
Statement of Need

The Minnesota State Energy Sector Partnership (MSESP) is a comprehensive group of stakeholders focused on making Minnesota a global leader in energy efficiency and renewable energy (EE/RE) industries. The Partnership is committed to forging an integrated and demand-driven system of education, training, and support services in EE/RE industries that anticipates and advances skill attainment and sustainable career pathways for Minnesota's workforce.

1.i. Description of the State's existing energy policy. *"The Next Generation Energy Act of 2007"*. Landmark legislation passed in 2007 that set the standard and the vision of Minnesota's energy future – more renewable energy, more energy efficiency, fewer carbon emissions. On February 22, 2007, Governor Pawlenty signed legislation that set the highest standard at the time for a Renewable Electricity Standard. Twenty-five percent of all electricity generated must be from renewable resources by 2025. The Act also included one of the largest energy savings goals and required all utilities to meet that energy efficiency goal. The Act also legislated the goal of 25% of all energy used in the state must be renewable energy by 2025. That goal, which includes transportation fuels, has already helped the development of Minnesota biofuels industry. Strong green house gas reduction goals were also set to reduce carbon emissions. The appropriation included over \$35 million for energy projects and research.

Other significant legislation and events include:

- Creation of the Next Generation Energy Board, focusing on how the state can efficiently achieve energy independence through agriculture and natural resources. (July, 2007).
- Creation of the Minnesota Office of Energy Security (OES), which is a key partner and co-developer of this proposal. (January, 2008)

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- Creation of the Governor's Clean Energy Technology Collaborative, focusing on the development of new technologies in clean energy. (July, 2007)
 - Appointment of Governor Pawlenty to chair the National Governor's Association, and his initiative, *Securing a Clean Energy Future*, which focused on increased production of cleaner domestic fuels; advanced electricity generation; improved energy efficiency and conservation; and, accelerated R&D of clean energy technologies. (July 2007).
 - Establishment of policies for creation of jobs in the EE/RE fields. (2006).
 - Establishment of a multiagency project to utilize existing state resources to expedite the delivery of grants, licenses, permits and other state authorizations and approvals to promote business start-ups. (2007).
 - Creation of the Green Cup award to seek out, support, celebrate and promote Minnesota's newest and most innovative ideas. (2007).
 - Creation of the clean and green technology award to encourage break through ideas and entrepreneurship in renewable energy and the products and services. (2008).

These policies and legislation have expanded Minnesota's commitment to the development of locally-owned renewable energy projects and has strengthened Minnesota's commitment to the research, development, and deployment of bio-fuels, renewable hydrogen, E85 (a fuel for vehicles made of 85% ethanol and 15% unleaded gas) and technologies and materials to increase energy efficiencies.

The Minnesota Department of Employment and Economic Development (DEED) has practices and policies that align with the MESP vision. DEED has modified its WIA Unified state plan to incorporate the American Recovery and Reinvestment Act (ARRA) and emphasized goals that are aligned with MESP, such as enhancing the innovative capacity of Minnesota's

businesses to compete globally; and aligning practices across education, employment and economic development agencies to support an innovative economy.

1.ii. Current and projected employment opportunities. Traditional energy industries in Minnesota (fossil fuel and hydro electric power generation), similar to trends around the country, have experienced stagnant employment since 2000, while employment in bio-fuels (organic chemical manufacturing) and renewable electric power generation (other electric power generation) have increased substantially and are projected to continue to increase as the state ramps up to meet renewable energy mandates. These increases in mandates have led to a steady stream of job vacancies in both EE/RE industries, even during the recession. This has led to a steady stream of job vacancies in renewable energy industries – DEED’s Job Vacancy Survey estimates that in the second quarter of 2009 there were 19 job vacancies at bio-fuel plants and 11 wind turbine mechanics vacancies. Production, engineering, and maintenance occupations will feel the impact of shifts to renewable energy. Additional factors will contribute to job growth over the next several years. For example, before any more electric generation can come online, transmission lines need to be built. OES’s Phase II of the Dispersed Generation Study released in September 2009 shows that at least \$2 billion of transmission capabilities must be built within the next decade.

Occupations expected to be most impacted and the required job skills and knowledge required are in the following chart:

Occupation	2008 Employment	Projected Employment Growth 2006-2016	Projected Job Openings, incl. Growth and Replacement* – 2016	Skill and Knowledge Requirement (O*NET and Energy Industry Core Skills Study)
Heat, Air Cond & Refrig Mech & Install	2,330	+ 8.5%	+ 728	Trouble Shooting, Repairing, Listening, Building Energy Basics, Construction, Pumps, Carpentry, Pipefitting, HVAC, Plumbing
Industrial Machinery Mechanics	7,160	+ 10.9%	+ 2,084	Repairing, Troubleshooting, Maintaining Equip., Basic Math, Basic Electricity, Bearings, Lubrication Principles, Alignments, Precision Measurements, Valves, Compressors

