

**Minnesota Department of Employment  
and Economic Development**

1<sup>st</sup> National Bank Building  
332 Minnesota Street, Suite E200  
St. Paul, MN 55101-1351

***THANK YOU FOR COMPLETING THIS SURVEY.***

***Please fold the completed survey so that the Business Reply Mail panel (below) is showing and mail it back to us. No postage is necessary!***



# Gauging the “Green” Workforce Needs of Minnesota Businesses

October 8, 2008

More and more Minnesota businesses are “going green” by implementing environmentally-friendly operations or providing niche products and services that are beneficial to the environment. Both employers and workers are talking about green jobs or skills, but there is little information available about what employers really need from the workforce. This survey hopes to collect information about what Minnesota businesses are doing to “go green,” as well as what types of skills, knowledge or attitudes both current and future workers need.

We hope that you have a few minutes to complete this survey. The results will be used to assist job seekers, workforce professionals, educational institutions and others who want to make sure green businesses have the best-prepared workforce possible. If another person in your company is better able to answer these questions, please direct the survey to him or her. The survey has an identification number that is used for tracking purposes only. If you have any questions about this survey, please contact Rachel Hillman at (651) 642-0728 or email [rachel.hillman@state.mn.us](mailto:rachel.hillman@state.mn.us) .

Thank you again for your participation.

**Instructions:**

- If possible, please provide information only for the location listed on the address label. If that is not possible, please answer for the employees in the State of Minnesota.
- The survey is printed on a postage-paid self-mailer. Please fold it so that the return address to the Minnesota Department of Employment and Economic Development (DEED) appears on the outside.
- Company information on this survey is for tracking purposes only. Individual company responses will not be identified in any report or survey results. Only aggregate results will be published.
- **Please respond by November 3, 2008.**
- A summary report with survey results will be posted online later this year. If you would like to receive an email notification when the report is available, please list contact information below:

Name: \_\_\_\_\_ (optional)

Email address: \_\_\_\_\_ (optional)

Check here if you would like someone from DEED to contact you about your “green” workforce needs

1. On average, how many workers are employed at this location? \_\_\_\_\_
2. What is your primary line of business? (**Please circle one**)
  - a. Manufacturing
  - b. Construction
  - c. Energy production or distribution
  - d. Wholesale or retail trade
  - e. Professional or business services (e.g. consulting, engineering, and architecture)
  - f. Other (**please specify**) \_\_\_\_\_
3. What are your primary products or services? \_\_\_\_\_
4. What percent of your total products or services can be considered “green” (environmentally-friendly or beneficial to the environment)? \_\_\_\_\_ percent (**please specify “zero” if none**)
5. Does your business have an environmental certification or do you create a product that has an environmental certification?
 

Yes     No    If yes, please specify products certified and type of certification below (or attach additional info):

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**NOTE: The MN Department of Commerce may be starting a marketing effort for Minnesota made green products. If you produce a green product in the state, please contact [Linda.Limback@state.mn.us](mailto:Linda.Limback@state.mn.us) at the MN Department of Commerce.**

6. Is your business currently adopting green practices in any of the following areas, or do you plan to be in the next two years? *(Please check all that apply. Some descriptions are listed below the table.)*

Activity	Currently Involved	Future Plans (Next Two Years)
Implement an Environmental Management System (EMS) <sup>1</sup>		
Participate in National Environmental Performance Track Programs		
Produce products with significant green performance attributes <sup>2</sup>		
Practice product design for the environment <sup>3</sup>		
Adopt pollution prevention best practices – reduce or eliminate pollution at the source		
Implement clean production processes <sup>4</sup>		
Adopt eco-efficiency approaches <sup>5</sup>		
Utilize renewable energy or purchase green power		
Select suppliers that provide environmentally superior materials, products, and practices		
Integrate green design approaches in facilities and sites		
Minimize waste and energy in product distribution and end-use		
Share responsibility for best product end-of-life practices		
Provide a service (e.g. construction, business, etc.) categorized as green		
Employ people with specific green production, process or business skills		
Implement environmental corporate social responsibility into company policies and decisions		
Support low-impact employee transportation; carpooling, mass transit, telecommuting		
Other <i>(please specify)</i>		

<sup>1</sup> **Environmental Management System** Through EMSs, an organization sets internal standards, prevents noncompliance, and improves environmental performance. Companies using EMSs tackle a broad range of issues beyond basic compliance such as energy and water use, transportation, packaging, and even the performance of suppliers.

