July 24, 2013

Via Electronic Mail

Mark D. Marini, Secretary Department of Public Utilities One South Station, 5th Floor Boston, MA 02110

Re: D.P.U. 12-76, Investigation by the Department of Public Utilities on its Own Motion into the Modernization of the Electric Grid, *Report to the Department of Public Utilities from the Steering Committee*

Dear Secretary Marini:

Enclosed for filing with the Department of Public Utilities in docket D.P.U. 12-76 please find the Comments of the New England Clean Energy Council, Ambient Corporation, Borrego Solar Systems Inc., BRIDGE Energy Group Inc., ChargePoint, Inc., Conservation Services Group, EnerNOC Inc., ENE, ISO New England, Northeast Clean Heat and Power Initiative, NEEP (Northeast Energy Efficiency Partnerships), and SEIA, regarding the *Report to the Department of Public Utilities from the Steering Committee* in the D.P.U. 12-76 Massachusetts Electric Grid Modernization Stakeholder Working Group Process, submitted on July 2, 2013.

Thank you for the opportunity to submit these comments. Please contact Janet Gail Besser at the New England Clean Energy Council with any questions.

Sincerely,

/s/ Janet Gail Besser

Janet Gail Besser
Vice President, Policy and
Government Affairs
New England Clean Energy Council
125 Summer Street, Suite 1020
Boston, MA 02110
617-500-9994
jbesser@cleanenergycouncil.org

cc: Service List

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

Investigation by the Department of Public Utilities on its Own Motion into the Modernization of the Electric Grid.

D.P.U. 12-76

COMMENTS OF THE NEW ENGLAND CLEAN ENERGY COUNCIL, AMBIENT CORPORATION, BORREGO SOLAR SYSTEMS INC., BRIDGE ENERGY GROUP INC., CHARGEPOINT, INC., CONSERVATION SERVICES GROUP, ENERNOC INC., ENE, ISO NEW ENGLAND, NORTHEAST CLEAN HEAT AND POWER INITIATIVE, NEEP (NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS), AND SEIA

I. Introduction

The New England Clean Energy Council (NECEC or Council) and the other signatories to these comments greatly appreciate the opportunity to offer comments on the July 2, 2013, *Report to the Department of Public Utilities from the Steering Committee* (Steering Committee Report) from the DPU 12-76, Massachusetts Electric Grid Modernization Stakeholder Working Group Process, in response to the Notice for Comment issued July 10, 2013. This proceeding was initiated by a Notice of Inquiry (NOI) issued by the Department of Public Utilities (DPU or Department) on October 2, 2012. NECEC and the other Steering Committee signatories would also like to thank the Department for inviting us to be members of the Steering Committee.

As members of the Grid Modernization Working Group's Steering Committee, NECEC and the other member signatories worked with other Steering Committee members to reach a consensus on principles and recommendations for the Department's consideration. While consensus was not achieved on all issues, there was convergence on many. In particular, NECEC collaborated closely with a group of clean energy companies, the Massachusetts Clean Energy Center, ISO New England and ENE (collectively, the Clean Energy Caucus as designated in the Steering Committee Report) to develop common principles, a regulatory model, a benefit-cost analysis (cost-effectiveness) approach, and a recommendation for next steps, many of which garnered the support of other Steering Committee

members, including some or all of the distribution companies, as well as the Department of Energy Resources, Cape Light Compact, and the Retailers.

A. The Benefits of Clean Energy Technologies

Clean energy technologies are delivering economic, energy and environmental benefits to Massachusetts citizens, businesses and industries today and have the potential to deliver much greater benefits over time, particularly if the electric grid is "modernized," enabling greater transparency, communications, and control on both the grid- and customer-facing sides. A more modern grid can provide a platform to promote and integrate clean energy resources, including current, emerging and future technologies that will enhance the efficiency of grid operations, improve reliability and resiliency, empower customers to better manage their use of electricity and provide them with new choices for meeting their energy service needs, and reduce the costs and environmental impacts of electricity use. A modern grid platform is key to the integration of clean energy technologies and capturing their benefits for customers.

B. A Modern Grid is Critical to Achieving the Commonwealth's Policy Goals and Safe, Reliable, Resilient and Cost-Effective Electricity Service to Customers.

