RENEWABLE ENERGY IN NORTH CAROLINA: THE POTENTIAL SUPPLY CHAIN

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By

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EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

North Carolina could be a significant source of renewable energy although there have been few commercial-scale proposals so far. However, recent state legislation has the potential to act as a catalyst for renewable energy development in the state. In 2007, North Carolina leaders passed a law requiring utilities to meet 12.5% of energy demand by 2021 with cleaner energy sources such as wind and solar power.

Although the North Carolina renewable energy industry is rapidly growing, it remains in an incipient stage of development that has yet to fully mature and diversify. As North Carolina begins to diversify and grow its alternative energy industries, it is important that our local communities benefit from the transition by growing new jobs and employment opportunities in this vital niche of the contemporary economy.

A major portion of the potential benefits flowing from the development of renewable energy will go to the manufacturers who supply the component parts and equipment necessary to build the new energy economy.

PURPOSE OF REPORT

The purpose of this report is to:

- Better understand the spatial distribution and economic magnitude of North Carolina's renewable energy supply chain in wind, solar, biomass and geothermal.
- Identify those companies with the technical *potential* to enter the renewable energy market in North Carolina. Rigorously inventorying those firms that could supply the component parts of North Carolina's incipient renewable energy industry could help revitalize the state's manufacturing industries.
- Build general support and educate regional economic development stakeholders from across the state regarding the economic development opportunities in the new energy economy and raise awareness of the opportunities our state's existing manufacturers have to serve renewable energy markets.

METHODS

To assess the spatial distribution and economic magnitude of the new energy economy supply chain in North Carolina, this report utilized the methodology developed by the U.S. Department of Energy funded Renewable Energy Policy Project (REPP). The 2008 data source for the North Carolina inventory of the potential new energy supply chain firms was ReferenceUSA.

Major Findings

North Carolina's *potential* new energy economy supply chain is a diverse and mature sector of the state economy comprising just over **1,300 firms and employing just over 61,000 workers**

A. WIND POWER

The largest potential supply chain appeared to be wind power since it generated the largest number of firms (627) and jobs (32,534) (Table 1). In 2008, the Charlotte region

Table 1. North Carolina's Potential Supply Chain, 2008								
Renewable	Number of Firms ¹	Employment ¹						
Wind	627	32,534						
Solar	296	16,122						
Biomass	509	20,925						
Geothermal	98	4,287						

¹ It is inappropriate to aggregate this data since some firms are listed for more than one of the renewables.

had 195 firms that could potentially play a role in the wind power supply chain and these firms generated 12,770 jobs in the region. Many of these jobs were concentrated in just a few specialties including various forms of plastic product manufacturing, fabricated structural metal manufacturing, electrical equipment manufacturing and ball and roller bearing manufacturing.

Given the manufacturing orientation of the Piedmont Triad region, it is perhaps not surprising that the Triad region generated more jobs in wind power supply chain-related industries than the Research Triangle (6,520 and 4,099, respectively). The Piedmont Triad also generated more firms (133) than the Research Triangle (101). Another region that featured prominently was the West especially the Asheville market.

B. SOLAR POWER

The statewide geography of the solar power supply chain is noticeably different to that for wind power. Given the technological propensities of solar power suppliers (e.g., semiconductors and related devices manufacturing), this supply chain does not proliferate across North Carolina in the same way as the wind energy supply chain. That said, the potential solar power supply chain included 296 firms and 16,122 workers statewide (Table 1).

A much more pronounced and tightly circumscribed cluster of industries exists in both Charlotte and the Research Triangle while the West region does not feature as prominently especially when compared to wind energy. The solar energy related

industries seem to prefer the more highly skilled labor pools in Charlotte and Raleigh Durham.

In 2008, the Charlotte region included 109 solar energy-related firms which generated 5,011 jobs – far more than any other region in North Carolina. Other important regions included the Research Triangle region (i.e., 83 firms and 3,538 jobs) and the Piedmont Triad (i.e., 38 firms and 3,876 jobs). These three regions generated 77% of all the jobs in North Carolina's potential solar energy supply chain.

c. BIOMASS

The geography of the potential biomass supply chain is tightly concentrated along the I-85 corridor between Charlotte, the Triad and the Research Triangle region with significant outposts in Asheville, Hickory and Wilmington. Unlike the wind power supply chain, far fewer firms are located in eastern North Carolina.

In aggregate, the biomass supply chain included 508 firms and 20,925 workers statewide (Table 1). Approximately 75% of the potential biomass supply chain in North Carolina in terms of firms are located in one of three regions – Charlotte (181 firms), the Research Triangle (101) and the Piedmont Triad (97). Significant specializations include General Purpose Machinery manufacturing (148 firms), Electrical Equipment (61), Sawmill and Wood Working Machinery (49) and Construction Machinery manufacturing (41). These four specializations accounted for nearly 60% of the potential statewide supply chain in biomass.

D. GEOTHERMAL POWER

The geothermal supply chain in North Carolina is not nearly as pervasive as for wind, solar or biomass both in terms of number of firms or employment generation including just 98 firms and 4,287 workers statewide (Table 1). The geography of the state's potential geothermal suppliers reflects the scaled-down economic profile with a much more even and less prolific distribution across the state.

Although Charlotte generated more potential geothermal suppliers (34 firms) than any other region, the outlying regions (East, Northeast, Southeast and West) together produced as many companies (34) in 2008.

CONCLUSION

Affordable, reliable and clean energy produced from diverse, domestic sources is critical to North Carolina's continued prosperity and security. North Carolina is a leader in enabling technologies, including biotechnology and advanced manufacturing processes that are capable of driving the next generation of energy technologies and products. The new energy economy has the potential to be a major part of North Carolina's competitive advantage.

Although North Carolina has yet to develop a mature and diversified new energy economy and has yet to 'birth' many large commercial applications, the state is home to over 1,300 companies and 61,000 workers that operate within the supply chain of renewable energy equipment. Specific strengths include plastics product manufacturing, fabricated structural metal manufacturing, sheet metal work manufacturing, semiconductors and related devices, general purpose machinery manufacturing, pumps and pumping equipment and electrical equipment. The geography of the new energy supply chain is tightly concentrated along the I-85 corridor between Charlotte, the Triad and the Research Triangle region with significant outposts in Hickory, Wilmington and especially Asheville.

Better understanding of where the potential manufacturers are that could supply the critical component parts should help economic development practitioners to craft appropriate policies and incentives that allow innovative renewable energy companies to move efficiently into the industry. One simple next step could be to develop a better understanding of the supply chain needs of the new energy economy firms already located in North Carolina. Cultivating inter-industry linkages between the fledgling new economy and the state's existing manufacturers could generate a 'bigger bang for the buck'. It is important that North Carolina is nimble and quick in this policy arena since the recently passed Renewable Energy and Efficiency Standards Portfolio expects that 12.5% of utility energy demand by 2021 is met by renewables.

INTRODUCTION AND BACKGROUND

North Carolina is a net energy importer – like most U.S. states – because of our heavy reliance on fossilized fuels as a major energy source for the state's contemporary economy. That said, renewable energy is now attracting a significant amount of attention as many communities attempt to reduce greenhouse gas emissions such as carbon dioxide. Many U.S. states are now actively engaged in developing renewable energy initiatives in wind, solar, biomass and geothermal-based programs. For example, billionaire Texas oilman T. Boone Pickens has already invested \$2 billion in his company Mesa Power to build the world's largest wind farm in Pampa, a small town in the Texas panhandle. A recent report by the U.S. Department of Energy (2008) has indicated that America could build enough wind farms to provide 20% of the nation's electricity by 2030.

According to Bob Leker, renewables program manager for the North Carolina Energy Office, the state of North Carolina could be a significant source of renewable energy although there have been few commercial-scale proposals so far. However, recent state legislation has the potential to act a catalyst for renewable energy development in the state. In 2007, North Carolina leaders passed a law requiring utilities to meet 12.5% of energy demand by 2021 with cleaner energy sources such as wind and solar power.

Partly in response to the new state legislation, Sun Edison in partnership with Duke Power recently announced plans to build the nation's largest solar farm in Davidson County just south of Winston Salem, N.C (*Greensboro News and Record* 2008). Duke Power expects to generate 16 megawatts of power from the 100 to 200 acre solar farm by 2010 – enough energy to power 2,647 homes for a year.

Renewable energy manufacturing has the potential to become big business in North Carolina. For example, a 2005 study done by Appalachian State University and the N.C. Solar Center at North Carolina State University projected that a capacity of 1,430 megawatts of electricity could be generated by 500 to 700 new windmills on shore and in sounds in eastern North Carolina. Furthermore, the 2008 *North Carolina Economic Developer's Guide to the Renewable Energy Industries* published by the State Energy Office recently listed just over 100 new energy companies, up from only 28 in early 2005.

PURPOSE AND RATIONALE

Although the North Carolina renewable energy industry is rapidly growing, it remains in an incipient stage of development that has yet to fully mature and diversify. As North Carolina begins to diversify and grow its alternative energy industries, it is important that our local communities benefit from the transition by growing new jobs and employment opportunities in this vital niche of the contemporary economy.

A major portion of the potential benefits flowing from the development of renewable energy will go to the manufacturers who supply the component parts and equipment necessary to build the new energy economy. For example, wind turbines have emerged as one of the largest sources of demand for fiber-reinforced plastics as each turbine has several blades that can be as long as a football field. Precision Fabrics in Greensboro N.C. is the type of company that might benefit from the new energy economy since they manufacture textiles that are used in turbine blade manufacture – such as advanced peelply fabrics which are used in building the composite parts found in aerospace, marine, and wind energy manufacturing.

The purpose of this report is to:

- Better understand the spatial distribution and economic magnitude of North Carolina's renewable energy supply chain in wind, solar, biomass and geothermal.
- Identify those companies with the technical *potential* to enter the renewable energy market in North Carolina. Rigorously inventorying those firms that could supply the component parts of North Carolina's incipient renewable energy industry could help revitalize the state's manufacturing industries.
- Build general support and educate regional economic development stakeholders from across the state regarding the economic development opportunities in the new energy economy.
- Raise awareness of the opportunities our state's existing manufacturers have to serve renewable energy markets

PROJECT METHODOLOGY

A. IDENTIFYING THE POTENTIAL NORTH CAROLINA RENEWABLE ENERGY SUPPLY CHAIN: BY ECONOMIC ACTIVITY

To assess the spatial distribution and economic magnitude of the new energy economy supply chain in North Carolina, this report utilized the methodology developed by the U.S. Department of Energy funded Renewable Energy Policy Project (REPP). A major objective of REPP is to define growth strategies for renewables that simultaneously respond to both competitive energy markets and environmental needs.

REPP has developed a methodology that disaggregates renewable generation technologies into their individual component parts and then catalogues where existing conventional industries are located that could become suppliers of the new energy economy. In order to examine the spatial distribution and magnitude of this *potential* market, REPP utilized an approach based on the North American Industrial Classification System (NAICS). In the Economic Census conducted by the U.S. Census Bureau, every firm operating in North America reports one or more NAICS codes, indicating what type of products or services they provide. The NAICS codes have several levels of detail. For example, a first digit of 3 indicates Manufacturing, 334 is Computer and Electronic Product Manufacturing, and 334414 is Semiconductor and Related Device Manufacturing. The 6-digit NAICS are the standard level reported by all companies in North America. Companies reporting the same NAICS code are involved in similar activities, for example, every company that reports 3339111 manufactures some type of pump.

REPP identified all the 6-digit NAICS codes that include firms involved in activities similar to the manufacturing of the individual renewable energy components found in wind, solar, biomass or geothermal production. For example, a company that makes glass plate (NAICS 327211 Flat Glass Manufacturing) could potentially transfer their capabilities to making the top surface glass for photovoltaic solar modules.

The relevant NAICS codes identified by REPP included:

NAICS Code	NAICS Description
A. Wind	
326199	All Other Plastics Products
331511	Iron Foundries
332312	Fabricated Structural Metal
332991	Ball & Roller Bearing
333412	Industrial & Commercial Fans and Blowers
333611	Turbine and Turbine Generator Set Units
333612	Speed Changer, Drive & Gear
333613	Mechanical Power Transmission Equipment

7

334418 334519	Printed Circuits & Electronics Assemblies* Measuring & Controlling Devices
335312	Motors & Generators
335999	Electronic Equipment & Components, Misc.
B. Solar	
325211	Plastics Material & Resin
326113	Unlaminated Plastics Film & Sheet (except Packaging)
327211	Flat Glass
331422	Copper Wire (except Mechanical) Drawing*
332322	Sheet Metal Work
334413	Semiconductors & Related Devices
334515	Instruments for Measuring & Testing
	Electricity & Electrical Signals
335313	Switchgear & Switchboard Apparatus
335911	Storage Batteries
335931	Current-Carrying Wiring Devices
335999	Electronic Equipment and Components, Misc.
C. Biomass	
227002	
327993	Mineral Wool
331210	Iron, Steel Pipe & Tube from Purchased Steel
331210 332410	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger
331210 332410 332420	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge)
331210 332410 332420 332911	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve
331210 332410 332420 332911 333120	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery
331210 332410 332420 332911 333120 333210	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery
331210 332410 332420 332911 333120 333210 333411	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment
331210 332410 332420 332911 333120 333210 333411 333414	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces)
331210 332410 332420 332911 333120 333210 333411	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial
331210 332410 332420 332911 333120 333210 333411 333414 333415	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
331210 332410 332420 332911 333120 333210 333411 333414 333415	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment
331210 332410 332420 332911 333120 333210 333411 333414 333415	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor
331210 332410 332420 332911 333120 333210 333411 333414 333415 333911 333912 333922	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment
331210 332410 332420 332911 333120 333210 333411 333414 333415 333911 333912 333922 333923	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment Overhead Traveling Crane, Hoist & Monorail System
331210 332410 332420 332911 333120 333210 333411 333414 333415 333911 333912 333922 333923 333999	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment Overhead Traveling Crane, Hoist & Monorail System General Purpose Machinery, Misc.
331210 332410 332420 332911 333120 333210 333411 333414 333415 333911 333912 333922 333923	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment Overhead Traveling Crane, Hoist & Monorail System General Purpose Machinery, Misc. Instruments and Related Products for Measuring,
331210 332410 332420 332911 333120 333210 333411 333414 333415 333912 333912 333922 333923 333999 334513	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment Overhead Traveling Crane, Hoist & Monorail System General Purpose Machinery, Misc. Instruments and Related Products for Measuring, Displaying, and Controlling Industrial Process Variables
331210 332410 332420 332911 333120 333210 333411 333414 333415 333912 333912 333922 333923 333999 334513	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment Overhead Traveling Crane, Hoist & Monorail System General Purpose Machinery, Misc. Instruments and Related Products for Measuring, Displaying, and Controlling Industrial Process Variables Power, Distribution, and Specialty Transformer
331210 332410 332420 332911 333120 333210 333411 333414 333415 333912 333912 333922 333923 333999 334513	Iron, Steel Pipe & Tube from Purchased Steel Power Boiler & Heat Exchanger Metal Tank (Heavy Gauge) Industrial Valve Construction Machinery Sawmill & Woodworking Machinery Air Purification Equipment Heating Equipment (except Warm Air Furnaces) AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing Pump & Pumping Equipment Air & Gas Compressor Conveyor & Conveying Equipment Overhead Traveling Crane, Hoist & Monorail System General Purpose Machinery, Misc. Instruments and Related Products for Measuring, Displaying, and Controlling Industrial Process Variables

D. Geothermal	
331210	Iron, Steel Pipe & Tube from Purchased Steel
332410	Power Boiler & Heat Exchanger
332420	Metal Tank (Heavy Gauge)
333415	AC and Warm Air Heating Equipment and Commercial
	and Industrial Refrigeration Equipment Manufacturing
333911	Pump & Pumping Equipment
333912	Air & Gas Compressor
333923	Overhead Traveling Crane, Hoist & Monorail System

Caveats to Using the 6-digit Codes

According to REPP, when interpreting the results of a 6-digit code search, it is important to be aware of the potential broadness of companies included. Some of the specific NAICS codes include a broad range of products some of which are not wholly related to renewable energy production. Additionally, it is important to recognize that some NAICS codes appear in more than one of the four renewable categories (i.e., wind, solar, biomass and geothermal). For example, all the NAICS codes listed for geothermal also are included in the list of NAICS codes for potential biomass suppliers. Therefore, it would not be appropriate to aggregate across the four major classes of renewables since the double-counting would inflate the economic data.

B. INVENTORYING THE POTENTIAL NORTH CAROLINA RENEWABLE ENERGY SUPPLY CHAIN: BY INDIVIDUAL FIRM

Identifying the various economic specializations necessary to sustain a thriving new energy economy supply chain is one matter. Cataloguing and mapping the specific firms that might be part of a successful supply chain is a completely different task. The 2008 data source for the North Carolina inventory of the potential new energy supply chain firms was ReferenceUSA.

The ReferenceUSA database contains detailed information on more than 14 million U.S. businesses. Information is compiled from the following public sources: more than 5,600 Yellow Page and Business White Page telephone directories; annual reports; 10-Ks and other SEC information; federal, state, and municipal government data; Chamber of Commerce information; leading business magazines, trade publications, newsletters, major newspapers, industry and specialty directories; and postal service information. Businesses with 100 or more employees are phone-verified at least twice a year and the database is continually updated.

ReferenceUSA is an excellent database for mapping specific firms since it provides a precise map coordinate location for all listed companies by NAICS code. The data utilized to build the North Carolina renewable energy supply chain inventory were accessed in summer 2008. Only those firms that listed under the NAICS codes identified by the REPP methodology were included in the inventory.

However, it should be noted that some company data are not fully reported in ReferenceUSA for reasons of confidentiality. For example, some companies report data ranges rather than precise figures for employment, sales volume, and floor space. Despite this caveat, the report captured well over 1,300 North Carolina firms that have the potential to act as suppliers to the state's fledgling new energy economy – based on a fairly conservative and rigorously defined methodology.

^{*} Neither NAICS 334418 Printed Circuits and Electronic Assemblies nor NAICS 331422 Copper Wire (except Mechanical) Drawing were listed in the ReferenceUSA database for North Carolina.

FINDINGS:

North Carolina's *potential* new energy economy supply chain is a diverse and mature sector of the state economy comprising just over **1,300 firms and employing just over 61,000 workers**. The largest potential supply chain appears to be wind energy since it generated the largest number of firms (627) and jobs (32,534) relative to the other three forms of renewable energy (Table 1).

Table 1. North Carolina's Potential Supply Chain, 2008									
Renewable Number of Firms ¹ Employment ¹									
Wind	627	32,534							
Solar	296	16,122							
Biomass	509	20,925							
Geothermal									
¹ It is inappropriate to aggregate t	his data since some firms are listed in more th	nan one of the renewables.							

Given the long history of manufacturing in the North Carolina economy, it is not surprising that some of the leading sectors of the new energy supply chain economy are manufacturing intensive. The leading potential suppliers are listed in Table Two.

Table 2. North Carolina's Leading Supply Chain Industries, 2008										
Renewable	# of Firms	Employment								
WIND										
All Other Plastics Product Manufacturing	230	14,710								
Fabricated Structural Metal Manufacturing	186	4,611								
Ball and Roller Bearing Manufacturing	14	2,019								
SOLAR										
Sheet Metal Work Manufacturing	84	3,487								
Plastic Material and Resin Manufacturing	62	2,876								
Semiconductor and Related Devices	45	2,271								
BIOMASS/GEOTHERMAL										
General Purpose Machinery, Misc.	148	3,935								
Pumps and Pumping Equipment	24	2,032								
ALL RENEWABLES										
Electrical Equipment, Misc.	61	4,254								

We now turn to a more detailed examination of each renewable energy supply chain.

A. WIND POWER

Although the statewide geography of the wind energy supply chain is more evenly distributed than for solar energy – an important cluster of wind energy related suppliers exists in the highly diversified Charlotte region (Figure One). The regions used in this report are defined based on the North Carolina Department of Commerce Economic Development Regions. In 2008, the Charlotte region had 195 firms that could potentially play a role in the wind energy supply chain (Table 3) and these firms generated 12,770 jobs in the region (Table 4). Many of these jobs were concentrated in just a few specialties including various forms of plastic product manufacturing, fabricated structural metal manufacturing, electrical equipment manufacturing and ball and roller bearing manufacturing.

Given the manufacturing orientation of the Piedmont Triad region, it is perhaps not surprising that the Triad region generated more jobs in wind energy supply chain-related industries than the Research Triangle (6,520 and 4,099, respectively) (Table 4). The Piedmont Triad also generated more firms (133) than the Research Triangle (101) (Table 3). Another region that featured prominently was the West region which included Asheville. It is perhaps expected that a substantive cluster of wind energy related industries might thrive in the Asheville area especially given the high winds associated with its mountainous topography. Asheville is already a region noted for its 'green collar' economy and the area already appears blessed with a disproportionately large cluster of industries linked to potential wind energy applications. For example, the West region generated more jobs (4,770) than the Research Triangle region (4,099) in this niche.

North Carolina's wind energy-related supply chain is characterized by a preponderance of firms with sales volume between \$1-5 million (258 firms or 41.7% of total sales) (Table 5). Only one firm generated between \$500 million to \$1 billion in sales and that was Siemens Power Generation in Charlotte with 799 workers (Appendix A – NAICS 333611 Turbine Manufacturing).

Most of the potential wind energy suppliers are also fairly small in terms of floorspace with 440 firms (70.2%) below 40,000 square feet (Table 6).

B. SOLAR POWER

The statewide geography of the solar power supply chain is noticeably different to that for wind energy. Given the technological propensities of solar energy suppliers (e.g., semiconductors and related devices manufacturing), this supply chain does not proliferate across North Carolina in the same way as the wind energy supply chain. A much more pronounced and tightly circumscribed cluster of industries exists in both Charlotte and the Research Triangle (Figure 2) while the West region does not feature as prominently

	Table 3. Potential Wind Power Supply Chain Firms by Region, 2008									
			NC Departm		nerce Econom	nic Developm	ent Re	gions	Total	Percent
NAICS	NAICS Description			Piedmont	Research				Firms	Firms
		West	Charlotte	Triad	Triangle	Southeast	East	Northeast	1 111115	1 111115
326199	All Other Plastics Products	41	68	65	26	15	12	3	230	36.7
331511	Iron Foundries	0	3	1	1	1	1	0	7	1.1
	Fabricated Structural									
332312	Metal	15	50	36	37	13	25	10	186	29.7
332991	Ball & Roller Bearing	3	5	2	2	0	2	0	14	2.2
	Industrial and Commercial									
333412	Fans and Blowers	2	4	3	3	1	0	0	13	2.1
	Turbine & Turbine									
333611	Generators	1	8	4	5	3	1	0	22	3.5
	Speed Changer, Drive, &	_		_	_		_			
333612	Gear	2	9	1	0	1	0	1	14	2.2
	Mechanical Power									
222612	Transmission			0	0	0	0	0	4	0.0
333613	Equipment	0	1	0	0	0	0	0	1	0.2
224510	Measuring & Controlling	4	2	2	2	1	1	0	12	2.1
334519	Devices	4	2	2	3	1	1	0	13	2.1
335312	Motors & Generators	9	22	10	8	8	8	1	66	10.5
	Electrical Equipment									
225000	Electrical Equipment,	4	22	0	1.0		2	0	C1	0.7
335999	Misc.	4	23	9	16	6	3	0	61	9.7
	Total	81	195	133	101	49	53	15	627	

especially when compared to wind energy (Figure 1). The solar energy related industries seem to prefer the more highly skilled labor pools in Charlotte and Raleigh-Durham.

