Northeast Energy Efficiency Partnerships, Inc.



Northeast Energy Efficiency Partnerships 2009 Business Plan

"Facilitating partnerships to advance energy efficiency"

5 Militia Drive Lexington, Massachusetts 02421 www.neep.org

TABLE OF CONTENTS

Int	oduction	3
I.	Overview	5
II.	Regional Initiatives	9
	1. Retail Products	
	2. High Efficiency Home Performance	
	3. Commercial Buildings and Technologies Initiative	
	4. Solid State Lighting Initiative	
	5. Workforce Development Initiative	
III.	Public Policy	
	1. Policy Outreach	
	2. Northeast States Minimum Efficiency Standards Project	
	3. Northeast States Building Energy Codes Project	
	4. High Performance Buildings	
IV.	Regional Evaluation, Measurement & Verification Forum	40
V.	Northeast Energy Efficiency Summit	44
VI.	Appendices	46
A	NEEP 2009 Budget and Funding	47
B	NEEP Partners Program	50
С	NEEP Board of Directors – June 2008	

Introduction

NEEP's 2009 Business Plan presents our menu of regional projects and initiatives to help the Northeast undertake the most ambitious effort ever to make energy efficiency in homes and buildings a priority. Our plan responds to the "big expansion" of energy efficiency and clean energy to which governors, legislators and regulators have committed resources to ramp-up programs and policies to overcome barriers to the efficient use of energy in homes, buildings and industry. To assist this new and big policy commitment, NEEP will:

- ✓ Facilitate regional partnerships that leverage federal, regional and industry resources to meet new efficiency goals *cheaper* + *faster*;
- ✓ Coordinate and provide technical support for policy advocacy efforts to develop and implement efficiency policies faster and more effectively;
- ✓ Serve as a reliable regional information resource and provide or link states to expertise to successfully develop and implement new efficiency policies;
- ✓ Help build the infrastructure to expand energy efficiency through workforce development and common protocols to evaluate, measure and verify energy savings; and
- ✓ Highlight leadership for energy efficiency across the region through our regional energy efficiency summit.

Features of our 2009 Business Plan include:

Scaling-Up Whole Building Strategies- All Fuels: To retrofit existing homes and buildings to meet high efficiency standards, our regional High Efficiency Home Performance and Commercial Buildings and Technology Initiatives link sponsors to best practices and cutting edge technologies that capture deep gas and electric energy savings in existing structures, appliances and lighting. Our High Performance Buildings Project offers state and local policymakers technical guidelines, tools and case studies to retrofit and renovate existing schools and public buildings, as well as design new ones to high energy performance standards.

Raising Baselines with Minimum Energy Efficiency Standards: To make net zero energy buildings a reality by 2020, NEEP assists states to update building energy codes and adopt optional advanced codes for communities ready to require higher efficiency requirements for new homes and buildings. To build market capacities for this we assist states to offer training and technical support programs. To increase efficiency in products and appliances, we assist states to adopt new minimum appliance efficiency standards while supporting strong federal standards. To set minimum energy standards for existing homes and buildings, we are exploring the role of building energy rating and performance requirements at the time of property sale.

Introducing New Technologies and Best Practices: To keep efficiency programs fresh with new savings opportunities, NEEP regional initiatives address the latest high efficiency products and best practices with a focus on solid state lighting, consumer electronics, a new generation of high efficiency home appliances, and high performance lighting designs using the latest efficient technologies and controls. Working with national efforts such as ENERGY STAR, the U.S. DOE's Commercial Lighting Solutions and Solid State Lighting initiatives, TopTen USA, the Consortium for Energy Efficiency and others, NEEP is helping to accelerate the introduction of new, high efficiency technologies into the Northeast – through information and analyses, and regional strategies to create an effective market pull.

Building Industry Partnerships: NEEP engages the market muscle of retailers, manufacturers and distributors in strategic, cooperative promotions with our initiative sponsors to make high efficiency products and services the preference for consumers of all types with a 2009 focus to:

- Solidify the market role of quality *compact fluorescent lamps with consumer friendly recycling*;
- Make advanced *T-8 lighting systems* the leading product choice;
- Increase market adoption of best practices to design and install *high performance lighting systems*;
- Advance high efficiency options and best installation practices for *home and workplace heating and cooling solutions*;
- Introduce a new generation of *high efficiency appliances and electronics*; and
- Build market capacities to design and construct *high performance buildings*.

Meanwhile, the *NEEP Partners* program offers industry partners new opportunities to strategically support policies and initiatives to advance energy efficiency.

Standardizing Regional Definitions and Protocols for Demand-Side Resources: To overcome barriers to the aggressive ramp-up of energy efficiency across the region, NEEP's Regional Evaluation, Measurement and Verification Forum assists policymakers, efficiency program administrators and service providers to develop and use common definitions and protocols to estimate and report energy savings. The Forum also facilitates joint regional research and evaluation projects to update baseline data and input assumptions, and posts reports and studies for public access to support energy savings claims.

Moving Energy Efficiency Policies: Through our policy outreach, NEEP assists states to make energy efficiency a first priority through a range of public policies - from building energy codes to appliance efficiency standards to high performance energy standards for state and municipal facilities to effective planning and implementation of statewide energy efficiency plans that support whole building efficiency solutions.

Building Capacities: Our Workforce Development Network will link Sponsors and Partners to implement near-term solutions to recruit and train qualified staff; leverage and participate in a growing range of regional and national workforce development efforts; and address longer-term workforce issues to build capacities to double energy savings across the region.

Serving a Broader Region: With the success of legislation in Maryland, Pennsylvania and the District of Columbia, and the stepped-up commitment of New York, New Jersey and New England policy leaders to double energy efficiency efforts, NEEP welcomes new partners to our regional initiatives – keeping the Northeast a national and world leader in energy efficiency.

We are excited about and committed to making energy efficiency the cornerstone of the surging clean energy economy. We look forward to continued financial support and participation from across the region to help us realize our goals. It is collaboration that makes all the difference.

Sincerely, Susan Coakley Executive Director

I. <u>Overview</u>

A. NEEP's Vision

NEEP's vision is that the Northeast region will wholly embrace energy efficiency policies and programs as a cornerstone of a sustainable energy policy, a vibrant economy, and a healthy environment for people to live and work in, as well as being a role model for energy efficiency nationally.

B. NEEP's Mission

NEEP was founded in 1996 to promote the efficient use of energy in homes, buildings and industry in the Northeast U.S. through regionally coordinated programs and policies that increase the use of energy efficient products, services and practices, and that help achieve a cleaner environment and a more reliable and affordable energy system.

C. NEEP's Core Values

We work to realize our vision and mission by serving as *facilitators of regional partnerships to advance the efficient use of energy through policies, programs and practices*. In a region rich with efficiency programs and funding across eight states, NEEP is the only regional organization that advances energy efficiency policies, programs and practices through regional partnerships that leverage knowledge, capability, learning and funding to increase the impacts of individual state efforts. In doing so, we strive to bring three core values to our work internally and with our partners regionally and nationally.

- <u>Advocacy</u>: *Promoting the efficient use of energy* as a cornerstone of energy, environmental and economic policy in the region; embracing *the role of regional coordination* to realize the full potential of energy efficiency policies and programs; and focusing on *the success of our partners* to achieve lasting energy savings and market transformation.
- <u>Collaboration</u>: *Bringing people and organizations together to work effectively and creatively to research*, develop, implement and evaluate the best policies, programs and practices.
- <u>Expertise</u>: *Seeking out, developing and applying expert knowledge and skills* within our organization, among our partners and throughout the region to keep the Northeast a national leader for the efficient use of energy.

D. Strategic Goals for 2009

In 2009, the focus of NEEP-facilitated partnerships and projects is to:

• Increase the commitment of Northeast states to energy efficiency and related demand-side resource policies and programs for the building sector.

- **Increase the marketplace availability and adoption** of quality energy efficient practices and technologies.
- **Build the regional infrastructure** needed to support a major increase in building energy efficiency as a regional energy and environmental quality resource.

E. 2009 Project Areas

To achieve these goals consistent with our vision, mission and core values, NEEP offers projects and services in three areas.

1. <u>Regional Initiatives</u>

NEEP's Regional Initiatives – described in Section II - respond to the need for *regional coordination of individual ratepayer-funded programs that achieve gas and electric energy and capacity savings by overcoming market barriers to the broad adoption of quality, energy efficient products and services as preferred choices in Northeast markets*. As the leading facilitator of successful regional market transformation initiatives in the Northeast, NEEP serves administrators of gas and electric energy efficiency programs in Northeast states by:

- Facilitating regional market transformation initiatives for energy efficiency.
- *Leveraging government and industry resources* to reduce the cost of ratepayer-funded programs and to increase their effectiveness to achieve energy savings and transform markets.
- *Linking regional programs* with national efforts and policy developments.
- Researching and recommending new technologies, strategies and/or practices for *pursuit* of increased energy savings.
- *Providing technical and strategic information* to maintain effective regional energy efficiency initiatives.
- *Convening regional forums and projects* to facilitate education, information exchange and strategy development for new opportunities to increase energy efficiency.
- Tracking and documenting initiative accomplishments.

2. Public Policy

NEEP's Public Policy Projects – described in Section III - address the need to *develop and maintain a positive environment for public policies and programs that promote energy efficiency in Northeast states* as a cornerstone of energy, environmental and economic policy. As a non-lobbying, non-litigant regional organization, NEEP encourages states to adopt policies that increase the demand for efficiency products and services, continue ratepayer-funded efficiency programs, and establish building energy codes and appliance standards to "lock-in" the market effects of successful efficiency programs. NEEP achieves this by:

• *Raising the visibility of energy efficiency* in the eyes of policy makers, media, other organizations and the general public.

- *Facilitating research and outreach to recommend specific public policy options and standards* to advance energy efficiency in northeast states.
- *Coordinating policy and standards development and implementation* across states to reduce costs and increase energy savings.
- *Convening regional forums* regarding public policies that advance energy efficiency.
- *Maintaining visibility for the Northeast as a national leader* for energy efficiency policies, programs and practices.
- *Serving as a trusted and reliable resource for information* regarding public policies and programs that promote energy efficiency.

3. Regional Evaluation, Measurement and Verification Forum

NEEP's Regional Evaluation, Measurement and Verification Forum- described in Section IVassists Northeast states to implement demand side resource policies and programs through the *development and use of common or consistent protocols that estimate, track and report energy and demand savings, and their related costs and air emissions impacts*. The Forum will complete several regional projects and provide useful and accessible results that are adopted by states to:

- Increase the reliability and credibility of demand-side resources.
- *Reduce costs* of demand-side resource evaluation and research.
- *Increase participation* in demand-side resource markets.
- *Improve state, regional and local* demand-side resource and energy planning, implementation and evaluation.
- *Inform the likely development of* national/international standards and protocols in near-term and long-term.

F. Participating in and Supporting NEEP Projects

NEEP offers many paths and opportunities to participate to regional collaboration to advance the efficient use of energy in homes, buildings and industry across the region. To engage strategic collaborations, we organize and facilitate:

- Sponsoring energy efficiency program administrators to work together through *Working Groups* organized within NEEP's Regional Initiatives (see page 29);
- Efficiency advocates and other knowledgeable stakeholders to participate in *Advisory Groups* or our public policy projects (see page 39);
- State agency leaders and personnel to work with efficiency program administrators and energy service providers through *Steering* and *Project Committees* to develop and recommend best practices for common protocols to estimate and report energy savings (see page 42).

