

ECONOMIC PROFILE OF THE ENVIRONMENTAL AND
ENERGY TECHNOLOGY SECTOR IN MAINE

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EXECUTIVE SUMMARY

This report presents an economic profile of Maine's environmental and energy technology sector. The analysis is based on primary data collected through a survey of 135 Maine businesses and organizations conducted during the summer of 2006. In addition, the study uses secondary industry statistics from U.S. Government sources and information from a purchased directory of environmental and energy technology companies. Key results of the study are summarized below:

- Maine's environmental and energy technology sector consists of approximately 688 businesses and organizations.
- In 2006, Maine's environmental and energy technology sector directly generated an estimated \$574.1 million in sales, supported 5,269 full- and part-time jobs, and provided \$222.8 million in employee earnings.
- Counting multiplier effects, the environmental and energy technology sector contributed \$882.7 million in sales to the Maine economy, and supported 9,650 jobs that provided \$330.9 million in earnings.
- Over one-half of the establishments in Maine's environmental and energy technology sector have two or fewer workers, and about 45 percent of the industry generates less than \$100,000 in sales.
- Maine's environmental and energy technology sector is dominated by establishments located in the southern part of the state. Cumberland and York Counties are home to a combined 45 percent of industry establishments.
- Maine ranked 14th nationally in 2004 according to the percentage of businesses in the state that are part of the environmental and energy technology sector.
- Environmental services made up almost two-thirds of the Maine's environmental and energy technology sector in 2004, one-third of the businesses were involved in environmental and energy resources, and Maine is home to only a few companies that manufacture environmental products.
- Maine's environmental and energy technology sector employs fewer people than the paper and wood products industries, but more workers than the publishing and telecommunications sectors.
- In terms of employee compensation, Maine's environmental and energy technology sector is larger than the forestry and logging industry and only 14 percent smaller than the hotels and motels sector.

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1. INTRODUCTION

Recent world events and developing long-term trends have brought issues of environmental protection and energy conservation to the forefront of the daily news. Businesses and consumers are increasingly interested in products and services that are kind to the environment and that lessen our nation's reliance on traditional energy sources. An important sector of Maine's economy provides services and manufactures products used in the development and implementation of environmental and energy technologies (including energy conservation). In addition, Maine is home to companies that generate, transmit and otherwise support the expansion of alternative (e.g., solar, wind, small-scale hydro) energy sources. Finally, several organizations in the state provide information and educational programs on a variety of environmental- and energy-related topics.

This report presents an economic profile of Maine's environmental and energy technology sector. The analysis is based on primary data collected through a survey of 135 Maine businesses and organizations conducted during the summer of 2006. In addition, we use secondary industry statistics from U.S. Government sources and information from a directory, purchased from a private market research firm, of environmental and energy technology companies. A companion study, to be published later this year, will focus on business climate issues relevant to the environmental and

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energy technology sector. This follow-up study will examine in more detail the data collected through our survey of industry participants.

A wide variety of businesses and organizations are part of the environmental and energy technology sector through their production, use, or promotion of goods and services. For the purposes of this report, we use the 14 industry segments identified by the *Environmental Business International* (EBI) organization to form our core definition of the sector. Using this framework will facilitate comparisons between Maine and other states, and allow for more accurate tracking of the environmental and energy technology sector's change over time. However, we acknowledge upfront that there are companies and organizations – outside of the 14 segments recognized by EBI – involved in environmental- and energy-related products, services and education. Thus, within this report, we develop an industry profile based on companies within the core EBI segments, as well as a broader definition of the industry that includes other members of the *Environmental and Energy Technology (E2 Tech) Council* of Maine.

Table 1 shows the 14 segments of the environmental and energy technology sector, combined into three categories of environmental services, environmental equipment and environmental resources. Environmental services consist of activities such as hazardous and solid waste management, environmental testing, and consulting and engineering services. The environmental equipment industry segment includes businesses that manufacture products used for air pollution control, handling and storing waste, and water treatment. The final broad category used by EBI to characterize the environmental and energy technology industry is environmental resources. This segment

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consists of businesses and organizations involved in resource recovery, energy conservation and environmental energy sources. Within EBI's framework, companies and organizations involved in the production, transmission and promotion of energy (from non-traditional sources) are included in the category of environmental resources.