<sup>2</sup> **Green Products or Services** A product or service that is applied to measure, correct, prevent, limit, improve, or eliminate water, air, land, and ecosystem impacts and improve environmental quality.

<sup>3</sup> **Design for the Environment (DFE)** is based upon consideration of the entire lifecycle of a product “upfront” during design and optimizing design to improve product function and appeal while maximizing efficient use of water, materials and energy.

<sup>4</sup> **Clean Production** takes advantage of opportunities to reduce and even eliminate the reliance on toxic materials in manufacturing, to prevent air and water pollution, and to avoid hazardous waste generation. May include a “closed-loop” system in which water, materials and energy byproducts of one factory become feed stocks for another.

<sup>5</sup> **Eco-efficiency** is a management strategy that links financial and environmental performance to create more value with less ecological impact. Eco-efficiency gains can be achieved through such things as optimized processes, waste recycling, and eco-innovation (manufacturing “smarter” by using new knowledge to make old products more resource-efficient to produce and use).

7. What types of “green” skills or knowledge do your employees currently need or do you foresee your employees needing in the coming years? *(Please check all that apply)*

Skill or Knowledge	Current Need	Future Need
General knowledge of the value and principles of energy conservation		
Identification of operational waste, including waste minimization and managing hazardous wastes		
Pollution reduction and control techniques, including alternative energy sources		
How to use green materials in the manufacturing or construction process		
Management skills for implementing or sustaining conservation practices or processes, including facility assessment and energy auditing		
Sustainability assessments, including performance measurements		
Knowledge of globalization issues involving green manufacturing		
Knowledge of environmental policies or regulations (e.g. firm-specific or government)		
Knowledge of innovative clean technologies and processes		
Knowledge of green business methodologies (e.g. environmental cost accounting, carbon modeling)		
Other <i>(please specify)</i>		

8. What was the average wage paid to employees with specific green knowledge or skills? (Calculate as the total for all occupations combined divided by the number of employees.)  
 \$ \_\_\_\_\_ dollars per \_\_\_\_\_ (*insert reference period, e.g. week, month, or year*)
9. Do you have any training needs related to green knowledge or skills? Yes No
- 9a. If yes, what sources of training would you consider? (*Please circle all that apply*)
- a. In-house training unit
  - b. Private vendor
  - c. Higher education institution: degree program
  - d. Higher education institution: short-term accreditation
  - e. Higher education institution: non-credit seminar or training (short-term)
  - f. Other (*please specify*) \_\_\_\_\_
10. What percent of employees currently have green skills or knowledge? \_\_\_\_\_ percent (*please specify "zero" if none*)
11. In the next two years, what percent of employees do you expect will require green skills or knowledge? \_\_\_\_\_ percent (*please specify "zero" if none*)
12. Do you plan on hiring people for with any specific green knowledge or skill requirements in the next two years? If so, please list the job title, expected number of hires, and expected average hourly starting wage below.

Job Title	GREEN KNOWLEDGE OR SKILLS*	
	List expected number of jobs	Expected Starting Wage
(Example) Sales Representative	2	\$ 23.00/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr
		\$ _____/hr

\* Broadly defined but including those knowledge or skill areas in Question #7.

13. Which of the following types of knowledge do you think are most important for your future hiring needs? (*Please circle all that apply*)

- a. Engineering and technology
- b. Mechanical (knowledge of machines and tools, including their designs, uses, repair, and maintenance)
- c. Administration and management
- d. Production and processing (knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods)
- e. "Lean" principles (e.g. inventory flow, waste reduction, etc.)
- f. Mathematics
- g. Chemistry, biology or other sciences
- h. Computers and electronics
- i. Clerical (including interacting with computers)
- j. Building and construction
- k. Customer service
- l. Design (knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models)
- m. Other (*please specify*) \_\_\_\_\_

14. Do any of the following barriers stand in the way of your implementation of green practices? (*Circle all that apply*)

- a. Shortage of workers currently having green knowledge or skills
- b. Shortage of workers with other (non-green-related) knowledge or skills (*please specify*) \_\_\_\_\_
- c. Shortage of programs to train workers in green production, processes or business
- d. Costs of implementation
- e. Government policies
- f. Not interested in implementing green practices or production at this time
- g. Other (*please specify*) \_\_\_\_\_

15. Other comments: