



2019 Annual Report

A Year in Clean Energy



1.617.500.9990 | www.necec.org | 250 Summer Street, Boston, MA

MESSAGE FROM THE PRESIDENT

2019 marked an important transition from the end of one decade to the dawn of a new era of climate action. Clean energy is now a core part of the region's economy, and the Northeast serves as a leading global cleantech cluster. We saw progress in many sectors this year, as well as growing complexity and new challenges, including:

- Leadership from Northeast states in continuing electricity and thermal efficiency improvements at nearly 2% per year. But transitional challenges abound as many new efficiency applications require deployment of smart grid systems, sensors, communications, and connected buildings.
- Distributed energy growth, particularly with rooftop and community-scale solar, as well as the beginning of storage markets and validated business models. However, there is uncertainty regarding the ability of the electric grid to efficiently interconnect and enable value from the rapid growth in distributed resources.
- The offshore wind market stepping up to a global scale, with new competitive solicitations and 12 MW of turbines now in production. At the same time, federal tax policy and permitting solutions remain uncertain.

NECEC's member companies, our Cleantech Open and Navigate startups and innovation partners, our Strategic Partner Network, and our networks of thought leaders, advocates, investors, and policy makers all saw new opportunities in the Northeast. These opportunities unfortunately grew at sometimes halting rates, which is incompatible with the need for exponential and systematic growth in the coming decade to solve climate change.

2020 marks a new era of the clean energy transition, one that needs to be a major cycle of growth across grid-scale renewables, distributed energy, a modernized grid, and clean transportation. Progress will require innovation and implementation of major systematic transitions, including grid modernization, new business models for utilities, and the emergence of a clean transportation market based on zero-emission, electrified transport.

The 2020s will leverage progress from the 2010s but also aim to become the defining decade of climate action in the 21st century. NECEC's role as a partner to our states, our members, other stakeholders, and to global networks focused on accelerating the clean economy transition, will need to grow and mature. There is enormous need and potential for the Northeast clean energy community to step up as regional leaders and global partners in accelerating the transition to clean energy and stopping the climate crisis.

We hope this report on NECEC and the Northeast's progress in 2019 will contribute to a deepening of collaboration with our organizations as we charge forward for the critical years ahead. Together, we can realize the Northeast's model for a global clean economy.

Peter Rothstein
President
NECEC

ABOUT NECEC

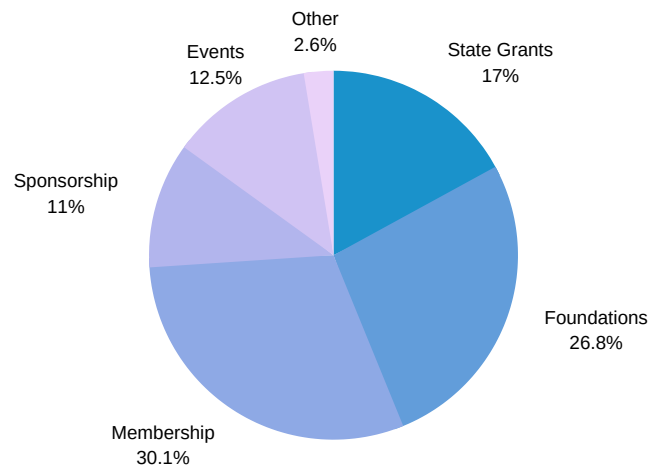
NECEC includes the Northeast Clean Energy Council, a 501(c)(6) business association, and NECEC Institute, a 501(c)(3). The Northeast Clean Energy Council is the lead voice for hundreds of clean energy companies across the Northeast, influencing the energy policy agenda and growing the clean energy economy. NECEC Institute brings in tax-deductible donations and philanthropic support to our innovation programs, Navigate and Cleantech Open Northeast, as well as our policy and market development initiatives.

