemployment rate in August 2009 was lower than the national average at 6.8 percent, it has nearly doubled since August 2008.[3] Workers in declining industries are often highly skilled within their own occupations, but are now challenged to apply their expertise to new job opportunities.

There is some hopeful news for these displaced workers. As New Hampshire aims to manage greenhouse gas emissions and high-energy costs, the resulting demand for energy efficiency and sustainable energy is driving rapid expansion of the green economy. In the midst of this expansion, the need for skilled workers among the state's energy efficiency and sustainable energy employers is anticipated to rise rapidly. The New Hampshire Economic and Labor Market Information Bureau (NHELMI) anticipates that this growth could result in nearly

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[1] Ramseur, Jonathan. *State Greenhouse Gas Emissions: Comparison and Analysis*. Congressional Research Service (2007)

[2] Wake, Cameron and Elizabeth Burakowski, University of New Hampshire and Laurence Goss, Salem State College. *Winter Recreation and Climate Variability in New Hampshire: 1984-2006*. (2006)

[3] New Hampshire Economic and Labor Market Information Bureau (2009) *Local Area Unemployment Statistics* http://www.nh.gov/nhes/elmi/lausbrief.htm

3,293 jobs in energy efficiency and sustainable energy occupations by 2016.[4] Many of these emerging jobs offer high wages and good benefits, including entry-level positions for which unemployed or underemployed workers with the appropriate training could qualify.

Despite the availability of a workforce with experience in the labor market, there remains a gap between the skills and credentials these workers possess and those required for jobs in the emerging green economy. Among New Hampshire's population only 384,590 or 42.6% have an Associates degree or higher. Moreover, 19.2% have some college, but have yet to obtain a degree.[5] Further, an analysis prepared by the NHELMI found that the top fifteen skills needed in the most rapidly declining industries were not the same skills in those occupations with the most growth in employment. Table 1 illustrates this mismatch.[6]

Table 1: Skills Mismatch between Growing and Declining Industries

Growing Industries	**Declining Industries**
Reading Comprehension	Programming
Active Listening	Science
Critical Thinking	Technology Design
Speaking	Systems Analysis
Instructing	Management of Material Resources
Coordination	Systems Evaluation
Monitoring	Repairing
Active Learning	Operations Analysis
Social Perceptiveness	Management of Financial Resources
Learning Strategies	Operation and Control
Writing	Equipment Maintenance
Time Management	Installation
Service Orientation	Management of Personnel Resources
Persuasion	Operation Monitoring
Judgment and Decision Making	Negotiation

[4] New Hampshire Economic and Labor Market Information Bureau (2009) *Green Jobs Top List*
[5] U.S. Census (2008) *American Community Survey* [Data file]
[6] New Hampshire Economic and Labor Market Information Bureau (2009) *Skills Gap Index – Industries Overall*

Although new jobs in growing industries offer hope for New Hampshire job seekers, employers are reporting difficulty finding skilled labor to meet their growing business needs. A NHESP employer partner - and one of the largest energy services companies in the state – neatly illustrated New Hampshire's predicament recently by stressing that "energy services industry growth is presently limited by the lack of technicians trained in the building energy efficiency craft. Our technical schools are coming on strong in the weatherization fields, but need additional resources to deal with the technical challenges in the commercial and industrial markets."This is a serious threat to New Hampshire's long-term prosperity. Lacking sufficient workers with the skills needed by employers to fill these positions, New Hampshire will be unable to retain its current businesses and attract new employers. The state must resolve this crucial talent need.

Equally urgent for New Hampshire are efforts to mitigate inefficient uses of energy. The combination of aging buildings and harsh winters results in higher consumption of nonrenewable resources and subsequently burdensome energy costs. Further, climate change threatens the state's appeal as a vibrant outdoor recreational destination. A recent analysis of the projected impact of climate change on New Hampshire's winter recreation warned "if we do not begin soon to reduce our greenhouse gas emissions, the 8 to 12°F warming by the end of the century will have a significant impact on winter recreation and the businesses that rely upon winter snow."[7]

Beyond the environmental toll, structural deficiencies result in increased energy costs for businesses – threatening to deter growing industries and upset New Hampshire's economic competitiveness. Moreover, the energy consumed by public and municipal buildings further

[7] Wake, Cameron and Elizabeth Burakowski, (2006)

strains the state's shrinking tax revenues. In fact, energy inefficient buildings are a primary contributor to these high energy costs. New Hampshire's 2009 Climate Action Plan found that buildings accounted for 68.6% of the net energy consumed in 2005.[8] This building energy consumption figure is even more daunting when compared to the national average, 39%.[9] These inefficiencies appear to be growing. In the period between 1990 and 2005, energy consumption in New Hampshire's residential, commercial and industrial buildings grew by 32%.[10] New Hampshire must improve its energy efficiency immediately in order to deter both energy and economic waste.