The remainder of the report is organized as follows. In section 2, we discuss the data used in our economic profile of the environmental and energy technology sector in Maine. Section 3 of the report examines the economic impact of the Maine environmental and energy technology sector. In section 4, we compare the environmental and energy technology sector in Maine to other U.S. states. Section 5 provides comparisons between Maine's environmental and energy technology sector and other selected industries in the state. Finally, the report concludes in section 6 with a summary of key findings.

2. DATA

The first step of our analysis involved identifying the businesses and organizations that make up Maine's environmental and energy technology sector. This task is complicated by the scope and diversity of the industry, as evidenced by the 14 segments shown in Table 1, and the fact that some environmental and energy technology establishments fall outside of these segments. One key component of the environmental and energy technology sector in Maine consists of establishments that are associated with the *E2 Tech Council*, mentioned above. This industry group provided us with a membership roster and a list of businesses and organizations that have participated in

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their activities. The list included establishments that fall within EBI’s 14 industry segments, as well as members (e.g., non-profit educational organizations) that fit within a broader definition of the environmental and energy technology sector. This list will be referred to in the report as the “*E2 Tech Council* list.”

To expand our analysis beyond the *E2 Tech Council*, we supplemented their list with non-member businesses that operate within EBI’s 14 industry segments. This involves, as described in more detail below, matching the EBI segments to industrial (NAICS) categories that are commonly used to classify businesses. Next, we purchased a list of, and information about, companies in the selected NAICS categories from a private market research firm. This list will be referred to in the report as the “industry contact list.” Finally, we removed duplicate entries included on both lists.

Table 2 shows the NAICS categories that correspond with the EBI industry segments. In some cases, a reasonably close match exists between a given EBI industry segment and an established NAICS industrial category. In other cases, the EBI segment falls within a relatively broad industrial category. For example, the EBI segment “environmental testing and analytical services” is part of the industrial category “testing laboratories” (NAICS category 541380). Thus, the total count of environmental and energy technology firms in our analysis may include an unknown number of companies that are in other related (mostly technical) fields. However, this overstatement of the industry may be balanced somewhat by the unintentional exclusion of environmental and energy technology organizations that operate outside of EBI’s 14 industry segments.

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In the area of environmental engineering, we were able to arrive at a fairly precise estimate of the environmental engineering firms contained within the broad NAICS category of engineering firms (NAICS category 541330). We used occupational-based employment information from the U.S. Bureau of Labor Statistics to find the percentage of engineers in Maine who are environmental engineers. This information shows that, as of 2005, 7.71 percent of the engineers in Maine were environmental engineers. We applied this proportion to the total number of Maine engineering firms on the industry contact list. This provided an estimate of the number of environmental engineering firms in Maine to supplement the companies included on the *E2 Tech Council* list. After making this final adjustment and removing establishments from our lists that we found to be inappropriate during the survey process, we arrived at a total population of 688 businesses and organizations involved in the Maine environmental and energy technology industry.

During the summer of 2006, we conducted a survey of 660 Maine businesses and organizations. Table 3 presents details about the original and final survey samples, and survey respondents. In total, we removed 93 observations from our sample because of invalid addresses, or because we determined that the company was not part of the environmental and energy technology sector. The majority of the removed establishments had been added to our original sample through the industry contact list.

As noted above, a companion report includes a detailed discussion of survey results. However, in this study, we use survey-based employment and sales information to develop the sector's economic profile. For companies and organizations that

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responded to the survey, we used the information that they self reported on employment size and sales revenue. The employment numbers used in the analysis are the sum of full- and part-time employees as of January 1, 2006. The sales revenue question from the survey asked respondents to select, from a list of options, the appropriate range of sales in 2005. For the purposes of this analysis, we used the midpoint of the range.

For businesses that did not respond to the survey, but were included in the industry contact list, we used employment and sales revenue information provided by the market research firm. Finally, we estimated employment and sales figures for *E2 Tech Council* members that did not return surveys and that were not included on the industry contact list. To do this, we calculated median employment and sales figures by industrial category for those companies on which we had information. We applied these estimates to the businesses and organizations that we did not know anything about. Of the total industry population of 688 businesses and organizations, we estimated employment and sales figures for 119 establishments.