2019 FINANCIALS

Revenue Sources

• State Grants	\$395,312
• Foundation Grants	\$621,270
• Membership Dues	\$698,591
• Sponsorship	\$255,500
• Event Revenue	\$288,873
• Other Income	\$60,045

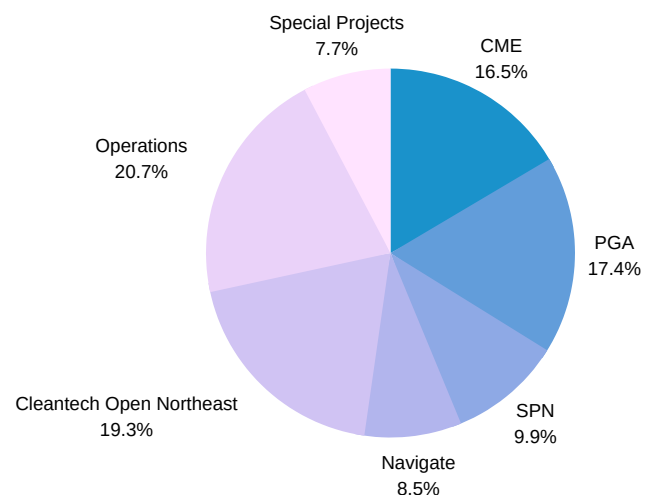
Total: \$2,319,591



Expenses

• Comms, Membership, Events	\$397,335
• Policy and Government Affairs	\$418,193
• Strategic Partner Network	\$239,034
• Navigate	\$205,187
• Cleantech Open Northeast	\$466,011
• Operations	\$498,618
• Special Projects	\$185,826

Total: \$2,410,204



The financial information above is consolidated for the Northeast Clean Energy Council and NECEC Institute. It is for the fiscal year 2019 and is unaudited data.

MEMBERSHIP

NECEC is the lead voice for hundreds of clean energy companies across the Northeast, influencing the energy policy agenda and growing the clean energy economy. We are the only organization covering all of the market segments in the region, representing the business perspectives of companies across every stage of development.

178

TOTAL MEMBERS

NEW MEMBERS

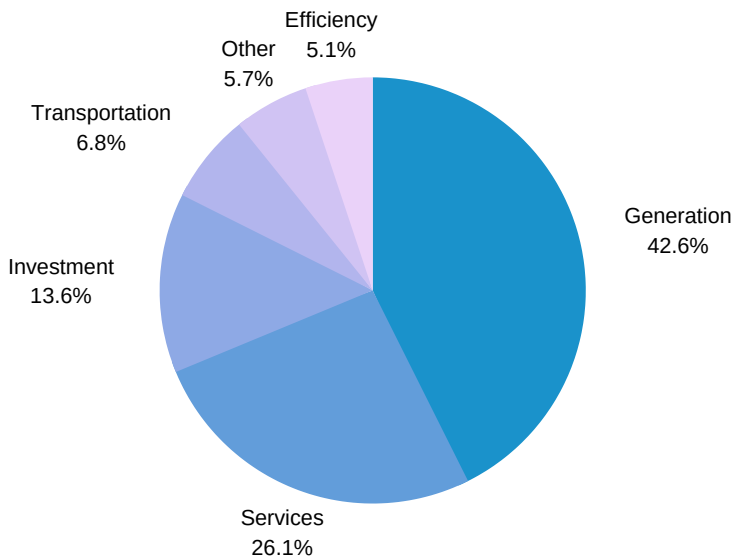
Autumn Lane Energy Consulting
 Brayton Point Commerce Center
 Citrine Power
 CleanCapital
 Commonwealth Fusion Systems
 Consulate General of Canada
 Dirigo Solar
 Eavor Technologies

Exponent
 Glenvale Solar
 Hexagon Energy
 ISM Solar Developer
 Megawatt Solar Consulting
 MHI Vestas Offshore Wind US
 New England Battery Storage
 Seal Rock Energy