The signatories of these comments applaud the Department for undertaking this investigation into how to "take advantage of grid modernization opportunities." (NOI, p.1) We believe it is important to take a broad, comprehensive and bold approach in revising the regulatory framework, analyzing benefits and costs, and providing guidance to encourage Massachusetts distribution companies to make investments that will deliver benefits to customers. An incremental approach will lead to opportunities — there is a cost to "no action" — as distribution companies are investing in the grid every day.

In addition, the Commonwealth has established energy and environmental policy goals through legislation and regulation – the Green Communities Act, the Global Warming Solutions Act, the Climate Action Plan, energy efficiency, distributed generation, and solar development goals, among others – which cannot be optimally achieved without modernization of the electric grid. Grid modernization is an essential step that can integrate all of these policies and initiatives and ensure that they work together to

deliver on their promise of benefits to customers. Without a "smarter," more sophisticated grid,

Massachusetts' energy objectives will be achieved in a piecemeal, suboptimal fashion (if at all) that

denies customers the full net benefits of the Commonwealth's energy and environmental policy choices

over the long term.

Moreover, safe, reliable, resilient and cost-effective electricity service to customers depends on the development of a modernized grid with the flexibility and open architecture that will enable expeditious integration of existing and new technologies that will enhance reliability and resiliency, improve operational efficiency, enable greater customer choice, and reduce costs, be they owned and/or operated by utilities, customers or third parties.

C. The Department of Public Utilities Needs to Act Quickly.

The Department of Public Utilities needs to give clear guidance that the distribution companies should pursue grid modernization, analyzing the benefits and costs (both quantitative and qualitative) of technologies and investing in those where benefits can be reasonably expected to exceed costs. The Department should establish a forward-looking regulatory framework that will facilitate grid modernization investment, while providing clear performance standards to ensure customers are well served. Most importantly, the Department needs to move quickly. The Steering Committee has spent eight months exploring a broad range of issues related to grid modernization and has filed a comprehensive report. While consensus was not reached in a number of areas, convergence is clear – especially on the need to act quickly. All signatories to the Steering Committee Report urge definitive action in the near future. (Report, Ch. 8, Next Steps)

D. Organization of Comments

The New England Clean Energy signatories' comments will generally parallel the organization of the Steering Committee Report. We reiterate here our endorsement of the principles and recommendations supported by the Clean Energy Caucus (Ch. 5), the comprehensive Utility of the Future Regulatory Framework and the three complementary frameworks (Ch. 6 and Appendix III), the "business"

case" approach to benefit-cost analysis (cost-effectiveness) (Ch. 7), and the Clean Energy Caucus next steps (Ch. 8).

II. In Order to Realize the Goals and Opportunities for Grid Modernization outlined in the NOI, the Commonwealth's Broad Energy and Environmental Objectives, and Safe and Reliable Service to Customers, the Department Needs to Revise the Regulatory Framework to Encourage Grid Modernization Investment.

At the first Workshop in November 2012, the Steering Committee identified three opportunities and three closely related barriers to grid modernization. (Report, p. 3)

Opportunities	Barriers
Enhanced reliability	Potential costs of grid modernization technologies, policies and programs
Increased opportunity for distributed generation and other new technologies to enable greater customer control of their electricity	Cost-effectiveness of grid modernization technologies, policies and programs
Develop a better regulatory framework to foster grid modernization planning and investment	Incentives and cost recovery [i.e., regulatory framework] for Distribution Companies related to grid modernization investments

The Steering Committee agreed that the Department's NOI captured the Goals and Opportunities of Grid Modernization and reiterated them in its Report. The three opportunities identified at the initial workshop fell within the eight listed in the Department's NOI. (Report, Ch. 2, pp. 8-9)

The initial identification of barriers led the Steering Committee to focus its attention on the regulatory framework and how to evaluate the benefits and costs (or cost-effectiveness) of grid modernization (or any and all) investment in the grid needed to take advantage of the opportunities. The Steering Committee agreed that "a framework for regulatory review and cost recovery needs to be established" and that "a framework for assessing cost-effectiveness needs to be defined." (See generally, Report, Ch. 2, and compare the first two barriers identified by the Distribution Companies/Clean Energy Caucus/MA DOER/Retailers/CLC/General Electric (p.9) with the first two barriers identified by the Office of the Attorney General and Low Income Network (p.10).)