3. MAINE'S ENVIRONMENTAL AND ENERGY TECHNOLOGY SECTOR

In this section of the report, we examine the economic impact of the environmental and energy technology sector in Maine. The sector's direct contribution to the state's economy is determined by the sales output, employment, and wages and salaries associated with the 688 businesses and organizations in the sector. Beyond the economic activity directly associated with these establishments, the environmental and

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energy technology industry has an indirect effect on the Maine economy through the expenditures made by businesses and workers associated with the sector.

Table 4 summarizes the economic impact of the environmental and energy technology sector in Maine. The 688 firms in the industry generate an estimated \$574.1 million in sales, directly employ an estimated 5,268 full- and part-time workers, and provide an estimated \$222.8 million in earnings. The average business or organization in Maine's environmental and energy technology sector employs 7.7 workers and receives \$834,375 in annual sales revenue.

With the direct impacts of the environmental and energy technology sector in hand, we next examine the statewide multiplier (i.e., indirect and induced) effects associated with the industry. The multiplier effects, estimated using the IMPLAN input-output model, account for the additional economic activity supported by the spending of businesses (indirect effects) and workers (induced effects) involved with the environmental and energy technology sector. The IMPLAN model tracks the flows of expenditures that occur among businesses in Maine, the purchases made by Maine workers, and the payments made to buy goods and services imported from out of state.

Including multiplier effects, the environmental and energy technology sector in Maine contributes an estimated \$882.7 million in sales to the Maine economy. The ratio of total to direct sales (i.e., multiplier) suggests that each dollar of direct sales results in a total impact of \$1.54 to the state economy. The environmental and energy technology sector supports an estimated 9,650 full- and part-time jobs that, counting multiplier effects, provided an estimated \$330.9 million in wages and salaries in 2006.

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Table 5 shows the distribution of environmental and energy technology firms in Maine by employment size in 2006. This analysis focuses on the 569 businesses and organizations with self-reported employment information from the survey or employment figures from the industry list. We do not include the 119 establishments with estimated employment figures in this analysis. Over one-half of the firms in our dataset employed two or fewer workers in 2006, and another one-third of the companies and organizations employed between three and ten workers. Just over five percent of the firms employed more than 25 workers in 2006.

In Table 6, we show the distribution of Maine's environmental and energy technology businesses and organizations by annual sales revenue. Once again, our analysis focuses on establishments with self-reported sales figures or information from the list of industry participants. About one-fifth of the firms reported sales of \$50,000 or less, and another one-quarter of the businesses generated annual sales of between \$50,001 and \$100,000. About 15 percent of the businesses and organizations collected over \$1 million in sales revenue in 2006.

Table 7 shows the geographic distribution of Maine's environmental and energy technology businesses and organizations. This analysis focuses on 643 establishments in our dataset with a mailing address from either the *E2 Tech Council* or the industry list. Over one-third of these firms are located in Cumberland County, and about ten percent of the companies are located in York, Penobscot and Kennebec Counties. Only a handful of businesses in the environmental and energy technology industry are located in Piscataquis and Franklin Counties. We show the cities and towns in Maine with ten or

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more establishments in the environmental and energy technology sector in Table 8. Portland, Maine's largest city, is home to 76 companies, which is 11.8 percent of businesses and organizations in the industry. Other municipalities with 15 or more businesses in the environmental and energy technology sector include Scarborough, Bangor, South Portland, Augusta, Brunswick and Lewiston.

4. COMPARISONS TO OTHER U.S. STATES

In this section of the report, we compare Maine to the rest of the United States in terms of the proportion of businesses that operate in the environmental and energy technology sector. For this analysis, we use *County Business Patterns* data from the U.S. Census Bureau on the number of business establishments in the NAICS categories shown in Table 2. As described above, we use state-level occupational employment data on the proportion of engineers who are environmental engineers to estimate the number of environmental engineering firms from the broader NAICS category of engineering firms. The dataset we use in this analysis includes information that is comparable across all states. However, a limitation of *County Business Patterns* is that the most currently available information is from 2004, which is a few years older than the data used in our profile of the Maine environmental and energy technology sector. In addition, the dataset used to compare Maine to other states focuses on establishment counts and not employment and sales figures. This is because *County Business Patterns* does not

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include sales data and, in some states, employment information is not available for one or more of the selected NAICS categories.