Occupation	2008 Employment	Projected Employment Growth 2006-2016	Projected Job Openings, incl. Growth and Replacement* – 2016	Skill and Knowledge Requirement (O*NET and Energy Industry Core Skills Study)
Electrical & Electronics Engineer Technicians	3,230	+ 7.5%	+ 709	Listening, Solving Complex Problems, Thinking Critically, Basic Electricity, Basic Electronics, AC/DC Electrical Theory, Operation Control Systems, Pneumatic Controls, Microprocessors
Electrical Engineers	3,520	+ 4.1%	+ 882	Listening, Trouble Shooting, Thinking Critically, P&ID Reading, AC/DC Electrical Theory, Programmable Logic Computers, Piping, Circuit Breakers, Industrial Safety
Wind Turbine Mechanic**	NA	NA	NA	Wind Farm Fundamentals, P&ID Reading, Basic Math, Basic Electricity, Bearings, Lubrication Principles, Alignments, Precision Measurements, Valves, Compressors
Solar installer**	NA	NA	NA	Solar Energy Basics, Basic Math, Basic Electricity, Environmental Earth Science, Plumbing, HVAC, Pipefitting, Building Energy Basics
Electrical Power-Line Installers and Repairers	2,030	+ 8.1	+ 678	Installing Equipment or Programs, Troubleshooting, Learning New Things, P&ID Reading, AC/DC Electrical Theory, Programmable Logic Computers, Piping, Circuit Breakers, Industrial Safety
Construction Managers	2,560	+ 10.9%	+ 1,326	Reading, Thinking Critically, Coordinating with Others, Construction, Carpentry, Industrial Safety
Electricians	11,150	+ 5.8	+ 3,814	Installing Equipment, Listening, Reading, P&ID Reading, AC/DC Electrical Theory, Programmable Logic Computers, Piping, Circuit Breakers, Industrial Safety
Plumbers, Pipefitters and Steamfitters	8,060	+ 9.2%	+ 2,689	Installing Equipment, Teaching, Thinking Critically, P&ID Reading
Building and Construction Inspectors (Energy Auditors)	1,610	+ 16.6%	+ 571	Reading, Listening, Mathematics, P&ID Reading, Solar Energy Basics, Environmental Earth Science, Geometry, Trigonometry, Solar Economics, Solar Time

*Newly defined occupations. DEED's Labor Market Information Office is currently developing baseline data for these occupations and will identify and track any other new occupations that result from the emerging green jobs sector.

Construction employment has declined dramatically over recent years, with employment levels falling back to levels seen in the late 1990s. This has focused many efforts on the incumbent workforce, those who are currently employed as well as those who remain unemployed, as many construction firms realize the need to train their incumbent workforce to meet rising demand for green building and renovation.

For example, the Minnesota Job Skills Partnership (MJSP) program is partnering with St. Paul Technical College and Kraus-Anderson Construction, one of the nation's largest construction companies headquartered in Minneapolis, to train one hundred percent of the company's current workforce in green building skills and technologies and to develop useful curriculum for the emerging workforce.

An MESP survey of several business members demonstrated that 75% of those surveyed believed that employment levels would remain the same or increase in the next 12

months. When asked about the subsequent 24 months, 77% believe that employment levels would remain level or increase. An example of a few employers in EE/RE industries who may be hiring within the grant period of performance includes: EcoDEEP Architects, Flannery Construction, Xcel Energy, Great River Energy, Minnesota Power, Archer Daniels Midland, Heron Lake Bioenergy, Moventus, Suzlon.

1.iii. Skills and competencies gained through training. The skills and competencies that will be gained through the training opportunities will be matched with occupational data sources such as O’Net and the “Energy Industry Core Skills Study”, prepared by the Minnesota Energy Consortium and Alexandria Technical College in partnership with nationally known General Physics Corporation. These tools provide an outline of the areas of core fundamentals, trade specialization and industry specialization skills. These skills are referenced in the previous table in this section of the proposal.

1.iv. Data and analysis of State’s labor force. Minnesota is a mid-size state with a labor force of just under 3 million people. The state consistently ranks high in labor force participation (72.4%) and in educational attainment (91% with high school diploma). These rankings are first and second, respectively.

Thirty-one percent of Minnesotans have a BA degree and 10% have an advanced post-secondary degree, putting Minnesota in the top 20 on these measures. Moreover, Minnesota has high skill levels as evidenced by its occupational mix – 3% of all jobs are in math and computer occupations while nationwide only 2.4% of all jobs are in these highly skilled fields.

Despite strong overall labor force indicators, Minnesota faces two workforce challenges that impact Minnesota’s long-term ability to meet EE and RE employer workforce needs. First, the aging of Minnesota’s workforce and a shrinking P-16 pipeline means that technological and

industrial changes that impact employer skill needs will have to be met by retraining the current workforce and, specifically, special populations. There will be a greater need in rural Minnesota where 15 percent of the population is age 65 or older, compared to 10 percent in metro areas.

The second challenge is the educational achievement gap between the minority and white populations. Minnesota's Hispanic, American Indian and Black students have lower rates of academic achievement than their white peers, yet these minority groups are the fastest growing populations in the state. These disparities must be rectified if Minnesota is going to be able to meet the challenges of its growing energy sector.

State Energy Sector Partnership

2.i. Comprehensive partnership. The MESP represents a comprehensive group of stakeholders in the renewable energy industries within Minnesota. The Partnership includes representatives from the State Workforce Agency, the Chair and Director of the state consortia of Workforce Investment Boards (WIBs), State Cabinet Officials from six State Agencies including Apprenticeship and Veterans' agencies, 11 representatives from energy efficiency and renewable energy business and industries, four labor organizations, two state legislators, and multiple nonprofit organizations, educational institutions, and economic development organizations:

Name	Title	Organization
Arnie Anderson	Executive Director	Minnesota Community Action Partnership
Alison Deelstra	Director of Education and Communications	Minnesota Rural Electric Association
John Dybvig	Economic Development Director	BlueGreen Alliance
Bonnie Eley	Director of Workforce Development	Department of Employment and Economic Development
Bill Glahn	Director of the Office of Energy Security and Deputy Commissioner	Department of Commerce
Bob Gunther	Representative	Minnesota House of Representatives
Randy Hagan	Owner	Solar Skies
Bob Jagusch	Director of Energy Services	Minnesota Municipal Utilities Association

