
POISED FOR PROFIT II:
INVENTORY OF SMART ENERGY COMPANIES
IN BRITISH COLUMBIA, OREGON
AND WASHINGTON

November 30, 2003

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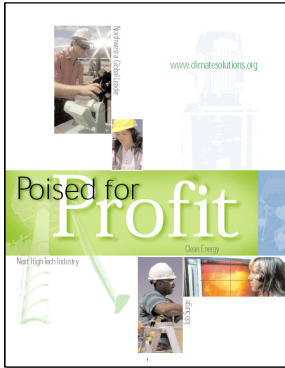
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PREFACE

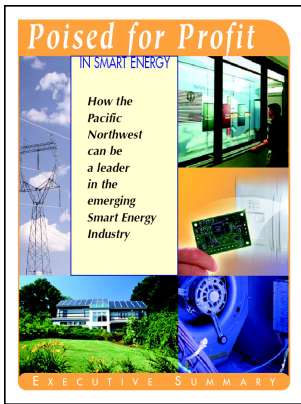
POISED FOR PROFIT: PROMOTING A NORTHWEST CLEAN ENERGY INDUSTRY



In 2001, eight economic development and energy agencies from Oregon, Washington, and British Columbia commissioned a study: *Poised for Profit: How Clean Energy Can Power the Next High-Tech Job Surge in the Northwest*. The resulting report revealed that the clean energy sector could be twice the size of the aircraft industry within 20 years. What's more, it could generate as many as 30,000 new jobs. That first report is available at www.climatesolutions.org.

A new partnership has come together to fund *Poised for Profit II*, follow-on research to support a world-class clean energy industry in the Northwest. Through the work of The Athena Institute, the project has produced a series of reports containing critical information for investors, entrepreneurs, and policymakers. These tools include:

- Research and analysis to pinpoint the largest and best opportunities
- Surveys of investor and utility plans
- Directories to research reports, related companies and helpful resources



The Athena Institute was tasked to investigate near-term market opportunities in Oregon, Washington, and British Columbia for selected clean energy technologies. At the direction of the Steering Committee, we focused on opportunities that could see commercial success within five years, with emphasis on “cluster opportunities.” The Milken Institute defines clusters as “agglomerations of interrelated industries that foster wealth creation in a region.” (For example, Washington’s King County is known for its aerospace and software clusters.)

Viewed through this filter, Smart Energy emerged as an area with significant near-term opportunities for the Northwest. Smart Energy is the application of digital technologies to the generation, delivery, and use of power. The use of the term “Smart” captures the fusing of intelligence into the existing system.

This document is a directory of the Smart Energy-related companies in British Columbia, Oregon and Washington. As such, it is an excellent companion to the *Poised for Profit in Smart Energy* report, which details the sector and its opportunities. Both the full report and the executive summary are available for download at www.centerforsmartenergy.com.

ABOUT THE PARTNERS

Poised for Profit II was jointly funded and guided by the following organizations and members of the Poised for Profit Steering Committee:

- **BC Hyrdo:** Bruce Sampson
- **Bonneville Power Administration:** Mike Hoffman and Kevin O'Sullivan
- **City of Portland:** Jeff Cogen and Curt Nichols
- **NW Energy Technology Collaborative:** Lee Cheatham and Jeff Morris
- **Oregon Institute of Technology:** Howard Thurston
- **Oregon Office of Energy:** Mark Kendall
- **Leading Edge British Columbia:** Anton Kuipers
- **Pacific Northwest National Laboratory:** Mike Lawrence
- **Portland Business Alliance:** Molly Moore
- **Portland Development Commission:** Ann Griffin
- **Portland General Electric:** Joe Barra
- **Seattle Office of Economic Development:** Ben Wolters
- **Washington Office of Trade and Economic Development:** Tony Usibelli and Tim Stearns

ABOUT CLIMATE SOLUTIONS

The *Poised for Profit* initiative is managed by Climate Solutions, a public interest group that works to make the Pacific Northwest a global warming solutions leader. Since 1998, the group has targeted development of a Northwest clean energy cluster as a globally significant contribution the Pacific Northwest can make to reduce greenhouse emissions. Climate Solutions generates leading-edge information and knowledge on clean energy technology and the economic opportunities it presents. The organization issues reports, organizes conferences, and builds crosscutting alliances to further the goal of rapid energy transition.

ABOUT THE ATHENA INSTITUTE AND THE CENTER FOR SMART ENERGY

The Athena Institute is a research organization that helps executives and organizations find success in emerging markets. Its methodologies and insights have been implemented by many organizations, ranging from Fortune 1000 corporations to public policy agencies.

The Athena Center for Smart Energy (www.centerforsmartenergy.com), the industry's guide to the value chain, is operated by The Athena Institute. The Center is dedicated to making North America the leader in Smart Energy innovation. The

Center's research and acceleration programs help businesses and investors pursue their strongest opportunities in the Smart Energy sector.

ACKNOWLEDGEMENTS

The Athena Institute would like to recognize the following companies and individuals for their contributions to the *Poised for Profit* initiative in general and this report in particular.

For catalyzing the project and providing oversight, we acknowledge Climate Solutions, with special recognition to Rhys Roth.

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- Wal Van Lierop, Chrysalix Energy

We also acknowledge and thank the more than 135 individuals who gave of their time for discussions with Athena analysts during the course of this study.

We are especially appreciative of the co-funders and members of the Steering Committee, who provided ongoing advice and assistance.

DISCLAIMER

Every effort was made to ensure the accuracy of this document. However, no representation or warranty is given (express or implied) as to the accuracy, completeness or correctness of the information and the opinions in this publication. The material should not be regarded as specific advice and no action should be taken in reliance on it. Neither the authors nor the sponsors accept any liability whatsoever for any loss or damage arising in any way from any use of or reliance on the material.

INTRODUCTION

This directory identifies companies active in the Smart Energy marketplace in British Columbia, Oregon, and Washington. It includes five sections:

- **Introduction**, in which we define Smart Energy and identify how to use this directory
- **Index by Company Type**, in which we list companies by type -- manufacturer, distributor, etc.
- **Index by Selected Products**, in which we list all the companies involved with key product categories
- **Index by Postal Code**, in which we list the companies by location
- **Alphabetical Company Profiles**, in which we provide detailed company information

HOW TO USE THIS DIRECTORY

If you are new to Smart Energy or wish to understand the categories used in this directory, begin with the introduction below.

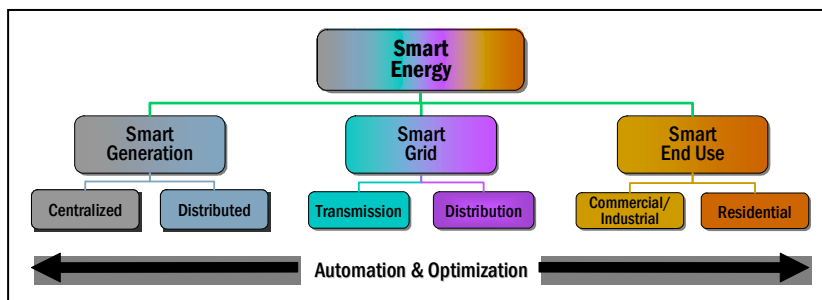
If you are searching for something in particular, turn to the appropriate index. For instance, you might want to find all of the service companies (Index by Company Type), all of the companies making grid monitors and controls (Index by Selected Products) or all of the companies in your immediate locale (Index by Postal Code). Once you've found what you need, you can get further details by turning to the Alphabetical Company Profiles at the back.

If you want to understand Smart Energy's potential for our region, browse through the Alphabetical Company Profiles. You will quickly notice the number, the diversity, and the vigor of this rapidly growing sector.

HOW YOU CAN HELP KEEP THIS DIRECTORY CURRENT

Information in this directory comes from a variety of sources, and every effort was made to ensure accuracy. However, change is constant in this fast-paced, emerging market. If you have ideas, additions, changes or updates, please send them to SmartEnergy@theathenainstitute.com.

Figure 1
Electricity Value Chain
“Smart Energy” (automation
and optimization) extends
throughout the electricity
value chain.



DEFINITION OF SMART ENERGY

Smart Energy is the application of advanced technology to the electric power system, one of the few industries yet to feel the full impact of computerization. It spans the entire value chain, from creation (generation) to transport (grid) to consumption (end-use). Smart Energy has three subsections (see Figure 1):

- **Smart Generation** involves the production of electricity in ways that are more efficient and more controllable. Smart Generation includes alternative energy sources. *This document does not cover Smart Generation (or the subcategory Smart Storage).*
- **Smart Grid** products help design, analyze, transform, control, condition, switch, monitor, protect and optimize electricity transmission (high-voltage) and distribution (medium voltage) with products such as intelligent switches, digital relays and advanced meters. *Many of the best near-term opportunities are in the Smart Grid area.*

The industry often refers to transmission and distribution together under the names “T&D” or “the grid.”

- **Smart End Use** includes products and services to increase efficiency and reduce peak loads. Energy management software and services, smart motors, intelligent load shedding and building automation systems are all examples of solutions that streamline operations while saving energy. *Some near-term opportunities are all or partially in the End Use area.*

For a complete discussion of Smart Energy, its technologies, drivers, barriers and opportunities, please refer to the report *Poised for Profit in Smart Energy* available for download at www.centerforsmartenergy.com

INDEX BY COMPANY TYPE

This section sorts companies into five categories: 1) Component Suppliers, 2) Developers, 3) Distributors/Manufacturers Reps/Dealers, 4) Manufacturers, and 5) Service Providers. Many companies overlap into several categories and, therefore, appear on more than one list.

Note: Some large companies are involved in dozens of different activities, only a few of which relate to Smart Energy. (Engineering firms and distributors frequently fit this description.) In those cases, the Primary SE Focus field denotes the Smart Energy activity most important to them. That activity is not necessarily the primary focus of the company as a whole, only the focus of its Smart Energy efforts.

Once you've found the company or companies you were looking for, you can turn to the alphabetical section in the back to find a detailed description.

COMPONENT SUPPLIERS

Companies in this category provide the “raw materials” that make up sub-systems and complete systems. Some of them literally make materials (mostly advanced materials) that are formed into products. Others make sub-assemblies (such as battery systems or power electronics) that become part of a complete product. Many companies -- particularly power electronics companies -- produce both standalone products for purchase as well as “balance of system” electronics that get integrated into larger systems by other manufacturers.

Building an eco-system of component suppliers is an important step towards a thriving Smart Energy cluster, and to achieving its full economic benefits. With the exception of power electronics, the Pacific Northwest is relatively short on component suppliers.

Some of the companies below produce a wide range of materials for many different industries. For them, Smart Energy is a relatively new and relatively small category. Others, such as BC-based Argus Technologies, make complete products of their own, but also sell things such as batteries or electronics that other companies can use as components in larger systems.

Component Supplier as Primary Focus	Component Supplier as Secondary Focus
<ul style="list-style-type: none"> ▪ Advanced Power Technology ▪ Marketech International, Inc ▪ Toray Composites (America) Inc. 	<ul style="list-style-type: none"> ▪ AccelRate Power Systems, Inc. ▪ Advanced Power Products ▪ Alpha Technologies ▪ Analytic Systems Ware Ltd. ▪ Argus Technologies ▪ Cadex Electronics Inc. ▪ Delta-Q Technologies ▪ FLIR Systems, Inc. ▪ JX Crystals, Inc. ▪ Leviton Voice & Data Division ▪ Philtek Electronics Limited ▪ Philtek Power Corp. ▪ PowDec Technologies (Canada) Co. ▪ Simson-Maxwell ▪ Smart Works, Inc. ▪ Telect ▪ Veris Industries ▪ Xantrex Technology Inc.

DEVELOPERS

Developers create software for a variety of Smart Energy tasks, including grid simulation, energy management, workforce automation, and back end systems for utilities. Indeed, software finds its way into so many energy-related products that the diversity can seem overwhelming. On the other hand, that diversity is one of the things that makes software such a growth opportunity for our region.

Some of these companies -- such as Indus International-- build standalone software packages. Sometimes that software is targeted exclusively at the utility industry, as is the case for Bothell-based FieldSoft. Other times, it is a broader package that has found acceptance in the utility space, as is the case with Seattle-based Dimension4's data conversion services.

Some companies in this category -- such as Spokane's Avista Advantage and Bend's Orcom -- build software sold as part of a service package. Others -- such as Sensor Link of Acme, WA and AccelRate of Vancouver, BC -- create software to use with their own hardware components. Still others -- such as Enegration and FirstPoint Energy -- act as systems integrators, pulling together hardware and software from different vendors, then stitching it together with their own code to create a total

solution. Finally, some companies -- such as the Black & Veatch engineering firm -
- do software development as part of much larger energy construction projects.

Software represents one of the Northwest's greatest opportunities. First, the category is growing rapidly. Second, it embodies high-skill, high-wage jobs that match up directly with our traditional strengths in programming and information technology. Third, it is easy to export. Fourth, it doesn't require much in the way of physical manufacture, lessening the risk that production will be moved to a low-wage country.

Developer as Primary Focus	Developer as Secondary Focus
<ul style="list-style-type: none"> ▪ AccelRate Power Systems, Inc. ▪ Alstom Esca ▪ Cayenta Canada Inc. ▪ Concord Consultants Ltd. ▪ Dimension4 ▪ Eden Systems, Inc ▪ EPIS, Inc. ▪ Equarius, Inc. ▪ ESRI ▪ FieldSoft Technologies, Inc. ▪ FirstPoint Energy Corporation ▪ Indus International ▪ Innovative Circuit Technology Ltd. ▪ Intracoastal System Engineering Corporation ▪ Itronix Corporation ▪ MDSI Mobile Data Solutions Inc. ▪ Microsoft Corporation ▪ Powerit Solutions ▪ Soltex Powersource Energy Ltd. ▪ Springbrook Software Company ▪ Target CIS, LLC ▪ Tripod Data Systems ▪ TUI Consulting ▪ Utility Solutions, Inc. ▪ Verdiem ▪ Vivid Learning Systems ▪ World Wide Packets 	<ul style="list-style-type: none"> ▪ Acres International ▪ Alliance Tech, Inc ▪ Avista Advantage, Inc. ▪ Black & Veatch ▪ Commonwealth Associates, Inc. Digital Inspections ▪ Energration, LLC ▪ Energy International ▪ ESSI ▪ Itron Corp. ▪ NxtPhase Corporation ▪ Orcom ▪ PCS Utilidata ▪ Reliable Controls Corporation ▪ Resource Associates International ▪ Stellar Processes ▪ Tantalus Systems Corp

DISTRIBUTORS/MANUFACTURERS REPS/DEALERS

Distributors, dealers, and manufacturer's representatives play a key role in the Smart Energy sector. Distributors buy goods in large quantities and resell them but

to retailers, contractors and others who then resell to the end user. Dealers stock and sell items for sale to the end user (typically high-end merchandise that requires some special expertise). Manufacturer’s representatives are independent salespeople. Rather than working for a single company, they represent products from a range of companies. A few of the companies listed below are “incidental” distributors. They typically provide energy management services and sell related products as a sideline and a convenience for clients.

The distribution channel can act as a hidden roadblock to an emerging cluster. It’s one thing to create a new product. It’s another to make it widely available to tens of thousands of companies throughout the world. That’s where the distribution channel can either help or hinder. For instance, manufacturer’s representatives typically have long-standing, multi-year relationships with their clients, acting as consultants as part of their sales function. Their recommendations carry significant weight. By the same token, contractors and utilities are more likely to use a product if they can find it at a local distributor.

Distributor as Primary Focus	Distributor as Secondary Focus
<ul style="list-style-type: none"> ▪ Access Electric Supply, Inc. ▪ A.C. Nelson Electrical Ltd. ▪ Advanced Energy Services ▪ Advanced Energy Systems ▪ Advanced Power Products ▪ Boundary Electric ▪ Bowers Power Systems ▪ Carlson Sales, Inc ▪ Carmody Co., Inc. ▪ Cascade Controls Corporation ▪ Costich Co. ▪ D Square Energy Systems, Inc. ▪ Dayne Hansen & Associates ▪ D'Ewart Representatives L.L.C. ▪ Electric-Parts.Net ▪ Emra Controls, Inc. ▪ Energy Alternatives ▪ E-Power Technology Limited ▪ Finning Power Systems ▪ Friesen Electric Inc. ▪ General Pacific, Inc. ▪ Gescan BC ▪ Graybar Electric Co. Inc. ▪ JATS Alternative Power Co. ▪ Kinecor ▪ Legend Power Systems Inc. 	<ul style="list-style-type: none"> ▪ Accu-Read, Inc. ▪ ARES Corporation ▪ Circon Systems Corp. ▪ Computer Power & Service Inc. ▪ Control Contractors, Inc. ▪ Custom Controls Corp. ▪ DeYoung Manufacturing, Inc. ▪ Electrical Construction Company ▪ Henkels & McCoy, Inc. - Northwest Division ▪ Holaday-Parks Building Automation Systems Division ▪ Marketech International, Inc. ▪ McKinstry Co./Energy Services--WA Office ▪ New Path Renewables, Inc. ▪ Pacific Insight Electronics Corporation ▪ RBH Electronic Designs ▪ Richardson Electronics Canada, Ltd ▪ SESCO Electrical Services Group ▪ Utility Systems & Applications ▪ Washington Energy Services

Distributor as Primary Focus	Distributor as Secondary Focus
<ul style="list-style-type: none"> ▪ McKaig-Evergreen, Inc ▪ Micontrls ▪ Motors and Controls Corp. ▪ Northwest Circuit Breakers, Inc. ▪ Northwest Utility Sales ▪ Peak Measure ▪ Power Substations, Inc. ▪ Power Trip Energy Company ▪ Powerex ▪ Regal Controls Limited ▪ Reliable Power ▪ Schott Applied Power ▪ Synergy Engineering Ltd ▪ Washington Air Reps ▪ W.O.W. Energy Systems ▪ WESCO Distribution, Inc. ▪ Westburne Supply 	

MANUFACTURERS

The companies below make a wide range of physical products relating to Smart Energy. Examples include controls, meters, transformers, and power electronics. (Some of them also create software to manage, monitor, or collect data from their hardware products.) More and more companies are embedding intelligence into products, for reasons such as improved control, improved efficiency, remote monitoring, and advanced functions not possible with older, electro-mechanical designs

Manufacturer as Primary Focus	Manufacturer as Secondary Focus
<ul style="list-style-type: none"> ▪ AFS Trinity Power Corp. ▪ Alerton Inc. ▪ Alpha Technologies ▪ Alstom Transformers - USA ▪ Always On UPS Systems Inc. ▪ Analytic Systems Ware Ltd. ▪ Applied Power & Control, Inc ▪ Aqua-Tronics, Inc. ▪ Argus Technologies ▪ Cadex Electronics Inc. ▪ Circon Systems Corp. ▪ Consolidated Electronics, Inc ▪ Cutler Hammer 	<ul style="list-style-type: none"> ▪ Advanced Power Technology Inc. ▪ Composite Power Corp ▪ InnovaTek ▪ Innovative Circuit Technology Ltd. ▪ Johnson Controls, Inc. ▪ Microsoft Corporation ▪ Soltek Powersource Energy Ltd. ▪ Synergy Engineering Ltd ▪ Toray Composites (America), Inc. ▪ Tripod Data Systems ▪ Unit Electrical Engineering Ltd ▪ Wire Dynamix

Manufacturer as Primary Focus	Manufacturer as Secondary Focus
<ul style="list-style-type: none"> ▪ Delta-Q Technologies ▪ Denon Technologies Ltd. ▪ DENT Instruments. ▪ DeYoung Manufacturing ▪ Digital Inspections ▪ FLIR Systems, Inc. ▪ Fluke Corporation ▪ GridSense Systems Inc. ▪ H.J. Arnett Industries, LLC ▪ Itron Corp ▪ JX Crystals, Inc. ▪ Leviton Voice & Data Division ▪ Logan Industries ▪ MagnaDrive ▪ MCM Enterprise Ltd ▪ MicroPlanet ▪ MTI Systems ▪ Northern Technologies Inc. ▪ NxtPhase Corporation ▪ Pacific Insight Electronics Corporation ▪ Pantrol, Inc. ▪ Patton & Cooke Co. ▪ Philtek Electronics Limited ▪ Philtek Power Corp. ▪ PowDec Technologies (Canada) Co. ▪ Power Measurement ▪ Purcell Systems ▪ Radar Engineers ▪ RBH Electronic Designs ▪ Reliable Controls Corporation ▪ S. Pal Enterprises (Canada) Ltd. ▪ Schweitzer Engineering Laboratories, Inc. ▪ Sensor Link Corp. ▪ Serveron Corp. ▪ Siemens Building Technologies - Building Automation Division ▪ Siemens Energy & Automation - Bellevue ▪ Siemens Energy & Automation -- Kirkland ▪ Siemens Energy & Automation - Portland ▪ Siemens Energy & Automation -- Spokane ▪ Siemens Energy & Automation --Lake 	

Manufacturer as Primary Focus	Manufacturer as Secondary Focus
<p>Oswego</p> <ul style="list-style-type: none"> ▪ Simson-Maxwell ▪ Smart Works, Inc. ▪ Sure Power Industries, Inc. ▪ Tantalus Systems Corp. ▪ Telect ▪ Teltone Corp. ▪ Thomson Technology Inc. ▪ Tierney Electrical Manufacture Co. ▪ TIR Systems Ltd. ▪ Veris Industries ▪ Virtual Technologies, Ltd. ▪ Wartsila North America Inc. ▪ WesTran Power ▪ Wismer & Rawlings Electric ▪ World Wide Packets ▪ Xantrex Technology Inc. ▪ Zetron, Inc. 	

SERVICE PROVIDERS

This broad category encompasses a wide range of companies. Most of them focus first and foremost on the sale of services (although they sometimes sell products or software in support of those services). Examples include:

- Contractors that build energy-related projects such as substations, high-voltage lines, and nuclear facilities. Examples include Allteck Line Contractors, Bechtel, and Black & Veatch. Many of these companies offer engineering and other services as well
- Consultancies such as Resource Associates International, which helps utilities automate, Xenergy, which helps utilities with technology training and Vancouver, BC-based Power Resource Managers, which helps with asset management and long-term procurement strategies
- Engineering firms such as Balhizer & Hubbard that provide electrical and mechanical engineering services where they can recommend and specify Smart Energy products
- Energy management services such as Ucons, which helps owners of apartment buildings and trailer parks reduce energy consumption
- Utility contractors that build build energy infrastructure for utilities and large industrial clients such as American Line Builders and Wilson Construction

Some of the firms listed below offer services as an adjunct to their core business. Examples include Utility Solutions, which offers data conversion and custom programming in conjunction with its utility software.

Service Provider as Primary Focus	Service Provider as Secondary Focus
<ul style="list-style-type: none"> ▪ Abacus Engineered Systems, Inc ▪ Accu-Read, Inc. ▪ Acres International ▪ Alliance Tech, Inc ▪ Allteck Line Contractors ▪ American Line Builders, Inc. ▪ ARES Corporation ▪ Avista Advantage, Inc ▪ Avista Energy ▪ Balzhizer & Hubbard Engineers ▪ Bechtel Group ▪ Black & Veatch ▪ Bouillon Engineering ▪ Burke Electric ▪ Carter & Sprague, Inc. ▪ Casne Engineering, Inc. ▪ Celerity Energy, Inc ▪ CH2MHill Industrial Design and Construction (IDC) ▪ Christenson Power Services ▪ Clark's Energy Service Corp. ▪ Columbia River PUD ▪ Commonwealth Associates, Inc. ▪ Computer Power & Service, Inc. ▪ Conservation and Renewable Energy System (CARES) ▪ Control Contractors, Inc. ▪ Custom Controls Corp. ▪ D. Hittle and Associates, Inc. ▪ Economic and Engineering Services, Inc. ▪ Ecotope ▪ EES Consulting ▪ Elcon Corporation ▪ Electrical Construction Company ▪ EMP2 ▪ Energration, LLC ▪ Energy International ▪ Energy Market Innovations, Inc. ▪ Environmental & Engineering Services, Inc. 	<ul style="list-style-type: none"> ▪ A.C. Nelson Electrical Ltd. ▪ Advanced Energy Services ▪ Advanced Energy Systems ▪ Alstom Esca ▪ Alstom Transformers - USA ▪ Always On UPS Systems Inc. ▪ Applied Power & Control, Inc ▪ Boundary Electric ▪ Cascade Controls Corporation ▪ Cayenta Canada Inc. ▪ D Square Energy Systems, Inc. ▪ Dimension4 ▪ Eden Systems, Inc ▪ Energy Alternatives ▪ EPIS, Inc. ▪ ESRI ▪ Finning Power Systems ▪ FirstPoint Energy Corporation ▪ Fluke Corporation ▪ Graybar Electric Co. Inc. ▪ H. Gil Peach & Associates ▪ H.J. Arnett Industries, LLC ▪ Indus International ▪ JATS Alternative Power Co. ▪ Kinecor ▪ Legend Power Systems Inc. ▪ MCM Enterprise Ltd ▪ MDSI Mobile Data Solutions Inc. ▪ MTI Systems ▪ Northern Technologies Inc. ▪ Patton & Cooke Co. ▪ Power Measurement ▪ Power Trip Energy Company ▪ Regal Controls Limited ▪ Reliable Power ▪ Schott Applied Power ▪ Schweitzer Engineering Laboratories, Inc. ▪ Serveron Corp. ▪ Siemens Building Technologies - Building Automation Division

Service Provider as Primary Focus	Service Provider as Secondary Focus
<ul style="list-style-type: none"> ▪ Essco, Inc. ▪ ESSI ▪ Glumac International ▪ H2E Incorporated ▪ Harris Group Inc. ▪ Hatten/Johnson Associates ▪ Henkels & McCoy, Inc. - Northwest Division ▪ Holaday-Parks Building Automation Systems Division ▪ Infrastrux ▪ InterContinental Consulting Teams ▪ Johnson Controls Institute ▪ Johnson Controls, Inc. ▪ McKinstry Co./Energy Services ▪ New Path Renewables, Inc. ▪ Northwest Energy Services, Inc. ▪ Orcom ▪ Oregon Electric Group ▪ Pacific Engineering Corporation ▪ PAE Consulting Engineers, Inc. ▪ Parker, Messana & Associates, Inc. ▪ PCS Utilidata ▪ PLS Consulting Inc. ▪ Portland Energy Conservation ▪ Power Resource Managers, LLP ▪ Power Systems Engineering, PS ▪ Powertech Labs Inc. ▪ PowerWave Engineering Incorporated ▪ Quantec, LLC ▪ Quantum Engineering & Development ▪ R. W. Beck ▪ Resource Associates International ▪ RH2 Engineering Inc. ▪ RHT Energy Solutions ▪ SBW Consulting, Inc. ▪ SESCO Electrical Services Group ▪ Sound Energy Systems ▪ Stellar Processes ▪ Swanson Engineering ▪ Systems West Engineers, Inc. ▪ TriAxis Engineering, Inc ▪ Ucons, LLC ▪ Underwriters Laboratories Inc. ▪ Unit Electrical Engineering Ltd 	<ul style="list-style-type: none"> ▪ Siemens Energy & Automation - Bellevue ▪ Siemens Energy & Automation -- Kirkland ▪ Siemens Energy & Automation - Portland ▪ Siemens Energy & Automation -- Spokane ▪ Siemens Energy & Automation --Lake Oswego ▪ Springbrook Software Company ▪ Sure Power Industries, Inc. ▪ TUI Consulting ▪ Utility Solutions, Inc. ▪ Virtual Technologies, Ltd. ▪ Vivid Learning Systems ▪ W.O.W. Energy Systems ▪ WESCO Distribution, Inc. ▪ Wismer & Rawlings Electric

Service Provider as Primary Focus	Service Provider as Secondary Focus
<ul style="list-style-type: none"> ▪ Utility Systems & Applications ▪ Washington Energy Services ▪ Washington Group International ▪ Wilson Construction ▪ Wire Dynamix ▪ Xenergy, Inc./KEMA Consulting 	

INDEX BY PRODUCT CATEGORY

For space reasons, we cannot print company lists for every single product category. But we were able to show several key product categories that will have an important impact on the Pacific Northwest's economic development:

- Advanced Metering
- Building Automation and Control and Building Management Systems
- Energy Management Systems
- Grid Monitors and Controls
- Power Electronics
- Transmission/Distribution/Substation Automation
- Utility Back End Systems

Each category includes a brief description and a list of the companies that make products of that type. Once you've found a company, you can turn to the alphabetical listings at the back for more details.

ADVANCED METERING

Advanced metering covers collecting, using and interpreting information on how much energy was used by each customer. It is a superset of AMR (Automatic Meter Reading), a term used in the utility industry for devices that handle the collection portion. AMR spans everything from manually entering readings into a handheld computer, to sending readings wirelessly to a truck that travels the neighborhoods, to sending them over a phone or power line network. This directory's Advanced Metering category goes beyond AMR. It embraces the entire process, including both hardware (meters, handhelds, laptops, wireless receivers) and software (route management, utility billing, load forecasting).

This category may well bring more revenues to the region than any other. Much of that revenue goes to Spokane-based Itron, the world leader in advanced metering and the maker of a wide variety of other software and hardware products. Most other regional companies in this category find success through specialization and/or a regional focus. Bend, OR-based Dent Instruments makes meters optimized for applications such as energy audits and load profiling. BC-based E-Power Technology Limited wholesales sub-meters and power monitors. Spokane's Accu-Read resells Itron meters and supplies trained operators to read meters and perform collection functions for regional utilities. And Energration of Vancouver, WA is a systems integrator that pulls together software and systems for meter information management, complex billing and load forecasting.

Advanced Metering	
<ul style="list-style-type: none"> ▪ Accu-Read, Inc. ▪ DENT Instruments. ▪ Energration, LLC ▪ E-Power Technology Limited ▪ FirstPoint Energy Corporation ▪ Friesen Electric Inc. ▪ H.J. Arnett Industries, LLC 	<ul style="list-style-type: none"> ▪ Intracoastal System Engineering Corporation ▪ Itron Corp ▪ Power Measurement ▪ Tantalus Systems Corp. ▪ Utility Systems & Applications

BUILDING AUTOMATION AND CONTROL AND BUILDING MANAGEMENT SYSTEMS

Building Automation and Control refers to smart switches and controls for lights, motors, HVAC equipment and industrial equipment that a) can be remotely operated and b) can send data back to a central control station. Building Management Systems link together those individual controls, collect data from them, and allow the user to monitor and manage entire buildings from a single computer console.

At the simplest level, a building management system allows the operator to turn devices on and off from a central station. Today's systems go far beyond that. They also handle such things as automatic scheduling, alarms, efficiency monitoring and remote diagnostics. In addition to control functions, the software typically produces management reports and trend forecasts.

A modern high-rise can have dozens of operations staff; tens of thousands of individual switches and controls; hundreds of thousands in annual energy costs. It is easy to understand why building automation and management systems can often pay for themselves in two years or less.

Alerton is a Redmond-based manufacturer and technology pioneer that was recently purchased by a UK firm. Circon Systems Corp. of Richmond, BC is likewise a maker of intelligent building automation and the software to control it. The Northwest is also home to branch offices of two international giants. Siemens Building Technologies has locations in Seattle and Portland. Johnson Controls has a Spokane office that concentrates on energy management services but also specifies and sells building automation products. The region also houses several service firms that analyze, specify, and install building automation, including Advanced Energy Services in Mukilteo, Control Contractors, and Holaday-Parks, both in Seattle, and Sound Energy Systems in Tacoma.

Building Automation	
<ul style="list-style-type: none"> ▪ Advanced Energy Services ▪ Alerton Inc. ▪ Circon Systems Corp. ▪ Control Contractors, Inc. ▪ Holaday-Parks Building Automation Systems Division ▪ Johnson Controls, Inc. 	<ul style="list-style-type: none"> ▪ Johnson Controls Institute ▪ Regal Controls Limited ▪ Reliable Controls Corporation ▪ Siemens Building Technologies ▪ Sound Energy Systems ▪ Veris Industries

ENERGY MANAGEMENT SERVICES

The energy management services category combines several groups. It includes ESCOs (Energy Service Companies), who develop, install, and finance projects to improve energy efficiency. What sets ESCOs apart from other energy efficiency firms is performance-based contracting. ESCOs typically assume the technical and performance risks and get paid a percentage of the savings (or at least a bonus tied to savings). Most often they are involved with retrofits of existing buildings, though some ESCOs work on new construction as well.