Another limitation of the *County Business Patterns* dataset is that it does not track sole proprietorships, which were counted in our industry profile. Furthermore, as noted above, the NAICS categories selected to represent the environmental and energy technology sector do not cover all of the businesses and organizations that are part of the *E2 Tech Council*. For these reasons, the number of environmental and energy technology businesses used in our comparisons of Maine to other states differs from the number of industry participants analyzed in the economic profile.

Table 9 shows the composition of Maine's environmental and energy technology sector by major EBI category. The sector, as defined in this section of the report, consisted of 470 establishments (not including sole proprietorships) in 2004, which is equivalent to 1.208 percent of the total 38,878 establishments in Maine at that time. Using this measure of the relative size of the environmental and energy technology sector, we find that Maine ranks 14th nationally. As shown in Table 10, the top three U.S. states in terms of the proportion of establishments in the environmental and energy sector are New Mexico, Colorado and California.

Looking again at Table 9, we find that about 64 percent of Maine's environmental and energy technology establishments fall within the category of environmental services. With 0.78 percent of all of Maine's establishments in this segment, the state ranks 16th nationally. As shown in Table 11, New Mexico, Alaska and Wyoming are the three U.S.

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states with the highest proportions of business establishments operating in this broad category of the environmental and energy technology sector.

The smallest segment of Maine's environmental and energy technology sector is involved in the manufacturing of environmental equipment. This category accounted for only 2.77 percent of the industry's establishments in 2004, or just 0.033 percent of the total number of establishments in Maine. The state ranks 25th nationally by this measure, shown in Table 12. The top three U.S. manufacturers of environmental equipment are New Hampshire, Massachusetts and California.

Finally, Table 9 shows that the environmental resources segment accounts for almost one-third of the businesses in Maine's environmental and energy technology sector. Maine ranks 9th nationally in terms of the proportion of businesses in the state that are part of this broad segment of the industry. As shown in Table 13, the three states with the highest proportions of establishments in the category of environmental resources are California, Nevada and Virginia.

5. COMPARISONS TO OTHER SECTORS IN MAINE

In this section of the report, we compare Maine's environmental and energy technology sector to other key industries in the state. Unlike our earlier comparisons to the same sector in other states, which used establishment count data from *County Business Patterns*, this analysis uses information from Table 4 on the direct employment and earnings associated with Maine's environmental and energy technology sector.

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These figures are compared to employment and earnings estimates for other Maine industries from the U.S. Bureau of Economic Analysis.

Table 14 presents total employment figures for selected industrial sectors in Maine. The industries were chosen to provide points of reference to the environmental and energy technology sector. Table 14 is not a list of the largest employers in the state. It is also important to note that, as described earlier in the report, the environmental and energy technology sector consists of businesses from a variety of industries (see Table 2). With the exception of this sector, the employment figures presented in Table 14 pertain to individual industries. These caveats also apply to the employee compensation figures shown in Table 15.

With a direct employment of 5,269 workers, the environmental and energy technology sector falls between the “forestry and logging” and the “fabricated metal product manufacturing” industries. The environmental and energy technology sector employs fewer people than the paper and wood products industries, which are traditional strengths of the Maine economy, and the “hotels and motels” sector, which is a key component of Maine’s tourism economy. On the other hand, the environmental and energy technology sector employs more workers than the publishing and telecommunications sectors.

In Table 15, we present employee compensation figures for selected industrial sectors in Maine. The direct employee compensation associated with Maine’s environmental and energy technology sector falls between the “fabricated metal product manufacturing” and the telecommunications industries. In terms of employee

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compensation, the environmental and energy technology sector is larger than “forestry and logging” and only 14 percent smaller than the “hotels and motels” sector.

Finally, we use information from a study conducted in 2002 to compare the Maine biotechnology industry at that time to the current status of the environmental and energy technology sector. These sectors are similar in that they were both targeted by the state for cluster development, and they both include businesses from multiple industrial sectors. The biotechnology industry includes manufacturers, service providers, research and development laboratories, and other organizations that develop, implement or support the use of biotechnologies.