There is crucial momentum underway in New Hampshire towards addressing environmental concerns. Not surprisingly, these efforts are anticipated to further stimulate the growth of the green economy and subsequent demand for a workforce with relevant energy efficient job skills. Currently, the state is setting aggressive environmental goals, including Governor John Lynch's commitment to reduce carbon emissions twenty-five percent by 2025. Under this commitment, New Hampshire has joined the Regional Greenhouse Gas Initiative (RGGI), an effort to reduce emissions across New England. Similarly, the Governor implemented Executive Order 2005-04 to reduce greenhouse gas emissions within state operations by ten percent.[11]

In addition to these specific commitments, New Hampshire has devoted significant effort towards building an energy efficient state infrastructure. The New Hampshire Office of Energy and Planning (OEP) has launched several initiatives to improve the energy efficiency of the

[8] New Hampshire Climate Change Policy Task Force (2009) *The New Hampshire Climate Action Plan: A Plan for New Hampshire's Energy, Environmental and Economic Development Future.* Pg. 21
[9] New England Clean Energy Council (2008) *Projecting Workforce Needs of the Massachusetts Residential Retrofitting Energy Efficiency Programs.*
[10] *Ibid*
[11] *Ibid*

state's residential, commercial and public buildings. These efforts aim to improve business and manufacturing processes, create public policy incentives to promote energy efficiency, provide capital to retrofit buildings, and promote residential energy efficiency training.[12] This significant focus on energy efficiency is creating a critical mass of initiatives, resulting in an expanding need for workers well-prepared to satisfy the state's growing demand.

2. New Hampshire Energy Sector Partnership

Efforts in New Hampshire to reduce greenhouse gas emissions include extensive involvement and commitment from a diverse set of key influential stakeholders. Meanwhile, specific state commitments have further positioned New Hampshire to support these environmental goals while concurrently advancing workforce and economic development. Specifically, Governor Lynch has recently embarked on a substantial realignment of state workforce and economic development systems, culminating in the relocation of the Workforce Investment Board (WIB) into the Department of Resources and Economic Development (DRED). This timely restructuring positioned the state to leverage and align its resources and support multiple goals simultaneously, including the Governor's recent prioritization of sector approaches.

In 2008 Governor Lynch dedicated $318,000 to developing a comprehensive sector approach in multiple industries, including participation in the National Governor Association's Policy Academy focused on sector strategies. Subsequently, the state WIB created a strategic plan to implement and utilize a sector approach. These efforts positioned the state to support its energy efficiency sector by helping workers obtain relevant skills and knowledge needed by employers. Also in 2008, the New Hampshire Energy Efficiency and Sustainable Energy Board

[12] New Hampshire Business Resource Center (2009) *Energy Efficiency Programs* www.nheconomy.com/business-services/energy-efficiency-programs

(EESE Board) was created by the state legislature, largely driven by participation in the ten-state Regional Greenhouse Gas Initiative. The EESE Board was tasked with developing "a plan for energy efficiency and sustainable energy that builds on existing successful programs, increases awareness of energy efficiency and sustainable energy, and improves coordination of these programs."[13]

The EESE Board is comprised of twenty-five influential stakeholders with a wide range of perspectives and roles in the energy efficiency and sustainable energy sector. Membership includes state agency leaders; key nonprofit, association and state legislative members; and energy efficiency and sustainable energy employers. During the summer of 2009, many members of the EESE Board, along with additional key stakeholders, were selected by the Workforce Investment Board to participate in the New Hampshire Energy Sector Partnership (NHESP). The NHESP's membership reflects much of the energy efficiency and sustainable energy planning efforts in the state, with the addition of individuals with knowledge and authority in the workforce development, education, training and human service systems. (Please see Appendix a, the NHESP Charter, for a membership roster.) To date, the NHESP has met three times and has approved the state's strategic energy sector plan and the plan's initial project team.

In developing its strategic plan, the NHESP analyzed existing state workforce plans, New Hampshire's 2009 *Climate Action Plan*, and other relevant efforts. Most notably, the *Climate Action Plan* specifies that the state "should also focus on the development of workforce training in the installation, operation, and maintenance of advanced technologies and proficiency in the design of residential, commercial and industrial buildings."[14] The NHESP's strategic plan

[13] *Ibid*
[14] New Hampshire Climate Change Policy Task Force (2009)

furthers many of the explicit recommendations in the *Climate Action Plan*, including the development of a robust outreach plan, increasing energy efficiency through building management education programs, and establishing comprehensive energy efficiency and sustainable energy workforce training programs.

The NHESP strategic plan outlines the direction of the sector partnership in guiding and developing the state's workforce training and education programs. While this partnership has prioritized both energy efficiency and sustainable energy state strategies, the focus of this grant is specific to energy efficiency – particularly efforts that complement existing initiatives. As many of these current initiatives are in the residential energy efficiency sector, initial efforts will concentrate on preparing workers for public and commercial energy efficiency. This emphasis will support projects emerging from Governor Lynch's "Lead by Example in Energy Efficiency" executive order, which requires state agencies and departments to implement procedures, processes and infrastructure that support energy efficiency.

The NHESP will provide strategic advising and coordination of all its energy efficiency workforce programs and trainings. Building upon and responding to employer insight among its membership, the NHESP will align training programs with available and emerging occupational opportunities by reviewing and approving eligible training and curricula, and coordinating services across local programs and resources. The NHESP will thoroughly analyze existing gaps in training programs and service delivery to determine what additional relevant curricula should be developed within the state. This close partnership among providers and employers allows ongoing analysis to directly inform training and services, based upon current data about the workforce needs of employers throughout the state.

Leveraged Funding Sources

New Hampshire is deeply committed to ensuring that the state's workforce is prepared to meet the growing demands of the energy efficiency and sustainable energy sector. In order to support the work of the NHESP, the state is prepared to leverage multiple funding sources to enhance current and future grant activities. Specifically, New Hampshire will leverage some funding and the activities of the following initiatives:

- New Hampshire Department of Resources and Economic Development (DRED): A partnership with the Lakes Region Community College (LRCC) to develop and deliver training for energy efficiency improvements to buildings, including "train the trainer" sessions and internships ($174,000)
- NH Electric Utilities: National Grid, NH Electric Co-op, Public Services of New Hampshire (PSNH) and Unitil are expanding the Core Efficiency Programs to include: fuel-neutral weatherization services; retro-commissioning for large businesses; no interest loans for efficiency measures; air conditioner and refrigerator recycling programs; and expanded job training ($7,646,020)
- Lakes Region Community College: LRCC will leverage a Greenhouse Gas Emissions Reduction Fund (GHGERF) grant from DRED to pay for fifty percent of the costs per participant for BPI certification training ($155,000).
- NH Job Training Funds: New Hampshire's energy sector employers will be able to access the state's $1 million Job Training Fund to upgrade the skills of incumbent workers.

- Governor Lynch's Discretionary Funding: DRED will receive discretionary funds from Governor Lynch to develop state sector strategies in multiple industries, including energy efficiency and sustainable energy strategies. ($318,000)

New Hampshire will ensure that all participants eligible for Workforce Investment Act (WIA), Trade Adjustment Act (TAA), and other federal funding streams are enrolled and maximize all possible support from those sources. Additionally, the state will leverage every available supportive service to ensure participants receive help managing their barriers.

3. Strategy and Project Work Plan

The Energy Efficiency Training Project is a statewide sector initiative to safeguard New Hampshire's economic outlook by reducing carbon use, increasing energy efficiency, and preparing workers to meet the growing demand for these efforts. As the steering committee for this project, the NHESP concluded in its strategic plan that this workforce strategy provides an immediate opportunity to impact greenhouse gas emissions. These actions will prepare workers to implement the most cost-effective investments in energy efficiency and incorporate more advanced technologies in construction. In updating New Hampshire's infrastructure, the NHESP emphasizes a "whole building approach" to improve the efficiency of residential, public and commercial buildings while simultaneously implementing sustainable energy and energy production into existing and new construction.

The Energy Efficiency Training Project leverages existing, proven training programs into a comprehensive sector strategy offering multiple entry/exit points and career pathways to relevant credentials and a family sustaining career. Using the sector fields identified in the state's *Climate Action Plan,* the following table outlines occupations projected within each sector field, including corresponding employment projections for 2016. The NHESP and the Energy

Efficiency Training Project Team will use this and other available data - including employer input - to continuously refine the initiative and ensure trainings are highly relevant and responsive to actual industry skill needs.

Table 2: Anticipated Energy Efficiency Occupations and Relevant Training

Sector Field	**Typical Occupations (from O*NET)[15]**	**Projected 2016 Employment [16]**
Lighting	Installation Contractor* Electricians	3093
Heating, Ventilation and Air Conditioning (HVAC) systems	HVAC Technicians and Installers Duct Test and Seal Technician* QA/QC Inspector*	2230
Processes	Project Managers Compliance Analysts Bookkeeping, Accounting and Auditing Clerks Office Clerks, General Secretaries, Except Legal, Medical & Executive Truck Drivers, Heavy and Tractor Trailer Machinists Customer Service Representative*+ Shipping, Receiving and Traffic Clerks	7529
Control Equipment and Technologies	Building Controls Technicians* Electricians Electrical and Electronic Assemblers Electromechanical Equipment Assemblers Electrical and Electronic Engineering Technicians	5,869
Refrigeration Equipment	Installation Contractor+ Plumbers, Pipefitters, and Steamfitters HVAC Technicians and Installers	3,209
Building	Home Performance Contractor*+	11,326

[15] Occupational positions were prioritized by training programs matching the capacity and intent of this grant. Positions outside of the training capacity of the grant, *i.e.*, based solely on work experience or requiring a Bachelor's degree or higher, were not included.

[16] New Hampshire Economic and Labor Market Information Bureau 2016 employment projections (published in 2006) were used where available. The remaining data, denoted with a "*", reflects 2010 Q3 projections. For those positions that were not an overt match, new or emerging positions (*e.g.*, energy auditor) were identified by the closest available job family. Projections for emerging energy efficiency specialty positions within these job families were then estimated at 10% of the total occupational demand, and are denoted with "+".

Shell and Windows	Green Construction*+ Carpenters Construction Laborers Operating Engineers and Other Construction Equipment Operators Excavating, Loading Machine and Dragline Operations Painters, Construction and Maintenance Construction and Related All Other Helpers, Carpenters	
Hot Water Systems	Installation Contractor Plumbers, Pipefitters, and Steamfitters	1,899
Water Usage	Plumbers, Pipefitters, and Steamfitters	1,667
Renewable Energy Systems	PG&E Green Energy Suppliers Photovoltaic Installer*+ Thermal Solar Installer Electrical and Electronic Equipment Assemblers Team Assemblers	2,587
Energy Systems Management	Building Performance Retrofit Specialists*+ Energy Auditor* Energy Analyst* Building Operator*+ Resource Conservation Manager*+ Measurement and Verification Technician Technical Service Representative*+ Resource Conservation or Energy Efficiency Managers*+ Project Managers Weatherization Specialist*+ Weatherization Installer*+ Inspector, Testers, Sorters, Samplers and Weighers Cost Estimators	4,875

Priority Populations

The Energy Efficiency Training Project will focus on the following priority populations:

- Unemployed workers, especially workers previously employed in related industries;
- Underemployed workers, including workers looking for pathways out of poverty and workers who were previously incarcerated;
- Incumbent workers needing to upgrade their skills;
- Veterans will be an enrollment priority wherever possible; and

- Special emphasis will be placed on enrolling women in traditionally male dominated fields.