In addition to ESCOs, this category includes other firms that offer energy management and energy efficiency services. Some of them are specialists. Advanced Energy Services of Mukilteo, WA, focuses on design, installation and audit of energy efficiency systems for buildings. Likewise, Systems West Engineers of Eugene, OR is an energy efficiency specialist.

Other firms offer energy management as part of a broader service portfolio. Seattle's Abacus Engineered Systems, for instance, provides both traditional engineering as well as energy management and energy efficiency services. And Wesco Distribution, which has a Portland branch, is a full-line electrical distributor that has diversified into energy management programs.

Energy Management Services	
<ul style="list-style-type: none"> ▪ Abacus Engineered Systems, Inc ▪ Advanced Energy Services ▪ Advanced Energy Systems ▪ Alstom Esca ▪ Avista Advantage, Inc ▪ Balzhizer & Hubbard Engineers ▪ Carter & Sprague, Inc. ▪ Celerity Energy, Inc ▪ CH2MHill Industrial Design and 	<ul style="list-style-type: none"> ▪ Hatten/Johnson Associates ▪ Johnson Controls, Inc. ▪ Lighting Design Lab ▪ McKinstry Co./Energy Services ▪ Northwest Energy Services, Inc. ▪ PAE Consulting Engineers, Inc. ▪ Portland Energy Conservation ▪ Power Measurement

<ul style="list-style-type: none"> Construction (IDC) ▪ Christenson Power Services ▪ Circon Systems Corp. ▪ Clark's Energy Service Corp. ▪ Columbia River PUD ▪ Conservation and Renewable Energy System (CARES) ▪ Ecotope ▪ EMP2 ▪ Energy International ▪ Energy Market Innovations, Inc. ▪ Environmental & Engineering Services, Inc. ▪ FirstPoint Energy Corporation ▪ Glumac International ▪ H. Gil Peach & Associates 	<ul style="list-style-type: none"> ▪ Power Resource Managers, LLP ▪ Powerit Solutions ▪ Quantec, LLC ▪ Quantum Engineering & Development ▪ RHT Energy Solutions ▪ SBW Consulting, Inc. ▪ Stellar Processes ▪ Swanson Engineering ▪ Systems West Engineers, Inc. ▪ Ucons, LLC ▪ Utility Systems & Applications ▪ Verdiem ▪ Washington Energy Services ▪ Washington Group International ▪ WESCO Distribution, Inc.
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GRID MONITORS AND CONTROLS

Grid monitors and controls remotely sense and report the condition of lines, substations and equipment. In many cases they also provide remote dispatch and adjustment. Several regional firms have found success as manufacturers, including Pullman's Schweitzer Engineering Laboratories, which got its start with digital relays and has since expanded into other hardware, software and services. Other companies provide related software or consulting services.

Grid Monitors and Controls	
<ul style="list-style-type: none"> ▪ Carmody Co., Inc. ▪ Consolidated Electronics, Inc ▪ Custom Controls Corp. ▪ ESSI ▪ FLIR Systems, Inc. ▪ GridSense Systems Inc. ▪ MCM Enterprise Ltd ▪ NxtPhase Corporation ▪ Radar Engineers 	<ul style="list-style-type: none"> ▪ Resource Associates International ▪ Schweitzer Engineering Laboratories, Inc. ▪ Sensor Link Corp. ▪ Serveron Corp. ▪ Soltek Powersource Energy Ltd. ▪ Tantalus Systems Corp. ▪ Teltone Corp. ▪ Zetron, Inc.

POWER ELECTRONICS

Power electronics refers to the use of digital technology for the control and conversion of electrical power. The IEEE Power Electronics Society has a more formal definition: "the effective use of electronic components, the application of circuit theory and design techniques, and the development of analytical tools

toward efficient electronic conversion, control, and conditioning of electric power.”

Power electronics are often needed to convert electricity from one form to another. For instance, renewable sources produce DC power, which must be converted to AC for use by household appliances. The power electronics category spans the entire electricity value chain, from generation to transmission to distribution to end use.

The Northwest has a number of successful manufacturers. Some, such as Bend, OR-based Advanced Power Technology, produce the semiconductors that form the core of power electronics. Others, such as Xantrex, produce inverters and other components that find their way into alternative energy products. Still others, such as Sure Power Industries of Tualitin, OR, do most of their business in more traditional industries such as marine and heavy trucking.

Also included in this category are electrical distributors and manufacturer’s reps where power electronics is part of their business.

Power Electronics/Power Factor	
<ul style="list-style-type: none"> ▪ AccelRate Power Systems, Inc. ▪ Access Electric Supply, Inc ▪ Advanced Power Products ▪ Advanced Power Technology Inc. ▪ AFS Trinity Power Corp. ▪ Alpha Technologies ▪ Always On UPS Systems Inc. ▪ Analytic Systems Ware Ltd. ▪ Aqua-Tronics, Inc. ▪ Argus Technologies ▪ Bowers Power Systems ▪ Cadex Electronics Inc. ▪ Computer Power & Service, Inc. ▪ Custom Controls Corp. ▪ Cutler Hammer ▪ D Square Energy Systems, Inc. ▪ Dayne Hansen & Associates ▪ Delta-Q Technologies ▪ DeYoung Manufacturing, Inc. ▪ Electrical Construction Company ▪ Fluke Corporation 	<ul style="list-style-type: none"> ▪ Friesen Electric Inc. ▪ GridSense Systems Inc. ▪ Innovative Circuit Technology Ltd. ▪ Legend Power Systems Inc. ▪ MicroPlanet ▪ MTI Systems ▪ Northern Technologies Inc. ▪ Oregon Electric Group ▪ Pacific Insight Electronics Corporation ▪ Philtek Electronics Limited ▪ Philtek Power Corp. ▪ PowDec Technologies (Canada) Co. ▪ Reliable Power ▪ Richardson Electronics Canada, Ltd. ▪ Simson-Maxwell ▪ Smart Works, Inc. ▪ Sure Power Industries, Inc. ▪ Telect ▪ Veris Industries ▪ Virtual Technologies, Ltd. ▪ Xantrex Technology Inc.

TRANSMISSION/DISTRIBUTION/SUBSTATION AUTOMATION

In utility parlance, transmission refers to the transport of electricity over high-voltage lines from the generating plant to a power substation. Distribution refers to the transport between the substation and the side of the customer building (which may include smaller substations and transformers along the way). In both areas, digital technologies are rapidly supplanting electro-mechanical devices. These smart technologies are often less expensive. What's more, they include more functionality. For instance, they can usually monitor and report back on their own condition.

One of the advantages of Smart Energy as a source of economic development is the sheer size of the market. Yes, the utility industry can be conservative and slow to adopt new ideas. But it also represents hundreds of billions in annual capital expenditures. Converting even a fraction of that amount to Smart Energy products represents an enormous opportunity.

The list below is reflective of the breadth of opportunity. It includes:

- consulting firms that plan the systems
- engineering firms that design and specify the systems
- construction firms that install smart energy technologies
- distributors and reps that sell the products
- manufacturers that build products or components

Some of the companies on this list still focus mostly on “traditional” designs and technologies. As digital technology continues its rapid penetration into all corners of the electricity value chain, even old-line companies are adding Smart Energy products, services and expertise -- a trend that will continue to accelerate.

Transmission/Distribution/Substation Automation	
<ul style="list-style-type: none"> ■ A.C. Nelson Electrical Ltd. ■ Allteck Line Contractors ■ Alstom Transformers - USA ■ American Line Builders, Inc. ■ ARES Corporation ■ Black & Veatch ■ Boundary Electric ■ Burke Electric ■ Carlson Sales, Inc ■ Cascade Controls Corporation ■ Casne Engineering, Inc. ■ Christenson Power Services 	<ul style="list-style-type: none"> ■ Infrastrux ■ Marketech International, Inc. ■ McKaig-Evergreen, Inc ■ Motors and Controls Corp ■ Northwest Circuit Breakers, Inc. ■ Northwest Utility Sales ■ NxtPhase Corporation ■ Pacific Engineering Corporation ■ Pantrol, Inc. ■ Patton & Cooke Co. ■ PCS Utilidata ■ Peak Measure

<ul style="list-style-type: none"> ▪ Commonwealth Associates, Inc. ▪ Composite Power Corp ▪ Consolidated Electronics, Inc ▪ D. Hittle and Associates, Inc. ▪ D'Ewart Representatives L.L.C. ▪ Economic and Engineering Services, Inc. ▪ EES Consulting ▪ Elcon Corporation ▪ Electrical Construction Company ▪ Emra Controls, Inc. ▪ General Pacific, Inc. ▪ Graybar Electric Co. Inc. ▪ H2E Incorporated ▪ Henkels & McCoy, Inc. - Northwest Division 	<ul style="list-style-type: none"> ▪ Power Systems Engineering, PS ▪ PowerWave Engineering Incorporated ▪ R. W. Beck ▪ Resource Associates International ▪ RH2 Engineering Inc. ▪ Schweitzer Engineering Laboratories, Inc. ▪ SESCO Electrical Services Group ▪ Tierney Electrical Manufacture Co. ▪ TriAxis Engineering, Inc ▪ Unit Electrical Engineering Ltd ▪ WesTran Power ▪ Wilson Construction ▪ Wire DynamiX ▪ Wismer & Rawlings Electric
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UTILITY BACK END SYSTEMS

The utility industry has been one of the slowest to understand and adopt computers. Many utilities still process bills and manage accounting using custom software running on ancient minicomputers. Gradually, utilities are coming to understand the value of packaged software running on standard hardware. Because utilities are complex businesses with wide variations, much of the activity is by systems integrators, who pull together hardware and software from multiple sources and then do further programming to customize it for each client.

Sales to utilities have been hampered by the industry's recent financial crisis and by its traditional conservatism. Even so, this sector is likely to see excellent growth once financial conditions improve. It is an excellent match with the Northwest's strengths in software engineering.

Utility Back-End Systems	
<ul style="list-style-type: none"> ▪ Alstom Esca ▪ Cayenta Canada Inc. ▪ Concord Consultants Ltd. ▪ Dimension4 ▪ Eden Systems, Inc ▪ Energration, LLC ▪ Equarius, Inc. ▪ ESRI ▪ ESSI 	<ul style="list-style-type: none"> ▪ FieldSoft Technologies, Inc. ▪ FirstPoint Energy Corporation ▪ InterContinental Consulting Teams ▪ Orcom ▪ Springbrook Software Company ▪ Target CIS, LLC ▪ Tripod Data Systems ▪ TUI Consulting ▪ Utility Solutions, Inc.

INDEX BY POSTAL CODE

Use this section to find all the Smart Energy companies in a given locale. For details about those companies, turn to the alphabetical listing at the back of this document.

Code	City	State / Prov.	Company
97006	Beaverton	OR	H. Gil Peach & Associates
97007	Aloha	OR	Carter & Sprague, Inc.
97013	Canby	OR	Wilson Construction
97035	Lake Oswego	OR	Indus International
97035	Lake Oswego	OR	Black & Veatch
97035	Lake Oswego	OR	Siemens Energy & Automation --Lake Oswego
97035	Lake Oswego	OR	Cutler Hammer
97062	Tualatin	OR	Sure Power Industries, Inc.
97068	West Linn	OR	EPIS, Inc.
97077	Beaverton	OR	Washington Group International
97124	Hillsboro	OR	WesTran Power
97124	Hillsboro	OR	Serveron Corp.
97201	Portland	OR	CH2MHill Industrial Design and Construction (IDC)
97201	Portland	OR	Portland Energy Conservation
97202	Portland	OR	Quantec, LLC
97204	Portland	OR	PAE Consulting Engineers, Inc.
97204	Portland	OR	Glumac International
97204	Portland	OR	Bouillon Engineering
97204	Portland	OR	FirstPoint Energy Corporation
97205	Portland	OR	Stellar Processes
97205	Portland	OR	Springbrook Software Company
97205	Portland	OR	Xenergy, Inc./KEMA Consulting
97209	Portland	OR	Clark's Energy Service Corp.
97209	Portland	OR	Christenson Power Services
97210	Portland	OR	Electrical Construction Company
97210	Portland	OR	WESCO Distribution, Inc.
97211	Portland	OR	Reliable Power
97211	Portland	OR	Celerity Energy, Inc

Code	City	State / Prov.	Company
97213	Portland	OR	Graybar Electric Co. Inc.
97214	Portland	OR	Oregon Electric Group
97218	Portland	OR	Siemens Energy & Automation - Portland
97219	Portland	OR	Advanced Power Products
97220	Portland	OR	Radar Engineers
97223	Portland	OR	H.J. Arnett Industries, LLC
97223	Tigard	OR	Verdiem
97224	Portland	OR	FLIR Systems, Inc.
97224	Portland	OR	Veris Industries
97225	Portland	OR	PLS Consulting Inc.
97225	Portland	OR	Pacific Engineering Corporation
97229	Portland	OR	InterContinental Consulting Teams
97230	Portland	OR	General Pacific, Inc.
97232	Portland	OR	Western Energy Institute
97258	Portland	OR	Renewable Energy Systems
97294	Portland	OR	Electric-Parts.Net
97294	Portland	OR	Henkels & McCoy, Inc. - Northwest Division
97302	Salem	OR	Utility Systems & Applications
97330	Corvallis	OR	Environmental & Engineering Services, Inc.
97330	Corvallis	OR	Digital Inspections
97333	Corvallis	OR	TriAxis Engineering, Inc
97339	Corvallis	OR	Tripod Data Systems
97401	Eugene	OR	Hatten/Johnson Associates
97401	Eugene	OR	Systems West Engineers, Inc.
97440	Eugene	OR	Balzhizer & Hubbard Engineers
97503	Medford	OR	Alstom Transformers - USA
97504	Deer Island	OR	Columbia River PUD
97504	Medford	OR	RHT Energy Solutions
97701	Bend	OR	DENT Instruments.
97702	Bend	OR	Utility Solutions, Inc.
97702	Bend	OR	Orcom
97702	Bend	OR	Advanced Power Technology Inc.
97709	Bend	OR	New Path Renewables, Inc.

Code	City	State / Prov.	Company
97756	Redmond	OR	Aqua-Tronics, Inc.
98001	Auburn	WA	Emra Controls, Inc.
98001	Auburn	WA	Smart Works, Inc.
98003	Federal Way	WA	Parker, Messana & Associates, Inc.
98004	Bellevue	WA	MCM Enterprise Ltd
98004	Bellevue	WA	Infrastrux
98004	Bellevue	WA	Economic and Engineering Services, Inc.
98004	Bellevue	WA	Energy International
98004	Bellevue	WA	SBW Consulting, Inc.
98004	Bellevue	WA	Alstom Esca
98004	Bellevue	WA	Ucons, LLC
98004	Bellevue	WA	Equarius, Inc.
98005	Bellevue	WA	Siemens Building Technologies - Building Automation Division
98005	Bellevue	WA	Siemens Energy & Automation - Bellevue
98005	Bellevue	WA	Burke Electric
98005	Bellevue	WA	RamGen Power Systems, Inc.
98005	Bellevue	WA	Casne Engineering, Inc.
98007	Bellevue	WA	Washington Air Reps
98011	Bothell	WA	RH2 Engineering Inc.
98011	Bothell	WA	McKaig-Evergreen, Inc
98012	Mill Creek	WA	Swanson Engineering
98020	Edmonds	WA	MicroPlanet
98021	Bothell	WA	Leviton Voice & Data Division
98021	Bothell	WA	FieldSoft Technologies, Inc.
98021	Bothell	WA	Teltone Corp.
98021	Bothell	WA	Johnson Controls Institute
98027	Issaquah	WA	JX Crystals, Inc.
98027	Issaquah	WA	D Square Energy Systems, Inc.
98032	Kent	WA	Motors and Controls Corp
98032	Kent	WA	Bowers Power Systems
98033	Kirkland	WA	Siemens Energy & Automation -- Kirkland
98033	Kirkland	WA	EES Consulting
98034	Kirkland	WA	DeYoung Manufacturing, Inc.
98034	Kirkland	WA	ESSI

Code	City	State / Prov.	Company
98035	Lynwood	WA	SESCO Electrical Services Group
98039	Medina	WA	AFS Trinity Power Corp.
98040	Mercer Island	WA	Peak Measure
98041	Bothell	WA	D'Ewart Representatives L.L.C.
98042	Covington	WA	Power Systems Engineering, PS
98047	Pacific	WA	Northwest Circuit Breakers, Inc.
98052	Redmond	WA	Microsoft Corporation
98052	Redmond	WA	Alerton Inc.
98052	Redmond	WA	Zetron, Inc.
98055	Renton	WA	Eden Systems, Inc
98064	Kent	WA	Wire DynamiX
98101	Seattle	WA	Powerit Solutions
98103	Seattle	WA	Trans-Energy Research Associates
98104	Seattle	WA	Dimension4
98104	Seattle	WA	Abacus Engineered Systems, Inc
98104	Seattle	WA	Energy Market Innovations, Inc.
98105	Seattle	WA	Ecotope
98105	Seattle	WA	Quantum Engineering & Development
98107	Seattle	WA	Computer Power & Service, Inc.
98108	Seattle	WA	Micontrols
98108	Seattle	WA	Tierney Electrical Manufacture Co.
98109	Seattle	WA	Harris Group Inc.
98109	Seattle	WA	MagnaDrive
98109	Seattle	WA	Acres International
98109	Seattle	WA	Target CIS, LLC
98122	Seattle	WA	Lighting Design Lab
98124	Seattle	WA	McKinstry Co./Energy Services
98134	Seattle	WA	Wartsila North America Inc.
98134	Seattle	WA	Access Electric Supply, Inc
98144	Seattle	WA	Control Contractors, Inc.
98154	Seattle	WA	R. W. Beck
98166	Seattle	WA	Dayne Hansen & Associates
98168	Seattle	WA	Holiday-Parks Building Automation Systems Division
98177	Seattle	WA	JATS Alternative Power Co.
98178	Seattle	WA	Carmody Co., Inc.

Code	City	State / Prov.	Company
98188	Tukwila	WA	Cascade Controls Corporation
98199	Seattle	WA	Washington Energy Services
98203	Everett	WA	Fluke Corporation
98204	Everett	WA	Applied Power & Control, Inc
98220	Acme	WA	Sensor Link Corp.
98226	Bellingham	WA	Alpha Technologies
98231	Blaine	WA	Phitek Power Corp.
98257	LaConner	WA	Commonwealth Associates, Inc.
98275	Mukilteo	WA	Elcon Corporation
98275	Mukilteo	WA	Advanced Energy Services
98368	Port Townsend	WA	Marketech International, Inc.
98368	Port Townsend	WA	Power Trip Energy Company
98392	Suquamish	WA	Alliance Tech, Inc
98402	Tacoma	WA	TUI Consulting
98408	Tacoma	WA	Sound Energy Systems
98424	Fife	WA	Custom Controls Corp.
98446	Tacoma	WA	Toray Composites (America), Inc.
98501	Olympia	WA	ESRI
98503	Lacey	WA	Schott Applied Power
98532	Chehalis	WA	Advanced Energy Systems
98604	Battle Ground	WA	PowerWave Engineering Incorporated
98606	Brush Prairie	WA	Costich Co.
98607	Camas	WA	Underwriters Laboratories Inc.
98660	Vancouver	WA	Energration, LLC
98661	Vancouver	WA	Conservation and Renewable Energy System (CARES)
98663	Vancouver	WA	Power Resource Managers, LLP
98665	Vancouver	WA	Carlson Sales, Inc
98682	Vancouver	WA	Northwest Utility Sales

Code	City	State / Prov.	Company
99019	Liberty Lake	WA	Northern Technologies Inc.
99019	Liberty Lake	WA	Telect
99019	Liberty Lake	WA	Purcell Systems
99019	Liberty Lake	WA	H2E Incorporated
99037	Veradale	WA	World Wide Packets
99037	Verdale	WA	W.O.W. Energy Systems
99163	Pullman	WA	Schweitzer Engineering Laboratories, Inc.
99201	Spokane	WA	Avista Advantage, Inc
99201	Spokane	WA	Avista Energy
99201	Spokane	WA	Northwest Energy Services, Inc.
99202	Spokane	WA	Pantrol, Inc.
99202	Spokane	WA	Siemens Energy & Automation -- Spokane
99204	Spokane	WA	Itronix Corporation
99204	Spokane	WA	Johnson Controls, Inc.
99206	Spokane	WA	Virtual Technologies, Ltd.
99208	Spokane	WA	Accu-Read, Inc.
99216	Spokane	WA	Consolidated Electronics, Inc
99216	Spokane	WA	Itron Corp
99216	Spokane	WA	Logan Industries
99216	Spokane Valley	WA	RBH Electronic Designs
99218	Spokane	WA	Resource Associates International
99228	Spokane	WA	PCS Utilidata
99301	Pasco	WA	Essco, Inc.
99328	Dayton	WA	American Line Builders, Inc.
99351	Richland	WA	InnovaTek
99352	Richland	WA	Bechtel Group
99352	Richland	WA	ARES Corporation
99352	Richland	WA	EMP2
99352	Richland	WA	Composite Power Corp
99352	Richland	WA	Vivid Learning Systems
99352	Richland,	WA	D. Hittle and Associates, Inc.

Code	City	State / Prov.	Company
V0H 1H0	Grand Forks	BC	Boundary Electric
V0H 1R0	Okanagan Falls	BC	Unit Electrical Engineering Ltd
V1L 5P5	Nelson	BC	Pacific Insight Electronics Corporation
V1M 3B1	Langley	BC	Thomson Technology Inc.
V1M 3C9	Langely	BC	A.C. Nelson Electrical Ltd.
V1M 3X6	Langley	BC	Innovative Circuit Technology Ltd.
V1X 7S8	Kelowna	BC	Always On UPS Systems Inc.
V2T 1V8	Abbotsford	BC	Friesen Electric Inc.
V3C 5W9	Port Coquitlam	BC	Simson-Maxwell
V3C 6P8	Port Coquitlam	BC	Wismer & Rawlings Electric
V3H1X3	Port Moody	BC	Synergy Engineering Ltd
V3K 6A8	Coquitlam	BC	Gescan BC
V3M 6L4	New Westminster	BC	Denon Technologies Ltd.
V3W 3E9	Surrey	BC	Analytic Systems Ware Ltd.
V3W 4E6	Surrey	BC	Patton & Cooke Co.
V3W 7R7	Surrey	BC	Powertech Labs Inc.
V4N 4C4	Surrey	BC	Kinecor
V4N 5E7	Surrey	BC	Richardson Electronics Canada, Ltd.
V5A 4B5	Burnaby	BC	Xantrex Technology Inc.
V5C-4E4	Burnaby	BC	Allteck Line Contractors
V5G 1B2	Burnaby	BC	Tantalus Systems Corp.
V5H 2H2	Burnaby	BC	Delta-Q Technologies
V5J 4M5	Burnaby	BC	MTI Systems
V5J 5E5	Burnaby	BC	Argus Technologies
V5K 1H9	Vancouver	BC	TIR Systems Ltd.
V5M 1Z4	Vancouver	BC	NxtPhase Corporation
V5M 4X6	Vancouver	BC	Cayenta Canada Inc.
V5P 4W7	Vancouver	BC	E-Power Technology Limited
V5V 3C8	Vancouver	BC	Regal Controls Limited
V6A 1W5	Vancouver	BC	AccelRate Power Systems, Inc.
V6B 2M9	Vancouver	BC	Intracoastal System Engineering Corporation

Code	City	State / Prov.	Company
V6C 2X8	Vancouver	BC	Powerex
V6E 3X2	Vancouver	BC	GridSense Systems Inc.
V6V 1L5	Richmond	BC	Finning Power Systems
V6V 1Z5	Richmond	BC	Phltek Electronics Limited
V6W 1J3	Richmond	BC	Circon Systems Corp.
V6W 1J6	Richmond	BC	Cadex Electronics Inc.
V6X 2W8	Richmond	BC	MDSI Mobile Data Solutions Inc.
V6X 3Y1	Richmond	BC	PowDec Technologies (Canada) Co.
V6Z 1N9	Vancouver	BC	S. Pal Enterprises (Canada) Ltd.
V7A 4Y1	Richmond	BC	Concord Consultants Ltd.
V7T 1A2	West Vancouver	BC	Legend Power Systems Inc.
V8M 2A5	Saanichton	BC	Power Measurement
V8M 2C2	Victoria	BC	Energy Alternatives
V8Z 3B6	Victoria	BC	Soltek Powersource Energy Ltd.
V8Z 3R1	Victoria	BC	Reliable Controls Corporation

ALPHABETICAL COMPANY PROFILES

Below is an alphabetical listing of Washington, Oregon, and British Columbia companies in companies in the Smart Energy space, along with details about their operations in this region. In addition to contact information and basic company demographics, we recorded company types, major product categories, and stage of development. We also included up to three different product and services.

To find all the companies in a certain category, turn to the Index by Company Category. To find companies that produce particular products, turn to the Index by Product Type. To find companies in a particular vicinity, turn to the Index by Postal Code.

TYPE OF COMPANY

We coded all entries for a primary and secondary company type. The choices included:

- Component Supplier
- Developer
- Distributor/Manufacturers Rep/Dealer/Retailer
- Manufacturer
- Other
- Product Designer
- Resource Organization
- Service Provider

MAJOR PRODUCT CATEGORY

We coded all entries for their primary and secondary Smart Energy-related products. (As noted earlier, these products are not necessarily the main product focus of the entire company. They are the main products within the Smart Energy category.) The choices included:

- Advanced metering technology and services
- Asset management software and services
- Building automation and control, building management systems
- Building engineering--mechanical, electrical, etc.
- Building materials, equipment, and supplies--non automation
- Distributed generation and interconnection components/parts
- Distributed generation systems
- Distribution-end industrial/commercial level controls

- End user integrated energy management software
- Energy efficiency equipment, materials, and supplies
- Energy management services
- Energy marketing
- Energy marketing software
- General electric supplies and contracting
- Generation consulting
- Grid monitors and controls
- Grid planning and design tools and consulting
- Power electronics
- Power quality/Power Factor Correction technologies
- Renewables generation ownership, management
- Research/information/financing other resources
- Smart devices/Grid-friendly devices
- Smart motors/Adjustable Speed Drives
- Stand-by generators, back-up power, UPS, battery systems
- Transmission/distribution construction contracting
- Transmission/distribution engineering services
- Transmission/distribution/substation automation
- Transmission/Distribution/Substation Equipment (not automation)
- Unassigned
- Utility asset management software and services
- Utility back-end systems
- Utility integrated energy management systems
- Utility load management/demand response technology
- Utility-grade power quality analyzers
- Workforce automation

STAGE OF DEVELOPMENT

We coded all entries for stage of development. The choices included:

- Stage I -- Development (not yet marketing a product)
- Stage II -- Early Commercialization (working on first customers and markets)
- Stage III -- Market Growth (potential for rapid expansion and growth)
- Stage IV -- Mature (stable, settled)
- Stage V -- Mixed

GEOGRAPHIC FOCUS

We coded all entries for their market focus. The choices included:

- Domestic
- International--All
- International--Asia
- International--Europe
- International--India
- International--North America
- International--South America

A.C. NELSON ELECTRICAL LTD.

Jody Nelson, President

19643-96th Ave
Langely, BC, Canada V1M 3C9 0
Phone: (604) 888-1222
www.acnelson.com

Headquarters: Langely, BC

Company Type:	<ul style="list-style-type: none">▪ Distributor/Manufacturers Rep/Dealer/Retailer▪ Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ General electric supplies and contracting▪ Transmission/distribution/substation automation	Specific Products or Services:	<ul style="list-style-type: none">▪ Refurbished electrical products▪ Electrical contracting
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--North America

Buyer, seller and installer of heavy-duty refurbished electrical products in Canada and the U.S., including switchgear, circuit breakers, motors, transformers, substations and many others.

ABACUS ENGINEERED SYSTEMS, INC

Craig Williamson, President and CEO

**401 2nd Ave S, Suite 201
Seattle, WA 98104
Phone: (206) 583-0200
Fax: (206) 583-8826
www.abacus-engr.com**

Established: 1985
Headquarters: Seattle, WA
Other Locations: New York, Pennsylvania, Oregon, Virginia and Massachusetts

**9450 SW Commerce Circle Ste. 310
Portland, OR 97070
Phone: (503) 682-8665
Fax: (503) 682-8627**

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Building engineering--mechanical, electrical, etc. ▪ Energy management services 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Consulting engineering ▪ Performance contracting ▪ Performance assurance
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consultant providing both traditional engineering and construction services as well as energy services for a variety of industries. For both new construction and retrofit, Abacus provides mechanical, electrical, energy and lighting design. It also provides commissioning, testing, adjusting, balancing and remote diagnostic services.

ACCELRATE POWER SYSTEMS, INC.

Reimar Koch, President and CEO

1140 Pender St E 1370
Vancouver, BC, Canada, V6A1W5 0
Phone: (604) 688-8656
Fax: (604) 688-8654
www.keycapital.net

Headquarters: Vancouver, BC

Company Type:	Developer	Target Customers:	Manufacturers
Product Categories:	<ul style="list-style-type: none">■ Power electronics■ Stand-by generators, back-up power, UPS, battery systems	Specific Products or Services:	Advanced battery chargers
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Developer and licensor of advanced battery charging technology. The company's patented charge/discharge algorithm results in greatly reduced charging times, less heat generation, extended battery life and energy cost reductions of up to 10%.

The company's strategy is to seek licensing arrangements where possible. Although the technology has wide application, the company has focused the initial product and licensing efforts on the industrial markets for electric vehicles (EVs) and power tools. Example applications include electric vehicle (EV) batteries, forklift batteries and electric motorcycle batteries (reduction from 8 hours to 1.5 hours).

Co-founded in 2000 by Vladimir Petrovic, the former Director of Electronics Development at the Institute Mihailo Pupin in Belgrade, Yugoslavia. The company was originally known as Key Capital Group to reflect the past history and activities of the principal funders, Caspar and Reimar Koch. The name was changed to AccelRate Power Systems in October 2003.

ACCESS ELECTRIC SUPPLY, INC

1930 6th Ave S, Suite 101
Seattle, WA 98134
Phone: (206) 623-3465
Fax: (206) 623-3537

Established: 1991

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none">■ General electric supplies and contracting■ Power quality/Power Factor Correction technologies	Specific Products or Services:	Power factor correction capacitors and controllers
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Traditional electric supply house now stocking a few Smart Energy products.

ACCU-READ, INC.

Bill Kesgard

714 E Saint Thomas More Way
Spokane, WA 99208
Phone: (509) 466-7592
Fax: (509) 468-4097

Established: 1990
Employees: 23
Affiliations: Itron Business Associate

Company Type:	<ul style="list-style-type: none">▪ Service Provider▪ Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Advanced metering technology and services▪ Utility back-end systems	Specific Products or Services:	<ul style="list-style-type: none">▪ Outsourced meter reading▪ Itron advanced meters
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Contract meter reading company for electric, gas and water utilities in Washington, Oregon, Idaho and Montana. The company performs credit and collection functions. It is also authorized to resell Itron advanced metering products.

ACRES INTERNATIONAL

Tony Hylton, President (parent company in Ontario)

**150 Nickerson St, Suite 310
Seattle, WA 98109
Phone: (206) 352-5730
Fax: (206) 352-5734
www.acres.com**

Established: 1924
Headquarters: Oakville, Ontario
Other Locations: 8 additional Canadian offices, along with Seattle and Amherst, New York
Employees: 1100 (parent)
Affiliations: Regional office of Canadian firm

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Generation consulting ▪ Asset management software and services <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Planning and construction of power infrastructure ▪ Asset management software for hydropower <p>Geographic Focus: International--All</p>
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Consulting engineering firm providing design, procurement and construction services for large projects including large power projects. Sister company Synexus Global provides decision support systems to the hydropower industry using advanced information technology to increase generation and optimize assets. Sister company Acres Management Consulting provides advice on ownership issues around energy, electricity and telecommunications infrastructure.

Acres International is the consulting arm of the Acres Group, a Canadian holding company with subsidiaries in engineering, planning, construction and consulting.

ADVANCED ENERGY SERVICES

10924 Mukilteo Speedway, Suite 110
 Mukilteo, WA 98275
 Phone: (425) 355-3680

Company Type: <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider 	Product Categories: <ul style="list-style-type: none"> ▪ Energy management services ▪ Building automation and control, building management systems 	Target Customers: End-Users
Stage of Development: Stage III -- Market Growth	Specific Products or Services: <ul style="list-style-type: none"> ▪ Energy efficiency systems ▪ Energy metering ▪ Energy audits 	Geographic Focus: Domestic

Services company that analyzes and designs energy efficiency systems for buildings; sells and installs the equipment; and provides metering and audits to verify savings and monitor operations.