However, as the discussion proceeded over the course of several meetings, certain elements of the broader context in which distribution companies provide service to customers surfaced repeatedly as issues to be addressed. This led the Clean Energy Caucus and Distribution Companies to identify three additional high-level considerations or barriers as fundamental to developing a regulatory model and benefit-cost framework that would provide guidance for grid modernization investment: (1) safety and reliability; (2) customer engagement and education; and (3) affordability. The signatories offer their perspective on these issues for the Department's consideration.

The phrase "balancing safety and reliability" may imply that there is a trade-off with grid modernization. Nothing could be further from the truth. Grid modernization will enhance safety and reliability. Not only can "[g]rid modernization investments …be made in alignment with and support of the Distribution Companies' core responsibility to provide reliable and safe service to their customers" but fulfilling that core responsibility will require grid modernization. (Report, Ch. 2, p.9)

The fact that "[c]ertain Grid Modernization investments [and the third party applications they may enable] may require considerable customer education to inform and engage customers on various attributes of grid modernization programs" (Report, p. 9) beyond what has traditionally been the case is a challenge to be met, not a reason not to proceed. Moreover, assumptions about the ability of certain customers to grasp and take advantage of the information that can be made available through grid modernization and time varying rates, have not been borne out in experience with grid modernization and smart grid technology. The evidence indicates that the availability of information and ability to manage energy usage has made a difference for customers in terms of their overall bill, their satisfaction with the utility and in some cases their overall self-esteem as they reduce and eliminate arrearages. (See, *Paying Upfront: A Review of Salt River Project's MPower Prepaid Program*, Electric Power Research Institute, Technical Update (#1020260) October 2010.)

Finally, an underlying principle in utility regulation continues to be the need to address the affordability of electricity service. "As a matter of policy, the Department [has long] recognize[d] that electricity is a basic necessity of life in modern society." (Western Massachusetts Electric Company,

D.P.U. 87-260, at 176 (1988) cited in D.P.U. 96-100, *Electric Industry Restructuring Plan: Model Rules and Legislative Proposal*, at 108 (1996)) With the proliferation of communications technologies and the internet, electricity has become even more necessary to life in society today than it was in 1988 and 1996, and the necessity of electricity to modern life is an argument for grid modernization investment. The critical necessity of electricity in modern life makes establishing the appropriate approach to benefit/cost analysis even more important to determine which investments have benefits that exceed costs. Once these investments have been identified, then affordability should be addressed. Concern about affordability should not prevent investments where benefits exceed costs: where benefits of an investment exceed the costs, they will not undermine affordability but rather enhance it over the long term.

III. The Department Should Recognize that the Range of Technologies that Define a Modern Distribution Network Are Evolving and Should Focus on Integration of These Technologies.

A. Integration Requires an Open Access Platform

With opportunities and barriers laid out, the Steering Committee looked at the "grid modernization taxonomy" or technologies that would provide capability to deliver the benefits outlined in goals and opportunities in DPU's NOI. The information in Chapter 3 of the Report should prove very useful to the Department, however, the signatories believe that recognition of the integration and platform functions of the modern grid is as important if not more so. Particular technologies today may be supplanted by new technologies tomorrow. Integration of new clean technologies enables and enhances the delivery of benefits to customers as does recognition of the grid as an open access platform to which customers and third parties can attach applications that deliver benefits not only to "participants" but also to the system, including "non-participants." A very recent example is the effect of demand response during last week's heat wave. While customers who reduced demand benefited from lower bills and received payment for their reductions, other customers benefitted as well from lower locational marginal prices due to reduced peak loads and from a more reliable system that can better withstand extreme weather events or sudden failures of critical generation or transmission assets.

B. Additional Definitions and Clarification – Demand Response

The Report appropriately recognizes that demand response is one of the resources that can provide grid and customer benefits. However, the signatories are concerned that the report uses the term "demand response" generically throughout the document without actually defining it, except in Section 3.2, which describes direct load control as demand response. The reader may, therefore, interpret demand response as synonymous with direct load control, when in fact direct load control is a form of technology to assist in delivering demand response. We believe that this is an unintended oversight, which nevertheless could give rise to potential confusion and misrepresentation. Given that one aspect of the report is educational, we believe it is important that the DPU recognize that demand response covers a range of products and services and that decisions and actions that the Department may take on aspects of this Report, for example with respect to time varying rates (TVR), may have different implications on that range of demand response products. Therefore, the signatories offer the following clarification.