- Industry partners retailers, manufacturers and distributors serving the Northeast and Mid-Atlantic states to be prepared to participate in *Cooperative Promotions* with NEEP sponsors that build market demand for high efficiency products and best practices (see page 10);
- Demand-side resource service and product providers and other interests to support and learn about NEEP projects and recommendations through participation in *NEEP's Partner's Program* (see page 50); and
- An annual *Regional Northeast Energy Efficiency Summit* that showcases leadership for energy efficiency with sponsorship from leading program administrators, service providers, and product retailers and manufacturers from across the region (see page 44).

Through our website <u>www.neep.org</u> and our quarterly newsletter **NEEP** Notes, NEEP serves as an information resource to all – policymakers, program planners, implementers and evaluators, and service and product providers – to stay current with developments as the region makes energy efficiency the top priority energy resource for a sustainable economy, environment and quality of life.

NEEP projects are funded by government and foundation grants, sponsorships and project underwriting, summit sponsors, and partner subscriptions (see Appendix A for details).

II. <u>Regional Initiatives</u>

A. About Regional Initiatives

Since 1996, NEEP has assisted administrators of ratepayer-funded energy efficiency programs (i.e., gas, electric and efficiency utilities, state agencies and authorities) by **developing and facilitating regional energy efficiency initiatives that leverage resources and coordinate program efforts** towards common market transformation goals. **Purpose:** Increase the marketplace availability and adoption of quality energy efficient practices and technologies and whole building solutions that minimize net energy use.

This is accomplished through Initiative Working Groups and Advisory Committees, convened and facilitated by NEEP, which include initiative sponsors and other invited participants from the six New England states, New York and New Jersey. In 2009, NEEP's Regional Initiatives will continue pursuing expansion into increased gas participation and sponsorship and within the Mid-Atlantic States including Pennsylvania, Delaware and Maryland.

In 2009, NEEP's Regional Initiatives will be significantly re-tooled in light of the current policy and program dynamics related to increases in funding for gas as well as electric programming, emergence of new technologies and practices and emerging developments in the realm of building energy codes and standards.

B. New for 2009

As the energy efficiency marketplace, program administration models, technologies and practices continue to evolve, NEEP's Regional Initiatives will continue the process of change that began in 2008. For example, none of the Initiatives described in the 2007 business plan exist in the current 2009 plan. Of the five Initiatives in 2009, two are entirely new, two are significant evolutions of prior efforts, and one (Retail Products) is a previous initiative renamed to reflect an expanded scope. While the titles themselves suggest major change, the general direction of the Initiatives will be to balance the changes and the longer-term strategy development with the support of technologies and strategies that efficiency programs are expected to be working with in 2009. Among the new activities for 2009 are:

• A Focus on Whole Buildings: As net zero energy becomes an increasingly "real" long-term objective, and as baselines and policy efforts (See Section I, 2009 Public Policy Business Plan) begin to suggest that a technology-only focus will be increasingly difficult to maintain, the previous Commercial Unitary HVAC and High Efficiency Commercial Lighting Initiatives will be absorbed into the new Commercial Buildings and Technologies Initiative. Similarly last year's transition of the High Efficiency Residential HVAC Initiative to a whole buildings focus will accelerate within the High Efficiency Home Performance Initiative. NEEP's whole buildings Initiatives will continue significant momentum toward upstream cooperative activity with industry, coordination of current program activities and strategies and best practice-oriented information sharing. These Initiatives will also work closely with NEEP's High Performance Buildings and Building Energy Codes Projects to coordinate the strategic direction of programs.

- Expansion of Upstream Cooperative Promotions: In 2007, NEEP began expanding its upstream coordination beyond ENERGY STAR products and into the areas of commercial and residential HVAC and commercial lighting. In 2009, the trend will continue as NEEP seeks to build out initial air conditioning (residential split and commercial unitary equipment) pilot cooperative incentive efforts in Massachusetts, Rhode Island and Vermont and upstream outreach activity for High Performance T-8 lighting to more of the region. There is also potential for technologies such as gas heating, water heating, ductless mini-split heat pumps and lighting design to be included.
- Workforce Development: In mid-2008, NEEP launched a Workforce Development Initiative to pursue the growth of a knowledgeable, trained, and properly sized workforce to meet the efficiency goals and objectives of energy efficiency program administrators and related stakeholders. This effort specifically recognizes that in order for programs and the broader market to achieve objectives related to resource procurement and climate change, significant additional human resource capacity – from the field installer to the program manger – will be required. NEEP enters this area bringing the unique ability to synthesize and leverage the myriad activities occurring at the state and national level for its Sponsors while also bringing its ability to serve as a region-wide information and coordination agent.
- New Retail Products and TopTen USA: What was once the "Appliance and Lighting Working Group" now has a scope that covers these products as well as consumer electronics and plug load, solid state lighting, and home automation/"smart" technology. To serve this expanded scope, NEEP has invested significant effort in returning to Sponsors primary responsibility for administering various solicitation processes such as field marketing and catalog vendors, and upstream solicitations for compact fluorescent lighting. Similarly NEEP has emerged as a key champion of a new online tool called TopTen USA, which will enable consumers, policymakers, efficiency programs, and industry to access the top-ten energy performing products in various categories. NEEP will monitor this developing entity, and facilitate connection of the region's efficiency programs to it in order that they may promote, directly or via cooperative promotions with industry, such products as lighting, appliances and consumer electronics, including products not currently addressed by ENERGY STAR.

C. 2009 Regional Initiatives

	Funding Source	
Initiative or Project	Grants/ Contracts	Initiative Sponsorship
High Activity Level	-	
Retail Products Initiative	19%	81%
High Efficiency Home Performance Initiative	14%	86%
Commercial Buildings and Technologies Initiative	48%	52%
Medium Activity Level	-	
Solid State Lighting Initiative	54%	46%
Workforce Development Initiative	NA	100%

NEEP's Regional Initiatives and projects in 2009 include the following:

D. Initiative Communications

In addition to and/or expanding upon specific Initiative activities and services detailed in the following sections, NEEP will provide the following to Initiative Sponsors:

- *New!* Sponsors Web Portal: Experience has taught that in the extremely busy world of current energy efficiency program administration, e-mail and voice mail alone are not adequately able to provide information to Sponsors, and in-person discussions are seldom practical. Therefore, NEEP will launch at the outset of 2009 an internet portal to enable self-service information access by Initiative Sponsors. The structure will allow each Initiative to have a dedicated, password protected home page housing key documents pertinent to that Initiative. The portal will enable e-mail to simply describe new documents of importance and link directly to them, eliminating the need for extremely large bulk attachments and increasingly burdensome e-mail traffic.
- **Directors Forum**: The ability to keep supervisory and leadership staff of efficiency program Sponsors well-informed of the strategic directions of working groups, the working group needs for higher level approval and/or support, and the longer term directions being pursued is critical to ensuring that NEEP's strategic directions are understood and embraced by Sponsors and vice versa. Once again, experience has taught that in-person meetings with higher level staff on a one-to-one basis are impractical and teleconferences and e-mail alone are not adequate to convey information and facilitate discussion. With these factors in mind, the NEEP Initiative Directors Forum will seek to combine brief, high-level emails and quarterly teleconferences with a Directors Forum home page and infrastructure within the Sponsors Web Portal.
- **Regional Initiatives Web Page:** NEEP will maintain an up-to-date web page for Regional Initiatives at <u>www.neep.org</u> regarding Initiative status, including a calendar of Initiative activities and related events, visibility for Initiative Sponsors and other relevant public materials.
- **Reporting:** NEEP will provide to Initiative Sponsors and funders quarterly reports of accomplishments and major developments relative to Initiative goals. In addition, Initiative Sponsors will be provided regular (monthly or bi-weekly) updates of activities in each Initiative as well as various briefings on evaluation, policy and strategy projects ongoing at NEEP and relevant to particular specific Initiatives.

NEEP is also available to provide on a contracted basis direct technical assistance to Initiative Sponsors on specific issues beyond the scope of the regional Initiatives described herein.

E. 2009 Regional Initiatives Projects

1. Retail Products

Retail Products Initiative Long Term Goal

Achieve energy and cost savings by: (1) establishing high efficiency lighting, appliances and electronic product options as the preferred customer choice in retail sales in the Northeast and Mid-Atlantic region; and (2) supporting the market introduction of automated home energy management devices.

Retail Products Initiative Status/History

Retail Products include residential end-uses other than space heating, water heating and air conditioning. According to 2005 data from the U.S. Energy Information Administration (EIA), these products represents 25 percent of the just under 2.5 quads (quadrillion Btu) of total residential energy used, and about 40 percent of the expenditure in the Northeast and Mid-Atlantic. Estimates are that consumer electronics represent 12 percent of the total and is rapidly increasing. Assuming (conservatively) that the most efficient options lead to 30 percent savings, the potential savings for the region is about .75 quads. With this is mind, such products are a primary target of NEEP's residential activities.

NEEP facilitates this Regional Initiative through the Retail Products Working Group, begun in 1998 and now spanning an eight-state region in New England, New York and New Jersey. Through regional communication and coordination, Initiative Sponsors have successfully leveraged resources to increase the availability and purchase of retail products significantly above national levels. Over time, Initiative Sponsors have evolved local programs by engaging retailers and manufacturers to leverage their resources to effectively promote highly efficient products across the region. Leveraging of resources towards program goals also involves coordination of regional marketing and promotional activities with national campaigns, meetings and discussions with other regions via ENERGY STAR, the Consortium for Energy Efficiency (CEE) and emerging entities such as TopTen USA.

Historically, some Initiative Sponsor marketing and retailer outreach has been coordinated through jointly procured contractors via a joint-implementation subgroup. Other Sponsors operate independent marketing and retailer outreach, but in communication with the region. As joint activities within the region evolve to include smaller and smaller sub-groups, NEEP has begun stepping back from directly administering these processes in order to ensure its ability to focus on those aspects of the Initiative that are of the highest value to the greatest number of Sponsors.

In 2007 NEEP embraced the role of bringing to the attention of the Initiative Working Group significant new opportunities in consumer electronics, solid state lighting and home appliances. Identifying, analyzing and recommending next steps as new technologies emerge or significant market changes occur have continued to increase in importance.

Looking to 2009, the landscape and opportunities for the residential market has begun to change rapidly and significantly. Opportunities with consumer electronics and home automation are rapidly developing; solid state lighting technologies, federal lighting standards and the mercury issue are all impacting the nature of the lighting opportunity; and high market shares of traditional appliances or white goods are demanding new approaches. Through regionally consistent strategy execution and the embrace of new tools such as TopTen USA, significant savings will be pursued.

NEEP coordinates the Initiative with national activities including CEE, the American Council for an Energy-Efficient Economy (ACEEE), the U.S. Environmental Protection Agency (EPA) and

the U.S. Department of Energy (DOE), including developments in state and national building energy codes and appliance standards

2009 Retail Products Initiative Goals

In 2009, NEEP's high-level strategic goals include:

- 1. Enable increased savings to be harvested at lower and/or optimal cost;
- **2.** Maximize "reach" of programs through cooperative promotions with upstream market actors;
- **3.** Establish regionally consistent transition strategies for products reaching the end of their viability and/or need for programs (e.g., CFLs and CFL-based lighting);
- **4.** Develop and engage strategies to pull next generation high efficiency products into the marketplace (e.g., TopTen USA).

What's New

- Rapid pace of development and emergence of new technologies (e.g., solid state lighting, home automation, two-way electronic communication);
- TopTen USA's ongoing development and expected 2009 launch;
- Policy and program coordination opportunities with respect to consumer electronics and mercury.

2009 Retail Products Initiative Activities

Regional Initiative Working Group: For all Sponsors, NEEP will convene and facilitate periodic Initiative Sponsor Working Group meetings, teleconferences, and information exchanges; prepare and distribute meeting agendas and minutes; prepare and distribute Initiative materials and reports; and serve as an information resource. NEEP will develop a "Sponsors Only" web portal within <u>www.neep.org</u> to provide self-service access to relevant communications.