Name	Title	Organization
Jeremy Kalin	Representative	Minnesota House of Representatives
Rod Larkins	Associate Director of Initiative for Renewable Energy and the Environment (IREE)	Institute on the Environment, University of Minnesota
Carol Larson	Human Resources Director	Heron Lake BioEnergy, LLC
*Cyndi Leshner	Co-Chair of State Energy Sector Partnership Chair	Governor's Workforce Development Council
Bryan Lindsley,	Executive Director	Governor's Workforce Development Council
Mark Loftus	Business and Community Development Director	Department of Employment and Economic Development
Karen Mann	Utility Tracking Manager	Schools for Energy Efficiency (SEE) Program
Gregg Mast	Senior Program Manager	BioBusiness Alliance of Minnesota
Tom McDougall	President	The Weidt Group
Dan McElroy	Commissioner	Department of Employment and Economic Development
Bill Means,	Executive Director	Minnesota OIC State Council
Harry Melander	President	Minnesota State Building and Trades Council
Judy Mortrude	Supervisor, Hubbs Center	St Paul Public Schools – ABE
Gail O'Kane	System Director for Education-Industry Partnerships	Minnesota State Colleges and Universities
Anne Olson	Director	Minnesota Workforce Council Association
John Olson	Instructional Specialist for Science	Department of Education
Michael Pugliese	Deputy Commissioner	Department of Veterans Affairs
Lowell Rasmussen	Vice Chancellor for Finance and Facilities	University of Minnesota, Morris
Ed Reynoso	Political Director	Teamsters Joint Council 32
*Jennifer Schaubach	Legislative Director	Minnesota AFL-CIO
Richard Shrubbs	President	Minnesota West Community and Technical College
Barry Shaffer	Adult Basic Education State Director	Department of Education
Janet Streff	Manager of the Office of Energy Security	Department of Commerce
Mike Taylor	Vice President Clinton Climate Initiative	Honeywell Building Solutions
Roslyn Wade	Director of Apprenticeship Unit	Department of Labor and Industry
Catherine Weik	Chair	Greater Metropolitan Workforce Council
*Inez Wildwood	Co-Chair of State Energy Sector Partnership	Workforce Development Manager, Minnesota Power (Chair, Minnesota FastTRAC)
*Mark Willers	CEO,	Minwind Energy, LLC (Chair, MNREM Board)
*Cris Zimmerman	Manager	Xcel Energy (Co-Chair, Minnesota Energy
*Denotes Executive Committee Member		

2.ii. Partnership participation. The MSESP Members of this initiative were engaged over a four month period to establish the sector plan. The process involved five levels of engagement to determine and solidify the approach that would be taken to develop the Strategic Plan, and were as follows:

Level 1 – Governor’s Office and Department of Employment and Economic Development; determined the three industry sector focus areas.

Level 2 – Governor’s Workforce Development Council; determine and coordinated the membership of MSESP. The GWDC also led the strategic planning process for MSESP and development of a Sector Plan.

Level 3 – the MSESP members; focused on engaging business and industry leader input to determine vision, mission, goals and guiding principles for MSESP.

Level 4 – Leadership Planning Group; established the overall framework for the project and how it would be functionally managed.

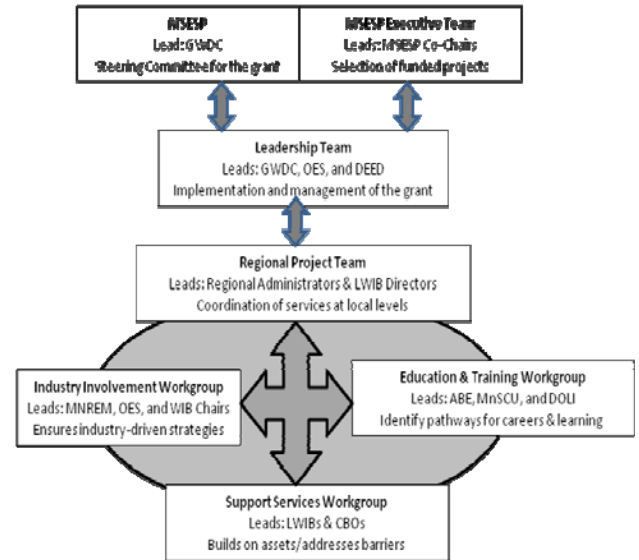
Level 5 – Planning Group; focused on gathering data, assessing capacity and identifying needs; and is comprise of staff from key state agencies and nonprofits.

These groups met several times in person and via conference calls. Through this in depth analysis and review, consensus occurred within the following three industries: a) energy-efficient building, construction, and retrofit; b) renewable electric power; and c) bio-fuels.

With this process completed, a leadership and implementation structure has been selected. The following narrative and diagram describe and illustrate this process.

Implementation Process

The **MSESP** serves as the steering committee and will be lead by the Minnesota GWDC. They will meet at least twice a year throughout the duration of the grant to review and discuss the direction of the Sector Plan. Each MSESP member will provide their content expertise, experience and influence to shaping the Sector Plan as the project unfolds.



The **MSESP Executive Team** serves as a decision-making body of the Partnership, specifically as it relates to selecting implementation grants. The Executive Team is representative of business leaders in the EE/RE industry, unions and of several initiatives which the Partnership will be leveraging, including MNREM, Minnesota Energy Consortium, and FastTRAC.

The **Leadership Team** provides the oversight role for implementation and management of the grant and will be led by the Minnesota GWDC, OES and DEED as the fiscal agent. This group will meet quarterly to review, update and make recommendations on the direction of the project to the MSESP. The staff supporting this team will be the MSESP Project Manager, who will also oversee the five Regional Project Teams

The **Regional Project Teams** coordinates the local efforts within the five sub-regions of the state and will be lead by DEED Regional Administrators and regional WIB Directors. These groups will meet monthly to assess local project implementation issues and service coordination with workgroups; as well as to monitor performance outcomes and financial reviews.

Three **Workgroups** focus on ensuring industry involvement; identifying pathways for careers and learning; and building on the assets as well as addressing barriers of learners.

Members from these workgroups will serve on specific project committees and provide evaluative feedback to the workgroup they represent.