Generally, demand response is a change in the consumption of electric energy by customers from their expected consumption in response to changes in the price of electric energy, or in response to incentive payments designed to induce lower consumption of electric energy during adverse system conditions so as to enhance reliable service. (This definition is consistent with 18 CFR 35.28(b)(4) (2010), and is the basis for demand response programs administered by Regional Transmission Organizations (RTOs), such as ISO New England, and regulated by the Federal Energy Regulatory Commission.)

One form of demand response is an alternative to traditional supply sources. By dispatching loads, or aggregates of loads, instead of generators, demand response can be used by Regional Transmission Operator (RTOs) or utility companies as a supply resource to balance supply and demand in real time, and/or as an alternative to investment in transmission or distribution facilities. When used as an alternative supply resource, customers are paid to respond to RTO or utility dispatch, usually at market-based prices. Many technologies, including direct load control, facilitate deliver of the alternative supply form of demand response. The other form of demand response is autonomous customer response to time

varying rates (TVR). Here, individual customer tastes and preferences and the associated customer bill savings in response to prices drive the level of response – i.e., customers tend to consume less during high price periods and more during low price periods.

The level of response under both forms of demand response – i.e., use of demand response as a resource and autonomous customer response to prices – is enhanced through the use of load control technologies, distributed generation, energy storage, and electric vehicles. Further, utilities and/or third party providers could play a role in assisting customers in participating in either type of demand response.

The signatories are not advocating for one form of demand response over the other, but given the educational as well the aspirational nature of the report, we believe the above broader description of demand response provides important information to the DPU. The above distinctions are offered for clarity of understanding, and provide some additional context for consideration of different sections of the report. So for example, direct load control as described in Section 3.2 is one way to facilitate delivery of demand response that serves to optimize demand. But other technologies facilitating both forms of demand response can be used to optimize demand.

IV. Grid Modernization is Consistent with and Required by the Fundamental Principles that Have Traditionally Governed Utility Investment.

Chapter 5 of the Steering Committee Report contains versions of principles and recommendations in a range of areas. The signatories believe that grid modernization is consistent with and required by the fundamental principles that have traditionally governed utility investment. It is not somehow an exception to these principles as may have been implied by critics. These fundamental principles provide guidance that distribution company investments in grid modernization (or otherwise) should

- Be prudent, used and useful
- Be subject to fair and equitable cost allocation (See Ch. 5.4)
- Support safe and reliable service
- Provide interoperability (Ch. 5.5 and 5.6)
- Afford appropriate customer protections
- Ensure security and privacy
- Be consistent with affordability

With this as a foundation, the signatories would highlight for the Department several principles and recommendations related to planning; note that the principles and recommendations under the heading of Metering apply to all grid modernization investments; emphasize the importance of time varying rates as a corollary to grid modernization investment; and reiterate the importance of integration of distributed energy resources.

A. <u>Planning</u>

Capturing the potential benefits of grid modernization investments made by distribution companies and third parties will require recognizing these opportunities in planning. The Clean Energy Caucus principles and recommendations in Chapter 5 emphasize this point. Distribution company plans should

- Account for long-term, multi-year objectives;
- Indicate how distributed resources (including distributed generation, storage, fuel cells, electric vehicles and demand response, among others) will be integrated to capture operational benefits;
- Be updated regularly to capture technology evolution and new information;
- Include a process for eliciting stakeholder input; and
- Take into account information available from Massachusetts and other smart grid pilot and deployment programs.