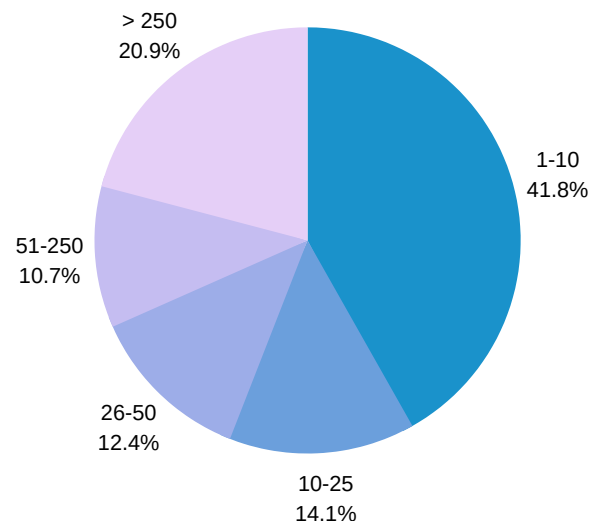
Summit Ridge Energy
 Syncells
 TSK Energy Solutions

*Become a member at
www.neccec.org/membership*

SECTORS OF MEMBERSHIP



NUMBER OF EMPLOYEES



STRATEGIC PARTNER NETWORK

NECEC's Strategic Partner Network (SPN) is a corporate membership program that engages leading global corporations and regional utilities building their energy innovation relationships across the Northeast. We encourage SPN members to take leading roles growing regional cleantech markets that match their business strategies, all while helping them form partnerships within our startup and clean energy company communities. We also work with SPN members to develop new practices for open innovation, investment, and strategic partnerships.

SPN MEMBERS



2019 EVENTS

- Quarterly executive roundtable breakfasts
- *Clean Transportation Summit* on March 28
- *Cleantech Financial Innovation Summit* on June 20
- *Rhode Island Offshore Wind Summit* on July 18

CORE TOPICS

- 21st century electricity transition
- Clean transportation market development
- Offshore wind industry growth
- Opportunities for partnership

POLICY & GOVERNMENT AFFAIRS

NECEC works in the six New England states and New York to advance policies that accelerate the clean energy transition and create business opportunities for NECEC members. We bring together business leaders and key stakeholders to engage in influential policy discussions and business initiatives while building connections that propel the clean energy industry forward.

MAINE

Under the Mills Administration, Maine emerged as a national leader on clean energy in 2019. NECEC's policy priorities included increasing the renewable portfolio standard, strengthening access to solar, and solidifying energy efficiency programs. A sample of some of the most significant successes impacted by NECEC include the following:

- Governor Mills established the **Maine Climate Council**, charged with developing a plan to reduce the state's greenhouse gas emissions 80% by 2050
- **Passage of a suite of distributed generation bills**
 - Improved net metering and authorized procurement of 375 MW of new renewables
- **Passage of LD 1766, *An Act To Transform Maine's Heat Pump Market***
 - Set a goal of installing 100,000 highly-efficient heat pumps by 2025



NEW HAMPSHIRE

NECEC coordinated with our partner Clean Energy New Hampshire to advance a bill to expand net metering project sizes to 5 MW. The bill unfortunately fell six votes short of overriding a veto by Governor Sununu. Despite a slew of vetoes, the governor signed into law three significant clean energy bills: one reauthorizing New Hampshire's participation in the Regional Greenhouse Gas Initiative (RGGI), another advancing solar development in low-income communities, and a third creating a statewide energy usage database.



VERMONT

With our state coordinator Renewable Energy Vermont, NECEC supported a number of clean energy priorities in 2019, including expanding net metering. The legislature passed *S.95, An Act Relating to Municipal Utility Capital Investment*, which expanded the net metering cap to 1 MW for schools and school districts. The legislature also secured the Standard Offer program, only requiring certificates of public good for grid-exporting storage of more than 500 kW.



MASSACHUSETTS

NECEC advocated for a suite of policies in 2019, including kick-starting a framework for clean transportation and setting an economy-wide net zero emissions target. We also advanced regulatory efforts to create a Clean Peak Standard and grow offshore wind and resiliency, revise the state Renewable Portfolio Standard, and expand the solar SMART program. Highlights impacted by NECEC include:



- **House Speaker Robert DeLeo introduced *GreenWorks***
 - Provides \$1.3 billion to municipalities for clean energy and climate resilience funding
- The Department of Energy Resources (DOER) **issued a second RFP for up to 800 MW of offshore wind**, ultimately selecting a bid from NECEC member Mayflower Wind
- The Department of Public Utilities **commenced a proceeding and stakeholder process** (DPU 19-55) to guide utility “Affected System Operator” studies and to **revise the interconnection tariff** for distributed resources

RHODE ISLAND

NECEC led efforts to advance several pieces of legislation in 2019, including a priority solar and distributed generation siting bill and a bill to improve Rhode Island’s virtual net metering policy. Despite falling short in the legislature, Rhode Island continued to lead on a host of clean energy issues, most notably working with developers, utility representatives, and the Office of Energy Resources to reform DG interconnection policies.