In 2008, the Charlotte region included 109 solar energy-related firms (Table 7) which generated 5,011 jobs (Table 8) – far more than any other region in North Carolina. Other important regions included the Research Triangle (i.e., 83 firms and 3,538 jobs) and the Piedmont Triad (i.e., 38 firms and 3,876 jobs). These three regions generated 77% of all the jobs in North Carolina's potential solar energy supply chain – compared to just 72% for wind energy. It should also be noted that the Piedmont Triad may have generated fewer firms than the Research Triangle region but it did produce more jobs suggesting that average firm size is larger in the Triad.

North Carolina's solar power-related supply chain features a disproportionate number of firms with sales volume between \$1-10 million (172 firms or 61.3% of total sales) (Table 9). Unlike the wind-related firms, a larger proportion of solar-related firms generated between \$5-10 million in sales (24.8% versus 14.1%) and one firm generated over \$1 billion in sales (i.e., Goodrich Corporation in Charlotte) (Appendix A – NAICS 325211 Plastics Material and Resin Manufacturing)

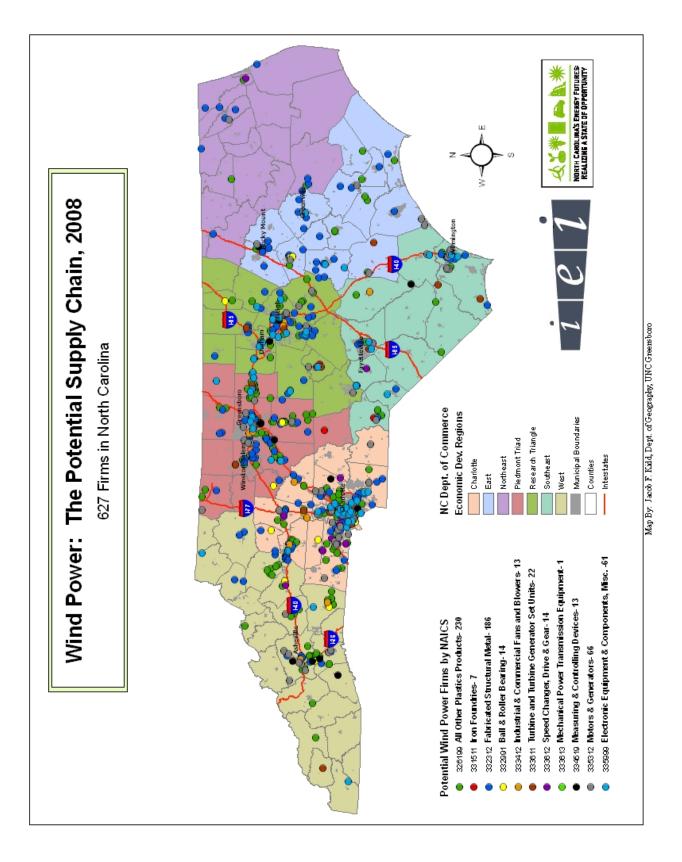


Figure One

	Table 4. Potential Wind Power Supply Chain Employment by Region, 2008									
			NC Departi	ment of Com	merce Econo	omic Develop	ment Reg	gions	Total	Percent
NAICS	NAICS Description			Piedmont	Research				Empl.	Empl.
		West	Charlotte	Triad	Triangle	Southeast	East	Northeast	Z.i.p.i.	Zinpi.
	All Other Plastics Product									
326199	Manufacturing	3427	4792	3962	794	755	758	220	14710	45.2
331511	Iron Foundries	0	2041	2	50	2	15	0	2110	6.5
	Fabricated Structural Metal			0.40						
332312	Manufacturing	239	1742	863	972	191	492	111	4611	14.2
222001	Ball & Roller Bearing	441	1041	202	4.1	0	104	0	2010	
332991	Manufacturing	441	1041	302	41	0	194	0	2019	6.2
	Industrial and Commercial Fan									
333412	and Blower Manufacturing	68	141	17	30	10	0	0	266	0.8
	Turbine & Turbine Generator Set									
333611	Units Manufacturing	1	861	424	361	11	99	0	1757	5.4
	Speed Changer, Drive, & Gear									
333612	Manufacturing	61	212	3	0	2	0	5	283	0.9
	Mechanical Power Transmission	_			_	_	_	_		
333613	Equipment Manufacturing	0	1	0	0	0	0	0	1	0.0
	Other Measuring & Controlling									
334519	Device Manufacturing	27	6	17	158	6	359	0	573	1.8
33 1317	_		Ü	1,	150	Ü	337	Ü	373	1.0
225215	Motor & Generator	105	1107	40.4	5 0.5	40	= -	0	1050	
335312	Manufacturing	135	1135	484	79.5	40	76	0	1950	6.0
	Misc Electrical Equipment									
335999	Manufacturing	371	798	446	1613.5	897	122	6	4254	13.1
	Total	4770	12770	6520	4099	1914	2115	342	32534	<u> </u>

Table 5. Wind Power Supply Chain-Related Sales, 2008								
Sales Range Firms Percentage								
Less Than \$500,000	60	9.7						
\$500,000 to \$1 Million	65	10.5						
\$1 to \$2.5 Million	133	21.5						
\$2.5 to \$5 Million	125	20.2						
\$5 to \$10 Million	87	14.1						
\$10 to \$20 Million	62	10.0						
\$20 to \$50 Million	53	8.6						
\$50 to \$100 Million	21	3.4						
\$100 to \$500 Million	11	1.8						
\$500 Million to \$1 Billion	1	0.2						
*9 firms did not disclose	627							

Table 6. Wind Power Supply Chain-Related Floor Space, 2008										
Sq. Ft. Firms Percentage										
2,500 - 9,999	85	13.6								
10,000 - 39,999	355	56.6								
40,000+	187	29.8								

	Table 7. Potential Solar Power Supply Chain Firms by Region, 2008									
		N	C Departme	nt of Comm	erce Econor	mic Develop	ment R	egions	Total	Percent
NAICS	NAICS Description			Piedmont	Research				Firms	Firms
		West	Charlotte	Triad	Triangle	Southeast	East	Northeast	1 111113	1 111113
325211	Plastics Material & Resin	6	33	7	7	3	2	4	62	20.9
	Nonpackaging Plastics Film &									
326113	Sheet	0	9	2	2	2	0	0	15	5.1
327211	Flat Glass	0	2	1	0	0	0	0	3	1.0
332322	Sheet Metal Work	8	31	13	14	5	9	4	84	28.4
	Semiconductors & Related									
334413	Devices	0	3	3	38	1	0	0	45	15.2
	Electricity & Signal Testing									
334515	Instruments	0	2	0	3	1	0	0	6	2.0
	Switchgear & Switchboard									
335313	Apparatus	2	4	1	2	0	1	0	10	3.4
335911	Storage Battery	0	1	1	0	0	0	0	2	0.7
	Current-Carrying Wiring									
335931	Device	2	1	1	1	0	2	1	8	2.7
335999	Misc Electrical Equipment	4	23	9	16	6	3	0	61	20.6
	Total	22	109	38	83	18	17	9	296	

Most of the solar energy-related suppliers are fairly small in terms of floorspace with 53.7% of all firms between 10,000 and 39,999 square feet in size (Table 10). That said, a significant proportion of firms were larger than 40,000 square feet (111 firms or 37.5% of the total) especially when compared to the equivalent proportion of wind energy-related firms (29.8%).

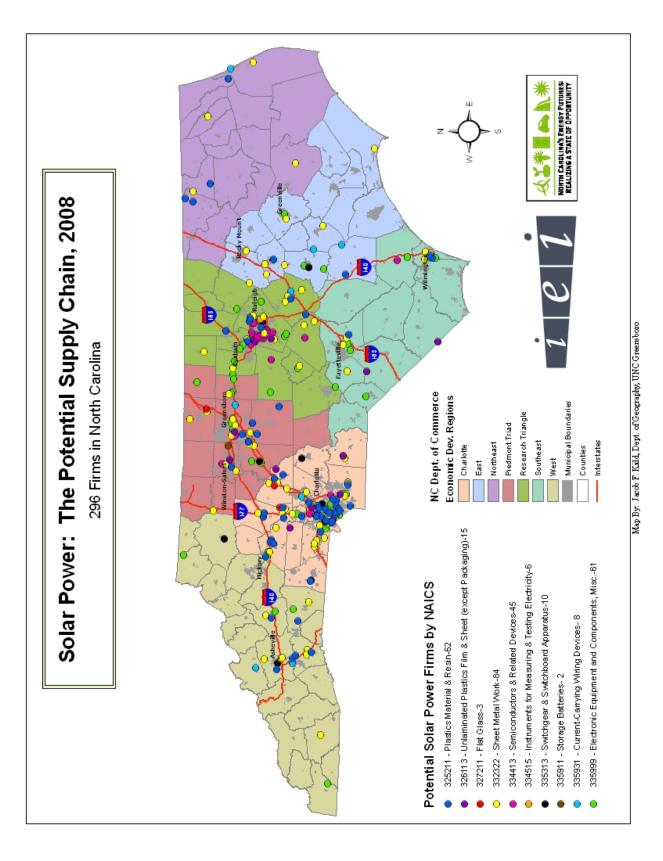


Figure Two

	Table 8. Potential Solar Power Supply Chain Employment by Region, 2008									
N. 1 1 G G	VI. 100 P	NC Dept. of Commerce Economic Development Regions							Total	Percent
NAICS	NAICS Description	***	Piedmont Research						Empl.	Empl.
		West	Charlotte	Triad	Triangle	Southeast	East	Northeast		
325211	Plastics Material & Resin	199	1748	71	100	326	165	267	2876	17.8
326113	Unlaminated Plastics Film & Sheet (except Packaging)	0	161	22	20	95	0	0	298	1.8
327211	Flat Glass	0	400	24	0	0	0	0	424	2.6
332322	Sheet Metal Work	135	1211	958	773	153	147	110	3487	21.6
334413	Semiconductors & Related Devices	0	55	1537	647	32	0	0	2271	14.1
334515	Instruments for Measuring & Testing Electricity & Electrical Signals	0	16	0	23	1	0	0	40	0.2
335313	Switchgear & Switchboard Apparatus	92	67	3	37	0	230	0	429	2.7
335911	Storage Batteries	0	5	500	0	0	0	0	505	3.1
335931	Current-Carrying Wiring Devices	82	550	315	325	0	265	2	1539	9.5
335999	Electronic Equipment and Components, Misc.	371	798	446	1613	897	122	6	4253	26.4
Total 879 5011 3876 3538 1504 929 385 16122										

Table 9. Solar Power Supply Chain-Related Sales, 2008						
Sales Range	Firms	Percentage				
Less Than \$500,000	15	4.8				
\$500,000 to \$1 Million	20	5.2				
\$1 to \$2.5 Million	57	20.4				
\$2.5 to \$5 Million	49	16.1				
\$5 to \$10 Million	66	24.8				
\$10 to \$20 Million	19	6.5				
\$20 to \$50 Million	27	9.6				
\$50 to \$100 Million	22	7.4				
\$100 to \$500 Million	12	4.3				
\$500 Million to \$1 Billion	1	0.4				
\$1 Billion or more	1	0.4				
*7 firms did not disclose	296 Tot	al Firms				

Table 10. Solar Power Supply Chain-Related Floor Space, 2008							
Sq. Ft.	Firms	Percentage					
2,500 - 9,999	26	8.8					
10,000 - 39,999	159	53.7					
40,000+	111	37.5					

C. BIOMASS

For biomass power generation, this report analyzed the potential supply chain that could provide the component parts needed to construct a dedicated biomass plant. The biomass is burned in a boiler to generate steam that is then passed through a steam turbine-generator. (Note: the biomass data are only for direct combustion equipment since they are the only technology widely ready for commercialization. It does not include biotech-oriented technology such as gasification or bio-fuels).

The geography of the potential biomass supply chain is tightly concentrated along the I-85 corridor between Charlotte, the Triad and the Research Triangle region with significant outposts in Asheville, Hickory and Wilmington (Figure Three). Unlike the wind power supply chain, far fewer firms are located in eastern North Carolina.

Approximately 75% of the potential biomass supply chain in North Carolina are located in one of three regions – Charlotte (181 firms), the Research Triangle (101) and the Piedmont Triad (97) (Table 11). Significant specializations include General Purpose Machinery manufacturing (148 firms), Electrical Equipment (61), Sawmill and Wood Working Machinery (49) and Construction Machinery manufacturing (41). These four specializations account for nearly 60% of the statewide supply chain in biomass.

In employment terms, the geography is comparable to that for biomass firms with two exceptions to the rule. First, the largest biomass supply chain labor market is in the Research Triangle region (5,334 workers) and not Charlotte (4,857) (Table 12) even though Charlotte generated more firms. Second, both the West (2,748) and the Southeast (1,773) are well represented in employment terms even though both regions have only a modest number of total firms (42 and 32, respectively).

Over one-quarter (130 firms) of all those firms in North Carolina capable of being potential biomass suppliers generated between \$1 million and \$2.5 million in sales in 2008 (Table 13). Overall sales figures lagged behind those for the wind and solar power supply chain firms. Nearly half of the biomass suppliers generated less than \$2.5 million in sales compared to 41.7% for wind power companies and 30.4% for solar power. Furthermore, no biomass supplier generated more than \$500 million in sales.

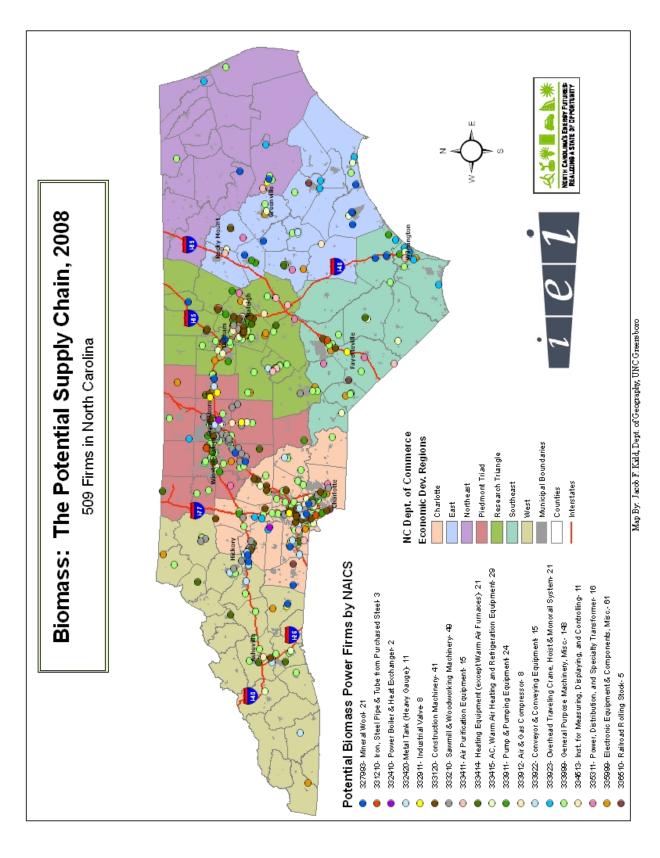


Figure Three

	Table 11. I		Biomass Pow							1
NAICS	NAICS Description	NC Department of Commerce Economic Development Regions Piedmont Research						ions	Total	Percent
NAICS	TVATES Description	West	Charlotte	Triad	Triangle	Southeast	East	Northeast	Firms	Firms
327993	Mineral Wool	2	5	3	2	2	5	2	21	4.1%
331210	Iron, Steel Pipe & Tube From Purchased Steel	0	1	1	0	1	0	0	3	0.6%
332410	Power Boiler & Heat Exchanger	0	1	1	0	0	0	0	2	0.4%
332420	Metal Tank (Heavy Gauge)	3	4	2	0	1	1	0	11	2.2%
332911	Industrial Valve	1	2	3	0	1	0	1	8	1.6%
333120	Construction Machinery Sawmill & Wood Working	1	23	4	10	2	1	0	41	8.1%
333210	Machinery	6	17	23	3	0	0	0	49	9.6%
333411	Air Purification Equipment	0	5	0	5	2	1	2	15	2.9%
333414	Heating Equipment (Except Warm Air Furnaces)	4	4	5	5	1	2	0	21	4.1%
333415	AC, Warm Air Heating and Refrigeration Equipment	2	9	4	3	3	4	0	29	5.7%
333911	Pump & Pumping Equipment	0	9	4	7	2	2	0	24	4.7%
333912	Air & Gas Compressor	1	3	1	2	0	1	0	8	1.6%
333922	Conveyor & Conveying Equipment	2	9	1	3	0	0	0	15	2.9%
333923	Overhead Traveling Crane, Hoist & Monorail System	0	7	1	0	8	3	2	21	4.1%
333999	General Purpose Machinery, Misc.	14	49	32	35	8	6	4	148	29.1%
334513	Inst. for Measuring, Displaying, and Controlling Process Variables	1	5	1	4	0	0	0	11	2.2%
335311	Electric Power & Specialty Transformer	1	3	2	6	2	2	0	16	3.1%
335999	Electronic Equipment & Components, Misc.	4	23	9	16	6	3	0	61	12.0%
336510	Railroad Rolling Stock	0	2	0	0	2	1	0	5	1.0%
	Total	42	181	97	101	41	32	11	509	

In terms of floorspace, most of the biomass supply chain firms were between 10,000 - 39,999 square feet in size (297 companies or 58.5% of the total) (Table 14). The biomass firms had a larger share of smaller firms (20.9%) and fewer large firms (20.7%) than their wind or solar energy counterparts.

	Table 12.	Potential	Biomass Pov	ver Supply (Chain Empl	oyment by R	egion, 2	008		
NA TOO				ent. of Comm	erce Econon	nic Developm			Total	Percent
NAICS	NAICS Description	West	Charlotte	Piedmont Triad	Research Triangle	Southeast	East	Northeast	Empl.	Empl.
327993	Mineral Wool Manufacturing	54	70	28	5	18	19	23	217	1.0%
331210	Iron, Steel Pipe & Tube From Purchased Steel	0	1	54	0	2	0	0	57	0.3%
332410	Power Boiler & Heat Exchanger	0	3	65	0	0	0	0	68	0.3%
332420	Metal Tank, Heavy Gauge	130	256	113	0	6	15	0	520	2.5%
332911	Industrial Valve Manufacturing	500	63	646	0	225	0	65	1499	7.2%
333120	Construction Machinery	300	542	322	572	27	21	0	1784	8.5%
333210	Sawmill & Wood Working Machinery	182	236	357	30	0	0	0	805	3.8%
333411	Air Purification Equipment	0	111	0	711	40	2	360	1224	5.8%
333414	Heating Equip., Except Warm Air Furnaces	142	24	158	113	30	13	0	480	2.3%
333415	Ac, Refrigeration, & Forced Air Heating	24	351	700	23	55	30	0	1183	5.7%
333911	Pump & Pumping Equipment	0	448	808	740	17	19	0	2032	9.7%
333912	Air & Gas Compressor Manufacturing	17	88	23	54	0	20	0	202	1.0%
333922	Conveyor & Conveying Equipment	83	640	8	93	0	0	0	824	3.9%
333923	Overhead Cranes, Hoists, & Monorail Systems	0	41	2	0	155	7	20	225	1.1%
333999	Misc. General Purpose Machinery	391	1075	1072	1256	92	19	30	3935	18.8%
334513	Industrial Process Variable Instruments	4	8	125	11	0	0	0	148	0.7%
335311	Electric Power & Specialty Transformer	550	94	16	113	35	460	0	1268	6.1%
335999	Misc. Electrical Equipment Manufacturing	371	798	446	1613	897	122	0	4247	20.3%
336510	Railroad Rolling Stock Manufacturing	0	8	0	0	174	25	0	207	1.0%
	Total	2748	4857	4943	5334	1773	772	498	20925	

Table 13. Potential Biomass Sup	Table 13. Potential Biomass Supply Chain-Related Sales, 2008							
Sales Range	Firms	Percentage						
Less Than \$500,000	57	11.4						
\$500,000 to \$1 Million	58	11.8						
\$1 to \$2.5 Million	130	26.1						
\$2.5 to \$5 Million	73	14.7						
\$5 to \$10 Million	71	14.5						
\$10 to \$20 Million	40	8.2						
\$20 to \$50 Million	39	8.0						
\$50 to \$100 Million	14	2.9						
\$100 to \$500 Million	12	2.4						
*15 firms did not disclose	509 Tot	al Firms						

Table 14. Potential Biomass Supply Chain-Related Floor Space, 2008							
Sq. Ft. Firms Percentage							
2,500 - 9,999	106	20.9					
10,000 - 39,999	298	58.5					
40,000+	105	20.7					

D. GEOTHERMAL ENERGY

The geothermal energy supply chain includes firms with the potential to act as suppliers to geothermal power generation through both flash steam plants and binary cycle plants. Most of the components that make up these plants are similar, such as various pumps, heat exchangers and piping – and all of the components are directly applicable to biomass power generation.

The geothermal supply chain in North Carolina is not nearly as pervasive as for wind, solar or biomass both in terms of number of firms or employment generation. The geography of the state's potential geothermal suppliers reflects the scaled-down economic profile with a much more even and less prolific distribution across the state (Figure Four).

Although Charlotte generated more potential geothermal suppliers (34 firms) than any other region, the outlying regions (East, Northeast, Southeast and West) together produced as many companies (34) in 2008 (Table 15). Most of these companies statewide specialized in Air Conditioning, Refrigeration and Forced Air Heating (29.6% of the state total), Pumps and Pumping Equipment (24.5%) or Overhead Cranes, Hoists and Monorail Systems (21.4%).

