



Below are highlights of the programs and events the NSTC Sustainability Forum has hosted over the years.

2022

January 12, 2022 - New Approaches to Recycling End of Life Solar PV Panels

Speaker: Chris Stearns, National Sales Director, Cascade Eco Minerals, LLC
The Sustainability Forum hears from Chris Stearns, National Sales Director, from Cascade Eco Minerals, LLC. Chris' presentation covered the history of Cascade and their partner company Dlubak Specialty Glass. He included an explanation of the basics of the recycling process, different downstream markets with examples of industrial uses, and the potential consequences of not pursuing solar module recycling. As a company, Cascade is gearing up for the upcoming wave of solar modules that is anticipated in the coming years. As more and more modules reach end-of-life, this issue is only going to grow and setting up appropriate infrastructure now is vital to smoothly decommissioning systems down the road. Learn more at [Cascadesecominerals.com](https://cascadesecominerals.com)

March 09, 2022 - Sustainability Forum: MAPC's Municipal Net Zero Playbook

Speaker: Brooks Winner, Senior Clean Energy Specialist, Metropolitan Area Planning Council (MAPC)

Brooks Winner, Senior Clean Energy Specialist at Metropolitan Area Planning Council (MAPC) joins the Sustainability Forum to discuss how MAPC's Municipal Net Zero Playbook can help local net zero action implementers understand their role in advancing greenhouse gas (GHG) emissions reductions and advocating for critical local and state level policy changes. The Municipal Zero Playbook is an interdisciplinary tool for municipal planners, energy/sustainability staff, and volunteers that seek to empower cities and towns to implement net zero actions within their communities. Learn more at MAPC.org

April 13, 2022 - Sustainability Forum: How Energy Storage Can Enable a Net Zero Grid

Speaker: Mariko McDonagh Meier, Chief Strategy Officer, Convergent Energy + Power

This Sustainability Forum focuses on a conversation around the importance of energy storage. Without energy storage, electricity must be produced and consumed exactly at



the same time. As the electric grid transforms due to decarbonization (renewables), digitalization (AI and machine learning), and decentralization (distributed generation), the existing structure is under increasing strain. The climate crisis is putting additional pressure on our electricity infrastructure and our communities. At this event, Mariko McDonagh explained why energy storage is the linchpin to the clean energy transition and how it is already making the grid more sustainable, cost-effective, and reliable. Learn more at [Convergentep.com](https://www.convergentep.com)

May 11, 2022 - Sustainability Forum: Natural Gas to the GeoGrid, a Zero Emissions Transition Plan

Speakers: David Oliver, Co-Executive Director, HEET & Audrey Schulman, Co-Executive Director, HEET

The GeoGrid is a networked ground source heat pump system that can be installed by gas utilities in the right of way of the street. More efficient than air source heat pumps, it channels the power and finances of gas utilities toward building electrification. Installations and feasibility studies are starting in states across the country, including 6 installations in Massachusetts. [HEET](https://www.heet.org), a nonprofit climate-solutions incubator, invented the GeoGrid. Its co-executive directors discussed the research, installations and how we can accelerate the transition. Learn more at [HEET.org](https://www.heet.org)

June 08, 2022 - Sustainability Forum: Advancing the North Shore Blue Economy Initiative

Speaker: Katherine Kahl, Ph.D., Extension Assistant Professor, Coastal Resilience & Sustainable Fisheries, University of Massachusetts Amherst Gloucester Marine Station

The Blue Economy is a pioneering approach that views our ocean not just as a resource to generate economic growth, but as a powerful way to improve ecosystem health and long-term regional prospects. The goal of the North Shore Blue Economy (NSBE) initiative is to build and implement a resilient, sustainable, equitable, and integrated network that leverages our strengths and positions the region to capitalize on emerging opportunities. A Phase I NSBE report was released in late 2021. Katie Kahl, UMass Amherst Gloucester Marine Station faculty and NSBE lead, will discuss the report highlights and share new efforts underway for NSBE Phase II. [Learn more here.](#)

July 14, 2022 - 2022 Summer Outing: Fun on the Finback



The North Shore Technology's full organization summer networking event in which NSTC members and friends partnered with Mahi Cruises for a lovely cruise of Salem Harbor.