B. Metering

During the Steering Committee process, metering received a lot of attention as one element/technology of grid modernization. As a result, a separate set of metering principles and recommendations were developed. The signatories note that these principles and recommendations apply equally well to all grid modernization investments. Specifically,

- Technologies should lead to achievement of goals The Department should look
 carefully at the outcomes it wants to achieve and the functionality that will accomplish
 those outcomes. The Department should also consider future needs and goals and require
 distribution companies to plan for a flexible grid that can accommodate, to the extent
 possible, technologies that may be just emerging.
- Technologies should work The Department should establish performance metrics to assess the functionality of technologies and whether they are working as expected. Distribution companies should build a sound foundation.
- Technologies should enhance the integration of components of the system.
- The technologies that make up a modern grid and the grid itself should support and enhance customer choice. A fundamental principle should be to ensure the availability of

- customer data to customers, and third parties and competitive suppliers, with customer permission. This will be key to choice, integration and creation of new opportunities.
- Any investment should be made in "manner that ensures DPU approved consumer protections remain in place." (Report, p.51) This does not mean that the exact same rules as today remains in place, but rather that rules that accomplish the same goal as today's rules in light of today's and tomorrow's technology, should be established.

C. Time Varying Rates (TVR)

Providing customers with accurate price signals regarding the cost to serve them at varying times is critical to capturing the benefits of a modernized grid. The economics of distributed energy resources can be revealed if customers have the information that can be provided by TVR. This does not mean that customers have to be expected to monitor and respond to prices that vary in real time, but it does mean that distribution companies need to analyze how much value can be captured by how much granularity in TVR and how broadly it is deployed.

The signatories want to emphasize that companies should not make decisions about the value of TVR or how to implement it without doing a benefit-cost analysis. Pilots can be developed to look at issues and designs that are sometimes controversial – e.g., opt-in versus opt-out decisions – and how to provide information from TVR to customers and the third parties who can fashion products for those customers that enhance the overall efficiency of the grid (e.g., electric vehicle charging off peak and use of storage on peak). (Chapter 5.9, principle 5, p.54) The results of grid modernization work in other states can also provide useful information to Massachusetts.

D. Integration of Distributed Energy Resources

The signatories reiterate that the principle of integration of distributed resources is a key function of grid modernization and critical to providing benefits to customers – from both the distributed resources and the investments in the grid. As the Department establishes grid modernization guidelines for distribution companies, we recommend that, in addition to the principles set out in Section 5.10, the Department also consider whether distribution companies should be able to own distributed generation where it is used for distribution system purposes, rather than as generation.

V. The Department Should Recognize the Changes in Electric Technologies and Expectations of Electricity Customers and "Modernize" the Regulatory Framework, Including Its Approach to Benefit- Cost Analysis.

Subsets of the Steering Committee developed Regulatory Framework proposals that range from enhancements to the existing regulatory model, to a separate grid modernization investment pre-approval process, to expansion of investment caps and a future test year, to a Utility of the Future model that takes a comprehensive and integrated view of utility investment and customer expectations. The vast majority of the Steering Committee, including NECEC and other members of the Clean Energy Caucus, National Grid, the Cape Light Compact, DOER, and the Retailers indicated that the Utility of the Future model is their first choice for a regulatory framework. (Report, Table 6-2, p. 59)

A. The Utility of the Future Model

The signatories respectfully urge the Department to adopt the Utility of the Future model. The signatories recognize that the Utility of the Future model is a bold proposal. Two key features of the Utility of the Future model are that it looks forward, recognizing that the industry is changing too rapidly to continue to look back, and requires performance to ensure that customers continue to be provided with good service. The changing nature of electric and electricity system technologies, grid capabilities, customer demands and expectations for choice, services, resiliency and reliability require a new regulatory approach. This is a topic of discussion nationally, not only among regulators but also among utilities. (See, e.g., *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business*, EEI, January 2013.) Massachusetts has an opportunity to lead the nation, as it has done in the past with electric industry restructuring, with a regulatory approach that can accommodate and facilitate these changes, capturing their benefits for customers.

B. Complementary Regulatory Models

The signatories further recommend implementation of the complementary Distribution Services

Pricing framework. It will appropriately enhance integration and recognize reciprocity. Customers will

pay for services they use and distribution companies will pay for the services they use. This framework

will also provide a means to address long standing issues such as stand-by and back up rates that have been a barrier to the cost-effective deployment of some distributed generation and combined heat and power (CHP).

Stakeholder input is also an important component of a regulatory framework to facilitate customer acceptance of the outcome and to ensure that distribution company plans are taking into account customer and third party service expectations and opportunities.

