



2019 - 2021 STRATEGIC AGENDA GOALS, STRATEGIES, DEVELOPMENT ACTIVITIES AND OUTCOMES

BOARD REVIEW DRAFT 06/05/18

1. Advanced Efficiency Leadership Network

Goal: Provide a regional center for learning and sharing best practices with a dashboard of state and local progress to accelerate advanced energy efficiency and integrated clean energy solutions, and bring together thought leaders on policy, programs and market-based solutions to drive progress towards an energy-efficient, resilient, and affordable low-carbon economy.

Key Strategy Elements:

- a. Provide opportunities for interested state and local governments to advance their policy, technology and program leadership by identifying and recommending best practices in public policy and EM&V, linking to critical resources and facilitating peer-to-peer exchange.
- b. Develop and provide regional reports with data, information, analysis, economic impacts and case studies that highlight and support policy, technology and program leadership.
- c. Provide structured learning opportunities through workshops, seminars, topical conferences, and fellowship programs in partnership with state and local government and their associations as well as institutions of higher learning.
- d. Establish and track policies, key metrics of state and local government progress in advanced energy efficiency, distributed energy resources, and strategic electrification as key pathways to 80% carbon emissions reduction.
- e. Convene topical regional Leadership Forums that engage, inspire, connect, highlight and build knowledge learn from Strategic Electrification; Market Transformation; Resilient, Efficient Buildings and Communities and Evaluation, Measurement and Verification – and assess results to inform continuation.

Key/New Development Activities	Outcomes
<ul style="list-style-type: none"> • Implement existing Regional Advanced Efficiency Leadership Forums Plan. • Provide additional funding and support for public policy and strategic communications. • Secure some general funding to support. <p>Key Partners</p> <ul style="list-style-type: none"> • U.S. Department of Energy/National Labs • State Energy Offices, NASEO • Regulatory Assistance Project • NECPUC, MACRUC, CONEG, RGGI, NESCAUM • NRDC, Acadia Center, NECEC, E4theFuture • Universities – BU, VT Law, Yale, MIT, Pace, Georgetown • Regional Planning Associations (MAPC, DVRPC) • Urban Sustainability Directors Network • PACE Energy and Climate Center 	<ol style="list-style-type: none"> 1. Regional leaders take actions to promote advanced energy efficiency and strategic electrification technologies and practices. 2. Regional leaders collaborate more with other states and communities. 3. NEEP is perceived as a trusted advisor, knowledge leader, information developer and resource for advanced efficiency, market transformation and strategic electrification. 4. The region remains a leader in energy efficiency policy and impacts including strategic electrification.



2. Strategic Electrification

Goal: Support the region’s move to strategic electrification of buildings and transportation – backing out of carbon-based fuels by pairing deep energy efficiency and strategic electrification with distributed renewable power, energy storage and demand response. Lead regional building decarbonization strategies and collaborate with others on all decarbonization solutions.

Key Strategy Elements:

- a. Track and support implementation of NEEP’s Regional Strategic Electrification Action Plan by convening together as well as engaging in structured collaboration with regional leaders and leading projects.
- b. Create a compelling public narrative and associated communication plan and toolkit to effectively communicate electrification to key stakeholder groups. Support the conversation about Strategic Electrification regionally through partnership development and Leadership Network activities.
- c. Complete research and information development to advance the conversation including:
 - i. Analysis of regional economic benefits and job creation potential
 - ii. Review and documentation of Bright Spots in initial electrification efforts around the country
 - iii. Impact of electrification on planning, forecasting and metrics (with EM&V)
 - iv. Develop a Regulatory “Playbook” (with RAP)
 - v. Research the impacts of electrification on low-income household and communities (with Partner)
- d. Document lessons learned from recent DER projects including electric grid benefits of geo-targeting as well as additional opportunities to enhance integration with other state and community goals including resiliency, carbon reduction, and economic development.
- e. Develop a road map of more integrated approaches to DER that optimize benefits from a community perspective. Publish guidance on the policies, leverage points and planning tools needed to ensure community-based renewable energy projects and similar DER projects include deep energy efficiency, energy storage and advanced controls.