Our analysis of the biotechnology industry in 2002 uncovered 80 companies and organizations that directly employed 3,690 workers and provided \$135.6 million in earnings (Allen and Gabe 2002). The biotechnology sector was characterized by a few large employers, with the rest of the industry made up of small businesses. The ten largest biotechnology firms accounted for an estimated 85 percent of total industry employment in 2002. The biotechnology was also highly concentrated in southern Maine: 59 percent of biotechnology jobs were located in Cumberland and York Counties. By comparison, these counties are currently home to a combined 45 percent of establishments in the environmental and energy technology sector.

6. SUMMARY

The environmental and energy technology sector in Maine consists of approximately 688 businesses and organizations. In 2006, these establishments directly

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generated an estimated \$574.1 million in sales, supported 5,269 full- and part-time jobs, and provided \$222.8 million in employee earnings. Counting multiplier effects, the environmental and energy technology sector contributed \$882.7 million in sales to the Maine economy, and supported 9,650 jobs that provided \$330.9 million in earnings.

Most of the industry participants are small in size, measured in terms of employment or sales figures. Over one-half of the establishments in Maine's environmental and energy technology sector have two or fewer workers, and about 45 percent of the industry generates less than \$100,000 in sales. However, the sector does include a handful of companies that employ over 50 workers (1.9 percent) and that generated more than \$10 million in sales revenue (2.3 percent).

Maine's environmental and energy technology sector is dominated by establishments located in the southern part of the state. Cumberland and York Counties are home to a combined 45 percent of industry establishments. Almost 12 percent of the industry is settled in Portland.

The relative size of the environmental and energy technology sector, compared to the overall economy, is larger in Maine than other U.S. states. In 2004, the industry accounted for 1.2 percent of all businesses in the state. Maine ranks 14th nationally according to this measure of the industry's relative importance to the state economy. Environmental services made up almost two-thirds of the Maine's environmental and energy technology sector in 2004, one-third of the businesses were involved in environmental and energy resources, and Maine is home to only a few companies that manufacture environmental products.

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Maine’s environmental and energy technology sector is also fairly large when compared to other industries in the state. Maine’s environmental and energy technology sector employs fewer people than the paper and wood products industries, but more workers than the publishing and telecommunications sectors. In terms of employee compensation, Maine’s environmental and energy technology sector is larger than the forestry and logging industry, and only 14 percent smaller than the hotels and motels sector.

REFERENCE:

Allen, Thomas G. and Todd M. Gabe, “Economic Profile of Maine’s Biotechnology Industry.” Department of Resource Economics and Policy, University of Maine, Staff Paper 513, December 2002.

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TABLE 1. Overview of the Environmental and Energy Technology Industry

Industry Segment	Description
<u>Environmental Services</u>	
Environmental Testing & Analytical Services	Provide testing of “environmental samples” (soil, water, air and some biological tissues)
Water Treatment Works	Management and operation of wastewater treatment plants
Solid Waste Management	Collection, processing and disposal of solid waste
Hazardous Waste Management	Manage on-going hazardous waste streams, medical waste, nuclear waste handling
Remediation/Industrial Services	Physical cleanup of contaminated sites, buildings and environmental cleaning of operating facilities
Environmental Consulting & Engineering	Engineering, consulting, design, assessment, permitting, project management, O&M, monitoring, etc.
<u>Environmental Equipment</u>	
Water Equipment & Chemicals	Provide equipment, supplies and maintenance in the delivery and treatment of water
Instrument Manufacturing	Produce instrumentation for the analysis of environmental samples
Air Pollution Control Equipment	Produce equipment and technology to control air pollution
Waste Management Equipment	Equipment for handling, storing or transporting solid, liquid or hazardous waste; includes information systems

Table is continued on the following page.

TABLE 1. Continued

Industry Segment	Description
Process & Prevention Technology	Equipment and technology for in-process (rather than end-of-pipe) pollution prevention and treatment
<u>Environmental Resources</u>	
Water Utilities	Selling water to end users
Resource Recovery	Selling materials recovered and converted from industrial by-products or post-consumer waste
Environmental Energy Sources	Selling power and systems in solar, wind, geothermal, small-scale hydro, energy efficiency and DSM

Source: Environmental Business International, Inc.