	Table 15. Potenti	al Geot	hermal Pov	er Supply	Chain Firm	s by Region	, 2008			
		N	NC Department of Commerce Economic Development Regions							Percent
NAICS	NAICS Description			Piedmont	Research				Total Firms	Firms
		West	Charlotte	Triad	Triangle	Southeast	East	Northeast		
	Iron, Steel Pipe & Tube From									
331210	Purchased Steel	0	1	1	0	1	0	0	3	3.1
332410	Power Boiler & Heat Exchanger	0	1	1	0	0	0	0	2	2.0
222420	Motel Tonk (Heavy Couge)	3	4	2	0	1	1	0	11	11.2
332420	Metal Tank (Heavy Gauge)	3	4	2	U	1	1	U	11	11.2
	AC, Warm Air Heating and									
333415	Refrigeration Equipment	2	9	4	3	3	4	0	29	29.6
222011	David C. David C. Frank	0	0	4	7	2	2	0	24	24.5
333911	Pump & Pumping Equipment	0	9	4	/	2	2	0	24	24.5
333912	Air & Gas Compressor	1	3	1	2	0	1	0	8	8.2
	Overhead Traveling Crane, Hoist &									
333923	Monorail System	0	7	1	0	8	3	2	21	21.4
223723	Total	6	34	14	12	15	11	2	98	
	10181	U	34	14	12	13	11		90	

Although Charlotte produced more geothermal supply chain firms, it is the Piedmont Triad that is the largest market in terms of employment generation (1,765 workers) compared to just 1,188 jobs in the Charlotte region (Table 16). Ironically, while the spatial distribution of the geothermal supply chain (Figure Four) implies a relatively even playing field, it is the most clustered of the four renewable energies in terms of employment generation. Nearly 88% (3,770 workers) of the geothermal supply chain jobs are located in either the Piedmont Triad, Charlotte or the Research Triangle. For North Carolina as a whole, nearly 50% of these jobs are concentrated in Pumps and Pumping Equipment manufacturing.

Much like the biomass supply chain, no geothermal-related company generated more than \$500 million in sales in 2008 (Table 17). However, the potential geothermal supply chain generated a smaller share of firms generating less than \$500,000 (7.3% compared to 11.4% for biomass). In addition, a greater proportion of geothermal-related firms generated sales between \$1 - \$2.5 million when compared to biomass (32.3% compared to 26.1%). Neither the biomass nor geothermal suppliers appeared to have the 'sales clout' of the potential wind or solar supply chain providers.

Most of the geothermal-related companies generated between 10,000 to 39,999 square feet in floor-space needs (57 firms or 58.2% of the total) (Table 18). However, only 13.3% of all geothermal firms were less than 10,000 square feet in size (compared to 20.9% for biomass). Geothermal also generated a greater proportion of large firms needing more than 40,000 square feet (28.6% compared to 20.7% for biomass).

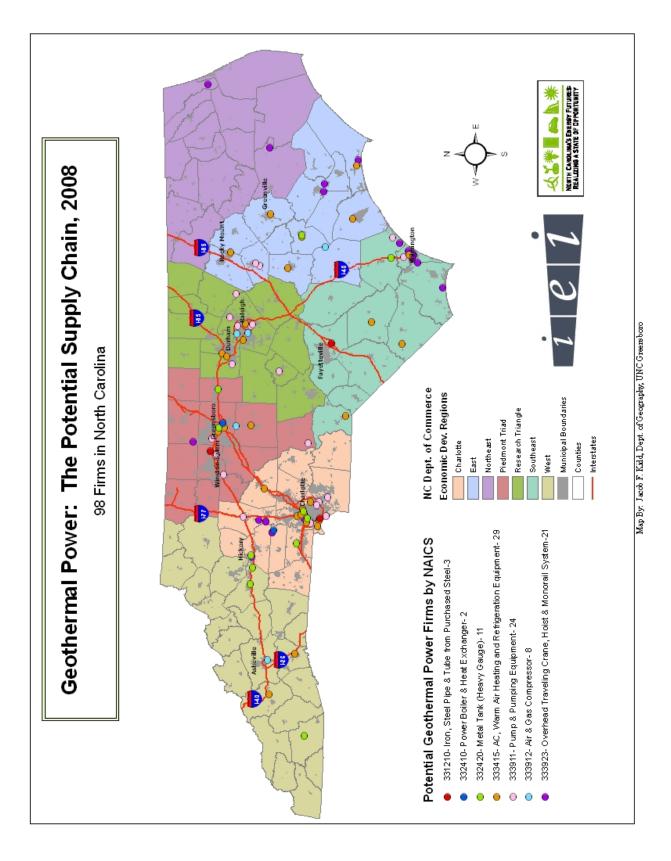


Figure Four.

	Table 16. Potential Geothermal Power Supply Chain Employment by Region, 2008									
		NC Dept. of Commerce Economic Development Regions								Percent
NAICS	NAICS NAICS Description	West	Charlotte	Piedmont Triad	Research Triangle	Southeast	East	Northeast	Empl.	Empl.
331210	Iron, Steel Pipe & Tube From Purchased Steel	0	1	54	0	2	0	0	57	1.3
332410	Power Boiler & Heat Exchanger	0	3	65	0	0	0	0	68	1.6
332420	Metal Tank (Heavy Gauge)	130	256	113	0	6	15	0	520	12.1
333415	AC, Warm Air Heating and Refrigeration Equipment	24	351	700	23	55	30	0	1183	27.6
333923	Pump & Pumping Equipment	0	41	2	0	155	7	20	225	5.2
333912	Air & Gas Compressor	17	88	23	54	0	20	0	202	4.7
333911	Overhead Traveling Crane, Hoist & Monorail System	0	448	808	740	17	19	0	2032	47.4
	Total	171	1188	1765	817	235	91	20	4287	

Table 17. Potential Geothermal Supp	Table 17. Potential Geothermal Supply Chain-Related Sales, 2008						
Sales Range	Firms	Percentage					
Less Than \$500,000	7	7.3					
\$500,000 to \$1 Million	12	12.5					
\$1 to \$2.5 Million	31	32.3					
\$2.5 to \$5 Million	10	10.4					
\$5 to \$10 Million	14	14.6					
\$10 to \$20 Million	6	6.3					
\$20 to \$50 Million	10	10.4					
\$50 to \$100 Million	3	3.1					
\$100 to \$500 Million	3	3.1					
*2 firms did not disclose	98 Total Fi	rms					

Table 18. Potential Geothermal Supply Chain-Related Floor Space, 2008								
Sq. Ft. Firms Percentage								
2,500 - 9,999	13	13.3						
10,000 - 39,999	57	58.2						
40,000+	28	28.6						

CONCLUSION AND IMPLICATIONS

Affordable, reliable and clean energy produced from diverse, domestic sources is critical to North Carolina's continued prosperity and security. The integration of new energy technology development and North Carolina's existing strengths in manufacturing production has the potential to place the state at the forefront of energy development.

North Carolina is a leader in enabling technologies, including biotechnology and advanced manufacturing processes that are capable of driving the next generation of energy technologies and products. The new energy economy has the potential to be a major part of North Carolina's competitive advantage.

Although North Carolina has yet to develop a mature and diversified new energy economy and has yet to 'birth' many large commercial applications, the state is home to over 1,300 companies and 61,000 workers that operate within the potential supply chain of renewable energy equipment. The state's supply chain includes companies that have potential applications to wind, solar, biomass and geothermal power generation. Specific strengths include plastics product manufacturing, fabricated structural metal manufacturing, sheet metal work manufacturing, semiconductors and related devices, general purpose machinery manufacturing, pumps and pumping equipment and electrical equipment. The geography of the new energy supply chain is tightly concentrated along the I-85 corridor between Charlotte, the Triad and the Research Triangle region with significant outposts in Hickory, Wilmington and especially Asheville.

Inventorying North Carolina's new energy supply chain can be useful in the development of strategic economic development initiatives that identifies renewable energy-related industry cluster opportunities. Better understanding of where the potential manufacturers are that could supply the critical component parts should help economic development practitioners to craft appropriate policies and incentives that allow innovative renewable energy companies to move efficiently into the industry.

It is important that North Carolina is nimble and quick in this policy arena. Ten years ago wind turbines were marginal. Now they are taken seriously, and in another decade they may contribute as much as a fifth of the world's electricity. Furthermore, manufacturing wind turbines could be a major component of North Carolina's industrial economy given our pre-existing strengths in manufacturing.

One simple next step could be to develop a better understanding of the supply chain needs of the new energy economy firms already located in North Carolina. Cultivating inter-industry linkages between the fledgling new economy and the state's existing manufacturers could generate a 'bigger bang for the buck'. One thing is for sure – the state will have to move quickly if it is to match the expectations of the Renewable Energy and Efficiency Standards Portfolio where 12.5% of energy utility demand by 2021 is met by renewables.

APPENDIX A

INVENTORY OF POTENTIAL RENEWABLE ENERGY SUPPLY CHAIN FIRMS: BY NAICS CODE

POTENTIAL RENEWABLE ENERGY SUPPLY CHAIN: WIND

All Other Plastics Products (326199)

Company Name	Employment Size	Sales	Square Footage	City	Region
Accuma Corp	150	\$5 to \$10 Million	40,000+	Statesville	Charlotte
Americhem Inc	120	\$20 to \$50 Million	40,000+	Concord	Charlotte
Ameritech Die & Mold	24	\$5 to \$10 Million	40,000+	Mooresville	Charlotte
Assembly Innovations	10	\$1 to \$2.5 Million	10,000 - 39,999	Statesville	Charlotte
Assembly Innovations	NA	\$1 to \$2.5 Million	10,000 - 39,999	Statesville	Charlotte
Bull Engineered Products Inc	9	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Cabarrus Plastics Inc	80	\$10 to \$20 Million	40,000+	Concord	Charlotte
Carlisle Food Svc Products	40	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Carolina Materials LLC	30	\$5 to \$10 Million	40,000+	Belmont	Charlotte
Carolina Plastic Co	2	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Caro-Polymers Inc	50	\$10 to \$20 Million	40,000+	Bessemer City	Charlotte
Conover Plastics Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Conover	Charlotte
Conquest Plastics	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Consolidated Container Co	11	\$1 to \$2.5 Million	10,000 - 39,999	Statesville	Charlotte
Constar International Inc	60	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Covalence Plastics	120	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Custom Golf Car Supply	55	\$10 to \$20 Million	40,000+	Salisbury	Charlotte
Custom Plastic Forming	70	\$10 to \$20 Million	40,000+	Salisbury	Charlotte
Decor Originals Inc	80	\$10 to \$20 Million	40,000+	Conover	Charlotte
Diversified Fiberglass Inc	9	\$1 to \$2.5 Million	10,000 - 39,999	Cherryville	Charlotte
Diversified Plastic Svc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
D-M-E Co	35	\$5 to \$10 Million	40,000+	Shelby	Charlotte
Double O Plastics	30	\$5 to \$10 Million	40,000+	Concord	Charlotte
Ehren-Haus Industries Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Etimex USA Inc	50	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Evergreen Manufacturing Co	1	Less Than \$500,000	2,500 - 9,999	Dallas	Charlotte
Excellence In Design Inc	1	Less Than \$500,000	2,500 - 9,999	Weddington	Charlotte
Fabri-Form Co	1	Less Than \$500,000	2,500 - 9,999	Harrisburg	Charlotte
Glen Mauser Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Newton	Charlotte
Granger Plastics Molding	15	\$2.5 to \$5 Million	10,000 - 39,999	Monroe	Charlotte
H & R Custom Injection Molding	20	\$2.5 to \$5 Million	40,000+	Monroe	Charlotte
Hope Plastics Corp	6	\$1 to \$2.5 Million	10,000 - 39,999	Bessemer City	Charlotte
International Display Systems	20	\$2.5 to \$5 Million	40,000+	Charlotte	Charlotte
Krauss-Maffei Corp	NA	\$2.5 to \$5 Million	10,000 - 39,999	Concord	Charlotte
L B Plastics Inc	120	\$10 to \$20 Million	40,000+	Mooresville	Charlotte

Laird Plastics	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Mack Molding	190	\$20 to \$50 Million	40,000+	Statesville	Charlotte
Micro Lens Technology	6	\$1 to \$2.5 Million	10,000 - 39,999	Indian Trail	Charlotte
Molded Materials Inc	2	Less Than \$500,000	2,500 - 9,999	Huntersville	Charlotte
Morton Custom Plastics	NA	\$1 to \$2.5 Million	10,000 - 39,999	Harrisburg	Charlotte
MTI Thermoplastic Composites	200	\$20 to \$50 Million	40,000+	Matthews	Charlotte
National Precision Corp	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
New Wave Acrylics Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Norandex/Reynolds Distribution	7	\$1 to \$2.5 Million	10,000 - 39,999	Hickory	Charlotte
Plastex Fabricators-Charlotte	75	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Plastic Products Inc	40	\$5 to \$10 Million	40,000+	Bessemer City	Charlotte
Plastic Welding Svc	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Poly Mask Corp	120	\$20 to \$50 Million	40,000+	Conover	Charlotte
Poly Plastic Products Inc	63	\$10 to \$20 Million	40,000+	Marshville	Charlotte
Prent Corp	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Proplastic Design	10	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
PSI Polymer Systems Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Hickory	Charlotte
R & D Plastics Of Hickory	32	\$5 to \$10 Million	40,000+	Hickory	Charlotte
Roberts Poly Pro Inc	60	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Rubbermaid Home Products Inc	2000		40,000+	Huntersville	Charlotte
Sarstedt Group	250	\$50 to \$100 Million	40,000+	Newton	Charlotte
Schaefer Systems Intl Inc	100	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Southern Machine & Plastics	1	Less Than \$500,000	2,500 - 9,999	Grover	Charlotte
Special Service Plastic Co	24	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Texlon Plastics Corp	45	\$10 to \$20 Million	40,000+	Gastonia	Charlotte
Thermoform Plastics	NA	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Trac Plastics Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Tri-Star Plastics Corp	11	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
W M Plastics Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Warren Plastics Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Mt Holly	Charlotte
Web Don Inc	25	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Wilbert Plastic Svc	135	\$20 to \$50 Million	40,000+	Belmont	Charlotte
Wilbert Plastic Svc Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	Harrisburg	Charlotte
Accu Form Polymers Inc	40	\$5 to \$10 Million	40,000+	Warsaw	East
Amcor Pet Packaging	17	\$2.5 to \$5 Million	10,000 - 39,999	Wilson	East
Aut-O-Rite Plastics	3	\$500,000 to \$1 Million	10,000 - 39,999	Kinston	East
Carolina Home Exteriors LLC	20	\$2.5 to \$5 Million	40,000+	New Bern	East
Covalence Plastics	230	\$50 to \$100 Million	40,000+	Battleboro	East
Custom Sizes-Lexan	2	Less Than \$500,000	2,500 - 9,999	Oriental	East
Environ Products	85	\$10 to \$20 Million	40,000+	Wilson	East
Euro-Matic Plastics Inc	65	\$5 to \$10 Million	40,000+	Wilson	East
Lamco Machine Tool Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Morehead City	East

M & G	NA	\$1 to \$2.5 Million	10,000 - 39,999	Pollocksville	East
Marine-Industrial Plastics Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Pollocksville	East
West Pharmaceutical Svc	255	\$50 to \$100 Million	40,000+	Kinston	East
Berry KERR Group Plastic Prods	200	\$20 to \$50 Million	40,000+	Ahoskie	Northeast
Maxwell Industries	6	\$1 to \$2.5 Million	10,000 - 39,999	Washington	Northeast
Prospect Generation Systems	NA	\$1 to \$2.5 Million	10,000 - 39,999	Powells Point	Northeast
A To Z Designs Inc	1	Less Than \$500,000	2,500 - 9,999	Lexington	Piedmont Triad
Alpha II Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Lexington	Piedmont Triad
American Extruded Plastics Inc	23	\$5 to \$10 Million	40,000+	Greensboro	Piedmont Triad
American Multimedia Intl	390	\$20 to \$50 Million	40,000+	Burlington	Piedmont Triad
Asheboro Precision Plastic	60	\$10 to \$20 Million	40,000+	Asheboro	Piedmont Triad
Aurora Lens	4	\$500,000 to \$1 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Blue Water Automotive Systems	120	\$20 to \$50 Million	40,000+	Burlington	Piedmont Triad
Canplast USA	52	\$10 to \$20 Million	40,000+	Greensboro	Piedmont Triad
Caravelle Creations Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Randleman	Piedmont Triad
Carolina Awning Fabricators	2	Less Than \$500,000	2,500 - 9,999	Seagrove	Piedmont Triad
Carolina Casting Inc	50	\$10 to \$20 Million	40,000+	High Point	Piedmont Triad
Carolina Extruded Plastics	20	\$2.5 to \$5 Million	40,000+	Greensboro	Piedmont Triad
Carolina Precision Plastics	104	\$20 to \$50 Million	40,000+	Asheboro	Piedmont Triad
Central Carolina Products Inc	200	\$20 to \$50 Million	40,000+	Burlington	Piedmont Triad
Ck Technologies	NA	\$1 to \$2.5 Million	10,000 - 39,999	Mt Airy	Piedmont Triad
CKS Packaging Inc	100	\$20 to \$50 Million	40,000+	Haw River	Piedmont Triad
Clear View Bag Co	20	\$2.5 to \$5 Million	40,000+	Thomasville	Piedmont Triad
Com Fab Fabrication	1	Less Than \$500,000	2,500 - 9,999	Liberty	Piedmont Triad
Concept Plastics Inc	200	\$20 to \$50 Million	40,000+	High Point	Piedmont Triad
Consolidated Contanier	40	\$5 to \$10 Million	40,000+	Greensboro	Piedmont Triad
Corner Stone Plastics	4	\$500,000 to \$1 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Custom Extrusion Inc	14	\$2.5 to \$5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Daliah Plastics Corp	40	\$5 to \$10 Million	40,000+	Asheboro	Piedmont Triad
Dart Container	NA	\$2.5 to \$5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Dart Container	NA	\$2.5 to \$5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Dart Container Corp	165	\$20 to \$50 Million	40,000+	Randleman	Piedmont Triad
Engineered Plastics Inc	23	\$5 to \$10 Million	40,000+	Gibsonville	Piedmont Triad
Exlon Extrusion Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Golden Rule Plastics Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Haw River	Piedmont Triad
Greeson Plastics & Fabrication	1	Less Than \$500,000	2,500 - 9,999	Gibsonville	Piedmont Triad
Hughes Supply Inc	300	\$5 to \$10 Million	40,000+	Thomasville	Piedmont Triad
Imaflex USA Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	Thomasville	Piedmont Triad
Impact Plastics Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	High Point	Piedmont Triad
Intertech Corp	75	\$10 to \$20 Million	40,000+	Greensboro	Piedmont Triad
Kalman Packaging Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Graham	Piedmont Triad
Lens Man	4	\$500,000 to \$1 Million	10,000 - 39,999	Kernersville	Piedmont Triad

Moll Industries	75	\$10 to \$20 Million	40,000+	Lexington	Piedmont Triad
Moll Industries Inc	175	\$20 to \$50 Million	40,000+	Seagrove	Piedmont Triad
Norandex/Reynolds Distribution	14	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
North Carolina Plastics	40	\$5 to \$10 Million	40,000+	Greensboro	Piedmont Triad
Nypro Carolina	151	\$20 to \$50 Million	40,000+	Burlington	Piedmont Triad
Nypro Carolina	150	\$20 to \$50 Million	40,000+	Graham	Piedmont Triad
Omni Tool Inc	18	\$2.5 to \$5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Orders Distributing Co	7	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Pam Trading Corp	10	\$1 to \$2.5 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Parker Nycoil Corp	80	\$10 to \$20 Million	40,000+	Randleman	Piedmont Triad
Performance Plastics	1	Less Than \$500,000	2,500 - 9,999	Jamestown	Piedmont Triad
Piedmont Plastics Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Polymer Concepts Inc	27	\$5 to \$10 Million	40,000+	Randleman	Piedmont Triad
Rehau Inc	11	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Roger's Products Inc	4	\$500,000 to \$1 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Rymac Enterprises Inc	49	\$10 to \$20 Million	40,000+	High Point	Piedmont Triad
Southern Film Extruders Inc	140	\$20 to \$50 Million	40,000+	High Point	Piedmont Triad
Speedline Corp	18	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Stolle Technology	20	\$2.5 to \$5 Million	40,000+	Winston Salem	Piedmont Triad
Team Emergent LLC	60	\$10 to \$20 Million	40,000+	High Point	Piedmont Triad
Tech Medical Plastics	100	\$20 to \$50 Million	40,000+	Mebane	Piedmont Triad
Technical Polymer Solutions	1	Less Than \$500,000	2,500 - 9,999	Elon College	Piedmont Triad
Technimark Inc	340		40,000+	Asheboro	Piedmont Triad
Templex Inc	24	\$5 to \$10 Million	40,000+	Thomasville	Piedmont Triad
Triad Plastic Supply Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
United Plastics Corp	80	\$10 to \$20 Million	40,000+	Mt Airy	Piedmont Triad
Web-Don Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
WEK South Corp	100	\$20 to \$50 Million	40,000+	Reidsville	Piedmont Triad
Whiteridge Plastics LLC	120	\$20 to \$50 Million	40,000+	Reidsville	Piedmont Triad
Advanced Plastiform Inc	45	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Advanced Process Technologies	2	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Aimet Technologies Inc	48	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Bunn Plastic Fabrication	1	Less Than \$500,000	2,500 - 9,999	Knightdale	Research Triangle
Converted Flexible Inc	2	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Custom Molders Inc	150	\$20 to \$50 Million	40,000+	Henderson	Research Triangle
Douglas Fabrication & Machines	15	\$2.5 to \$5 Million	10,000 - 39,999	Wendell	Research Triangle
East Coast Plastic & Metal	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Fineline Prototyping Inc	40	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
GE Polymershapes	7	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Inland Technologies Inc	38	\$5 to \$10 Million	40,000+	Creedmoor	Research Triangle
IPAS	80	\$10 to \$20 Million	40,000+	Carrboro	Research Triangle
Lo Tek Inc	2	Less Than \$500,000	2,500 - 9,999	Durham	Research Triangle