Coordinated Upstream Activities: Through the Working Group, NEEP will facilitate communication and execution of cooperative promotions with mid- and upstream partners as well as potentially with municipalities and other institutional partners. While traditional CFL and CFL-based lighting activities are largely "steady state" and involve smaller groups of Sponsors, and are thus not appropriate for NEEP itself facilitate execution, information sharing and coordination remain a priority. New types of mid- and upstream engagement, as well as potential engagement of municipalities, will be pursued for consumer electronics, solid state lighting (as appropriate) and for products as they relate to TopTen USA (as its development allows). In addition, activity can be expected in the area of gas-fired domestic hot water which is treated as an appliance by ENERGY STAR but is addressed as part of NEEP's High Efficiency Home Performance Initiative.

Engagement of National Activities: NEEP is an active participant in numerous national organizations and regions outside the Northeast. These efforts provide a rich source of information regarding best practices, new programs and program designs, relationships with efficiency programming colleagues as well as upstream market actors, and often lead to

opportunities for Sponsors to receive awards and make presentations. NEEP participates in these organizations to share information with its Sponsors; to inform strategy development; to enhance the effectiveness of upstream programming; and to enable coordination with national promotions. Organizations NEEP will engage with in 2009 include:

- ENERGY STAR
- Association of Energy Services Professionals
- Consortium for Energy Efficiency
- American Council for an Energy Efficient Economy
- Northwest Energy Efficiency Alliance
- California utilities
- New! TopTen USA

In this vein, NEEP also maintains a seat on the board of directors for the Program for the Evaluation and Analysis of Residential Lighting (PEARL).

Strategy Development and Deployment: A critical function that NEEP increasingly fulfills is the deep engagement of new opportunities extending beyond the typical products and program strategies currently utilized in order to develop regionally consistent program recommendations for Sponsors. As the world of efficiency rapidly changes due to policy and market guidance, it is more critical than ever that regional consistency be pursued to the extent possible so that the large upstream market actors whose businesses extend beyond any one sponsor's geographic boundaries can effectively engage. Similarly, deep interaction and coordination with policy activities related to program strategic direction and appliance standards can be expected. Strategic issues anticipated for consideration in 2009 include:

- CFL transition/exit strategy (strategy development);
- Deployment and harnessing of TopTen USA (ongoing strategy development and initial deployment);
- CFL Disposal and Recycling (deployment);
- Home automation and "smart" technologies (ongoing strategy development and potential initial deployment).

Research and Evaluation: NEEP will pursue research and evaluation projects outside the scope of the Regional Evaluation, Measurement and Verification Forum through the Initiative. The Working Group will provide Sponsors the opportunity to raise evaluation needs and share information. It is expected that briefings regarding the work of the Forum will be of interest to the Working Group and will, therefore, be provided. NEEP will pursue facilitation of joint regional execution of evaluation activities if there is a strong interest or need. In addition documenting the success of the Initiative and the programs of its Sponsors will be a priority.

2009 Retail Products Initiative Deliverables

Deliverable	Description	Schedule
I-1	1 Host four in person and/or teleconference working group meetings	
I-2	Develop "Sponsors only" web portal	Launch 1Q09
II-1	Facilitate execution of 3 or more upstream cooperative promotions	N/A
III-1	Provide national/other regional meeting notes/briefs	Within 10 business days of meeting/event
III-2	Facilitate 3 or more opportunities for Sponsors to present at national and regional meetings	N/A
III-3	Facilitate successful application for 1 or more national award/recognition	N/A
IV-1	Develop CFL exit/transition strategy	August 2009
IV-2	Develop TopTen USA strategy	March 2009
IV-3	Facilitate implementation of CFL disposal/recycling pilot in at least one state	Year-end 2009
IV-4	Develop home automation/smart home strategy	Year-end 2009
V-1	Produce 2008 Products Initiative Yearbook	February 2009
V-2	Provide four EM&V Forum and/or Policy Briefings	Quarterly within Working Group

NEEP Funding

NEEP's Retail Products Initiative is funded by Initiative Sponsors and supplemented by the U.S. EPA and DOE.

2. High Efficiency Home Performance

High Efficiency Home Performance Initiative Long Term Goal

Maximize energy savings in existing homes by: (1) coordinating best practice implementation of whole house programs that treat the home as a system; and (2) establishing highly efficient gas, electric and fuel oil HVAC and domestic hot water systems and best practice installation as the norm in the Northeast and Mid-Atlantic region.

High Efficiency Home Performance Initiative Status/History

Residential space heating, water heating and air conditioning end-uses represent 75 percent of the just under 2.5 quads (quadrillion Btu) of total residential energy used and about 60 percent of the expenditure in the Northeast and Mid-Atlantic according to U.S. EIA 2005 data. Of this, estimates are that water heating, an end-use historically under-served by efficiency programs for a host of appropriate reasons, represents about 17 percent of the total energy. Assuming (conservatively) that the most efficient options lead to 20 percent savings, the region can potentially save about .5 quads. With this is mind, and recognizing that such products are central the mechanical systems of homes, whole house programming is the second primary target of NEEP's residential activities.

In 2008, NEEP began transitioning its Residential High Efficiency HVAC program to High Efficiency Home Solutions, in recognition of the fact that whole house retrofit programming, often emphasizing HVAC and related issues, is becoming increasingly prominent throughout the region. The upstream approach to HVAC developed by NEEP and Sponsors in Massachusetts and Rhode Island was rolled out in 2008. This model facilitated the forging of cooperative agreements between Sponsors and manufacturers, distributors, "big box" retailers and service providers. The agreements provide end-users and installation contractors a comprehensive array of incentive, other marketing, and training opportunities and clearly demonstrate the alignment of the multiple parties involved. An ENERGY STAR specification for water heaters also emerged in 2008, bringing new opportunities and new relationships to be developed. With respect to whole house (or Home Performance) programming, NEEP enabled information exchange while investing heavily in program research and scoping, culminating with a regional forum to finalize the scope and plans for the High Efficiency Home Performance Initiative going-forward.

Beginning in 2009, NEEP will lead the region to develop and deploy strategies that capture deep energy reductions in existing homes through coordinated program-level activity addressing the whole house, including heating, cooling, water heating and building envelope systems; emerging smart home/home automation technologies and practices; renewable energy and microdistributed generation. Through coordination with the NEEP Retail Products Initiative, typically installed products and plug loads will also be addressed. Similarly, where natural extensions arise to other whole house programs such as those targeting new construction and low income customers, arising opportunities will be pursued.

2009 High Efficiency Home Performance Initiative Goals

In 2009, NEEP's high-level strategic goals include:

- 1. Enable increased savings to be harvested at lower and/or optimal cost;
- **2.** Maximize "reach" of programs by cooperation with cooperation with upstream market actors;
- **3.** Develop consistent understandings and cooperation among the building trades relative to whole house programming;
- 4. Deepen involvement of gas programs and initiate engagement of oil heat community.

What's New

- ENERGY STAR hot water heating and HVAC quality installation;
- Coordination with NEEP Codes, Standards and High Performance Buildings projects on issues related to pursuit of net zero homes;
- Coordination of multiple building trades;
- Interest in efficiency on the part of the heating oil community.

2009 High Efficiency Home Performance Initiative Activities

Regional Initiative Working Group: For all Sponsors, NEEP will convene and facilitate periodic Initiative Sponsor Working Group meetings, teleconferences, and information exchanges; prepare and distribute meeting agendas and minutes; prepare and distribute Initiative materials and reports; and serve as an information resource. NEEP will develop a "Sponsors Only" web portal within <u>www.neep.org</u> to provide self-service access to relevant communications.

Coordinated Upstream Activities: Through the Working Group, NEEP will facilitate the expansion of the upstream cooperative promotions approach to HVAC by facilitating additional industry meetings, solicitations and/or agreements as called for by Sponsors and the market. NEEP will also expand the products under consideration by such activities to include ductless mini-split heat pumps and water heating. Introduction of a "standard offer" model, per the request of industry, will enable all upstream partners the opportunity to engage participating efficiency programs consistently. Development of relationships with the heating oil community will be pursued as this fuel becomes increasingly interested in efficiency programming and as the increased focus on gas programming brings envelope and thermal efficiency to the fore.

Engagement of National Activities: NEEP is n an active participant in the activities of numerous national organizations and regions outside the Northeast. These efforts provide a rich source of information regarding best practices, new programs and program designs, relationships with efficiency programming colleagues as well as upstream market actors, and often lead to opportunities for Sponsors to receive awards and make presentations. NEEP participates in these organizations to share information with Sponsors; to inform strategy development; to enhance the effectiveness of upstream programming; and to enable coordination with national promotions. Among the organizations NEEP engages in these respects are:

• ENERGY STAR

- Association of Energy Services Professionals
- Consortium for Energy Efficiency
- Air Conditioning Contractors of America
- Air Conditioning, Heating and Refrigeration Institute
- Affordable Comfort

Strategy Development and Deployment: A critical function that NEEP increasingly fulfills is to deeply engage new opportunities that extend beyond the typical types of products and program strategies currently utilized in order to develop regionally consistent program recommendations for Sponsors. As the world of efficiency rapidly changes, it is more critical than ever that regional consistency be pursued to the extent possible so that the large upstream market actors whose businesses extend beyond any one sponsor's geographic boundaries can effectively engage. With significant activity expected in the areas of building energy codes and time of sale requirements, the coordination and engagement of NEEP's policy projects will be significant as well as critical. Strategic issues anticipated for consideration in 2009 include:

- Integration of all fuels within programs
- Water heating efficiency
- Incorporation of heating oil into programs
- Whole house program best practices
- Cooperation/coordination of the building trades
- Building energy codes
- Time of sale performance requirements

Research and Evaluation: NEEP will pursue research and evaluation projects outside the scope of the Regional Evaluation, Measurement and Verification Forum through the Initiative. The Working Group will provide Sponsors the opportunity to raise evaluation needs and share information. It is expected that briefings regarding the work of the Forum will be of interest to the Working Group and will, therefore, be provided. NEEP will pursue facilitation of joint regional execution of evaluation activities if there is a strong interest or need. In addition, documenting the success of the Initiative and the programs of its Sponsors will be a priority.

Deliverable	Description	Schedule
I-1	Host four in person and/or teleconference working group meetings	Quarterly
I-2	Develop "Sponsors only" web portal	Launch 1Q09
II-1	Facilitate execution of 3 or more upstream cooperative promotions	N/A
III-1		
III-2	Facilitate 3 or more opportunities for Sponsors to present at national and regional meetings	N/A
III-3	Facilitate successful application for 1 or more national award/recognition	N/A
IV-1	Develop strategy for addressing water heating efficiency	August 2009
IV-2	Develop strategy for engaging heating oil	March 2009
IV-3	Develop whole house program best practices and regional strategy	Year-end 2009
IV-4	Develop strategy for facilitation of cooperation among building trades	Year-end 2009
V-1	Produce 2008 Products Initiative Yearbook	February 2009
V-2	V-2 Provide four EM&V Forum and/or Policy Briefings	

2009 High Efficiency Home Performance Initiative Deliverables

NEEP Funding

NEEP's High Efficiency Home Performance Initiative is funded by Initiative Sponsors and supplemented by the U.S. EPA.

3. Commercial Buildings and Technologies Initiative

Commercial Buildings and Technologies Initiative Long Term Goal

Capture significant savings from the treatment of commercial and industrial buildings by: (1) coordinating adoption of a comprehensive, systems approach to buildings; (2) addressing all fuels and end-uses and; (3) coordinating use of sector-oriented strategies.