2.iii. Leveraged Resources

Funds/Resources	Partnership Members	Source Amount of Funds Time Period	Contribution to Outcomes of this Proposal
WIRED – Renewable Energy Marketplace – An Alliance for Talent Development – www.mnrem.org	Industry-led consortium of economic development, workforce development, education and workforce leaders in 36 counties in Minnesota	US DOL ETA \$5 million 2007 – 2010	Development of workforce in a 36 county region of Minnesota in renewable energy sector skill training for youth and adults
Youthbuild www.deed.state.mn.us/youth/ybuild.htm	Eleven Youthbuild service providers across the State of Minnesota	Minnesota State Funds/Local Match State - \$3 million Local - \$3 million Total - \$6 million 2010 – 2012	Job training and educational opportunities including green building training for 300 plus at-risk youth ages 16-24 to construct or rehab affordable housing in communities across the state
Minnesota Training Partnership for a Sustainable Economy – www.energygrant.project.mnscu.edu and www.mnenergy.careers.org	MnSCU across the State in partnership with the Minnesota WorkForce Center System	US DOL ETA \$1 million 2008 – 2011	An industry-designed two year AAS degree and four 16 credit certificates that are offered through online training programs in renewable energy or traditional energy technology. Also deployment of K-12 curricular activities and development and support of an energy careers channel at www.MnEnergyCareers.org
Minnesota Fast TRAC – www.cte.mnscu.edu/perkinsIV/fasttrac2008.htm	DEED, MDE ABE, MnSCU, leads Joyce Foundation. Partner and additional partners including the Department of Labor and Industry, the Department of Human Services, the Minnesota Workforce Council Association, the Governor’s Workforce Development Council as well as local education and training providers and community based organizations	WIA Title I Formula and Recovery Act, Adult Basic Education (Federal and State), WIA Title IV Vocational Rehabilitation Funds, Joyce Foundation \$7 Million 2010 – 2011	Skill training blending basic education and occupational training and leading to stackable credentials articulated career ladders and lattices and occupational certificates for the 60% of the Minnesota workforce who lack post secondary credentials
Chapter 138 – Federal Stimulus for Energy Programs – www.state.mn.us/portal/mn/jsp/home.do?agency=Energy	Minnesota Office of Energy Security and DEED	Federal Recovery Act \$4.0 Million 2010-2013	Skill training resources in renewable energy and energy efficiency identified in budget match documents #7

Funds/Resources	Partnership Members	Source Amount of Funds Time Period	Contribution to Outcomes of this Proposal
Minnesota Job Skills Partnership Program	DEED	Minnesota State General Funds State - \$1.5 million Employer – \$1.5 million Total - \$3 million 2010 – 2012	Skill training designed cooperatively by businesses and post secondary institutions for new employees and incumbent workers
Funds/Resources	Partnership Members	Source Amount of Funds Time Period	Contribution to Outcomes of this Proposal
Supportive services resources from WIA, ARRA, etc.	16 local Workforce Investment Boards	Federal Recovery and WIA \$1.4 million 2010 – 2012	Supportive Services Match
Minnesota Sector Partnerships, coordinated with Minnesota FastTRAC	DEED, ABE, MnSCU	WIA Funds integrated into FastTRAC In kind	Integrated system of education, training and supportive services that promotes skill attainment and career pathway development for workers and is focused on demand industries. Skill training is designed by a consortium of businesses to meet their common industry skill training needs and in Minnesota is being incorporated into FastTRAC
DEED Regional Competitiveness staff, five Regional Labor Market Analysts, two Industry Specialists, four Regional Administrators plus nine Business Community Development Regional and Industry Specialists	DEED	WIA Title I-B, Wagner-Peyser, WIA Title IV and state general funds \$1.5 million 2010 – 2012	DEED staff available to Energy Sector regional work teams to support energy sector effort
Wind Energy Research Facility to support technology, development and career education	University of Minnesota	Federal Recovery Act \$8 million 2009 – 2011	New graduate and undergraduate web-based course modules, programs specifically focused wind power technologies and integration with other renewables and student internships with industrial partners at consortium field sites
Minnesota Camps to Careers	Minnesota's Medicaid Infrastructure Grant /Pathways to Employment (PTE)	Medicaid Infrastructure Grant \$300,000 2009 – 2012	Camps to Careers model developed will be used to introduce youth and adults to green jobs and careers
Midwest Innovation Institute	Great Lakes Employment and Training Association and Midwest Legislative conference of the Council of State Governments and 10 Midwestern states including Minnesota the project leader	In kind	Sponsoring the development of a regional economic model which includes a focus on energy conservation and green energy generation

Funds/Resources	Partnership Members	Source Amount of Funds Time Period	Contribution to Outcomes of this Proposal
Blue Green Alliance – National organization with headquarters in Minnesota	National strategic partnership between labor unions and environmental groups dedicated to expanding the number and quality of jobs in the green economy	In kind	The Blue Green Alliance is focused on good jobs, a clean environment and a green economy
Services to Dislocated Auto Workers	DEED Labor Unions	State Dislocated Worker Fund \$3 million 2006 – 2011 TAA In kind Career Advancement Accounts \$2 million 2007 - 2010	Dedicated funds for auto workers including those in Clearwater and Ramsey counties
TOTAL		\$41.9 million plus In kind	

Strategy and Work Plan

3.i. Comprehensive Strategy. The State’s energy sector strategy for training workers in the energy efficiency and renewable energy industries will focus on meeting the skill needs of the targeted industries. This will be accomplished by providing training to the current and potential workforce and be multi-faceted in delivery approach. The target industries for Minnesota’s energy sector strategy includes the energy-efficient building, construction, and retrofit industries; the renewable electric power industry and the bio-fuels industry. The following table outlines the occupational data and the related training strategies associated with each category.

Targeted Industry	*Total Openings	Training Activities
EE Building, Construction, Retrofit	12,517 18,017 17,572	Career pathways, Blended Instruction, Bridge programming Accelerated instruction, Incumbent Worker Training Stackable Credentials, FastTRAC, Apprenticeship, OJT
Renewable Electric Power	4,768	
Bio-Fuels	7,489	
*Includes growth and worker replacement opportunities state-wide.		