These populations undeniably face barriers and challenges to success. The Energy Efficiency Training Project will offer a range of supportive services customizable to these unique needs. For example, seventy-two percent of New Hampshire's unemployed workers are between the ages of thirty-five and sixty-four.[17] These workers are more likely to have families, and so may feel particular pressure to return to work as quickly as possible. The Energy Efficiency Training Project's inclusion of paid On the Job Training (OJT) can provide these participants with critical opportunities to earn wages while engaging in training. Further, unemployed workers frequently require improved basic skills prior to enrolling in an occupational training program. Such remediation will be central to the success of participants with low basic skills.

Many employed workers must also upgrade or add to their current skills in order to remain competitive in the labor market. The Energy Efficiency Training Project will target incumbent workers to ensure their skills are relevant to new and emerging jobs. Moreover, this project will provide avenues for underemployed workers to gain needed skills to progress along a career pathway to better employment opportunities.

As mentioned above, a priority of this grant will be to recruit women into traditionally male-dominated fields, such as construction. Nationally, the construction work force is comprised of 90.4% men and 9.6% women.[18] Enrolling women in energy efficiency programs (which often include many opportunities in construction) will offer the opportunity for a promising career and family sustaining wage.[19]

Local and Regional Project Teams

[17] New Hampshire Economic and Labor Market Information Bureau, ETA 9002 Quarterly Report
[18] http://www.nawic.org/nawic/Statistics.asp?SnID=2
[19] http://quickfacts.census.gov/qfd/states/33000.html

Due to its size, geography and operational structure, the Energy Efficiency Training Project will be operate through a single, unified Project Team to capitalize on New Hampshire's centralized workforce operations and infrastructure. This single team structure is consistent with the WIA state plan, wherein New Hampshire is designated as a single state delivery area. As such, all planning is coordinated at the state level in partnership with the single Workforce Investment Board (WIB), the Office of Workforce Opportunity (OWO). Strategies and associated resources are thus planned centrally and applied statewide. The WIB administers New Hampshire's Workforce Investment Act (WIA) and NEG funds and financially supports and helps administer the NH Works Centers, the state's one-stop career centers. As the state WIB and the local WIA implementation entities, the Office of Workforce Opportunity serves the dual purpose of providing strategic guidance while administering critical state and local programs.

Geographic Area: As outlined above, the Energy Efficiency Training Project will operate throughout the state of New Hampshire in alignment with its current operations as a single state workforce delivery area. The NHESP will provide oversight, strategic advice and guidance. The lead staff member overseeing the Energy Efficiency Training Project will be an Office of Workforce Opportunity Grant Manager. This staffer will coordinate efforts among training providers and Project Team partners, and manage grant activities according to the NHESP's input. The Office of Workforce Opportunity will work to efficiently and effectively help the Project Team to address any issues or obstacles that arise. Additionally, the NHESP will be notified and consulted of any unexpected challenges.

Table 3: Project Team Members and Roles

Energy Efficiency Training Project		
Organization	Category	Training Partnership Role
Office of Workforce Opportunity, Department of	State Workforce Investment Board Staff	Project Oversight, Fiscal Management and Reporting

Resources and Economic Development		
New Hampshire Charitable Foundation	Community Based Organization/Philanthropy	Facilitation, Coordination, and Strategic Leadership
Community College of the State of New Hampshire	Education and Training Provider	Basic skills and Developmental Education, BPI Training, ESTP Training leading to Associates Degrees and Certificates, Recruitment, Placement and Retention
New Hampshire AFL-CIO Building Trades Council	Labor Federation	Training, Recruitment, Placement and Retention
Home Builders and Remodelers Association of New Hampshire	Training; Recruitment	Build Green New Hampshire® Training, Recruitment, Placement and Retention
IBEW Local 490; NH JATC	Labor Union; Building Trades Training Board	Pre-Apprenticeship Training, Green Apprenticeship Training, Recruitment, Placement and Retention
NH Works Centers	New Hampshire SWIB's One-Stop Centers, WIA Recruitment and Assessment	Recruitment, Case Management and Program Management
Belknap-Merrimack Community Action Program	Training Provider; Community Based Organization	Weatherization Training, Recruitment and Placement Assistance

Community Outreach: The NHCF plays a distinct and unique leadership role in this project, including actively facilitating the development of the NHESP. In addition, NHCF will provide outreach, public relations and community relations. The NHCF will work to ensure that efforts among the philanthropic community are enhancing this training project and all the work of the NHESP.

Recruitment: Recruitment will be a coordinated effort across the Project Team, including NH Works and the Community Action Agencies (CAAs); the Homebuilder and Remodeler Association's widespread membership of contractors; the Community College System of New Hampshire; the building trades of the AFL-CIO; the utilities and other energy service providers/employers. The NH Works Centers will provide both recruitment and supportive

services, including counseling, testing, assessment and appropriate referrals to training providers. Training providers will also support recruitment and provide training specific assessments (see table below for more information on training providers and their programs). Comparable assessments are expected from all participating training providers.

Training: The Energy Efficiency Training Project incorporates a set of clear and accelerated career pathways providing multiple entry and exit points, with services customized to meet the varying needs of participants. These career pathways each offer a range of services, allowing the Project Team to place participants into the program best suited to their interests, needs and skill levels. Ultimately, each pathway will result in higher skills, relevant credentials and a family sustaining career in the emerging energy efficiency sector.