Commercial Buildings and Technologies Initiative Status/History

The Commercial Buildings and Technologies Initiative is a new endeavor for NEEP. The Initiative will absorb (and continue) much of the current High Efficiency Commercial Unitary HVAC and High Efficiency Commercial Lighting Initiatives.

Historically, the region's efficiency program administrators have operated "umbrella" commercial programs combining prescriptive and custom incentives to address separate end-uses and technologies via specific models that rely on building simulation and engineering analysis. Such programs have tended to offer one of three pathways to participation:

- Customer self-referral based on awareness and/or response to various marketing activities;
- Customer self-referral driven by third-parties familiar with programs (architect, engineer, lighting contacts, HVAC contacts);
- Project development by program and/or utility staff outreach and relationships.

Upon initiation of interest in the program, customers tend to progress through one of four paths:

- Development of projects via prescriptive paths and using in-house or third party staff familiar with programs;
- Utilization of program and/or utility technical expertise to develop more complex and/or custom projects;
- Utilization of third party technical expertise under contract to the program;
- Utilization of third party expertise with a relationship to the customer and often with approval and funding from the program and/or utility.

Similarly the Commercial Buildings and Technologies Initiative will function as an "umbrella" Initiative, addressing the range of topics related to the word of commercial efficiency program administrators, remaining cognizant of the differing participant models.

NEEP will facilitate strategic coordination of the region's efficiency programs to meet aggressive state energy and environmental savings goals and related policy activities. This will be accomplished by developing and implementing commercial sector strategies encompassing scopes similar to those of the "umbrella" new construction/lost opportunity and existing buildings/retrofit programs. The Initiative will integrate the range of issues and opportunities dealt with by program administrators including energy efficiency practices, technologies, community and market-based initiatives, and other demand resources. In all its facets, the Initiative will remain focused on progress toward net zero energy and exceeding rapidly rising baselines relative to both new and existing buildings.

2009 Commercial Buildings and Technologies Initiative Goals

In 2009, NEEP's high-level strategic goals include:

- 1. Enable increased savings to be harvested at lower and/or optimal cost;
- 2. Maximize "reach" of programs by cooperation with mid- and upstream market actors;
- **3.** Develop understandings of and deploy consistently best practices relative to whole buildings programming;
- **4.** Facilitate the paradigm shift toward comprehensive, all fuels existing buildings retrofit programming.

What's New

- Coordination with Building Energy Codes, Appliance Standards and High Performance Buildings projects on issues related to pursuit of net zero buildings;
- Consumption (kWh) performance-based lighting calculations and program structures related to advanced lighting design and controls;
- Eminent changes to federal unitary air conditioning minimum efficiency standard and refrigerant requirements;
- Coordination with ESCOs;
- Commercial building envelope and thermal opportunities.

2009 Commercial Buildings and Technologies Initiative Activities

Regional Initiative Working Group: For all Sponsors, NEEP will convene and facilitate periodic Initiative Sponsor Working Group meetings, teleconferences, and information exchanges; prepare and distribute meeting agendas and minutes; prepare and distribute Initiative materials and reports; and serve as an information resource.

For the Commercial Buildings and Technologies Initiative there will likely emerge smaller subcommittees on more specific aspects of the Initiative such as high performance T-8 lighting; rooftop air conditioning; commissioning and retro-commissioning; end-use customer relationship management; and envelope.

NEEP will develop a "Sponsors Only" web portal within <u>www.neep.org</u> to provide self-service access to relevant communications.

Coordinated Upstream Activities: Through the Working Group, NEEP will facilitate the expansion of the upstream cooperative promotions approach to HVAC by facilitating additional industry meetings, solicitations and/or agreements as called for by Sponsors and the market.

NEEP may also expand the products under consideration by such upstream activities to include technologies of emerging interest such as geothermal heat pumps and integrated packaged HVAC controls. Significant outreach and cooperative work with the architect, engineer, lighting design and ESCO communities can also be expected.

Engagement of National Activities: NEEP is an active participant in the activities of numerous national organizations and regions outside the Northeast. These efforts provide a rich source of information regarding best practices, new programs and program designs, relationships with efficiency programming colleagues as well as upstream market actors, and often lead to opportunities for Sponsors to receive awards and make presentations. NEEP participates in these organizations to share information with its Sponsors; to inform strategy development; to enhance the effectiveness of upstream programming; and to enable coordination with national promotions. Among the organizations NEEP engages in these respects are:

- ENERGY STAR
- U.S. DOE Net Zero Commercial Buildings Initiative
- Association of Energy Services Professionals
- Consortium for Energy Efficiency
- American Council for an Energy Efficient Economy
- New Buildings Institute
- National Council on Qualifications for the Lighting Professions

Strategy Development and Deployment: A critical function that NEEP increasingly fulfills is to deeply engage new opportunities that extend beyond the typical types of products and program strategies currently utilized in order to develop recommendations for Sponsors. As the world of energy efficiency rapidly changes due to policy and market guidance, it is more critical than ever that regional consistency be pursued to the extent possible so that the large upstream market actors whose businesses extend beyond any one sponsor's geographic boundaries can effectively engage. As NEEP's High Performance Buildings efforts grow from its initial focus on new school construction to encompass new and existing buildings in multiple sectors, significant coordination can be expected with the Commercial Buildings and Technologies Initiative. Strategic issues anticipated for consideration in 2009 include:

- Integration of all fuels within programs
- Advanced rooftop equipment (heating and cooling)
- Existing HVAC equipment maintenance and performance-oriented servicing
- Whole buildings best practices
- Regional strategy for existing buildings
- Commercial shell and thermal opportunity scoping

Research and Evaluation: NEEP will pursue research and evaluation projects outside the scope of the Regional Evaluation, Measurement and Verification Forum through the Initiative. The Working Group will provide Sponsors the opportunity to raise evaluation needs and share information. It is expected that briefings regarding the work of the Forum will be of interest to the Working Group and will, therefore, be provided. NEEP will pursue facilitation of joint regional execution of evaluation activities if there is a strong interest or need. In addition, documenting the success of the Initiative and the programs of its Sponsors will be a priority.

Deliverable	Description	Schedule
I-1	Host four in person and/or teleconference working group meetings	Quarterly
I-2	Develop "Sponsors only" web portal	Launch 1Q09
II-1	Eacilitate execution of 3 or more upstream cooperative	
II-2	Develop and deploy Commercial Lighting Solutions upstream training, messaging and outreach strategy	Beginning 2Q09
III-1	Provide national/other regional meeting notes/briefs	Within 10 business days of meeting/event
III-2	Facilitate 3 or more opportunities for Sponsors to present at national and regional meetings	N/A
III-3	Facilitate successful application for 1 or more national award/recognition	N/A
IV-1	Develop regional existing buildings strategy	August 2009
IV-2	Develop rooftop heating and cooling strategy for 2010 and beyond	March 2009
IV-3	Develop whole buildings best practices brief	Year-end 2009
V-1	V-1 Produce 2008 Products Initiative Yearbook	
V-2	Provide four EM&V Forum and/or Policy Briefings	Quarterly within Working Group

2009 Commercial Buildings and Technologies Initiative Deliverables

NEEP Funding

NEEP's Commercial Buildings and Technologies Initiative is funded by Initiative Sponsors and supplemented by the U.S. DOE.

4. Solid State Lighting Initiative

Solid State Lighting Initiative Long Term Goal

Capture significant savings from solid state lighting (SSL), without jeopardizing customer satisfaction, by: (1) disseminating technical and market information regarding solid state lighting; and (2) developing and deploying regional strategies for incorporation of the technology into efficiency programs.

Solid State Lighting Initiative Status/History

According to the U.S. Department of Energy, "no other lighting technology offers the Department (of Energy) and our nation so much potential to save energy and enhance the quality of our building environments (as solid state lighting)." A study by Roland Haitz of Lumileds suggests that emerging technologies such as solid state lighting have historically achieved roughly a twenty-fold increase in performance each decade while experiencing roughly a tenfold decrease in first cost (see p. 26 of "<u>Multi-Year Program Plan FY'09-FY'14</u>: <u>Solid State Lighting Research & Development</u>"</u>). With this is mind, NEEP is aggressively engaged in the emergence of solid state lighting.

Solid state lighting technology is rapidly becoming ready for "prime time" for several applications. However, market deployment and acceptance is jeopardized by varying definitions and approaches to describing performance, testing methodologies and ENERGY STAR specifications. Objective information dissemination, awareness of research and development; comprehension and use of products in the lab and field; and strategic deployment within the marketplace and efficiency programs are all necessary. NEEP maintains excellent relationships with all key parties and includes its DOE-funded Technical Information Network for Solid State Lighting in the overall Solid State Lighting Initiative.

2009 Solid State Lighting Initiative Goals

In 2009, NEEP's goals include:

- 1. Deepen regional knowledge and awareness of SSL issues, opportunities and challenges;
- **2.** Develop strategies for deployment of SSL as appropriate into NEEP Initiatives and Policy activities;
- 3. Maintain and enhance electronic information dissemination infrastructure.

What's New

- ENERGY STAR specifications
- Product testing infrastructure and procedures
- Linear and A-Lamp product development

2009 Solid State Lighting Initiative Activities

Information Dissemination: NEEP utilizes funding from the U.S. Department of Energy to maintain enhanced participation in its Technical Information Network for Solid State Lighting,

which provides comprehensive, accurate and timely information related to its SSL research, development and commercialization activities. NEEP leverages this funding with Sponsor funds to address additional SSL information. Through DOE funding, NEEP maintains a dedicated section of its website (NEEP: Regional Initiatives: Technical Information Network for Solid State Lighting), provides an electronic newsletter and additional periodic news flashes, and engages all of its working groups and committees (Initiatives and elsewhere) to provide information and answer questions. Sponsor funding enables NEEP to cover additional SSL-related topics within the various Initiative working groups.

Strategy Development and Deployment: In 2009, with ENERGY STAR specifications in place and several types of SSL at or near a state of market readiness, NEEP will utilize available Sponsor funding and seek additional (federal) funding to develop strategies for the deployment of SSL within its various Initiatives and Policy activities. Specifically, SSL strategies are likely to be appropriate for development within the Retail Products, Commercial Buildings and Technologies, Building Energy Codes, and High Performance Buildings activities of NEEP.

Research and Analysis: Through its U.S. DOE funding, NEEP will conduct a second-year study of the reach and impact of its information dissemination efforts, develop a report and offer recommendations with respect to information dissemination and SSL activities.

Deliverable	Description	Schedule
I-1	Produce and distribute NEEP-TINSSL Newsletter	Quarterly
I-2	Maintain NEEP-TINSSL web infrastructure	Ongoing
I-3	Incorporate DOE SSL activities and information into NEEP working groups and committees	Ongoing
II-1	Develop SSL strategy documents	As funding allows
III-1	Conduct reach and impact evaluation and report	2 nd Quarter 2009

2009 Solid State Lighting Initiative Deliverables

NEEP Funding

NEEP's Solid State Lighting Initiative is funded by the U.S. DOE and is supplemented with Sponsor funding.

5. Workforce Development Initiative

Workforce Development Initiative Long Term Goal

Develop a knowledgeable, trained, and sized workforce to meet the efficiency goals and objectives of energy efficiency program Sponsors and related stakeholders.

Workforce Development Initiative Status/History

The Workforce Development Initiative is a new endeavor for NEEP.

NEEP will develop and manage an effort that coordinates multiple parties and leverages existing resources to build an energy efficiency and renewable energy workforce that meets the needs of our Initiative Sponsors.

The rapidly increasing priority of demand-side programming in states is placing additional demands on existing staffing. The expansion of the efficiency workforce is further constrained by the several factors:

- Mature existing workforce, with a large percentage eligible for retirement in the next 3-5 years across the energy industry;
- General lack of interest in "blue collar" and trades among young people;
- Lack of standardization in terms of preparation for energy efficiency;
- Lack of awareness of the industry as an employment option.