ADVANCED ENERGY SYSTEMS

Stephen Dillon, President

2022 Jackson Highway

Chehalis, WA 98532

Phone: (360) 748-1817

Fax: (360) 748-3557

www.advancedenergysystems.net

Established: 1983

Employees: 6 - 19

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories: Energy management services</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Heating and air conditioning contractor ▪ Energy efficiency and energy management services <p>Geographic Focus: Domestic</p>
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Heating and air conditioning contractor that also performs energy efficiency and energy management services, including heat loss/gain calculations, energy cost comparisons and building operating cost analysis.

ADVANCED POWER PRODUCTS

1723 SW Joshua St
 Portland, OR 97219
 Phone: (503) 977-0994
 Fax: (503) 977-9300
 www.app-bgl.com

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Component Supplier <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems ▪ Building engineering--mechanical, electrical, etc. <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Advanced batteries and portable power solutions ▪ Chargers, power supplies and transformers. ▪ Design services <p>Geographic Focus: Domestic</p>
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Distributor and manufacturer's rep for cutting-edge portable power products. In addition to selling to end users and to manufacturers, it also helps design power supplies and battery packs. Most of the company's business is focused around portable products.

ADVANCED POWER TECHNOLOGY INC.

Patrick Sireta

405 SW Columbia St
 Bend, OR 97702
 Phone: (541) 382-8028
 Fax: (541) 833-0371
 www.advancedpower.com

Headquarters: Bend, OR

Other Locations: Santa Clara, CA, Montgomeryville, PA, and Bordeaux, France

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Component Supplier ▪ Manufacturer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Power electronics ▪ Power quality/Power Factor Correction technologies <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Manufacturers</p> <p>Specific Products or Services: High performance power semiconductors for electrical power conversion, control, and amplification</p> <p>Geographic Focus: International--All</p>
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Manufacturer of high-performance semiconductors that condition and regulate electricity in computers, cellular base stations, and other electronic gear.

APT is a leading supplier of high power switching transistors, diodes, RF & microwave transistors, and power modules for RF, microwave, linear, and switchmode applications. It focuses on high voltage and high frequency applications. Its components are used in power supplies ranging from hundreds of watts to hundreds of thousands of watts, and with voltages from 100 to 1400 volts. In rough order of importance, its four main customer categories are military/aerospace, industrial/medical, communications/data processing and semiconductor equipment. It does about two thirds of its business in North America, 15% in Europe and the balance in Asia.

The company's technologies and products are specifically focused at meeting the world's increasing demand for more sophisticated forms of electrical power, more power overall, and more efficient utilization of electricity to conserve this valuable resource. In addition, the general trend in power conversion towards higher efficiencies, higher power densities, and higher frequencies makes APT products ideal for many new applications.

APT is growing both through product extensions and through acquisitions. It's strongest thrust is into radio frequency (RF) products, which now make up 50% of revenue. It acquired two companies in the past twelve months.

AFS TRINITY POWER CORP.

PO Box 449

Medina, WA 98039

Phone: (425) 454-1818

www.afstrinity.com

Established: 2000

Headquarters: Medina, WA

Other Locations: R&D conducted at Livermore Laboratory, CA

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ■ Stand-by generators, back-up power, UPS, battery systems ■ 	Specific Products or Services:	Flywheels
Stage of Development:	Stage I -- Development	Geographic Focus:	Domestic

Manufacturer of Smart flywheels for power quality and power management applications. Future applications may include peak shaving for utilities and stored power for fuel cell vehicles.

ALERTON INC.

Kevin Cawskey, VP and General Manager

6670 185th Ave NE
 Redmond, WA 98052
 Phone: (425) 869-8400
 Fax: (425) 869-8445
 www.alerton.com

Established: 1981
Headquarters: United Kingdom
Affiliations: Subsidiary of Novar, plc (UK)

Company Type:	<ul style="list-style-type: none"> ■ Manufacturer ■ Product Designer 	Target Customers:	End-Users
Product Categories:	Building automation and control, building management systems	Specific Products or Services:	Building automation and control systems
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Designer and manufacturer of building automation and control systems for heating, ventilation and air condition applications. The Redmond firm is recognized as a pioneer in the development of the BACnet protocol, an emerging industry standard that allows systems from different manufacturers to work together.

Alerton has an international dealer network with representation in North America, Latin America, Europe, Asia and Australia.

The BACnet open protocol will gradually supplant the proprietary systems that now make up the bulk of building automation products. The ability to mix-and-match components will increase sales in the category. As one of the early BACnet pioneers, Alerton stands to benefit from these developments.

With the purchase of Alerton by Novar, plc in March, the current intent is to leave Alerton headquarters in Redmond and focus on merging the international dealer networks of the two companies.

ALLIANCE TECH, INC

Brian Foster, Co-founder

**18892 Angeline Ave NE
 Suquamish, WA 98392
 Phone: (360) 981-0773
 Fax: (253) 276-8087
 www.alliancetech.net**

Headquarters: Suquamish, WA

Other Locations: Bloomfield, MI

Company Type:	Service Provider	Target Customers:	Manufacturers
Product Categories:	Generation consulting	Specific Products or Services:	Consultancy to the fuel cell industry
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Consulting agency focused on the fuel cell industry. In this capacity, it often consults on Smart Energy issues such as grid interconnection and power conditioning design. It can help manage projects from requirements to regulatory approval. In addition, it can perform quality functions to create the necessary documentation to gain market approval for projects.

Services include development of R&D processes to meet regulatory approval (ISO 9001), regulatory planning and reports (i.e. FMEA, Hazard analysis), project management and staffing.

One of the first companies to actively work with the German regulatory agency TUV to gain approval for a fuel cell system for public use in the EU.

ALLTECK LINE CONTRACTORS

Bernie Rokstad, CEO

4940 Still Creek Ave
 Burnaby, BC, Canada, V5C-4E4 0
 Phone: (604) 294-8151
 Fax: (604) 294-8043
www.allteck.ca/

Established: 1982
Headquarters: Burnaby, BC
Other Locations: Calgary, Alberta; Kelowna, BC

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Transmission/distribution/substation automation 	Specific Products or Services:	Design and construction of transmission lines and substations
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Contractor providing design, construction and maintenance of electric power transmission systems. The bulk of Allteck's revenues come from standard construction, maintenance and repair services. But like many line contractors, the company is gradually adding support for smart grid products and services. Specialities include design, engineering, substation installation, and fiber optic cables.

ALPHA TECHNOLOGIES

Fred Kaiser, Chairman and CEO

3767 Alpha Way
Bellingham, WA 98226
Phone: (360) 647-2360
Fax: (360) 671-4936
www.alpha.com

Established: 1976
Headquarters: Bellingham, WA
Other Locations: Atlanta, British Columbia, Australia, Germany, United Kingdom
Employees: 1000
Affiliations: Parent of the Alpha Group, including BC-based Argus

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Product Designer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems ▪ Distributed generation systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Uninterruptible power supplies ▪ Power conversion systems ▪ DC power systems <p>Geographic Focus: International--All</p>
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Developer and manufacturer of a range of power conversion, power protection, power monitoring and standby power products for communication, commercial, industrial and alternative energy applications. In recent years, it has become a player in the nascent distributed generation field.

Alpha's customer base includes major cable systems and telecommunication service providers. International sales have grown rapidly with major installations in Europe, South America, Australia and the Far East. Currently Alpha has sales and service centers in the US, Canada, Europe, the Middle East and Australia with more than 1,000 employees and 500,000 square feet of manufacturing space worldwide.

Alpha Technologies was founded in 1976 to provide power supplies to the cable industry. Those products - which still comprise a significant portion of Alpha's total business - provide critical power conditioning and emergency backup. Today, Alpha Technologies is the world's leading supplier of power systems to the broadband communications industry.

In February, 2002, Alpha acquired Colorado-based Altair Energy to strengthen its participation in the growing distributed generation industry. To date, the company has more than 100 megawatts of installed distributed generation power systems. Altair Energy is a value-added integrator of photovoltaic and other distributed generation power systems for residential, small commercial and institutional applications.

With Altair as the cornerstone of a Cogeneration Division and with its expertise in power supplies, Alpha can become a leader in distribution generation as that technology begins to take off.

Distributed generation has been stalled in the past two years due to the confusion in the regulatory space and the financial crisis in the utility industry.

ALSTOM ESCA

J.D. Hammerly, North America Vice President

11120 NE 33rd PI
 Bellevue, WA 98004
 Phone: (425) 822-6800
 Fax: (425) 889-1700
 www.alstom.esca.com

Headquarters: France
 Employees: 350 (in WA)

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility integrated energy management systems ▪ Utility back-end systems <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Transmission energy management systems ▪ Distribution management systems ▪ Power marketing tools for deregulated energy markets <p>Geographic Focus: International--All</p>
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Provider of energy management software. Its Energy and Automation Information Business is part of the parent firm's Transmission and Distribution division. In the U.S, Alstom employs more than 7,000 people and has annual sales in excess of \$4B. It employs roughly 350 people in the Bellevue headquarters of its Alstom Esca subsidiary.

Alstom Esca creates, delivers, and supports software to maintain reliable and consistent electrical transmission. Important products include substation and distribution automation, realtime power control, information management and energy market systems. Its products are used by utilities and large companies around the world.

The slowdown in U.S. deregulation and the financial crisis in the utility sector has dampened Alstom Esca's sales in the past two years. More importantly, its parent company has undergone severe financial trauma, leading it to put several of its divisions up for sale, including Alstom Esca.

As this directory went to press, it was widely assumed that a sale would soon be announced. As of this writing, it is unknown whether Alstom Esca will be sold on its own, or as part of the larger Transmission and Distribution division.

ALSTOM TRANSFORMERS - USA

Rick Sawyer

300 W Antelope Road
Medford, OR 97503

Phone: (541) 826-2113

Fax: (541) 826-8847

www.alstomtransformers.com

Headquarters: France

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: Transmission/distribution/substation automation</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Distribution transformers ▪ Instrument transformers ▪ Cast resin dry type transformers <p>Geographic Focus: Domestic</p>
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Manufacturer of liquid filled distribution transformers for utility and industrial applications. In addition to standard products, the firm offers custom designs for substation transformers, padmount transformers, and specialty transformers.

As a subsidiary of Alstom, the global power and transportation company, Alstom Transformers focuses on the U.S. market.

This company can trace its history back 80 years. The original Oregon plant was constructed in 1969 as a branch of the Standard Transformer Company. In 1979, Balteau S.A. of Belgium and the Standard Transformer Company merged to form Balteau Standard Inc. In 1987, Alstom, a Paris-based multinational, purchased the Balteau Group. After another merger, the company eventually went public in 1998 as Alstom.

As the Smart Energy market matures, Alstom Transformers has the opportunity to add more intelligence and more remote monitoring capabilities to its products.

The parent firm is selling off parts of its business, including all or part of its Transmission and Distribution division. The resulting change in ownership could be disruptive to the operations of this Oregon facility.

ALWAYS ON UPS SYSTEMS INC.

Wilfred Frey, President

100-150 Campion Road
Kelowna, BC, Canada, V1X 7S8 0
Phone: (250) 491-9777
Fax: (250) 491-9775
www.alwaysonups.com

Established: 1997
Headquarters: Kelowna, BC
Employees: 15

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Power supply systems ▪ Power management software <p>Geographic Focus: International--North America</p>
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Manufacturer of energy efficient uninterruptible power supplies (UPSs, extended battery backups and other power quality products. The company also offers power management and system shutdown software. Products are manufactured in ISO-9001 certified facilities, and are labeled as environmentally friendly "Green Energy Systems."

Always On UPS was founded by of Wilfred Frey, previously the founder and president of Tycor International Inc. and DIL International.

AMERICAN LINE BUILDERS, INC.

Jan Willis, President

246 Tucannon Road

Dayton, WA 99328

Phone: (509) 382-4766

Fax: (509) 382-2443

www.albinc.com

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Transmission/distribution engineering services▪ Transmission/distribution construction contracting	Specific Products or Services:	<ul style="list-style-type: none">▪ Design services▪ Construction services▪ Maintenance services
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Contractor for high voltage transmission lines and substations. Specializes in the design, construction and maintenance of electrical transmission lines, substations, distribution systems, communications lines and microwave and cellular telephone towers.

As Smart Energy progresses, firms such as this one will be called on to specify and install intelligent components. They may prove to be an important channel for the makers of those components.

ANALYTIC SYSTEMS WARE LTD.

Jim Hargrove, President

12448 82nd Ave, Suite 207
Surrey, BC Canada V3W 3E9 0
Phone: (604) 543-7378
Fax: (604) 543-7354
www.analyticsystems.com

Established: 1976
Headquarters: Surrey, BC
Employees: 25

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Power electronics ▪ <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ DC-AC inverters ▪ DC-DC converters ▪ AC-DC power supplies <p>Geographic Focus: International--All</p>
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Manufacturer of voltage conversion devices. It features over 300 standard products plus a modification department to rapidly deliver variations of those products. Examples include DC-DC voltage converters, DC-AC power inverters, AC-DC power supplies, and DC & AC battery chargers.

Analytic Systems does much of its business through original equipment manufacturers (OEMs) that build products for the alternative energy, marine, defense, automotive, industrial, communications and mobile electronics markets. It also sells to end users through an international network of distributors and resellers.

Founded in 1976 by Lloyd Hargrove, control of Analytic Systems passed to his son, Jim Hargrove in 1993.

APPLIED POWER & CONTROL, INC

David Bechtal

12310 Highway 99 S, Unit 111

Everett, WA 98204

Phone: (425) 338-3355

Fax: (425) 338-3509

www.appliedpower-control.com

Established: 1994

Employees: 6 - 19

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Distribution-end industrial/commercial level controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Control systems and panels▪ Design service
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Provider of custom controls for prime and standby gensets. Also provides low and high voltage switchgear. Controls allow for remote monitoring via the internet.

AQUA-TRONICS, INC.

Merrill Haddon, President

1212 NE 5th St

Redmond, OR 97756

Phone: (541) 548-2110

Fax: (541) 548-2117

www.aquatronics.com

Company Type:	Manufacturer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Power electronics▪ Stand-by generators, back-up power, UPS, battery systems	Specific Products or Services:	<ul style="list-style-type: none">▪ Fault locators▪ Restore-A-Phase
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Small manufacturer of instruments to locate cables, pipes and faults.

ARES CORPORATION

Bob Fritz, Senior Vice President

1100 Jadwin Ave, Suite 400
 Richland, WA 99352
 Phone: (509) 946-3300
 Fax: (509) 946-6006
 www.arescorporation.com

Established: 1992

Headquarters: Burlingame, CA

Other Locations: Nine major offices throughout the U.S. and several additional project offices in the U.S. and Canada

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Transmission/distribution engineering services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services: Engineering and project management</p> <p>Geographic Focus: International--North America</p>
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Consulting engineering firm providing risk management, project management and engineering solutions to government contractors and agencies. Agency clients have included the Department of Energy. Utility clients have included Pacific Gas & Electric and Gulf States Utilities. The firm also sells engineering and project management software.

ARGUS TECHNOLOGIES

Dylan Modder, CEO

**5700 Sidley St
Burnaby, BC, Canada V5J 5E5 0
Phone: (604) 436-5900
Fax: (604) 436-1233
www.argusdcpower.com**

Established: 1986
Headquarters: Burnaby, BC
Other Locations: Canada, the US, Taiwan, Middle East, Australia and UK.
Employees: 170
Affiliations: Part of the Alpha Group, led by Bellingham-based Alpha Technologies

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories: Power electronics</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ DC power systems ▪ DC-DC converters ▪ DC uninterruptible power supplies <p>Geographic Focus: International--All</p>
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Designer and manufacturer of DC power solutions for the communications industry. Products include DC power systems, rectifiers, DC-DC converters, DC uninterruptible power supplies, and a variety of electronic components.

Argus has long been recognized as a leader in the global telephony market. It has since expanded to other communications industries, including wireless, fiber, and broadband.

AVISTA ADVANTAGE, INC

Harry Stephens, President and CEO

**1313 N Atlantic
Spokane, WA 99201
Phone: (800) 767-4197
Fax: (509) 329-7287
www.avistaadvantage.com**

Established: 1995
Affiliations: An affiliate of Avista Corporation (NYSE: AVA)

Company Type:	<ul style="list-style-type: none"> ■ Service Provider ■ Developer 	Target Customers:	End-Users
Product Categories:	End user integrated energy management software	Specific Products or Services:	Energy management software for large organizations
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Energy services company that helps large companies manage electric, water, waste and phone bills. Its flagship FacilityIQ product line currently helps more than 200 large companies manage expenses across more than 100,000 locations.

Facility IQ is a bill paying/bill management system for services such as electricity and telephone. For instance, a customer using the Utilities module has all its energy, water and sewage bills sent to Facility IQ. The bills are audited, entered into a master database and presented online for payment approval. Once the bill-paying data is in the system, it can help to reduce usage and costs. Facility IQ provides instant online access to key data, reports and comparisons, allowing customers to find trouble spots and reduce consumption.

Originally spun out of Spokane-based Avista Utilities in 1995.

AVISTA ENERGY

Dennis Vermillion, President and COO

201 W N River Dr, Suite 610

Spokane, WA 99201

Phone: (888) 284-7824

Fax: (509) 495-8100

www.avistacorp.com/companies/avista_energy.asp

Established: 1997

Affiliations: Affiliate of Avista Corp
(NYSE:AVA)

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy marketing	Specific Products or Services:	Energy marketing and trading
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Energy marketing and trading affiliate of Avista Corp. Provides electricity and natural gas resource and portfolio optimization to wholesale customers, as well as end-users, with a focus on regional energy markets in the western United States.

BALHIZER & HUBBARD ENGINEERS

David E. Bomar, President

975 Lincoln St

Eugene, OR 97440

Phone: (541) 686-8478

Fax: (541) 345-5303

www.bhengineers.com

Established: 1954

Employees: 50

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Building engineering-- mechanical, electrical, etc. ▪ Energy management services 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Electrical engineering ▪ Mechanical engineering ▪ Civil engineering
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consultant that provides electrical, mechanical, civil and transportation engineering; lighting design; and, survey services. Emphasizes designs that reduce energy consumption and use alternative energy sources and technologies where appropriate.

Works closely with utilities and the Oregon Office of Energy to meet meet requirements for special energy efficiency funding. Submits projects through Oregon's SEED program to procure state funding.

As deregulation progresses, it becomes more appealing for colleges, hospitals and business parks to have their own electrical distribution system. Balhizer & Hubbard has assisted clients such as the University of Oregon and Oregon Institute of Technology.

BECHTEL GROUP

Riley Bechtel, Chairman and CEO

2435 Stevens Center Pl
 Richland, WA 99352
 Phone: (509) 371-2000
 Fax: (509) 371-2003
 www.bechtel.com

Established: 1898
Headquarters: San Francisco, CA
Other Locations: Thirteen locations in the U.S. and several dozen more around the world
Employees: 47,000 (parent)

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Generation consulting ▪ Distributed generation systems 	Specific Products or Services:	Engineering and construction of large projects
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Engineering-construction firm that develops, engineers, builds, and sometimes even finances large projects around the world. Bechtel is the US's #1 contractor (ahead of Fluor). It operates worldwide, participating in such notable projects as the construction of Hoover Dam and the cleanup of the Chernobyl nuclear plant. In the energy industry, its history has been in fossil fuel and nuclear facilities. Over the past half century, Bechtel has completed more than 356 fossil-fired power plant units, 150 nuclear generating units, 50 waste-to-energy projects, 50 coal gasification projects, 48 hydroelectric plants, 40 independent power/cogeneration plants, 30 waste fuel plants, and 15 fluidized bed boiler projects. Today, Bechtel is devoting increasing attention to alternative energy and distributed generation.

BLACK & VEATCH

Len Rodman, CEO

4004 Kruse Way Pl, Suite 200

Lake Oswego, OR 97035

Phone: (503) 699-7556

Fax: (503) 699-2331

www.bv.com

Established: 1915

Headquarters: Overland Park, KS

Other Locations: More than 90 offices worldwide

Employees: 8500

Affiliations: Regional office

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories: Transmission/distribution engineering services</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Engineering and construction of utility and telecommunications infrastructure ▪ Consulting, design, asset management and information technology <p>Geographic Focus: International--All</p>
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Engineering, construction and consulting company specializing in utility infrastructure. Founded in 1915, Black & Veatch offers engineering services, engineering design, procurement, construction, financial management, asset management, information technology, environmental, security design and management consulting.

In May, 2003, Black & Veatch announced the formation of a global Renewable Energy Group. The new division will provide comprehensive project services for renewable energy projects in wind, solar, biomass, hydroelectric, geothermal and ocean energy.

BOUILLON ENGINEERING

315 SW 5th, Suite 300
Portland, OR 97204
Phone: (503) 220-0910
Fax: (503) 220-0911
www.bouillon.com

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Building engineering--mechanical, electrical, etc.	Specific Products or Services:	Electrical and mechanical design
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Engineering consultants that provide project management and design for facilities. Areas of expertise include power, communications, HVAC, plumbing, lighting and fire protection.

BOUNDARY ELECTRIC

Sharon Dockstader, President

7990 Columbia Dr
Grand Forks, BC, Canada, V0H 1H0 0
Phone: (250) 442-5561
Fax: (250) 442-8322
www.boundaryelectric.com

Headquarters: Grand Forks, BC

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Transmission/distribution/substation automation <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Electrical switchgear ▪ Electrical transformers <p>Geographic Focus: International--North America</p>
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Distributor of electrical service and supply. Sells new and used electrical equipment and acts as stocking distributors for several manufactures. Products include switchgear, transformers, circuit breakers and motor controls.

Originally founded in 1947, BEL was reorganized in 1985 form what is today Boundary Electric Ltd.

BOWERS POWER SYSTEMS

22221 70th Ave S
 Kent, WA 98032
 Phone: (800) 858-5881
 Fax: (253) 872-4127
 www.bowerspower.com

Established: 1988
Headquarters: Kent, WA
Other Locations: Also owns AC Power Systems subsidiary

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Stand-by generators, back-up power, UPS, battery systems	Specific Products or Services:	Generator sets
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Reseller of diesel, natural gas and propane generator sets, from consumer models to 2000 Kw industrial standby generators.

As fuel cells, hybrid systems and networked generators begin to catch on, established resellers such as Bowers (and its AC Power Systems subsidiary) could become an important channel.

At the moment, fuel cells are not price competitive for most customers of this firm. Typical Bowers customers are price sensitive. Only a few fall into the "premium power" niche that is willing to pay extra for the benefits of fuel cells and hybrid systems.

BURKE ELECTRIC

Randy Burke, President

13563 SE 27th Pl
Bellevue, WA 98005
Phone: (425) 644-0351
Fax: (425) 747-5977
www.burkeelectric.com

Established: 1955

Headquarters: Bellevue, WA

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Transmission/distribution construction contracting▪ Transmission/distribution engineering services	Specific Products or Services:	Electrical contracting services
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Contractor concentrating on complex projects that require special electrical skills and designs. Known for electrical work on major power plant installations, high rise office buildings, and underground high voltage systems throughout the Northwest. Capabilities include fiber optics, low voltage controls, relay and control functions, SCADA, substations and RTU remote systems.

CADEX ELECTRONICS INC.

Isidor Buchmann, President and CEO

22000 Fraserwood Way
Richmond, BC, Canada V6W 1J6 0
Phone: (604) 231-7777
Fax: (604) 231-7755
www.cadex.com

Established: 1980
Headquarters: Richmond, BC
Employees: 47

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none">■ Power electronics■ Stand-by generators, back-up power, UPS, battery systems	Specific Products or Services:	<ul style="list-style-type: none">■ Battery analyzers■ Battery chargers■ Battery management software
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Designer and manufacturer of advanced battery chargers and analyzers, with particular emphasis on mobile devices. Its battery analyzers test, condition and restore batteries that otherwise would be discarded. Its battery chargers service both "smart" and "dumb" batteries for communications, medical and portable computing. Its BatteryShop Windows-based program automates battery maintenance. The software offers a database of more than 2000 battery models, customized test programs and bar coding for fleet management.

CARLSON SALES, INC

Scott Dashiell, President

9317 NE Highway 99, Suite 0
 Vancouver, WA 98665
 Phone: (360) 573-8203
 Fax: (360) 573-8289
 www.carlson-sales.com

Established: 1928
Headquarters: Vancouver, WA
Other Locations: Gig Harbour, WA; Spokane, WA

11430 51ST Ave. Suite 101A
 Gig Harbour, WA 98332
 Phone: (425) 210-4276
 Fax: (646) 365-2475

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/Distribution/Substation Equipment (not automation) ▪ Transmission/distribution/substation automation 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Transmission and distribution products and tools ▪ Advanced meters
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Manufacturer's representative for a wide range of products for the electrical industry, including advanced meters, transformers, substation components, relays and much more, including the Siemens Power Transmission & Distribution line of equipment and software.

CARMODY CO., INC.

Thomas Carmody, President

11301 Rainier Ave S

Seattle, WA 98178

Phone: (206) 762-3103

Fax: (206) 763-4804

www.carmodycompany.com

Established: 1960

Employees: 6

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Control panel equipment and components▪ Machinery mounted equipment and components▪ Power factor correction capacitors
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer's rep for electrical and mechanical equipment. In the energy area, Carmody distributes and supports variable speed drives, electric controls, motor controls, power transmission equipment and electric cable and wire terminals.

CARTER & SPRAGUE, INC.

18884 SW Show St
Aloha, OR 97007
Phone: (503) 848-8478
Fax: (503) 848-9508

Established: 1987
Employees: Under 5

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	Energy conservation consulting
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Energy services company providing conservation and management.

CASCADE CONTROLS CORPORATION

18338 Andover Park W
 Tukwila, WA 98188
 Phone: (206) 357-0304
 Fax: (206) 357-0305
 www.cascadecontrols.com

Headquarters: Tukwila, WA
Other Locations: Spokane, WA

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Distribution-end industrial/commercial level controls ▪ Transmission/Distribution/Substation Equipment (not automation) <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Automation products ▪ Electrical products <p>Geographic Focus: Domestic</p>
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Full line distributor of electrical and automation devices for industrial plants and machine builders. Also designs and installs automation systems and provides training programs. Now beginning to carry a few Smart Energy products and program SCADA systems.

Electrical product line includes harmonic and power factor correction, Siemens power distribution and controls, transformers, and uninterruptible power supplies.

CASNE ENGINEERING, INC.

Robert J. Casne, President and CEO

355 118th Ave SE
 Bellevue, WA 98005
 Phone: (425) 454-3555
 Fax: (425) 454-8922
 www.casne.com

Established: 1979
Headquarters: Bellevue, WA
Other Locations: Spokane, WA
Employees: 41

609 North Argonne Road
 Spokane, WA 99212
 Phone: (509) 922-7897
 Fax: (509) 922-1898

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Transmission/distribution/substation automation 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Substation design and automation ▪ Power distribution ▪ Telemetry and SCADA
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consulting engineers to industry, municipalities and utilities. Consults on power and control systems substation design, substation automation, 480 volt power and distribution, supervisory control and data acquisition (SCADA) systems, telemetry and more.

CAYENTA CANADA INC.

Mike Gardner

2955 Virtual Way, Suite 100
 Vancouver, BC, Canada V5M 4X6 0
 Phone: (604) 570-4300
 Fax: (604) 291-0742
 www.cayenta.com

Headquarters: Vancouver, BC

Employees: 148

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility back-end systems ▪ Asset management software and services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Customer Information Systems (CIS) software ▪ Financial back-office software ▪ Asset management software <p>Geographic Focus: International--North America</p>
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Developer of customer information systems and financial software to utilities and municipal governments. Its CIS products handle bill, collections, meter reading and customer service for electric, water, sewer, gas, and solid waste.

In addition to selling its products as standalone software packages, the company also offers hosted versions. Cayenta can host and operate the software and can also provide trained analysts to monitor and report on performance indicators and trends.

CELERITY ENERGY, INC

David Hoffman, President and CEO

7911 NE 33rd Dr, Suite 280

Portland, OR 97211

Phone: (503) 282-2250

Fax: (503) 282-2229

www.celerityenergy.com

Established: 1999

Affiliations: Owns Reliable Power

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy management services	Specific Products or Services:	Standby power network
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Energy management company that networks standby generators together so they can be remotely dispatched to meet peak power needs of utility companies. Celerity takes over maintenance and adds technology to remotely monitor and start the generators without interfering with their use for emergencies. Also owns Reliable Power, a seller of backup generators.

CH2MHILL INDUSTRIAL DESIGN AND CONSTRUCTION (IDC)

2020 SW 4th Ave, 3rd Flr
 Portland, OR 97201
 Phone: (503) 224-6040
 Fax: (503) 223-1494
 www.ch2mhill.com

Headquarters: Portland for IDC; Englewood, CO for CH2Mhill overall

Other Locations: 6 offices in Seattle, 6 offices in Oregon, 165 offices world-wide

<p>Company Type: Service Provider</p> <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Energy management services ▪ Generation consulting <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Strategic business consulting ▪ Demand side management ▪ Supply side management <p>Geographic Focus: International--All</p>
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Engineering firm providing a full range of consult, design, build, and operate services. Their energy services involve a variety of projects aimed toward utilities and large industrials. Includes strategic energy management -- business analysis and market assessments, Demand Side Management and conservation -- energy audits/efficiency improvements supply side management -- environmental credits, power plant siting, permitting and licensing -- economic studies, major IPP and utility project engineering services -- cycle analysis and optimization, strategic energy technology management and commercialization -- clean energy technologies, power plant engineering, procurement and construction -- project finance, energy and utility infrastructure operations and maintenance -- full operations and maintenance services.

CHRISTENSON POWER SERVICES

Robert Jesenik, Chairman and CEO

1631 NW Thurman, Suite 200
 Portland, OR 97209
 Phone: (503) 419-3600
 Fax: (503) 419-3636
 www.christenson.com

Established: 1952

Headquarters: Portland, OR

Other Locations: Bend, OR; Eugene, OR; Seattle, WA; Vancouver, WA; Warrenton, OR

Affiliations: Subsidiary of Christenson Corporation

11824 North Creek Parkway N, Suite 103
 Bothell, WA 98011
 Phone: (425) 485-7898
 Fax: (425) 485-4909

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Energy management services ▪ Transmission/distribution engineering services 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Custom design and manufacture of energy management systems ▪ Substation design, construction and automation ▪ Standby generation and UPS systems
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Contractor providing a wide range of electrical services to utility and industrial customers. Custom designs and manufactures of energy management systems and industrial control panels. Company designs, engineers, and installs building energy management systems by Honeywell and American Auto-Matrix. Installs industrial wiring and power projects. Designs and installs substations and wind power generation. Provides stand-by generation equipment, UPS systems and battery backups.

CIRCON SYSTEMS CORP.

Bruce Chapman, CEO

110-6651 Fraserwood Pl
Richmond, BC, Canada V6W 1J3 0
Phone: (604) 232-4700
Fax: (604) 232-4747
www.circon.com

Established: 1992
Headquarters: Richmond, BC
Other Locations: Sales representatives and regional engineering offices in several locations throughout Canada and the U.S.
Employees: 40
Affiliations: Owned by Discovery Capital, member LonMark Interoperability Association and Echelon's Open Systems Alliance (OSA)

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Building automation and control, building management systems ▪ Energy management services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Smart controls for HVAC and lighting ▪ Facility management software <p>Geographic Focus: International--North America</p>
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Manufacturer and distributor of intelligent building automation solutions. Its products integrate heating, ventilating, air conditioning, lighting, security, building access, and energy management. Its modular, LonWorks-compatible product line includes components such as controls for lighting, HVAC, variable speed drives and card access. It also includes software such as energy management and system integration.

The company also carries and supports a wide range of compatible products from other companies. It also offers training classes and engineering services.

Circon is committed to the LonWorks standard, one of several open protocols in the building automation field. LonWorks is a communications protocol that allows a device to be immediately compatible with other LonWorks equipment. The systems within a building can be managed via a desktop PC, a telephone or an Internet browser.

Circon sells its product to commercial, institutional, and light industrial facilities.

In the fall of 2003, Discovery Capital (www.discoverycapital.com -- TSX:DVY.V) became the majority owner of Circon by buying GE Capital's majority interest. Discovery is a public company that specializes in acquiring and growing technology businesses. Discovery Capital was one of the principal supporters of the company in its early growth years, and maintained and increased its investment in Circon after control was acquired by General Electric in 2000. Discovery executive vice-president Bruce Chapman was named CEO of Circon.