After an analysis of energy efficiency employer needs and available training programs, the NHESP identified the following Project Team training components:

Basic Skills Training

The Community College System of New Hampshire (CCSNH) will provide basic skills and developmental education to Energy Efficiency Training Project participants who are unprepared to enter into the energy efficiency specific trainings. The NHESP will ensure that each participant is well-prepared and academically supported for success and advancement in the energy efficiency sector. The NHESP recognizes the importance of basic skills for each of the priority populations, especially disadvantaged populations for whom basic skills may be a major impediment to progress.

As the project team, the NH Works and training providers will assess participants' skill levels and refer them to the CCSNH for basic skills remediation as needed. The CCSNH will work with project members to ensure that participants are supported as they transition into each

of the more advanced trainings. The CCSNH has a long history of providing basic skills support, offering developmental education at each of its thirteen campuses. In addition, the CCSNH and NHESP will explore opportunities to customize and contextualize basic education to the energy efficiency sector.

Apprenticeship/Pre-Apprenticeship Training

The NHESP will direct the Joint Apprenticeship Training Council (JATC) in developing energy efficiency apprenticeship training curricula, including skills to retrofit public and commercial buildings. The International Brotherhood of Electrical Workers (IBEW), which has demonstrated its ability to effectively provide workers with the skills needed for emerging careers in energy efficiency, will then use this curriculum to offer both entry level and incumbent workers combined work and learning opportunities, including on-the-job Training. The Joint Apprenticeship Training Council (JATC) will receive $135,000 to develop these additional apprenticeship trainings.

The IBEW's pre-apprenticeship trainings will feed into their apprenticeship program and will result in OSHA 10 cards and apprenticeship journeyman papers. Trainings will be reviewed and guided by the NHESP to ensure that they meet JATC's requirements and address gaps in electrical retrofit training.

This curriculum will provide competency-based apprenticeship and pre-apprenticeship training incorporating Related Technical Instruction (RTI) with on-the-job training (OJT). The integration of work into the apprenticeship model incorporates the opportunity to earn wages while gaining skills. This is a critical component for participants who need to continue to support families, and thus the apprenticeship model is often particularly attractive to disadvantaged populations, women and veterans. Furthermore, apprenticeships typically

incorporate one-on-one instruction - facilitating customized approaches which are responsive to individuals' specific skill levels.

Entry-level opportunities will be available for those with lower skills, less professional experience, or who prefer to commit less time to improving their skills. The curricula will prepare students for entry-level auditor and energy efficiency technician careers. This training will consist of five weeks of instruction and eleven weeks of subsidized On the Job Training (OJT) – including wages - from energy efficiency IBEW projects.

In order to ensure the competitive advantage of IBEW members and incumbent workers, the IBEW will provide also incumbent training to workers needing to upgrade their electrical skills to support the commercial and public building retrofit demands of the state. This training will be overseen by the NHESP, and will ensure that workers earn industry-recognized credentials in the energy efficiency sector. The IBEW incumbent training will focus on developing energy efficiency competencies for future green jobs or green applications of existing occupations. Incumbent training will consist of approximately eighty hours of training or retraining for Skilled Trade Inductors, Journeypersons and other workers in existing occupations.

Guided by the NHESP, NH Works and the IBEW will coordinate placements to ensure that participants gain employment in the energy efficiency sector. The IBEW anticipates serving 180 workers at the cost of approximately $1,750 per participant.

Building Performance Institute Training Program

Lakes Region Community College, as a part of the CCSNH, will provide the Building Performance Institute (BPI) professional certificate training to entry-level and incumbent workers wishing to gain energy efficiency retrofit training. BPI is a nationally recognized training program providing skills in weatherization assistance. The forty-hour intensive training

will be provided statewide at CCSNH's thirteen campuses and will train workers to enter Building Analysts and Implementation Contractor occupations.

While much of the program focuses on residential retrofitting, LRCC will expand and adapt the training to focus on public and commercial energy efficiency. CCSNH will partner with state agencies to deliver on-site internships to provide hands-on public and commercial building training. In addition, students will be able to shadow other Regional Greenhouse Gas Initiative partners as they audit state and commercial buildings. Further, as the largest owner of public buildings in the state, there are ample opportunities for students to gain hands-on experience in the CCSNH's building retrofit efforts.

Currently, LRCC has secured a grant from the New Hampshire Department of Resources and Economic Development to provide BPI training to 250 students at half the typical cost to participants. However, few students are able to pay the tuition costs. The NHESP will use this grant to fund the remaining program tuition, ensuring that training will reach the intended target populations: unemployed and underemployed workers needing skill upgrades. CCSNH anticipates serving 225 participants by the end of the grant period.

Energy Service Technology Program

The CCSNH's Energy Services and Technology Program (ESTP) provides students with Associates degrees and pre-Associates degree certificates in energy efficiency and renewable energy. The Associates degree program will provide students with a range of skills that enable a comprehensive "whole building approach" to energy efficiency and renewable energy, thereby increasing mobility between professions. All degrees and certificates awarded from the ESTP are industry recognized credentials.

The ESTP is targeted towards students who have completed the BPI training or other similar programs, and are seeking further development of skills and career advancement opportunities. For example, many students who complete the ESTP move into a Bachelor's program in environmental science or a Master's program in energy service-related business. The ESTP is currently offered on location at LRCC, but participants may complete some courses through online education throughout the state. LRCC currently offers statewide training for Energy Auditors under a grant from the Office of Energy and Planning, and a highly demanded certificate in Entry Level Photovoltaic Installation.