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TABLE 2. Bridge between Environmental and Energy
Technology Segments and NAICS Categories

Segment	NAICS Categories
Environmental Services	221310 (Water Supply & Irrigation Systems), 221320 (Sewage Treatment Facilities), 541330 (Engineering Services), 541380 (Testing Laboratories), 541620 (Environmental Consulting Services), 541710 (Research and Development in the Physical, Engineering, & Life Sciences), 562111 (Solid Waste Collection), 562112 (Hazardous Waste Collection), 562211 (Hazardous Waste Treatment & Disposal), 562219 (Other Nonhazardous Waste Treatment & Disposal), 562910 (Remediation Services)
Environmental Equipment	333411 (Air Purification Equipment Manufacturing), 334512 (Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use), 334513 (Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables), 334515 (Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals), 334516 (Analytical Laboratory Instrument Manufacturing)
Environmental Resources	221119 (Other Electric Power Generation), 423930 (Recyclable Material Merchant Wholesalers), 541690 (Other Scientific and Technical Consulting Services), 562920 (Materials Recovery Facilities)

TABLE 3. Summary of Survey Sample

	Original Sample	Removed	Final Sample	Respondents
<i>E2 Tech Council</i>	219	14	205	65
<i>Non-E2 Tech Council</i>	441	79	362	69
Total	660	93	567	135*

* 135 completed surveys were received. The *E2 Tech Council* membership status of one respondent was not determined.

Response rate: 23.6 percent

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TABLE 4. Economic Impact of Maine’s
Environmental and Energy Technology Sector

	Sales Output	Employment	Employee Compensation
Direct	\$574.1 million	5269	\$222.8 million
Multiplier Effects	\$308.6 million	4381	\$108.1 million
Total	\$882.7 million	9650	\$330.9 million
Multiplier	1.54	1.83	1.49

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TABLE 5. Size Distribution of Establishments in Maine's
Environmental and Energy Technology Sector, 2006 Employment

Size Category	Number of Establishments	Percentage of Establishments
2 or fewer employees	297	52.2%
3 to 5 employees	117	20.6%
6 to 10 employees	72	12.7%
11 to 25 employees	50	8.8%
26 to 50 employees	22	3.9%
51 or more employees	11	1.9%
Total	569	

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TABLE 6. Size Distribution of Establishments in Maine’s
Environmental and Energy Technology Sector, Annual Sales

Size Category	Number of Establishments	Percentage of Establishments
\$50K or less	116	20.4%
\$50,001 to \$100K	141	24.8%
\$100,001 to \$250K	125	22.0%
\$250,000 to \$500K	61	10.7%
\$500,001 to \$1 million	41	7.2%
\$1,000,001 to \$10 million	72	12.7%
Over \$10 million	13	2.3%
Total	569	

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TABLE 7. Geographical Distribution of Establishments in
Maine’s Environmental and Energy Technology Sector

County	Number of Establishments	Percentage of Establishments
Androscoggin	45	7.0%
Aroostook	30	4.7%
Cumberland	225	35.0%
Franklin	6	0.9%
Hancock	24	3.7%
Kennebec	58	9.0%
Knox	20	3.1%
Lincoln	24	3.7%
Oxford	16	2.5%
Penobscot	62	9.6%
Piscataquis	5	0.8%
Sagadahoc	16	2.5%
Somerset	15	2.3%
Waldo	19	3.0%
Washington	16	2.5%

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York	62	9.6%
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Total	643	
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TABLE 8. Maine Municipalities with 10 or More Establishments
in the Environmental and Energy Technology Sector

Municipality	Number of Establishments	Percentage of Establishments
Portland	76	11.8%
Scarborough	18	2.8%
Bangor	16	2.5%
South Portland	16	2.5%
Augusta	15	2.3%
Brunswick	15	2.3%
Lewiston	15	2.3%
Freeport	13	2.0%
Falmouth	12	1.9%
Yarmouth	12	1.9%
Waterville	11	1.7%
Auburn	10	1.6%
Eliot	10	1.6%

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TABLE 9. Composition of Maine’s Environmental and Energy Technology Sector

Industry Segment	Number of Establishments	% of Estabs. in Sector	% of Estabs. in Maine
Environmental Services	301	64.0%	0.78%
Environmental Equipment	13	2.8%	0.03%
Environmental Resources	156	33.2%	0.40%
Total	470	100%	1.21%

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TABLE 10. Percentage of State’s Establishments in the
Environmental and Energy Technology Sector