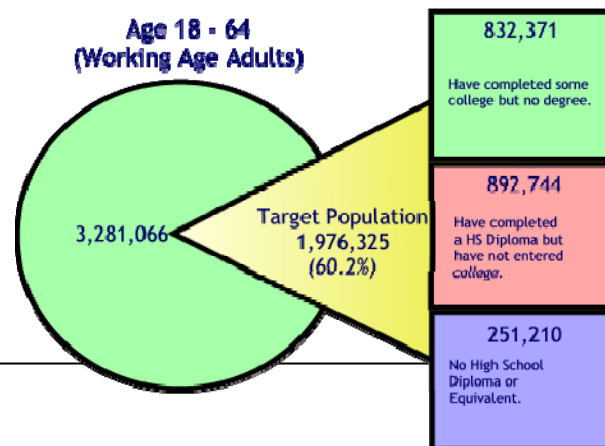
There are strong relationships between Minnesota’s targeted training activities to the State’s existing energy sector policies, the State’s WIA Unified Plan and the data analysis presented in the Statement of Need section. The vision and direction set by the Governor has had a strong impact on the workforce and post-secondary education system and the strategies pursued by these partners. Minnesota has conducted an extensive amount of research and analysis of the industry opportunities in the three targeted areas.

The relationship of MESP’s Sector Plan with the State’s WIA Unified Plan is reflected in how the WIBs make targeted investments of training resources in occupations in demand (OID). Each of Minnesota’s 16 workforce service areas base their plans on reviewing occupational outlook data to assess where the greatest industry demands will be with occupations that pay and provide benefits above average levels in the state.

This process results in OID being a primary focus for training resources and general career information for consumers to consider. Several WIBs target training resources at OID, which includes many of the job titles included in our industry sector plan. All focus on career development and planning information for youth and adult populations.

The data presented in this proposal provides a clear connection and relationship to the targeted industries. The projected growth rates and need for replacement workers will burden industries’ capacity to meet the challenge set by the Governor and State Legislature.

3.ii. Priority Populations to be served. Minnesota has over 251,000 adults in their prime working age who have less than a twelfth grade education and almost 900,000 of the state’s adults have not entered post-secondary education. Populations, such as, ex-



offenders, high school drop-outs, youth, dislocated workers, veterans, minority populations, people with disabilities, low-income and incumbent workers needing additional training or retraining are represented in the 1.9 million Minnesotans without a post-secondary degree or credential. In addition, more than 60,000 residents speak little or no English.

Education and training through the MSESP funds will increase opportunities and access to training for low-wage and/or educationally underprepared adults and youth to increase their basic and occupational skills and to acquire credentials. This adult population includes, but is not limited to the hardest to serve populations as identified in WIA legislation, such as those who lack the basic skills and/or employment readiness skills to enter and complete occupational skill training programs and/or earn family-supporting wages.

Approved MSESP projects will be required to address targeted worker populations, identify a priority of service and the basic and occupational skills required for the occupations being targeted. The following table illustrates how priority of services for projects will be evaluated and anticipates general skill needs:

Target Worker Population	Priority of Service	General Educational Attainment	Skill Needs*
Unemployed/ underemployed	Veterans Minorities	Less than HS Diploma HS Graduate	Basic math, reading and soft-skills
Incumbent Worker with no pathway	Youth Ex-Offenders Disabled	Less than HS Diploma HS Grad Some College	Moderate math, reading, soft-skills and related technical knowledge
Incumbent Worker w/skill need based pathways	Low-income Adults At-risk of Job Loss	HS Grad Some College 1-2 year degree/certificates	Advanced math, reading, soft-skills and technical knowledge

*Specific occupational skill needs will require some type of post secondary education and/or training.

Assessment tools will be used to determine the appropriate placement into EE/RE occupational training and for identifying an individual's career pathway. Assessment results will also measure academic levels and aid in selecting training delivery methods. Prospective

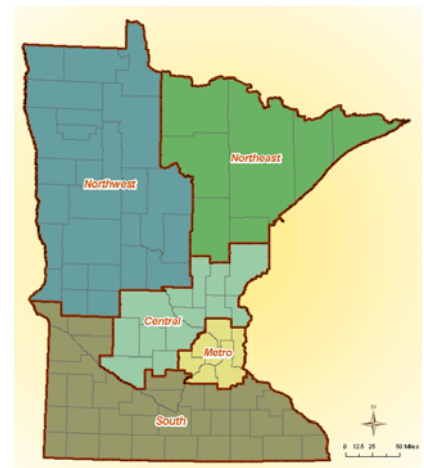
projects will be required to articulate a specific plan for training, placement and retention based on the targeted population.

The assessments will also identify transferable skills that may already be possessed by program participants. Many will come with baseline proficiencies and some advanced skills, credentials or licenses. These skills provide a broad base application in many of the EE/RE industries and will allow a broader choice of opportunities for some individuals.

3.iii. Local & Regional Project Teams. The team geography is based on a variety of regional competitiveness analysis studies that have looked at industry clusters and partnerships that have successfully supported regional prosperity initiatives.

The five regions that have been identified will enable the Sector Plan to be implemented swiftly and draw upon the key partners in each region.

The Regional Teams will be co- led by DEED Regional Administrators and regional Workforce Investment Board (WIB) Executive Directors. Here is a brief summary of the individuals who will serve as co-leads for each sub-region.



Northwest Regional Team Bios - Stephen Larson, Regional Administrator for DEED, has worked in rural Minnesota for the past 24 years convening and catalyzing collective action for mutual benefit within the arenas of economic and workforce development.

Dan Wenner is the Executive Director of Rural Minnesota Concentrated Employment Program, which oversees 19 counties in northwest Minnesota, and Past Chair of the Minnesota Workforce Development Council. He received a Bachelor of Arts degree magna com laude from Minnesota State University – Moorhead.

Central MN Regional Team Bios - Joan B. Danielson, Regional Administrator for DEED, has worked in Central Minnesota for 20 years in the field of Workforce Development. Most recent focus has been convening regional development strategies between agencies in economic development, education and workforce development.

Barbara Chaffee is the chief executive officer for the Central Minnesota Jobs & Training Services Corporation and the executive director to the Central Minnesota Workforce Investment Board and Central Minnesota Joint Powers Board, which serves 11 counties in Workforce Service Area 5. Chaffee received a Bachelor's Degree from the University of Minnesota-Duluth, Masters Studies from the University of Minnesota-Twin Cities.

Metro Regional Team Bios - Burke Murphy, Regional Administrator for DEED, brings experience in the area of regional economic development, industry clusters and competitiveness, as well as building collaborations and systems transformation. She worked with the State and Local Policy Program of the Humphrey Institute to deliver the course designed by Michael Porter, Harvard Business School called "*The Microeconomics of Competitiveness: Firms, Clusters and Economic Development.*"

Deb Bahr-Helgen is the Director of the City of Minneapolis Employment and Training Program (METP). METP is the administrative entity for the Minneapolis Workforce Council which provides oversight and strategic guidance for workforce development programs in Minneapolis. Deb has sixteen years of experience in employment and training programs.

South Regional Team Bios - Rick Roy, Regional Administrator for DEED, has 20+ years of experience in workforce and economic development activities in both the public and non-profit sectors. He has led several federally funded projects and has been recognized at the national level for promising practices and innovative approaches in workforce development.

Connie Ireland, Regional Administrator for DEED, has over 24 years of experience in the public and non profit sectors developing and advocating for social and economic public policy. Currently, Connie plays a significant role with the WIRED grant and MNREM.

Juanita is currently the Executive Director of the SW MN Private Industry Council, which oversees 14 counties in southwest Minnesota. She has been with the PIC since 1985 and during that time served as Montevideo Area Office Director, Deputy Director and as the Executive Director for the past 16 years.

Northeast Team Bios – The DEED position for this region is currently vacant and is waiting to be filled.

Michelle Ufford has been involved in workforce development for 12 years, currently serving as Executive Director of the Northeast Minnesota Workforce Service Area, which includes seven counties. Michelle has developed and participated in number of regional initiatives, including a Department of Labor Regional Innovation Grant.

The regional teams, which are described more fully in the attachment, will work directly with the awardees of the Request For Proposal (RFP) process. Anticipating that there will be ~1,495 job seekers recruited for education and training for the MSESP indentified industries, strategic decisions have been made to ensure that comprehensive models of delivery are in place.

The RFP will identify essential elements to be defined for program and training development as outlined in the following table.

RFP Application Outline	
1. Selection of Industry Focus	<ul style="list-style-type: none"> • Energy efficient building, construction and retrofit • Renewable electrical power • Bio-Fuels
2. Population/Occupation	<ul style="list-style-type: none"> • Describe the target population(s) • Describe the target occupation(s)

3. Project Team Partners	<ul style="list-style-type: none"> • Grant Applicant/Recipient • Business Partner • Service Partners, i.e. WFC, CBOs/FBOs, unions • MESP Regional Team Members
4. Recruitment	<ul style="list-style-type: none"> • State strategies and basis for their selection • Identify and describe role of recruitment partners • Methodology for measuring successful recruitment • Identify how training provided will be accessible and affordable to targeted populations.
5. Training	<ul style="list-style-type: none"> • Identify rationale for selecting training options • Describe how training provider identifies skills training content • Describe how basic skills will be integrated into technical skills training • Describe strategies for student success • Include documentation of licensure or accreditation of training providers. • Provide lead training bio or resume
6. Placement	<ul style="list-style-type: none"> • Identify primary strategies for placement activities • Identify business in need of the skill sets and their commitment
7. Retention	<ul style="list-style-type: none"> • Describe retention services • Describe “wrap-around” services

Recruitment – Recruitment Plan

The MESP will apply a recruitment strategy that will reach a broad audience, including:

- **An electronic listserv.** MESP will send broadcast emails to organizations that assist individuals who may be interested in receiving training in green occupations.
- **Advertisements on job seeker websites.** DEED operates Minnesota Works (www.minnesotaworks.net), a job bank where employers from all industry sectors can connect with job seekers. MN Works currently has 44,455 registered employers and 63,492 active resumes in the system. ISEEK (www.iseek.org) provides career exploration information, education planning, and job seeker resources. Advertisements for this program will appear on both websites.

- **Advertisements on regional career websites.** Many job seekers get connect with services through regional career websites. MSESP will leverage these websites to spread the word about green job training opportunities.
- **Mailings to Unemployment Insurance (UI) recipients.** As MSESP will be targeting unemployed persons, we will mail a postcard about the program to UI customers who, based on their previous occupational code, may be interest in green training.
- **DEED sponsored Career Camps.** DEED has used Career Camps to provide information to adult and youth customers about career paths. We will use this venue to increase awareness and excitement about green jobs.
- **Marketing flyers.** Flyers describing program services and how to engage them will be placed in all of Minnesota’s 47 WorkForce Centers.

While our goal is to serve 1,495 participants through MSESP program services, we expect to generate much greater interest.

Training – The MSESP will build on Minnesota strategies for training that have proven successful in serving Minnesotans. The following table summarizes key population categories and examples of strategies, delivery models and outcomes that have been achieved.

Population	Strategy	Delivery	Example	Outcome
1-No high school diploma or GED	Combines basic and pre-vocational skills training with supportive services	Blended classroom experience of ABE, employability and occupational training. Wrap-around case management and support services to address barriers to education and employment	FastTRAC	Occupational Credential, ex. Certified Nursing Assistant HS diploma/GED

Population	Strategy	Delivery	Example	Outcome
2-High School Diploma/GED	Combined remedial w/college preparatory training with wrap around support	Blended classroom or work-based experience of remedial and pre-vocational training, Wrap-around case management and support services to address barriers to education and employment.	Career Academies	Post secondary credential, licensed apprenticeship
3-Workers w/Credentials	Accelerated learning Flexible entry	On-line, evenings, weekends	Minnesota Training Partnership for Sustainable Energy Economy	Advanced/specialized degree/certificate

Strategies will be employed according the characteristics of populations to be served based on best practices in Minnesota. Minnesota most successful strategies include:

- **Career Pathway Models** – a program that supports learners in a specific “roadmap” of education and skills training that leads to credentials and better earnings opportunities at every major level of career advancement in a particular industry.
- **Blended Instruction** – combining basic education and occupational skills training resulting in industry recognized credentials.
- **Bridge Programming** – a model that incorporates articulation agreements between program gaps between high school/ABE and post-secondary education.

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- **Accelerated programming** – attainment of skills and credentials through thoughtful instructional processes and content that allow students to quickly enter and advance in careers (e.g. high-intensity programs and dual enrollment options).
 - **Incumbent Worker Training** – employer led training that targets acquisition of skills that are newly required for employees.
 - **Stackable Credentials** – a series of certificates, licenses, diplomas or other credentials that “stack” on top of one another while advancing skills along a career pathway.
 - **FastTRAC** – a framework that integrates ABE, higher education, workforce development partners, CBOs and employers to collaboratively provide training that leads to stackable credentials.
 - **Apprenticeship** – a mechanism to work, learn, earn, and ensure employers have well-trained, safe, and motivated employees, requiring a 144 hours of annual training and most require at least 2,000 hours of hands-on training.
 - **On-The-Job Training** – a customized training plan designed by the employer to provide a contextual work-learning experience that prepares an individual for required job skills.

Placement – Project partners will assist with job placement. DEED will leverage its Business Service Specialists (BSS) to assist employers in recruitment of job applicants, help businesses work on retention and succession planning strategies, and refer businesses to specialized services. BSS coordinate their work with placement staff from low-income families and rehabilitation services. Minnesota’s WFCs, as well as many of the other providers, help participants strengthen their work search skills by providing workshops on completing job applications, electronic job boards, skills identification, resume writing and cover letters, networking opportunities, and job interviewing skills.

Retention – The MSESP projects will be required to have participants case managed by agencies with access to Workforce One, the State’s customer tracking system, for pre- and post-employment services. Retention strategies will focus on wrap-around services, including transportation and childcare. Work supports, such as workplace mentoring and job restructuring will also be available.

Pre-employment planning and assessment is essential to ensure the applicant has the appropriate skills for the job they are seeking. Two areas where skills will be measured are: basic work readiness skills and job specific skills. In a recent report on serving welfare recipients authored by Pauly, Martinson and Strong, support the need for these skills, “Programs with a strong focus on basic education but only limited linkages to employment or job training have generated limited earnings gains, with most performing worse than mixed-service or job-search-focused interventions.”

Job retention is also impacted by wages in terms of starting wages and benefits, as well as Career Ladders. To assure MSESP meets the needs of employers, the employer strategies in *Section §3 iii.* will aid in providing training that leads to credentials valued by employers

Working with employers to identify an on-the-job mentorship or coaching will also be explored for participants who have special needs. Job restructuring strategies will be implemented if necessary to assure a person with a disability is able to perform all the essential functions of the job. Vocational Rehabilitation, a partner in the WFC will assist this effort.

3.iv. Performance Management Capacity. The Minnesota Department of Employment and Economic Development (DEED) is the state’s principal economic and workforce development agency, with programs promoting business recruitment, expansion and retention; workforce development; international trade; and community development. The

agency's mission is to support the economic success of individuals, businesses, and communities by improving opportunities for growth.

DEED's organizational structure is aligned with its mission. DEED consists of three divisions – Business and Community Development, Unemployment Insurance and the Workforce Development Division. The Workforce Development Division, alone, is host to over 50 employment and training programs in addition to functions such as the State Governor's Workforce Development Council (GWDC), State Services for the Blind, Rehabilitation Services, Disability Determination, National Emergency Grants, grants to support regional economies, business services for employers, etc. The Workforce Development Division works with many local and statewide partners to provide training and support to unemployed and dislocated workers, and financial assistance for businesses seeking to upgrade the skills of their workforce. Many of these services are provided at Minnesota WFC located throughout the state.

Administrative policies and procedures guide the overall administration of statutes, statewide policies, and labor contract provisions within the agency executive and administrative support functions. DEED has separate fiscal and administrative services functions and a statewide procurement and accounting system and a cost accounting system to assure accountability and fiscal control of all funds administered by the department. These systems, policies and procedures maintain accountability per OMB Circulars A-102, Common Rule, A-133, and A-87. Just some of the activities include: auditing, budgeting, general accounting, program accounting, financial reporting, cost allocation, audit resolution, cash management principles and CMIA requirements, financial control, account structure, internal control risk, etc. DEED has many, many projects and grants that are administered and tracked separately.

Minnesota has a reporting environment similar to Workforce Investment Streamlined Performance Reporting that will combine the information of participants in a program or project. Combining the information from various data systems will give us a clear understanding of the participants and the success of the project. Minnesota Workforce One is a web based MIS/case management system used track client activity in 28 state funded employment and training programs. This system is administered and maintained by the Department of Employment and Economic Development and used by 128 State, County and private non-profit service providers around the state. And, because the system is web based, it requires no special hardware or software to be installed by the service providers. Having a single system that is used to collect program data has resulted in increased data quality as well as providing state staff access to program evaluation data in real time.

Recently, the Monitoring Unit was combined with the Fiscal Planning Unit of the Workforce Development Division. This change was made in order to provide more efficient coordination between the grants management function of the division and to provide monitoring services to a broader array of programs beyond WIA Title I-B formula funding, including but not limited to, Recovery Act, FIRST grants, incentive grants, State pass-through employment and training grants, etc. Program staff and monitoring staff provide technical assistance and coordinate the schedule for the monitoring visits and site visits for all programs.

Along with the successful oversight, monitoring, and performance of many standard workforce and training development programs, the Workforce Development Division is also known for the ability to go beyond the scope of program silos and administers and exceeds standards in delivering a multitude of other services and programs. Examples include: regional economies projects including a national regional innovation grant (RIG), a WIRED grant, state

of Minnesota FIRST grants, etc. Minnesota also administers several national emergency grants, a successful trade adjustment program, a state and federal dislocated worker program, etc.

Service to employers includes business services, MN Jobs Skills Partnership, etc.