ESTP graduates are prepared to apply relevant skills in such areas as: energy fuels and consumption, energy efficiency, energy economics, electricity, HVAC, technical communications, computer sciences, and energy resource production, optimization and delivery. The program includes traditional classroom instruction and online course delivery for students requiring additional scheduling and location flexibility. Graduates will be prepared to gain employment as Energy Auditors, Energy Analysts, Building Operators, Resource Conservation Managers, Measurement and Verification Technicians, Technical Service Representatives, and many other related professions.

Students in this program will be exposed to workshops, industry networking opportunities and other employment services. The ESTP offers broad networking opportunities for participants and partners, including its efforts to build awareness and promote energy efficiency and renewable energy among a wide variety of public and private employers. ESTP collaborates with partners to identify continuing education offerings that respond to statewide training needs and interests such as: Department of Energy motors and pumps, Home energy raters (HERS), Energy Codes, Code Officials Energy Code and Beyond Codes, Homeowner and

building owner education, North American Board of Certified Energy Practitioners (NABCEP) PV Installers Course (Offered this fall), NABCEP Solar Thermal Installers Course, Commercial Energy Auditor, and NH Energy Code.

The CCSNH will recruit, assess and test participants, and work closely with partners to place them into employment. The CCSNH anticipates it will serve fifty three students in the ESTP. If demand for these courses expands, CCSNH will explore options to locate the course on campuses beyond LRCC and to customize training to respond to the priorities established by the NHESP's analysis of emerging needs in the energy sector.

Build Green New Hampshire

The Home Builders and Remodelers Association of the Build Green New Hampshire® program will provide building trades training to underemployed, unemployed and emerging workers. Participants will either be current or pending employees of a Home Builder member employer. Courses will be offered in member companies, local career tech centers and community colleges across the state to reach as many participants as possible. The Home Builders and Remodelers Association works closely with employers to ensure that participants are earning industry recognized credentials. In addition, training will be informed by the NHESP's continuous analysis of training gaps and needs.

The Build Green New Hampshire® Program is affiliated with the National Association of Home Builders' (NAHB) National Green Building Program, and provides certification services to home builders, remodelers, and other industry professionals. This program will adapt its current home building curricula to include a focus on skills relevant to non-residential building services. The Home Builders and Remodelers of New Hampshire will expand to partner with the

Homebuilders Institute, specifically focusing on hands-on training to help people launch or advance careers in the building industry.

Builders, remodelers, and other building professionals who successfully complete the Program can earn their Certified Green Professional™ (CGP) designation or Master CGP. The Home Builders and Remodelers Association of New Hampshire will provide several courses, including NAHB Green Building Professionals, NAHB Business Management for Building Professionals, NAHB Advances Green Building: Building Science, Houses That Work™, Appraising Green Construction and Improvements, Lead Paint Certification, and BPI Training. The Home Builders and Remodelers Association anticipates serving 210 participants throughout the grant period, at $2,000 per participant.

Other Training

The NHESP will provide the Community Action Agencies (CAA) with funding to capitalize upon and adapt their energy auditor, insulation and combustion training programs to the commercial and public building sector. The CAA's programs prepare entry-level workers for residential retrofitting provide a skill set that can easily be adapted to the needs of larger buildings. Through this grant, the NHESP will enable the CAAs to transition individuals into employment beyond initial weatherization occupations developed through ARRA funding.

In order to ensure that this grant sustains maximum impact, the NHESP will issue a competitive Request For Proposals (RFP) to fill any remaining energy efficiency training gaps and to begin coordinating training in sustainable energy. The NHESP will conduct an analysis of sustainable energy training needs and develop an RFP to begin to meet those needs. This RFP will allow the NHESP to further develop a comprehensive sector strategy and better ensure that the NHESP is able to continue to meet the workforce demands of the energy efficiency sector.

Placement: As an essential component of participant success, placement will be a shared responsibility of the Energy Efficiency Training Project Team. The NH Works Centers and training providers will assist in placement through their offices and employer relationships. The specific talents of the agencies engaged in placement strategies include:

- The NH Works Centers: Provides case management and develops employer relationships.
- IBEW: Holds a long history of successful apprenticeship training. Successful graduates of this program will receive a pre-apprenticeship credential and will connect directly to the apprenticeship program.
- The New Hampshire Home Builders: As an employer association, participants will be either employees of member businesses, or individuals pending employment with a member.
- The Community College System of New Hampshire: Business services center has developed relationships with employers; BPI program will offer internships with employers in public and commercial building projects.

Retention: The Office of Workforce Opportunity will lead and coordinate the Energy Efficiency Training Project's robust retention strategy, ensuring that project team members are effectively partnering to deliver retention services. The NH Works Centers will provide work supports, assistance and follow up to all grant participants. Other Project Team partners, such as IBEW, the New Hampshire Home Builders Association, and CCSNH will offer additional retention supports.

Through this comprehensive and coordinated approach, the Energy Efficiency Training Project will efficiently address participants' recruitment, training, placement, and retention needs to ensure comprehensive services are in place to support success.

Fiscal, Administrative and Performance Management Capacity

New Hampshire's Workforce Investment Board - The Office of Workforce Opportunity (OWO) - is the grant applicant through the Department of Resources and Economic Development. As the state Workforce Investment Board, the Office of Workforce Opportunity will play a key leadership role in recruiting project participants, identifying eligible applicants, and coordinating and/or providing any other applicable state or federal assistance available to participants. It will also manage all reporting and federal grant performance requirements, lead meetings, provide status updates to interested parties, and communicate with the media. Tracking of individual grant-funded participants will be accomplished using the state's case management system used to administer WIA programs. This system is designed to capture and report information required for Common Measures performance. Through its capacity as the state WIB, the Office of Workforce Opportunity has demonstrated experience in fiscal management of WIA formula and discretionary grants, and offers the capacity to ensure this grant is administered in a consistent, accurate and efficient manner.