CLARK'S ENERGY SERVICE CORP.

800 NW Sixth Ave, Suite 202
Portland, OR 97209
Phone: (503) 224-8145
Fax: (503) 224-0881

Established: 1990
Employees: Under 5

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	Energy management services
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Provider of energy conservation and management services.

COLUMBIA RIVER PUD

Fergus Pilon, General Manager

64002 Columbia River Highway
Deer Island, OR 97504
Phone: (503) 397-1844

Established: 1939

Employees: 20-49

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none">■ People's Utility District■ Energy management services
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Public Utility District and energy service provider offering a wide range of services and products to enhance energy efficiency.

COMMONWEALTH ASSOCIATES, INC.

Dennis F. DeCosta, President

101 N First St, Suite 6
 LaConner, WA 98257
 Phone: (360) 466-2214
 Fax: (360) 466-1744
 www.cai-engr.com

Headquarters: Jackson, MI

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Grid planning and design tools and consulting <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Design and construction of transmission lines and substations ▪ Design and construction of industrial power systems ▪ Transmission analysis and planning software <p>Geographic Focus: International--All</p>
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Planner, designer and construction management for high voltage electric transmission and substation facilities. Based in Michigan with an office in Washington state, Commonwealth Associates is a consulting engineering firm to the electric power delivery industry. In addition to engineering and consulting services, CAI offers Transmission 2000, a software product used to analyze and plan electric utility transmission systems. It also offer the Transmission Access Information Library, a source of all available regional power flow models of the North American transmission.

COMPOSITE POWER CORP

P. Roger McCombs, Chairman and CEO

1100 Jadwin
 Richland, WA 99352
 Phone: (206) 943-6599
 www.compositepower.com

Established: 1990
Headquarters: Richland, WA
Other Locations: Las Vegas, NV

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Product Designer ▪ Manufacturer <p>Product Categories: Transmission/Distribution/Substation Equipment (not automation)</p> <p>Stage of Development: Stage I -- Development</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Utility poles from composite materials ▪ High-capacity aluminum alloy DC cables ▪ Wind turbine prototypes <p>Geographic Focus: Domestic</p>
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Developer that has created, patented and prototyped several designs for next-generation power transmission. Products include composite fiber poles, composite nonconductive cross assemblies and composite reinforced aluminum alloy conductor cables. The company has also designed a different approach to wind turbine design. It is seeking partnerships and funds to take its concepts to market.

COMPUTER POWER & SERVICE, INC.

Mark Risinger, President

927 NW 50th St

Seattle, WA 98107

Phone: (206) 782-7090

Fax: (206) 782-7331

www.cpsiwa.com

Established: 1989

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories: Stand-by generators, back-up power, UPS, battery systems</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Uninterruptible power systems ▪ Design and installation of data centers <p>Geographic Focus: Domestic</p>
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Distributor that sells, installs and services uninterruptible power systems and stand-by power generation for computer rooms and other business-critical functions. It is also a licensed electrical contractor that can design and engineering computer rooms and data centers.

CONCORD CONSULTANTS LTD.

Gerry Schaap, President

128 - 11121 Horseshoe Way
 Richmond, BC, Canada, V7A 4Y1 0
 Phone: (604) 448-1344
 Fax: (604) 448-1345
 www.cclmais.com

Headquarters: Richmond, BC

Company Type:	Developer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Utility back-end systems ▪ Workforce automation 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Utility Billing ▪ Work Management
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--North America

Developer that provides automated solutions for municipal governments in Canada and the U.S. The company sells the Municipal Accounting & Information System (MAIS) software, an integrated solution that automates most aspects of local government, including utility billing and workforce automation.

A primary selling point of Concord Consultant's system is its deep integration, with all modules interfacing back to the core accounting functions. Its utility billing module accommodates multiple billing cycles and tier structure for flat or consumption-based charges. It is fully integrated with Cash Register, General Ledger and Property Taxes.

The company's work management module tracks jobs from start to finish. It estimates cost and control resources and accumulates costs for labor, equipment, and materials.

CONSERVATION AND RENEWABLE ENERGY SYSTEM (CARES)

Michael S. Burnett, Managing Director

6918 NE Fourth Plain Blvd, Suite B

Vancouver, WA 98661

Phone: (360) 750-7710

Fax: (360) 750-7705

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Generation consulting ▪ Energy management services 	Specific Products or Services:	Consulting services for utilities on conservation and renewable energy projects
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Consultancy that works with public utility districts to identify, assess, develop, finance and manage electric energy conservation and renewable energy programs. Services include program design, implementation, management, financing, construction, and operation.

CONSOLIDATED ELECTRONICS, INC

E 15700 Euclid, Bldg S-3
Spokane, WA 99216
Phone: (509) 927-8837
Fax: (509) 924-6362
www.con-elec.com

Established: 1991

Company Type:	Manufacturer	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Transmission/distribution/substation automation▪ Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Circuit breaker monitors▪ Power semiconductor testers
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer of monitoring and testing equipment for utilities and industry. Products include high voltage circuit breaker monitors and power semiconductor testers.

CONTROL CONTRACTORS, INC.

Tim Potter, CEO

1128 Poplar PI S
Seattle, WA 98144
Phone: (206) 328-1730
www.controlcontractors.com

Established: 1975
Headquarters: Seattle, WA
Other Locations: Portland, OR; Ashland, OR; Anchorage, AK; Fairbanks, AK; San Diego, CA
Employees: 178
Affiliations: Authorized representative for Invensys Building Systems

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories: Building automation and control, building management systems</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Commercial energy engineering ▪ Energy management systems <p>Geographic Focus: Domestic</p>
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Systems integrator that designs, installs and services building automation and control systems, with special emphasis on intelligent, interoperable controls.

COSTICH Co.

Dale Costich, President

15509 NE 129th

Brush Prairie, WA 98606

Phone: (360) 254-5416

<http://costich.tripod.com>

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Smart devices/Grid-friendly devices	Specific Products or Services:	<ul style="list-style-type: none">▪ Manufacturer of Goldstar compact fluorescent lights▪ On-grid and off-grid renewable energy systems▪ Power systems
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Reseller of compact fluorescent lights and distributed power devices. Founder Dale Costich works in the design, diagnosis, consultation, and infrastructure of renewable energy systems.

CUSTOM CONTROLS CORP.

4630 16th St, Suite B24
 Fife, WA 98424
 Phone: (253) 922-5874
 Fax: (253) 926-3262
 www.customcontrolsusa.com

Established: 1986
Employees: 20-49

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Distribution-end industrial/commercial level controls ▪ Power quality/Power Factor Correction technologies <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Electrical contracting ▪ Controls ▪ Power factor correction equipment <p>Geographic Focus: Domestic</p>
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Electrical contracting, including SCADA systems.

CUTLER HAMMER

6024 SW Jean Road
 Lake Oswego, OR 97035
 Phone: (503) 636-8333
 Fax: (503) 636-8545
 www.cutler-hammer.com

18657 72nd Ave S
 Kent, WA 98032
 Phone: (425) 251-9081
 Fax: (425) 251-0079

Company Type: Manufacturer	Product Categories: <ul style="list-style-type: none"> ▪ Distribution-end industrial/commercial level controls ▪ Power quality/Power Factor Correction technologies 	Target Customers: Both Utilities and End-Users
Stage of Development: Stage IV -- Mature		Specific Products or Services: <ul style="list-style-type: none"> ▪ Motor controls ▪ Medium voltage starter ▪ Distribution products
		Geographic Focus: International--All

Manufacturer and distributor of a wide range of distribution and control products. Cutler Hammer is a large, well-established company with offices and facilities around the world. Manufacturing of control products occurs in Oregon, distribution products are manufactured in the Kent location (among other places across the United States). Both Washington and Oregon also have sales offices.

D SQUARE ENERGY SYSTEMS, INC.

Diane Naber

15417 Cedar Grove Road

Issaquah, WA 98027

Phone: (425) 392-0162

Fax: (425) 392-5572

www.dsquaregenerators.com

Established: 1990

Employees: 6 - 19

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems ▪ Distribution-end industrial/commercial level controls <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Generators ▪ Control panels ▪ Transfer switches <p>Geographic Focus: Domestic</p>
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Distributor that sells and services standby generators for home and business, along with related control panels and switches. As Smart Energy grows, their control business will be affected.

D. HITTLE AND ASSOCIATES, INC.

David Hittle, President

815 Columbia Park Trail
 Richland,, WA 99352
 Phone: (509) 627-4719
 Fax: (509) 627-7395
 www.dhittle.com

Established: 1972
Headquarters: Richland, WA
Other Locations: Lynnwood, WA

19101 36th Avenue, Suite 209
 Lynnwood, WA 98036
 Phone: (425) 672-9651
 Fax: (425) 744-1253

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Generation consulting 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Substation design ▪ Transmission and distribution design ▪ Economic analysis and financing
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Electrical engineering firm that provides electric utilities with system analysis and design, field engineering, retail rate design, system valuation and feasibility studies. It designs substations, aids in transmission and distribution design, consults on demand side management and investigate metering and system abnormalities.

DAYNE HANSEN & ASSOCIATES

Dayne Hansen, CEO and President

2115 SW 152nd St
 Seattle, WA 98166
 Phone: (206) 248-1884
 Fax: (206) 248-0571
 www.daynehansen.com

Headquarters: Seattle, WA

Other Locations: Portland, OR; Spokane, WA

6441 SW Canyon Ct, Suite 20
 Portland, OR 97221
 Phone: (503) 297-1656
 Fax: (503) 297-1659

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Power quality/Power Factor Correction technologies ▪ Stand-by generators, back-up power, UPS, battery systems 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Advanced controls ▪ Power conditioning systems ▪ Uninterruptible power supplies
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufactures representative for industrial electrical products such as power conditioning systems, uninterruptible power systems, emergency lighting inverters, electric transformers, power control relays and power distribution systems.

DELTA-Q TECHNOLOGIES

Ken Fielding, President and CEO

5250 Grimmer St, Suite 3
Burnaby, BC, Canada, V5H 2H2 0
Phone: (604) 327-8244
Fax: (604) 327-8246
www.delta-q.com

Established: 1999
Other Locations: Burnaby, BC

Company Type:	Manufacturer	Target Customers:	Manufacturers
Product Categories:	Power electronics	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Next generation battery chargers ▪ Motor controllers ▪ DC-CD converters
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Startup that seeks to provide power management solutions for electric vehicles, including fuel cell vehicles, hybrids and industrial EVs (electric vehicles). The EV industry is already \$10B worldwide. Delta-Q is working with leading manufacturers to develop advanced power management products for managing, charging and controlling the power source.

Focuses on the electric vehicle industry and other markets that require advanced power conversion. Has developed a high-efficiency "platform" that combines high frequency power conversion circuits with advanced software control. The company claims smaller, lighter, higher performance products and lower overall systems cost.

Delta-Q was founded in 1999 by a team of power electronics experts. In June 2000, it received R&D funding of C\$150,000 via the Product Development Fund of the BC Advanced Systems Institute (ASI). In March 2000, it was awarded an R&D grant from the Science Council of British Columbia in the amount of C\$198,913CDN.

DENON TECHNOLOGIES LTD.

Kumar Fonseka, President

141 Viscount Pl

New Westminster, BC, Canada, V3M 6L4 0

Phone: (604) 431-0705

Fax: (604) 431-9511

www.denontech.com

Established: 1995

Headquarters: Burnaby, BC

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Distributed generation systems ▪ Distributed generation and interconnection components/parts 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Small hydro generation ▪ Solar generation ▪ Grid-connected controls
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer of alternative and renewable energy systems, particularly hydro and solar. Product lines include turbines, induction generator controllers, electronic load controllers, grid-connected control systems and solar systems. Also performs system design of industrial automation and motor control stations.

DENT INSTRUMENTS.

64 NW Franklin Ave
Bend, OR 97701
Phone: (800) 388-0770
Fax: (541) 385-9333
www.dentstruments.com

Established: 1988

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Advanced metering technology and services	Specific Products or Services:	Energy monitoring and data acquisition systems
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Manufacturer of advanced meters, mostly portable devices that can be used for the life of a project and then moved to a new site. Typical applications include energy audits, load profiling, sub-metering for tenants, and power-quality monitoring. Makes related products for the measurement of electricity, water and gas.

D'EWART REPRESENTATIVES L.L.C.

PO Box 866
Bothell, WA 98041
Phone: (425) 485-6545
Fax: (425) 486-8442
www.dewart.com

Established: 1974
Headquarters: Bothell, WA
Employees: 12

Company Type: Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers: Both Utilities and End-Users
Product Categories: <ul style="list-style-type: none"> ▪ Transmission/distribution/substation automation ▪ Transmission/Distribution/Substation Equipment (not automation) 	Specific Products or Services: <ul style="list-style-type: none"> ▪ Substation products ▪ Transmission and distribution products ▪ Tools
Stage of Development: Stage IV -- Mature	Geographic Focus: Domestic

A non-stocking manufacturers' representative serving Alaska, Idaho, Montana, Oregon, Utah and Washington. Represents transformers, circuit breakers and other Smart Energy products, along with many "traditional" products and tools.

DEYOUNG MANUFACTURING, INC.

12920 NE 125th Way
Kirkland, WA 98034
Phone: (425) 823-4798
Fax: (425) 821-8633
www.deyoungmfg.com

Established: 1972

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Manufacturers
Product Categories:	Power electronics	Specific Products or Services:	<ul style="list-style-type: none">▪ Component transformers for small electronics▪ Magnetic coils
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Manufacturer of custom magnetic products for avionics, amplification, computers, industrial, medical, telecommunications, and test and measurement. Also acts as a manufacturer's rep for related magnetic components. Although this manufacturer of "traditional" electronic components currently does little in the way of Smart Energy, it could be a useful channel to propagate grid-friendly devices in the future.

DIGITAL INSPECTIONS

804A NW Buchanan Ave
 Corvallis, OR 97330
 Phone: (800) 877-8783
 Fax: (541) 758-3666
 www.digitalinspections.com

Established: 1993
Headquarters: Arnhem, the Netherlands
Affiliations: Subsidiary of KEMA

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Asset management software and services ▪ Fault locators, outage response systems and other related stuff? <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Asset management software for utilities ▪ Transmission/substation maintenance and inspection software <p>Geographic Focus: Domestic</p>
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Developer of hardware and software to manage the field assets of utility companies. Its CASCADE system is an asset management and maintenance system for substations, transmission, distribution and generation.

DIMENSION4

Kent McManus, CEO

83 S King St, Suite 411
 Seattle, WA 98104
 Phone: (206) 467-6832
 Fax: (206) 467-1897
 www.dimension4.com

Established: 1991
Headquarters: Seattle, WA
Other Locations: El Cajon, CA

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility back-end systems ▪ Workforce automation <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Conversion services and software for GIS systems ▪ Technical data management <p>Geographic Focus: International--Europe</p>
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Developer of software and processes to unlock information contained in graphical documents and computer files and transform it into user applications. Provides data conversion for both complex engineering and geospatial applications.

D4 products are used in a wide variety of industries, including aerospace and plant automation. Utility services range from facilities mapping to conversion into GIS data models. For instance, Dimension4 was selected by Electricit  de France (EDF) to convert hand-drafted drawings and "dumb" CAD files to a state-of-the-art 2D plant lifecycle data model. And it helped Southern California Edison perform CAD mapping of its distribution system.

ECONOMIC AND ENGINEERING SERVICES, INC.

Wade E. Hathhorn, President

10900 NE 4th St, Suite 1110

Bellevue, WA 98004

Phone: (425) 452-8100

Fax: (425) 454-4189

www.ees-1.com

Established: 1978

Headquarters: Bellevue, WA

Other Locations: Bellevue, Olympia, Mount Vernon, WA; Tri-Cities, WA; Portland

Employees: 70

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Energy marketing 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Electric cost of service consulting ▪ Capital improvement and line extension financial analysis ▪ Facility design
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

A multi-disciplinary consulting and engineering firm serving clients in municipal government and the public utilities industry. Although much of its practice is in the areas of rate and design of water and waste water facilities, it also consults in the area of electric rates and line planning, where it is responsible for specifying Smart Energy hardware and software.

ECOTOPE

David Baylon, President

4056 9th Ave NE
 Seattle, WA 98105
 Phone: (206) 322-3753
 Fax: (206) 325-7270
 www.ecotope.com

Established: 1974
Headquarters: Seattle, WA

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	Energy management evaluations
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consultants specializing in the evaluation and design of energy conservation in buildings. Speializes in technical analysis. Develops energy and resource conservation strategies for new and existing residential and commercial buildings, as well as larger scale regional conservation programs and public policy. May specify Smart Energy products as part of its recommendations.

Since 1987, Ecotope has managed and co-authored several reviews of energy codes and standards in the Pacific Northwest. This has included reviews of residential energy codes for the Bonneville Power Administration, the Northwest Power Planning Council, the State of Oregon, and for various jurisdictions in the State of Washington. The company has also authored reviews of code compliance and code enforcement in Washington and Oregon to form simplified enforceable energy codes in these states. In this sense, the company's work influences the speed of adoption of Smart Energy technologies.

EDEN SYSTEMS, INC

Ed Torkelson, President

1100 Oakesdale Ave SW

Renton, WA 98055

Phone: (877) 585-3336

Fax: (425) 254-1402

www.edeninc.com

Established: 1981

Company Type:	<ul style="list-style-type: none">▪ Developer▪ Service Provider	Target Customers:	Utilities
Product Categories:	Utility back-end systems	Specific Products or Services:	<ul style="list-style-type: none">▪ InForum Gold software for local government▪ Customer information software
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Software developer specializing in integrated packages for local government, including modules for utility billing, customer service and graphical information systems. These modules integrate with Eden Systems financial and HR software modules.

EES CONSULTING

Gary Saleba, President

570 Kirkland Way, Suite 200
Kirkland, WA 98033
Phone: (425) 889-2700
Fax: (425) 889-2725
www.eesconsulting.com

Headquarters: Kirkland, WA

Other Locations: Portland, OR; Calgary, AB

222 NW Davis, Suite 402
Portland, OR 97209
Phone: (503) 223-5900
Fax: (503) 221-1138

<p>Company Type: Service Provider</p> <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Generation consulting <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy purchasing and risk management ▪ Rate design and financial analysis ▪ Engineering services <p>Geographic Focus: International--North America</p>
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Management consulting and engineering firm that provides a broad array of services to clients in electric power, natural gas, telecommunications, water, wastewater and other energy businesses. Although largely engaged on the "traditional" side of the energy business in hydroelectric planning, permitting and design, the firm has done an increasing amount of work to help clients prosper in the new era of deregulation and automation.

ELCON CORPORATION

202 Lincoln Ave
Mukilteo, WA 98275
Phone: (425) 743-5600
www.elconcorp.com

Established: 1981
Headquarters: Mukilteo, WA

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Transmission/distribution construction contracting▪ Transmission/distribution engineering services	Specific Products or Services:	<ul style="list-style-type: none">▪ Electrical construction▪ Instrumentation▪ Telecommunications network services
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Construction firm specializing in power transmission and distribution, emergency standby power systems, signal and control systems and instrumentation.

ELECTRICAL CONSTRUCTION COMPANY

Bill Deshler, chairman and CEO

**2121 NW Thurman
Portland, OR 97210
Phone: (503) 224-3511
Fax: (503) 241-0807
www.e-c-company.com**

Established: 1946
Headquarters: Portland, OR
Other Locations: Albany, OR; Kent, WA; Salt Lake City, UT; Boise, ID; Aurora, CO
Employees: 1500

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution construction contracting ▪ Stand-by generators, back-up power, UPS, battery systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Electrical contracting ▪ Standby generators <p>Geographic Focus: International--North America</p>
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One of the largest electrical contractors in the United States. Divisions include advanced technology, commercial and industrial construction, communications services, and industrial power systems. The company has experience in all aspects of electrical construction, power distribution, instrumentation, controls and power quality analysis.

The separate EC Power Systems division specializes in the sales, service, rental and parts distribution of industrial power products, including emergency standby systems, engines from five locations in the western U.S.

E C Company's history goes back to Marine Electric which was founded on Portland, Oregon's waterfront in 1927 to repair ships. When World War II started, the move was made to the present location at NW 21st and Thurman in Portland. During the war, a largely female workforce manufactured generators from scratch. In 1958 E C Company entered into an agreement with a major supplier of generator sets to sell and service their products. This was the beginning of the distribution and service arm.

ELECTRIC-PARTS.NET

PO Box 20578
Portland, OR 97294
Phone: (503) 445-1386
Fax: (503) 257-1470
www.electric-parts.net

Established: 1965

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Both Utilities and End-Users
Product Categories:	General electric supplies and contracting	Specific Products or Services:	<ul style="list-style-type: none">▪ Electrical parts and supplies for transformers▪ Electrical parts and supplies for meters
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Distributor and online marketplace for electrical supplies, cables, controls, transformers, and wires.

EMP2

William S. Dunnivant, President

219 Greenview Dr
Richland, WA 99352
Phone: (509) 783-5176
Fax: (509) 783-5204
www.emp2.com

Headquarters: Richland, WA

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none">▪ Energy program implementation▪ Energy audits
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Energy and resource management consultants providing energy program implementation, energy performance contract support and 3rd party measurement and validation services.

EMRA CONTROLS, INC.

1425 22nd St NW
Auburn, WA 98001
Phone: (253) 351-0292
Fax: (253) 351-0171
www.emracontrols.com

Established: 1984
Employees: Under 5

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Transmission/Distribution/Substation Equipment (not automation)	Specific Products or Services:	<ul style="list-style-type: none">▪ Electronic controls▪ Relays▪ Transformers
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Distributor of industrial control and automation components.

ENERGRATION, LLC

Donald McCormick, Managing Principal

400 E Evergreen Blvd, Suite 218

Vancouver, WA 98660

Phone: (360) 695-6102

Fax: (360) 695-7384

www.energration.com

Established: 1998

Affiliations: A wholly owned subsidiary of Informatics Corporation

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility back-end systems ▪ Advanced metering technology and services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Systems integration of metering and billing systems ▪ Meter monitoring and alarm system ▪ Commercial and industrial billing <p>Geographic Focus: Domestic</p>
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Systems integrator that installs and customizes software packages to create solutions for utilities. Focuses on metering, meter information management, complex billing, load forecasting and outage management. Special emphasis on commercial and industrial customers. Also develops its own software packages.

Customers include utilities, energy generation companies, transmission companies, and energy service providers.

ENERGY ALTERNATIVES

Kevin Pegg, President

8 - 6782 Veyaness Road

Victoria, BC V8M 2C2 0

Phone: (250) 544-0488

Fax: (250) 544-0478

www.energyalternatives.ca

Established: 1988

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Distributed generation systems ▪ Energy efficiency equipment, materials, and supplies <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Backup and off-grid power systems ▪ Alternative energy systems and accessories ▪ Energy efficient lighting <p>Geographic Focus: Domestic</p>
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Designer, seller and installer of alternative energy products, including a wide range of power electronics and other Smart Energy gear. Founded as "Canada's Mail Order Electricity Store," the company sells to remote, urban and industrial clients who looking for a) off-grid power, b) backup power or c) clean power. Smart Energy related products include inverters, power meters, power panels, smart thermostats, transformers and more.

Founded in 1988 by Melinda and Ezra Auerbach from their home on a remote BC island that does not have grid power. Eventually opened a storefront in Parksville, BC. Sold in 1995 to Bob Mathews and relocated to Kamloops, BC and merged with Appropriate Energy Systems. Purchased in March 2000 Kevin Pegg and relocated just north of Victoria, British Columbia.

ENERGY INTERNATIONAL

Samuel Bernstein, President

127 Bellevue Way SE
 Bellevue, WA 98004
 Phone: (425) 453-9595
 Fax: (425) 455-0981
 www.energyint.com

Headquarters: Bellevue, WA

Other Locations: United Kingdom

Employees: 300 (parent)

Affiliations: Subsidiary of Gastec N.V.

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Generation consulting ▪ Energy management services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy-related engineering research and development ▪ Economic analysis ▪ Strategic planning <p>Geographic Focus: International--Europe</p>
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Consultancy in strategic planning, technology transfer, market assessments, and software development on energy issues. Although not limited to electric utilities, the firm does considerable work evaluating distributed generation technologies, options and investment opportunities. The company also develops software "advisors" and guides on a variety of related topics. Energy International is a subsidiary of Gastec N.V., headquartered in Apeldoorn, The Netherlands. It operates two subsidiaries of its own and is partnered with microGas Corporation of Bellevue, WA to develop proprietary microwave heating systems.

ENERGY MARKET INNOVATIONS, INC.

Robert Bordner, President

83 Columbia St, Suite 303

Seattle, WA 98104

Phone: (206) 621-1160

www.emi1.com

Established: 1995

Headquarters: Seattle, WA

Company Type:	<ul style="list-style-type: none">▪ Service Provider▪ Resource Organization	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Research/information/financing other resources▪ Energy management services	Specific Products or Services:	<ul style="list-style-type: none">▪ Market assessments and planning▪ Market research▪ Feasibility studies
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Strategic marketing and technical consulting services for the evolving energy industry. Most of their practice is devoted to market research, including research on the feasibility of Smart Energy-related programs and services under consideration by utilities and public agencies.

ENVIRONMENTAL & ENGINEERING SERVICES, INC.

687 NW 5th St
Corvallis, OR 97330
Phone: (541) 754-1062
Fax: (541) 753-3948
www.eesinet.com

Established: 1979

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	Commercial facilities energy engineering
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Provider of mechanical and electrical engineering services, with a special emphasis in renovation and energy upgrades. Provides custom energy management systems and consults on use of alternative energy sources.

EPIS, INC.

Warren H. Winter, President

1800 Blankenship Road, Suite 350

West Linn, OR 97068

Phone: (503) 722-2023

Fax: (503) 722-7130

www.epis.com

Company Type:	<ul style="list-style-type: none">▪ Developer▪ Service Provider	Target Customers:	Utilities
Product Categories:	Energy marketing software	Specific Products or Services:	Forecasting software for wholesale electric markets
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Developer of forecasting software for the wholesale electric market. Its AURORA electric market model forecasts prices, resource and portfolio value. Clients include energy providers, power-marketing companies, energy consultants, and utilities. EPIS is currently working with General Electric on a joint project to deal with the Federal Energy Regulatory Commission's standard market design (SMD).

E-POWER TECHNOLOGY LIMITED

Darwin Deng, CEO

**PO Box 37024, Gordon Park
Vancouver, BC, Canada, V5P 4W7 0
Phone: (778) 881-7818
Fax: (604) 943-8247
www.e-powertech.ca**

Headquarters: Vancouver, BC

Affiliations: Distributor for ZhuHai Pilot Electronics

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none">▪ Advanced metering technology and services▪ Energy efficiency equipment, materials, and supplies	Specific Products or Services:	Multi-function 3-Phase power meters
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--Asia

Wholesaler/distributor of submeters and power quality monitors from ZhuHai Pilot Electronics of China. The company also acts as a liaison to companies seeking low-cost manufacturing capabilities in Asia.

Customers include commercial, industrial, government, military, medical and recreational facilities.

EQUARIUS, INC.

Mark Miller, CEO

500 108th Ave NE, Suite 1820

Bellevue, WA 98004

Phone: (425) 462-6605

Fax: (425) 462-7223

Established: 1996

Headquarters: Bellevue, WA

Other San Mateo, CA

Locations:

Company Type:	Developer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Utility back-end systems▪ Utility integrated energy management systems	Specific Products or Services:	Integrated customer service software
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Systems integrator that uses the Microsoft .Net platform to tie together different software packages into an integrated, enterprise-wide system. Has strong industry experience in energy, high-tech, financial services, government and pro sports. Energy clients have included Bonneville Power Administration, Power Resource Managers, Mirant, KeySpan Energy, and NRG Energy.

Founded in 1996 by four former Accenture consultants. Named one of the fastest growing private companies in Washington State by the Puget Sound Business Journal, and ranked first in Washington CEO's "Best Companies to Work For" survey.

Jack Dangermond, President and Founder

606 Columbia St NW, Suite 300
 Olympia, WA 98501
 Phone: (360) 754-4727
 Fax: (360) 943-6910
 www.esri.com

Established: 1969
Headquarters: Redlands, CA
Other Locations: Several dozen
Employees: 2700
Affiliations: Regional office of California-based ESRI

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Service Provider <p>Product Categories: Utility back-end systems</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ GIS computer systems for a wide variety of applications and industries ▪ GIS consulting, training, events and publications <p>Geographic Focus: International--All</p>
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Developer of geographic information system (GIS) software. Headquartered in California, it maintains a regional headquarters in Olympia, WA and satellite offices in Seattle and Anchorage.

ESRI also hosts the largest GIS industry event in the world, publishes the two largest circulation periodicals in the industry, and operates the leading GIS book publisher.

ESRI's flagship ArcGIS software is a scalable family of software products used by many sectors, including government, telecomm, retail chains and the military. Utilities use ESRI's products to locate and visualize their assets and to streamline work flow. ESRI has 11 regional offices in the United States, than 75 international distributors, and users in more than 220 countries.

ESRI was founded in 1969 as Environmental Systems Research Institute. During the 1980s ESRI devoted its resources to developing and applying a core set of application tools that could be applied in a computer environment to create a geographic information system. In 1981 ESRI launched its first commercial GIS software called ARC/INFO. ESRI evolved from a small consulting firm to the largest research and development organization dedicated to GIS.

ESRI continues to expand its products into new areas such as Internet, PDAs, and wireless.

ESSCO, INC.

Murray Anderson

310 W Columbia St

Pasco, WA 99301

Phone: (509) 547-5504

Fax: (509) 547-5506

www.necanet.org/member/essco/

Established: 1972

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Building engineering--mechanical, electrical, etc.	Specific Products or Services:	<ul style="list-style-type: none">▪ Interior/exterior lighting and retrofits▪ Power quality and control
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Electrical contractors performing mainly commercial and industrial electrical construction installations within the Northwest. General electrical work, but some smart energy products in the area of lighting and power quality.

Mark J. Simon, CEO

12006 98th Ave NE, Suite 102

Kirkland, WA 98034

Phone: (425) 825-8353

www.essi.com

Established: 1993

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility back-end systems ▪ Grid monitors and controls <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Cyber security audits and services ▪ SCADA security audits and services <p>Geographic Focus: International--All</p>
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Consultancy and developer on cyber security. Provides security assessments, design, solutions and technical services. ESSI has special expertise in the needs and issues of publicly and privately owned utilities, including back office systems and SCADA systems.

FIELD SOFT TECHNOLOGIES, INC.

Brad Chalker, President and Chief Executive Officer

**2905 214th St SE
Bothell, WA 98021
Phone: (425) 486-9930
www.field-soft.com**

Headquarters: Bothell, WA
Other Locations: Boston, Toronto

Company Type:	Developer	Target Customers:	Utilities
Product Categories:	Utility back-end systems	Specific Products or Services:	Field Asset Management Inspection System (FAMIS)
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Developer of packaged software to the utility industry for field force automation. The software helps verify physical attributes; perform inspections and maintenance tasks; audit joint use agreements; and, generate condition flags and reports for operations, management and regulators. The goal is to better manage field assets for uptime and reliability.

Some utilities continue to rely on paper-based systems to support the field service group, which hinders efficient asset management and increases operational costs. Even when they do decide to automate, utilities historically rely on in-house IT departments and custom systems. The cost of this approach is enormous and accounts for estimates that utility IT costs are 60% higher than necessary (Gartner, 1998).

FieldSoft attempts to preserve assets, improve customer service and reduce cost through the application of information technology.

FieldSoft was founded as DB Networking Technologies (DBNT) in 1996. DBNT focused on providing custom software and systems integration services to utilities looking to improve field force efficiency. The company delivered over a dozen field force automation projects to utilities like San Diego Gas & Electric, PacifiCorp and the City of Pasadena. In 2002, company principals re-engineered the company as FieldSoft Technologies; a company focused on delivering the next generation application software package for utility field force computing.

FINNING POWER SYSTEMS

John McNaughton, General Manager

120 15100 River Road
Richmond, BC, Canada, V6V 1L5 0
Phone: (604) 231-3900
Fax: (604) 231-3910
www.finning.ca

Established: 1933
Headquarters: Edmonton, Alberta
Employees: 175
Affiliations: Subsidiary of Finning Canada

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Generation consulting ▪ Distributed generation systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Prime power installations ▪ Combined heat and power ▪ Energy management systems <p>Geographic Focus: International--Europe</p>
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Designer and fabricator of baseload power installations for government, utilities and industry. Installations range from portable standby power to 40 MW generating plants. The company also sells generators, switchgear, and control panels.