September 07, 2022 - The Future of Batteries: Open House & Networking with Titan Advanced Energy Solutions

Speaker: Shawn Murphy, Co-founder, CEO, CTO, Titan Advanced Energy Solutions

Salem, Massachusetts based Titan Advanced Energy Solutions is a pioneer in ultrasound-based battery management and diagnostic solutions for the growing Lithium-ion market -- a market projected to be \$127 Billion by 2027. The Sustainability Forum learned about the company, their culture, and the breakthrough battery technology that recently won the U.S. Department of Energy's Battery Recycling Prize. This was a unique opportunity to tour Titan's office and battery and R&D Labs while also enjoying food, drink and time to network at Root Café, a "community kitchen" that uses culinary arts as a tool for teaching workforce readiness. Learn more at [Titanaes.com](https://titanaes.com)

October 26, 2022 - Innovating Workforce Development with BlocPower

Speakers: Craig Altemose, Director of External Affairs. BlocPower & Clare Doyle Dowd, Director of Policy and Community, BlocPower

BlocPower utilizes its proprietary software for analysis, leasing, project management, and monitoring of urban clean energy projects, driving energy savings of 20-40% for the renters, building owners, and small businesses we work with. Partnerships are key and BlocPower builds workforce partners with utilities and local governments to deliver electrification solutions, including air source heat pumps. The Sustainability Forum was lucky enough to hear from both Craig Altemose and Clare Doyle Dowd about how BlocPower is innovating workforce development. Learn more at Blocpower.io



January 13, 2021 – Covid & Climate: What's Next for Cities?

Speaker: Dr. Jacqueline Ashmore, Executive Director, Boston University's Institute for Sustainable Energy (ISE)

Our first Sustainability Forum after a long-hiatus due to COVID restrictions featured a discussion of how the pandemic may change long running environmental and climate efforts. We heard from ISE and their research in 2020 researching municipal actions and surveying municipal leaders about these very issues. They issued a three-part series called Covid & Climate: What is Next for Cities? to provide community leaders, inside and outside of local government, with guidance about navigating their climate-action priorities against this backdrop. We had an interactive chat with Jacquie about their findings, including why the pandemic makes climate leadership even more urgent and how climate action can actually be a lever to close the equity gap and drive economic recovery with actionable examples that North Shore leaders can use to advance climate progress, from capitalizing on the renewed appreciation for open space to applying vulnerability frameworks to implement equity goals. Learn more [here](#).

February 10, 2021 – New Business Models Enabling Regenerative Agriculture Systems

Speaker: Aaron Desatnik, Director, Marketplace, Strategy & Project Management, Indigo Marketplace

Aaron Desatnik spoke about Indigo Marketplace, a digital platform that connects buyers and sellers of grain and create a more transparent food supply chain. Learn more at indigoag.com/marketplus

March 10, 2021 – A Radical Solution to Plastic Pollution

Speaker: Kristin Taylor, CEO and Co-Founder of Radical Plastics

Kristin Taylor, the CEO/Cofounder of Radical Plastics and a veteran in the plastics industry discussed the prevalence of plastics in our society and the impact that it has on our environment. Radical Plastics is a cleantech startup based at Northshore InnoVentures in Beverly, Mass. The business is focused on creating a drop-in replacement solution for existing, persistent plastics. Radical Plastics holds a patent for its naturally-occurring catalyst that renders conventional plastics biodegradable in the natural environment. This novel technology will enable the use of



materials that are economical, functional, recyclable and fully biodegradable. In commercializing this technology, Radical Plastics aims to make a meaningful contribution in the battle against plastic pollution. Learn more at [Radical-plastics.com](https://www.radical-plastics.com)