Natvar	60	\$10 to \$20 Million	40,000+	Clayton	Research Triangle
ONEIDA Molded Plastics LLC	50	\$10 to \$20 Million	40,000+	Siler City	Research Triangle
OPW Fueling Containment Syst	NA	\$1 to \$2.5 Million	10,000 - 39,999	Clayton	Research Triangle
Penn Compression Moulding	65	\$10 to \$20 Million	40,000+	Smithfield	Research Triangle
Inc Phillips Plastics Corp	1	Less Than \$500,000	2,500 - 9,999	Franklinton	Research Triangle
Phillips Plastics Customer Ctr	NA	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
Plastic Art Design	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Plastics & Fiber Glass Prods	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Pmw Products Inc	60	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Pro Mark	1	Less Than \$500,000	2,500 - 9,999	Sanford	Research Triangle
Raleigh Precision Products Inc	30	\$5 to \$10 Million	40,000+	Kenly	Research Triangle
SABIC Innovative Plastics	1	Less Than \$500,000	2,500 - 9,999	Holly Springs	Research Triangle
Syracuse Plastics Of Nc Inc	60	\$10 to \$20 Million	40,000+	Cary	Research Triangle
Applied Plastic Svc Inc	17	\$2.5 to \$5 Million	10,000 - 39,999	Bolton	Southeast
Carolina Plastics Inc	2	Less Than \$500,000	2,500 - 9,999	Clinton	Southeast
Fenner Drives Efson Div	85	\$10 to \$20 Million	40,000+	Wilmington	Southeast
Georgia-Pacific Corporation	50	\$10 to \$20 Million	40,000+	Hamlet	Southeast
Impact Plastics Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Hamlet	Southeast
KROY Building Products Inc	71	\$10 to \$20 Million	40,000+	Fair Bluff	Southeast
Norandex/Reynolds Distribution	4	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Plastic Molding Connection Inc	1	Less Than \$500,000	2,500 - 9,999	Leland	Southeast
Premier Molded Plastics Co	70	\$10 to \$20 Million	40,000+	Leland	Southeast
Quantum Acrylics	3	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Recycled Plastics Inc	2	Less Than \$500,000	2,500 - 9,999	Fayetteville	Southeast
Rexam	260	\$50 to \$100 Million	40,000+	Hamlet	Southeast
Standard Glass Co	25	\$5 to \$10 Million	40,000+	Wilmington	Southeast
Technimark Inc	130	\$20 to \$50 Million	40,000+	Fayetteville	Southeast
Wilmington Machinery Sales	25	\$5 to \$10 Million	40,000+	Wilmington	Southeast
American Plastic Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Marion	West
API South	5	\$1 to \$2.5 Million	10,000 - 39,999	Fletcher	West
Asheville Thermoform Plastics	8	\$1 to \$2.5 Million	10,000 - 39,999	Fletcher	West
Atlas Precision Plastics Inc	70	\$10 to \$20 Million	40,000+	Arden	West
Automated Plastics East Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Waynesville	West
Avail Medical Products Inc	75	\$10 to \$20 Million	40,000+	Asheville	West
Bemis Manufacturing Co	200	\$20 to \$50 Million	40,000+	Lenoir	West
BMR Molding Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	Bakersville	West
Con Met Cashiers Plastic	300	\$50 to \$100 Million	40,000+	Bryson City	West
CONTINENTAL Afa	170	\$20 to \$50 Million	40,000+	Forest City	West
Continentalafa Dispensing Co	185	\$20 to \$50 Million	40,000+	Forest City	West
Crane Resistoflex	155	\$2.5 to \$5 Million	40,000+	Marion	West
Crothers Plastics Mfg	NA	\$1 to \$2.5 Million	10,000 - 39,999	Fletcher	West

Diverse Corp Technologies	30	\$5 to \$10 Million	40,000+	Forest City	West
Dorato Industries	NA	\$1 to \$2.5 Million	10,000 - 39,999	Fairview	West
Eaton Corp	171	\$20 to \$50 Million	40,000+	Forest City	West
Injection Technology Corp	100	\$20 to \$50 Million	40,000+	Arden	West
Itech	80	\$10 to \$20 Million	40,000+	Arden	West
John Klees Enterprise Inc	2	Less Than \$500,000	2,500 - 9,999	Candler	West
Liberty Plastics Inc	40	\$5 to \$10 Million	40,000+	Etowah	West
Mariner Container Corp	4	\$500,000 to \$1 Million	10,000 - 39,999	Granite Falls	West
Meridian Automotive Systems	220	\$20 to \$50 Million	40,000+	Lenoir	West
Molding Dynamics Inc	60	\$10 to \$20 Million	40,000+	Spindale	West
Norandex/Reynolds Distribution	8	\$1 to \$2.5 Million	10,000 - 39,999	Fletcher	West
North Carolina Plastic Product	1	Less Than \$500,000	2,500 - 9,999	Morganton	West
Nypro Asheville	250	\$50 to \$100 Million	40,000+	Arden	West
Plastic Oddities	23	\$5 to \$10 Million	40,000+	Forest City	West
Plastiform Reuse	180	\$20 to \$50 Million	40,000+	Asheville	West
Poly Chem Alloy	25	\$5 to \$10 Million	40,000+	Lenoir	West
Polylinks Inc	4	\$500,000 to \$1 Million	10,000 - 39,999	Arden	West
Quality Plastics Custom Mldng	15	\$2.5 to \$5 Million	10,000 - 39,999	Marion	West
R & D Plastics Inc	28	\$5 to \$10 Million	40,000+	Arden	West
R & R Plastics Inc	30	\$5 to \$10 Million	40,000+	Ellenboro	West
Sealed Air Corp	100	\$20 to \$50 Million	40,000+	Hudson	West
Sonoco-Crellin	145	\$20 to \$50 Million	40,000+	Forest City	West
Southeastern Container Inc	200	\$100 to \$500 Million	40,000+	Enka	West
Spotless Enterprises	200	\$20 to \$50 Million	40,000+	Asheville	West
Toppet Products	35	\$5 to \$10 Million	40,000+	Etowah	West
United Southern Industries Inc	225	\$50 to \$100 Million	40,000+	Forest City	West
United Southern Industries Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	Forest City	West
Wayne Teague Enterprises	1	Less Than \$500,000	2,500 - 9,999	Lenoir	West
		Iron Foundries (331511)			
Company Name	Employment Size	Sales	Square Footage	City	Region
Charlotte Pipe & Foundry Co	1500	\$100 to \$500 Million	40,000+	Charlotte	Charlotte
Charlotte Pipe & Foundry Co	535	\$100 to \$500 Million	40,000+	Charlotte	Charlotte
East Jordan Iron Works	6	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
AM-Liner East Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Wallace	East
Hurley's Ornamental Iron Shops	2	Less Than \$500,000	2,500 - 9,999	Troy	Piedmont Triad
Hallman Foundry	50	\$10 to \$20 Million	40,000+	Sanford	Research Triangle
East Jordan Iron Works Inc	NA	\$500,000 to \$1 Million	10,000 - 39,999	Rockingham	Southeast

Fabricated Structural Metal (332312)

Company Name	Employment Size	Sales	Square Footage	City	Region
A-1 Fasteners & Tools Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
ABC Coating Of Nc	25	\$5 to \$10 Million	10,000 - 39,999	Gastonia	Charlotte
Advanced Tubing Technology	250	\$50 to \$100 Million	40,000+	Statesville	Charlotte
Alcar Constructors Inc	23	\$5 to \$10 Million	10,000 - 39,999	Concord	Charlotte
Benco Steel Inc	42	\$10 to \$20 Million	10,000 - 39,999	Hickory	Charlotte
Bevans Steel Fabrication	20	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Bunch Inc	20	\$5 to \$10 Million	10,000 - 39,999	Kings Mountain	Charlotte
Chantilly Welding	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Charles Mc Gee & Assoc Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Waxhaw	Charlotte
Charlotte Miscellaneous Steel	75	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
CMC Rebar Carolinas	50	\$10 to \$20 Million	40,000+	Gastonia	Charlotte
Cochrane Steel Inc	18	\$2.5 to \$5 Million	10,000 - 39,999	Monroe	Charlotte
Colonial Iron Works	6	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Comer Harkey Steel Corp	7	\$1 to \$2.5 Million	10,000 - 39,999	Indian Trail	Charlotte
Commercial Fabricators Inc	35	\$5 to \$10 Million	10,000 - 39,999	Newton	Charlotte
Concept Steel Inc	35	\$5 to \$10 Million	10,000 - 39,999	Belmont	Charlotte
Conover Metal Products Inc	28	\$5 to \$10 Million	10,000 - 39,999	Conover	Charlotte
Consolidated Metal Works	12	\$2.5 to \$5 Million	10,000 - 39,999	Statesville	Charlotte
Copper River Fabricators Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Concord	Charlotte
Cornerstone Metal Works	5	\$1 to \$2.5 Million	10,000 - 39,999	Monroe	Charlotte
Creative Ironworks	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Davis Steel & Iron Co Inc	70	\$10 to \$20 Million	40,000+	Matthews	Charlotte
Flora Steel Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Salisbury	Charlotte
Florida Steel Corp	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Freedom Metals Inc	14	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Gastonia Iron Works	25	\$5 to \$10 Million	10,000 - 39,999	Mt Holly	Charlotte
Gerdau Ameristeel	275	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
Harboreigh	23	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Hickory Steel Co	30	\$1 to \$2.5 Million	10,000 - 39,999	Hickory	Charlotte
Lohrman Welding Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Taylorsville	Charlotte
Master Fab Inc	9	\$1 to \$2.5 Million	10,000 - 39,999	Crouse	Charlotte
Mazz Welding & Fabrication	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Mc Combs Steel Co	49	\$10 to \$20 Million	10,000 - 39,999	Statesville	Charlotte
Merecom Corp	20	\$5 to \$10 Million	10,000 - 39,999	Monroe	Charlotte
Millsap Steel Fabrication	2	\$500,000 to \$1 Million	2,500 - 9,999	Hiddenite	Charlotte
Mt Holly Steel Co	6	\$1 to \$2.5 Million	10,000 - 39,999	Mt Holly	Charlotte
P & S Steel Fabrication Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Huntersville	Charlotte
Protech Fabrication	34	\$5 to \$10 Million	10,000 - 39,999	Mt Ulla	Charlotte
Refab Co	25	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte

Smith Fabrication Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Mooresville	Charlotte
South Piedmont Properties LLC	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Southeast Steel Fabricators	NA	\$2.5 to \$5 Million	10,000 - 39,999	Shelby	Charlotte
Southern Steel	120	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Spencer Steel Supply Inc	9	\$1 to \$2.5 Million	10,000 - 39,999	Spencer	Charlotte
Steel Fab Inc	175		40,000+	Charlotte	Charlotte
Steel Specialty Co	42	\$10 to \$20 Million	10,000 - 39,999	Belmont	Charlotte
Steelco Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Matthews	Charlotte
Sun Valley Steel & Fabrication	10	\$2.5 to \$5 Million	10,000 - 39,999	Monroe	Charlotte
Tower Guys	11	\$2.5 to \$5 Million	10,000 - 39,999	Matthews	Charlotte
Viper Communications Systems	5	\$1 to \$2.5 Million	10,000 - 39,999	Concord	Charlotte
40 East Steel & Fabrication	12	\$2.5 to \$5 Million	10,000 - 39,999	Wallace	East
Barnes Tin Shop Inc	16	\$2.5 to \$5 Million	10,000 - 39,999	Rocky Mount	East
Benton & Sons Stainless Steel	20	\$5 to \$10 Million	10,000 - 39,999	Pikeville	East
Carolina Steel Corp	30	\$5 to \$10 Million	10,000 - 39,999	Nashville	East
Coastal Metal Svc	30		10,000 - 39,999	Goldsboro	East
Excel Welding & Fabrication	40	\$10 to \$20 Million	10,000 - 39,999	Wilson	East
Griffin Steel & Supply	20	\$5 to \$10 Million	10,000 - 39,999	Goldsboro	East
Hodges Welding & Fabrication	9	\$1 to \$2.5 Million	10,000 - 39,999	Rocky Mount	East
J & R Rebar Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	New Bern	East
Jack A Farrior Inc Steel Works	60	\$10 to \$20 Million	40,000+	Farmville	East
Metalcrafters	19	\$5 to \$10 Million	10,000 - 39,999	Goldsboro	East
North State Steel Inc	25	\$5 to \$10 Million	10,000 - 39,999	Greenville	East
Roberts Co	15	\$2.5 to \$5 Million	10,000 - 39,999	Vanceboro	East
Robinson Tower Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Greenville	East
Satellite Service & Instltn	2	\$500,000 to \$1 Million	2,500 - 9,999	Rocky Mount	East
Steel Dimensions	NA	\$2.5 to \$5 Million	10,000 - 39,999	Stantonsburg	East
Steel Smart Inc	11	\$2.5 to \$5 Million	10,000 - 39,999	Pikeville	East
T & J Fabrication	1	Less Than \$500,000	2,500 - 9,999	Newport	East
Tandemloc Inc	18	\$2.5 to \$5 Million	10,000 - 39,999	Havelock	East
Trinity Containers LLC	100	\$20 to \$50 Million	40,000+	Rocky Mount	East
Trinity Logistics Group	10	\$2.5 to \$5 Million	10,000 - 39,999	Rocky Mount	East
Try Jesus Welding	1	Less Than \$500,000	2,500 - 9,999	Princeton	East
USA Tower Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Jacksonville	East
Vulcraft Group	2	\$500,000 to \$1 Million	2,500 - 9,999	Greenville	East
Worth Products	10	\$2.5 to \$5 Million	10,000 - 39,999	Snow Hill	East
Atlantic Crane & Rigging Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Elizabeth City	Northeast
Beaufort County Iron Works	2	\$500,000 to \$1 Million	2,500 - 9,999	Washington	Northeast
Dunavant's Welding Svc	7	\$1 to \$2.5 Million	10,000 - 39,999	Camden	Northeast
J C Welding Svc	4	\$1 to \$2.5 Million	10,000 - 39,999	Elizabeth City	Northeast
KCI Wireless Services Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Washington	Northeast
Metal Specialties	NA	\$2.5 to \$5 Million	10,000 - 39,999	Washington	Northeast

Sba Towers Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	Nags Head	Northeast
State Line Steel Structures	NA	\$2.5 to \$5 Million	10,000 - 39,999	Moyock	Northeast
Townes Metal Works	NA	\$2.5 to \$5 Million	10,000 - 39,999	Corapeake	Northeast
Weldon Steel Corp	30	\$5 to \$10 Million	10,000 - 39,999	Weldon	Northeast
Alamance Steel Fabricators Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	High Point	Piedmont Triad
American Steel Co	NA	\$2.5 to \$5 Million	10,000 - 39,999	Mt Airy	Piedmont Triad
Asheboro Stair & Rail LLC	6	\$1 to \$2.5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Branch Erection Co Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Reidsville	Piedmont Triad
Brooks Mechanical Svc	3	\$500,000 to \$1 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Carolina Rebar	NA	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Carolina Steel Corp	100	\$100 to \$500 Million	40,000+	Greensboro	Piedmont Triad
Carolina Steel Corp	86	\$20 to \$50 Million	40,000+	Colfax	Piedmont Triad
Contract Steel Sales Inc	90	\$20 to \$50 Million	40,000+	Greensboro	Piedmont Triad
Custom Steel Fabricators Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Randleman	Piedmont Triad
Don's Welding Svc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Engineered Steel Products Inc	30	\$5 to \$10 Million	10,000 - 39,999	Sophia	Piedmont Triad
Fabristeel Corp	9	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Fishel Steel Co	9	\$1 to \$2.5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Freeman Steel Fabricators Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Kernersville	Piedmont Triad
GLP Fabrication	1	Less Than \$500,000	2,500 - 9,999	Asheboro	Piedmont Triad
Greensboro Machine Co Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Job Shop Fabricators Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Madison	Piedmont Triad
Lopp's Welding Shop	1	Less Than \$500,000	2,500 - 9,999	Lexington	Piedmont Triad
Lyndon Steel Co LP	100	\$20 to \$50 Million	40,000+	Winston Salem	Piedmont Triad
Metal Works Of High Point Inc	69	\$10 to \$20 Million	40,000+	High Point	Piedmont Triad
Mike's Welding & Fabricating	3	\$500,000 to \$1 Million	10,000 - 39,999	Thomasville	Piedmont Triad
O'Neal Steel Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
OSP Inc	1	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
Piedmont Engineers Fabricators	4	\$1 to \$2.5 Million	10,000 - 39,999	Madison	Piedmont Triad
Piedmont Tower Maintenance	9	\$1 to \$2.5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Rice Steel Works	1	Less Than \$500,000	2,500 - 9,999	Staley	Piedmont Triad
Rockingham Steel	14	\$2.5 to \$5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Salem Steel	60	\$10 to \$20 Million	40,000+	Winston Salem	Piedmont Triad
Smith Architectural Metals	16	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Stephens Mechanical	3	\$500,000 to \$1 Million	10,000 - 39,999	Mocksville	Piedmont Triad
Superior Manufacturing Co	75	\$2.5 to \$5 Million	40,000+	Winston Salem	Piedmont Triad
Tri Steel Inc	1	Less Than \$500,000	2,500 - 9,999	Winston Salem	Piedmont Triad
Universal Steel Of Nc LLC	25	\$5 to \$10 Million	10,000 - 39,999	Thomasville	Piedmont Triad
West Antenna Corp	1	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
Winston Steel & Stair Co	28	\$5 to \$10 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
A-1 Sandblasting	NA	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Alamance Steel Fabricators Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle

Aluminum Plus Welding LLC	2	\$500,000 to \$1 Million	2,500 - 9,999	Creedmoor	Research Triangle
Apex Steel Corp	65	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Atlantic Steel Fabrication	20	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Baker's Stainless Fabs Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Smithfield	Research Triangle
Bet-Mac Wilson Steel Inc	6	\$500,000 to \$1 Million	10,000 - 39,999	Creedmoor	Research Triangle
CAM Fabrication	18	\$2.5 to \$5 Million	10,000 - 39,999	Princeton	Research Triangle
Cole & Assoc Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Coleman Steel Systems Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Contract Steel Sales Inc	21	\$5 to \$10 Million	10,000 - 39,999	Butner	Research Triangle
Dunn Welding Svc	2	\$500,000 to \$1 Million	2,500 - 9,999	Angier	Research Triangle
Durham Brazing & Welding Works	5	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
Durham Rebar Inc	14	\$2.5 to \$5 Million	10,000 - 39,999	Creedmoor	Research Triangle
Franklin Consulting Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
G & S Iron Designs	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Industrial Metal Products Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Aberdeen	Research Triangle
KOBE Steel USA Inc	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Misc Metals Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Fuquay Varina	Research Triangle
Newton Instrument Co	350	\$50 to \$100 Million	40,000+	Butner	Research Triangle
North State Steel	16	\$2.5 to \$5 Million	10,000 - 39,999	Louisburg	Research Triangle
Precision Steel & Welding Co	180	\$20 to \$50 Million	40,000+	Siler City	Research Triangle
R & R Welding & Fabrication Co	6	\$1 to \$2.5 Million	10,000 - 39,999	Aberdeen	Research Triangle
Radian Corp	1	Less Than \$500,000	2,500 - 9,999	Roxboro	Research Triangle
Reflection Tower Svc Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Wake Forest	Research Triangle
Rohde Steel Inc	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
RTT Machine & Welding Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Zebulon	Research Triangle
S & K Mobile Welding	NA	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Sanford Steel Corp	15	\$2.5 to \$5 Million	10,000 - 39,999	Goldston	Research Triangle
Site Resources Inc	30	\$5 to \$10 Million	10,000 - 39,999	Fuquay Varina	Research Triangle
Stainless Steel Specialties	11	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Steel Works & Supply Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Angier	Research Triangle
Steelfab Of Virginia LLC	15	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Talton's Metal Products Inc	21	\$5 to \$10 Million	10,000 - 39,999	Fuquay Varina	Research Triangle
Tower Comm	50	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Weldon Steel Corp	1	Less Than \$500,000	2,500 - 9,999	Willow Spring	Research Triangle
Whitley Metal Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Willow Spring	Research Triangle
Burton Steel Co	30	\$5 to \$10 Million	10,000 - 39,999	Castle Hayne	Southeast
Coastal Hose & Rubber Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
Granlund America	3	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Hercules Steel Co Inc	50	\$10 to \$20 Million	40,000+	Fayetteville	Southeast
J & R Rebar Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
K Line Equipment Corp	NA	\$2.5 to \$5 Million	10,000 - 39,999	Laurinburg	Southeast
Lea Steel & Aluminum	2	\$500,000 to \$1 Million	2,500 - 9,999	Ocean Isle Beach	Southeast

Lumsden Steel & Fabrication	8	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
Mastercraft Associates Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Fayetteville	Southeast
Mc Cune Technology Fayettevill	19	\$5 to \$10 Million	10,000 - 39,999	Fayetteville	Southeast
Ralcon Stairways Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Rockingham	Southeast
Southeastern Machine & Welding	22	\$5 to \$10 Million	10,000 - 39,999	Wilmington	Southeast
Structural Systems Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
AMC Steel	12	\$2.5 to \$5 Million	10,000 - 39,999	Asheville	West
Brown Fabrication	3	\$500,000 to \$1 Million	10,000 - 39,999	Blowing Rock	West
D S Steel Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Granite Falls	West
Dave Steel Co Inc	80	\$20 to \$50 Million	40,000+	Asheville	West
Ingle & Sons Steel Buildings	3	\$500,000 to \$1 Million	10,000 - 39,999	Weaverville	West
Jackson Steel	12	\$2.5 to \$5 Million	10,000 - 39,999	Hendersonville	West
Mountain Steel Co LLC	4	\$1 to \$2.5 Million	10,000 - 39,999	Asheville	West
Portable Welding Svc Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Mills River	West
Production Welding & Fab	15	\$2.5 to \$5 Million	10,000 - 39,999	Arden	West
Silverman Co	20	\$5 to \$10 Million	10,000 - 39,999	Asheville	West
Steel Innovations	NA	\$2.5 to \$5 Million	10,000 - 39,999	North Wilkesboro	West
Stowe's Welding & Crane Svc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Hickory	West
Tab Steel & Fabricating	10	\$2.5 to \$5 Million	10,000 - 39,999	Hildebran	West
Triplett & Coffey Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Boone	West
United Steel Products Co	21	\$5 to \$10 Million	10,000 - 39,999	North Wilkesboro	West

Ball & Roller Bearing (332991)

Company Name	Employment Size	Sales	Square Footage	City	Region
American Roller Bearing Of No	135	\$20 to \$50 Million	40,000+	Hiddenite	Charlotte
Bosch Rexroth Corp	115	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
ICB Greenline	11	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
MMB Bearings Co Inc	30	\$5 to \$10 Million	10,000 - 39,999	Mooresville	Charlotte
Timken Co	750	\$100 to \$500 Million	40,000+	Iron Station	Charlotte
Atlantic Bearing Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Wilson	East
Carolina Forge Co	190	\$50 to \$100 Million	40,000+	Wilson	East
Kaydon Corp	NA	\$1 to \$2.5 Million	10,000 - 39,999	Mocksville	Piedmont Triad
Timken Co	300	\$50 to \$100 Million	40,000+	Randleman	Piedmont Triad
Car Quest	9	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Holland Industrial	32	\$5 to \$10 Million	10,000 - 39,999	Henderson	Research Triangle
American Roller Bearing	180	\$50 to \$100 Million	40,000+	Morganton	West
Bearings & Drives Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Arden	West
Timken Co	257	\$50 to \$100 Million	40,000+	Rutherfordton	West

Industrial & Commercial Fans & Blowers (333412)