Related company Finning Generation Systems specializes in combined heat and power installations and distributed generation. It also provides energy management services to help utilities and large customers effectively manage energy supply and demand.

Also owns 36% of Maxim Power Corp., a Calgary-based independent power producer.

Finning Power Systems is a subsidiary of Finning Canada, itself a subsidiary of Finning International Incl, an international equipment dealer that sells, finances, and services Caterpillar and complementary equipment on three continents. The Company has more than 9,500 employees serving its principal markets in Western Canada, Britain and Chile.

FIRSTPOINT ENERGY CORPORATION

Martin Burke, President & COO

1001 SW 5th Ave, Suite 500

Portland, OR 97204

Phone: (503) 425-5100

Fax: (503) 425-5010

www.firstpoint.com

Established: 1999

Affiliations: Owns UtilityOne and Teldata

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility integrated energy management systems ▪ Advanced metering technology and services <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Utility-grade energy management systems ▪ Advanced metering equipment <p>Geographic Focus: Domestic</p>
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Developer and provider of utility data services. It combines products from subsidiary and related companies to create energy information services for utilities and large businesses. FirstPoint delivers energy data acquisition and validation services, meter data hardware, and meter data repository software to utilities, energy marketers and energy users.

FirstPoint's AMR hardware is a patented technology, deployed in over 500,000 installations worldwide.

Dennis T. Wilson founded the company in 1999. In 2000, the company acquired Teldata Solutions, a 20-year old organization that provides utilities and end-users with the software to harness the power of meter data. In 2001, FirstPoint Energy acquired UtilityOne, an e-commerce platform for the utility industry.

The company's goal is to create a complete, end-to-end integrated energy platform. Current offerings include advanced metering, software for acquiring and managing meter feeds, and energy information software for Internet-based access to that data.

FLIR SYSTEMS, INC.

16505 SW 72nd Ave
Portland, OR 97224
Phone: (503) 684-3731

Established: 1978

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Component Supplier	Target Customers:	Both Utilities and End-Users
Product Categories:	Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Infrared camera systems▪ Thermography systems
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Designer, manufacturer and marketer of thermal imaging and broadcast camera systems. Used for a wide variety of commercial and government applications. On the Smart Energy side, the company's infrared imaging systems are used by utilities and others for non-destructive testing and predictive maintenance. For instance, FLIR products are part of the ScadaCam remote monitoring and security system from MiniMax Corporation.

FLUKE CORPORATION

Jim Lico, President

6920 Seaway Blvd
 Everett, WA 98203
 Phone: (425) 347-6100
 Fax: (425) 446-5116
 www.fluke.com

Established: 1948
Headquarters: Everett, WA
Other Locations: Manufacturing in the U.S., UK and the Netherlands; sales and service in 100 countries
Employees: 2400
Affiliations: A wholly owned subsidiary of Danaher Corporation

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Power electronics ▪ Utility-grade power quality analyzers <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Power test equipment ▪ Advanced power monitoring tools ▪ Power quality and predictive maintenance software <p>Geographic Focus: International--All</p>
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Manufacturer and maintenance provider of electrical systems, electrical power systems, HVAC/R systems, and associated equipment digital multimeters, electrical power controls and accessories plus the integrated ScopeMeter hand held test tools power harmonics meters, electrical testers, digital multimeters. In 2002, Fluke extended its reach into the Smart Energy segment with the purchase of Reliable Meters. The Los Gatos, CA-based company is a leader in power monitoring technology, providing hardware and software solutions for monitoring and analyzing power flow and quality. RPM also develops software for power quality analysis and predictive maintenance.

Fluke products are used by electricians, HVAC/R technicians, plant engineers, and power quality consultants, among others.

FRIESEN ELECTRIC INC.

Barry J Friesen, CEO

32032 S Fraser Way
 Abbotsford, BC, Canada, V2T 1V8 0
 Phone: (604) 859-7101
 Fax: (604) 853-2503
 www.friesen.com

Headquarters: Vancouver, BC

Other Locations: Bellingham, WA

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems ▪ Smart motors/Adjustable Speed Drives 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Generator sets ▪ Variable speed drive controllers
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Retailer of a wide variety of electrical components and devices to a cross-section of industries through a network of related Web sites. Although many of its products are traditional gensets and electrical supplies, the company also carries smart motor, advanced metering, power quality and energy efficiency products.

GENERAL PACIFIC, INC.

Rick Hall, President and CEO

5600 NE 122nd Ave

Portland, OR 97230

Phone: (503) 257-0327

Fax: (503) 257-0320

www.genpac.com

Established: 1965

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Transmission/Distribution/Substation Equipment (not automation)▪ General electric supplies and contracting	Specific Products or Services:	<ul style="list-style-type: none">▪ Meters▪ Transformers▪ Electric supplies
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Distributor of electrical supplies and apparatus to the utility industry. It stocks meters, transformers and many other kinds of supplies. It also operates an online auction site at www.electricbid.net.

GESCAN BC

Chris McVittie, General Manager BC

2441 United Blvd
Coquitlam, BC, Canada V3K 6A8 0
Phone: (604) 472-7130
Fax: (604) 472-7150
www.gescan.com

Headquarters: Paris (parent company)
Other Locations: 11 branches in BC, 42 branches across Canada
Affiliations: Division of Sonepar Canada

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Distribution-end industrial/commercial level controls 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Electric supplies ▪ Industrial Controls
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Distributor of electrical equipment with 42 branches across Canada. It is a subsidiary of Sonepar, a privately owned company based in France. It carries a full range of electrical supplies, wires, cables, transformers, batteries, tools, enclosures and equipment. In recent years, Gescan has made a heavy commitment to the industrial automation and controls sector.

In BC, Gescan serves two major markets: residential and commercial contractors and industrial end users.

Parent company Sonepar is a privately owned, independent group and a world leader in the distribution of electrical equipment. Specializing in cable & wiring, fittings, HVAC and lighting, Sonepar has locations in 29 countries, employing more than 19,450 people in over 1110 branches.

Sonepar has annual revenues of more than 6.6 billion euros and is considered the number one electrical distributor in Europe with 15% market share; number two in Canada; and number seven in the US. It now generates 71% of its revenues outside of France.

In Canada, Sonepar has 72 offices with over 1000 employees.

GLUMAC INTERNATIONAL

Steven Straus, President and CEO

**920 SW 3rd St, Suite 100
Portland, OR 97204
Phone: (503) 227-5280
Fax: (503) 274-7674
www.glumac.com**

Headquarters: Portland, OR

Other Locations: Seattle, San Francisco, Irvine, Sacramento

**1325 4th Ave. Ste 1313
Seattle, WA 98101
Phone: (206) 262-1010
Fax: (206) 262-9865**

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Building engineering--mechanical, electrical, etc. ▪ Energy management services 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Power distribution, quality, and protection ▪ Energy management systems ▪ Energy audits and retrofits
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Engineering consulting firm providing full range of mechanical, electrical, telecommunications, and energy engineering for industrial and commercial clients. Electrical engineering covers aspects like power distribution, harmonics, standby-by power systems and uninterruptible power supply. Energy engineering covers energy management systems, energy audits/retrofits, and sustainable design.

GRAYBAR ELECTRIC CO. INC.

David M. Choquette, Area Manager

901 NE 60th Ave
 Portland, OR 97213
 Phone: (503) 249-1300
 Fax: (503) 249-2058
 www.graybar.com

Established: 1869

Headquarters: St. Louis, MO

Other Locations: Eugene, OR; Everett, WA; Spokane, WA; Tacoma, WA and 250 more throughout North America.

1919 Sixth Avenue South
 Seattle, WA 98134
 Phone: (206) 292-4848
 Fax: (206) 701-2999

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Transmission/Distribution/Substation Equipment (not automation) <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services: Electrical components, parts, supplies and tools</p> <p>Geographic Focus: International--North America</p>
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Distributor of electrical and communication products. The world's largest electrical wholesaler, Graybar stocks hundreds of thousands of products from more than 4,200 manufacturers. Thanks to its sophisticated distribution systems and software, Graybar is also a supplier of sophisticated logistics and project management.

GRIDSENSE SYSTEMS INC.

Kenneth Shein, President and Group CEO

**Oceanic Plaza, 1066 W Hastings St, Suite 2300
Vancouver, BC, Canada, V6E 3X2 0
www.chkwireless.com**

Established: 1975

Headquarters: Vancouver, BC

Other Locations: Sydney, Australia

Employees: 15

Affiliations: Parent of wholly-owned Australian subsidiary CHK GridSense Pty Ltd.

Company Type:	Manufacturer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Grid monitors and controls ▪ Utility-grade power quality analyzers 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ LineTracker fault logging devices ▪ PowerMonic power quality analyzers ▪ PowerView power quality software
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Manufacturer of grid monitors, power quality analyzers and accompanying software. The sensing devices mount on power lines or in substations to provide real-time circuit monitoring, load logging and load analysis.

The data management tools capture and analyze the data from the sensing devices. They include wireless solutions and can interface with utilities' SCADA and outage management systems.

GridSense products help utilities identify, understand and rectify outages. Its smart monitoring systems also detect power quality and reliability problems in advance. They are sometimes used by electric companies for infrastructure planning and operations.

GridSense Systems Inc operates as CHK GridSense in the Australian and New Zealand markets, and currently sells its products to utilities in Australia, New Zealand, Asia, the Middle East, the United Kingdom, USA and Canada.

The company was founded in 1975 by Campbell H. Keenan, who retired in September 2003 from executive duties to become Chairman of the Board. Through its wholly owned subsidiary in Australia, it has been serving utilities for over 25 years. GridSense has links with a leading Australian University, carrying out research into power quality and international standards.

The company completed two private placements in fall 2003 -- a \$1.5 Million Senior Convertible Debenture and a One Million Unit Offering. The company plans to announce a Unit Placement in the near future to fund accelerated marketing and sales activities in North America and new territories.

H. GIL PEACH & ASSOCIATES

H. Gil Peach

16232 NW Oak Hills Dr
 Beaverton, OR 97006
 Phone: (503) 645-0716
 www.scanamerica.net

Affiliations: Part of the Scan America group

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Resource Organization ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Research/information/financing other resources ▪ Energy management services <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy and water studies ▪ Economic and statistical analysis <p>Geographic Focus: International--North America</p>
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Consultants providing evaluation, measurement, economic, and management studies relating to demand side management, residential programs, commercial programs, energy efficiency programs and more.

H.J. ARNETT INDUSTRIES, LLC

Herbert J. Arnett, CEO and President

7500 SW Tech Center Dr, Suite 130
 Portland, OR 97223
 Phone: (503) 684-9844
 Fax: (503) 684-8360
 www.arnettindustries.com

Affiliations: Also owns Arnett Consulting and Arnett Testing Lab

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: Advanced metering technology and services</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Specialized meters for electric utilities ▪ Theft of services consulting for electric utilities ▪ Manufacture and testing of protective equipment <p>Geographic Focus: Domestic</p>
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Manufacturer of metering and submetering products and services for electric utilities. Additional products and services include: Electric theft of services consulting, primary and secondary underground cable fault locating, and electric testing of rubber goods.

H2E INCORPORATED

2310 N Molter Road, Suite 108
Liberty Lake, WA 99019
Phone: (509) 927-2424
Fax: (509) 927-2422
www.h2einc.com

Established: 1991

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Transmission/distribution engineering services▪ Transmission/distribution construction contracting	Specific Products or Services:	<ul style="list-style-type: none">▪ Electrical engineering consulting services▪ Project and construction management
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Electrical engineering firm specializing in the power industry. Expertise includes generation systems, power protection, substation design and software development.

HARRIS GROUP INC.

Bob Harris, Chairman

1000 Denny Way, Suite 800
Seattle, WA 98109
Phone: (206) 494-9400
Fax: (206) 494-9500
www.harrisgrp.com

Established: 1975

Headquarters: Seattle, WA

Other Locations: Portland, Kennewick, WA,
 Anchorage, Atlanta, Colorado,
 Florida, Wisconsin and Russia

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Generation consulting	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Engineering services for large energy projects, including several forms of alternative energy ▪ Speciality services in support of large projects
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Engineering consulting firm providing multi-discipline engineering, design, consulting, project planning, feasibility studies to five market sectors: energy, ethanol & biomass, forest industries, industrial manufacturing, and microelectronic.

Typical installations include cogeneration systems, fuel cell systems, gas turbine electric generators, steam turbine electric generators, and wind energy towers and structures. Its energy business unit, headquartered in Denver, serves all segments of the energy industry and often work on solutions for electric shortages and electric generating station engineering.

HATTEN/JOHNSON ASSOCIATES

Michael Hatten, President

132 E Broadway, Suite 230

Eugene, OR 97401

Phone: (541) 343-8748

Fax: (541) 343-1533

www.hja.net

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none">▪ Building engineering-- mechanical, electrical, etc.▪ Energy management services	Specific Products or Services:	Consulting engineering
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consulting engineering firm that works with businesses and utilities on mechanical engineering and energy efficiency.

HENKELS & MCCOY, INC. - NORTHWEST DIVISION

5000 NE 148th Ave
 Portland, OR 97294
 Phone: (503) 255-5125
 Fax: (503) 255-5129
 www.henkelsandmccoy.com

Established: 1923
Headquarters: Blue Bell, PA
Other Locations: 80 locations around the country

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Transmission/distribution construction contracting <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Transmission design and construction ▪ Transmission infrastructure supplies <p>Geographic Focus: Domestic</p>
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Engineering, network development and construction firm serving U.S. utility industries. The Northwest Division, housed in Portland, is one of eleven divisions and 80 offices around the country employing more than 5,000 people. Its capabilities include aerial transmission and distribution, underground transmission and distribution, substations, switching stations, extra high voltage (EHV), survey and site analysis.

HOLADAY-PARKS BUILDING AUTOMATION SYSTEMS DIVISION

David L. Parks, President and General Manager

4600 S 134th PI
 Seattle, WA 98168
 Phone: (206) 248-9700
 Fax: (206) 248-8700
 www.holidayparks.com

Established: 1889
 Headquarters: Seattle, WA
 Other Locations: Fairbanks, AK

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Building engineering--mechanical, electrical, etc. ▪ Building automation and control, building management systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Mechanical contracting ▪ Building automation <p>Geographic Focus: Domestic</p>
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Mechanical contractor and design/build engineering firm with special expertise in high-tech, biomedical, e-commerce and .com facilities, clean rooms, laboratories, hospitals, and computer rooms. It also provides HVAC controls design, installation and service with expertise in the latest building automation and controls.

Holiday-Parks was founded in 1889 by two brothers, Joe and Ben Hunt, as a sheet metal firm in Tacoma. In 1902 the Hunt brothers retired and the business was purchased by Holaday and a partner. In the 1950's Jerry Parks led Holaday-Parks into the air conditioning part of the heating, ventilation, and air conditioning business. He opened a new office in Seattle in 1952 and renamed the company, Holaday-Parks, expanded to Fairbanks in 1970, and closed the Tacoma (Holaday-Edworthy) division in 1974.

INDUS INTERNATIONAL

5285 SW Meadows Road, Suite 395
Lake Oswego, OR 97035
Phone: (503) 684-8700
Fax: (503) 684-8787
www.indus.com

Headquarters: Atlanta, GA

Other Locations: More than a dozen worldwide

Company Type:	<ul style="list-style-type: none">▪ Developer▪ Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Workforce automation	Specific Products or Services:	<ul style="list-style-type: none">▪ ActionPoint Management▪ Passport▪ Outsourced asset management solutions
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Developer of asset management software -- a suite of computer programs that help companies maximize efficiencies in their equipment, facilities, workforce and operations.

The utility industry is one of Indus' major focus areas. It also sells to many other sectors, including telecommunications, and manufacturing.

INFRASTRUX

10900 NE 4th St, Suite 1900
 Bellevue, WA 98004
 Phone: (425) 463-1010
 Fax:
 www.infrastrux.com

Headquarters: Bellevue, WA

Other Locations: 46 offices, including two companies in Kent. Other companies owned in New York, Philadelphia, Texas, Wisconsin

Employees: Over 2,000 nationally

Affiliations: Subsidiary of Puget Sound Energy

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Transmission/distribution construction contracting	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Power line construction, installation, and maintenance ▪ Substation construction ▪ Emergency and storm restoration
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Provider of infrastructure construction services to the gas, electric, water/sewer, and telecommunication industries, with a range of design, engineering, installation, and maintenance resources available across North America. Internationally known through widespread use of our patented treatments for water-damaged power and telecommunication lines. The company grew through acquisitions of various companies throughout Texas, Philadelphia, and New York.

Subsidiary of Puget Sound Energy, a utility known for its Smart Energy experiments.

Patricia Irving, Ph.D., President and CEO

350 Hills St, Suite 104
Richland, WA 99351
Phone: (509) 375-1093
Fax: (509) 375-5183
www.tekkie.com

Employees: 13

Affiliations: Partnership with PNNL

<p>Company Type:</p> <ul style="list-style-type: none"> ■ Product Designer ■ Manufacturer <p>Product Categories: Renewables generation ownership, management</p> <p>Stage of Development: Stage I -- Development</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services: Portable power applications</p> <p>Geographic Focus: Domestic</p>
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Developer of a fuel processing system with advanced technology that provides a clean, hydrogen stream to fuel cells for stationary, portable, and mobile applications. The system uses a carbon-based fuel, such as standard gasoline or diesel, and water to generate hydrogen for clean, on-site electrical power production.

InnovaTek's development plans include systems that reform natural gas, gasoline, and diesel fuels for three fuel cell size ranges: 1-5 kW, 10-20kW and 50 kW to accommodate a range of applications. The InnovaGen Fuel Processor is designed for portable, auxiliary, and residential power applications.

Dr. Irving founded the company after a career at two national laboratories and the White House. Innovatek maintains an active relationship with the Pacific Northwest National Laboratory (PNNL) in order to apply the results of basic research.

INNOVATIVE CIRCUIT TECHNOLOGY LTD.

Kevin Bolster, President

20121 100A Ave, Suite 700

Langley, BC, Canada, V1M 3X6 0

Phone: (604) 888-6304

Fax: (604) 888-3650

www.ict-power.com

Established: 1986

Headquarters: Langely, BC

Company Type:	<ul style="list-style-type: none">▪ Developer▪ Manufacturer	Target Customers:	Manufacturers
Product Categories:	Power electronics	Specific Products or Services:	<ul style="list-style-type: none">▪ Power supplies▪ Converters▪ Battery chargers
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Electronics manufacturer with over 300 available products, including modular power systems, off-line power supplies, and battery chargers. Distributes products to customers in North America, South America and Mexico.

INTERCONTINENTAL CONSULTING TEAMS

Chris Shepherd, CEO

3300 NW 185th St, Suite 239

Portland, OR 97229

Phone: (877) 905-0209

www.icctcorp.com

Established: 2001

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Utility back-end systems	Specific Products or Services:	IT security consulting for utilities, financial services corporations and other organizations
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Consultancy that assesses the vulnerability of IT systems and recommends improvements. Performs vulnerability testing and compliance testing on a one-time or ongoing basis. Interacts with (energy Utility Security Alliance (eUSA) and other security organizations. Clients include utilities, financial services organizations and Fortune 500 corporations.

INTRACOASTAL SYSTEM ENGINEERING CORPORATION

Vid Wadhvani, Chairman & CEO

220 Cambie St, Suite 540
Vancouver, BC, Canada, V6B 2M9 0
Phone: (604) 717-6373

Established: 1993

Company Type:	Developer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Broadband products and services▪ Advanced metering technology and services	Specific Products or Services:	Power line communication systems
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Developer of power line communications systems to allow data transmission over existing power lines. IC's proprietary PLC technology uses the spread spectrum approach. The technology empowers utilities to offer high-speed Internet access to their customers. It can also be used for automated meter reading or home networking.

ITRON CORP

LeRoy Nosbaum, Chairman and CEO

**2818 N Sullivan Road
Spokane, WA 99216
Phone: (509) 924-9900
Fax: (509) 891-3355
www.itron.com**

Established: 1977
Headquarters: Spokane, WA
Other Locations: Waseca, MN; Raleigh, NC; United Kingdom; France; Australia

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Developer <p>Product Categories: Advanced metering technology and services</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Advanced metering technology ▪ Energy management services ▪ Workforce automation <p>Geographic Focus: International--All</p>
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Developer and manufacturer of advanced metering technology for electric, gas and water utilities. In recent years, it has expanded into additional software and hardware products to optimize the delivery of energy and water. Considered the industry leader, its product lines include advanced meters, energy information management, demand side management, web-based workforce automation, C&I customer care and residential energy management. Its services include load forecasting, analysis and consulting and T&D design and optimization,

Itron serves more than 3,000 utility customers in 45 countries around the world.

Itron began life as a "spin-out" from the company now known as Avista Utilities. For many years it focused on automated meter reading.

After his promotion to CEO in the spring of 2002, LeRoy Nosbaum began to look for growth through acquisition. In the year ending March 2003, Itron made four acquisitions, including LineSoft which supplies transmission and distribution software, and Silicon Energy, which provides energy management software for utilities and large energy companies.

Like everyone serving the utility sector, Itron must overcome the current financial crisis, which has curtailed utility spending. As it expands into new software areas, it will face the "not invented here" syndrome, which is more prevalent in the utility

Itron will continue to pursue its goal to become a central figure in the transformation of the energy industry. The company believes that "deregulation is unleashing competitive forces that will necessitate innovation and the widespread adoption of new da

ITRONIX CORPORATION

Tom Turner, CEO

**801 S Stevens St
Spokane, WA 99204
Phone: (800) 441-1309
Fax: (509) 626-4204
www.itronix.com**

Established: 1987
Headquarters: Spokane, WA
Other Locations: England, France, Germany and Taiwan
Employees: 400

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Product Designer <p>Product Categories: Workforce automation</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Ruggedized wireless laptops and handhelds ▪ Software for mobile workers ▪ Installation and training <p>Geographic Focus: International--All</p>
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Provider of wireless, ruggedized computers and related equipment for mobile workers. It serves utilities, insurance companies, government, emergency services, phone companies and the military.

Itronix laptops, PDA and tablets are constructed to withstand demanding work environments and with integrated wireless communications. In addition, the company provides accessory equipment such as vehicle docks for DC power, security from theft, and multiple device connectivity. It also provides a wide range of services, including planning, software development, installation, training and systems integration.

JATS ALTERNATIVE POWER Co.

12219 4th Ave NW
 Seattle, WA 98177
 Phone: (206) 362-2001
 www.jatsgreenpower.com

Affiliations: Affiliated with Advanced Energy Group

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Distributed generation systems ▪ Distributed generation and interconnection components/parts <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Grid-connected alternative energy systems ▪ Power electronics for on-grid and off-grid alternative energy systems <p>Geographic Focus: Domestic</p>
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Alternative energy provider supplying solar, wind and mini-hydro power equipment for producing electricity and heating using renewable energy.

JOHNSON CONTROLS INSTITUTE

22745 29th Dr SE
 Bothell, WA 98021
 Phone: (425) 827-7810
 Fax: (425) 827-6083
 www.jci.com

Headquarters: Milwaukee, WI
Other Locations: Fourteen locations in the U.S.
Affiliations: Subsidiary of Milwaukee-based Johnson Controls

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Building automation and control, building management systems	Specific Products or Services:	Train to operate, maintain and troubleshoot HVAC equipment
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Provider of training for HVAC systems. For more than 50 years, the Johnson Controls Institute has a leader in education for the building environments industry. Today, much of that education focuses around intelligent controls and energy efficiency. The Institute partners with engineering schools, technical colleges and experts in the building environments industry.

JOHNSON CONTROLS, INC.

1602 S Flight Dr
 Spokane, WA 99204
 Phone: (509) 747-8053
 Fax: (509) 747-1612
 www.johnsoncontrols.com

Established: 1885
Headquarters: Milwaukee, WI
Other Locations: Many additional offices, including Spokane, WA; Bothell, WA; Richland, WA, and Milwaukie, OR in this region
Affiliations: A subsidiary of Johnson Controls, Milwaukee, WI

4011 SE International Way, Suite 605
 Milwaukie, OR 97222
 Phone: (503) 654-8422
 Fax: (503) 654-1158

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Manufacturer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Energy management services ▪ Building automation and control, building management systems <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy management services ▪ HVAC controls <p>Geographic Focus: International--All</p>
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Designer and manufacturer of controls. Johnson Controls is a \$20B company with more than 80 subsidiaries around the world. It makes car seats, interior systems, and batteries, as well as environmental control systems for commercial buildings. The controls division makes, installs, and services control systems that monitor temperatures and detect fires and offers on-site facility management for buildings.

The Spokane location specializes in performance-based contract services. These include building operations & maintenance, digital controls and energy management systems, and mechanical, electrical, and controls services.

JX CRYSTALS, INC.

Dr. Lewis Fraas, President

1105 12th Ave NW, Suite A2

Issaquah, WA 98027

Phone: (425) 392-5237

Fax: (425) 392-7303

www.jxcrystals.com

Headquarters: Issaquah, WA

Other Locations: China

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories: Distributed generation and interconnection components/parts</p> <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Gallium Antimonide (GaSb) single crystal ingots ▪ Solar PV modules ▪ Thermo PV-based combined heat and power units <p>Geographic Focus: International--Asia</p>
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Designer and manufacturer of alternative energy systems. Although JX Crystals is primarily in the solar sector, it overlaps into the Smart Energy sector in several key areas, particularly hybrid systems, combined heat and power and grid interconnection. It has broadened the applications to include not only aerospace and residential but also combined heat and power systems.

JX Crystals has pioneered thermo photovoltaic systems, which produce electricity from heat (infrared radiation), making them feasible for combined heat and power applications.

It is a spin-off from the Boeing Company with licenses for key patents on Gallium Antimonide photovoltaic cells. Military and Department of Energy contracts totaling over one million dollars per year have allowed JX Crystals to fabricate 100 Watt and 500 Watt prototypes and thousands of its patented infrared-sensitive photovoltaic cells.

JXC has an international patent position on a low cost Solar PV module design and has started a new wholly owned subsidiary in China, Shanghai JX Solar Energy Co., Ltd., to manufacture and market this product in China while retaining global export rights

JXC has established a strong patent position in thermo photovoltaics and is currently seeking investors and strategic partners to develop a 1.5 KWe residential home cogeneration system that can supply heat, hot water and electricity from natural gas or pr

KINECOR

19269 96th Ave
 Surrey, BC, Canada, V4N 4C4 0
 Phone: (604) 513-0351
 Fax: (604) 513-0361
 www.kinecor.com

Headquarters: Quebec
Other Locations: 56 locations across Canada

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories: Distribution-end industrial/commercial level controls</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Industrial and process components ▪ Pumps and hydraulics ▪ Controls <p>Geographic Focus: Domestic</p>
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Canada's largest distributor of industrial components, including controls and power transmission products. The company's engineering staff offers consultation, training, inspection, failure analysis and custom design. It operates 56 branches in Canada, including two in British Columbia.

Headquartered in Quebec, the bulk of Kinecor's revenues come from the sale of pumps, hydraulics, process equipment, bearings and other industrial components. In recent years, it has also begun to sell and specify automation products and intelligent controls.

Kinecor sells to heavy industry, including pulp mills, and waste and recycling centers.

Kinecor was created in 2001 by the combination of five separate companies.

LEGEND POWER SYSTEMS INC.

Gerry Gill, CEO

408-100 Park Royal
 West Vancouver, BC, Canada, V7T 1A2 0
 Phone: (604) 913-8158
 Fax: (604) 922-8646
 www.legendpower.com

Established: 2001
Headquarters: West Vancouver, BC
Employees: 10
Affiliations: North American distributor for Legend Power Ltd. of Hong Kong. Affiliated with U.S.-based Legend Power Systems Corp.

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Energy efficiency equipment, materials, and supplies ▪ Power quality/Power Factor Correction technologies <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services: Voltage optimization and power factor correction</p> <p>Geographic Focus: International--North America</p>
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Distributor and manufacturer -- owns Canadian distribution and manufacturing rights to the Electrical Harmonizer device manufactured by Legend Power Ltd. of Hong Kong. This device offers commercial, industrial and institutional users significant energy savings by a) optimizing voltage, b) conditioning power, and c) improving power factor.

Legend sells the Harmonizer directly. It will also provide the product free of charge to large electricity users and shares the savings with the customer.

LEVITON VOICE & DATA DIVISION

Harold Leviton, President and CEO

2222 222nd St SE
 Bothell, WA 98021
 Phone: (800) 722-2082
 Fax: (425) 483-5270
 www.levitonvoicedata.com

Established: 1906
Headquarters: Bothell, WA
Employees: 5,000 (parent)

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Building materials, equipment, and supplies--non automation ▪ Smart devices/Grid-friendly devices <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Wiring ▪ Network infrastructure ▪ Home automation and multimedia <p>Geographic Focus: International--All</p>
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Manufacturer and supplier of a variety of connectivity products. Operating from a state-of-the-art manufacturing complex in Bothell, Washington, Leviton's Voice & Data Division produces connectivity products for commercial and residential voice, data, audio and video applications. Much of its products are in the network infrastructure category, including connectors, cabling assemblies, panels, and wallplates. The division also makes products in the Smart Energy arena, including home automation, building automation and power electronics.

Parent Leviton Manufacturing is a giant in electrical and electronic components, with over 25,000 different types products in categories such as switches, plugs and connectors. Other divisions make lighting controls, wire, cables and cords.

LIGHTING DESIGN LAB

400 E Pine, Suite 100
Seattle, WA 98122
Phone: (206) 325-9711
Fax: (206) 329-9532
www.northwestlighting.com

Company Type:	Resource Organization	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none">▪ Building materials, equipment, and supplies--non automation▪ Energy management services	Specific Products or Services:	<ul style="list-style-type: none">▪ Efficient lighting education and training▪ Efficient lighting consultations▪ Efficient lighting demonstrations
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Not-for-profit supporter of the use of efficient lighting in residences and commercial/industrial buildings. Sponsored by the Northwest Energy Efficiency Alliance (NWEAA).

LOGAN INDUSTRIES

Harold Alexander President

**3808 N Sullivan Road, Bldg 5
Spokane, WA 99216
Phone: (509) 462-7400
Fax: (509) 344-0739
www.loganind.com**

Established: 1975
Headquarters: Spokane, WA
Other Locations: Guadalajara, Mexico
Employees: 100

Company Type:	Manufacturer	Target Customers:	Manufacturers
Product Categories:	Component assembly	Specific Products or Services:	Contract assembly and manufacturing
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--North America

Contract assembler for other manufacturers. Operating out of a 60,000 square foot facility in Spokane (and a new plant in Mexico), Logan provides turnkey manufacturing services to many different industries, including energy-related companies such as Alpha Technologies and Avista Labs.

Logan Industries began in the 1970s as a cable assembl plant. In 1992 it was acquired by Telect, a Spokane comopany that served the telecommunications industry. Logan became the custom assembly division. In 1999, Harold Alexander, then Telect's Senior VP of Operations, purchased the division to form a separate company now known as Logan Industries.

The growth of the Smart Energy in the Northwest could provide tremendous growth and opportunity for contract manufacturers such as Logan Industries.

MAGNADrive

Jim Cich, President and CEO

1177 Fairview Ave N
Seattle, WA 98109
Phone: (206) 694-4700
Fax: (206) 694-4747
www.magnadrive.com

Established: 1997

Company Type:	▪ Manufacturer ▪ Product Designer	Target Customers:	End-Users
Product Categories:	Smart motors/Adjustable Speed Drives	Specific Products or Services:	Adjustable speed motors
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--Europe

Manufacturer of a new type of adjustable speed drive. The company's products use rare earth magnets to create a virtually frictionless connection between the motor and the shaft. This allows precise, continuously adjustable speed control and significantly lowers energy use. Typical applications include pumps, fans and blowers.

Actively seeking partners to expand its technology into new applications and new markets, including larger motors and transportation applications.

MARKETECH INTERNATIONAL, INC.