Key/New Development Activities	Outcomes
<ul style="list-style-type: none"> • Convene regional leadership working group • Secure funding for research projects, communications tool kit development and DER related work. • Add Director/Manager of SE activities <p>Key Partners</p> <ul style="list-style-type: none"> • US Department of Energy/National Labs • State Energy Offices, NASEO • Regulatory Assistance Project • <i>New!</i> Building Electrification Project • Coalition for Community Solar, SEPA, CEG • NESCAUM, Acadia Center, NRDC, NECEC, etc. • Interested Utilities • Academia – BU, Yale, Pace Energy & Climate Center, Georgetown Transportation & Climate Initiative • Research Institutions: RMI, EPRI & EEI 	<ol style="list-style-type: none"> 1. The economic and environmental benefits of electrification are well understood within state and local government leadership and the business community. 2. A pathway to electrify carbon-fueled buildings including efficiency is developed in collaboration with others. 3. New policies, regulations and pilot programs supporting electrification are in place in most states. 4. NEEP is viewed as a regional catalyst to accelerate strategic electrification and DER in planning and policies.



3. Market Transformation for Advanced Efficiency

Goal: Catalyze market transformation for advanced efficiency technologies and solutions through public policy, research, collaboration, programs and partnerships to leverage regional-scale impacts.

Key Elements

- a. Expand NEEP heat pump leadership to include VRF, water heat (and other key technologies) to serve the multifamily and commercial sector technologies. Conduct market research to determine target markets in the multifamily and commercial sectors. Based on need and market support, support adoption of a national testing protocol and develop a qualified products list for high efficiency ASHP and related products. Develop a business plan to solidify financial support and expand influence.
- b. Conduct research, modeling and analysis to better understand the costs, benefits and strategy options for retrofitting common northeast single-family housing stock with a package of heat pumps, thermal efficiency and controls.
- c. Partner with others to develop strategies to attract financial products and solutions to support comprehensive decarbonization of homes and buildings – including low income strategies.
- d. Expand Home Energy Management System work into “grid edge” residential control systems capable of controlling EV charging, water heaters, heat pumps, electricity storage and renewable energy systems to respond to customer and grid needs. Identify desired capabilities and work with the industry to establish an initial listing and market transformation plan.
- e. Continue advancing strategic energy management as an impactful best practice to reduce energy usage and carbon emissions while enhancing productivity. Work with partners to make SEM accessible and useful for mid-sized industries.
- f. Seek financial support and partners for regional Commercial HVAC market transformation initiative focused on high efficiency solutions for R-22 refrigerant phase-out driven equipment turnover.
- g. Continue new US DOE/National Lab partnership to connect and align federal, state and institute technology research for heat pumps, controls and integrated solutions to address regional needs.
- h. Continue efforts to advance impactful state and federal appliance standards.

Key/New Development Activities	Outcomes
<ul style="list-style-type: none"> • Develop business plan and secure funding to: <ul style="list-style-type: none"> ○ Expand heat pump work. ○ Develop regional MT strategy for residential controls for strategic electrification efforts. • Research retrofit strategies, costs & benefits. • Research need/opportunity for Commercial HVAC MT strategy to replace R-22 equipment. <p>Key Partners</p> <ul style="list-style-type: none"> • US Department of Energy/Energy Star, Nat. Labs • State Energy Offices, NASEO • Energy Efficiency Program Administrators • ACEEE, CEE, Home Performance Coalition, ASAP • Manufacturers, Service Providers & Associations – ASHP, Home Energy Management Systems, Building Controls, Demand Response Solutions 	<ol style="list-style-type: none"> 1. The costs, barriers, benefits and strategies to advance heat pumps with associated controls and thermal efficiency to decarbonize home and building comfort heating are well understood by key decision makers. 2. Pilot programs for heat pump conversions exist in most northeast states with consumer education, financing, technical specifications, rate structures, and installer training and guidance. 3. Strategic Energy Management significantly contributes to ratepayer funded C&I efficiency program savings across the region. 4. Efficiency programs across the region work with industry to replace R-22 Commercial HVAC equipment with high efficiency options.



4. Resilient, Efficient Buildings & Communities

Goal: Support and accelerate the expansion of resilient, healthy, efficient, low carbon buildings and communities across the region committed to achieving major energy savings.

Key Elements

- a. Continue to expand and solidify a package of information products and technical support to assist communities to meet their energy and carbon policy goals (e.g., building energy codes and stretch codes, benchmarking, zero energy schools, public building demonstration and leadership projects, and other project areas within the CAPEE framework.
- b. Continue partnership development with leading cities and communities to expand sphere of influence
- c. Research and provide guidance on how strategic electrification can support communities meet aggressive carbon or renewable energy goals.
- d. Continue NEEP’s Building Energy Codes project with a focus on zero energy buildings that support EVs and grid-responsive distributed energy resources (e.g., storage, renewables, demand response, etc.).
- e. Update NEEP best practice building guidance to include strategic electrification.
- f. Research and support zero-energy pathways and building standards for existing homes and buildings.
- g. Continue to advance building energy rating and labeling policies and programs, and to build real estate industry understanding and support for the use of home and building energy labels.
- h. Continue HELIX development and roll-out to full scale implementation supported by an effective business model.