Company Name	Employment Size	Sales	Square Footage	City	Region
Camfil Farr Co	100	\$20 to \$50 Million	40,000+	Conover	Charlotte
Hoffman & Hoffman Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
R L Kunz Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Mooresville	Charlotte
Staclean Diffuser Co	26	\$5 to \$10 Million	10,000 - 39,999	Salisbury	Charlotte
Clark Air Systems	4	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
R L Kunz Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Ziehl-Abegg	10	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Captive-Aire Systems East Nc	10	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Hahn Mason Air Systems	5	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
L R Gorrell Co	15	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Miller Control & Mfg	10	\$2.5 to \$5 Million	10,000 - 39,999	Clinton	Southeast
KCH Svc Inc	46	\$10 to \$20 Million	10,000 - 39,999	Forest City	West
Loren Cook Co	22	\$5 to \$10 Million	10,000 - 39,999	Asheville	West

Turbine & Turbine Generator Set Units (333611)

Company Name	Employment Size	Sales	Square Footage	City	Region
Babcock & Wilcox Co	14	\$10 to \$20 Million	10,000 - 39,999	Charlotte	Charlotte
Fluid Power Technology Inc	7	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
HAWE Hydraulics	24	\$20 to \$50 Million	10,000 - 39,999	Charlotte	Charlotte
Hydraulic Engineered Products	5	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Lake Norman Fluid Power	6	\$5 to \$10 Million	10,000 - 39,999	Mooresville	Charlotte
Sharp Controls Inc	5	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Siemens Power Generation	799	\$500 Million to \$1 Billion	40,000+	Charlotte	Charlotte
Spencer Turbine Co	1	\$1 to \$2.5 Million	2,500 - 9,999	Charlotte	Charlotte
Precision Hydraulic Cylinders	99	\$100 to \$500 Million	40,000+	Beulaville	East
Advanced Turbine Components	140		40,000+	Rural Hall	Piedmont Triad
Hydratec	4	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Map Enterprises Inc	30	\$20 to \$50 Million	10,000 - 39,999	Graham	Piedmont Triad
Turbocare	250	\$100 to \$500 Million	40,000+	Rural Hall	Piedmont Triad
Altec Industries Inc	350	\$100 to \$500 Million	40,000+	Creedmoor	Research Triangle
Capital Hydraulics Inc	2	\$1 to \$2.5 Million	2,500 - 9,999	Raleigh	Research Triangle
H & S Auto Parts Of Fuquay Inc	2	\$1 to \$2.5 Million	2,500 - 9,999	Fuquay Varina	Research Triangle
Hose Repair & Parts Ctr Co	2	\$1 to \$2.5 Million	2,500 - 9,999	Sanford	Research Triangle
Score Energy Inc	5	\$5 to \$10 Million	10,000 - 39,999	Sanford	Research Triangle
Cape Fear Filters & Hydraulics	5	\$5 to \$10 Million	10,000 - 39,999	Riegelwood	Southeast
Carquest Auto Parts	3	\$2.5 to \$5 Million	10,000 - 39,999	South Brunswick	Southeast

Hydraulic Industrial	3	\$2.5 to \$5 Million	10,000 - 39,999	Fayetteville	Southeast
Resources Mountain Motors	1	\$1 to \$2.5 Million	2,500 - 9,999	Robbinsville	West
Modifican Motors	•	φ1 to φ2.5 ivilinoii	2,300 7,333	Robbinsvine	West
		Speed Changer, Drive & Gear (333612)			
Company Name	Employment Size	Sales	Square Footage	City	Region
Abundant Manufacturing Inc	NA	\$500,000 to \$1 Million	10,000 - 39,999	Statesville	Charlotte
Carnes-Miller Gear Co	20	\$2.5 to \$5 Million	10,000 - 39,999	Locust	Charlotte
Gossett Machine Works Inc	20	\$2.5 to \$5 Million	10,000 - 39,999	Gastonia	Charlotte
Hydreco	55	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Nachi America	NA	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Ramsey Products Corp	80	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Stine Gear & Machine Co	10	\$1 to \$2.5 Million	10,000 - 39,999	Bessemer City	Charlotte
Textile Parts & Machine	10	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Universal Machine Co Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Dallas	Charlotte
Pro Gear Svc	5	\$1 to \$2.5 Million	10,000 - 39,999	Harbinger	Northeast
Burlington Machine Svc	3	\$500,000 to \$1 Million	10,000 - 39,999	Burlington	Piedmont Triad
Skykat Gear Shop	NA	\$500,000 to \$1 Million	10,000 - 39,999	Raeford	Southeast
Laurel Crankshaft & Tool	1	Less Than \$500,000	2,500 - 9,999	Morganton	West
Perfection Gear	60	\$10 to \$20 Million	40,000+	Asheville	West
		Mechanical Power Transmission Equipment (333613)			
Company Name	Employment Size	Sales	Square Footage	City	Region
Deublin Co	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
		Measuring & Controlling Devices (334519)			
Company Name	Employment Size	Sales	Square Footage	City	Region
GFI Genfare	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Lynn Electronics	5	\$1 to \$2.5 Million	10,000 - 39,999	Concord	Charlotte
Honeywell Aerospace	359	\$50 to \$100 Million	40,000+	Rocky Mount	East
Carolina Laser Cutting	15	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Talbert Co	2	\$500,000 to \$1 Million	2,500 - 9,999	Trinity	Piedmont Triad
Martek Instruments Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Monitech Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Troxler Electronic Labs Inc	150	\$10 to \$20 Million	40,000+	Resrch Trngle	Research Triangle
Johnson Lumber Products	6	\$1 to \$2.5 Million	10,000 - 39,999	Pk Ivanhoe	Southeast
Air Chek Inc	9	\$1 to \$2.5 Million	10,000 - 39,999	Fletcher	West
Gage Crafters	NA	\$1 to \$2.5 Million	10,000 - 39,999	Arden	West
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That Man Ca	4	\$1 to \$2.5 Million	10,000, 20,000	Danssand	West
Thel-Mar Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Brevard	West
Wahl Instruments Inc	NA	\$1 to \$2.5 Million	10,000 - 39,999	Asheville	West
		Motors & Generators (335312)			
Company Name	Employment Size	Sales	Square Footage	City	Region
Argus Fire Control	10	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Asmo North Carolina Inc	900	\$100 to \$500 Million	40,000+	Statesville	Charlotte
Brown's Marine Svc	2	\$500,000 to \$1 Million	2,500 - 9,999	Belmont	Charlotte
Cooper Wining Devices	NA	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Cross Automation	25		10,000 - 39,999	Belmont	Charlotte
D C Electric & Machine Co	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
E R Marine Svc	1	Less Than \$500,000	2,500 - 9,999	Belmont	Charlotte
Eagle Electric	NA	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Eagle Electric Mfg Co Inc	NA	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Eastern Tools & Equipment Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
ECM Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
John's Lawn Mower Engine Rpr	NA	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Mc Naughton-Mc Kay Electric Co	10	\$2.5 to \$5 Million	10,000 - 39,999	Gastonia	Charlotte
Northern Tool & Equipment Co	11	\$2.5 to \$5 Million	10,000 - 39,999	Gastonia	Charlotte
Patriot Clean Fuel	NA	\$1 to \$2.5 Million	10,000 - 39,999	Cornelius	Charlotte
Premium Power Systems Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Concord	Charlotte
Randall Supply Inc	20	\$5 to \$10 Million	10,000 - 39,999	Monroe	Charlotte
Servo South	5	\$1 to \$2.5 Million	10,000 - 39,999	Shelby	Charlotte
Tommy's Marine Svc	1	Less Than \$500,000	2,500 - 9,999	Kannapolis	Charlotte
Vooner Flogard Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
W W Grainger	8	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
X Cel Hermetics	8	\$1 to \$2.5 Million	10,000 - 39,999	Wadesboro	Charlotte
Bush's Repair Ctr	1	Less Than \$500,000	2,500 - 9,999	Holly Ridge	East
Cogentrix Energy	50	\$10 to \$20 Million	40,000+	Battleboro	East
Emergency Energy Systems Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Wallace	East
Greg's Outboard Ctr	2	\$500,000 to \$1 Million	2,500 - 9,999	Holly Ridge	East
John Boys Electrical Supply	3	\$500,000 to \$1 Million	10,000 - 39,999	Warsaw	East
Wholesale Supply Unlimited	2	\$500,000 to \$1 Million	2,500 - 9,999	New Bern	East
Womack Electric Supply	11	\$2.5 to \$5 Million	10,000 - 39,999	Greenville	East
Womack Electric Supply	5	\$1 to \$2.5 Million	10,000 - 39,999	Wilson	East
Hughes Supply Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Elizabeth City	Northeast
A O Smith Electrical Products	200	\$50 to \$100 Million	40,000+	Mebane	Piedmont Triad
Abk Electronics	NA	\$5 to \$10 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Alternative Power Svc	1	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
Ametek Rotron	130	\$20 to \$50 Million	40,000+	Whitsett	Piedmont Triad

ASI Generator Svc	4	\$1 to \$2.5 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Carolina Generators LLC	NA	\$1 to \$2.5 Million	10,000 - 39,999	Lowgap	Piedmont Triad
City Electric Supply	5	\$1 to \$2.5 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Kevin Harvick Inc	100	\$20 to \$50 Million	40,000+	Kernersville	Piedmont Triad
Leonard Electric Motor Repair	5	\$1 to \$2.5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Prime Power Svc	2	\$500,000 to \$1 Million	2,500 - 9,999	Greensboro	Piedmont Triad
City Electric Supply	5	\$1 to \$2.5 Million	10,000 - 39,999	Selma	Research Triangle
Daniel Wagner & Assoc Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Willow Spring	Research Triangle
E & W Electrical LLC	15	\$2.5 to \$5 Million	10,000 - 39,999	Hillsborough	Research Triangle
Jordan Electric Motors Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Sanford	Research Triangle
Powerware	NA	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Sandhill Electric Supply Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Aberdeen	Research Triangle
Triangle Welding Equipment Svc	2	\$500,000 to \$1 Million	2,500 - 9,999	Raleigh	Research Triangle
Womack Electric Supply	4	\$1 to \$2.5 Million	10,000 - 39,999	Clayton	Research Triangle
Aggreko Rental	15	\$2.5 to \$5 Million	10,000 - 39,999	Fayetteville	Southeast
Anderson Marine	1	Less Than \$500,000	2,500 - 9,999	Leland	Southeast
Elektran	15	\$2.5 to \$5 Million	10,000 - 39,999	Rockingham	Southeast
Jimmy's Marine	2	\$500,000 to \$1 Million	2,500 - 9,999	Leland	Southeast
Marine Mechanix	1	Less Than \$500,000	2,500 - 9,999	Wilmington	Southeast
R & K Generators	3	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Rocky Point Marine	1	Less Than \$500,000	2,500 - 9,999	Rocky Point	Southeast
Schriber Marine Motors Rx	2	\$500,000 to \$1 Million	2,500 - 9,999	Wilmington	Southeast
Ampla Apex Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Hendersonville	West
Blue Ridge Standby Power	NA	\$1 to \$2.5 Million	10,000 - 39,999	Marion	West
Brady's Services	NA	\$1 to \$2.5 Million	10,000 - 39,999	Candler	West
Electric Spacecraft Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Leicester	West
M & L Welder & Generator Rpr	2	\$500,000 to \$1 Million	2,500 - 9,999	Asheville	West
Northern Tool & Equipment	15	\$2.5 to \$5 Million	10,000 - 39,999	Asheville	West
Ohio Electric Motors	100		40,000+	Barnardsville	West
Palmer Electrical Contrng Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Weaverville	West
S G Power Equipment	1	Less Than \$500,000	2,500 - 9,999	Hendersonville	West

Electronic Equipment & Components (335999)

Company Name	Employment Size	Sales	Square Footage	City	Region
Allison-Erwin Co Inc	100	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Benshaw Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Besam Automated Entrance Sys	70		40,000+	Monroe	Charlotte
C Alley & Assoc	2	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Carolina Lighting Systems Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Eaton Cutler-Hammer	14	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Eaton Cutler-Hammer	11	\$2.5 to \$5 Million	10,000 - 39,999	Belmont	Charlotte

Gardner Bender Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Graybar Electric Co	250	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
Hi-Tech Fuses/Thomas & Betts	45	\$10 to \$20 Million	10,000 - 39,999	Hickory	Charlotte
Hoffman Enclosures	4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Hubbell Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Matthews	Charlotte
Hughes Supply Inc	70	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Kht Fuses LLC	30	\$5 to \$10 Million	10,000 - 39,999	Hickory	Charlotte
Mitsubishi Electric Automation	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Pepperl & Fuchs Inc	1	Less Than \$500,000	10,000 - 39,999	Charlotte	Charlotte
Polytech Electrical Sales	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Record USA	50	\$10 to \$20 Million	40,000+	Monroe	Charlotte
Richardson Electric Equipment	4	\$1 to \$2.5 Million	10,000 - 39,999	Cornelius	Charlotte
Sedgeley & Assoc	6	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Square D	25	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Transbotics Corp	23	\$6,440,000*	10,000 - 39,999	Charlotte	Charlotte
Wesco DISTRIBUTING Inc	30	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Impulse NC Inc	80	\$20 to \$50 Million	40,000+	Mt Olive	East
Mayer Electric	17	\$2.5 to \$5 Million	10,000 - 39,999	Greenville	East
Reuel	25	\$5 to \$10 Million	10,000 - 39,999	Goldsboro	East
Atlas Electric Corp	30	\$5 to \$10 Million	10,000 - 39,999	Burlington	Piedmont Triad
Davidson Electric Wholesale	7	\$1 to \$2.5 Million	10,000 - 39,999	Lexington	Piedmont Triad
Energy Dynamics	20	\$5 to \$10 Million	10,000 - 39,999	Blanch	Piedmont Triad
J Tronix Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Welcome	Piedmont Triad
Mayer Electric Supply Co Inc	250	\$50 to \$100 Million	40,000+	Greensboro	Piedmont Triad
Power Integrity Corp	20	\$5 to \$10 Million	10,000 - 39,999	Greensboro	Piedmont Triad
T & S Sales & Mfg Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Burlington	Piedmont Triad
Triac Corp	10	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Triem Electric Motors	100	\$20 to \$50 Million	40,000+	Mebane	Piedmont Triad
Bestec Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Celestica	200	\$50 to \$100 Million	40,000+	Morrisville	Research Triangle
County Electric Supply	6	\$1 to \$2.5 Million	10,000 - 39,999	Sanford	Research Triangle
Erico	78	\$20 to \$50 Million	40,000+	Aberdeen	Research Triangle
GE Co	500	\$100 to \$500 Million	40,000+	Mebane	Research Triangle
Hunt Electric Supply	5	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
Incon Of Fv Corp	3	\$500,000 to \$1 Million	10,000 - 39,999	Fuquay Varina	Research Triangle
Interpower Corp	1	Less Than \$500,000	10,000 - 39,999	Raleigh	Research Triangle
Maddux Supply	25	\$5 to \$10 Million	10,000 - 39,999	Durham	Research Triangle
Progressive Industries	1	Less Than \$500,000	10,000 - 39,999	Morrisville	Research Triangle
S & J Plumbing & Electrical Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Siler City	Research Triangle
Siemens Power Trans & Distr	350		40,000+	Wendell	Research Triangle
T T Electronics	3	\$500,000 to \$1 Million	10,000 - 39,999	Cary	Research Triangle
Tyco Electronics Telecom Osp	370	\$50 to \$100 Million	40,000+	Fuquay Varina	Research Triangle

Wilmore Electronics Co Inc	50	\$10 to \$20 Million	40,000+	Hillsborough	Research Triangle
Womack Warehouse Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Youngsville	Research Triangle
Eaton Cutler-Hammer	773	\$100 to \$500 Million	40,000+	Fayetteville	Southeast
Electrical Solutions	NA	\$2.5 to \$5 Million	10,000 - 39,999	Hope Mills	Southeast
Excalibur Technical Sales Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Ingraham Time Products	90	\$20 to \$50 Million	40,000+	Laurinburg	Southeast
Marpac Corp	17	\$2.5 to \$5 Million	10,000 - 39,999	Rocky Point	Southeast
Siemens Energy & Automation	1	Less Than \$500,000	10,000 - 39,999	Wilmington	Southeast
Baldor Dodge Reliance	NA	\$2.5 to \$5 Million	10,000 - 39,999	Marion	West
Moog Components Group	350	\$50 to \$100 Million	40,000+	Murphy	West
North Fork Electric Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Crumpler	West
Southeastern Electronics	NA	\$1 to \$2.5 Million	10,000 - 39,999	Union Mills	West

POTENTIAL RENEWABLE ENERGY SUPPLY CHAIN: SOLAR

Plastics Material & Resin (325211)

Company Name	Employment Size	Sales	Square Footage	City	Region
Ace Plastics Inc	2	\$1 to \$2.5 Million	2,500 - 9,999	Charlotte	Charlotte
AEP Industries Inc	199	\$100 to \$500 Million	40,000+	Matthews	Charlotte
American Olympus Fiberglass	6	\$5 to \$10 Million	10,000 - 39,999	Claremont	Charlotte
Bamberger Polymers	1	\$1 to \$2.5 Million	2,500 - 9,999	Huntersville	Charlotte
Bolcof Plastic Materials Se	1	\$1 to \$2.5 Million	2,500 - 9,999	Charlotte	Charlotte
Cameo Fibers Corp	125		40,000+	Conover	Charlotte
Carolina Color Corp	49	\$10 to \$20 Million	10,000 - 39,999	Salisbury	Charlotte
Clariant Corp	300		40,000+	Charlotte	Charlotte
Clariant Corporation	120	\$100 to \$500 Million	40,000+	Charlotte	Charlotte
Custom Products Inc	73	\$50 to \$100 Million	40,000+	Mooresville	Charlotte
DAK Americas LLC	20	\$20 to \$50 Million	10,000 - 39,999	Charlotte	Charlotte
Eastern Plastics Co	3	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Ebbitide Polymers Corp	5 to 9	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Elasto Plastic Concrete	2	\$1 to \$2.5 Million	2,500 - 9,999	Waxhaw	Charlotte
Goodrich Corp	145	\$4,975,833,333*	40,000+	Charlotte	Charlotte
H K Research	40	\$10 to \$20 Million	10,000 - 39,999	Hickory	Charlotte
Hexcel Reinforcements Corp	5 to 9	\$5 to \$10 Million	10,000 - 39,999	Statesville	Charlotte
Hickory Springs Mfg Co	60	\$50 to \$100 Million	40,000+	Newton	Charlotte
Klockner Pentaplast	1	\$1 to \$2.5 Million	2,500 - 9,999	Matthews	Charlotte
Mallard Creek Polymers Inc	54	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
Mc Kenzie Taxidermy Supplies	200	\$10 to \$20 Million	40,000+	Salisbury	Charlotte
Modern Densifying	45	\$20 to \$50 Million	10,000 - 39,999	Shelby	Charlotte
Plastics Connection Inc	2	\$1 to \$2.5 Million	2,500 - 9,999	Charlotte	Charlotte
Plastiflex Co Inc	75	\$50 to \$100 Million	40,000+	Statesville	Charlotte
Polygal Inc	30	\$20 to \$50 Million	10,000 - 39,999	Charlotte	Charlotte
Polymer Resources LTD	5 to 9	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Polyreps Inc	25	\$20 to \$50 Million	10,000 - 39,999	Monroe	Charlotte
Queen City Mfg Inc	8	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Rhino Linings Of Charlotte	2	\$1 to \$2.5 Million	2,500 - 9,999	Charlotte	Charlotte
Rohm And Haas Chemicals	65	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
Syncot Plastics Inc	60	\$50 to \$100 Million	40,000+	Belmont	Charlotte
Toho Carbon Fibers	5 to 9	\$5 to \$10 Million	10,000 - 39,999	Mooresville	Charlotte
Washington Penn Plastics	5 to 9	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Hurricane Accu Sports Inc	40	\$20 to \$50 Million	10,000 - 39,999	Warsaw	East
Lin Pac Plastics	125	\$100 to \$500 Million	40,000+	Wilson	East

Georgia-Pacific Corp	125	\$50 to \$100 Million	40,000+	Conway	Northeast
Mitchell Industries	2	\$1 to \$2.5 Million	2,500 - 9,999	Ahoskie	Northeast
Resinall Corp	125	\$50 to \$100 Million	40,000+	Severn	Northeast
U S Fiberglass Products Inc	15	\$10 to \$20 Million	10,000 - 39,999	Point Harbor	Northeast
Applied Thermoplastic Rsrcs	1	\$1 to \$2.5 Million	2,500 - 9,999	Winston Salem	Piedmont Triad
Carolina Resin Distributors	1	\$1 to \$2.5 Million	2,500 - 9,999	Trinity	Piedmont Triad
Gersan Industries Inc	5 to 9	\$5 to \$10 Million	10,000 - 39,999	High Point	Piedmont Triad
Gersan Industries Inc	4	\$2.5 to \$5 Million	10,000 - 39,999	High Point	Piedmont Triad
Green Valley Co LLC	6	\$5 to \$10 Million	10,000 - 39,999	Coleridge	Piedmont Triad
Viking Polymers LLC Wolfe Brothers Distributing	50	\$50 to \$100 Million	40,000+	Jamestown	Piedmont Triad
Co	2	\$1 to \$2.5 Million	2,500 - 9,999	Randleman	Piedmont Triad
Envicor Inc	9	\$5 to \$10 Million	10,000 - 39,999	Smithfield	Research Triangle
NAMPAC Packaging Div	30		10,000 - 39,999	Raleigh	Research Triangle
Plastic Express Corp	5 to 9	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Reichhold Inc	NA	\$1 to \$2.5 Million	2,500 - 9,999	Durham	Research Triangle
Tegrant Thermo Safe	50	\$50 to \$100 Million	40,000+	Butner	Research Triangle
Triangle Polymers Inc	3	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
W J Carey & ASSOC LLC	1	\$1 to \$2.5 Million	2,500 - 9,999	Benson	Research Triangle
Action Plastics Inc	2	\$1 to \$2.5 Million	2,500 - 9,999	Wilmington	Southeast
DU Pont Teijin Films	225	\$100 to \$500 Million	40,000+	Fayetteville	Southeast
Podisco Inc Alliance-Carolina Tool &	99	\$100 to \$500 Million	40,000+	Wilmington	Southeast
Mold	120	\$100 to \$500 Million	40,000+	Arden	West
Brittan & Sons Recycling Inc	6	\$5 to \$10 Million	10,000 - 39,999	Hendersonville	West
Bromley Plastics Corp	30	\$20 to \$50 Million	10,000 - 39,999	Fletcher	West
Cs Systems Co Inc	2	\$1 to \$2.5 Million	2,500 - 9,999	Leicester	West
Eldon-Psi	3	\$2.5 to \$5 Million	10,000 - 39,999	Marion	West
Sunray Inc	38	\$20 to \$50 Million	10,000 - 39,999	Rutherfordton	West

^{(* 3} provided values were average for some firms)

Unlaminated Plastics Film & Sheet (except Packaging) (326113)