CONNECTICUT

NECEC worked to achieve a cleaner, cheaper, and more resilient energy future for Connecticut. Our priorities included undoing harmful solar policy changes, restoring energy efficiency funds while preventing future raids, and establishing an ambitious mandate for offshore wind. Key legislative successes included the following:



- **Passage of HB 5002, *An Act Concerning a Green Economy & Environmental Protection***
 - Extended net metering for two years and increased the virtual net metering cap to \$20 million
- **Passage of HB 7156, *An Act Concerning the Procurement of Energy Derived from Offshore Wind***
 - Authorized the Department of Energy and Environmental Protection to solicit proposals for up to 2,000 MW of offshore wind by 2030

NEW YORK

New York passed landmark climate legislation in 2019, establishing the most aggressive mandates for economy-wide emissions reductions in the country. The legislation created a **22-member Climate Action Council** and codified several clean energy targets: **6,000 MW of distributed solar** by 2025, **3,000 MW of energy storage** by 2030, **9,000 MW of offshore wind** by 2040, and a **100% renewable electric sector** by 2045.



NAVIGATE

Navigate, an NECEC innovation program, works with portfolio startups from our innovation partners to help them reach the next stage of growth. Startups range from commercial pilot to first customers, are located across North America, and aim to do business in the Northeast. Navigate supports entrepreneurs by providing them with tailored, highly-vetted connections and learning opportunities based on case studies. To achieve its mission, Navigate brings the most active players in cleantech to the region.

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CONNECTIONS MADE

INVESTOR CORPORATE CUSTOMER CONNECT

Navigate hosted two editions of our Investor Corporate Customer Connect (ICCC) event, in Boston and New York, bringing together 70 startups and 53 investors, corporates, and customers for a series of one-on-one meetings and focused networking. These meetings are highly curated by our Investor Steering Committee which includes Daniel Hullah (former GE Ventures), David Miller (Clean Energy Ventures), Thorne Sparkman (Slater Technology Fund), Tibor Toth (Massachusetts Clean Energy Center), Rob Day (Spring Lane Capital), and William Lese (Braemar Energy Ventures).



2019 WEBINAR SERIES

Navigate hosted four webinars focused on investor and corporate partner readiness, providing free access to all entrepreneurs, startup support organizations, and cleantech players. The webinars explored case studies, included corporates and investors, and engaged in lively discussions while addressing questions from the audience. Topics included the following:

- Finding the Right Strategic Partner
- Fighting Climate Change Together
- Connecting the Dots Between Strategics and Corporate Investors
- Investing in Cleantech Is a Sustainable Business

INNOVATION PARTNERS

Navigate is proud to work with game-changing startup incubators, accelerators, and associations in the Northeast and beyond. Our network is still growing.

76West	DG	NYSERDA
ACTION	E2Tech	PlanetM
Blue Incubator	Elemental Exceleator	PowerBridge NY
Brown University	Fraunhofer USA	Rensselaer
BIANYS	Greentown Labs	SeaAhead
The Capital Network	IncubatorWorks	Social Enterprise Greenhouse
Chain Reaction Innovations	Innovate Newport	Southern Tier Startup Alliance
CI Works	Koffman Southern Tier Incubator	TEBIC
CEBIP	LaunchNY	The Tech Garden
CEBN	MTTC	UMass Dartmouth
Clean Energy NH	MassCEC	URBAN-X
Cleantech Open	MassChallenge	Urban Future Lab
Cleantech San Diego	New Lab	Venture Café
Company	NextCorps Luminate	Village Capital
Cyclotron Road	North Shore InnoVentures	Worcester Clean Tech Incubator
DeltaClimeVT	NREL	

NAVIGATE SPONSORS

Navigate is supported by the following organizations, all of which share NECEC's values and regard for the urgency to accelerate cleantech solutions.