C. Benefit-Cost Analysis

The signatories note that the business case approach t analyzing the benefits and costs of distribution company investments in grid modernization is the best way to address not only benefits and costs, but also risks and uncertainties. Both the Clean Energy Caucus and the Distribution Companies support this approach. It is also consistent with the Utility of the Future regulatory framework.

VI. The Department Should Move Quickly on Next Steps.

The signatories reiterate that it is important that the Department move quickly. As noted earlier, the proposals for next steps recommend action in the near future. As members of the Clean Energy Caucus, NECEC and the other Steering Committee member signatories support option 8.1, which calls on the Department to take action within three months. (Report, p. 93) This option is also supported by National Grid and DOER. After eight months of collaboration, the filing of a comprehensive report and extensive comments, the Department has the information it needs to provide the distribution companies with the guidance they need to move forward expeditiously with investments that will build a grid for customers' future needs and expectations.

As noted at the beginning of these comments, Massachusetts distribution companies are making investments every day. Customers, the companies, the clean energy sector and other stakeholders should want to maximize the value of this investment. That will mean enhancing the already robust capabilities of the grid to meet customer expectations and demands for future, resiliency and reliability needs, and environmental imperatives. Today's grid is not going to be adequate for the future unless it is modernized.

VII. CONCLUSION

The signatories greatly appreciate the opportunity to offer these comments on the Grid Modernization Steering Committee Report. The Department is to be commended for its leadership in initiating this investigation. We look forward to it taking the next step toward making a modern, flexible grid a reality for Massachusetts electricity customers and stands ready to work with the Department, the distribution companies, the Office of the Attorney General and other stakeholders to in this process.

Thank you for your consideration of these comments.

Respectfully submitted,

•	•
/s/ Janet Gail Besser	/s/ Abigail Anthony
Janet Gail Besser	Abigail Anthony
Vice President, Policy and Government Affairs	Director of Utility and Grid Modernization
New England Clean Energy Council	Initiatives
	ENE
/s/ Michael W. McCarthy	
Michael W. McCarthy	/s/ Herb Healy
Director, Investor Relations & Government	Herb Healy
Affairs	Senior Director, Regulatory Affairs
Ambient Corporation	EnerNOC Inc.
/s/ Dan Berwick	/s/ _Anne George
Dan Berwick	Anne George
Vice President of Business Development	Vice President of External Affairs and Corporate
Borrego Solar Systems Inc.	Communications
	ISO New England
/s/ David J. O'Brien	
David J. O'Brien	/s/ Jonathan Schrag
Director of Regulatory Strategy	Jonathan Schrag
BRIDGE Energy Group Inc.	Policy Committee Chair and Board Member
	Northeast Clean Heat and Power Initiativ
/s/ Colleen Quinn	//
Colleen Quinn	/s/ Natalie Hildt Treat
Vice President Government Relations and Public	Natalie Hildt Treat
Policy	Senior Manager, Public Policy Outreach
ChargePoint, Inc	NEEP (Northeast Energy Efficiency
	Partnerships)
/s/ Pat Stanton	/ / G G !! . YY
Pat Stanton	/s/ Carrie Cullen Hitt
Senior Vice President, Policy and Advocacy	Carrie Cullen Hitt
Conservation Services Group	Senior Vice President, State Affairs
	SEIA

APPENDIX – SIGNATORY ORGANIZATION DESCRIPTIONS

The New England Clean Energy Council

The New England Clean Energy Council is a clean energy business association whose mission is to accelerate New England's clean energy economy to global leadership by building an active community of stakeholders and a world-class cluster of clean energy companies. The Council's members and sponsors include clean energy businesses, services and technology companies, venture investors, major financial institutions, universities, industry associations, utilities, labor and large commercial end-users. They span the broad spectrum of the clean energy sector, including energy efficiency, demand response, renewable energy (e.g., solar, wind, hydro, anaerobic digestion), combined heat and power (CHP), biofuels, advanced and "smart" technologies (e.g., smart grid, fuel cells, storage, batteries, materials), among others.