April 14, 2021 – Sustainability in Higher Education

Speakers: Anthony Michetti, Director of Sustainability and Megan Wrenn Sustainability Coordinator, Endicott College

The Endicott College Office of Sustainability shared their mission of helping to institutionalize pragmatic, timely, and effective solutions to create organizational change with a focus on climate, equity, and health and their work with faculty, students, and staff to create solutions that can be replicated beyond the Endicott community. As a coastal campus, the College aims to limit its impact on local ecosystems while working to conserve natural space and biodiversity. The Office's vision is rooted in confronting the challenges of climate change and sustainability by contributing positive social, economic, and environmental solutions that students can take with them as they assume their own lives and careers. The College is in the process of formalizing its first Sustainability Plan with a climate neutrality goal. Learn more at [Endicott.edu](https://www.endicott.edu)

May 12, 2021 – Enabling Sustainable Recycling of Lithium-Ion Batteries

Speaker: Megan O'Connor, Co-Founder & CEO, Nth Cycle

Megan introduced us to Nth Cycle, a metal processing technology company that works with recyclers and miners. Nth Cycle's customizable and clean electro-extraction technology installs onsite to recover critical minerals from separated e-waste and low-grade mine tailings. Nth Cycle is at the heart of metals processing - the crucial step that profitably separates critical minerals from other elements, transforming them into production-grade feedstocks for the energy transition. Learn more at [nthcycle.com](https://www.nthcycle.com)

June 9, 2021 – Building a Sustainable Future for New England Seafood

Speakers: Andrea O'Donnell, Sustainability Coordinator, Ipswich Shellfish Group

We heard about sustainability, which is at the core of what the Ipswich Shellfish Group of companies does. Across the seven locations, from Maine to South Carolina, they recognize the growing importance of sustainability in the seafood industry. They take the responsibility to do what they can to source seafood as sustainably as possible to guarantee fish for the future. As a founding member of Sea Pact, Ipswich Shellfish Group is dedicated to working with other like-minded seafood companies in North



America to drive industry sustainability progress and help improve fisheries around the world. There is a need for maintaining a balanced and healthy ocean environment and managed aquaculture methods for the future of our fisheries. Learn more at ipswichshellfish.com

October 14, 2021 - Beverly's Electric School Bus Program Leads the Way to Carbon-Free Transportation

Speaker: Matt Stanberry, Managing Director, Market Development - Highland Electric Fleets

Following "National Drive Electric Week" week at the end of September, the Sustainability Forum's October event featured an informational zoom on Beverly's Electric School Bus Program. After a year of this program in effect, Highland Electric Fleets' Matt Stanberry gives his review. Highland Electric Fleets is a comprehensive turnkey solutions provider that delivers electric school buses (EVSB) to school districts and third-party managed fleet providers (3PMs). Their mission is to eliminate the barriers to better student health and cleaner air. Learn more at HighlandFleets.com

November, 04, 2021 - Celebrate the Holiday Season with the North Shore Technology Council!

The Sustainability Forum joins with the other Forums of the North Shore Technology Council for this holiday themed networking event.

December 08, 2021 - Networking with NSTC Sustainability Forum: Holiday Themed

This event was a casual, virtual networking session for the Sustainability Forum and friends to celebrate the holiday season. At the top of the hour, we will go around the (virtual) room and have everyone introduce themselves and give us one sustainable minded project that they are working on or excited about in the new year. We will then have smaller breakout rooms open for people to expand on their topics with other like-minded individuals.