As a result, there are numerous new regional efforts seeking to address the issue of workforce development. In general these efforts are neither coordinated nor broadly focused on the totality of the demand-side and clean energy fields. NEEP will pursue coordination and leveraging of these disparate efforts, including:

- Assessment of existing and new positions that need to be filled
- Training, education and professional development
- Recruiting support
- Certification and licensure

2009 Workforce Development Initiative Goals

In 2009, NEEP's high-level strategic goals include:

- 1. Enable expansion of NEEP Sponsor human resource (staff and contractor) base;
- **2.** Clarify existing training, certification and education infrastructure and define gaps and needs;
- **3.** Coordinate efforts of market actors (i.e. contractor trades, manufacturers, retailers, etc.) and Initiative Sponsor organizations to expand capacities to implement efficiency products, services and measures.

2009 Workforce Development Initiative Activities

Workforce Development Network: NEEP will convene a Network of interested participants, including Initiative Sponsors, state agencies, consultants other industry stakeholders. Through the Network, NEEP will organize and facilitate meetings, teleconferences, and information exchanges; prepare and distribute meeting agendas and minutes; prepare and distribute Initiative materials and reports including periodic updates; and serve as an information resource. NEEP will develop a "Workforce Development" web portal within <u>www.neep.org</u> to provide self-service access to relevant communications for the Network.

Near-Term Workforce Development Solutions: NEEP will work with the Workforce Development Network to develop tools and approaches, and compile resources to assist Sponsors in 2009 to expand their workforce. Examples of near-term solutions may include:

- Collaboration among Sponsors to retain a common contractor to serve as an "Outreach Coordinator" to reach out to community colleges, universities, training organizations and others on energy efficiency concepts for curriculum development and/or outreach to recruit interns or place graduates in jobs after completion of degree or certificate programs.
- Coordinate input to curriculum development efforts in the Northeast (i.e. JFYNetWorks).
- Launch a web-based job board for internships and entry level positions in the energy efficiency field.

Strategic Coordination with Local, Regional and National Activities: NEEP will track and participate in relevant workforce development efforts within the region and nationally that offer resources or assistance to address NEEP Sponsor workforce development needs (e.g., the Association of Energy Services Professionals, New England Clean Energy Council, Northeast States for Coordinated Air Use Management (NESCAUM), Edison Electric Institute and others) as well as state-based activities (e.g., the New York Workforce Training and Development Working Group, implementation of the Massachusetts Green Jobs Act (2008), and others). NEEP will also track related workforce development policy issues that address or otherwise affect the expansion and training of the energy efficiency workforce.

NEEP will participate in these discussions and organizations to share information with Sponsors; to inform strategy development; to enhance the effectiveness of outreach and engagement of workforce development-related stakeholders; to enable coordination of Sponsor efforts with state policies and national promotions; and to encourage coordination between the various entities and activities themselves.

Long-term Strategy Development and Deployment: In the midst of the near-term pressures to rapidly ramp-up energy efficiency, NEEP will assist Sponsors to address longer-term strategic issues and opportunities for regional collaboration to capture economies of scale that can help meet aggressive efficiency targets. Long-term strategic workforce development issues anticipated in 2009 may include:

• Assessing skill set, knowledge and education/training needs both internally at efficiency programs and externally in the market;

- Cataloging and assessing existing licensure and certification constructs and needs
- Mentoring strategies for new hires in energy efficiency;
- Efficiently and expediently connecting job-seekers with employment opportunities throughout the region.

2009 Workforce Development Initiative Deliverables

Deliverable	Description	Schedule
I-1	Host a minimum of four in person and/or teleconference working	Quarterly and
1-1	group meetings	as needed
	Maintain "Workforce Development Network" web portal,	
I-2	including Network documents, links to policy developments and	Ongoing
	other resources.	
	Develop relationships with national and regional educational	
II-1	institutions and training organizations to expand the infrastructure	2Q09
	to accomplish expanded energy efficiency market activities (JFY	2009
	Networks, Community Colleges, etc).	
II-2	Provide national/other regional meeting, policy action, legislation	1009
II 2	notes/briefs	1Q09
II-3	Develop and distribute updates to the Workforce Development	At least
11-5	Network on ongoing NEEP and market activities	Monthly
	Facilitate collaborative activities of the Network in pursuing	
III-1	projects to assist Sponsors in 2009 (e.g., jointly fund outreach	3Q09
	coordinator to work with education institutions).	
III-2	Develop or leverage existing web-based job tool(s) to recruit new	4Q09
111-2	talent to energy efficiency (internships, permanent positions)	-1Q07
	Establish a process to capture and share information on new and	
IV-1	existing energy efficiency jobs (skills, knowledge, education,	1Q09
	training)	
IV-2	Initiate development of mentoring strategies for new hires in	4Q09
1 4 - 2	energy efficiency.	(0)

NEEP Funding

NEEP's Workforce Development Initiative is funded by Initiative Sponsors.

2009 Regional Initiative Working Groups and Advisory Committees

Regional Initiative Working Groups and Advisory Committees
Regional Initiatives Directors Forum
Retail Products Working Group
High Efficiency Home Performance Working Group
Commercial Buildings and Technologies Working Group
Workforce Development Network

In addition, various committees and sub-committees can be expected to emerge, for example with respect to TopTen USA and solid state lighting.

III. <u>Public Policy</u>

A. About Public Policy

NEEP facilitates partnerships and serves as an information resource for policymakers, advocates, efficiency program administrators and other stakeholders to support the adoption and implementation of public policies that advance the efficient use of energy in the buildings sector. We accomplish this through general policy research and outreach, as well as through specific projects. **Purpose**: Develop and maintain a positive environment for public policies and programs that promote building energy efficiency in Northeast states.

Public Policy activities are guided by the Policy Committee of the

NEEP Board of Directors, which defines the overall direction for the organization's efforts. In addition, specific projects are served by Advisory Committees that inform project priorities, provide strategic information and referrals, review materials, and help coordinate NEEP projects with related efforts. *A list of Public Policy Advisory Committees is provided at the end of this section.*

New for 2009

• A Greater Focus on Buildings: Since 2003, NEEP has managed the very successful High Performance Schools Exchange, which has overseen the development of the Northeast Collaborative for High Performance Schools (NE-CHPS) protocols to guide the design and construction of new K-12 school facilities throughout the Northeast. Based upon both evolving funding and enhanced policymaker interest, in 2009 NEEP will transition this mature project to a broader focus as our High Performance Buildings Project.

Together, NEEP's High Performance Buildings and Building Energy Codes Projects will guide state policies and advocacy for effective minimum building energy codes (including code training) and beyond-code, high performance building standards. While this project will continue to include a specific focus on schools, the broadened mission will at first address public buildings beyond schools, as well as a development project whose ultimate goal will be to inform the effort to create high performance building standards for the health care sector. The ultimate goal of NEEP's High Performance Buildings Project is to match the vision and goals expressed by high performance building advocates, the U.S. Department of Energy and policymakers such as Massachusetts Governor Deval Patrick of eventually making Net Zero Energy buildings the norm throughout the region. And if these goals are to be met, the foundation work needs to begin now in the areas of Building Energy Codes and High Performance Buildings.

• Measurement and Verification on Its Own: Reflective of the policymaker interest in developing consistent regional protocols for the measurement and verification of energy savings, NEEP in July launched the Northeast Evaluation, Measurement and Verification (EM&V) Forum (described in Section IV). NEEP's Public Policy team will continue to work closely with the EM&V Forum staff to coordinate outreach and education in the areas of

measurement and evaluation, particularly as new opportunities arise for energy efficiency to be valued and rewarded in regional markets.

- Appliance Efficiency Standards Are Both New and Continuing: NEEP's highly successful Appliance Efficiency Standards Project has been instrumental in the inclusion of two dozen new appliance efficiency standards at the federal level through the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. With work in 2008 having largely focused on assisting states develop a waiver to seek preemption from the federal standard for residential furnaces and coordinate regional input into other important federal standards rulemakings, the project in 2009, while continuing that vital work, will once again return to state-level efforts to see efficiency standards adopted for a new generation of consumer electronics, which, if realized, will amount in significant energy savings for the Northeast.
- Efficiency Policy Moves into an Implementation Phase: The last two years have seen extraordinary progress on the development and adoption of new public policies that mandate the capture of greater levels of energy efficiency in many Northeast states, including Maine, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Maryland and Pennsylvania. The Green Communities Act in Massachusetts, the "15 by 15" energy efficiency portfolio standards proceedings in New York, the New Jersey Energy Master Plan and the integrated resource planning process in Connecticut are but a few examples of areas where significant attention will need to be paid to the regulatory and administrative implementation of sweeping new public policies. As these mandates move into an implementation phase, NEEP's Policy Outreach efforts will focus on helping to realize the maximum energy, economic and environmental benefits those policies can offer.

Funding

NEEP's Public Policy activities are funded by grants from the U.S. EPA, U.S. DOE, private foundations, and supplemented by project underwriting.

	Funding Source		
2009 Public Policy Projects	Foundations	Federal Programs	Project Underwriters
Activity Level by Percent of 2009 Public Policy Budget			
Northeast States Building Energy Codes – 43%	56%	26%	18%
High Performance Buildings – 19%	72%	0%	28%
Policy Outreach - 30%	58%	10%	31%
Appliance Efficiency Standards – 8%	65%	0%	35%
Total: 100%	61%	14%	25%

B. Public Policy Goals for 2009

In 2009, NEEP will work toward the following public policy goals for the region. As has been our practice in recent years, these goals are both specific in nature – for projects like Appliance Efficiency Standards and Building Energy Codes – and more general, in contributing to the realization of broader policy objectives through vehicles such as the Regional Greenhouse Gas Initiative (RGGI) and energy efficiency procurement mandates.

In terms of specific policy outcomes, with NEEP proposing to provide a significant role in that outcome, these will include:

- At least two Northeast states add or adopt new state energy efficiency appliance standards; three Northeast states implement new standards regulations; five Northeast states provide coordinated input into the federal energy efficiency standards rulemaking process to ensure strong new national product standards; at least three states complete a petition to the U.S. Department of Energy (DOE) for a waiver from preemption for residential furnaces and boilers.
- 2. Northeast states will adopt all or some of the elements included in NEEP's **Model Progressive Building Energy Codes Policy**, particularly by, at a minimum, beginning the process to **update their state building energy codes** to match the energy requirements of the 2009 International Energy Conservation Code (IECC).
- **3.** Two Northeast states will adopt the **"beyond code" provisions** of the Model Progressive Building Energy Codes Policy as an **"Informative Appendix"** to their building energy codes.
- **4.** Four Northeast states support or sponsor energy code-specific training for **building officials** as well as energy code training programs for the **regulated community**.
- 5. The states of Massachusetts, Maine, Rhode Island, New York and New Hampshire, continue to endorse the Northeast Collaborative for High Performance Schools (NE-CHPS) protocol as the recommended or required standard for new school construction, and that the states of Connecticut and Vermont make NE-CHPS the recommended or required new school construction standard.
- 6. Complete the NE-CHPS Update (Version 2.0) and brief state education and/or school building officials in at least three Northeast states for adoption.
- 7. Complete and present the CHPS Retrofit guide with stakeholder support to at least four Northeast states for adoption.
- 8. Develop and present school building operations and maintenance certification requirements to state policymakers in at least two states for their endorsement.
- **9.** Research and recommend for adoption in two states **building energy rating and energy performance requirements** for existing homes and building.