Ambient Corporation: Ambient designs, develops and sells the Ambient Smart Grid® communications and applications platform, a secure, flexible, and scalable technology crucial to most grid modernization programs. The Ambient Smart Grid products and services include communications nodes; a network management system, AmbientNMS®; integrated applications; and maintenance and consulting services. Using open standards-based technologies along with in-depth industry experience, Ambient provides utilities with solutions for smart grid initiatives. Headquartered in Newton, MA, Ambient is a publicly traded company (NASDAQ: AMBT).

Borrego Solar Systems Inc.: Borrego Solar Systems Inc. develops, designs, and constructs PV solar power systems for public sectors and commercial customers across the United States. Borrego's largest office and national design center is in Lowell, and the company has over 70 MW in operation, construction, or late-stage development in Massachusetts.

BRIDGE Energy Group Inc.: BRIDGE Energy Group is a consulting and integration solutions company, focused exclusively on the Utility industry. Clients leverage BRIDGE's business, Information Technology (IT) and Operational Technology (OT) domain expertise to improve their grid reliability, asset and workforce management and customer services.

ChargePoint, Inc.: ChargePoint, Inc. (formerly Coulomb Technologies) manufactures Electric Vehicles Services Equipment (EVSE) and provides networked charging services for utilities, hosts and drivers of electric vehicles. ChargePoint was established by Silicon Valley entrepreneurs with the sole mission to ensure consumers do not hesitate to purchase electric vehicles because they could not find a place to charge them. ChargePoint operates the largest network of independently owned charging stations, with more than 1,900 organizations providing charging via ChargePoint with more than 12,725 charging spots worldwide; 44,000 drivers using the ChargePoint network and over 66,000 mobile app downloads enabling EV drivers to find stations and use them.

Conservation Services Group: Conservation Services Group is the market leader in the movement to optimize energy efficiency in residential buildings, offering industry-leading experience, money-saving solutions and other benefits. The company backs its performance with nearly three decades of innovation and a staff committed to the mission of delivering comprehensive programs to help people use energy more wisely. Headquartered in Westborough, MA, the company has improved the efficiency, safety, comfort, affordability and durability of more than three million homes since 1984. CSG seeks cost-effective, innovative ways to achieve energy efficiency for program sponsors dedicated to client and customer satisfaction.

ENE: ENE is a non-profit organization that researches and advocates innovative policies that tackle our environmental challenges while promoting sustainable economies. ENE is at the forefront of efforts to combat global warming with solutions that promote clean energy, clean air and healthy forests.

EnerNOC Inc.: EnerNOC (NASDAQ: ENOC) is changing the way the world uses energy. EnerNOC's goal is to make energy management as integral as accounting to the operation of every organization. EnerNOC helps commercial, institutional, and industrial organizations use energy more intelligently, pay less for it, and generate cash flow that benefits the bottom line through our complete suite of technology-enabled energy management solutions. EnerNOC's Utility Solutions team has partnered with hundreds of utilities and grid operators worldwide to meet their demand-side management objectives.

ISO New England: ISO New England is the private, non-profit entity that serves as the regional transmission organization ("RTO") for New England. The ISO operates the New England bulk power system and administers New England's organized wholesale electricity market pursuant to the Tariff and the Transmission Operating Agreement with the New England Participating Transmission Owners. In its capacity as an RTO, the ISO also has the objective to assure that the bulk power supply system within the New England Control Area conforms to proper standards of reliability as established by the Northeast Power Coordinating Council and the North American Electric Reliability Corporation

Northeast Clean Heat and Power Initiative: The Northeast Clean Heat and Power Initiative is a membership based trade association of Combined Heat and Power (CHP) equipment manufacturers, project developers, and energy services and consulting firms.

NEEP (Northeast Energy Efficiency Partnerships): NEEP is a regional non-profit whose mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. NEEP's vision is that the region will fully embrace energy efficiency as a cornerstone of sustainable energy policy to help achieve a cleaner environment and a more reliable and affordable energy system.

SEIA: Established in 1974, the SEIA is the national trade association of the U.S. solar energy industry. Through advocacy and education, SEIA is working to build a strong solar industry to power America. As the voice of the industry, SEIA works with its 1,000 member companies to make solar a mainstream and significant energy source by expanding markets, removing market barriers, strengthening the industry and educating the public on the benefits of solar energy. SEIA supports and advocates for all forms of solar energy generation, including both distributed and central-station generation.