	Employee				
Company Name	Size	Sales	Square Footage	City	Region
Color Ad Packaging	65	\$20 to \$50 Million	40,000+	Monroe	Charlotte
Crescent Telecom Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Equistar Chemicals LP	10 to 19	\$5 to \$10 Million	10,000 - 39,999	Salisbury	Charlotte
Erez Inc	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
National Plastics & Indl Supp	3	\$1 to \$2.5 Million	10,000 - 39,999	Polkton	Charlotte
Pinnacle Films	50	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Southern Films Distribution	4	\$1 to \$2.5 Million	10,000 - 39,999	Denver	Charlotte
Tekra Corp	13	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Union Telecard Carolinas	4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte

Adas Wholesale Distr	5	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Crisis Control Ministry Inc	17	\$5 to \$10 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Pacrim Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Apex	Research Triangle
Piedmont Plastics Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Morrisville	Research Triangle
KRS Plastics	10	\$2.5 to \$5 Million	10,000 - 39,999	Tabor City	Southeast
Tredegar Film Products	85	\$20 to \$50 Million	40,000+	Red Springs	Southeast
		Flat Glass (327211)			
Company Name	Employee Size	Sales	Square Footage	City	Region
Cardinal Fg	250	\$50 to \$100 Million	40,000+	Mooresville	Charlotte
Custom Glass Products	150		40,000+	Salisbury	Charlotte
Agc Flat Glass North America	24	\$5 to \$10 Million	10,000 - 39,999	Reidsville	Piedmont Triad
		Sheet Metal Work (332322)			
Company Name	Employee Size	Sales	Square Footage	City	Region
A S & C Fabrication	2	Less Than \$500,000	2,500 - 9,999	Catawba	Charlotte
Allied Sheet Metal Works Inc American Builders Of Anson	10	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Inc	3	\$2.5 to \$5 Million	10,000 - 39,999	Polkton	Charlotte
B & B Fabricators Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Statesville	Charlotte
Beacon Pneumafil Corp	150	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
BRB Mfg Co	2	Less Than \$500,000	2,500 - 9,999	Mooresville	Charlotte
Burton Mechanical Co	10	\$1 to \$2.5 Million	10,000 - 39,999	Salisbury	Charlotte
Charlotte Tent & Awning Co	15	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Chuck Gafrarar Fabrication Inc	1	Less Than \$500,000	2,500 - 9,999	Mooresville	Charlotte
Classic Sheet Metal Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Commercial Ductboard Systems	15	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Copacetic Metal Shaping	1	Less Than \$500,000	2,500 - 9,999	China Grove	Charlotte
Cutting Edge	10	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
D A Moore Corp	8	\$1 to \$2.5 Million	10,000 - 39,999	Concord	Charlotte
D E Cline Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Gastonia	Charlotte
D Tek Corp	60	\$10 to \$20 Million	40,000+	Pineville	Charlotte
Duct Fabrication	4	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Herman Reeves Sheet Metal					
Inc	25	\$5 to \$10 Million	10,000 - 39,999	Gastonia	Charlotte
Huffman Metal Works Inc	45	\$5 to \$10 Million	10,000 - 39,999	Hickory	Charlotte
Industrial Metal Craft Co	17	\$2.5 to \$5 Million	10,000 - 39,999	Gastonia	Charlotte
Interscope Inc	4	\$500,000 to \$1 Million	10,000 - 39,999	Salisbury	Charlotte
Mc Gee Corp	75	\$10 to \$20 Million	40,000+	Matthews	Charlotte
Mc Gill Airflow	1 to 4	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Monroe Metal Mfg Co	40	\$5 to \$10 Million	10,000 - 39,999	Monroe	Charlotte
Oro Manufacturing Co	35	\$5 to \$10 Million	10,000 - 39,999	Monroe	Charlotte

Paul Norman Co Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Sadler Industries Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Davidson	Charlotte
Scott Health & Safety	550	\$100 to \$500 Million	40,000+	Monroe	Charlotte
Southern Fabricators Inc	75	\$5 to \$10 Million	40,000+	Polkton	Charlotte
Swanson Sheet Metal Inc	13	\$2.5 to \$5 Million	10,000 - 39,999	Monroe	Charlotte
Wilson Metal Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Hickory	Charlotte
A G Machining Inc	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Kinston	East
Evans Sheet Metal Inc	10 to 19	\$1 to \$2.5 Million	10,000 - 39,999	Greenville	East
Howell Fabrication Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Rocky Mount	East
Johnson Industrial Machinery	35	\$5 to \$10 Million	10,000 - 39,999	Lucama	East
Metal Designs Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Spring Hope	East
Mitchell's Metal Shop	1	Less Than \$500,000	2,500 - 9,999	Beaufort	East
S K Bowling Co State Wide Sheet Metal	8	\$1 to \$2.5 Million	10,000 - 39,999	Wilson	East
Roofing	18	\$2.5 to \$5 Million	10,000 - 39,999	Wilson	East
Tri Steel Fabrications	40	\$5 to \$10 Million	10,000 - 39,999	Sims	East
Flanders CSC Corp	80		40,000+	Bath	Northeast
Harbor Welding	5	\$1 to \$2.5 Million	10,000 - 39,999	Wanchese	Northeast
Howell Metal Corp	10	\$1 to \$2.5 Million	10,000 - 39,999	Murfreesboro	Northeast
Miles Jennings Ind Supply Co	15	\$2.5 to \$5 Million	10,000 - 39,999	Elizabeth City	Northeast
Atco Rubber Products Inc	21	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Ballard Sheet Metal	2	Less Than \$500,000	2,500 - 9,999	Archdale	Piedmont Triad
CINNABAR Solutions Inc	450	\$50 to \$100 Million	40,000+	Winston Salem	Piedmont Triad
Colonial Tin Works	50	\$10 to \$20 Million	40,000+	Greensboro	Piedmont Triad
Dantherm Filtration	200	\$20 to \$50 Million	40,000+	Thomasville	Piedmont Triad
Dexco Co Inc	30	\$5 to \$10 Million	10,000 - 39,999	Burlington	Piedmont Triad
East Coast Metal Distributors	21	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Elixir Industries	40	\$5 to \$10 Million	10,000 - 39,999	Reidsville	Piedmont Triad
J T Wade Sheet Metal Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Eden	Piedmont Triad
S & R Sheet Metal	7	\$1 to \$2.5 Million	10,000 - 39,999	Thomasville	Piedmont Triad
Sylvester & Cockrum Inc	45	\$5 to \$10 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Tampco Inc	85	\$10 to \$20 Million	40,000+	Elkin	Piedmont Triad
Wade Sheet Metal Corp	4	\$500,000 to \$1 Million	10,000 - 39,999	Thomasville	Piedmont Triad
Accu-Fab Inc	100	\$20 to \$50 Million	40,000+	Raleigh	Research Triangle
Ace Fabrication Inc	18	\$2.5 to \$5 Million	10,000 - 39,999	Smithfield	Research Triangle
Captive Aire	30	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Carnes Co	20	\$2.5 to \$5 Million	10,000 - 39,999	Sanford	Research Triangle
DMF Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Clayton	Research Triangle
Gray Metal South Inc	100	\$20 to \$50 Million	40,000+	Dunn	Research Triangle
L H Hall Metal Works	1	Less Than \$500,000	2,500 - 9,999	Smithfield	Research Triangle
Loxcreen Co Inc	250	\$50 to \$100 Million	40,000+	Roxboro	Research Triangle
Mc Gill Airflow Corp	2	Less Than \$500,000	2,500 - 9,999	Cary	Research Triangle
Morton Metalcraft	180	\$20 to \$50 Million	40,000+	Apex	Research Triangle

Snap Rite Manufacture Inc	20	\$2.5 to \$5 Million	10,000 - 39,999	Coats	Research Triangle
Triangle Stainless Inc	4	\$500,000 to \$1 Million	10,000 - 39,999	Durham	Research Triangle
USA Dutch Inc	18	\$2.5 to \$5 Million	10,000 - 39,999	Efland	Research Triangle
Vertical Technologies American Automation Of Nc	15	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Inc	13	\$2.5 to \$5 Million	10,000 - 39,999	Raeford	Southeast
AWS Inc	22	\$2.5 to \$5 Million	10,000 - 39,999	Fayetteville	Southeast
Custom Metal Products	100	\$20 to \$50 Million	40,000+	Wilmington	Southeast
Mastercraft Associates Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Fayetteville	Southeast
Wilmington Sheet Metal	8	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
B & H Environmental & Sheet	5	\$1 to \$2.5 Million	10,000 - 39,999	Asheville	West
Byers Precision Fabricators	45	\$5 to \$10 Million	10,000 - 39,999	Hendersonville	West
Dreicor Inc Gerrald's Welding & Metal	9	\$1 to \$2.5 Million	10,000 - 39,999	Hendersonville	West
Fab	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Franklin	West
Johnson Roofing Concepts Inc	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Marion	West
Mc Arthurs Inc Smokey Mountain Metal	3	\$500,000 to \$1 Million	10,000 - 39,999	Forest City	West
Fbrctn	2	Less Than \$500,000	2,500 - 9,999	Weaverville	West
W P Hickman Co	42	\$5 to \$10 Million	10,000 - 39,999	Asheville	West

Semiconductors & Related Devices (334413)

Company Name	Employee Size	Sales	Square Footage	City	Region
Brumley-South	9	\$5 to \$10 Million	40,000+	Mooresville	Charlotte
MACCSLLC	3	\$1 to \$2.5 Million	40,000+	Matthews	Charlotte
Rf Micro Devices Inc	43	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
CML Microcircuits USA Inc	23	\$5 to \$10 Million	40,000+	Winston Salem	Piedmont Triad
RF Micro Devices Inc	1500	\$721,879,333*	40,000+	Greensboro	Piedmont Triad
Tri Quint Semiconductor Inc	10 to 19	\$5 to \$10 Million	40,000+	High Point	Piedmont Triad
Advanced Micro Devices Inc	12	\$5 to \$10 Million	40,000+	Morrisville	Research Triangle
All American Semiconductor	3	\$1 to \$2.5 Million	40,000+	Raleigh	Research Triangle
Altera Corp	6	\$2.5 to \$5 Million	40,000+	Raleigh	Research Triangle
Applied Micro Circuits Corp	20	\$10 to \$20 Million	40,000+	Cary	Research Triangle
Atmel Corp	10	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Conexant Inc	10 to 19	\$5 to \$10 Million	40,000+	Cary	Research Triangle
Cree Inc	80	\$372,962,000*	40,000+	Durham	Research Triangle
Cree Research Triangle Park	10 to 19	\$5 to \$10 Million	40,000+	Resrch Trngle Pk	Research Triangle
Fairchild Semiconductor	10 to 19	\$5 to \$10 Million	40,000+	Cary	Research Triangle
Freescale Semiconductor Inc	8	\$2.5 to \$5 Million	40,000+	Raleigh	Research Triangle
Hexatech Inc	10	\$5 to \$10 Million	40,000+	Morrisville	Research Triangle
HI/Fn Inc	10 to 19	\$5 to \$10 Million	40,000+	Morrisville	Research Triangle
Hyundai Electronics	4	\$1 to \$2.5 Million	40,000+	Raleigh	Research Triangle
Intel Corp	10 to 19	\$5 to \$10 Million	40,000+	Cary	Research Triangle
International Rectifier Corp	20	\$10 to \$20 Million	40,000+	Cary	Research Triangle

Kyma Technologies	14	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Lattice Semiconductor	10 to 19	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Linear Technology Corp Maxim Integrated Products	20	\$10 to \$20 Million	40,000+	Cary	Research Triangle
Inc	10 to 19	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Microcell Corp Micron Semiconductor Prods	17	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Inc	10 to 19	\$5 to \$10 Million	40,000+	Durham	Research Triangle
National Semiconductor Corp	10 to 19	\$5 to \$10 Million	40,000+	Durham	Research Triangle
Net Logic Microsystems Inc	10 to 19	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Nitronex Corp	50	\$20 to \$50 Million	40,000+	Raleigh	Research Triangle
NXP Semiconductors	9	\$5 to \$10 Million	40,000+	Cary	Research Triangle
Quantum Effect Devices	10 to 19	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Renesas Technology America	50	\$20 to \$50 Million	40,000+	Durham	Research Triangle
Samsung Semiconductors	7	\$2.5 to \$5 Million	40,000+	Cary	Research Triangle
Sharp Microelectronics	5	\$2.5 to \$5 Million	40,000+	Cary	Research Triangle
SMSC North America	10 to 19	\$5 to \$10 Million	40,000+	Durham	Research Triangle
Texas Instruments Inc	26	\$10 to \$20 Million	40,000+	Cary	Research Triangle
Thunderbird Technologies Inc	6	\$2.5 to \$5 Million	40,000+	Morrisville	Research Triangle
Tran Switch Corp	10 to 19	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Tri Quint Semiconductor Inc Winbond Electronics Corp-	1	\$500,000 to \$1 Million	40,000+	Cary	Research Triangle
Amer	10 to 19	\$5 to \$10 Million	40,000+	Pittsboro	Research Triangle
Worldtronics & Assoc Inc	2	\$1 to \$2.5 Million	40,000+	Lillington	Research Triangle
Xilinx Inc	10 to 19	\$5 to \$10 Million	40,000+	Raleigh	Research Triangle
Ziptronix Inc Coastal Instrument &	50	\$20 to \$50 Million	40,000+	Morrisville	Research Triangle
Electrncs	32	\$10 to \$20 Million	40,000+	Burgaw	Southeast

^{(* 3} provided values were average for some firms)

Instruments for Measuring & Testing Electricity & Electrical Signals (334515)

Company Name	Employee Size	Sales	Square Footage	City	Region
Amk Instruments	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Transcat Inc	14	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Agilent Technologies Inc	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
Avnet Electronics Marketing	20	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Sexton Espec Corp	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
AMJ Equipment Corp	1	Less Than \$500,000	2,500 - 9,999	Wilmington	Southeast

Switchgear & Switchboard Apparatus (335313)

Company Name	Employee Size	Sales	Square Footage	City	Region
Company Name	Size	Sales	Square Pootage	City	Region
American Circuit Breaker	13	\$20 to \$50 Million	10,000 - 39,999	New London	Charlotte
Control Services Co	18	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
M R Snyder Co	11	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Robertson Controls Inc	25	\$5 to \$10 Million	10,000 - 39,999	Shelby	Charlotte
Cooper Bussmann	230	\$50 to \$100 Million	40,000+	Goldsboro	East
Custom Control Solutions	3	\$500,000 to \$1 Million	10,000 - 39,999	Lexington	Piedmont Triad
Ark-Les Corp	12	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Consolidated Electrical Distr	25	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Electrical Energy Instlltns	10	\$2.5 to \$5 Million	10,000 - 39,999	Wilkesboro	West
Square D	82	\$20 to \$50 Million	40,000+	Asheville	West

Storage Batteries (335911)

Company Name	Employee Size	Sales	Square Footage	City	Region
Charlotte Battery Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Johnson Controls Inc	500	\$100 to \$500 Million	40,000+	Kernersville	Piedmont Triad

Current-Carrying Wiring Devices (335931)

a	Employee	a .		G!	.
Company Name	Size	Sales	Square Footage	City	Region
Cooper Interconnect	200	\$50 to \$100 Million	40,000+	La Grange	East
Cordset Designs Inc	65	\$10 to \$20 Million	40,000+	Pink Hill	East
Stormwatch Lightning	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Kitty Hawk	Northeast
Pass & Seymour/Legrand	315	\$50 to \$100 Million	40,000+	Whitsett	Piedmont Triad
Pass & Seymour Legrand	550	\$100 to \$500 Million	40,000+	Concord	Charlotte
Eaton Corp	325	\$50 to \$100 Million	40,000+	Selma	Research Triangle
Eaton Cutler-Hammer	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Arden	West
Deringer Ney Inc	80	\$20 to \$50 Million	40,000+	Marshall	West

Electronic Equipment and Components, Misc. (335999)

Company Name	Employment Size	Sales	Square Footage	City	Region
Allison-Erwin Co Inc	100	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Benshaw Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Besam Automated Entrance Sys	70		40,000+	Monroe	Charlotte
C Alley & Assoc	2	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte

Carolina Lighting Systems Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Eaton Cutler-Hammer	14	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Eaton Cutler-Hammer	11	\$2.5 to \$5 Million	10,000 - 39,999	Belmont	Charlotte
Gardner Bender Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Graybar Electric Co	250	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
Hi-Tech Fuses/Thomas & Betts	45	\$10 to \$20 Million	10,000 - 39,999	Hickory	Charlotte
Hoffman Enclosures	4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Hubbell Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Matthews	Charlotte
Hughes Supply Inc	70	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Kht Fuses LLC	30	\$5 to \$10 Million	10,000 - 39,999	Hickory	Charlotte
Mitsubishi Electric	NA	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Automation Pepperl & Fuchs Inc	1	Less Than \$500,000	10,000 - 39,999	Charlotte	Charlotte
Polytech Electrical Sales	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Record USA	50	\$10 to \$20 Million	40,000+	Monroe	Charlotte
Richardson Electric Equipment	4	\$1 to \$2.5 Million	10,000 - 39,999	Cornelius	Charlotte
Sedgeley & Assoc	6	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Square D	25	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Transbotics Corp	23	\$6,440,000*	10,000 - 39,999	Charlotte	Charlotte
Wesco DISTRIBUTING Inc	30	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Impulse NC Inc	80	\$20 to \$50 Million	40,000+	Mt Olive	East
Mayer Electric	17	\$2.5 to \$5 Million	10,000 - 39,999	Greenville	East
Reuel	25	\$5 to \$10 Million	10,000 - 39,999	Goldsboro	East
Atlas Electric Corp	30	\$5 to \$10 Million	10,000 - 39,999	Burlington	Piedmont Triad
Davidson Electric Wholesale	7	\$1 to \$2.5 Million	10,000 - 39,999	Lexington	Piedmont Triad
Energy Dynamics	20	\$5 to \$10 Million	10,000 - 39,999	Blanch	Piedmont Triad
J Tronix Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Welcome	Piedmont Triad
Mayer Electric Supply Co Inc	250	\$50 to \$100 Million	40,000+	Greensboro	Piedmont Triad
Power Integrity Corp	20	\$5 to \$10 Million	10,000 - 39,999	Greensboro	Piedmont Triad
T & S Sales & Mfg Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Burlington	Piedmont Triad
Triac Corp	10	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Triem Electric Motors	100	\$20 to \$50 Million	40,000+	Mebane	Piedmont Triad
Bestec Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Celestica	200	\$50 to \$100 Million	40,000+	Morrisville	Research Triangle
County Electric Supply	6	\$1 to \$2.5 Million	10,000 - 39,999	Sanford	Research Triangle
Erico	78	\$20 to \$50 Million	40,000+	Aberdeen	Research Triangle
GE Co	500	\$100 to \$500 Million	40,000+	Mebane	Research Triangle
Hunt Electric Supply	5	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
11.7				Fuquay	C
Incon Of Fv Corp	3	\$500,000 to \$1 Million	10,000 - 39,999	Varina	Research Triangle
Interpower Corp	1	Less Than \$500,000	10,000 - 39,999	Raleigh	Research Triangle
Maddux Supply	25	\$5 to \$10 Million	10,000 - 39,999	Durham	Research Triangle
Progressive Industries S & J Plumbing & Electrical	1	Less Than \$500,000	10,000 - 39,999	Morrisville	Research Triangle
Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Siler City	Research Triangle

Siemens Power Trans & Distr	350		40,000+	Wendell	Research Triangle
T T Electronics	3	\$500,000 to \$1 Million	10,000 - 39,999	Cary	Research Triangle
Tyco Electronics Telecom Osp	370	\$50 to \$100 Million	40,000+	Fuquay Varina	Research Triangle
Wilmore Electronics Co Inc	50	\$10 to \$20 Million	40,000+	Hillsborough	Research Triangle
Womack Warehouse Inc	NA	\$2.5 to \$5 Million	10,000 - 39,999	Youngsville	Research Triangle
Eaton Cutler-Hammer	773	\$100 to \$500 Million	40,000+	Fayetteville	Southeast
Electrical Solutions	NA	\$2.5 to \$5 Million	10,000 - 39,999	Hope Mills	Southeast
Excalibur Technical Sales Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Ingraham Time Products	90	\$20 to \$50 Million	40,000+	Laurinburg	Southeast
Marpac Corp	17	\$2.5 to \$5 Million	10,000 - 39,999	Rocky Point	Southeast
Siemens Energy & Automation	1	Less Than \$500,000	10,000 - 39,999	Wilmington	Southeast
Baldor Dodge Reliance	NA	\$2.5 to \$5 Million	10,000 - 39,999	Marion	West
Moog Components Group	350	\$50 to \$100 Million	40,000+	Murphy	West
North Fork Electric Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Crumpler	West
Southeastern Electronics	NA	\$1 to \$2.5 Million	10,000 - 39,999	Union Mills	West

POTENTIAL RENEWABLE ENERGY SUPPLY CHAIN: BIOMASS AND GEOTHERMAL¹

Mineral Wool (327993)

Company Name	Employment Size	Sales	Square Footage	City	Region
ACO Polmer Products	3	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
B & W Fiberglass	15	\$5 to \$10 Million	10,000 - 39,999	Shelby	Charlotte
Diversified Composites Inc	13	\$5 to \$10 Million	10,000 - 39,999	Hickory	Charlotte
LIT Industries Inc	37	\$10 to \$20 Million	10,000 - 39,999	Bessemer City	Charlotte
USG Interiors Inc	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
			.,		
Certified Fiberglass	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Cedar Point	East
Fiberglass International	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Jacksonville	East
Fiberglass International	2	\$500,000 to \$1 Million	2,500 - 9,999	Jacksonville	East
Kleer-Vue Custom Fibers	5	\$1 to \$2.5 Million	10,000 - 39,999	Elm City	East
Moore's Fiberglass Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Walstonburg	East
Tyson's Boat & Repair	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Washington	Northeast
Wolfe Industries	21	\$5 to \$10 Million	10,000 - 39,999	Jamesville	Northeast
Fiberglass & Flagpoles-Amrc Fiberglass Molding-	5	\$1 to \$2.5 Million	10,000 - 39,999	Mebane	Piedmont Triad
Engineering	9	\$2.5 to \$5 Million	10,000 - 39,999	Thomasville	Piedmont Triad
Gainesborough Baths	14	\$5 to \$10 Million	10,000 - 39,999	Lexington	Piedmont Triad
Albright Fiberglass Repair	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
IFG Port City Fiberglass Ind &	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Henderson	Research Triangle
Com	3	\$1 to \$2.5 Million	10,000 - 39,999	Rocky Point	Southeast
Windsor Fiberglass	15	\$5 to \$10 Million	10,000 - 39,999	Burgaw	Southeast
B & W Fiberglass	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Forest City	West
Bauer Industries Inc	52	\$20 to \$50 Million	40,000+	Hildebran	West