4.A. Implementation Timeline

2010 – 2012 Timeline in Quarters

Tasks	Jan- Mar 2010	Apr – June 2010	July- Aug 2010	Sept – Dec 2010	Jan- Mar 2011	Apr – June 2011	July- Aug 2011	Sept – Dec 2011	Jan- Mar 2012	Apr – June 2012	July- Aug 2012	Sept – Dec 2012
1. RFP Development DELIVERABLE – Process for RFP document												
a. RFP Announcement												
i. Write RFP & develop scoring criteria												
ii. Review Regional Asset mapping												
iii. Eligible Occupations												
iv. Post in state register												
v. Bidders conference												
b. RFP Review / Selection												
i. DEED compliance review												
ii. Reviewer training												
iii. Reviewed by MESP executive team												
iv. Selection notification												
v. Contracts												
vi. Notice of Funds Available (NFA)												
c. Grantee Training												
i. Grant management												
ii. Quarterly reporting (narrative & financial)												
iii. WF1 orientation / training												
iv. Technical assistance planning												
d. Monitoring												
i. Progress review												
ii. Issue resolution planning												
iii. Regional Team involvement												
2. Other Administration DELIVERABLE – Copies of Project Management Plans (State and Regional)												
a. Inter-Agency agreement with Commerce												
b. Contract with others												
c. Monitoring Tool												

4.A. Implementation Timeline (continued)

Tasks	2010 – 2012 Timeline in Quarters											
	Jan- Mar 2010	Apr – June 2010	July- Aug 2010	Sept – Dec 2010	Jan- Mar 2011	Apr – June 2011	July- Aug 2011	Sept – Dec 2011	Jan- Mar 2012	Apr – June 2012	July- Aug 2012	Sept – Dec 2012
d. Hire Project Manager												
e. Project Management Plan (State)												
f. Project Management Plan (Regional)												
g. Federal grant administrative requirements												
3. Regional Teams												
a. Meet Monthly												
i. Oversight training												
ii. Provide local project assistance												
iii. Performance support												
4. Workgroups – Industry Involvement; Education & Training; and Support Services												
a. Meet monthly												
i. Oversight training												
ii. Provide local project assistance												
iii. Performance support												
5. Leadership Team												
a. Meet quarterly												
i. Oversight training												
ii. Provide local project assistance												
iii. Performance support												
6. MESP												
a. Meet twice annually												
i. Oversight training												
ii. Provide local project assistance												
iii. Performance support												
7. MESP Executive Team												
a. Meet Monthly												
i. Oversight training												
ii. Provide local project assistance												
iii. Performance support												

4.B.i. Project outcomes. The participant data is collected by the local service provider and entered into Workforce One (WF1). When the data is entered into WF1 the system verifies that the data meets proper formats, all required elements are provided and that all program eligibility rules are enforced. The data is then stored in a single centralized database housed at DEED. This gives the state access to data when needed for reporting.

4.B.ii. Projected performance outcomes:

Projected Performance Outcomes	Anticipated Result
Total # of participants served	1495
Total # of participants beginning education/training activities	1495 (100% of those served)
Total # of participants receiving basic education services	300 (20% of those served)
Total # of participants receiving grant-funded support services*	748 (50% of those served)*
Total # of participants completing education/training activities	1196 (80% of those served)
Total # of participants completing education/training activities who receive a degree/certificate	1076 (90% of those completing education/training)
Total # of participants that complete education/training activities that are placed in unsubsidized employment:	897 (75% of those completing education/training activities)
Total # of participants completing education/training activities that are placed in training-related unsubsidized employment	628 (70% of those placed in unsubsidized employment)
Total # of participants placed in unsubsidized employment who retain an employed status in the first and second quarters following initial placement	718 (80% of those placed in unsubsidized employment).

5. Suitability for Evaluation

Recruitment Plan

The MSESP will apply abroad recruitment strategy as outline in *Section §3.iii*.

Tracking Participant Information

All customers receiving MSESP services will be tracked in Workforce One (WF1), which is DEED's customer tracking system for its job seeker programs. WF1 tracks customer demographic information, eligibility requirements, services delivered. Using an existing system will allow us to reduce administrative costs and avoid the risk of producing data files from an unproven system. (WF1 is the source for all data reported to DOL in the Workforce Investment Act Standardized Record Data, or WIASRD.) We will also be able to compare MSESP customers to those receiving services in other programs should DOL require it.

Project Retention Strategies

In order to keep customers engaged in program services, we must limit the financial barriers that cause customers to drop out of training before completion. We will accomplish this by providing support services like funding for child care, transportation, healthcare, mortgage payments, or other expenses that relate to training.

Customers who choose to leave the program before completion will remain in the data set and all services they received will be tracked.

Working with an Evaluator Selected by DOL

DEED has worked effectively with contractors chosen by the USDOL. In Project GATE (Growing America Through Entrepreneurship) II, DEED has worked with IMPAQ to establish a program that trains dislocated workers who would like to start a business. DEED and IMPAQ

staff have worked together to create an evaluation methodology which will allow DOL to discern the effectiveness of the consulting and training services offered by the program.

Working with Academic Researchers

DEED has a history of seeking the expertise of academic researchers to improve our understanding of our customers and the tools we use to serve them. Specifically, our Unemployment Insurance (UI) division worked with Connie Wanberg, Industrial Relations professor at the University of Minnesota, Carlson School of Management. Connie conducted research on what behaviors and psychological characteristics are most highly related to a short and long spells of unemployment. Her conclusions informed UI's current assessment tool. This study gave DEED a deeper understanding of the factors that contribute to a customer's successful job search.

Benefits to Those Not Served by the Program

Green jobs reduce our carbon footprint which benefits humanity in ensuring a cleaner environment and reducing global warming. While MESP projects will directly benefit 1,700 participants by increasing their employability and wage earning potential, Minnesota will be a cleaner place to live thanks to the efforts of the workers served through this training. Green employment is also a proven job generator which is crucial in communities recovering from high unemployment and other recessionary pressures.