4. Implementation Timeline and Projected Outcomes

Proposed Implementation Timeline for the Energy Efficiency Training Project

Table 4: Energy Efficiency Training Project Implementation Timeline

Activity	Description	Timeline
Strategic Advising and Oversight	Monthly NHESP meetings to review trainings, assess workforce needs and to provide strategic support and insight to the Energy Efficiency Training Project. *Deliverable: Annually updated strategic plans (electronic submission)*	Month one through the end of the grant

Curriculum Development	Development of pre-apprenticeship training *Deliverable: Curricula in energy efficiency and sustainable energies*	Month one through month six
Recruitment	NH Works Centers and training providers will refer potential workers to relevant training providers	Month one through the end of the grant
Screening	NH Works Centers and training providers will screen applicants to determine eligibility	Month one through the end of the grant
Assessment	Training Providers will provide ongoing and program completion assessments	Month one through the end of the grant
Enrollment and ITA Distribution	The Office of Workforce Opportunity will contract with training providers and enroll participants in the training program.	Month one through the end of the grant
Energy Efficiency Training – Weatherization	The Community Action Agencies (CAAs) will deliver weatherization training in combustion training, auditor training and insulation training.	Month two through the end of the grant
Energy Efficiency Training – Apprenticeship	The AFL-CIO and IBEW will provide apprenticeships and associated training in the energy efficiency sector.	Month two through the end of the grant.
Energy Efficiency Training – Community College	The Community College System of New Hampshire will provide associates and certificate training programs in the energy efficiency sector.	Month two through the end of the grant
Placement	The NH Works Centers and identified training partners will place participants into family sustaining employment.	Month six through the end of the grant
Supportive Services	The NH Works Centers will provide and refer participants to needed supportive and retention services.	Month one through the end of the grant
Follow-up	The NH Works Centers will follow-up with participants for up-to six months after employment placement.	Month six through the end of the grant
Evaluation	(If selected) an evaluation of the program will be conducted to determine effectiveness, replicable applications, program improvements and future training programs in energy efficiency and sustainable energy.	Month 30 of the grant

Projected Outcomes

New Hampshire will collect, verify and manage their participant data using the eTEAMS (Tracking Eligibility Assessment and Management Solution) software tracking system. This is a state-of-the-art system for service delivery management of the Workforce Investment Act (WIA) of 1998, and the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) for Welfare-to-Work. This has proven to meet the requirements to capture and measure the required data for this grant, which will be collected in cooperation with the NH Works sites across the state, similar to the current method for collecting WIA information data.

The NHESP anticipates achieving the following projected outcomes:

Table 5: Projected Energy Efficiency Training Project Outcomes

Projected Outcome	**IBEW**	**ESTP**	**BPI**	**NHHB**	**RFP & CAA**	**Total**
Total Participants Served	180	53	225	210	160	828
Total Participants Beginning Education/Training Activities	180	53	225	210	160	828
Total Participants that Complete Education/Training	162	48	203	189	144	745
Total Participants that Complete Education/Training Activities that Receive a Degree or Certificate	153	45	191	179	136	704
Total Number of Participants that Complete Education/Training Activities that are Placed into Unsubsidized Employment	144	42	180	168	128	662
Total Number of Participants that Complete Education/Training Activities and are Placed into Training Related Unsubsidized Employment	126	37	158	147	112	580
Total Number of Participants Placed into Unsubsidized Employment Status at the First and Second Quarters Following Initial Placement	122	36	153	143	109	563

New Hampshire is prepared to collect participant data, track and report as required through its eTEAMS system. As part of that reporting, New Hampshire will collect social security numbers and comparable data required by this grant and will maintain them in a secure and confidential manner in accordance with current state policy. New Hampshire is prepared to collect and report participant level data from categories including demographic and socioeconomic characteristics, employment history, services provided, and outcomes achieved. Since this data collection and analysis is congruent with the WIA reporting and data collection, New Hampshire expects minimal difficulties in meeting these requirements.

Suitability for Evaluation

The New Hampshire Energy Sector Partnership's Energy Efficiency Training Program is well positioned to participate in a comprehensive evaluation and respond quickly to the learning that emerges. The NHESP is willing and prepared to work collaboratively with outside evaluators to gain insight into the impacts and outcomes of the Energy Efficiency Training Project. To ensure comprehensive and robust findings, the NHESP is also eager to engage practitioners from academia or elsewhere to design an appropriate methodology measuring the partnership's effectiveness and highlighting opportunities for improvement or innovation.

The approach and design of the Energy Efficiency Training Program inherently ensures a quality evaluation can deepen understanding of effective sector practices. The breadth of the focus on a wide population of traditionally underserved individuals will provide an extensive body of knowledge about the potential impact of energy sector strategies. Further, this initiative's emphasis on energy efficiency in commercial and public infrastructures will demonstrate the potential for sector partnerships to achieve multiple objectives simultaneously,

including environmental and workforce related. Lastly, this partnership's unique range of education and training pathways through community college and apprenticeship programs offers a testing ground for effective connectors to family sustaining wages in the energy efficiency sector.

Training providers will be required to work with appropriate partners to provide a wide range of services to address participants' challenges to success. These services are expected to ensure that participants are able to complete and transition from energy efficiency training programs into family sustaining careers. Similar to the requirements under WIA, training providers and NH Works Centers will be required to track participant data for six months after placing them into employment.