In terms of more general policy outcomes, where NEEP is likely to facilitate or assist the partnerships that attain certain policy objectives, our proposed 2009 goals include:

1. Northeast states' successful implementation of the **Regional Greenhouse Gas Initiative** (**RGGI**) results in significant new funding for **energy efficiency opportunities that are**,

in turn, effectively implemented so as to aid in meeting carbon emissions reductions targets at both a state and regional level.

2. Public policymakers in six Northeast states adopt rules and regulations that support the effective deployment of energy efficiency as a first order resource to meet state and regional clean energy policy goals.

In each of these two areas of policy outreach, success will be measured by the positive outcome in proceedings that NEEP contributes to, either directly or through support to our policy partners.

In addition, Public Policy staff will continue to coordinate policy developments with the NEEP Regional Initiatives team.

C. 2009 Public Policy Projects

In 2009, NEEP will work to achieve these goals through four projects.

1. Policy Outreach

Ongoing since NEEP was founded, this 2009 project seeks to maintain a positive environment for energy efficiency policies and programs by facilitating strategic alliances to develop and disseminate information to:

- **1. Inform policymakers on specific issues and opportunities** to increase energy efficiency to meet policy goals and objectives; and
- **2.** To generally increase policymaker knowledge of and support for energy efficiency as a policy instrument to help achieve economic, environmental and energy system goals and objectives.

NEEP accomplishes this by working with other stakeholders to:

- **Identify and respond to opportunities** for public comment or input in relevant state or regional policy proceedings;
- **Research and develop informational materials** for policymakers regarding the benefits of energy efficiency and regional partnerships to address leading policy issues and concerns;
- **Promote energy efficiency policies and programs** in relevant regional and national forums; and
- **Cultivate relationships with policy and opinion leaders** supportive of energy efficiency as a public policy.

NEEP encourages and provides information to other stakeholders to intervene in proceedings or other opportunities that involve lobbying or litigation towards our policy objectives.

As part of the Policy Outreach Project for 2009, NEEP will use its **updated analysis of the potential for economically achievable energy efficiency** in the region to help make the case to state regulators for maximizing the reach and impact of new energy efficiency procurement mandates that have been enacted across the region, but to also inform new public policy efforts in states that haven't yet achieved similar policy commitments for increased energy efficiency.

The Project will also work with partners, allies and other stakeholders to develop effective research and analysis to bolster the case for the procurement of all cost-effective energy efficiency, specifically in the context of regulator concerns about the **cost impact on ratepayers**.

Project activities are informed by the NEEP Board Policy Committee and are funded by grants and project underwriting.

2. Northeast States Minimum Efficiency Standards Project

As a model for regional partnerships to advance energy efficiency public policy, NEEP's Standards Project in 2008 worked largely behind the scenes, helping the Massachusetts Department of Energy Resources prepare its application for a preemption waiver to the federal residential furnace and boiler standard. This work will be used by additional states that have also chosen or may still choose to enact their own state-based furnace standard. NEEP also spent considerable effort in 2008 on helping to coordinate regional input into a number of standards rulemakings at the U.S. Department of Energy, which, after years of inaction, has finally begun to meets its statutory responsibilities in setting new appliance efficiency standards.

That work to **help influence standards policy at the federal level will continue** in 2009, but **will be joined by renewed efforts to enact other state-based appliance efficiency standards**. While there will not exist a great number of new products on which state standards action will be sought, there is one new product category for appliance standards to be pursued in 2009 that will, if successful, result in major energy savings for states in the region.

Working with our fellow advocates at the federal level and from the state of California, NEEP will introduce in at least two states **a new appliance efficiency standard for televisions**.

Television energy use has spiraled upward in the last decade, due primarily to three factors. The first is that the average television operates more hours per day. The second is that televisions are, on average, much larger. The third is that today's high-definition digital televisions use far more energy than their analog predecessors. In fact, television and set-top box energy use, which today accounts for approximately 6.5 percent of residential electricity use, is estimated to grow to nearly 10 percent of residential energy use by 2030. Yet, televisions also are one of the few major energy using products in the home not subject to any federal standards.

NEEP, in consultation with national efficiency standards experts, such as the Appliance Standards Awareness Project, and the California Energy Commission, plans to introduce a television efficiency standard that, if enacted, would reduce energy use in a state such as Massachusetts by nearly 800 gigawatt-hours per year, or a roughly 4 percent reduction in overall residential energy use. This standard, which has been researched and developed by Pacific Gas and Electric, and has the support of all the California investor-owned utilities, would form the backbone of NEEP's proposed new state energy efficiency standards package in 2009.

3. Northeast States Building Energy Codes Project

The goal of the Northeast States Building Energy Codes Project is to **achieve significant energy savings in new construction, remodeling and renovations through up-to-date building energy codes in Northeast states** that meet or exceed national model energy code requirements, and to **attain a high level of energy code compliance** (75 percent or better).

Guided by a Regional Building Energy Codes Advisory Committee since 1998, NEEP works with the U.S. DOE, state agencies, utilities, energy efficiency program administrators and other stakeholders to achieve the project goal.

In 2009, NEEP's Building Energy Codes Project will continue on a dual path, that includes both **advocacy** and **training and technical assistance**.

The **advocacy** component will be informed by the Model Progressive Building Energy Codes Policy that NEEP developed in 2008 to provide guidance to states in setting both new building energy codes, in improving upon code compliance, and informing the effort to develop new high performance "beyond code" building standards to meet a number of public policy objectives.

NEEP's white paper, *Model Building Energy Codes Policy for Northeast States*, will serve as the basis for this outreach work. In it, NEEP makes the case for:

- Regular, timely updates to state building energy codes to match the latest national model building energy codes.
- Enhanced training, education and certification to improve code compliance, as well as an option for independent, third-party energy code inspectors to aid in jurisdictions where inspection from the local building official is inadequate or not practical.
- Building commissioning requirements to be sure that buildings are performing as designed, as well as building benchmarking.
- Time-of-sale energy rating requirements to address the existing building stock in a way that provides valuable information on building energy use to prospective buyers.
- The need to adopt beyond-code building standards to serve the needs of an everexpanding marketplace that seeks guidance on how to design and build high performance buildings.

As is our practice, NEEP will work with our partners, allies and other interested stakeholders to reach out to state policymakers and recommend adoption of the key components of the Model Codes Policy. NEEP will serve as an **overall information resource** for this effort, using our website and other means of communication; will convene and facilitate an Advisory Committee to inform our efforts; and will seek opportunities to present our recommendations are relevant public forums and other events.

NEEP will also continue to maintain a **"pipeline" of best practices** and national activities in energy codes by monitoring and participating in processes through the International Codes Council (ICC); the Department of Energy; the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE); the Responsible Energy Codes Alliance (RECA); Building Codes Assistance Project (BCAP); and others.

To further develop the *Model Building Energy Codes Policy*, NEEP will also research and develop, with the guidance of a regional Advisory Committee, recommendations for state adoption and implementation of **Building Energy Rating and Performance Requirements**.

The **training and technical assistance component of NEEP's Building Energy Code Project** will take advantage of the significant staff expertise represented in our Senior Program Manager for High Performance Buildings and our two Building Energy Codes Project managers, who all have extensive experience working in the building sector on issues related to building energy use, both from a technology and design perspective.

Through our relationships with state code agencies in the region, NEEP will also continue to provide opportunities for training and technical support, whether in **updating state building energy codes** or **providing training** for the regulated and regulator communities.

As part of this effort, NEEP in 2009 will update its **Training Resource Guide** to inform states of opportunities available to them in the areas of training and education. Staff will also continue to provide direct training in partnership with associations of building officials, professional organizations such as the Boston Society of Architects and the American Institute of Architects. And NEEP will **continue to serve on the technical committees and/or working groups** of several state code offices as a means of assisting their code update and training efforts, as has been the case in several Northeast states, such as Massachusetts, Rhode Island and Connecticut.

NEEP's Building Energy Code Project is funded by U.S. DOE, foundation grants and regional project underwriters.

4. High Performance Buildings

NEEP's work in the area of High Performance Buildings has evolved from the highly successful implementation of its High Performance Schools Exchange, which, since 2003, has worked toward the long-term goal of having the majority of new and renovated school buildings in the Northeast designed and constructed to high performance schools principles. In 2008, NEEP was honored with the *Green Apple Award* from the Collaborative for High Performance Schools (CHPS) for its leadership in high performance schools public policy.

In 2009, with more than 50 high performance schools having been constructed in the Northeast, NEEP will continue its focus on schools as a specific building type, but will broaden this regional project to provide policy and program guidance into high performance buildings across the building stock.

It is NEEP's vision that the work we do today on High Performance Buildings will pave the way for the eventual development of Net Zero Energy Buildings on a broader scale throughout the region. In the simplest terms, Net Zero Energy Buildings are those buildings that consume no more energy than they are able to produce. Because such on-site generation needs to be clean and sustainable, the integration of renewable energy technologies into the building itself is an essential component of a Net Zero Energy Building. This integration of renewable and energy efficient technologies, however, does not mean NEEP is contemplating expanding its core
mission. While experienced in understanding the relationship between efficiency and renewable energy through its work in the High Performance Schools Exchange and NE-CHPS, NEEP also recognizes that significant expertise and guidance regarding renewable technologies themselves exists throughout the region, relieving the need to develop or grow this expertise in-house. Our intention, instead, is to tap into the existing knowledge base of renewable energy advocates and practitioners – in keeping with NEEP's longstanding practice of facilitating partnerships – and marry that with our own capabilities regarding energy efficient technologies and practices.

Work will be directed in three principal areas:

High Performance Schools:

- NEEP will continue to represent the Northeast in the National Collaborative for High Performance Schools (CHPS) process.
- As a highly valued information resource, NEEP will continue to facilitate regular advisory committee meetings and teleconferences, maintain and update our website, and respond to information requests from policymakers and other stakeholders in the area of high performance schools.
- NEEP will roll out Version 2.0 of the NE-CHPS protocol to a broader policymaker audience, while also developing building operations and maintenance (O&M) certification requirements for school facilities staff, and advocating for their acceptance with state policymakers.
- NEEP will also develop CHPS Retrofit Guidelines, which will be vetted through a technical review committee, and recommended through targeted outreach to state policymakers, as well as presented through partnerships with professional design and construction associations.
- To continue to build market capacities, NEEP will educate the professional design communities on NE-CHPS by presenting at various professional events, partnering with professional organizations, and conducting targeted learning opportunities at the larger architectural/engineering and contractor firms.
- NEEP will also continue to serve as a "circuit rider" to the state of Rhode Island by managing a High Performance Schools Working Group; supporting state education department facilities personnel with materials and information; conducting facility manager certification training and School Building Committee training.

High Performance Buildings – New Construction and Existing Buildings

Beginning with the public building sector, NEEP will expand the guidance it has developed in the area of High Performance Schools to additional building stock, encompassing both new construction and existing buildings. The High Performance Buildings Project will both inform, and be informed by, NEEP's Building Energy Codes Project, particularly in those areas where the Codes Project will examine an Informative Appendix to the code that encompasses established building models, such as ENERGY STAR Homes and the New Buildings Institute's Core Performance Guide. Specifically, NEEP will:

- Research existing best practices in high performance building design and construction, fold into the Connecticut High Performance Guidelines for Public Buildings, as developed by NEEP, and produce a white paper with recommendations for state policies to advance high performance buildings in the public sector (outside of schools).
- Convene and facilitate an advisory committee to vet these guidelines.
- Work with the NEEP Regional Initiatives team to integrate into these guidelines the latest developments in individual technologies and building systems, with a particular focus on HVAC and lighting. NEEP's Public Policy team and Regional Initiatives teams will also coordinate and facilitate information sharing among energy efficiency program administrators and public policymakers in the Northeast.
- In a consistent manner, NEEP will also develop specific guidance for existing buildings, with a particular focus on benchmarking, building commissioning and operations and maintenance (O&M) strategies.