J.A. Spieckerman, President

4750 Magnolia St
Port Townsend, WA 98368
Phone: (360) 379-6707
Fax: (360) 379-6907
www.mkt-intl.com

Established: 1987

Employees: 10

Company Type:	<ul style="list-style-type: none">■ Component Supplier■ Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Manufacturers
Product Categories:	Transmission/Distribution/Substation Equipment (not automation)	Specific Products or Services:	Advanced materials
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Distributor of new and advanced materials to niche markets. MarkeTech sells a wide variety of advanced materials to many different industries, including several that overlap with the Smart Energy sector. Examples include single crystal wafer substrates (the largest selection in the world), carbon electrodes, solid oxide fuel cell powders, battery materials and more.

MCKAIG-EVERGREEN, INC

Robert McKaig, President

10208 NE 183rd St

Bothell, WA 98011

Phone: (425) 485-9700

Fax: (425) 487-6697

www.mckaig.com

Established: 1974

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Transmission/Distribution/Substation Equipment (not automation)▪ Transmission/distribution/substation automation	Specific Products or Services:	Manufacturer's representative to electric utilities
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Manufacturer's representative for transmission and distribution equipment and other products to electric utilities. Examples include transformers, line and substation switches, and controls. Territory covers Washington, Oregon, Idaho, Utah, Montana, Alaska and British Columbia.

McKINSTRY Co./ENERGY SERVICES

Dean Allen, President

**PO Box 24567
Seattle, WA 98124
Phone: (206) 762-3311
Fax: (206) 767-9796
www.mckinstry.com**

Headquarters: Seattle, WA

Other Locations: Portland, OR

Employees: 650

Affiliations: Alerton Dealer as part of its Controls Line

**5400 NE Columbia Blvd
Portland, OR 97218
Phone: (503) 331-0234
Fax: (503) 331-6906**

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Building engineering--mechanical, electrical, etc. ▪ Energy management services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Engineering design ▪ Energy audits ▪ Energy management controls <p>Geographic Focus: Domestic</p>
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Mechanical construction and engineering firm in the Pacific Northwest, offering a broad range of construction, design and facility services. In addition to mechanical work, it has an energy services team comprised of energy engineers, energy auditors, program managers and account managers.

McKinstry is also one of the two Northwest dealers of Alerton Technologies, the largest privately owned control manufacturer in the United States (also in this directory).

MCM ENTERPRISE LTD

11010 Northup Way
Bellevue, WA 98004
Phone: (425) 822-7178
Fax: (425) 822-9277
www.mcmenterprise.com

Established: 1992

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Grid monitors and controls▪ Distributed generation and interconnection components/parts	Specific Products or Services:	<ul style="list-style-type: none">▪ Remote monitors for generators, motors and batteries▪ Engineering services for remote sensing
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Maker of products to remotely monitor hydrogenerators, large electric motors and large storage batteries. Also offers engineering services for sensor applications and machine surveillance technologies.

MDSI MOBILE DATA SOLUTIONS INC.

Erik Dysthe, CEO

10271 Shellbridge Waytions Inc
Richmond, BC, Canada V6X 2W8 0
Phone: (604) 207-6000
Fax: (604) 207-6060
www.mdsi-advantex.com

Established: 1993
Headquarters: Richmond, BC
Other Locations: U.S., Europe and Australia
Employees: 350

Company Type:	<ul style="list-style-type: none"> ■ Developer ■ Service Provider 	Target Customers:	Utilities
Product Categories:	Workforce automation	Specific Products or Services:	Advantex suite of mobile workforce automation
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Developer of mobile workforce management software. Over the last 10 years, more than 100 companies have deployed MDSI's Advantex, a suite of products for managing a mobile workforce. The company emphasizes its wireless connectivity options as a key differentiator.

Advantex schedules work orders; assigns them to the best available mobile resource; dispatches details to the workers; and sends updates back to the office -- all wirelessly. With optional GPS, mobile workers can see best routes for travel and dispatchers can pinpoint worker locations.

MDSI sells to telcos, cable companies and utilities. Representative utility customers include KeySpan Energy, Manila Electric Co. (Meralco, Pacific Gas & Electric, Reliant Energy, San Antonio Public Service and San Diego Gas & Electric.)

MICONTROLS

6516 5th PI S
 Seattle, WA 98108
 Phone: (206) 767-0140
 Fax: (206) 763-7234
 www.micontrols.com

Established: 1920
Employees: 20-49

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Distribution-end industrial/commercial level controls	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Digital controls ▪ Control valves ▪ VAV boxes
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Distributor of digital, electric, electronic, networked, pneumatic and self-contained controls, control valves and VAV boxes for burner/boiler, commercial, DDC, industrial process, HVAC & residential industries.

MICROPLANET

Brian Reidy, CEO

144 Railroad Ave, Suite 210

Edmonds, WA 98020

Phone: (425) 697-5151

Fax: (425) 672-7072

www.microplanetltd.com

Established: 1994

Company Type:	Manufacturer	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Distribution-end industrial/commercial level controls▪ Power electronics	Specific Products or Services:	Voltage regulator
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Manufactures voltage regulators for utilities and end users. Most appliances need only 114 volts to run efficiently, but many buildings receive up to 126 volts. MicroPlanet's voltage regulators reduce excess voltage, thereby conserving energy and reducing electricity bills.

MicroPlanet manufactures and sells two products for electrical energy conservation and voltage compliance -- the Enterprise Voltage Regulator (EVR) and the Home Voltage Regulator (HVR). Both regulate voltage and can electric bills 10%-20% annually. The products can also cut capital expenditures for electric utilities by reducing the need for spot market power and for investments in new power lines.

The company hopes to strike deals with utilities, who will then sell (or give) the devices to their customers.

MICROSOFT CORPORATION

Steve Ballmer, CEO

One Microsoft Way
Redmond, WA 98052
Phone: (425) 882-8080
Fax: (425) 936-7329
www.microsoft.com

Established: 1975
Headquarters: Redmond, WA
Other Locations: Many locations around the world
Employees: 50500

Company Type:	<ul style="list-style-type: none"> ▪ Developer ▪ Manufacturer 	Target Customers:	Manufacturers
Product Categories:	Smart devices/Grid-friendly devices	Specific Products or Services:	Home automation software
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Developer of software and embedded systems for the home automation market. Microsoft, one of the world's largest and most successful companies, is obviously not in the "early commercialization" phase over all. It is, however, appropriate to use that term for its home automation efforts, many of which could have broad implications for the Smart Energy field.

Microsoft hopes that manufacturers and programmers will adapt its Simple Control Protocol, which is designed for very small devices that cannot be configured with full computer power. Applications include automated switches that can be controlled remotely; appliances that can interact with each other; smart washers and dryers; and intelligent heating and coolings systems that send and receive messages from sensors and from other appliances.

Microsoft has spent tens of millions exploring digital home applications. Ultimately, the concepts and protocols it develops could play a strong role as the "glue" that holds together the smart home of the future and allows it to interact with the smart grid.

MOTORS AND CONTROLS CORP

Patrick Frostad, President

8030 S 222nd St

Kent, WA 98032

Phone: (800) 626-4300

Fax: (253) 395-3725

www.motors-controls.com

Established: 1976

Employees: 6 - 19

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/Distribution/Substation Equipment (not automation) ▪ Smart motors/Adjustable Speed Drives 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Transformers and relays ▪ Controls ▪ Variable speed motors
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Distributor of controls, motors, timers, counters, relays, transformers, sensors, gear reducers, power supplies, drives, enclosures, heaters, fuses, PLC's & terminals.

MTI SYSTEMS

7033 Antrim Ave
 Burnaby, BC, Canada, V5J 4M5 0
 Phone: (604) 439-3009
 Fax: (604) 439-3039
 www.mtitechnologies.com

Headquarters: Houston, TX

Other Locations: Europe

Affiliations: Member of the Alpha Group of companies. Subsidiary of MTI Technologies, Houston, TX

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: Stand-by generators, back-up power, UPS, battery systems</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Battery backup and chargers ▪ Uninterruptible power supplies ▪ Inverters <p>Geographic Focus: Domestic</p>
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Manufacturer and provider of a "total solution" to power backup, offering battery systems, chargers, UPS systems and inverters. The company's engineering group offers turnkey services from project feasibility analysis and project management to engineering design, installation and service.

Sells to utility, military, telecomm and petrochemical companies.

NEW PATH RENEWABLES, INC.

PO Box 1365
Bend, OR 97709
Phone: (541) 617-0609
Fax: (541) 388-0934
www.newearthworks.com

Company Type:	<ul style="list-style-type: none">▪ Service Provider▪ Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Distributed generation and interconnection components/parts	Specific Products or Services:	Grid-tied solar electric systems
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Provider of consulting, design and installation of grid-interactive solar PV. It also works with architects, builders, developers, utilities, government agencies, businesses and homeowners to increase the awareness of renewable energy technologies.

New Path is developing a network of distributors and installers and hopes to open an East Coast office. It is also introducing its SOLECT packaged systems.

NORTHERN TECHNOLOGIES INC.

23123 E Mission Ave
Liberty Lake, WA 99019
Phone: (509) 927-0401
Fax: (509) 927-0435
www.northern-tech.com

Affiliations: Division of Emerson Network Power

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none">▪ Stand-by generators, back-up power, UPS, battery systems▪ Power quality/Power Factor Correction technologies	Specific Products or Services:	<ul style="list-style-type: none">▪ Power protection products▪ Integrated cabinets▪ Power quality solutions
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Developer and distributor of products that provide continuous power protection for broadcast, cable, government, medical, transportation, corrections, cellular, PCS and a growing number of markets for the future. It also provides engineering support services and technical training programs.

As of January 2000, NTI is a division of Emerson Network Power, a Division of Emerson Electric.

NORTHWEST CIRCUIT BREAKERS, INC.

Craig Archer, President

206 Frontage Road N, Suite B-2

Pacific, WA 98047

Phone: (253) 735-0192

Fax: (253) 735-3110

www.nwcircuitbreakers.com

Affiliations: A Group CBS company, co-located with Advanced Electrical Testing

Company Type:	<ul style="list-style-type: none">▪ Distributor/Manufacturers Rep/Dealer/Retailer▪ Other	Target Customers:	Both Utilities and End-Users
Product Categories:	Transmission/Distribution/Substation Equipment (not automation)	Specific Products or Services:	Low and medium voltage power distribution equipment
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Distributor that buys, sells, rents and services circuit breakers, transformers, switchgear, relays and other power products.

NORTHWEST ENERGY SERVICES, INC.

Mark Longmeier, President

9 S Washington, Suite 500

Spokane, WA 99201

Phone: (509) 838-8978

Fax: (509) 747-0008

www.nwenergy.com

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none">▪ Energy audits and analysis▪ Energy project management
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Services and consultation for the energy industry including energy audits and analysis, energy project development, energy program management, performance contracting, monitoring and verification.

NORTHWEST UTILITY SALES

Keith Scott, President

PO Box 820881

Vancouver, WA 98682

Phone: (360) 882-9979

Fax: (360) 891-5779

www.nusionline.com

Established: 1997

Employees: 6

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution/substation automation ▪ Transmission/Distribution/Substation Equipment (not automation) 	Specific Products or Services:	Electrical equipment for utilities and large industrial users
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer's representative specializing in electrical equipment for utilities, large industrial users, and electrical distributors.

NXTPHASE CORPORATION

Kip Smith, CEO

3040 E Broadway
Vancouver, BC, Canada V5M 1Z4 0
Phone: (604) 215-9822
Fax: (604) 215-9833
www.nxtphase.com

Established: 1993
Headquarters: Vancouver, BC
Other Locations: Phoenix, Arizona; Winnipeg, Manitoba

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Grid monitors and controls ▪ Transmission/distribution/substation automation <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Optical sensing products ▪ Relays and recorders ▪ Grid monitoring software <p>Geographic Focus: International--All</p>
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Manufacturer and developer of advanced technologies for monitoring and managing the electric grid. Its optical sensing products measure transmission-level electric power with great accuracy. Its relay and recorder line provides smart, easy-to-use protection and monitoring of electrical power systems.

NxtPhase sells to utilities and independent transmission organizations.

One piece of the NxtPhase story began at Honeywell, where a research team had come up with a new way to measure current. NxtPhase, in acquiring Honeywell's current sensing technology,

The second piece began at Carmanah Engineering, a spin-off from the University of British Columbia (UBC), which had developed a breakthrough voltage sensing technology. NxtPhase was created as a joint venture between Carmanah and Honeywell to allow a joint product that could measure both current and voltage at the same time. NxtPhase then opened up a second product line by acquiring a Winnipeg group specializing in digital protection and monitoring electric utilities market.

NxtPhase is aimed at an all-digital substation strategy. It plans to help utilities move gradually move towards digital integration through its existing product lines and by developing software to tie everything together.

James C. Biddle, Chief Executive Officer

**1001 SW Disk Dr
Bend, OR 97702
Phone: (541) 389-0120
Fax:
www.orcom.com**

Established: 1976
Headquarters: West Conshohocken, PA
Other Locations: Bend, OR; Denver, CO; Scottsbluff, NE
Employees: 500 (parent)
Affiliations: Branch office

<p>Company Type:</p> <ul style="list-style-type: none"> ■ Service Provider ■ Developer <p>Product Categories: Utility back-end systems</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services: Outsourced customer information systems for utilities</p> <p>Geographic Focus: Domestic</p>
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Provider of outsourced customer care and billing services to the utility industry. Electric clients include the City of Austin, Florida Public Utilities and Northwestern Energy.

OREGON ELECTRIC GROUP

Glenn Patterson, President

**1010 SE 11th Ave
Portland, OR 97214
Phone: (503) 234-9900
Fax: (503) 234-1001
www.oregonelectric.com**

Established: 1947
Headquarters: Portland, OR
Employees: 500 in Portland area
Affiliations: Acquired by MDU Resources Group in 2001

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Power quality/Power Factor Correction technologies 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Electrical design/build ▪ Emergency response teams ▪ Power audits
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Full service electrical contractors serving the commercial and industrial markets with value engineering, design build, partnering and safety applications.

The company has segments involved in High Tech, Commercial, Industrial, Healthcare, Airport, Controls, Voice/Data, and High Rise Multi-Family facilities. It has also developed a Service Department, which provides ongoing electrical maintenance and small projects services with over 100 service vans.

Oregon Electric was bought out by MDU Resources Group, Inc. in Bismarck, ND in September 2001, making OEG a publicly owned company.

PACIFIC ENGINEERING CORPORATION

9400 SW Barnes Road Suite 550
 Portland, OR 97225
 Phone: (503) 297-1631
 Fax: (503) 297-5429
www.keithco.com/pec_aboutpec.htm

Established: 1972
Headquarters: Portland, OR; Irvine, CA (parent)
Other Locations: Seven U.S. states
Employees: 850 (parent)
Affiliations: Subsidiary of The Keith Companies

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ■ Transmission/distribution construction contracting ■ Transmission/distribution/substation automation 	Specific Products or Services:	<ul style="list-style-type: none"> ■ Power system control, protection and instrumentation ■ SCADA systems ■ Substations
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--North America

Consulting engineering and design services firm specializing in power transmission and distribution, hydropower, communications facilities and other utility infrastructure services. Special expertise in electrical design and electrical transmission and distribution line design. Experience includes design and construction of substations, power transmission lines, and Supervisory Control and Data Acquisition (SCADA) systems.

Sells services to utilities, municipalities and large industrial customers.

In September 2001 PEC was acquired by The Keith Companies Inc. (TKC), an engineering and consulting services firm with specialized departments in land planning, civil engineering, surveying, mapping, environmental services, and water and cultural resources.

PACIFIC INSIGHT ELECTRONICS CORPORATION

Bradley Smithson, President and CEO

1155 Insight Dr
 Nelson, BC, Canada, V1L 5P5 0
 Phone: (250) 354-1155
 Fax: (250) 354-1166
 www.pacificinsight.com

Established: 1985
Headquarters: Nelson, BC
Employees: 230

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Power electronics ▪ Smart devices/Grid-friendly devices <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Manufacturers</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Instrumentation for cars, trucks, boats and electric vehicles ▪ OEM modules for car, truck and boat manufacturers ▪ Aftermarket lights and electronics for cars and trucks <p>Geographic Focus: International--North America</p>
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Designer, manufacturer and supplier of electronic components to the automotive, heavy truck and marine markets. Although it began as a supplier of "traditional" running lights, the company has since grown to encompass many advanced electronics, some of which overlap into the Smart Energy field. For instance, the company devotes over 20% of its total R&D budget to electronics for LED lighting. Examples of advanced electronic products include thermostatic HVAC control modules; prototype controllers for electric vehicles; and battery control modules.

Pacific Insight Electronics Corp. was founded in 1985 by Stuart Ross and Bradley Smithson in Prince George, B.C., to produce daytime running lights. It has since expanded to carry hundreds of electronic products for the automotive, heavy truck, bus, and marine industries. It went public in 1989 through a reverse take over on the Vancouver Stock Exchange. It now trades on the TSX under the trading symbol PIH.

PAE CONSULTING ENGINEERS, INC.

Robert Sulek, President

808 SW 3rd Ave, Suite 300
Portland, OR 97204
Phone: (503) 226-2921
www.paemail.com

Established: 1967

Employees: 50

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Mechanical/electrical engineering ▪ Telecommunications engineering ▪ Sustainable design engineering
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Design firm providing mechanical, electrical, and telecommunications design. Its mechanical design work includes the evaluation, design and specification of a variety of heating, cooling, and water systems. It also provides power, lighting and control system designs that initiate with the serving utilities and terminate at the end user. PAE strives to incorporate sustainable design components into projects, and represent good integrators of smart energy technology.

The company has two LEED Accredited Professionals on staff and are currently designing 12 projects utilizing the LEED system, seven of which are pursuing LEED Ratings. Architectural lighting design is provided by Luma Lighting Design, a division of PAE.

PANTROL, INC.

3108 E Ferry St
Spokane, WA 99202
Phone: (509) 535-9061
Fax: (509) 535-8793
www.pantrol.com

Established: 1974
Employees: 20-49

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Transmission/Distribution/Substation Equipment (not automation)	Specific Products or Services:	<ul style="list-style-type: none">▪ Control panels▪ Electrical and Electronic Harnesses
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer of control panels, telecommunication panels, programmable logic control panels, heavy industrial applications, electro-mechanical applications, electrical & electronic harness design and assembly, contract assembly service, printed circuit board design and assembly, electronic product development.

PARKER, MESSANA & ASSOCIATES, INC.

33811 9th Ave S
 Federal Way, WA 98003
 Phone: (253) 926-0884
 Fax: (253) 926-0886
 www.pma-engr.com

Headquarters: Federal Way, WA

Other Locations: Moses Lake, WA

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Building engineering--mechanical, electrical, etc.	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Project scoping and capital cost estimates ▪ Detailed engineering ▪ Construction supervision
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Engineering consultants providing planning support from scoping through permitting. Their competencies include mechanical, electrical, and networks/information systems integration.

PATTON & COOKE Co.

G.E. Patton, President

100 - 7795 128th St
 Surrey, BC, Canada, V3W 4E6 0
 Phone: (604) 591-5374
 Fax: (604) 591-3505
 www.pattonandcooke.com

Established: 1961
Headquarters: Surrey, BC
Employees: 24

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/Distribution/Substation Equipment (not automation) ▪ Transmission/distribution engineering services <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services: High-voltage electrical equipment</p> <p>Geographic Focus: International--All</p>
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Designer and manufacturer of medium- and high-voltage electrical equipment for mines and utilities. The bulk of the company's work centers around cable and wire products. However, it also carries some switchgear, relays and monitors that fall into the Smart Energy category.

PCS UTILIDATA

Tom Wilson

PO Box 28970

Spokane, WA 99228

Phone: (509) 466-2656

Fax: (509) 466-9642

www.pcsutilidata.com

Established: 1987

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution/substation automation ▪ Utility back-end systems <p>Stage of Development: Stage V -- Mixed</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Programmable control services ▪ Demand-side management ▪ Distribution automation <p>Geographic Focus: International--North America</p>
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Integrator of control systems that provides substation and distribution automation, SCADA, consulting, engineering, design, integration, control, automated energy conservation and energy management solutions to the electric utility industry. The company serves investor-owned, public and municipal utilities and electric cooperatives. UtiliData products and solutions use state-of-the-art, commercial off-the-shelf control hardware and software technology engines in non-proprietary solutions to provide open architecture and scaleable alternatives.

PEAK MEASURE

2433 71st Ave SE
 Mercer Island, WA 98040
 Phone: (888) 541-7182
 Fax: (888) 541-7180
 www.peakmeasure.com

Headquarters: Mercer Island, WA
Other Locations: Ridgefield, WA

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution/substation automation ▪ Transmission/Distribution/Substation Equipment (not automation) 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Protection relays ▪ Integrated automation systems ▪ Meter and measurement products
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Manufacturer's representative for traditional electrical equipment for utilities and for many Smart Energy products, including wireless remote monitoring, transformer gauges and monitors, diagnostic and electronic recording test gear, and integrated automation systems.

PHILTEK ELECTRONICS LIMITED

Philip Pong, President

2471 Vauxhall Pl
 Richmond, BC, Canada, V6V 1Z5 0
 Phone: (604) 270-4642
 Fax: (604) 270-8343
 www.philtek.com

Established: 1976
Headquarters: Richmond, BC
Other Locations: Blaine, WA
Affiliations: Parent of Philtek Power Corp. in Blaine, WA

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Distributed generation and interconnection components/parts ▪ Stand-by generators, back-up power, UPS, battery systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Inverters and converters ▪ Battery chargers ▪ Uninterruptible power supplies <p>Geographic Focus: International--North America</p>
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Designer and manufacturer of inverters, converters, battery chargers, uninterruptible power supplies and other power electronics.

Philtek serves industrial markets such as utilities, refineries, and paper mills.

PHILTEK POWER CORP.

Philip Pong

PO Box 1

Blaine, WA 98231

Phone: (360) 332-7252

Fax: (360) 332-7253

www.philtek.com

Established: 1976

Employees: Under 5

Affiliations: Subsidiary of Philtek Electronics LTD in Canada

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories: Power quality/Power Factor Correction technologies</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ DC to AC inverters ▪ Battery chargers ▪ Uninterruptible power supplies <p>Geographic Focus: Domestic</p>
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Developer of DC to AC inverters, battery chargers, frequency converters, uninterruptible power supplies and custom designed power conversion equipment.

Philtek serves industrial markets requiring power conversion products such as gas and electric utility companies, pulp and paper mills and refineries.

PLS CONSULTING INC.

9011 SW Beaverton-Hillsdale Highway, Suite 1A Established: 1982
Portland, OR 97225
Phone: (503) 291-9133
Fax: (503) 291-7820
www.pls.net

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Workforce automation	Specific Products or Services:	<ul style="list-style-type: none">▪ Employee performance measurement and enhancement▪ Workforce training
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consultancy focused on employee training and performance. Has a long list of utility clients. Services include competency analysis, instructional design and training. Important to Smart Energy because companies such as PLS will help utilities and their employees make the transition to new systems and new technologies.

PORTLAND ENERGY CONSERVATION

1400 SW 5th Ave, Suite 700
 Portland, OR 97201
 Phone: (503) 248-4636
 Fax: (503) 295-0820
 www.peci.com

Employees: 25

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Program design services ▪ Project program implementation and demonstration ▪ Market research and information development
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Provider of energy management consulting. PECE is a nonprofit corporation that has specialized in innovative and creative approaches to the responsible use of energy and facility resources since 1980. PECE has successfully helped clients increase the use of energy-efficient technologies in residential and commercial buildings throughout the United States. PECE offers expert research, program design, policy development and field-based client services across the country.

POWDEC TECHNOLOGIES (CANADA) CO.

4111 Hall Pl Richmond, BC, Canada, V6X 3Y1 0 www.powdec.com		Established: 1986 Headquarters: Taiwan Other Locations: San Jose, CA; Taiwan
Company Type: <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier 	Product Categories: Power electronics	Target Customers: End-Users Specific Products or Services: <ul style="list-style-type: none"> ▪ AC/DC Power Adapters ▪ AC/DC Power Switchers ▪ DC/DC Converters
Stage of Development:	Stage IV -- Mature	Geographic Focus: International--All

Provider of power adapters. Canadian sales arm for the Taiwan-based parent company. Offers more than 200 products in two categories: 5W to 60W external adapters and 10W to 100W open-frame power supplies.

POWER MEASUREMENT

Bradford Forth, President and CEO

2195 Keating Cross Road
Saanichton, BC, Canada V8M 2A5 0
Phone: (250) 652-7100
Fax: (250) 652-0411
www.pwrm.com

Established: 1983
Headquarters: Saanichton, BC
Other Locations: Germany, Korea
Employees: 250

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Advanced metering technology and services ▪ Energy management services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ ION Smart Meters ▪ ION Enterprise Energy Management Software <p>Geographic Focus: International--All</p>
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Provider of advanced meters and enterprise energy management systems with representation in over 80 countries.

For utilities, Power Measurement promises advanced meters and supporting software to collect, analyze and share data. The company's products can collect data from customers, but also from generating stations, substations and grid inter-ties.

For industrial and commercial users, Power Measurement promises to identify energy-intensive activities, pinpoint power problems and supervise facilities through a command-and-control center. Typical customers include manufacturers, research facilities, universities, pulp mills and refineries.

Now celebrating its 20th year, Power Measurement is one of the pioneers in the movement from analog to digital metering. It introduced the world's first microprocessor-based three-phase power and energy meter in 1984 and claims many other industry firsts in remote communications capability, programmable set-point capabilities, ethernet support, internet connectivity and more.

POWER RESOURCE MANAGERS, LLP

1610 C St, Suite 102
 Vancouver, WA 98663
 Phone: (360) 693-8484
 Fax: (360) 693-3487
 www.prmllp.com

Established: 1993
Headquarters: Vancouver, WA
Other Locations: Bellevue, WA

2100 112th Ave NE, Suite 100
 Bellevue, WA 98004
 Phone: (425) 451-9123
 Fax: (425) 451-2110

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ■ Energy management services ■ Energy marketing 	Specific Products or Services:	Power portfolio management consulting
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consultancy that offers power management services including power and transmission scheduling, power purchasing and sales, power supply planning and risk management. PRM's long-term strategic planning typically focuses on the financial impacts of procurement decisions. PRM's short-term planning typically focuses on optimizing an existing pool of resources and transmission agreements.

In addition to its consulting services, PRM also provides several software services, including ACES for scheduling and its own PowerBiz application for scheduling and dispatch.

PRM has a unique ownership structure - a Limited Liability Partnership owned equally by three Washington State Public Utility Districts. All three are consumer-owned, electric utilities.

POWER SYSTEMS ENGINEERING, PS

Robert E. Fuhr, President

16122 SE 266th St
 Covington, WA 98042
 Phone: (253) 639-8535
 Fax: (253) 639-8685
 www.powerstudies.com

Established: 1986
Headquarters: Covington, WA
Employees: 6

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Research/information/financing other resources 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Power system studies ▪ Power quality and commissioning services
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consulting engineering company for industrial and utility power distribution. The company specializes in power system studies and power quality services. Typical studiens include power factor studies, load flow, protective device studies and many more. It serves commercial, industrial and utility clients.

POWER TRIP ENERGY COMPANY

Andy Cochrane, co-founder

2343 Thomas St
 Port Townsend, WA 98368
 Phone: (360) 643-3080
 Fax: (360) 385-5815
 www.powertripenergy.com

Employees: 5

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Distributed generation systems ▪ Energy efficiency equipment, materials, and supplies <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ On-grid and off-grid renewable energy systems ▪ Energy efficient lighting and appliances ▪ Installation, repair and consultation <p>Geographic Focus: Domestic</p>
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Provider of renewable energy technology, energy-efficient home lighting and appliances, and eco-building materials.

POWEREX

Bob Elton, President and CEO

1400 - 666 Burrard St
 Vancouver, BC, Canada, V6C 2X8 0
 Phone: (604) 891-5000
 Fax: (604) 891-6060
 www.powerex.com

Established: 1988
Headquarters: Vancouver, BC
Employees: 120
Affiliations: The wholly-owned power marketing subsidiary of BC Hydro

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy marketing	Specific Products or Services:	Power marketing
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--North America

Marketer of wholesale energy products and services in the western U.S. and Canada and a growing niche player in other markets. Can supply contracts power for days, weeks, months or longer, and on terms custom designed to meet customers' changing daily and seasonal energy requirements.

More than 150 consumer and investor owned utilities, municipalities, power pools, large industrials and power marketers.

POWERIT SOLUTIONS

George L. Lawson, President and CEO

520 Pike St

Seattle, WA 98101

Phone: (206) 467-3030

Fax: (206) 340-9201

www.powerit-solutions.com

Company Type:	Developer	Target Customers:	End-Users
Product Categories:	End user integrated energy management software	Specific Products or Services:	<ul style="list-style-type: none">▪ Energy management software▪ Energy management services
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Developer and marketer of a Web-based tool that helps commercial and industrial sites reduce energy costs. Its Energy Director software monitors and controls equipment according to rules set by the customer. The company achieves typical savings of 10-15% on electricity bills by adjusting loads at times of peak demand.

The software typically manages equipment such as HVAC, materials processing, freezing, pumping, drying, conveyors and other equipment with high power needs. It monitors their energy usage and automatically reduces peak demand by prioritizing energy loads -- that is, by cutting back less-important loads during peak periods. Developed in Sweden, the system has been installed in over 250 facilities worldwide. Target customers are those with annual energy bills of \$100,000 or more who have large power loads that can be interrupted or reduced.

POWERTECH LABS INC.

Prabha Kundur, President

12388 - 88th Ave
Surrey, BC, Canada V3W 7R7 0
Phone: (604) 590-7500
Fax: (604) 590-5347
www.powertechlabs.com

Headquarters: Surrey, BC
Employees: 100
Affiliations: Wholly owned subsidiary of BC Hydro

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Resource Organization <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Research/information/financing other resources ▪ Grid planning and design tools and consulting <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services: Power system testing</p> <p>Geographic Focus: International--North America</p>
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Provider of testing and research to the electric and natural gas industries. It provides complex, detailed testing on nearly all aspects of electric power. It helps clients assess and improve the performance, efficiency, safety, reliability, and environmental impact of electric power and natural gas.

The company is organized around seven business units, several of which put Powertech squarely in the Smart Energy Space. The seven are: Power System Studies; Electrical Technologies; Power Engineering Labs; Civil Infrastructures and Alternative Energy Technologies; Gas Systems Engineering; Materials Engineering and Applied Chemistry.

Powertech operates one of the best equipped and most advanced testing facilities in North America. Its campus in Surrey, BC has 18 labs and approximately 80 professional engineers, scientists and technologists.

Powertech Labs is a spin-off and wholly owned subsidiary of BC Hydro, the principal electric utility in British Columbia, Canada.

POWERWAVE ENGINEERING INCORPORATED

1302 SW 10th Ave
Battle Ground, WA 98604
www.pwaveeng.com

Headquarters: Battle Ground, WA

Other Locations: Longview, WA

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	Transmission/distribution engineering services	Specific Products or Services:	Consulting engineering
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consulting engineering firm specializing in design or study of substations, transmission lines, distribution lines, low voltage service, rate studies, and long range planning. Typical projects include substation layouts, transmission line design, and motor and generator systems.

PURCELL SYSTEMS

Peter J. Chase, President

22924 E Appleway Ave
 Liberty Lake, WA 99019
 Phone: (509) 755-0341
 Fax: (509) 755-0345
 www.purcellsystems.com

Established: 2000
Headquarters: Liberty Lake, WA
Other Locations: Chicago, Dallas, and Washington, D.C.
Employees: 160

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Building materials, equipment, and supplies--non automation	Specific Products or Services:	<ul style="list-style-type: none"> ■ Power cabinets ■ DC power systems ■ DC uninterruptible power supplies
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--North America

Manufacturer of power cabinets for applications such as wireless antenna sites, cellular tower sites and office facilities. Although the bulk of revenues come from the enclosures themselves, the company also acts as a systems integrator. It integrates products from other companies to produce cabinets with built in DC power systems or DC uninterruptible power supplies.

Purcell cabinets most often are used to house telecommunications equipment at the base of a transmission antenna. Most of its customers are in the wireless sector. The company uses a patented modular design that allows for easy expansion.

Purcell Systems' increase in revenues of 1,082% percent over the three-year period of 2000 to 2002 resulted in Purcell Systems ranking as the 21st fastest growing company in North America, according to the 2003 Deloitte Technology Fast 500.