The Energy Efficiency Training Program will recruit approximately 1500 participants, anticipate to fill 828 spaces. The NHESP envisions measuring impacts and outcomes for both individual participants and employer partners. Data will be collected through the daily operations of program administration, and/or through interviews or focus groups with participants and employers.

Appendix C: New Hampshire Energy Sector Partnership Abstract

The Energy Efficiency Training Project is a statewide strategy to safeguard New Hampshire's economic outlook by reducing carbon use, increasing energy efficiency, and preparing workers to meet the growing demand for these efforts. New Hampshire's Workforce Investment Board, The Office of Workforce Opportunity (OWO), is applying for $2.75 M through the state's Department of Resources and Economic Development (DRED) to implement this project. Energy efficiency and sustainable energy strategies were prioritized by the strategic plan of the steering committee, the New Hampshire Energy Sector Partnership (NHESP), as providing an immediate opportunity to impact greenhouse gas emissions. The NHESP's focus in this grant is specific to energy efficiency. As many current initiatives are residential projects, the NHESP plan supplements these efforts by concentrating on public and commercial buildings.

Operating statewide, this project will prioritize unemployed, underemployed, and incumbent workers and veterans, with special emphasis on enrolling women in traditionally male-dominated fields. Due to its size, geography and WIA state plan, the Energy Efficiency Training Project will operate through a single, unified Project Team to capitalize on New Hampshire's centralized workforce operations and infrastructure. This project leverages existing, proven training programs into a comprehensive sector strategy. A range of supportive services and entry/exit points are offered, ultimately resulting in relevant credentials and a family sustaining career. Training is comprised of a number of coordinated components, as follows:

Basic Skills: The NHESP recognizes the importance of skills remediation for each of the priority populations, especially disadvantaged participants for whom insufficient basic skills may be a major impediment. The Community College System of New Hampshire (CCSNH) will provide basic skills and developmental education to participants requiring remediation. As

Project Team partners, NH Works and training providers will assess skill levels and refer participants to the CCSNH as needed. The CCSNH will work closely with other partners to ensure that participants are supported as they transition into more advanced training.

Pre-Apprenticeship/Apprenticeship Training: The NHESP will direct the Joint Apprenticeship Training Council (JATC) in developing energy efficiency apprenticeship training curricula, including skills to retrofit municipal, state and commercial buildings. The International Brotherhood of Electrical Workers (IBEW) will use the curricula to offer opportunities to both entry level and incumbent workers with opportunities to combine paid work with learning through on-the-job training. Entry level training will be towards electrical retrofitting, auditor and technician careers. Incumbent worker training will upgrade skills and emphasize industry-recognized credentials for commercial and public building retrofit demands.

Building Performance Institute Training Program: The Community College System of New Hampshire (CCSNH) will provide training for the Building Performance Institute (BPI) professional certificate for energy efficiency retrofitting. BPI is a nationally recognized training program providing skills in weatherization assistance. The forty-hour intensive training, provided statewide at CCSNH's thirteen campuses, will train unemployed and underemployed workers to enter Building Analyst and Implementation Contractor occupations.

Energy Services and Technology Program: The CCSNH Energy Services and Technology Program (ESTP) provides students with industry-recognized Associates degrees and pre-Associates degree certificates in energy efficiency and renewable energy. The ESTP targets students who have completed the BPI or similar programs and are seeking further skills or career opportunities, including Bachelors and Masters programs. Graduates will be prepared to work as

Energy Auditors, Energy Analysts, Building Operators, Resource Conservation Managers, and Measurement and Verification Technicians, among others.

Build Green New Hampshire: The Home Builders and Remodelers Association of the Build Green New Hampshire® program will provide building trades training to underemployed, unemployed and emerging workers. The Build Green New Hampshire® Program provides certification services to home builders, remodelers, and other industry professionals, and will adapt its current curricula to include a focus on skills for non-residential services. Builders, remodelers, and other building professionals who successfully complete the program and earn their Certified Green Professional™ (CGP) or Master CGP will support many energy efficiency and greenhouse gas emissions reduction initiatives in commercial and public buildings.

Other Training: The NHESP will provide the Community Action Agencies (CAA) with funding to capitalize upon and adapt their energy auditor, insulation and combustion training programs to the commercial and public building sector. Additionally, the NHESP will conduct analyses in order to issue competitive grants to fill any remaining gaps in energy efficiency training, and to begin coordinating training in sustainable energy.

Projected Training and Placement outcomes are outlined in the following chart:

Projected Participant Outcomes	**Total**
Total Served	828
Total Beginning Education/Training	828
Total Completing Education/Training	745
Total Completing Education/Training that Receive a Degree or Certificate	704
Total Completing Education/Training and Placed into Unsubsidized Employment	662
Total Completing Education/Training and Placed into Training-Related Unsubsidized Employment	580
Total in Unsubsidized Employment at 1st and 2nd Quarters After Initial Placement	563

New Hampshire State Energy Sector Partnership
Steering Committee

George Bald, Commissioner NH Dept. of Resources & Economic Development	**Roy Duddy, Director** NH Division of Economic Development
Jackie Heuser, Director Office of Workforce Opportunity NH Dept. of Resources & Economic Development	**Elizabeth Fischer, Program Manager** Build Green NH, Home Builders & Remodelers Association of New Hampshire
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John Puc, National Grid Utility (Employer)	
	Harvey Schwartz, Warwick Mills (Industry)
	Jim Grady, Light Tec Industry (Employer)
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Peter Spaulding, NH Employment Security Veterans Representative	**Charles Annal, Vice Chancellor** Community College System of NH
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