High Performance Buildings – Hospitals (Development Project)

In 2009, NEEP plans to partner with Physicians for Social Responsibility, the Lung Association of Maine and the Maine Public Utilities Commission on a development project whose ultimate goal is to develop high performance building guidelines specifically for hospitals and health care facilities.

NEEP chose Maine to initiate this development project due to a close working relationship that has developed with the regional Lung Association, based in Maine, as well as interest expressed by Physicians for Social Responsibility to address building energy use in the hospital sector.

NEEP plans to assess the need for and interest in model guidelines that can eventually be replicated in any state or by health care facilities generally. Specific focus will be placed on existing buildings, in both retrofit and O&M strategies, by condensing best practices from similar efforts, while working closely with the health care community itself through a partnership with these two organizations. Depending upon findings, as well as on funding – which NEEP will seek specifically for this project – NEEP may choose to fully develop this as a specific building sector implementation project in the latter half of 2009 or in 2010.

NEEP's High Performance Buildings Project is funded by foundation grants and by project underwriting from energy efficiency program administrators in the region.

C. Public Policy 2009 Advisory Committees

2009 Public Policy Advisory Committees

Board of Directors Policy Committee

Northeast States Minimum Efficiency Standards Project Advisory Committee

High Performance Buildings Advisory Committee

Progressive Building Energy Codes Advisory Committee

Building Energy Ratings Advisory Committee

High Performance Schools Working Groups and Advisory Committees

IV. <u>Regional Evaluation, Measurement & Verification Forum</u>

A. Regional EM&V Forum Goal

The **Regional Evaluation, Measurement and Verification Forum's** (EM&V Forum) overarching long-term goal is to support the role and credibility of energy efficiency and other demand-side resources in current and emerging energy and environmental policies and markets.

B. About the Regional EM&V Forum

Purpose

The Regional EM&V Forum develops and supports the use of common and/or consistent protocols in the region to measure, verify, track and report the energy and demand savings, and the costs and emission impacts of energy efficiency and other demand-side resources implemented pursuant to state and regional energy and environmental policies and markets in the Northeast and Mid-Atlantic states. Consistent EM&V protocols support:

- Participation and credibility of demand-side resources in wholesale electricity markets (the New England Forward Capacity Market and PJM's Reliability Pricing Model), and integration into ISO/RTO system planning;
- Assessments of demand-side resource potential contributions and actual impacts to meet environmental goals including carbon allowance markets (Regional Greenhouse Gas Initiative and potential national and multi-national carbon markets), and state and regional climate change action plan and ozone attainment program goals.
- Consistency and transparency across states in demand-side resource planning and procurement, and in related state energy efficiency and demand-side resource procurement policies and programs.

History

Northeast states' increased reliance on energy efficiency to achieve critical energy and environmental goals has led to interest in consistent EM&V and related protocols across the region. In response to this growing need, NEEP conducted a study in early 2006, *The Need for and Approaches to Developing Common Protocols to Measure, Verify and Report Energy Efficiency Savings in the Northeast*, which identified important differences in EM&V practices, definitions and savings assumptions for electric energy efficiency resources across the region. Subsequently, ISO-New England developed its wholesale Forward Capacity Market (FCM), with the inclusion of demand resources and the need to develop M&V standards for demand side resources. NEEP convened and facilitated the New England states' energy regulators, energy efficiency program administrators and M&V experts to provide coordinated input into ISO's FCM M&V Manual for demand resources, as well as coordinated research and evaluation studies to support FCM M&V Plans. From that experience, in 2007-2008, NEEP convened a regional advisory committee to guide a feasibility assessment and three-year development plan to establish a regional resource to develop and support regionally consistent EM&V protocols. The concept of the Regional EM&V Forum, approved by the NEEP Board of Directors in April, was strongly supported by resolutions from each the New England Conference of Public Utility Commissioners (NECPUC) and the Mid-Atlantic Conference of Regulatory Utilities Commissioners (MACRUC). The Northeast States for Coordinated Air Use management (NESCAUM), likewise, provided a statement of its support for a regional EM&V Forum.

Regional EM&V Forum Status

As of the end of 2008, key Forum milestones and developments include:

Forum Funding Secured for Start Up Activities: NEEP received funding commitments to support start-up activities from the US EPA (\$50,000), the US DOE (\$90,000 through PNNL) and the Energy Foundation (\$100,000) for a total of \$250,000.

Forum Project Committees Convened: NEEP convened the Forum Project Committees, represented by state public utility commissions, air regulatory, and state energy office staff, and program administrators, and held meetings and project subcommittee teleconferences to build and refine the Forum project agenda, scope and budget. The result of these discussions served as basis for a proposed 2009 Forum agenda and budget for Steering Committee consideration and adoption.

Steering Committee Convened: NEEP convened the Forum Steering Committee in July with the participation of public utility commissioners from New England states, New York, New Jersey, Maryland, Delaware, and District of Columbia, and an air regulatory representative from NESCAUM. The Steering Committee adopted Forum Operational Guidelines, and agreed on a 2009 EM&V Forum Project Agenda and Budget which it recommended to the NEEP Board of Directors for inclusion in NEEP's 2009 plans and budgets. The Committee also reached partial agreement on a cost allocation framework to jointly fund Forum projects and operations, with the expectation of resolution before 2009.

Participation in PJM Meetings to Integrate Energy Efficiency into PJM's Reliability Pricing Model and Development of M&V Standards: NEEP helped to coordinate state commissions from NJ, MD, DE and DC to propose to PJM the inclusion of energy efficiency into its RPM market rule, including recognition of the full measure life of energy efficiency. NEEP staff presented at PJM meetings on EM&V issues to inform/educate stakeholders about EM&V, including experience in ISO New England's Forward Capacity Market M&V Manual development. NEEP offered to facilitate and technically support Mid-Atlantic State utility commission and energy office participation in PJM's Task Force to inform PJM's M&V manual development.

Initial Forum Projects Launched: To build momentum and get results as soon as possible, NEEP engaged the Forum members to move forward two initial projects: A *Glossary of Terms and Definitions* – to be completed in early 2009; and a *Loadshape Study (Phase 1)* – to identify existing loadshape data and assess its usefulness for the region's policy needs, and to inform primary research efforts for Phase 2 in 2009.

C. Regional EM&V Forum Goals for 2009

NEEP's goals for the EM&V Forum in 2009 include:

- **1.** Forum Steering Committee adoption of completed project results as recommended best practices.
- **2.** Conducting the following EMV Forum-sponsored projects, identified in the 2008 planning process and subject to final 2009 sponsor funding and agreements:
 - A Forum Glossary of EM&V Terms and Definitions
 - A set of EM&V Methods Guidelines for calculating Gross Energy and Demand Savings, determining Baseline Conditions, and determining Measure Life and Persistence for electric and natural gas energy efficiency
 - Common Reporting Guidelines for Energy and Demand Savings Impacts, and Associated Emission Impacts
 - Common savings assumptions resulting from joint research and evaluation projects (Loadshape study and Commercial Lighting Measure Life/Persistence Study)
 - Common Savings and Reporting Database for Energy Efficiency Savings Assumptions/Algorithms, recognizing this as a sub-region project
- **3.** Forum Steering Committee recommendation of a 2010 Forum Agenda and Budget to the NEEP Board of Directors based on priority projects identified by the Project Committees
- **4.** Expansion of Forum participation to other interested Mid-Atlantic states ramping up energy efficiency programs and polices (e.g., Pennsylvania)
- 5. State, regional and national agency or process adoption or referencing of Regional EM&V Forum best practices and materials.
- **6.** Public access to the EM&V Forum's products and regional database of information (e.g. reports and studies) useful for the implementation of consistent EM&V protocols.

D. Regional EM&V Forum 2009 Activities

Maintain Regionally Representative Forum Committees: To achieve the above 2009 goals, NEEP will convene and facilitate four quarterly Project Committee meetings, and project subcommittee meetings/teleconferences as needed, and report to the Steering Committee at four separate quarterly meetings/teleconferences on the Forum project status and recommended protocols for Steering Committee adoption.

Complete Regional Research and Development Projects: NEEP will manage third party contractors, including the drafting and issuance of Requests for Proposal (RFPs) with Project Committee guidance and input for the following 2009 set of projects, as recommended by the Forum Steering Committee to the NEEP Board of Directors, with the caveat that not all states will necessarily be able to participate, and some projects may get moved to 2010.

2009 EM&V Research and Development Agenda

2009 Protocol Development Projects:

- #A1. Glossary of EM&V Terms & Definitions Project started in 2008, to be completed in early 2009.
- #A2. Develop Common EM&V Methods Guidelines and Survey Savings Assumptions. Issue RFP in early 2009
- #A3: Survey Existing EE Savings Reporting Requirements and Develop Common Reporting Guidelines. Issue RFP in mid 2009
- #A4: EM&V Protocol Development/Modifications in Wholesale Capacity Markets (for ISO-New England Forward Capacity Market and PJM Reliability Pricing Model market)
- #A5: Develop Common Savings Assumptions/Algorithms Database. Sub-region Mid-Atlantic project, early 2009

2009 Research and Evaluation Projects:

- #B1: Loadshape Project Survey Available Data Sources (Phase 1 2008), and Conduct Primary Research (Phase 2 - 2009). Phase 1 - RFP to be issued mid-November 2008, complete by March 2009
- #B2: C&I Lighting Measure Life and Persistence Project. Issue RFP in early 2009
- #B3: Scoping Projects: Survey Net Savings Methods, Impact of EE Programs on Advancing Codes and Standards. Proposed schedule is to conduct in latter part of 2009

Conduct Outreach, Provide Education and Establish: NEEP will undertake various activities to keep stakeholders informed of EM&V Forum and other activities and developments, and to ensure public access to the Forum's products and associated EM&V materials, including:

- Developing a dedicated EM&V Forum website to support Forum products and communications;
- Developing and maintain a library database of EM&V studies/documents to ensure transparency and accessibility of EM&V materials;
- Holding an Annual EM&V Forum meeting for all interested stakeholders,
- Conducting continued outreach to states and interested stakeholders;
- Monitoring and coordinating with national and relevant regional EM&V protocol development efforts.

Plan for the Future: NEEP will work with the Project Committees to develop a proposed 2010 Forum project agenda and budget for Steering Committee consideration and adoption in the third quarter of 2009.

F. Regional EM&V Forum Funding Sources

NEEP's operational costs for the EM&V Forum are funded by grants from U.S. DOE (hosted by the Maine Public Utility Commission), foundation funding, Forum subscribers and the States (or their agents) participating in EM&V Forum projects. EM&V Forum contracted research managed by NEEP is jointly funded by the participating States or their agents (e.g., utilities, energy efficiency program administrators).

V. Northeast Energy Efficiency Summit

2009 Northeast Energy Efficiency Summit: Maximizing the Energy Efficiency Solution

NEEP's 2009 Northeast Energy Efficiency Summit in Albany, New York on May 27 and 28 will highlight energy efficiency as a solution for regional economic and energy needs. Lead by Summit Co-Chairs – Garry Brown, Chairman of the New York Public Service Commission, and Penni McLean Conner, NEEP's Board President and Vice-President of Customer Service at NSTAR – the 2009 summit will feature the aggressive ramp-up of energy efficiency across the Northeast region:

- As a clean, reliable and readily available resource to reduce the risk of power and fuel supply shortages;
- To mitigate the negative economic impacts of high fuel prices that drain the region's economy and burden businesses and consumers;
- As a driver of regional economic development (e.g., productivity gains, job growth); and
- To economically achieve major reductions in the region's emissions of greenhouse gases.