State	Number of Estabs. in Sector	% of Estabs. in State
New Mexico	663	1.545%
Colorado	1983	1.482%
California	11605	1.478%
Alaska	263	1.429%
Maryland	1811	1.421%
Wyoming	254	1.417%
Utah	762	1.416%
Massachusetts	2332	1.346%
Virginia	2256	1.300%
Louisiana	1302	1.289%
Montana	401	1.278%
Mississippi	763	1.275%
Nevada	590	1.258%
Maine	470	1.208%
Idaho	446	1.205%
New Hampshire	447	1.203%
Washington	1909	1.172%
Texas	5467	1.170%
Delaware	273	1.169%
Oregon	1153	1.154%
Vermont	248	1.148%
New Jersey	2657	1.146%
Connecticut	998	1.079%
Pennsylvania	3155	1.075%
Minnesota	1475	1.074%
Rhode Island	303	1.074%
Arizona	1187	1.054%
West Virginia	426	1.028%
North Carolina	2005	0.994%

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Hawaii	291	0.983%
Arkansas	614	0.979%
North Dakota	198	0.972%
Florida	4092	0.965%
South Dakota	222	0.935%
Ohio	2523	0.932%
Illinois	2834	0.923%

Table is continued on the following page.

TABLE 10. Continued

State	Number of Estabs. in Sector	% of Estabs. in State
Georgia	1809	0.915%
Oklahoma	774	0.912%
Kansas	672	0.903%
Indiana	1300	0.887%
Iowa	719	0.885%
Kentucky	786	0.874%
Alabama	877	0.873%
New York	4152	0.854%
Nebraska	412	0.840%
South Carolina	806	0.835%
Michigan	1975	0.835%
Wisconsin	1148	0.822%
Missouri	1185	0.818%
Tennessee	1005	0.766%

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TABLE 11. Proportion of State’s Establishments in the
Environmental Services Industry Segment

State	Number of Estabs. in Segment	% of Estabs. in State
New Mexico	519	1.209%
Alaska	217	1.179%
Wyoming	177	0.987%
Mississippi	591	0.987%
Colorado	1320	0.987%
Maryland	1237	0.970%
Massachusetts	1624	0.937%
Utah	498	0.925%
Montana	283	0.902%
Louisiana	890	0.881%
Idaho	318	0.859%
Virginia	1396	0.804%
California	6251	0.796%
Vermont	170	0.787%
Washington	1268	0.778%
Maine	301	0.774%
New Hampshire	284	0.765%
Connecticut	700	0.757%
Texas	3522	0.754%
Delaware	175	0.749%
Oregon	742	0.742%
Rhode Island	208	0.738%
New Jersey	1698	0.733%
West Virginia	298	0.720%
Hawaii	213	0.719%
Arizona	803	0.713%
Pennsylvania	2073	0.706%
South Dakota	167	0.703%
Nevada	328	0.700%

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North Dakota	139	0.683%
North Carolina	1305	0.647%
Arkansas	401	0.640%
Oklahoma	519	0.611%
Minnesota	820	0.597%
Indiana	853	0.582%
Florida	2406	0.567%

Table is continued on the following page.

TABLE 11. Continued

State	Number of Estabs. in Segment	% of Estabs. in State
Alabama	568	0.566%
Georgia	1110	0.561%
Ohio	1509	0.557%
Kansas	408	0.548%
South Carolina	520	0.539%
Iowa	433	0.533%
Kentucky	476	0.529%
New York	2503	0.515%
Missouri	744	0.514%
Michigan	1200	0.507%
Illinois	1536	0.500%
Tennessee	648	0.494%
Wisconsin	684	0.489%
Nebraska	238	0.485%

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TABLE 12. Proportion of State’s Establishments in the
Environmental Equipment Industry Segment

State	Number of Estabs. in Segment	% of Estabs. in State
New Hampshire	48	0.129%
Massachusetts	140	0.081%
California	603	0.077%
Connecticut	68	0.074%
Colorado	81	0.061%
Rhode Island	17	0.060%
Minnesota	80	0.058%
Ohio	144	0.053%
Oregon	53	0.053%
Wisconsin	74	0.053%
Pennsylvania	150	0.051%
Texas	232	0.050%
Nevada	23	0.049%
Michigan	110	0.047%
Vermont	10	0.046%
New Jersey	106	0.046%
Arizona	50	0.044%
Illinois	136	0.044%
Oklahoma	34	0.040%
Utah	21	0.039%
Delaware	9	0.038%
Tennessee	49	0.037%
North Carolina	73	0.036%
Indiana	51	0.035%
Maine	13	0.033%
New Mexico	14	0.033%
Washington	53	0.033%
Kansas	24	0.032%
Kentucky	28	0.031%

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Missouri	44	0.030%
Virginia	51	0.029%
Maryland	37	0.029%
New York	137	0.028%
Idaho	10	0.027%
Florida	110	0.026%
Iowa	21	0.026%

Table is continued on the following page.