CLEANTECH OPEN NORTHEAST

Cleantech Open is the world's oldest and largest cleantech accelerator and business plan competition. NECEC runs the Northeast region, including New England, New York, New Jersey, Pennsylvania, and Eastern Canada. More than 90 startups applied to the accelerator in 2019, which runs from May to October and concludes with the Regional Finals competition. The program includes more than 400 alumni since 2005.

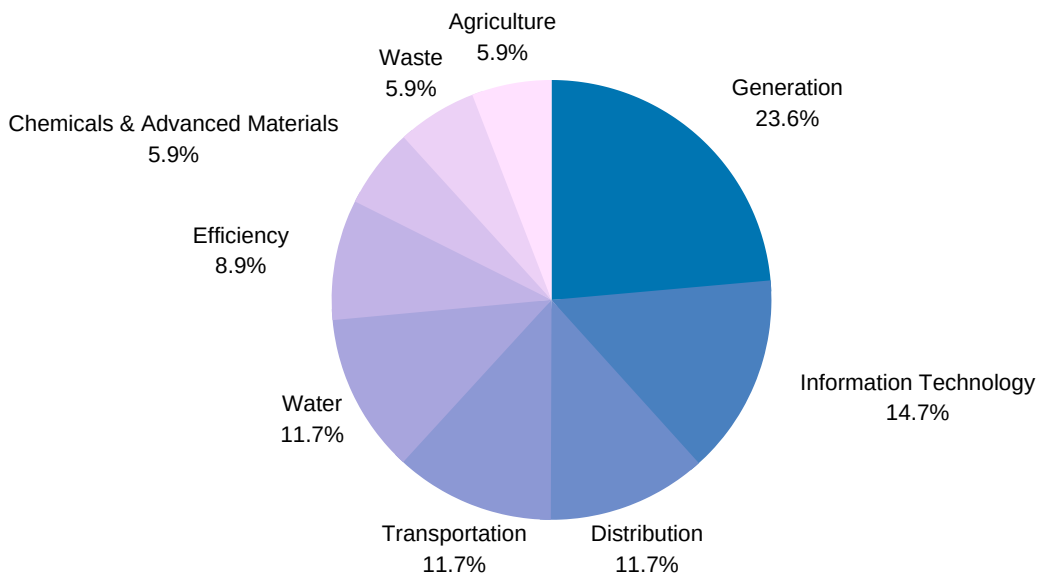
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STARTUPS GRADUATED

"THIS HAS BEEN AN INVALUABLE LEARNING EXPERIENCE... ONE OF THE BEST BUSINESS EDUCATION PROGRAMS THAT I'VE EVER BEEN IN!"

- MARIO MERCADO, FOUNDER & CEO, QUATCARE

TECHNOLOGY BREAKDOWN



2019 REGIONAL FINALS

This two day event in New York City brought together more than 400 attendees to celebrate the graduation of the 2019 cohort. Teams pitched their innovations privately to judges, with the top six companies invited to pitch in front of a live audience. Five VIP judges - Scott Dupack, Carolyn Kissane, Jiong Ma, Nick Querques, and Tibor Toth - then selected the four Northeast regional winners, each of whom won \$10,000 in cash and additional in-kind offerings. All teams also participated in a public showcase of their technologies.



REGIONAL WINNERS

AeroShield

AeroShield manufactures a super-insulating, porous glass for energy efficient windows. The material can be placed between two panes of glass, similar to a traditional double-pane, to create a product that is 50% more insulating than traditional windows. This brings state-of-the-art thermal comfort, durability, and energy savings into homes at an affordable price.

AeroShield was named National Winner at the Cleantech Open Global Forum in Los Angeles.

QUATCARE *Controlling the Spread of Microbes for a Safer World*

QUATCARE provides environmentally friendly, antimicrobial materials and disinfection solutions for industrial and human-health applications. Their technology embeds a mix of quaternary ammonium compounds permanently into the surface of a product, allowing it to have continuous antimicrobial activity against a broad spectrum of pathogens.