The Summit program will bring the energy efficiency community together to meet with business, and government leaders to build visibility for energy efficiency. This day and half event features:

- **High-Profile Speakers**: High profile government and business leaders to address best practices in policy, business, workforce and government for *Maximizing the Energy Efficiency Solution*.
- Efficiency Exhibits: The summit will include over sixty exhibits that showcase building energy efficient technologies, services and solutions.
- **Business Leaders Recognition**: The fourth year of a regional program to recognize Northeast business and institutional leaders investing in energy efficiency with multimedia visibility for participants throughout the day and at a special recognition luncheon.
- **Municipal Leaders Recognition**: At a special opening reception on May 27, NEEP will recognize municipalities in New York State leading local efforts to increase energy efficiency.
- Workforce Development Workshops: The afternoon of May 27 is devoted to workshops focused on expanding workforce capacities in the region providing training and connecting workforce development efforts and resources to support the massive scale-up of energy efficiency programs.
- **Student Scholarship and Mentoring Program**: NEEP will continue for the fourth year a special program to draw and engage graduate and undergraduate students to learn about the growing field of energy efficiency as a potential career path.
- Media Visibility: Summit preparation will engage the regional media to focus on energy efficiency as an energy, economic and environmental solution working across the region.

Event sponsorships provide the primary funding support for NEEP's Northeast Energy Efficiency Summit which help keep participant registration fees as low as possible, including a special rate for non-profits and government agencies. For more information see the Summit website: <u>www.neep.org/Summit</u>.

NEEP sincerely thanks 2009 Summit Platinum sponsor:



VI. <u>Appendices</u>

A. NEEP 2009 Budget and Funding

To undertake the activities described herein, the NEEP Board of Directors approved a budget of \$4,939,600 for 2009 with specific budgets for each project area:

- Regional Initiatives \$992,400
- Public Policy \$1,436,500
- Regional Evaluation, Measurement & Verification Forum \$2,145,500
- Regional Summit \$365,200



NEEP Funding

NEEP's activities are co-funded in a manner that leverages federal, state, ratepayer, and foundation funding, as well as project revenues (e.g., NEEP Summit) to meet common objectives through regional coordination. Projected revenues for 2009 are \$5,085,300.

- **Federal Assistance**: Grants and contracts from the U.S. DOE and U.S. EPA provide partial funding for Regional Initiatives, Policy Outreach, and the Building Energy Codes Project. Federal assistance also includes activities related to the Evaluation, Measurement and Verification (EM&V) Forum and Solid State Lighting projects. Current and expected federal funds to NEEP total approximately \$555,000 for 2009.
- **Initiative Sponsorship and Project Underwriting**: Through sponsorship of Regional Initiatives, and project underwriting support for Public Policy projects, gas and electric efficiency program administrators provide partial funding for NEEP's services. Program administrator funding is estimated at \$1,214,849 for 2009.

- **Foundations Grants**: Charitable foundations help underwrite the cost of NEEP's public policy activities including funding from the Energy Foundation, the John Merck Fund, and the Overbrook Foundation. Funding is estimated at \$879,000 for 2009.
- **NEEP Partners Program:** The 2009 goal for this affiliate program is \$100,000 (with \$50,000 coming from Forum Subscribers).
- **Regional EM&V Forum:** States participating in EM&V Forum projects will jointly fund contracted research and contribute to NEEP costs to operate the Forum -providing 90 percent of the total EM&V Forum costs. In many cases that funding may be provided by energy efficiency program administrators including NEEP sponsors.
- **NEEP Summit**: NEEP's 2009 regional Northeast Energy Efficiency Summit is funded largely by event sponsors (80 percent) to make participant fees affordable. In 2009, \$391,000 is planned for this area.
- Other projects: NEEP provides direct assistance on a contracted basis for projects beyond our business plan to advance or coordinate energy efficiency policies, research and programs. Our 2009 plan includes \$451,000 for contractual services.

Not included in the budget for 2009 are potential costs and revenues associated with jointly funded projects associated with specific projects as described herein.



NEEP 2008 Sponsors and Underwriters Status – September 30, 2008

2008 SPONSOR/ UNDERWRITERS of NEEP INITIATIVES and PROJECTS		Regional Initiatives					Public Policy				
		ENERGY STAR ® Products	Whole House Strategies	Commercial HVAC	Commercial Lighting	C&I Info. Exchange	Policy Outreach	NE States Appliance Standards	Regional Measurement & Verification	Building Energy Codes	High Performance Schools
Cape Light Compact	MA	☆	\$	\$	\$	\$	☆	☆	\$	\$	
National Grid	MA	র্ম	৵	৵	公	公	প্র	র্ম	A	Δ	ক্ষ
NSTAR Gas & Electric	MA	র	አ		\checkmark		৵		\mathbf{x}		
Unitil	MA										
Western Mass Electric	MA	☆		☆	\$	\$	☆		\$	\$	
National Grid	RI	☆	\$	\$	\$	\$	☆	☆	${}$	\$	☆
Efficiency Maine	ME	☆	☆	☆	\$	\$		☆	*	\$	$\overrightarrow{\mathbf{x}}$
Connecticut Light & Power/CEEF	СТ	☆	☆		\$		☆		\$		
CT Municipal Electric Coop (BASE ONLY)	СТ										
United Illuminating/ CEEF	СТ	☆	\$	\$	\$	\$	A		☆	\$	\$
Efficiency Vermont	VT	☆	☆	☆	\$	\$		☆	*	\$	
National Grid	NH			☆	☆	☆			A	☆	$\overrightarrow{\mathbf{x}}$
Public Service of New Hampshire	NH	র্ম			☆				☆		
New Jersey BPU	NJ	☆			公	公	$\overrightarrow{\mathbf{x}}$	র্ম	☆	Δ	
NYSERDA	NY	ঐ	አ	አ	\checkmark	\checkmark	৵	৵	\mathbf{x}	ሏ	\$
Long Island Power Authority	NY	র্ম	\$	\$	\$	\$	$\overrightarrow{\mathbf{A}}$	৵	\$	\$	\$
National Grid (Gas – Long Island)	NY			☆		\$				A	☆
National Grid - NYC	NY			☆		公				\mathbf{A}	

B. NEEP Partners Program

The NEEP Partners Program is an avenue for a range of energy efficiency stakeholders in the Northeast to be affiliated with and benefit from NEEP's successful facilitation of regional projects. Partner support for NEEP's projects and activities to advance building energy efficiency helps to build a regional efficiency infrastructure with consistent policies, requirements and programs. This overcomes barriers and eases the successful ramp-up of energy efficiency – creating new business opportunities across the region. In addition, NEEP Partners will gain knowledge and insight into regional efficiency programs and policies that are building a dynamic marketplace that increasingly values "green" solutions.

Audience

NEEP Partners include: corporations and businesses; energy service companies and consultants; colleges and universities; government and community organizations.

Subscription Levels and Benefits

Through a series of "subscriber" designations, the Partners Program offers multiple paths to be associated with NEEP's work. All Partners receive "base" level benefits, and may also choose to access a more specific level of project related information.

Base level Partnership: \$5,000 All Partners Support NEEP's 2009 Projects and Receive:

- Listing as NEEP Partner on NEEP website and in relevant promotional materials;
- Quarterly opportunity to showcase organization's efficiency leadership in NEEP Notes newsletter (100 word maximum each quarter);
- Invitation to attend annual NEEP Partners networking event;
- Invitation to pre-Summit breakfast with event speakers and panelists (requires paid registration).
- *NEEP Summit Discount*! 10 percent discount on Summit sponsorship when committing to both programs by January 30, 2009.

Partnership Subscriptions (optional/additional): NEEP invites Partners to become subscribers in one or more of our project areas. Each subscription is \$5,000. Partners choosing all four subscriptions will receive a 10 percent (\$2,000) discount.

NEEP Partner Designation I: Regional EM&V Forum Subscriber (\$5,000)

- Support the success of Forum to develop and make publicly available consistent regional EM&V protocols
- Participation on your choice of one or more of the Forum Project Committees
 - Protocols Development
 - Research and Evaluation
 - o Information Access
- Informational updates on Forum activities and developments
- Recognition as Forum Subscriber at NEEP annual meetings

NEEP Partner Designation II: Regional Initiatives Subscriber (\$5,000)

- Support NEEP's initiatives that facilitate consistent regional strategies work together to leverage marketplace participation.
- Participation in quarterly teleconference discussions of regional program issues
- Informational updates on Regional Initiative activities and developments
- Associate membership in NEEP's workforce development network described in section II
- Recognition as Regional Initiatives Subscriber on website and at events

NEEP Partner Designation III: Public Policy Subscriber (\$5,000)

- Support NEEP's public policy outreach and projects that build consistent standards and requirements with tools and training for effective implementation.
- Participation in quarterly teleconference discussions of regional policy issues
- Informational updates on policy activities and developments
- Recognition as Public Policy Subscriber on website and at events

C. NEEP Board of Directors – June 2008

Board Officers - Executive Committee

Penni McLean-Conner, NEEP President NSTAR Gas and Electric Company 1 NStar Way - SW310 Westwood, Massachusetts 02090-9230 (781) 441-3884 (phone) (781) 441-3952 (fax) Penelope_Conner@nstaronline.com

Denis Bergeron, NEEP Treasurer Maine Public Utility Commission State House Station #18 Augusta, Maine 04333-0018 (207) 287-1366 (phone) 207-287-1039 (fax) Denis.Bergeron@maine.gov Susan E. Coakley, Executive Director 5 Militia Drive Lexington, Massachusetts 02421 781.860.9177 (phone) 781.860.9178 (fax) scoakley@neep.org

Dan Zaweski, NEEP Vice President Long Island Power Authority 333 Earle Ovington Blvd., Ste. 403 Uniondale, New York 11553-3606 (516) 719-9886 (phone) (516) 719-9885 (fax) dzaweski@lipower.org

Richard Sedano, NEEP Clerk

Regulatory Assistance Project 50 State Street Suite 3 Montpelier, Vermont 05602-2601 (802) 223.8199 (phone) (802) 223.8172 (fax) rapsedano@aol.com

NEEP Counsel

Jeffrey Hurwit

Hurwit and Associates 1150 Walnut Street Newton, Massachusetts 02461 617.630.6900 (phone) 617.928.3441 (fax) jhurwit@hurwitassociates.com

Board Members at Large – June 2008

Ron Araujo

Northeast Utilities P.O. Box 270 Hartford, Connecticut 06141-0270 (860) 832.4972 (phone) (860) 832.4700 (fax) araujrj@nu.com

Steve Cowell

Conservation Services Group 40 Washington Street Westborough, Massachusetts 01581 (508) 836.9500 ext. 262 (phone) (508) 836.3138 (fax) <u>Steve.cowell@csgrp.com</u>

Paul DeCotis

Deputy Secretary of Energy Executive Chamber, State Capitol Albany, NY 12224 518.408.2552 (phone) 518.473.2344 (fax) Paul.DeCotis@chamber.state.ny.us

Luis Martinez

Natural Resources Defense Council 40 West 20th Street New York, New York 10011 212.727.4550 (phone) 212.727.1773 (fax) <u>Imartinez@nrdc.org</u>

Steve Nadel

American Council for Energy Efficient Economy 529 14th Street, NW – Suite 600 Washington, D.C. 20045 202-507-4000 ext. 709 (phone) 202-429-2248 (fax) snadel@aceee.org

Daniel Sosland

Environment Northeast PO Box 313 Rockport, Maine 04856-0313 (207) 236.6470 (phone) (207) 236.6471 (fax) Dsosland@env-ne.org

Tim Stout

Energy Efficiency Services National Grid 201 Jones Road Waltham, MA 02451-1613 781-907-1630 (phone) 781-907-1719 (fax) Timothy.stout@us.ngrid.com