January 8, 2020 - Hydropower Generation and Pumped Storage: Still Vital to Renewable Energy Markets

Speaker: Robert Kasle, Director of Origination, First Light Power

Hydropower can play an important role in maintaining and expanding the amount of renewable energy we use. Although often overlooked in favor of solar and wind, hydropower holds great potential to cost-effectively decarbonize and store electricity. Robert Kasle shared how FirstLight Power is leading the integration of local hydropower into existing and future renewable energy markets. Learn more at [Firstlightpower.com](https://www.firstlightpower.com)

February 5, 2020 – All Electric Zero Emission Homes

Speaker: James Manzer, Managing Director ReVision Energy

Building or designing a new home is the perfect opportunity to make sure you are future-proofing your house by keeping clean energy in mind. James discussed how to make a new construction project an all-electric house powered completely by solar! He guided us through the right questions to ask when designing a roof for solar as well as options for battery backups, electric heating and cooling through heat pumps, and EV chargers. Using solar instead of fossil fuels to power your home can bring your carbon footprint close to zero, a crucial step in both mitigating climate change and saving money. Learn more at [Revisionenergy.com](https://www.revisionenergy.com)

March 4, 2020 - New England Offshore Wind Update

Speaker: Stephen Pike, CEO, Mass Clean Energy Center

A presentation about all things offshore wind in Massachusetts and along the US eastern seaboard from Massachusetts Clean Energy Center (MassCEC), MassCEC's Offshore Wind strategy centers on accelerating the responsible development of offshore wind projects and increasing the role of Massachusetts companies, institutions, and workers in the offshore wind industry. Toward this goal, MassCEC is leading an array of initiatives and technical analyses in close collaboration with policy makers, regulators, developers, industry and stakeholders. These initiatives are designed to establish baseline environmental data to support the permitting process, reduce development and deployment risks, advance innovation, and increase jobs and economic activity in the offshore wind sector. Learn more at [Masscec.com](https://www.masscec.com)

Programming Suspended due to Covid Restrictions for remainder of 2020.



2019

January 9, 2019 – Microgrids: Combining Renewables and Batteries to Create Green Resiliency Solutions; Program and Tour at Schneider Electric – Andover Facility

Speaker – Andy Haun, Microgrids Chief Technology Officer, Schneider Electric

Recent extreme storms - think Hurricane Sandy's impact on New York/New Jersey and Hurricane Maria's devastating impact on Puerto Rico - have highlighted the need to create a more resilient power grid. Microgrids that use on-site renewables and energy storage improve resiliency while being clean and green. Communities are looking to microgrids to keep critical services going during power outages resulting from more frequent extreme weather events.

There are opportunities for startups in this market to offer microgrids and their components, like battery storage, fuel cells and controllers. Last September, New York's Urban Future Lab announced \$50,000 awards plus incubation guidance for microgrid startups. An Indiana startup built their business providing microgrids to the military and is moving on to build a commercial resilience business. After experiencing outages, Schneider Electric decided to "be their own customer" and install a microgrid at their North American headquarters in Andover, MA. A 440kW solar array is backed up with a 400kW natural gas generator and the system provides 500kW of power capacity and 1 MWH of total energy. An advanced cloud-based energy management system combined with an energy control center orchestrates supply and demand and enables the microgrid to safely "island" itself from the central power grid. All this is done without upfront capital costs, through a unique energy-as-a-service model. Learn more at SE.com

February 6, 2019 – How Electrification Enables a Lower Carbon World

Speaker: James Manzer, General Manager, ReVision Energy

In the midst of increasing storms, natural disasters and potential threats to our energy grid, our ability to source electricity locally from a clean energy source is becoming crucial for people to remain safe during prolonged power outages. As the increased severity of weather-related power outages makes sourcing electricity locally more



important, the solutions are becoming more achievable, thanks in part to technical advancements in solar energy, battery backup, electric heat source heat pumps, and driving electric. Learn more at revisionenergy.com

March 6, 2019 - MetroCommon 2050: Smart Growth Plan for a Sustainable Future

Speakers: Eric Hove, Director of Strategic Initiatives and Lizzie Grobbel, Regional Planner of MAPC