QUANTEC, LLC

M. Sami Khawaja, President

6229 SW Milwaukie Ave

Portland, OR 97202

Phone: (503) 228-2992

Fax: (503) 228-3696

www.quantecllc.com

Headquarters: Portland, OR

Other Locations: Boulder, CO; Barrington, RI; Reedsburg, WI; Los Angeles, CA

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Research/information/financing other resources ▪ Energy management services 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Energy services consulting ▪ Evaluation of energy efficiency programs ▪ Energy marketing strategies
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consultancy that provides a wide range of services, many of which relate to emerging Smart Energy markets. Capabilities include surveying, quantitative analysis, and modeling/forecasting. Services include design and evaluation of energy efficiency programs and strategies for deregulated energy markets.

QUANTUM ENGINEERING & DEVELOPMENT

5339 Roosevelt Way NE, Suite A
 Seattle, WA 98105
 Phone: (206) 523-5640
 Fax: (206) 523-5639
 www.quantum-engr.com

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Energy management services ▪ Building engineering-- mechanical, electrical, etc. 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Design and build ▪ Equipment retrofits ▪ Performance contracting
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Energy services company (ESCO) that provides engineering, construction and commissioning services to public, commercial and industrial clients. Both a general contractor and an engineering firm, it focuses on energy and water savings performance contracting. The company performs mechanical, plumbing and electrical retrofits to existing buildings. It provides full services from the auditing & development phase through design, construction, commissioning and monitoring & verification of savings and project performance.

R. W. BECK

1001 4th Ave, Suite 2500
 Seattle, WA 98154
 Phone: (206) 695-4700
 Fax: (206) 695-4701
 www.rwbeck.com

Established: 1942
Other Locations: 20 locations in the U.S. plus affiliated offices in Europe

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Research/information/financing other resources 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Management consulting ▪ Engineering
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--Europe

Management consultancy providing services to electric, water, waste and telecomm utilities. Services include independent engineering, economic analysis, transmission and distribution analysis, renewable energy, energy risk management, distributed generation and electric facilities planning and design.

RADAR ENGINEERS

9535 NE Colfax
Portland, OR 97220
Phone: (503) 256-3417
Fax: (503) 255-1981
www.radarengineers.com

Company Type:	Manufacturer	Target Customers:	Utilities
Product Categories:	Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Hardware fault locators▪ Cable fault locators
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer of fault locators to aid identification of sparking hardware and faults in primary or secondary cables.

RAMGEN POWER SYSTEMS, INC.

11808 Northup Way, Suite W-190
 Bellevue, WA 98005
 Phone: (425) 828-4919
 Fax: (425) 828-7756
 www.ramgen.com

Established: 1992
Affiliations: DOE Supported

Company Type:	Product Designer	Target Customers:	Both Utilities and End-Users
Product Categories:	Renewables generation ownership, management	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Turbine for DG ▪ High-efficiency engine
Stage of Development:	Stage I -- Development	Geographic Focus:	International--All

Designer engaged in the research, development, construction and testing of compressors and engines that take advantage of the high efficiency and simplicity of ramjet shock wave compression. The Company believes itself to be the only entity currently developing products that employ ramjet shock wave compression in a stationary platform, and it has secured worldwide patents both on this concept and on resulting designs.

Ramgen's hock wave compression technology has the potential to be used in many applications: as an air and gas compressor for industrial processes; in refrigeration and air conditioning; on gas pipelines; as a gas compressor for high pressure gas turbines; or, as a replacement for an axial compressor on the front stage of an industrial gas turbine. Some or all of the energy savings produced by the Company's products, the Rampressor, the Ramgen Turbine and the Ramgen Engine, are expected to be eligible for "Green House Gas" credits under various proposed government programs. The value of these credits may be significant, and could represent an important driving force behind the commercial applications of the Ramgen technologies.

RBH ELECTRONIC DESIGNS

E 12611 31st
Spokane Valley, WA 99216
Phone: (509) 995-4382
www.rbhelectronicdesigns.com

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	Manufacturers
Product Categories:	Distributed generation and interconnection components/parts	Specific Products or Services:	<ul style="list-style-type: none">▪ Custom power supplies▪ Components for fuel cell, solar and wind power▪ Embedded and motor controls
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Provider of custom engineering, research and development, prototyping, product design, testing and manufacturing of power supplies and other components for alternative energy systems, wireless systems, embedded controls and motor controls.

REGAL CONTROLS LIMITED

1156 Kingsway
 Vancouver, BC, Canada, V5V 3C8 0
 Phone: (604) 879-6357
 Fax: (604) 879-4200
 www.regalcontrols.com

Established: 1955
Headquarters: Vancouver
Other Locations: Langley, BC

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Building automation and control, building management systems ▪ Smart motors/Adjustable Speed Drives <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ HVAC supplies and repairs ▪ Electric motors ▪ Controls <p>Geographic Focus: Domestic</p>
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Supplier of manual and automated HVAC equipment, including HVAC control replacement parts and digital temperature controls. It also sells electric motors and "smart" (variable speed) motor controls.

The company serves commercial, industrial and residential markets throughout British Columbia. The bulk of its business is done with builders, contractors, engineers and maintenance people

RELIABLE CONTROLS CORPORATION

Roland Laird, CEO

207-3375 Whittier Ave
 Victoria, BC, Canada, V8Z 3R1 0
 Phone: (250) 475-2036
 Fax: (250) 475-2096
 www.reliable-controls.com

Established: 1986
Headquarters: Victoria, BC
Other Locations: Toronto, Philadelphia, Bellingham, WA
Employees: 40
Affiliations: Supports the BACnet protocol

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Developer <p>Product Categories: Building automation and control, building management systems</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Networkable building automation controllers ▪ Building automation software <p>Geographic Focus: International--All</p>
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Designer and manufacturer of controllers and software for building automation. These products, also known as direct digital control (DDC) systems or building management systems (BMS), monitor and control the heating ventilation and air-conditioning (HVAC) equipment and lighting in commercial, industrial and agricultural buildings.

RELIABLE POWER

David Hoffman, President

7911 NE 33rd Dr

Portland, OR 97211

Phone: (503) 282-2250

Fax: (503) 282-2229

www.reliablepowercompany.com

Established: 1990

Affiliations: Subsidiary of Celerity Energy

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems ▪ Power quality/Power Factor Correction technologies <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Thermoelectric generators ▪ Uninterruptible power supplies ▪ Transient voltage surge suppression <p>Geographic Focus: Domestic</p>
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Provider of power reliability solutions on a turnkey basis. It sells a full line of power related equipment, including standby power generation, uninterruptible power supplies and transient voltage surge suppression. In addition it is a full service provider of power solutions including assessment and design, procurement and installation, and maintenance and repair service. Reliable Power Company has recently developed the Automated Generator Asset Management Controller (AGAM), a standby power management tool that can more than double the length of time a remote communications site can operate off a limited fuel supply during a power failure.

Celerity Energy and Reliable Power Company are collaborating on a demonstration project for the Bonneville Power Administration to network a number of small generating sites and controllable loads among Bonneville's customers.

Reliable Power Company became a wholly owned subsidiary of Celerity Energy July 29, 2002.

RENEWABLE ENERGY SYSTEMS

One SW Columbia St, Suite 790
Portland, OR 97258
Phone: (503) 219-9000
Fax: (503) 219-9009
www.res-ltd.com

Headquarters: UK

Other Locations: Texas, Florida, California and Oregon in the US; also France, Portugal, Sweden and Spain

Affiliations: Subsidiary of RES UK

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Product Designer ▪ Other <p>Product Categories: Renewables generation ownership, management</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services: Wind project developer and marketer</p> <p>Geographic Focus: International--All</p>
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Developer, constructor, owner and operator of wind-powered electric generating projects. The RES Group is a member of the UK based Sir Robert McAlpine Group, a 133 year old design engineering and construction firm. Regionally, the company is one of the primary developers of the Nine Canyon Wind Farm.

RESOURCE ASSOCIATES INTERNATIONAL

11721 N Lancelot
 Spokane, WA 99218
 Phone: (509) 466-1894
 Fax: (509) 467-2177
 www.raiinc.com

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Developer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution/substation automation ▪ Grid monitors and controls <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ SCADA distribution automation enabling appliances ▪ SCADA/distribution automation ▪ Metering and Load Management consulting <p>Geographic Focus: Domestic</p>
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Consultant and Developer that aids utilities and consulting firms build open automation systems built on non-proprietary technology. The president of RAI has 20 years experience as an electric utility user of SCADA.

RAI works to simplify communication, data acquisition and control for most electric utility automation requirements. RAI has experience with Distribution Automation (D/A), Load Management, AMR and AGC, as well as substation and transmission SCADA.

RH2 ENGINEERING INC.

12100 NE 195th St, Suite 100
 Bothell, WA 98011
 Phone: (425) 951-3510
 Fax: (425) 398-2774
 www.rh2.com

Headquarters: Bothell, WA

Other Locations: East Wenatchee, WA; Port Orchard, WA; Bellingham, WA

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Transmission/distribution engineering services	Specific Products or Services:	Consulting engineering
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Consultants on a wide variety of construction and environmental projects. It also has significant experience in utility projects, from planning, pre-design, and design, to construction inspection. Smart Energy-related capabilities include utility planning, rate studies, telemetry and control system design.

RHT ENERGY SOLUTIONS

Buzz Theilman, President

2070 Ridge Way
 Medford, OR 97504
 Phone: (541) 770-5884
 Fax: (541) 944-7432
 www.rhtenergy.com

Headquarters: Medford, OR

Affiliations: Subsidiary RHT Enterprises Incorporated

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Utility audits for a percentage of savings ▪ Demand aggregation
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Performs audits of electric, natural gas, and water. Takes its fee from the savings achieved.

Currently exploring demand side management whereby it aggregates load from many clients to create a more attractive load profile to the utility, thereby garnering lower rates.

RICHARDSON ELECTRONICS CANADA, LTD.

Edward J. Richardson, Chairman and CEO

8333 - 167A St
Surrey, BC, Canada, V4N 5E7 0
Phone: (604) 575-2669
Fax: (604) 575-2779
www.rell.com

Established: 1947
Headquarters: La Fox, IL
Other Locations: 3 locations in BC; 50 locations in North America; 40 others worldwide
Affiliations: Subsidiary of U.S.-based Richardson Electronics

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Product Designer ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Power electronics ▪ Distribution-end industrial/commercial level controls <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Manufacturers</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Industrial power products ▪ Security systems ▪ RF and wireless <p>Geographic Focus: International--All</p>
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Designer, manufacturer and system integrater for advanced electronics products. The company's product lines include power conversion electronics, power semiconductors and other Smart Energy products. Its Industrial Power Group sells technology used to control, amplify or otherwise manage electrical currents. Among the many applications are motor-speed controls, industrial heating, laser technology, semiconductor manufacturing equipment, radar and welding.

Although sometimes categorized as an electronics components distributor, more than half of all company revenues come from design and engineering work.

Founded in 1947 and specialized in the distribution of electron tubes for the next 25 years. Richardson diversified in 1979 by establishing a semiconductor product offering. In the 1980s, acquisitions of both manufacturers and distributors fueled continued growth. The company went public in 1983.

S. PAL ENTERPRISES (CANADA) LTD.

Sandor Pal, Owner

703-938 Howe St

Vancouver, BC, Canada, V6Z 1N9 0

Phone: (604) 985-0779

Fax: (604) 331-4466

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Energy efficiency equipment, materials, and supplies	Specific Products or Services:	Electronic dimming ballast
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Manufacturer of an "intelligent" and environmentally friendly electronic dimming ballast for lighting applications. Saves energy and installation costs while extending the life of fluorescent lamps. Can be connected to a wireless receiver to allow remote operation.

SBW CONSULTING, INC.

Marc Shuldt, President

2820 Northup Way, Suite 230

Bellevue, WA 98004

Phone: (425) 827-0330

Fax: (425) 822-8119

www.sbwconsulting.com

Established: 1990

Employees: 11

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none">■ Building and facility audits■ Program design and implementation■ Savings measurement and verification
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consultant that provides a wide range of energy efficiency services to both utilities and end users. The engineering staff has experience with efficiency improvements for lighting, envelope, HVAC, refrigeration, boiler, compressed air, and process applications in residential and commercial buildings, and industrial facilities.

SCHOTT APPLIED POWER

1210 Homann Dr SE
 Lacey, WA 98503
 Phone: (360) 438-2110
 www.us.schott.com

Headquarters: Massachusetts and Germany

Other Locations: 27 locations around the US and many more world-wide

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Renewables generation ownership, management ▪ Distributed generation and interconnection components/parts <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Grid-tied solar power systems ▪ PV components and supplies <p>Geographic Focus: International--All</p>
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Maker and distributor of Solar PV products. The company's Smart Energy connection comes via sales and service of grid-tied solar systems, telecommunications power systems, and other remote facility power.

SAPC makes and sells its own renewable power systems through a nationwide dealer network. It is also the largest independent distributor of solar PV systems. SAPC also produces a comprehensive catalog of renewable energy products for consumers and dealers.

Applied Power originated in Lacey, WA, where it still maintains a small operation. It was eventually acquired and then merged into Schott Applied Power, which is headquartered in California. Schott Applied Power is a division of Yonkers, NY-based Schott Corporation, a leading manufacturer and distributor of industrial and technical glass. Schott Corporation operates divisions and subsidiaries in Canada, Mexico, and the U.S. and is the North American arm of Germany's Schott Glas.

SCHWEITZER ENGINEERING LABORATORIES, INC.

Edmund Schweitzer III, President

NE 2350 Hopkins Court
Pullman, WA 99163
Phone: (509) 332-1890
Fax: (509) 332-7990
www.selinc.com

Established: 1982

Headquarters: Pullman, WA

Other Locations: More than two dozen in the U.S. and more than a dozen internationally

Employees: 750

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution/substation automation ▪ Grid monitors and controls <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Transmission relays ▪ Distribution feeder relays ▪ Transformer, bus, breaker, and capacitor protection <p>Geographic Focus: International--All</p>
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Manufacturer of digital relays and other advanced products for transmission and distribution systems. SEL pioneered microprocessor-based protective relays. These relays are not only safer and more reliable than older electromechanical versions, their built-in intelligence also allows fault locating and event reporting. The company has since expanded into controls, software, accessories and services for its utility customers.

SENSOR LINK CORP.

1975 Valley Highway 9
Acme, WA 98220
Phone: (360) 595-1000
Fax: (360) 595-1001
www.sensorlink.com

Established: 1985

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Product Designer	Target Customers:	Utilities
Product Categories:	Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ High voltage meters▪ High voltage recorders
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

SensorLink was originally founded as an Engineering and Consulting firm. At the request of a utility, it developed a first product in 1988, an inductive sensor that eliminated the mechanical clamp from measurements of current. Today, thousands of SensorLink meters and recorders are in service worldwide.

The latest product, the Amp Eventcorder, stays deployed on the line to record events that are step changes in the current. Data is gathered and sent to a PC, where it can be viewed and manipulated in excell format.

SERVERON CORP.

Bart Tichelman, CEO

3305 Aloclek Dr NW

Hillsboro, OR 97124

Phone: (503) 924-3200

Fax: (503) 924-3290

www.severon.com

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Service Provider	Target Customers:	Utilities
Product Categories:	Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Transformer monitoring and gas analyzers▪ Battery monitoring▪ Asset monitoring services
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Maker of equipment and software to remotely monitor critical transmission and distribution equipment. The company's 24x7 services give an early warning of developing problems. It offers remote, Web-based monitoring of physical assets that previously required expensive physical inspections.

Serveron offers installation and operation of turnkey systems, along with assistance analyzing the data. Its TrueGas line monitors large-scale transformers. Its BCM (battery and cell management) line monitors substation backup batteries. Its software helps utilities monitor multiple assets from a single facility, predict future problems and estimate life expectancy.

Serveron was formed by purchasing key technologies from Bend, OR-based Micromonitors, a startup that was forced to close in 1999.

SESCO ELECTRICAL SERVICES GROUP

Bruce Morelan, CEO

19504 24th Ave W, Suite 5
Lynwood, WA 98035
Phone: (425) 712-3778
Fax: (425) 712-3459
www.callsesco.com

Established: 1992
Headquarters: Lynwood, WA
Other Locations: Spokane, WA; Pasco, WA; Pullman, WA; Olympia, WA
Employees: 300

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution construction contracting ▪ Transmission/distribution/substation automation <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Electrical contracting ▪ Electrical service and maintenance ▪ Telecommunications infrastructure <p>Geographic Focus: Domestic</p>
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Contractor for power transmission projects, including high voltage projects. The firm, which includes several subsidiaries, has design/build capabilities for utility-scale projects including substations, underground, overhead, power quality, and system maintenance. Through subsidiaries such as Power City Electric, PowerCom and Rod's Electric, the company also provides electrical contracting to industrial and commercial companies.

CEO Bruce Morelan created SESCO through a series of purchases. He bought a Spokane-area company called Rod's Electric, which had been founded in 1946. In 1997, he bought Power City Electric and formed Spokane Electrical Services Co. He then decided to expand beyond electrical contracting. He set his sights on the communications industry and formed PowerCom, which specializes in the installation of fiber optic cabling, voice/data networks and other communications services.

SIEMENS BUILDING TECHNOLOGIES - BUILDING AUTOMATION DIVISION

Alan Dakessian, PE

13020 NE 20th St
 Bellevue, WA 98005
 Phone: (206) 262-1380
 Fax:
 www.sbt.siemens.com

Established: 1891

Headquarters: Buffalo Grove, IL

Other Locations: Locations in Portland and in more than 100 countries worldwide

Affiliations: Subsidiary of Siemens AG

3025 SW Corbett Ave
 Portland, OR 97201
 Phone: (503) 234-9995
 Fax: (503) 234-8030

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: Building automation and control, building management systems</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ APOGEE building automation and control systems ▪ Variable frequency drives ▪ HVAC products <p>Geographic Focus: International--All</p>
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Developer of controls, systems and software to automate building infrastructures. The parent company makes systems for heating, cooling, security, energy, and operational efficiency.

The Building Automation Division employs 5,000 people in 120 offices throughout North America. The parent division, Siemens Building Technologies, employs more than 8,500 people in North America at more than 400 locations. The parent division is a subsidiary of Siemens AG.

SIEMENS ENERGY & AUTOMATION - BELLEVUE

Aubert Martin, President & CEO

13112 NE 20th St
 Bellevue, WA 98005
 Phone: (425) 881-7148
 Fax: (425) 881-7148
 www.sea.siemens.com

Headquarters: Alpharetta, GA
Other Locations: 38 manufacturing facilities and 100 sales offices throughout the U.S.
Employees: 10,900 (parent division)

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: General electric supplies and contracting</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy management software ▪ Power distribution products ▪ Electric motors <p>Geographic Focus: International--All</p>
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Manufacturer of an enormously broad range of electrical and electronic products, systems and services to industrial and construction customers. Technologies range from circuit protection and energy management systems to process control, industrial software and integrated automation solutions. The company also has expertise in systems integration, technical services and turnkey industrial systems. It is a subsidiary of Siemens AG.

SIEMENS ENERGY & AUTOMATION -- KIRKLAND

Aubert Martin, President & CEO

4020 Lake Washington Blvd
Kirkland, WA 98033
Phone: (425) 828-6600
www.sea.siemens.com

Headquarters: Alpharetta, GA

Other Locations: 38 manufacturing facilities and 100 sales offices throughout the U.S.

Employees: 10,900 (parent division)

Affiliations: Division of Siemens AG

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: General electric supplies and contracting</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy management software ▪ Power distribution products <p>Geographic Focus: International--All</p>
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Manufacturer of an enormously broad range of electrical and electronic products, systems and services to industrial and construction customers. Technologies range from circuit protection and energy management systems to process control, industrial software and integrated automation solutions. The company also has expertise in systems integration, technical services and turnkey industrial systems. It is a subsidiary of Siemens AG.

SIEMENS ENERGY & AUTOMATION - PORTLAND

Aubert Martin, President & CEO

6427 NE 59th PI
 Portland, OR 97218
 Phone: (503) 284-4679
 www.sea.siemens.com

Headquarters: Alpharetta, GA
Other Locations: 38 manufacturing facilities and 100 sales offices throughout the U.S.
Employees: 10,900 (parent division)

Company Type:	<ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider 	Target Customers:	End-Users
Product Categories:	General electric supplies and contracting	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Energy management software ▪ Power distribution products ▪ Electric motors
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Manufacturer of an enormously broad range of electrical and electronic products, systems and services to industrial and construction customers. Technologies range from circuit protection and energy management systems to process control, industrial software and integrated automation solutions. The company also has expertise in systems integration, technical services and turnkey industrial systems. It is a subsidiary of Siemens AG.

SIEMENS ENERGY & AUTOMATION -- SPOKANE

3102 E Trent, Suite 214
 Spokane, WA 99202
 Phone: (509) 534-9534
 Fax: (590) 534-9531
 www.sea.siemens.com

Headquarters: Alpharetta, GA
Other Locations: 38 manufacturing facilities and 100 sales offices throughout the U.S.
Affiliations: Aubert Martin, President & CEO

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: General electric supplies and contracting</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy management software ▪ Power distribution products ▪ Electric motors <p>Geographic Focus: International--All</p>
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Manufacturer of an enormously broad range of electrical and electronic products, systems and services to industrial and construction customers. Technologies range from circuit protection and energy management systems to process control, industrial software and integrated automation solutions. The company also has expertise in systems integration, technical services and turnkey industrial systems. It is a subsidiary of Siemens AG.

SIEMENS ENERGY & AUTOMATION --LAKE OSWEGO

4550 SW Kruse Way, Suite 155

Lake Oswego, OR 97035

Phone: (503) 635-6700

Fax: (503) 635-8711

www.sea.siemens.com

Headquarters: Alpharetta, GA

Other Locations: 38 manufacturing facilities and 100 sales offices throughout the U.S.

Employees: 10,900 (parent division)

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories: General electric supplies and contracting</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Energy management software ▪ Power distribution products ▪ Electric motors <p>Geographic Focus: International--All</p>
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Manufacturer of an enormously broad range of electrical and electronic products, systems and services to industrial and construction customers. Technologies range from circuit protection and energy management systems to process control, industrial software and integrated automation solutions. The company also has expertise in systems integration, technical services and turnkey industrial systems. It is a subsidiary of Siemens AG.

SIMSON-MAXWELL

Robert Clegg, President

1605 Kebet Way
Port Coquitlam, BC, Canada, V3C 5W9 0
Phone:
Fax:
www.simson-maxwell.com/

Established: 1941
Headquarters: Port Coquitlam, BC
Other Locations: Five branches in BC and Alberta
Employees: 100

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Stand-by generators, back-up power, UPS, battery systems ▪ Distributed generation systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Generator ▪ Industrial Engines ▪ Electrical Controls <p>Geographic Focus: International--All</p>
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Designer and manufacturer of diesel and gasoline generator sets. Although BC has several generator makers that do not fit into the Smart Energy space, Simson-Maxwell is included here because it also makes microprocessor-based controllers for remote monitoring and dispatch.

Simson-Maxwell was established in 1941 and became a leading name in industrial engines and generator sets. In April 2001, Simson-Maxwell was purchased by the Simmax Group. The Simmax Group designs, constructs, owns and operates power plants, provides power generating sales and service, and is the North American distributor for Elliott Energy micro-turbines. TransAlta, an international electric energy company with more than \$7 billion in assets, is a minority owner of the Simmax Group.

SMART WORKS, INC.

Dan Diesso, Founder

**35431 Military Road S
Auburn, WA 98001
Phone: (253) 661-8320
www.smart-works.com**

Established: 2002
Headquarters: Auburn, WA
Employees: 2

Company Type:	▪ Manufacturer ▪	Target Customers:	End-Users
Product Categories:	▪ Power electronics ▪	Specific Products or Services:	Smart metering for computer and telecomm equipment
Stage of Development:	Stage I -- Development	Geographic Focus:	Domestic

Manufacturer of smart meters. Startup that has developed innovative watt-hour meters for computers and telecomm gear. Watt-hour meters are to equipment like an odometer is to a car -- they measure the cumulative electric usage. Operators of shared facilities such as server farms, call centers and telecomm centers typically have no way to know which individual machines and customers are using the most power. Inexpensive, individual meters let them allocate costs exactly.

The meters come in individual, plug-in models and in rack form. The rack version supports not only metering, but also remote control of up to 8 outlets and accessory jacks for environmental sensors. Both versions have built-in networking, to read the meters remotely through a single console.

SOLTEK POWERSOURCE ENERGY LTD.

David Egles, President

2-745 Vanalman Ave
 Victoria, BC, Canada, V8Z 3B6 0
 Phone: (250) 727-7720
 Fax: (250) 727-2135
 www.soltek.ca

Employees: 30

Company Type:	<ul style="list-style-type: none"> ▪ Developer ▪ Manufacturer 	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Distributed generation systems ▪ Grid monitors and controls 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Solar systems and equipment
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Primarily a designer and distributor of solar PV systems. As such, it is also involved with Smart Energy products such as inverters, controllers, and SCADA systems.

Solartek assembles products for industrial, residential, vehicle, and agricultural applications. It divides itself into four divisions:

Home Power for power systems related to homes, cottages, or farms.

Mobile: for power systems related to RVs, boats, or fleet trucks.

Industrial: for power systems and equipment related to large-scale installations such as the Coast Guard, National Parks and telecommunication sites.

Oil & Gas: for power systems and equipment related to the oil and gas industry.

Soltek sells many of its products in developing nations such as Chad, Algeria and Nigeria.

Soltek Powersource (SPS) was formed in September 2002 through the merger of two Canadian alternate energy companies, Soltek Solar Energy Ltd. and Powersource Energy Systems Ltd.

SOUND ENERGY SYSTEMS

4621 Pacific Ave
Tacoma, WA 98408
Phone: (253) 475-3525
Fax: (253) 472-2974
www.ctmgroup.com/soundenergy/index.html

Established: 1986
Employees: 20-49
Affiliations: Part of CTM group of electrical and electronics contractors

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Building automation and control, building management systems	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Temperature controls ▪ Building automation ▪ Energy management
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Systems contractor specializing in temperature controls, energy management and building automation.

SPRINGBROOK SOFTWARE COMPANY

720 SW Washington St, Suite 330
Portland, OR 97205
Phone: (503) 973-7750
Fax: (503) 973-7760
www.springbrooksoftware.com

Established: 1985

Company Type: <ul style="list-style-type: none">▪ Developer▪ Service Provider	Target Customers: Utilities
Product Categories: Utility back-end systems	Specific Products or Services: <ul style="list-style-type: none">▪ Financial and accounting software for local governments▪ Customer information systems for local governments▪ Utility billing software for local governments
Stage of Development: Stage III -- Market Growth	Geographic Focus: Domestic

Maker of financial and accounting software for local governments, including customer information systems and utility billing.

STELLAR PROCESSES

Dave Robison, Principal

1033 SW Yamhill, Suite 405

Portland, OR 97205

Phone: (503) 827-8336

www.ezsim.com

Headquarters: Portland, OR

Company Type:	<ul style="list-style-type: none"> ▪ Service Provider ▪ Developer 	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Energy management services ▪ Energy assessment software
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	International--All

Consulting engineers specializing in energy economics, measurement and verification.

The company also sells a spreadsheet-based billing simulation tool called EZ Sim. The product provides a simplified engineering simulation of energy consumption in a building based on actual bills. It is designed to permit the "tuning" of the building to match the billing history. Then users can change the engineering parameters to model the impact of energy conservation measures, changes in operation, etc.

SURE POWER INDUSTRIES, INC.

Steve Scheidler, CEO

10189 SW Avery St
Tualatin, OR 97062
Phone: (503) 692-5360
Fax: (503) 692-9091
www.surepower.com

Established: 1959

Employees: 100-249

Company Type:	<ul style="list-style-type: none">■ Manufacturer■ Service Provider	Target Customers:	Manufacturers
Product Categories:	Power electronics	Specific Products or Services:	<ul style="list-style-type: none">■ DC converters and equalizers■ Battery separators and isolators
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Manufacturer of a wide variety of power electronics for DC electrical systems. Sure Power components are used in trucks, buses, boats, construction equipment and recreational vehicles. Sure Power currently focuses on vehicle electronics. As hybrid and fuel cell vehicles gain popularity, it will have more and more contact with alternative energy issues. Many of its power conversion, power conditioning and power management products could be also used for alternative energy systems and grid interconnection.

SWANSON ENGINEERING

13300 Bothell-Everett Highway, Suite 617
Mill Creek, WA 98012
Phone: (425) 338-1974
Fax: (425) 299-2000

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	<ul style="list-style-type: none">▪ Engineering design▪ Energy efficiency audit/analysis▪ Controls analysis
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consultant specializing in evaluating energy efficiency in industrial processes, industrial power system design (15kV - 480u), and industrial control systems.

SYNERGY ENGINEERING LTD

Rick Neuman, President

2829 Murray St
Port Moody, BC, Canada, V3H1X3 0
Phone: (604) 469-6040
Fax: (604) 469-4944

Established: 1989

Employees: 25

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Manufacturer <p>Product Categories: Distribution-end industrial/commercial level controls</p> <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services: Power delivery systems</p> <p>Geographic Focus: International--North America</p>
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Designer and controller of large electrical drives. The company has four divisions, one of which overlaps into the Smart Energy sector. Synergy Power Systems Technologies designs power delivery systems for the massive machines of the materials handling industry. The scope includes the design and manufacture of everything from individual substations and switches to complete power distribution systems.

The other divisions are Synergy Drive System Technologies (large motors for conveyors, crushers, etc.), Synergy Automation Technologies (automated materials handling) and Synergy Project Technologies (design-build).

Synergy serves quarries, mines, ports and similar installations that handle large, heavy materials.

Richard Neuman founded Synergy Engineering in 1989 to engineer, design and manufacture large electrical drives and associated controls for the materials handling industry. The BC Bearing Group purchased 50 of Synergy in 1994. Neuman and an employee group purchased the shares back in 2001, making the company 100% owned by employees and directors.

SYSTEMS WEST ENGINEERS, INC.

411 High St
Eugene, OR 97401
Phone: (541) 342-7210
Fax: (541) 342-7220
www.systemswestengineers.com

Established: 1982
Employees: 11

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	Energy management services	Specific Products or Services:	Commercial facilities energy engineering
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Engineering service provider for energy-efficient systems for public agencies and private facilities. Comprehensive project services for design through administration through construction. Also provides commissioning services and training in operation and maintenance.

TANTALUS SYSTEMS CORP.

Glen Brownlee, Chairman and CEO

4224 Manor St

Burnaby, BC, Canada V5G 1B2 0

Phone: (604) 299-0458

Fax: (604) 451-4111

www.tantalus-systems.com

Established: 1989

Headquarters: Burnaby, BC

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Developer	Target Customers:	Utilities
Product Categories:	<ul style="list-style-type: none">▪ Grid monitors and controls▪ Advanced metering technology and services	Specific Products or Services:	Long-range wireless networks
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--North America

Maker of long-range wireless networks to monitor and control electric, gas, and water utilities. The two-way networks support multiple applications including outage management, advanced metering, power quality monitoring, load management, and distribution automation.

Founded in 1989 Keith Martin. In April 2003, Glen Brownlee was named Chairman and Chief Executive Officer. Martin continues to serve as President and Chief Technology Officer. Investors included Discovery Capital and Futurefund Capital.

TARGET CIS, LLC

1919 Dexter Ave N
Seattle, WA 98109
Phone: (206) 769-5646
Fax: (847) 628-0867
www.targetcis.com

Established: 2000

Company Type:	Developer	Target Customers:	Utilities
Product Categories:	Utility back-end systems	Specific Products or Services:	<ul style="list-style-type: none">▪ Customer information software▪ Web-based account access for customers▪ Accounts payable software
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Software developer creating back office applications for small to mid-sized utilities.

Wayne Williams, President and CEO

2111 N Molitor Road
Liberty Lake, WA 99019
Phone: (509) 926-6000
Fax: (509) 926-8915
www.telect.com

Established: 1982

Headquarters: Liberty Lake, WA

Other Locations: Guadalajara, Mexico;
 Southampton, UK; Wroclaw, Poland; Montreal, Canada

Employees: 600 worldwide

Company Type:	Manufacturer	Target Customers:	Utilities
Product Categories:	Power quality/Power Factor Correction technologies	Specific Products or Services:	<ul style="list-style-type: none"> ■ Power distribution panels ■ Uninterruptible power supplies ■ Battery bays for networks
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Developer and producer of a wide range of "connectivity" products for the telecommunications industry, including power distribution panels and other products that overlap into the Smart Energy arena.

TELTONE CORP.