FLUX MARINE

Flux Marine designs, manufactures, and markets electric outboard marine motors to the boating industry. Extremely reliable and virtually maintenance free, their motors do not leave a footprint on the environment and have the potential to reduce overall recreational outboard CO2 pollution levels by 240 million pounds annually.

Flux Marine was named National Runner Up at the Cleantech Open Global Forum in Los Angeles.

Teratonix

Teratonix develops an ultrahigh-speed metal-semiconductor-metal heterojunction diode. This diode's speed is 100 to 1,000 times faster than other known diodes and has a zero-bias cutoff frequency greater than 100 GHz, making it the only known technology capable of rectifying broadband radio signals into DC power.

EVENTS

NECEC produced dozens of impactful events in 2019. These regularly sold-out events brought together members, public officials, and key stakeholders to collaborate and educate one another on critical clean energy issues. With ample networking time always included, our events foster deeper relationships within the industry, lead to partnerships opportunities, and elevate the voice of the clean energy business community.

STATE CLEAN ENERGY DAYS

NECEC's business advocacy and lobby days bring together NECEC Member companies for small group meetings with key legislators and policymakers to discuss the most pressing policy issues facing the clean energy industry.

- *Connecticut Clean Energy Day, February 7*
- *Maine Clean Energy Day, February 28*
- *Rhode Island Clean Energy Day, April 2*
- *Massachusetts Clean Energy Day, May 16*



EMERGING TRENDS SERIES

NECEC's signature panel discussion program, Emerging Trends Series, explores hot topics, growing markets, and the latest trends in the clean energy industry. In partnership with MassCEC, special *Converge* editions examine where other segments of the innovation economy converge with cleantech.

- *Visions for a Clean Energy Economy, January 30*
- *Where Transportation and Cleantech Converge, February 15*
- *Where Real Estate and Cleantech Converge, May 22*
- *New York Energy Storage Markets, May 24*



CLEAN TRANSPORTATION INNOVATION SUMMIT

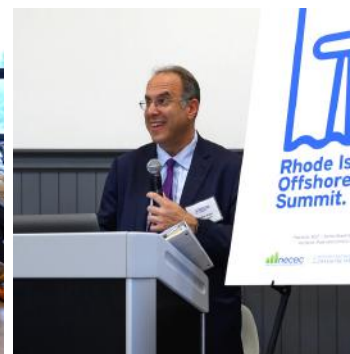
NECEC's Clean Transportation Innovation Summit, sponsored by Schneider Electric on March 28 in Boston, explored the opportunities and challenges of converging transportation and cleantech. Topics of discussion included determining the role of the utility investment in charging infrastructure, rate design for transportation electrification, pilot projects to test new business models, and allocation of funds from the burgeoning Transportation Climate Initiative.

CLEANTECH FINANACIAL INNOVATION SUMMIT

The fourth annual Cleantech Financial Innovation Summit, held June 20 at Wells Fargo in New York, convened business leaders for a series of panel discussions and breakout sessions aimed at sharing the latest financial innovations to enable growth and positive impact in the region's clean energy markets. Building on themes and strategies from across the industry, this year's event highlighted the latest investment models and formation initiatives to bring aligned capital to cleantech innovation, market formation, deployment, and scale-up.

RHODE ISLAND OFFSHORE WIND SUMMIT

The Rhode Island Offshore Wind Summit, held July 18 at Innovate Newport in partnership with the Business Network for Offshore Wind, drew nearly 200 attendees from across the public and private sectors to share insights and explore business opportunities for offshore wind in Rhode Island. From early-stage startups to global energy companies, offshore wind offers burgeoning business prospects along the entire supply chain. The event featured opening remarks by Rhode Island Governor Gina Raimondo, pitches by local businesses and startups, and panel discussions on supply chain and grid modernization.



ANNUAL LEGISLATIVE ROUNDUP

NECEC's Annual Legislative Roundup, sponsored by Brown Rudnick on August 1, featured our state coordinators from Renewable Energy Vermont, Clean Energy NH, Murtha Cullina, and E2Tech. Speakers reviewed legislative wins and misses in their respective states, while also offering a glance at the year ahead.