MetroCommon 2050 is Greater Boston's next long-range regional plan, led by the Metropolitan Area Planning Council (MAPC). MetroCommon is designed to look at common challenges and opportunities experienced by the 101 cities and towns of Metropolitan Boston in order to promote smart growth and regional collaboration. Now in Phase 1 of a six-phase process, MAPC is engaging with local and state leaders, residents and commonly underrepresented groups about the future they want for the region. Topics discussed include pressing issues such as; equity of wealth and health, climate mitigation and resiliency, housing, growth and mobility and dynamic, inclusive, collaborative governance. MAPC has been holding interactive listening sessions throughout the region and joined the NSTC's Sustainability Forum for an interactive session to talk about what we see working now and how we envision the future from a sustainability perspective. Learn more at mapc.org

April 2019 – Promoted local Earth Day events, including the Newburyports Green Expo, Endicott College's Earth Day Celebration and the Nocera Lecture on Sustainably Produced Food & Fuel

June 5, 2019 - Plug-In to the Latest on Electric Vehicles

Speaker: Kathleen Rosen Connors, Founder and CEO, Voltrek

Kathleen Rosen Connors, Founder and Executive Officer of Voltrek, a Massachusetts company at the forefront of partnering with businesses, commercial properties and municipalities shared their work deploying electric vehicle infrastructure in light of new developments in the EV market and technology advances. A great story of an innovative local company which has enabled hundreds of clients to offer commercial EV charging stations to support the growing demand in the northeast. Learn more at Voltrek.com

August 2019 – Summer Outing: Exclusive Sustainability Tour of Woods Hole Oceanographic Institute



Hosted by Stephanie Madsen, WHOI Sustainability Coordinator

Our summer outing took us to Cape Cod to visit Woods Hole Oceanographic Institute (WHOI, lovingly pronounced "whowee"). WHOI has a number of wonderful public exhibits and special events throughout the year, which highlight things like the world's first deep-ocean submersible, known as Alvin. In addition to seeing Alvin up close, we were treated to a specially-designed Sustainability Tour led by Stephanie Madsen, WHOI's Sustainability Coordinator. Stephanie's passion for sustainability was apparent as she showed us the many efforts made on the large, diverse campus. She talked to us about what it has taken to change attitudes as well as actions. Over the past few years, WHOI has sought ways to achieve their sustainability mission, defined as where the environment, economics, and society meet. Among their successes are:

- Recycling and composting in cafeterias, reduces the waste on campus.
- Cutting grass only along the edges of buildings and walkways, leaving natural habitat for more native species to live.
- Adding solar arrays on two of the labs on campus, starting their switch to renewable energy.
- Hosting educational events with employees by employees, helps keep employees engaged and sharing their interest with fellow colleagues.

To learn more visit whoi.edu.

September 11, 2019 – Community Shared Solar Options for Commercial/Municipal Organizations

Speakers: Alan Robertson, Senior Director of C&I Development and Rebecca Noyes, Analyst – Community Solar Business Development. BlueWave Solar

BlueWave Solar discussed two opportunities to participate in clean energy with BlueWave. Alan kicked off the conversation by speaking about using your property as a site for a community solar system. The property will benefit from leasing its rooftop or parking lot by receiving quarterly rent payments. Rebecca spoke about the opportunity to serve as an anchor customer for the community solar array on your property or elsewhere in your region. By signing up as an anchor customer, your business will save money on your electricity bills and enable smaller customers, like individual households and small businesses, to sign up for community solar, as well. Learn more at Bluewave.energy

October 2, 2019 – The Sustainability Benefits of Life-Cycle Assessment



Speaker: Rebecca LeBlanc, Principal, LCA Resource

With the current market focus on reducing packaging and carbon emissions, corporations are seeking sound methodologies to determine where to focus and which initiatives to prioritize. Life cycle assessment (LCA) is a tool which companies are using to help them establish their baseline data metrics. A carbon footprint is an LCA focusing on carbon emissions. A packaging footprint is a holistic view of the overall impacts your packaging may have. There are many different approaches to conducting a study of this nature. Very rigorous studies are typically used for comparative analysis of products and services, and others which help manufacturers design a more "environmentally friendly" product by screening their materials, energy and water use and overall waste. Companies are using LCA to develop a more logistically sound supply-chain as well as produce packaging with zero waste-to-landfill. As companies are being asked by their investors and customers for more metrics about their environmental and social performance, LCA is one of the tools used to provide this data. Rebecca shared her extensive experience working with companies to assess their product life-cycle impacts. Learn more at LCAresource.com