Deborah Griffith, President and CEO

22116 23rd Dr SE

Bothell, WA 98021

Phone: (425) 487-1515

Fax: (425) 487-2288

www.teltone.com

Company Type:	Manufacturer	Target Customers:	Utilities
Product Categories:	Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Remote metering switches and control▪ Substation monitoring switches and controls
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Designer and manufacturer of line sharing products enable multiple devices to share a single telephone line for remote data collection and other applications. Commonly used for remote data collection from utility substations, utility meter reading, elevator equipment monitoring, and self-service coin counting machines, their line sharing products are designed to meet specific standards for these specialized environments. Increasingly, more utilities seek the capability to remotely access maintenance and diagnostic equipment.

THOMSON TECHNOLOGY INC.

Rick Martin

9087A-198th St
Langley, BC, Canada V1M 3B1 0
Phone: (604) 888-0110
Fax: (604) 888-3381
www.tti.bc.ca

Established: 1973
Headquarters: Langley, BC
Other Locations: Toronto
Employees: 120

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Distribution-end industrial/commercial level controls ▪ Distributed generation and interconnection components/parts 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Switchgear and controls ▪ Automatic transfer switches ▪ Remote monitoring and control software
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Manufacturer of controls for power generation. TTI equipment can control engine or turbine driven generators for baseload power, standby power or co-generation. Its software provides remote control and monitoring at central facilities.

This vertically integrated company builds and sells virtually everything related to controlling power generation including a) components such as frequency sensors and battery chargers, b)switchgear, c) controls, d) automatic transfer switches and e) software to tie it all together.

TTI provides power control at over 10,000 locations around the globe, from remote mining towns in the Artic Circle to hospitals and airports in major metropolitan centres such as Los Angeles, Beijing, and New Delhi to control systems for the Cernavoda Nuclear Power Plant in Romania.

TIERNEY ELECTRICAL MANUFACTURE CO.

7901 7th Ave S
 Seattle, WA 98108
 Phone: (206) 767-3554
 Fax: (206) 767-5867
 www.tierneytransformer.com

Established: 1938
Employees: 6 - 19

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Transmission/Distribution/Substation Equipment (not automation)	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Industry standard dry-type transformers ▪ Custom designed dry-type transformers
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturer and designer of copper wound dry-type transformers sized 50 VA through 3000 KVA. Provide transformers to large organizations like Boeing, Boise Cascade, and Microsoft. As Smart Energy gains currency, this company will need to add digital intelligence to its products.

TIR SYSTEMS LTD.

Leonard Hordyk, CEO

3350 Bridgeway St
Vancouver, BC, Canada V5K 1H9 0
Phone: (604) 294-8477
Fax: (604) 294-3733
www.tirsys.com

Established: 1982

Employees: 82

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Energy efficiency equipment, materials, and supplies	Specific Products or Services:	LED Lighting
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Manufacturer of next-generation "smart" lighting -- semi-conductor-based technology in the form of Light Emitting Diodes (LEDs). It develops and integrates high efficiency power supplies, digital controls, optical coatings and next generation communications protocols. The company mission is to provide energy efficient, low maintenance lighting that decreases the world's rising energy consumption and cost.

TIR currently focuses on three markets: architectural, transportation (signage and lighting for tunnels, trains, stations and roadways) and signage. The company has a network of 83 manufacturer's representatives that provide the company with a local sales presence throughout all of the United States and Canada. Internationally, TIR has 11 exclusive distributors located in Europe and Asia.

TIR Systems was founded in September 1982 to commercialize prism light guide technology invented at the University of British Columbia. In the spring of 2000, TIR made a strategic decision to expand into LED lighting.

TORAY COMPOSITES (AMERICA), INC.

Moriyuki Onishi, President

19002 50th Ave E
Tacoma, WA 98446
Phone: (253) 846-1777
Fax: (253) 846-3897
www.torayusa.com

Established: 1992
Headquarters: Tacoma, WA (parent company
Tokyo, Japan)
Other Locations: Santa Ana, CA; Stratton Mountain,
VT
Employees: 160
Affiliations: One of about 200 subsidiaries of
Tokyo-based Toray Industries

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Component Supplier ▪ Manufacturer <p>Product Categories: Distributed generation and interconnection components/parts</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Manufacturers</p> <p>Specific Products or Services: Advanced composites</p> <p>Geographic Focus: International--All</p>
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Manufacturer of components for distributed energy. Subsidiary of Toray Industries (OTC: TRYIY), a Japanese firm that manufactures a wide variety of materials and components through more than 200 subsidiaries and affiliates. TCA primarily serves the aircraft and industrial markets. It has a slight connection to the Smart Energy world through its components for fuel cells, flywheel batteries and wind energy systems.

TRANS-ENERGY RESEARCH ASSOCIATES

5585 Kenwood PI N
 Seattle, WA 98103
 Phone: (206) 547-4045
 Fax: (206) 547-4127
 www.trans-energy.com

Established: 1996
Employees: Under 5

Company Type:	Resource Organization	Target Customers:	Utilities
Product Categories:	Research/information/financing other resources	Specific Products or Services:	Energy analysts
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Analyst specializing in advanced analysis of international energy markets. Provides technical assistance to our clients in areas relevant to strategic planning, competitive positioning, and analytical capability. The majority of work focuses on hydrocarbons, still by far the world's dominant commercial energy source. Energy remains a key ingredient for global economic activity and growth.

TRIAxis ENGINEERING, INC

Gordon Ormsby, President

1600 SW Western Blvd, Suite 100

Corvallis, OR 97333

Phone: (541) 766-4600

Fax: (541) 766-8972

www.triaxiseng.com

Established: 1996

Employees: 10

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Transmission/distribution engineering services	Specific Products or Services:	Engineering services for generation, transmission and distribution
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Consulting engineering services in electrical transmission, distribution, and substation design for electric utilities and industrial clients. Also has experience in small generation and cogeneration projects. Typical projects include overhead and underground transmission lines, generation interconnections, substations and switchyards. It also has experience in comprehensive engineering design assistance to wind energy projects.

TRIPOD DATA SYSTEMS

PO Box 947
Corvallis, OR 97339
Phone: (541) 753-9322
Fax: (541) 757-7439
www.tdsway.com

Headquarters: Corvallis, OR
Other Locations: Portland, OR; Denver, CO; West Milford, NJ; Simpsonville, SC
Affiliations: Subsidiary of Trimble

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Manufacturer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility asset management software and services ▪ Workforce automation <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Mapping and GIS data collection software ▪ Land surveying software ▪ Ruggedized handheld computers <p>Geographic Focus: Domestic</p>
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Maker of hardware and software for field professionals who are involved with collecting and processing spatial data. Produces rugged handheld computers for extreme environments. Develops software for land surveying and GIS systems for field data collection and field force automation.

Through tight integration with GPS receivers, TDS GIS systems provide utility operators and government agencies with systems to collect data accurately in the field.

TUI CONSULTING

Ballu Khan, Chairman and CEO

1145 Broadway Plaza Suite 1000, Floor 10

Tacoma, WA 98402

Phone: (253) 830-3030

Fax: (253) 830-3031

www.tuiconsulting.com

Established: 1995

Headquarters: Tacoma, WA

Other Locations: Australia, Canada, Hong Kong, Malaysia, Singapore

Employees: 100

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Developer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Utility back-end systems ▪ Workforce automation <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Utilities</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ SAP optimization ▪ Integration services ▪ Custom software <p>Geographic Focus: International—Asia</p>
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Consultant and software developer for utilities. Specializes in high-level ERP systems, including SAP R/3 and IS-U CCS. Develops and sells modules including automated scheduling, energy marketing software and application integration tools. In addition to customizing and installing ERP systems, the firm also advises on business restructuring and process reengineering.

Originally based in Melbourne, Australia, TUI moved its headquarters to Tacoma in 2002, in conjunction with a \$26M project to help Tacoma Power replace its 1970s-era databases and billing systems.

UCONS, LLC

Thomas G. Eckhart, CEO

1400 112th Ave SE, Suite 225

Bellevue, WA 98004

Phone: (425) 646-7208

Fax: (425) 646-6671

www.ucons.com

Established: 1993

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Energy management services	Specific Products or Services:	Utility management and energy services company
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Provider of energy and water conservation services for rental properties and mobile home parks. The company claims typical reductions in electrical consumption of 15-20% annually.

Utilities look to the firm for help in protecting and preserving customer load. Property owners seek energy savings. UCONS has provided direct install energy efficiency programs to over 300,000 renters and mobile home customers in California, Texas, Utah, Washington and Oregon. The company evaluates utility expenses and implements alternative utility services.

UNDERWRITERS LABORATORIES INC.

2600 NW Lake Road
 Camas, WA 98607
 Phone: (360) 817-5500
 Fax: (360) 817-6000
 www.ul.com

Established: 1894
Headquarters: Northbrook, IL
Other Locations: Edmonds, WA; and numerous locations throughout the U.S. and around the world.

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	General electric supplies and contracting	Specific Products or Services:	Standards-setting and certification of products
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International—All

Independent, not-for-profit product-safety testing and certification organization. It sets safety standards and then tests products against those standards. Those that comply obtain the UL Mark. Although UL tests more than 18,000 products per year in virtually every category, many of its certification programs have direct relevance to Smart Energy. For instance, UL certifies electrical equipment, generators, solar PV modules and wind turbines.

The Northbrook, IL-based company maintains a laboratory and testing facility in Camas, WA, and a local engineering office in Edmonds, WA.

UNIT ELECTRICAL ENGINEERING LTD

Ivan Ivandic, General Manager

1406 Maple St RR1, S1 C80

Okanagan Falls, BC, Canada, V0H 1R0 0

Phone: (250) 497-5254

Fax: (250) 497-6061

www.uee.com

Established: 1990

Headquarters: Okanagan Falls, BC

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Manufacturer 	<p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/distribution engineering services ▪ Transmission/Distribution/Substation Equipment (not automation) 	<p>Target Customers:</p> <p>Both Utilities and End-Users</p>
<p>Stage of Development:</p> <p>Stage IV -- Mature</p>	<p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Power distribution equipment ▪ Custom process controls and switchgear ▪ Moveable substations 	<p>Geographic Focus:</p> <p>International--North America</p>

Designer and manufacturer of electrical distribution & control equipment for various industries. Offers everything from design, engineering, consulting, manufacture, to installation and maintenance.

Products include distribution equipment and custom built process control systems; modular switchgear and power centers; and substations, switch houses and diesel generated power plants.

Although the bulk of UEE's work is in "traditional" electro-mechanical systems, it is gradually adding capabilities in intelligent systems.

Specializes in the mining industry, but has recently expanded to serve utilities, municipalities, and oil & gas.

UTILITY SOLUTIONS, INC.

Steve Derrickson, President

147 SW Shevlin Hixon Road, Suite 206

Bend, OR 97702

Phone: (877) 775-5621

Fax: (541) 317-9585

www.utilolutions.com

Company Type:	<ul style="list-style-type: none">▪ Developer▪ Service Provider	Target Customers:	Utilities
Product Categories:	Utility back-end systems	Specific Products or Services:	<ul style="list-style-type: none">▪ Customer information systems▪ Mobile communications consulting▪ Application service provider
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Developer of customer care and billing solutions for the utility industry. Serves all types of utilities in both regulated and non-regulated markets. In addition to customer information and billing, the firm provides software that allows customers to access account information via the Web. It also offer consulting, data conversion and custom programming.

UTILITY SYSTEMS & APPLICATIONS

2522 19th St SE
 Salem, OR 97302
 Phone: (800) 723-8915
 Fax: (503) 315-4969
 www.utilitysystems.net

Established: 1980

Affiliations: General Pacific represents US&A's metering services in the Pacific Northwest

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Energy management services ▪ Advanced metering technology and services <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Metering services ▪ Energy efficiency services ▪ Meters, demand-side load controllers and energy efficiency produces <p>Geographic Focus: Domestic</p>
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Provider of energy efficiency and electric utility metering services. Its metering services include shop and field services for utilities, corporations, and public agencies. Work ranges from shop testing and calibration to comprehensive field evaluations of metering installations to long-term AMR deployment.

The firm also offers energy efficiency services. It works with the sponsors to design and develop energy efficiency programs, and to perform energy audits and inspections.

Steven L. Sperry, President and CEO

10300 SW Greenburg Road, Suite 180

Tigard, OR 97223

Phone: (503) 452-5600

Fax: (503) 452-5602

www.ezconserve.com

Established: 2001

Affiliations: Formerly EZConserve

Company Type:	Developer	Target Customers:	End-Users
Product Categories:	End user integrated energy management software	Specific Products or Services:	Software utility that reduces power consumption of PC networks
Stage of Development:	Stage II -- Early Commercialization	Geographic Focus:	Domestic

Software developer that markets Surveyor Network Energy Manager, a software utility that remotely monitors and manages the power-management capabilities of personal computers, thereby reducing the energy consumption of large PC networks.

VERIS INDUSTRIES

Kent Holce, CEO

16640 SW 72nd Ave
 Portland, OR 97224
 Phone: (503) 598-4564
 Fax: (503) 598-4664
 www.veris.com

Established: 1992
Headquarters: Portland, OR
Employees: 75
Affiliations: Subsidiary of Paris-based
 SquareD/Schneider Electric

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Component Supplier <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Building automation and control, building management systems ▪ Power electronics <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Power metering and monitoring ▪ Current sensors ▪ Relays and power sources <p>Geographic Focus: International—All</p>
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Manufacturer of a wide range of sensors for building control and automation. Examples include power meters, relays, DC and AC power sources, protocol conversion, temperature and many more.

VIRTUAL TECHNOLOGIES, LTD.

Mike Whitefoot, President

3815 S Union Road

Spokane, WA 99206

Phone: (509) 244-3252

Fax: (509) 921-0618

www.virtualtechnologiesltd.com

Company Type:	<ul style="list-style-type: none">▪ Manufacturer▪ Service Provider	Target Customers:	Manufacturers
Product Categories:	<ul style="list-style-type: none">▪ Distributed generation and interconnection components/parts▪ Power electronics	Specific Products or Services:	<ul style="list-style-type: none">▪ Power electronics for alternative energy▪ Industrial controls▪ Custom research and manufacturing
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Designer and manufacturer of alternative energy power products, battery chargers, DC-to-DC converters, custom inverters, custom power supplies, solar powered telemetry and communications equipment, as well as industrial control solutions. It also offers consulting, design, custom engineering, product development, project development services and research.

In the spring of 2003, the company opened a dedicated engineering and design section focused solely power products. This new custom power product division serves pre-production and prototyping customers, as well as customers requiring small production run

VIVID LEARNING SYSTEMS

Kevin Smith, President

2345 Stevens Dr
Richland, WA 99352
Phone: (800) 956-0333
Fax: (509) 375-0600
www.vividconcepts.com

Affiliations: A subsidiary of NUVOTEC, Inc.

Company Type:	<ul style="list-style-type: none">▪ Developer▪ Service Provider	Target Customers:	Utilities
Product Categories:	Workforce automation	Specific Products or Services:	Online training courses for utility employees
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Developer of online workforce training programs. Has developed more than 300 training titles about workforce training, workplace safety and employment law. Vivid serves numerous industries, including the utility industry. Automation has revolutionized electric utilities. Vivid has partnered with utility companies and subject matter experts to develop more than 40 utility-specific training titles.

W.O.W. ENERGY SYSTEMS

15116 E Sprague Ave
 Verdale, WA 99037
 Phone: (509) 924-8803
 Fax: (509) 921-5605
 www.wowenergysystems.com

Established: 1994

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories: Renewables generation ownership, management</p> <p>Stage of Development: Stage III -- Market Growth</p>	<p>Target Customers: End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Solar systems and components ▪ Wind systems and components <p>Geographic Focus: International—All</p>
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Integrator, distributor and installer of solar & wind renewable energy systems, including inverters and other balance of system components. Company also offers waste oil heating equipment and wash water recycling and pre-treatment.

WARTSILA NORTH AMERICA INC.

1731 13th Ave SW
 Seattle, WA 98134
 Phone: (206) 903-9971
 Fax: (206) 903-1048
 www.wartsila.com

Headquarters: Helsinki, Finland
Other Locations: Seven locations in the U.S. and several others around the world
Affiliations: Branch office

Company Type:	Manufacturer	Target Customers:	Both Utilities and End-Users
Product Categories:	Distributed generation systems	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Engines for distributed power generation ▪ Engines for marine power
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International—All

Maker of complete turnkey power plants for marine power and for distributed generation. Its product portfolio includes base load plants, combined heat and power, peaking, mechanical drives and biopower.

WASHINGTON AIR REPS

3290 146th PI SE, Bldg A
 Bellevue, WA 98007
 Phone: (425) 562-1150
 Fax: (425) 562-5123
 www.airreps.com

Headquarters: Bellevue, WA
Other Locations: Spokane, WA

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	Energy efficiency equipment, materials, and supplies	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Energy efficient equipment ▪ Economic analysis
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Manufacturers' representative for 25 major heating and air conditioning equipment vendors in the commercial, industrial, and institutional markets. The company provides design, specifications and installation of cogeneration and on-site power generation systems for the commercial & industrial sectors. It also supplies HVAC&R upgrades to improve equipment efficiency. The company promotes itself as on the leading edge, and so is likely to represent advance "gridwise" systems before others might.

WASHINGTON ENERGY SERVICES

2800 Thorndyke Ave W
 Seattle, WA 98199
 Phone: (206) 378-6621
 Fax: (206) 378-6605
 www.washingtonenergy.com

Company Type: <ul style="list-style-type: none"> ▪ Service Provider ▪ Distributor/Manufacturers Rep/Dealer/Retailer 	Target Customers: End-Users
Product Categories: Energy management services	Specific Products or Services: <ul style="list-style-type: none"> ▪ Energy efficient equipment ▪ Energy efficiency audit/analysis
Stage of Development: Stage III -- Market Growth	Geographic Focus: Domestic

Marketer and installer of energy efficient windows, custom built doors, vinyl siding, air-conditioning systems, energy efficient furnaces, air duct cleaning service, energy efficient gas fireplace inserts, and tankless water heater installation.

As a vendor of HVAC systems, the company will be in a prime position to sell "Gridwise" and other Smart Energy devices.

WASHINGTON GROUP INTERNATIONAL

Steven G. Hanks, President and CEO

PO Box 500
Beaverton, OR 97077
Phone: (503) 627-2848
www.wgint.com

Headquarters: Boise, ID

Other Locations: 26 offices, including Puerto Rico, Poland, Phillipines, Saudia Arabia, Shanghai, Singapore, Taiwan, Thailand, Ukraine, Venezuela

Affiliations: Beaverton location was formerly Morrison Knudsen Operations and Maintenance

10900 NE 8th St
Bellevue, WA 98004
Phone: (425) 451-4500
Fax: (425) 451-4980

Company Type:	Service Provider	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ Building engineering--mechanical, electrical, etc. ▪ Energy management services 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Facilities design, construct and manage ▪ Energy audits ▪ Energy management systems
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International—All

Full service integrated engineering and construction firm operating through six fully integrated market-focused business units: Infrastructure, Power, Industrial/Process, Mining, Energy & Environment and Defense. With more than 35,000 employees at work in 43 states and more than 30 countries, the company offers a full life-cycle of services as provider of premier science, engineering, construction, program management, and development in 14 major markets, including energy, environmental, government, heavy-civil, industrial, mining, nuclear-services, operations and maintenance, petroleum and chemicals, process, pulp and paper, telecommunications, transportation and water-resources.

Beaverton location is full facilities management company that manages, operates and maintains major functions to keep facilities running -- including central power plant and power grid, building interiors and exteriors, HVAC and plumbing, grounds and landscaping.

Bellevue office specialties include mechanical engineering design and facility energy & lighting audits. Also, the company analyzes utility bills and negotiates utility rates with the utility provider.

In May, 2001, Washington Group International, Inc. and certain of its subsidiaries, filed voluntary petitions to restructure under Chapter 11.

WESCO DISTRIBUTION, INC.

2345 NW 31st Ave
 Portland, OR 97210
 Phone: (503) 221-4400
 Fax: (503) 221-5653
 www.wescodist.com

Headquarters: Pittsburgh, PA

Other Locations: Albany, OR; Wilsonville, OR; Kennewick, WA; Spokane, WA; and 350 full-service branches worldwide

Employees: 6,000 (parent)

2233 Sixth Ave., S.
 Seattle, WA 98134
 Phone: (206) 292-4141
 Fax: (206) 292-4021

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Energy management services <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Electrical supplies and industrial products ▪ Automation equipment ▪ Data communication equipment <p>Geographic Focus: International—All</p>
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Distributor of electrical products (fuses, terminals, connectors, enclosures, fittings, circuit breakers, transformers, switchboards); industrial supplies; lighting; wire and conduit materials; automation equipment; and data communication apparatus. WESCO offers more than a million products from 24,000 suppliers. It also offers various services, including project management and energy measurement, management, and reduction programs.

WESTBURNE SUPPLY

Multiple locations throughout B.C.
<http://bc.electrical.westburne.com>

Established: 1911

Headquarters: Montreal

Other Locations: 16 branches in BC, 360 throughout North America

Employees: 6,000 (North America)

Affiliations: Division of the Rexel Group

Company Type:	Distributor/Manufacturers Rep/Dealer/Retailer	Target Customers:	End-Users
Product Categories:	<ul style="list-style-type: none"> ▪ General electric supplies and contracting ▪ Building materials, equipment, and supplies--non automation 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Electrical supplies ▪ Telecommunications supplies
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International—All

Distributor of electrical, plumbing, heating, refrigeration, industrial automation, and communications products. Westburne is one of North America's largest distributors and as with many such suppliers, it devotes the bulk of its inventory to "traditional" electrical products. A small but growing percentage of its products are "intelligent," including a full line of automation products and services.

Westburne supplies construction contractors, industrial and commercial enterprises, equipment manufacturers, institutions, utilities, and government agencies.

The company's legacy started in 1911 under the name of Northern Electric Company. Westburne itself started out as the Westburne Oil company in 1951, supplying the industrial needs of the oil patch. It grew into Canada's largest electrical distributor through growth and acquisition. In 2000, it was purchased by the Rexel Group, the world leader in the distribution of electrical parts and supplies, which is itself a subsidiary of Pinault-Printemps-Redoute.

WESTRAN POWER

Art Henderson, President

5160 NW Five Oaks Dr
 Hillsboro, OR 97124
 Phone: (503) 533-4400
 Fax: (503) 533-5615
 www.westranpower.com

Established: 1962
Employees: 25
Affiliations: Division of Western Transformers, Inc.

Company Type:	Manufacturer	Target Customers:	End-Users
Product Categories:	Transmission/Distribution/Substation Equipment (not automation)	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Voltage transformers ▪ Magnetic components ▪ Power systems
Stage of Development:	Stage IV -- Mature	Geographic Focus:	Domestic

Manufacturer of transformers, from small, high-frequency units to 1500 KVA. Also makes battery chargers, custom power supplies and power electronics for commercial, industrial, medical and military applications.

WILSON CONSTRUCTION

Don Wilson, President

1190 NW 3rd St
Canby, OR 97013
Phone: (503) 263-6882
Fax: (503) 263-6946
www.wilsonconst.com

Established: 1952

Headquarters: Canby, OR

Other Locations: Spokane, WA; Corvallis, OR;
Kennewick, WA; Gig Harbor, WA;
Castle Rock, CO

Employees: 280

Company Type:	Service Provider	Target Customers:	Utilities
Product Categories:	Transmission/distribution construction contracting	Specific Products or Services:	Electrical contracting
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	Domestic

Full service electrical contractor serving public and private utilities. Its design/build services include electrical transmission, electrical distribution, and substation construction.

WIRE DYNAMIX

PO Box 97009
Kent, WA 98064
Phone: (253) 395-4520
Fax: (253) 395-1040
www.wiredynamix.com

Established: 1987
Headquarters: Kent, WA
Other Locations: Multiple service centers around the U.S.
Employees: 200
Affiliations: Subsidiary of Infrastrux, which is itself a subsidiary of Puget Sound Energy

Company Type: <ul style="list-style-type: none"> ▪ Service Provider ▪ Manufacturer 	Target Customers: Utilities
Product Categories: <ul style="list-style-type: none"> ▪ Transmission/distribution construction contracting ▪ Transmission/Distribution/Substation Equipment (not automation) 	Specific Products or Services: <ul style="list-style-type: none"> ▪ Cables and wires ▪ T&D maintenance
Stage of Development: Stage III -- Market Growth	Geographic Focus: International—All

Maker of cable life-extension technologies for electric and telecommunications utilities. Rejuvenates water-damaged underground cable. Also makes Trynergy brand power cables.

WISMER & RAWLINGS ELECTRIC

Paul Bayston, President & CEO

118 - 1647 Broadway St
Port Coquitlam, BC, Canada, V3C 6P8 0
Phone: (604) 944-1117
Fax: (604) 944-1127
www.wre.ca

Established: 1951

Headquarters: Port Coquitlam; BC

Other Locations: Nanaimo, BC; Prince George, BC

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Manufacturer ▪ Service Provider <p>Product Categories:</p> <ul style="list-style-type: none"> ▪ Transmission/Distribution/Substation Equipment (not automation) ▪ Distributed generation systems <p>Stage of Development: Stage IV -- Mature</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services:</p> <ul style="list-style-type: none"> ▪ Switchgear ▪ Capacitor banks <p>Geographic Focus: International--North America</p>
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Designer, manufacturer, servicer and distributor of electrical equipment. Manufactures switchgear, substations and resistor and capacitor banks. Also active in the design and installation of small hydro generation projects. In addition, the company acts as agent for several lines of transformers, drives, and protection relays.

Like many old-line electrical suppliers, Wismer & Rawlings is gradually adding more and more microprocessor-based products to their line.

WORLD WIDE PACKETS

David Curry, President and CEO

115 N Sullivan Road
 Veradale, WA 99037
 Phone: (509) 242-9000
 Fax: (509) 242-9001
 www.wwp.com

Established: 2000
Headquarters: Veradale, WA
Employees: 63

<p>Company Type:</p> <ul style="list-style-type: none"> ▪ Distributor/Manufacturers Rep/Dealer/Retailer ▪ Developer <p>Product Categories: Broadband products and services</p> <p>Stage of Development: Stage II -- Early Commercialization</p>	<p>Target Customers: Both Utilities and End-Users</p> <p>Specific Products or Services: Ethernet over fiber and copper hardware and software</p> <p>Geographic Focus: Domestic</p>
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Designer, manufacturer and seller of optical network equipment to deliver massive bandwidth over the last mile of a fiber optic network. The company builds solutions for telcos, cable companies and electric utilities.

Many utilities have begun to extend their fiber networks to their subscribers for Automatic Meter Reading (AMR). Opening up these networks to additional traffic is a way to realize new revenue streams from the same network. In order to leverage their rights of way and installed fiber base, many utilities are leasing rights to their fiber or even becoming service providers themselves, providing voice, data and content via broadband.

Wide Packets is a privately-held corporation, established by Bernard Daines, founder of three previous successful Ethernet-oriented companies: Packet Engines, Grand Junction Networks and Tidewater. The company was funded by Dainers and other seed investors. Investors in later rounds have included Azure Capital Partners, Rock Creek Capital, Corning Innovation Ventures, Millennium Technology Ventures, Koch Ventures, The TCW Group Sand Hill Capital, and Wasserstein Ventures.

XANTREX TECHNOLOGY INC.

Ray Rosewall

**8999 Nelson Way
Burnaby, BC, Canada V5A 4B5 0
www.xantrex.com**

Established: 1983

Headquarters: Burnaby, British Columbia

Other Locations: Kent, WA (Heart); Livermore, CA; Miami, FL; Elkhart, IN and Barcelona, Spain

Employees: 600

Affiliations: Subsidiary of B.C.-based Xantrex

**5916 195th St NE
Arlington, WA 98223
Phone: (360) 435-8826
Fax: (360) 435-2229**

Company Type:	Manufacturer	Target Customers:	Manufacturers
Product Categories:	<ul style="list-style-type: none"> ▪ Power electronics ▪ Distributed generation and interconnection components/parts 	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Inverters and inverter/chargers ▪ Instrumentation solutions ▪ Programmable DC power supplies
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--All

Maker of advanced power electronics. Best known for its inverters, which convert raw DC power into high-quality AC power for electronic and electrical equipment. Xantrex also markets backup power for homes and small businesses and power supplies for precision equipment such as medical or semi-conductor manufacturing equipment. The Arlington, WA facility makes inverters for solar, wind, and fuel cells.

Key customers include GE Wind, Astropower, Ballard, BP Solar, Cisco, Compaq, Costco, Kyocera, Radio Shack, Schlumberger, Siemens, Xcellsis, and West Marine.

Xantrex began in 1983 as a provider of programmable power supplies. In 2000 it acquired the Washington companies, Trace Engineering, Trace Technologies and Heart Interface. Although it has downsized the U.S. operations, it maintains a presence in Arlington, WA..

XENERGY, INC./KEMA CONSULTING

Hoesin Hari, VP Consulting and Business Development

720 SW Washington, Suite 660

Portland, OR 97205

Phone: (503) 226-7846

Fax: (503) 226-6314

www.xenergy.com

Headquarters: Burlington, MA

Other Locations: 10 other offices besides Portland across the U.S.

Company Type:	Service Provider	Target Customers:	Both Utilities and End-Users
Product Categories:	Grid planning and design tools and consulting	Specific Products or Services:	<ul style="list-style-type: none"> ▪ Asset management support ▪ Power network design and analysis ▪ Substation projects
Stage of Development:	Stage III -- Market Growth	Geographic Focus:	International--North America

Consultancy providing technical, management, IT and training services to utilities, energy service companies, industrial and commercial customers, institutions and government agencies.

In September 2000, XENERGY was acquired by Kema Consulting a wholly-owned subsidiary of KEMA NV of the Netherlands.

ZETRON, INC.

John Reece, President

12034 134th Ct NE
Redmond, WA 98052
Phone: (425) 820-6363
Fax: (425) 820-7031
www.zetron.com

Established: 1980

Headquarters: Redmond, WA

Other Locations: London, Australia

Company Type:	Manufacturer	Target Customers:	Both Utilities and End-Users
Product Categories:	<ul style="list-style-type: none">▪ Workforce automation▪ Grid monitors and controls	Specific Products or Services:	<ul style="list-style-type: none">▪ Consoles, switches and communications controllers▪ SCADA and telemetry
Stage of Development:	Stage IV -- Mature	Geographic Focus:	International--All

Manufacturer of dedicated radio-telephone networks for utilities, public safety, governments, and transportation. Combines off-the-shelf components with its own specialized equipment and software. In addition to providing communications networks, Zetron also provides SCADA and telemetry equipment to remotely monitor and control utility assets.

APPENDIX A: ABOUT THE ANALYSTS

PS Reilly is a noted expert, researcher, and advisor on commercial success in emerging markets. Her insights and predictions are regularly featured in articles, columns, and keynotes. Most recently she was Vice President of Emerging Markets for Ziff Davis Media, where she provided strategic advice to leading technology companies, including IBM, Peoplesoft, and many others. She has designed and led numerous large-scale research projects, from analysis of a single market, to investigating the economic impact of regional policy and infrastructure changes.

Jesse Berst is an internationally known technology and business analyst. He has authored or co-authored more than a dozen books on technology topics, written hundreds of articles for leading publications and keynoted dozens of business events in the U.S. and abroad. He combines two decades of professional experience in emerging markets with a personal interest in environmental and energy issues. He has served on the Department of Energy National Grid Vision Planning Committee and is the Chairman of the Advisory Committee for Pacific Northwest National Laboratory's Energy Sciences and Technology Directorate.

Jeff Canin brings 20 years of experience in the financial services sector. As a stock analyst with Hambrecht & Quist, Montgomery Securities and Salomon Brothers in San Francisco, he provided in-depth high tech research coverage to institutional investors in North America and Europe. Since 1995, he has worked as a venture capitalist and consultant to emerging growth companies in the information technology and distributed energy fields.

David Amdal has a 25-year career heading international market research firms. He was formerly head of market research for BIS Strategic Decisions for the Asia-Pacific region, a \$30M operation with ten offices in seven countries. (BIS has since become Giga Information Group.) He has conducted 300+ market entry evaluations, identifying the sectors, customers and communication with the strongest potential for success. Clients have included Apple, IBM, Canon, S.C. Johnson, Foremost, R. J. Reynolds, Heineken, Guinness, Bayer, BIC, Coca-Cola and Gillette, as well as regional development authorities.

Inquiries: PS Reilly, ps@psreilly.com, 858-603-0139.

To download the full study from which this summary was extracted, visit www.centerforsmartenergy.com.