ANNUAL MEETING

NECEC's Annual Meeting, December 3 at Mintz, engaged members on strategic priorities for 2020 and the coming decade. Two panel discussions then explored NECEC's role in a new era of climate change and promoting diversity and inclusion in the clean energy industry, followed by breakout groups.

GREEN TIE GALA

NECEC's Green Tie Gala is the premiere clean energy networking event of the year. The 12th Annual Green Tie Gala, on October 17 at the Seaport Hotel in Boston, featured nearly 400 attendees, a keynote address by **Maine Governor Janet Mills**, and the presentation of the 2019 Green Tie Gala Awards.



GALA AWARD WINNERS

- Clean Energy Company of the Year: *ReVision Energy*
- Partnership of the Year: *Schneider Electric and Sense*
- Emerging Company of the Year: *REsurety*
- Startup Supporter of the Year: *Massachusetts Clean Energy Center | Tim Hoffman*

IN THE NEWS

NECEC's communications work is seen in media coverage about clean energy growth and the industry's positive impact on the economy. Our strong media relationships continue to result in reporters looking to our team for analysis and insight on clean energy policy and market developments. NECEC's perspectives are regularly quoted and placed in leading publications across the region, including the following highlights from 2019.

Letter to the Editor

 Wall Street Journal

Gov. Cuomo's Energy Policy Is Enlightened

"Unlike the centralized fossil fuel plants that you advocate, distributed energy resources such as solar, storage, and microgrids are sited closer to energy demand, helping alleviate local overload points on the grid. If anything, these investments need to be accelerated as climate change-related extreme heat days are expected to increase."

Op-Ed

 Commonwealth magazine

Mass. should accelerate solar development

"Massachusetts faces a fork in the road when it comes to clean energy. Either we can choose the path of working together to increase the amount of solar our homes and businesses use – or we can step back from the commitments we made to our citizens, our neighbors, and our future generations."

Quote

 Greentech Media

National Grid: 300MW of Halted Solar Can Move Forward With No Upgrade Costs

"The process has caused a lot of anxiety and hardship for the development community for the past six months," said Jeremy McDiarmid... at the Northeast Clean Energy Council. "The end result... allows many developers to have a little bit of relief."

Quote

 Fall River Herald News

Wind industry gets warm welcome at annual UMass Dartmouth conference

"Peter Rothstein, President of the Northeast Clean Energy Council, said... that significant increases have been reported in the last few years. He said NCEC has tracked an 84 percent job growth in the region since 2010 and that 1,500 jobs were created last year alone."

Coverage

 The New York Times

Bit by Bit, Socially Conscious Investors Are Influencing 401(k)'s

"In November, the Boston-based Northeast Clean Energy Council... will revise its 401(k) plan investment offerings to include mutual funds promoting those sustainability goals. The revamped plan will include a target date fund series that screens for... so-called E.S.G. investing."

Coverage

 Energy News Network

Sharing systems could help building owners get more from

"A team of researchers at the Institute for Sustainable Energy at Boston University and the Northeast Clean Energy Council recently took a crack at addressing these questions in a white paper that looked at obstacles to multi-user microgrids and presented ideas for potential solutions."

Coverage

 Yahoo Finance

Schneider Electric and Sense win Partnership of the Year at NECEC's 12th Annual Green Tie Gala Awards

"Schneider Electric... and Sense... won the Partnership of the Year award at the Northeast Clean Energy Council's 12th Annual Green Tie Gala Awards based on their work together to accelerate the evolution of the smart home to become an energy-smart home."

Coverage

 pv magazine USA

Massachusetts to pay energy storage its fair share

"Massachusetts has adjusted state regulations to give energy storage system owners participating in the SMART system the right to gain revenue from selling into the Forward Capacity Market... Included in the discussions were Borrego Solar, Enel X, Engie Storage, SunRun, Tesla and the Northeast Clean Energy Council."

SPONSORS

PLATINUM



GOLD



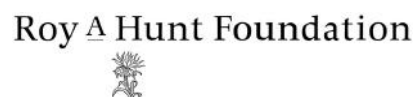
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SILVER



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