Iron, Steel Pipe & Tube From Purchased Steel (331210)¹

Company Name	Employment Size	Sales	Square Footage	City	Region
AMG Resources	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
U S Industrial Piping Inc	54	\$20 to \$50 Million	40,000+	Kernersville	Piedmont Triad
Ironmen Of Fayetteville Inc	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Fayetteville	Southeast

Power Boiler & Heat Exchanger (332410)¹

	Employment				
Company Name	Employment Size	Sales	Square Footage	City	Region
Mc Kinney Radiator Svc Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Denver	Charlotte
James M Pleasants Co Inc	65	\$10 to \$20 Million	40,000+	Greensboro	Piedmont Triad
		Metal Tank (Heavy Ga (332420)	uge) ¹		
Company Name	Employment Size	Sales	Square Footage	City	Region
A O Smith Water Products	89	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Drillers Service Inc	50	\$20 to \$50 Million	40,000+	Hickory	Charlotte
Truck Equipment Mfg Co	110	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
W J Barlowe Tank Svc	7	\$1 to \$2.5 Million	10,000 - 39,999	Dallas	Charlotte
MMM Inc	15	\$1 to \$2.5 Million	10,000 - 39,999	Kinston	East
Highland Tank-North Carolina	38	\$5 to \$10 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Luxfer GAS Cylinders	75	\$10 to \$20 Million	40,000+	Graham	Piedmont Triad
Tank Fab Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Rocky Point	Southeast
Bakers Waste Equipment Inc	97	\$20 to \$50 Million	40,000+	Morganton	West
Blue Ridge Tank Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Franklin	West
Industrial Mechanical Svc	30	\$5 to \$10 Million	10,000 - 39,999	Connellys Spgs	West
		Industrial Valve (332911)			
Company Name	Employment Size	Sales	Square Footage	City	Region
Flowcon Americas	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Hays Fluid Control	60	\$10 to \$20 Million	40,000+	Dallas	Charlotte
Weir Valves & Controls USA	65	\$10 to \$20 Million	40,000+	Washington	Northeast
Cryo-Flow Division- Engineered	66	\$10 to \$20 Million	40,000+	Burlington	Piedmont Triad
Engineered Controls Intl	450	\$20 to \$50 Million	40,000+	Elon College	Piedmont Triad
United Brass Works Inc	130	\$10 to \$20 Million	40,000+	Randleman	Piedmont Triad
MUELLER Steam Specialty Co	225		40,000+	St Pauls	Southeast
Watts Drainage Products Inc	500	\$100 to \$500 Million	40,000+	Spindale	West
C				1	
		Construction Machin (333120)	ery		
Company Name	Employment Size	Sales	Square Footage	City	Region
ASC Constr Eqpt USA Inc	40	\$20 to \$50 Million	40,000+	Charlotte	Charlotte

Birch Bros-Southern Inc Braswell Bobcat & Equipment	24	\$10 to \$20 Million	40,000+	Waxhaw	Charlotte
Co	15	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Carolina Cat	40	\$20 to \$50 Million	40,000+	Newton	Charlotte
Carolina Custom Cables Inc	6	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Champion Motor Graders	50	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Crane America Svc	10	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Curb Sox Equipment	2	\$1 to \$2.5 Million	2,500 - 9,999	Salisbury	Charlotte
Ergo International Inc	10	\$5 to \$10 Million	10,000 - 39,999	China Grove	Charlotte
Gradall Rentals Inc	1	\$500,000 to \$1 Million	2,500 - 9,999	Mooresville	Charlotte
Grinding Machines	3	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
H & E Equipment Svc	15	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Ironpeddlers Parts Div	50	\$20 to \$50 Million	40,000+	Monroe	Charlotte
Manus Educational Machinery	2	\$1 to \$2.5 Million	2,500 - 9,999	China Grove	Charlotte
Power Curbers Inc	80	\$20 to \$50 Million	40,000+	Salisbury	Charlotte
Rain For Rent	14	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Ready Mix	16	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Reliant Converting Eqpt Inc	5	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
RSC Equipment Rental Spectra Integrated Systems	15	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Inc	16	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Sunbelt Rentals	42	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Turn Key Technologies Union Grove Saw & Knife	6	\$2.5 to \$5 Million	10,000 - 39,999	Concord	Charlotte
Svc	80	\$20 to \$50 Million	40,000+	Union Grove	Charlotte
W R Long Inc	21	\$10 to \$20 Million	40,000+	Tarboro	East
Hitachi Construction Machinery	300		40,000+	Kernersville	Piedmont Triad
Knitters Supply	2	\$1 to \$2.5 Million	2,500 - 9,999	Greensboro	Piedmont Triad
Ligna Machinery Inc	12	\$5 to \$10 Million	10,000 - 39,999	Burlington	Piedmont Triad
Liner Industrial Machinery Co	8	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Aeroglide Corp	200		40,000+	Cary	Research Triangle
Ampac Machinery	14	\$5 to \$10 Million	10,000 - 39,999	Durham	Research Triangle
ASC Construction Equipment	25	\$10 to \$20 Million	40,000+	Garner	Research Triangle
C E Sales Co	6	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Creedmoor Manufacturing Div	225	\$100 to \$500 Million	40,000+	Creedmoor	Research Triangle
Ditch Witch Of North Carolina Mid-Atlantic Crane &	20	\$2.5 to \$5 Million	40,000+	Garner	Research Triangle
Equipment	30	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Shepherd Electric Supply Co	20	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Smt Resource Group LLC	20	\$10 to \$20 Million	40,000+	Youngsville	Research Triangle
Stafford	12	\$10 to \$20 Million	10,000 - 39,999	Raleigh	Research Triangle
R W Moore Equipment Co	10	\$5 to \$10 Million	10,000 - 39,999	Hope Mills	Southeast
WHI Mfg VOLVO Construction	17	\$5 to \$10 Million	10,000 - 39,999	Fayetteville	Southeast
Equipment	300	\$100 to \$500 Million	40,000+	Skyland	West

Sawmill & Woodworking Machinery (333210)

	Employment				
Company Name	Size	Sales	Square Footage	City	Region
Arthur A Oliver & Son Inc	9	\$1 to \$2.5 Million	2,500 - 9,999	Conover	Charlotte
Biesse America	50	\$10 to \$20 Million	10,000 - 39,999	Charlotte	Charlotte
Brooks Finch LLC	26	\$5 to \$10 Million	2,500 - 9,999	Conover	Charlotte
Burkle North America Inc	3	\$500,000 to \$1 Million	2,500 - 9,999	Charlotte	Charlotte
Custom Machine Svc	4	\$500,000 to \$1 Million	2,500 - 9,999	Statesville	Charlotte
Delle Vedove USA Inc	20	\$2.5 to \$5 Million	2,500 - 9,999	Charlotte	Charlotte
Elmag USA Inc	10	\$1 to \$2.5 Million	2,500 - 9,999	Huntersville	Charlotte
Farrington Southwood Corp	30	\$5 to \$10 Million	2,500 - 9,999	Hickory	Charlotte
Friulmac Inc	4	\$500,000 to \$1 Million	2,500 - 9,999	Hickory	Charlotte
Hickory Carbide Tool LLC	5	\$1 to \$2.5 Million	2,500 - 9,999	Hickory	Charlotte
Hickory Saw & Tool	10	\$1 to \$2.5 Million	2,500 - 9,999	Hickory	Charlotte
Huntley Industries Inc	6	\$1 to \$2.5 Million	2,500 - 9,999	Monroe	Charlotte
Mt Olive Svc Co	12	\$2.5 to \$5 Million	2,500 - 9,999	Newton	Charlotte
Ogden Enterprises Inc	7	\$1 to \$2.5 Million	2,500 - 9,999	Matthews	Charlotte
Reimler Associate Inc	7	\$1 to \$2.5 Million	2,500 - 9,999	Indian Trail	Charlotte
Smartech International	3	\$500,000 to \$1 Million	2,500 - 9,999	Charlotte	Charlotte
U S Holzma	30	\$5 to \$10 Million	2,500 - 9,999	Gastonia	Charlotte
Adwood Corp Automatic Lathe Cutterhead	20	\$2.5 to \$5 Million	2,500 - 9,999	High Point	Piedmont Triad
Co	10	\$1 to \$2.5 Million	2,500 - 9,999	High Point	Piedmont Triad
Bartimaeus By Design Beane & Howard Machinery	4	\$500,000 to \$1 Million	2,500 - 9,999	Thomasville	Piedmont Triad
Inc	2	Less Than \$500,000	2,500 - 9,999	Jamestown	Piedmont Triad
Brookside Veneers	1	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
Chrisco Machinery Co	6	\$1 to \$2.5 Million	2,500 - 9,999	Liberty	Piedmont Triad
Envision	15	\$2.5 to \$5 Million	2,500 - 9,999	Greensboro	Piedmont Triad
Eurohansa Inc	7	\$1 to \$2.5 Million	2,500 - 9,999	High Point	Piedmont Triad
F M Parisette Assoc	1	Less Than \$500,000	2,500 - 9,999	High Point	Piedmont Triad
Fletcher Machine Inc	75	\$10 to \$20 Million	10,000 - 39,999	Lexington	Piedmont Triad
J & P Finishing Inc	12	\$2.5 to \$5 Million	2,500 - 9,999	Sophia Browns	Piedmont Triad
JLT Lancaster Clamps	12	\$2.5 to \$5 Million	2,500 - 9,999	Summit	Piedmont Triad
Nelson Machine & Grinder Co	11	\$2.5 to \$5 Million	2,500 - 9,999	Greensboro	Piedmont Triad
Newman-Whitney	106	\$20 to \$50 Million	40,000+	Greensboro	Piedmont Triad
Nichols Machine Co	3	\$500,000 to \$1 Million	2,500 - 9,999	Lexington	Piedmont Triad
One In Vermillion	1	Less Than \$500,000	2,500 - 9,999	High Point	Piedmont Triad
Pattern Shop	2	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
R H Technical Solutions	1	Less Than \$500,000	2,500 - 9,999	High Point	Piedmont Triad
Singley Specialty Co	2	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
Southeastern Mfg Supplies Inc	7	\$1 to \$2.5 Million	2,500 - 9,999	Thomasville	Piedmont Triad
Valendrawers Inc	50	\$2.5 to \$5 Million	10,000 - 39,999	Lexington	Piedmont Triad

Y C Hardware	1	Less Than \$500,000	2,500 - 9,999	High Point	Piedmont Triad
Yates American Machine Co	8	\$1 to \$2.5 Million	2,500 - 9,999	Liberty	Piedmont Triad
Barr Mullin Inc	28	\$5 to \$10 Million	2,500 - 9,999	Raleigh	Research Triangle
Crouch Machinery Inc	1	Less Than \$500,000	2,500 - 9,999	West End	Research Triangle
Intereco USA Belt Filter Press	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Argon Products Inc	3	\$500,000 to \$1 Million	2,500 - 9,999	Granite Falls Connellys	West
Carolina Specialty Tool	45	\$10 to \$20 Million	2,500 - 9,999	Spgs Connellys	West
Grecon Dimter	30	\$5 to \$10 Million	2,500 - 9,999	Spgs	West
Nutex Concepts Of Nc Co	50	\$10 to \$20 Million	10,000 - 39,999	Lenoir	West
Radio Frequency	30	\$5 to \$10 Million	2,500 - 9,999	Wilkesboro North	West
Rosenquist Inc	24	\$5 to \$10 Million	2,500 - 9,999	Wilkesboro	West

Air Purification Equipment (333411)

Company Name	Employment Size	Sales	Square Footage	City	Region
American Replacement Svc Inc	5	\$500,000 to \$1 Million	10,000 - 39,999	Gastonia	Charlotte
Beacon Pneumafil Group	30	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Mikropul	48	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Piedmont Energy Systems Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Belmont	Charlotte
United Air Filter Co	25	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Design Systems Group Inc	2	Less Than \$500,000	2,500 - 9,999	Rocky Mount	East
Flanders Filters Inc	230	\$20 to \$50 Million	40,000+	Washington	Northeast
Flanders-Precisionaire	130	\$20 to \$50 Million	40,000+	Washington	Northeast
Air Cleaning Equipment Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Sanford	Research Triangle
Air Cleaning Specialists Inc	20	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
American Air Filter	1 to 4	\$500,000 to \$1 Million	10,000 - 39,999	Four Oaks	Research Triangle
Flanders-Precisionaire	575	\$100 to \$500 Million	40,000+	Smithfield	Research Triangle
Trion Inc	107	\$50 to \$100 Million	40,000+	Sanford	Research Triangle
Bon-Aire Filters Inc	30	\$5 to \$10 Million	10,000 - 39,999	Marietta	Southeast
Southern Air Purification	10	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast

Heating Equipment (Except Warm Air Furnaces) (333414)

	Employment				
Company Name	Size	Sales	Square Footage	City	Region
American Metal Products	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Indeck Power Equipment Co	1	Less Than \$500,000	2,500 - 9,999	Matthews	Charlotte
Noland Co	13	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Sun Qest Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Newton	Charlotte
Noland Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Jacksonville	East

Yandle Witherspoon Supplies Alamance Heating & Air	9	\$1 to \$2.5 Million	10,000 - 39,999	Goldsboro	East
Cond	4	\$1 to \$2.5 Million	10,000 - 39,999	Elon College	Piedmont Triad
Quality Oil Co LLC	80	\$100-500 Million	40,000+	Winston Salem	Piedmont Triad
R E Michael Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Surry Solar Svc Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Mt Airy	Piedmont Triad
Thermo Products LLC	67	\$10 to \$20 Million	40,000+	Denton	Piedmont Triad
Bfs Industries LLC	25	\$5 to \$10 Million	10,000 - 39,999	Butner	Research Triangle
Energy Control Systems	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Heatmaster Inc	53	\$10 to \$20 Million	40,000+	Angier	Research Triangle
Solar Hot LTD	7	\$1 to \$2.5 Million	10,000 - 39,999	Cary	Research Triangle
Ultimate Products	27	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Taylor Manufacturing Inc	30	\$5 to \$10 Million	10,000 - 39,999	Elizabethtown	Southeast
Appalachian Stove & Fabricator	30	\$5 to \$10 Million	10,000 - 39,999	Asheville	West
Edco Products Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Boone	West
New Buck Corp Thermacraft Radiant Floor	100	\$20 to \$50 Million	40,000+	Spruce Pine	West
Heat	2	\$500,000 to \$1 Million	2,500 - 9,999	Mills River	West

AC and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment (333415)¹

Camarana Nama	Employment Size	C-1	Carrage France	Cit-	D i
Company Name	Size	Sales	Square Footage	City	Region
C C Dickson Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Pineville	Charlotte
Cooling Technology Inc	20	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Ferguson Enterprises Inc	71	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Heatcraft Refrigeration Prods	1	Less Than \$500,000	2,500 - 9,999	Mint Hill	Charlotte
Johnson Controls Inc	50	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Suppliers To Wholesalers	30	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Trane Commercial Systems	155	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
United Refrigeration Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
W A Brown	15	\$5 to \$10 Million	10,000 - 39,999	Salisbury	Charlotte
C C Dickson Co	3	\$1 to \$2.5 Million	10,000 - 39,999	Kinston	East
C C Dickson Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Greenville	East
C C Dickson Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Rocky Mount	East
Holt Equipment Co LLC	10	\$2.5 to \$5 Million	10,000 - 39,999	Goldsboro	East
A C Corp	550	\$50 to \$100 Million	40,000+	Greensboro	Piedmont Triad
C C Dickson Co	3	\$1 to \$2.5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Industrial Air Inc	80	\$20 to \$50 Million	40,000+	Greensboro	Piedmont Triad
Johnson Controls Inc	67	\$20 to \$50 Million	40,000+	Greensboro	Piedmont Triad
C C Dickson Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
Intec Inc	10	\$2.5 to \$5 Million	10,000 - 39,999	Morrisville	Research Triangle
Price's Scientific Svc Inc	8	\$2.5 to \$5 Million	10,000 - 39,999	Durham	Research Triangle

Gibson Refrigeration Svc	1	Less Than \$500,000	2,500 - 9,999	Hamlet	Southeast
Johnson Controls Inc	33	\$10 to \$20 Million	40,000+	Wilmington	Southeast
KBAR Parts LLC Dampp-Chaser Electronics	11	\$2.5 to \$5 Million	10,000 - 39,999	Elizabethtown	Southeast
Corp	23	\$5 to \$10 Million	40,000+	Hendersonville	West
Stevenson's Electrical Svc	1	Less Than \$500,000	2,500 - 9,999	Clyde	West

Pump & Pumping Equipment $(333911)^1$

Company Name	Employment Size	Sales	Square Footage	City	Region
Flowserve Corp	6	\$1 to \$2.5 Million	10,000 - 39,999	Matthews	Charlotte
Flowserve Corp	28	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Haldex Hydraulics Corp	115	\$20 to \$50 Million	40,000+	Statesville	Charlotte
IMO Pump	200	\$100 to \$500 Million	40,000+	Monroe	Charlotte
Maag Pump Systems Textron	200	\$100 to \$500 Million	40,000+	Monroe	Charlotte
Inc	50		40,000+	Charlotte	Charlotte
Mahr Metering Systems Corp	20	\$5 to \$10 Million	40,000+	Charlotte	Charlotte
Mechanical Equipment Co	14	\$5 to \$10 Million	10,000 - 39,999	Matthews	Charlotte
Moyno Inc	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Sundine Corp	10 to 19	\$5 to \$10 Million	10,000 - 39,999	Matthews	Charlotte
Lely Manufacturing	16	\$5 to \$10 Million	10,000 - 39,999	Wilson	East
Lucas Plumbing Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Wilson	East
Accu's Oil System	2	\$500,000 to \$1 Million	2,500 - 9,999	Mt Gilead	Piedmont Triad
Hayward Industrial Products	800	\$100 to \$500 Million	40,000+	Clemmons	Piedmont Triad
Jimmy Idol's Plumbing Co	1	Less Than \$500,000	2,500 - 9,999	Winston Salem	Piedmont Triad
PSI	5	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Ebara Technologies Inc	10 to 19	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Flowserve Corp	210	\$50 to \$100 Million	40,000+	Raleigh	Research Triangle
Fluid Solutions Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Chapel Hill	Research Triangle
James M Pleasants Co Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
K L Shane Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Pentair Pool Products Inc	500	\$100 to \$500 Million	40,000+	Sanford	Research Triangle
Tim's Water Pump & Filter Svc	2	\$500,000 to \$1 Million	2,500 - 9,999	Zebulon	Research Triangle
LDI-Pulsation Dampers	12	\$2.5 to \$5 Million	10,000 - 39,999	Hampstead	Southeast
Tencarva Machinery Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast

Air & Gas Compressor (333912)¹

	Employment					
Company Name	Size	Sales	Square Footage	City	Region	
Beacon Medaes	78		40,000+	Charlotte	Charlotte	
Entertainment Transportation	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte	

J E Ferguson Inc Johnnie Sheppard Equipment	5	\$1 to \$2.5 Million	10,000 - 39,999	Pineville	Charlotte
Со	20	\$5 to \$10 Million	10,000 - 39,999	Pink Hill	East
Safe Air Systems Inc Linder Industrial Machinery	23	\$5 to \$10 Million	10,000 - 39,999	Randleman	Piedmont Triad
Со	50	\$10 to \$20 Million	40,000+	Raleigh	Research Triangle
Weed Man Linder Industrial Machinery	4	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Co	17	\$5 to \$10 Million	10,000 - 39,999	Asheville	West

Conveyor & Conveying Equipment (333922)

C N	Employment	0.1	G F (C'.	ъ.
Company Name	Size	Sales	Square Footage	City	Region
Belt Service	25	\$5 to \$10 Million	10,000 - 39,999	Huntersville	Charlotte
Conveyor Components Inc	100	\$20 to \$50 Million	40,000+	Albemarle	Charlotte
Davis Conveyor Components	5	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Gardner Machinery Corp	15	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Gough-Econ Inc	39	\$10 to \$20 Million	10,000 - 39,999	Charlotte	Charlotte
Siegling America LLC	300	\$50 to \$100 Million	40,000+	Huntersville	Charlotte
Spiroflow Orthos Systems Inc	23	\$5 to \$10 Million	10,000 - 39,999	Monroe Kings	Charlotte
Turbo Systems Inc	130	\$20 to \$50 Million	40,000+	Mountain	Charlotte
United Conveyor Corp	3	\$500,000 to \$1 Million	10,000 - 39,999	Hickory	Charlotte
Applied Materials Handling	8	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Conveyor Technologies	80	\$20 to \$50 Million	40,000+	Sanford	Research Triangle
Hillmont Corp Material Handling	1	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Technologies Automated Lumber Handling	12	\$2.5 to \$5 Million	10,000 - 39,999	Morrisville	Research Triangle
Inc	33	\$5 to \$10 Million	10,000 - 39,999	Lenoir	West
Vertique	50	\$10 to \$20 Million	40,000+	Arden	West

Overhead Traveling Crane, Hoist & Monorail System $(333923)^1$

Company Name	Employment Size	Sales	Square Footage	City	Region
Boat Lift Doctor	3	\$500,000 to \$1 Million	10,000 - 39,999	Denver	Charlotte
Carolina Precision Boat Lifts	4	\$1 to \$2.5 Million	10,000 - 39,999	Denver	Charlotte
Econo Boat Lifts	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Hickory	Charlotte
Hi & Dri Boat Lift Systems	3	\$500,000 to \$1 Million	10,000 - 39,999	Mooresville	Charlotte
Hydrohoist Of North Carolina Lancaster Cothren Custom	5	\$1 to \$2.5 Million	10,000 - 39,999	Mooresville	Charlotte
Shore	15	\$2.5 to \$5 Million	10,000 - 39,999	Troutman	Charlotte
Progressive Crane Inc	9	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Carolina Shores Boat Lift	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Morehead City	East
Decks N Docks Construction LLC	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	New Bern	East

Maritime Partners	2	\$500,000 to \$1 Million	2,500 - 9,999	New Bern	East
Millstone Marine Construction	12	\$2.5 to \$5 Million	10,000 - 39,999	Harbinger	Northeast
T J's Custom Building Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Belhaven	Northeast
Atlantis Underwater Svc Above PAR Marine	2	\$500,000 to \$1 Million	2,500 - 9,999	Stokesdale	Piedmont Triad
Construction	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
Clements Marine Construction Connaway Marine	3	\$500,000 to \$1 Million	10,000 - 39,999	Hampstead	Southeast
Construction	7	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
Delta Dock & Boat Lift Duncan Marine Contractors	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
Inc Edgewater Marine	4	\$1 to \$2.5 Million	10,000 - 39,999	Wilmington	Southeast
Construction	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Wilmington	Southeast
Terex Cranes	120	\$20 to \$50 Million	40,000+	Wilmington	Southeast
Varnam's Docks & Bulkheads	2	\$500,000 to \$1 Million	2,500 - 9,999	Supply	Southeast

General Purpose Machinery, Misc. (333999)