Key/New Development Activities	Outcomes
<ul style="list-style-type: none"> • Secure funding for retrofit research and electrification opportunities/guidance for cities. • Add staff to support Technical Assistance activities. • Develop effective business models for HELIX and CAPEE <p>Key Partners</p> <ul style="list-style-type: none"> • U.S. DOE/National Laboratories • State Energy Offices/NASEO • Wide variety of city-based organizations • Efficiency Program Administrators • New Buildings Institute, Building Performance Institute, Home Performance Coalition • Sustainable CT and NJ • Pace Energy & Climate Center • City Energy Project (NRDC & IMT) • <i>New!</i> Building Electrification Project • 2030 Districts & Eco Districts, Living Future Institute • Institute for Sustainable Communities 	<ol style="list-style-type: none"> 1. The number of states and communities setting goals for public building energy efficiency gains of 20% or more significantly increases across the region. 2. A majority of schools in the Northeast are covered by policies that require healthy and energy efficient learning environments, e.g. CHPS. 3. HELIX is widely adopted regionally and home energy labeling significantly expands in multiple states. 4. Building energy rating, labeling and disclosure is increasingly adopted by large towns and cities in the region. 5. NEEP is widely recognized as a trusted advisor and resource for best practices to advance public building and community energy efficiency and low carbon goals. 6. All states have adopted a recent (at least IECC 2015) energy code and have an associated compliance infrastructure. 7. States and communities increasingly adopt stretch codes or other stringent requirements for new public buildings.



Advanced Efficiency Leadership Network Crosscutting Initiatives

A. EM&V Framework

Goal: Advance new EM&V concepts and key work products to build capabilities to fully value energy efficiency as a resource to meet public policy goals in a changing energy efficiency and carbon reduction environment.

- a. Support a broader consideration of cost-effectiveness including carbon, other environmental benefits, economic and equity benefits, geo-targeting and resiliency.
- b. Support grid-edge program implementation and evaluation that includes two-way power flows, storage, electrification, energy efficiency and smart controls. Support the market development and evaluation of heat pump technologies.
- c. Help develop new ways to increase the speed and reduce the cost of evaluation processes to better support the rapid pace of change.
- d. Maintain a regional database and resource center to provide transparency, access and visibility for the underlying data and evaluation methods that support energy efficiency progress tracking, results and stakeholder communication across the region.
- e. Assess the audience and value of the Regional Energy Efficiency Database (REED) to support advanced efficiency and strategic electrification analyses, policies and programs. Based on the evaluation results either develop a multi-year product and revenue plan to continue REED or prepare to phase it out (or possibly find another host).

B. Strategic Communications Framework

Goal: Implement NEEP's new communication plan to build a positive narrative for advanced energy efficiency and strategic electrification as core strategies to meet state energy, economic and carbon reduction goals.

- a. Maintain highly effective communication resources to help NEEP's work products reach their intended audiences including an overall communications strategy, well designed and executed presentations and publications, and strong web-based, social media, trade press and other communication channels.
- b. Develop a compelling public narrative and associated communication plan and toolkit to effectively communicate electrification to key stakeholder groups (with Strategic Electrification).
- c. Support the effective dissemination of NEEP products and associated messages to target audiences, and track and assess the reach and impact of those targeted communications to achieve desired outcomes.



C. Policy Leadership

Goal: Work across all of NEEP’s efforts with a focus on advancing energy efficiency with strategic electrification as key pathways to economically achieve decarbonization and energy reliability policy goals in the Northeast as a key outcomes.

- a. Develop and publish topical briefs and summary reports oriented to policy audiences on new and emerging technologies, integrated energy efficiency approaches, strategic electrification, emerging public policy topics, appropriate EM&V metrics and planning tools.
- b. Work across all elements of the Leadership Network to support policy related topics.
- c. Track, compare, and highlight a listing of state energy efficiency policies and accomplishments across the region and publish an annual Advanced Efficiency Leadership Report.
- d. Provide technical assistance to states and local government to adopt and implement leading edge energy efficiency policies.
- e. Lead or contribute to the development of a best practice public policy frameworks for advanced efficiency and strategic electrification at the state and local government levels.