November 6, 2019 – How Regenerative Agriculture Can Slow the Effects of Climate Change

Speaker: Carol Zoubek, CJZ SRI Planning and Investments

Regenerative Agriculture blends modern discoveries in soil biology with indigenous wisdom. It is a system of farming principles and practices that increases biodiversity, enriches soils, improves watersheds, and enhances ecosystem services. Regenerative Agriculture aims to capture carbon in soil and above ground biomass, reversing current global trends of atmospheric accumulation. At the same time, it offers increased yields, resilience to climate instability, creating soil sponges that help to reduce droughts, floods and wildfires, and higher health and vitality for farming and ranching communities. The system draws from decades of scientific and applied research by the global communities of indigenous people, organic farming, agroecology, Holistic Management, and agroforestry. Carol share how the key goal for Regenerative Agriculture is to drawdown the carbon in our atmosphere and regenerate our land back to health.

December 4, 2019 – Leading a Sustainable Life

Speaker: Patrick Belmonte, Co-Director of Change is Simple



From the food we eat, to the energy we use and products we buy, each of our daily actions leave a cumulative impact on our world. Dozens of small changes can be made every day to live more sustainably. "Change is Simple", a Beverly based 501(c)3 tax exempt nonprofit, has turned this mantra into a supercharged STEM program. Change is Simple's Patrick Belmonte showed us the easy and fun side of learning STEM programs. In addition to learning about proper recycling methods, attendees learned simple and easy ways to reduce the overall amount of trash/waste we create along with learning better ways to dispose of things like textiles, electronics, food waste, and more. Learn more at Changeissimple.org

2018

Jan 10, 2018 - Zero-Waste Project

Speaker: Kirstie Pecci, Senior Fellow, Conservation Law Foundation (CLF)

[CLF](#) is working towards a Massachusetts powered by low-cost, clean energy, with air free from dirty pollution and waters you can swim in, fish, and drink from without worry; a Massachusetts with a flourishing ocean untainted by pollution where fish are bountiful and our shorelines resilient to climate change; and a Massachusetts with neighborhoods where you can easily walk and bike to the grocery store and work and where everyone has easy access to public transit. Kirstie discussed how CLF is putting its local knowledge and legal expertise to work to make our air and water cleaner, protect our climate, and create safe and healthy communities for all.

Mar 19, 2018 - Offshore Wind Power Update – When Will We Benefit from this Green Resource?

Speaker. Amber Hewett, Campaign Manager, Offshore Wind Energy, National Wildlife Federation

On August 8, 2016, Governor Baker made history by signing into law the nation's largest commitment to offshore wind power. Massachusetts remains the only state in the procurement stage of fulfilling a utility-scale requirement to this massive clean energy resource. Amber Hewett discussed such questions as: the most ideal transmission strategy, ways to protect wildlife and habitat, state coordination, and project timelines, leaving us with a big picture understanding of what needs to happen



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to start bringing the benefits of offshore wind power to the U.S., where challenges may arise, and why Massachusetts should already be thinking beyond its first 1,600 megawatts. For more information, visit their website at www.nwf.org

Apr 25, 2018 - Business Breakfast: The State of Clean Energy Innovation and Opportunities for Growth on the North Shore

Moderator: Steve Pike, CEO, Massachusetts Clean Energy Center

Panel: Clean Energy Entrepreneurs & Businesses Leaders

Presenters: Students from Endicott College's Angle School for Entrepreneurship

Sponsor: Endicott College

In celebration of Earth Day, the North Shore Technology Council and its Sustainability Forum subgroup hosted a special Earth Day-themed program for the April Business Breakfast. Steve Pike, CEO of the [Massachusetts Clean Energy Center](http://www.masscleanenergycenter.com) moderated as students from Endicott College's Angle School for Entrepreneurship presented the findings of their recent research on regional clean energy developments and their impact on the North Shore to a panel of local clean energy business leaders.