Company Name	Employment Size	Sales	Square Footage	City	Region
Accurate Technology Inc	2	Less Than \$500,000	2,500 - 9,999	Hickory	Charlotte
Adept Technology Rtp	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Affordable Fire Protection Inc	17	\$2.5 to \$5 Million	10,000 - 39,999	Concord	Charlotte
AGV Products	40	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
America In Motion Inc	65	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Automation Technology Inc	50	\$10 to \$20 Million	40,000+	Concord	Charlotte
Becker & Assoc	4	\$500,000 to \$1 Million	10,000 - 39,999	Indian Trail	Charlotte
Burris Machine Co Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Hickory	Charlotte
C Tec Ind Products Inc	19	\$2.5 to \$5 Million	10,000 - 39,999	Huntersville	Charlotte
Carolina Teller System	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Indian Trail	Charlotte
Carriff Corp Inc	25	\$5 to \$10 Million	10,000 - 39,999	Midland	Charlotte
Carrington Engineering Sales	4	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Cavotec Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Statesville	Charlotte
Cca-Wesco	25	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Centerline Precision Machining	13	\$2.5 to \$5 Million	10,000 - 39,999	Gastonia	Charlotte
Cimco Intergration LLC	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Oakboro	Charlotte
Conover Machine & Design Inc	8	\$1 to \$2.5 Million	10,000 - 39,999	Hickory	Charlotte
Control Resources	15	\$2.5 to \$5 Million	10,000 - 39,999	Salisbury	Charlotte
Control Source Inc	11	\$2.5 to \$5 Million	10,000 - 39,999	Mt Holly	Charlotte
Deal Machine Shop Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Statesville	Charlotte
Dellinger Enterprises Inc	35	\$5 to \$10 Million	10,000 - 39,999	Belmont	Charlotte
H C Warner Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Heritage Tool Corp	1	Less Than \$500,000	2,500 - 9,999	Dallas	Charlotte
Hitachi Air Technology Group	13	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte

IKSUSA Inc	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Independent Systems Svc	14	\$2.5 to \$5 Million	10,000 - 39,999	Salisbury	Charlotte
Ingersoll-Rand Co	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Davidson	Charlotte
Innovative Solutions	8	\$1 to \$2.5 Million	10,000 - 39,999	Albemarle	Charlotte
J-Mar Filters Inc	1	Less Than \$500,000	2,500 - 9,999	Landis	Charlotte
Liquid Process Systems Inc	9	\$1 to \$2.5 Million	10,000 - 39,999	Indian Trail	Charlotte
M & R Machine Tooling Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Gastonia	Charlotte
M & S Mfg	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Midland	Charlotte
Merritt Machine Shop	1	Less Than \$500,000	2,500 - 9,999	Gastonia	Charlotte
Michael Weinig Inc	80	\$20 to \$50 Million	10,000 - 39,999	Mooresville	Charlotte
Mike Goodwin's Logging Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Lilesville	Charlotte
Mills Machine Co	1	Less Than \$500,000	2,500 - 9,999	Concord	Charlotte
Pantron Automation Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Belmont	Charlotte
Patterson Machine Svc Inc	6	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Piedmont Technical Sales	4	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Pixargus	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Polypore International Inc	350	479677000	40,000+	Charlotte	Charlotte
Quality Sprinkler Co Inc	125	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Robo-Tech Systems	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Gastonia	Charlotte
Schroeder Inc	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Snider's Machine Shop Inc	2	Less Than \$500,000	2,500 - 9,999	Rockwell	Charlotte
Steinemann Technology USA	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Tac Tour Andover Controls	9	\$1 to \$2.5 Million	10,000 - 39,999	Concord	Charlotte
Thompson Filtration Products	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Ultra Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Complete Filtration Svc	6	\$1 to \$2.5 Million	10,000 - 39,999	Greenville	East
ЕРМ Со	1	Less Than \$500,000	2,500 - 9,999	Tarboro	East
Havelock Muffler & Alignment	4	\$500,000 to \$1 Million	10,000 - 39,999	Newport	East
Lubesite	4	\$500,000 to \$1 Million	10,000 - 39,999	Kinston	East
Smith Equipment Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Goldsboro	East
Smith's Heavy Equipment Svc	1	Less Than \$500,000	2,500 - 9,999	Vanceboro	East
Daniel's Mechanical Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Manteo	Northeast
Dawson Brothers Co	13	\$2.5 to \$5 Million	10,000 - 39,999	Gatesville	Northeast
Optimum Filtration Co	6	\$1 to \$2.5 Million	10,000 - 39,999	Washington	Northeast
Thompson Filtration Products	8	\$1 to \$2.5 Million	10,000 - 39,999	Washington	Northeast
•	90			•	Piedmont Triad
Associated Sprinkler LLC		\$20 to \$50 Million \$1 to \$2.5 Million	40,000+ 10,000 - 39,999	Greensboro	
Automation Techniques Inc	8			Greensboro	Piedmont Triad
Avid Solutions Inc	35	\$5 to \$10 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Black Brothers Co Southeast	7	\$1 to \$2.5 Million	10,000 - 39,999	High Point	Piedmont Triad
C & M Baling Systems Inc	75	\$10 to \$20 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
C E Terrell Machine Co	5	\$1 to \$2.5 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Collins Tool Works Inc	1	Less Than \$500,000	2,500 - 9,999	Thomasville	Piedmont Triad

Cory Automations Inc	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
D S Miller Inc	38	\$5 to \$10 Million	10,000 - 39,999	High Point	Piedmont Triad
Engine Distributors Inc II	7	\$1 to \$2.5 Million	10,000 - 39,999	Archdale	Piedmont Triad
Gresco Manufacturing	1	Less Than \$500,000	2,500 - 9,999	Clemmons	Piedmont Triad
Kidde Residential & Coml Div	300		40,000+	Mebane	Piedmont Triad
Latham-Hall Corp	25	\$5 to \$10 Million	10,000 - 39,999	Thomasville	Piedmont Triad
Logic Control Systems Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Lynx Automation	9	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Paschal Associate	14	\$2.5 to \$5 Million	10,000 - 39,999	Asheboro	Piedmont Triad
Powerscreen Mid-Atlantic Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Kernersville	Piedmont Triad
Purolator EFP	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	High Point	Piedmont Triad
Purolator Facet Inc	150		40,000+	Greensboro	Piedmont Triad
Quality Filtration Products	1	Less Than \$500,000	2,500 - 9,999	Lexington	Piedmont Triad
Rebb Industries	46	\$10 to \$20 Million	10,000 - 39,999	Yadkinville	Piedmont Triad
Salem Welding Co	2	Less Than \$500,000	2,500 - 9,999	Winston Salem	Piedmont Triad
Screening & Shredding Systems	1	Less Than \$500,000	2,500 - 9,999	Winston Salem	Piedmont Triad
Stephen King & Assoc Inc	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Sunland Fire Protection Inc	140	\$20 to \$50 Million	40,000+	High Point	Piedmont Triad
Superior Finishing Systems	9	\$1 to \$2.5 Million	10,000 - 39,999	Lexington	Piedmont Triad
Tarheel Automation & Controls	2	Less Than \$500,000	2,500 - 9,999	Boonville	Piedmont Triad
Tiger Tek Indl Svc	20	\$2.5 to \$5 Million	10,000 - 39,999	Eden	Piedmont Triad
Tri Star Automation Group	1	Less Than \$500,000	2,500 - 9,999	Greensboro	Piedmont Triad
Triad Automation Group	15	\$2.5 to \$5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
Twin City Sprinkler Co	14	\$2.5 to \$5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
W W Grainger	15	\$2.5 to \$5 Million	10,000 - 39,999	Winston Salem	Piedmont Triad
A Don Ellington Sound Svc	10	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
Afex	12	\$2.5 to \$5 Million	10,000 - 39,999	Raleigh	Research Triangle
Allied Fire Protection Inc	40	\$5 to \$10 Million	10,000 - 39,999	Raleigh	Research Triangle
Arcon Parts LLC	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Artisan Services LTD	2	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
ASCO Power Technolgies	20	\$10 to \$20 Million	10,000 - 39,999	Cary	Research Triangle
Ati Indl Automation	100	\$20 to \$50 Million	40,000+	Apex	Research Triangle
Basic Machinery Co	80	\$10 to \$20 Million	10,000 - 39,999	Siler City	Research Triangle
Bekaert Fibre Technologies	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Resrch Trngle Pk	Research Triangle
Blakell North America	2	Less Than \$500,000	2,500 - 9,999	Apex	Research Triangle
Central Welding & Ind Supply	23	\$5 to \$10 Million	10,000 - 39,999	Sanford	Research Triangle
DBI Automation Inc	10	\$1 to \$2.5 Million	10,000 - 39,999	Angier	Research Triangle
Doall Industrial Supply Corp	6	\$1 to \$2.5 Million	10,000 - 39,999	Sanford	Research Triangle
Great Products Inc	1	Less Than \$500,000	2,500 - 9,999	Aberdeen	Research Triangle
High Tech Svc	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Cary	Research Triangle
Hi-Tech Fabrication Inc	85	\$20 to \$50 Million	10,000 - 39,999	Raleigh	Research Triangle
Industrial Microwave System	20		10,000 - 39,999	Morrisville	Research Triangle

Juki Automation	29	\$50 to \$100 Million	10,000 - 39,999	Morrisville	Research Triangle
Kamtec Inc	24	\$5 to \$10 Million	10,000 - 39,999	Mebane	Research Triangle
Lambda Technologies Inc	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Morrisville	Research Triangle
Minuteman Power Boss Inc	105		40,000+	Aberdeen	Research Triangle
Mr Part Inc	1	Less Than \$500,000	2,500 - 9,999	Bahama	Research Triangle
NCSRT Inc	15	\$2.5 to \$5 Million	10,000 - 39,999	Apex	Research Triangle
P D Automation	15	\$2.5 to \$5 Million	10,000 - 39,999	Sanford	Research Triangle
Parata Systems	500	\$50 to \$100 Million	40,000+	Durham	Research Triangle
Phoenix Fire Protection Inc	40	\$5 to \$10 Million	10,000 - 39,999	Sanford	Research Triangle
Quality Air Tool	11	\$2.5 to \$5 Million	10,000 - 39,999	Garner	Research Triangle
Reichmeider, Rob	2	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Shopbot Tools	25	\$5 to \$10 Million	10,000 - 39,999	Durham	Research Triangle
Simple Machines Co	2	Less Than \$500,000	2,500 - 9,999	Raleigh	Research Triangle
Solara Solutions LLC	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Raleigh	Research Triangle
South Forty Sprinkler Fab	7	\$1 to \$2.5 Million	10,000 - 39,999	Sanford	Research Triangle
Tarheel Tooling & Precision	16	\$2.5 to \$5 Million	10,000 - 39,999	Smithfield	Research Triangle
Total Fire Systems	10	\$1 to \$2.5 Million	10,000 - 39,999	Youngsville	Research Triangle
Tyndall Machine Tool Inc	12	\$2.5 to \$5 Million	10,000 - 39,999	Pittsboro	Research Triangle
Clarcor Air Filtration Prods	6	\$1 to \$2.5 Million	10,000 - 39,999	Fayetteville	Southeast
Electrical Equipment Co	33	\$5 to \$10 Million	10,000 - 39,999	Laurinburg	Southeast
High Rise Svc Co	33	\$2.5 to \$5 Million	10,000 - 39,999	Leland	Southeast
Mc Duffie, Charlie Moore's Machine & Welding	3	\$500,000 to \$1 Million	10,000 - 39,999	Laurinburg	Southeast
Shop	2	Less Than \$500,000	2,500 - 9,999	Currie	Southeast
No Blaze Fire Equipment Co	3	\$500,000 to \$1 Million	10,000 - 39,999	Pembroke	Southeast
Smithco Sales & Svc Inc Talladega Machinery &	8	\$1 to \$2.5 Million	10,000 - 39,999	Fayetteville	Southeast
Supply Advanced Automation	4	\$500,000 to \$1 Million	10,000 - 39,999	Fayetteville	Southeast
Solutions	9	\$1 to \$2.5 Million	10,000 - 39,999	Fletcher	West
Automated Tool & Machine Inc	2	Less Than \$500,000	2,500 - 9,999	Pisgah Forest	West
Balcrank Products Inc	100		40,000+	Weaverville	West
Bertelkamp Automation Black Mountain Machine &	1	Less Than \$500,000	2,500 - 9,999	Hendersonville Black	West
Fab	12	\$2.5 to \$5 Million	10,000 - 39,999	Mountain North	West
Brock & Triplett Machine	4	\$500,000 to \$1 Million	10,000 - 39,999	Wilkesboro	West
Hagemeyer	15	\$2.5 to \$5 Million	10,000 - 39,999	Asheville	West
Marlin Chemical	10	\$1 to \$2.5 Million	10,000 - 39,999	Lenoir	West
Morganton Electric Svc Inc	2	Less Than \$500,000	2,500 - 9,999	Morganton	West
Potter's Machine Shop Process Automation	2	Less Than \$500,000	2,500 - 9,999	Jefferson	West
Technologie	30	\$5 to \$10 Million	10,000 - 39,999	Swannanoa	West
Rockwell Automation	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Marion	West
Selee Corp	190	\$20 to \$50 Million	40,000+	Hendersonville	West
Sweco Inc	5 to 9	\$1 to \$2.5 Million	10,000 - 39,999	Lenoir	West

Instruments and Related Products for Measuring, Displaying and Controlling Industrial Process Variables (334513)

	Employment				
Company Name	Size	Sales	Square Footage	City	Region
Carolina V-Blox	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Global Sensors	3	\$500,000 to \$1 Million	10,000 - 39,999	Mt Holly	Charlotte
Industrial Combustion Svc Inc	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
RJM Corp	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
V-Blox Carolinas	1	Less Than \$500,000	2,500 - 9,999	Charlotte	Charlotte
Fairchild Industrial Products	125		40,000+	Winston Salem	Piedmont Triad
Central Fuels Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Smithfield	Research Triangle
Optrol Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Raleigh	Research Triangle
Ppt Vision Inc	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Garner	Research Triangle
Vision Technologies Inc	5	\$1 to \$2.5 Million	10,000 - 39,999	Wendell North	Research Triangle
Barrett Petrolum Equipment	4	\$1 to \$2.5 Million	10,000 - 39,999	Wilkesboro	West

Power, Distribution, and Specialty Transformer (335311)

Company Name	Employment Size	Sales	Square Footage	City	Region
Boston Gear	80	\$20 to \$50 Million	40.000+	Charlotte	Charlotte
Instrument Transformer Equip	12	\$2.5 to \$5 Million	10,000 - 39,999	Monroe	Charlotte
United Transformer	2	\$500,000 to \$1 Million	2,500 - 9,999	Monroe	Charlotte
ABB Inc	200	\$50 to \$100 Million	40,000+	Pinetops	East
Waukesha Electric Systems	260	\$50 to \$100 Million	40,000+	Goldsboro	East
Industrial Supply Corp	5	\$1 to \$2.5 Million	10,000 - 39,999	High Point	Piedmont Triad
Tri Power Inc	11	\$2.5 to \$5 Million	10,000 - 39,999	Mocksville	Piedmont Triad
Electric Power Systems	2	\$2.5 to \$5 Million	2,500 - 9,999	Youngsville	Research Triangle
Electronics Systems Protection	15	\$2.5 to \$5 Million	10,000 - 39,999	Zebulon	Research Triangle
Elite Line Svc	2	\$500,000 to \$1 Million	2,500 - 9,999	Morrisville	Research Triangle
Smarte Carte Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Morrisville	Research Triangle
Southeastern Transformer Co	50	\$10 to \$20 Million	40,000+	Dunn	Research Triangle
Ward Transformers	40	\$10 to \$20 Million	10,000 - 39,999	Morrisville	Research Triangle
Broadcast & Communications Inc	2	\$500,000 to \$1 Million	2,500 - 9,999	Lumberton	Southeast
Pennsylvania Transformer Co	33	\$10 to \$20 Million	10,000 - 39,999	Raeford	Southeast
Eaton Cutler-Hammer	550	\$100 to \$500 Million	40,000+	Arden	West

$\begin{tabular}{ll} Electronic Equipment \& Components, Misc. \\ (335999) \end{tabular}$

	Employment				
Company Name	Size	Sales	Square Footage	City	Region
Allison-Erwin Co Inc	100	\$20 to \$50 Million	40,000+	Charlotte	Charlotte
Benshaw Inc Besam Automated Entrance	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Sys	70		40,000+	Monroe	Charlotte
C Alley & Assoc	2	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Carolina Lighting Systems Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Eaton Cutler-Hammer	14	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Eaton Cutler-Hammer	11	\$2.5 to \$5 Million	10,000 - 39,999	Belmont	Charlotte
Gardner Bender Inc	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Graybar Electric Co Hi-Tech Fuses/Thomas &	250	\$50 to \$100 Million	40,000+	Charlotte	Charlotte
Betts	45	\$10 to \$20 Million	10,000 - 39,999	Hickory	Charlotte
Hoffman Enclosures	4	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Hubbell Inc	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Matthews	Charlotte
Hughes Supply Inc	70	\$10 to \$20 Million	40,000+	Charlotte	Charlotte
Kht Fuses LLC	30	\$5 to \$10 Million	10,000 - 39,999	Hickory	Charlotte
Mitsubishi Electric Automation	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Charlotte	Charlotte
Pepperl & Fuchs Inc	1	Less Than \$500,000	10,000 - 39,999	Charlotte	Charlotte
Polytech Electrical Sales	3	\$500,000 to \$1 Million	10,000 - 39,999	Charlotte	Charlotte
Record USA Richardson Electric Equipment	50	\$10 to \$20 Million	40,000+	Monroe	Charlotte
	4	\$1 to \$2.5 Million	10,000 - 39,999	Cornelius	Charlotte
Sedgeley & Assoc	6	\$1 to \$2.5 Million	10,000 - 39,999	Charlotte	Charlotte
Square D	25	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Transbotics Corp	23	\$6,440,000*	10,000 - 39,999	Charlotte	Charlotte
Wesco DISTRIBUTING Inc	30	\$5 to \$10 Million	10,000 - 39,999	Charlotte	Charlotte
Impulse NC Inc	80	\$20-50 Million	40,000+	Mt Olive	East
Mayer Electric	17	\$2.5 to \$5 Million	10,000 - 39,999	Greenville	East
Reuel	25	\$5 to \$10 Million	10,000 - 39,999	Goldsboro	East
Atlas Electric Corp	30	\$5 to \$10 Million	10,000 - 39,999	Burlington	Piedmont Triad
Davidson Electric Wholesale	7	\$1 to \$2.5 Million	10,000 - 39,999	Lexington	Piedmont Triad
Energy Dynamics	20	\$5 to \$10 Million	10,000 - 39,999	Blanch	Piedmont Triad
J Tronix Inc	7	\$1 to \$2.5 Million	10,000 - 39,999	Welcome	Piedmont Triad
Mayer Electric Supply Co Inc	250	\$50 to \$100 Million	40,000+	Greensboro	Piedmont Triad
Power Integrity Corp	20	\$5 to \$10 Million	10,000 - 39,999	Greensboro	Piedmont Triad
T & S Sales & Mfg Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Burlington	Piedmont Triad
Triac Corp	10	\$2.5 to \$5 Million	10,000 - 39,999	Greensboro	Piedmont Triad
Triem Electric Motors	100	\$20 to \$50 Million	40,000+	Mebane	Piedmont Triad
Bestec Inc	3	\$500,000 to \$1 Million	10,000 - 39,999	Raleigh	Research Triangle
Celestica	200	\$50 to \$100 Million	40,000+	Morrisville	Research Triangle
County Electric Supply	6	\$1 to \$2.5 Million	10,000 - 39,999	Sanford	Research Triangle

Erico	78	\$20 to \$50 Million	40,000+	Aberdeen	Research Triangle
GE Co	500	\$100 to \$500 Million	40,000+	Mebane	Research Triangle
Hunt Electric Supply	5	\$1 to \$2.5 Million	10,000 - 39,999	Durham	Research Triangle
Incon Of Fv Corp	3	\$500,000 to \$1 Million	10,000 - 39,999	Fuquay Varina	Research Triangle
Interpower Corp	1	Less Than \$500,000	10,000 - 39,999	Raleigh	Research Triangle
Maddux Supply	25	\$5 to \$10 Million	10,000 - 39,999	Durham	Research Triangle
Progressive Industries S & J Plumbing & Electrical	1	Less Than \$500,000	10,000 - 39,999	Morrisville	Research Triangle
Co	4	\$1 to \$2.5 Million	10,000 - 39,999	Siler City	Research Triangle
Siemens Power Trans & Distr	350		40,000+	Wendell	Research Triangle
T T Electronics Tyco Electronics Telecom	3	\$500,000 to \$1 Million	10,000 - 39,999	Cary	Research Triangle
Osp	370	\$50 to \$100 Million	40,000+	Fuquay Varina	Research Triangle
Wilmore Electronics Co Inc	50	\$10 to \$20 Million	40,000+	Hillsborough	Research Triangle
Womack Warehouse Inc	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Youngsville	Research Triangle
Eaton Cutler-Hammer	773	\$100 to \$500 Million	40,000+	Fayetteville	Southeast
Electrical Solutions	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Hope Mills	Southeast
Excalibur Technical Sales Inc	2	\$500,000 to \$1 Million	10,000 - 39,999	Wilmington	Southeast
Ingraham Time Products	90	\$20 to \$50 Million	40,000+	Laurinburg	Southeast
Marpac Corp Siemens Energy &	17	\$2.5 to \$5 Million	10,000 - 39,999	Rocky Point	Southeast
Automation	1	Less Than \$500,000	10,000 - 39,999	Wilmington	Southeast
Baldor Dodge Reliance	10 to 19	\$2.5 to \$5 Million	10,000 - 39,999	Marion	West
Moog Components Group	350	\$50 to \$100 Million	40,000+	Murphy	West
North Fork Electric Inc	4	\$1 to \$2.5 Million	10,000 - 39,999	Crumpler	West
Southeastern Electronics	1 to 4	\$1 to \$2.5 Million	10,000 - 39,999	Union Mills	West

Railroad Rolling Stock (336510)

Company Name	Employment Size	Sales	Square Footage	City	Region
Atlantic Locomotive	7	\$2.5 to \$5 Million	10,000 - 39,999	Waxhaw Kings	Charlotte
Twin Oaks Svc South Inc	1	Less Than \$500,000	2,500 - 9,999	Mountain	Charlotte
Frit Car Inc	25	\$10 to \$20 Million	10,000 - 39,999	New Bern	East
Johnson Railway Svc	4	\$1 to \$2.5 Million	10,000 - 39,999	Laurinburg	Southeast
Railroad Friction Prods Corp	170		40,000+	Maxton	Southeast

¹ Indicates firms with the potential to act as suppliers to geothermal renewable energy companies. All the firms listed in this section of the Appendix have the capacity to supply biomass renewable companies.