TABLE 12. Continued

State	Number of Estabs. in Segment	% of Estabs. in State
West Virginia	10	0.024%
Georgia	44	0.022%
Louisiana	22	0.022%
South Carolina	21	0.022%
Montana	6	0.019%
Alabama	18	0.018%
Hawaii	5	0.017%
Nebraska	8	0.016%
Arkansas	9	0.014%
South Dakota	3	0.013%
Wyoming	2	0.011%
Alaska	2	0.011%
Mississippi	4	0.007%
North Dakota	0	0.000%

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TABLE 13. Proportion of State’s Establishments in the
Environmental Resources Industry Segment

State	Number of Estabs. in Segment	% of Estabs. in State
California	4751	0.605%
Nevada	239	0.510%
Virginia	809	0.466%
Utah	243	0.452%
Colorado	582	0.435%
Maryland	537	0.421%
Wyoming	75	0.419%
Minnesota	575	0.419%
Maine	156	0.401%
Louisiana	390	0.386%
Delaware	89	0.381%
Illinois	1162	0.379%
Florida	1576	0.372%
New Jersey	853	0.368%
Texas	1713	0.367%
Washington	588	0.361%
Oregon	358	0.358%
Montana	112	0.357%
Nebraska	166	0.339%
Georgia	655	0.331%
Massachusetts	568	0.328%
Iowa	265	0.326%
Arkansas	204	0.325%
Kansas	240	0.322%
Ohio	870	0.321%
Idaho	118	0.319%
Pennsylvania	932	0.318%
Vermont	68	0.315%
Kentucky	282	0.314%

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New York	1512	0.311%
North Carolina	627	0.311%
New Hampshire	115	0.309%
New Mexico	130	0.303%
Arizona	334	0.297%
Alabama	291	0.290%
North Dakota	59	0.289%

Table is continued on the following page.

TABLE 13. Continued

State	Number of Estabs. in Segment	% of Estabs. in State
West Virginia	118	0.285%
Michigan	665	0.281%
Mississippi	168	0.281%
Wisconsin	390	0.279%
Rhode Island	78	0.276%
South Carolina	265	0.275%
Missouri	397	0.274%
Indiana	396	0.270%
Oklahoma	221	0.260%
Connecticut	230	0.249%
Hawaii	73	0.247%
Alaska	44	0.239%
Tennessee	308	0.235%
South Dakota	52	0.219%

TABLE 14. Employment in Selected Maine Industries

Industry	Employment
Hotels and Motels	13309
Paper Manufacturing	9481
Wood Product Manufacturing	8103
Food Manufacturing	6887
Forestry and Logging	5721
Environmental and Energy Technology*	5269
Fabricated Metal Product Manufacturing	5046
Publishing Industries, except Internet	4542
Telecommunications	3525
Plastics and Rubber Products Manufacturing	2382
Leather and Allied Product Manufacturing	2367

Sources: * Authors' calculations. Information on all other industries is from the U.S. Bureau of Economic Analysis, 2005.

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TABLE 15. Employee Compensation in Selected Maine Industries

Industry	Employee Compensation
Paper Manufacturing	\$749.1 million
Wood Product Manufacturing	\$282.2 million
Hotels and Motels	\$259.3 million
Food Manufacturing	\$240.5 million
Fabricated Metal Product Manufacturing	\$236.9 million
Environmental and Energy Technology*	\$222.8 million
Telecommunications	\$211.9 million
Publishing Industries, except Internet	\$157.2 million
Leather and Allied Product Manufacturing	\$131.3 million
Forestry and Logging	\$119.1 million
Plastics and Rubber Products Manufacturing	\$110.2 million

Sources: * Authors' calculations. Information on all other industries is from the U.S. Bureau of Economic Analysis, 2005.