May 10, 2018 - Low Impact Hydropower Certification - Sustainability 101

Speaker: Shannon Ames, Executive Director, Low Impact Hydropower Institute

The Low Impact Hydropower Institute (LIHI) is a national organization based in Massachusetts that is dedicated to reducing the impacts of hydropower generation through a voluntary certification program designed to help identify and reward hydropower dams that are minimizing their environmental impacts. LIHI's mission is to reduce the impacts of hydropower dams through market incentives. There are thousands of hydropower dams in the United States located on many of our most important rivers and streams. While these dams can create pollution-free energy, but they can also produce significant adverse impacts on fish and wildlife and other resources. Shannon explained to us how LIHI is working to balance this equation. Learn more at www.lowimpacthydro.org.

June 6, 2018 - Meeting Climate Change Goals in the Biotechnology Sector

Speaker: Elias Witman, Sustainability Coordinator, Cell Signaling Technology

Hosted by Cell Signaling Technology

The June Sustainability Forum focused on planning long-term environmental goals centered on meeting Paris COP21 climate targets. Elias Witman discussed the



strategies, and projects implemented by CST to reduce energy use in their facilities, and the pursuit of sustainability in their laboratory operations. As a co-chair of the statewide MassBio committee on Safety, Environment, and Facilities, Elias has benchmarked his work from the efforts of large biopharma, Ivy League university labs, and science startups. Learn more at www.cellsignal.com.

July 25, 2018 - Tour of the First US Offshore Wind Farm

Our Sustainability Forum is organizing a trip from Block Island, RI, to get an up-close, expert-guided tour of an offshore wind farm that generates enough power to meet most of the needs of New Shoreham, RI, also known as Block Island. We will be taking a one-hour boat tour aboard Block Island Ferry's newest Hi-Speed ferry, the MV Islander to see the 30 megawatt, five turbine Block Island Wind Farm. A local guide and wind farm enthusiast will be leading our tour around the wind farm.

2017

Jan 11, 2017 - ISO New England Outlook on the Challenges of Greening Our Power Grid

Speaker: Michael S. Giaimo, External Affairs, ISO New England

Michael provided an overview of the regional power system and energy related trends and challenges facing the region. Over the past couple of decades, the New England electric power system has experienced significant change. Through the competitive electricity markets, new, more efficient plants have been built to replace older plants. A large portion of the region's nuclear, coal- and oil-fired power plants have been retired and replaced by natural-gas fired generation, energy efficiency and renewable resources. In the coming years, the region will see additional power plant retirements and these resources will likely be replaced by natural gas, as well as renewable resources such as solar and wind. Managing this transition over the coming years will be challenging to say the least. As the region's electricity grid operator and administrator of the wholesale electricity markets, [ISO New England](http://www.iso-ne.com) will undoubtedly be a key player in the process.

Feb 1, 2017 - Sustainability Challenges for the Gulf of Maine

Speaker: Peter Shelley, Senior Counsel, Conservation Law Foundation (CLF)



The Gulf of Maine is among the fastest heating bodies of water on the planet. It also faces ecological challenges from increasing ocean acidification. We learned about the ocean off our New England coast, the challenges that it faces in the coming years, and some thoughts about preparedness and solutions from a conservationist who has worked in the Gulf of Maine for his entire professional career. Peter was instrumental in recent efforts to convince the Obama Administration to safeguard some of New England's corals and charismatic marine life when, in September 2016, it designated the Northeast Canyons and Seamounts Marine National Monument, an area roughly 150 miles off the coast of Cape Cod. The canyons and seamounts area is a particular hotspot for deep-sea corals and its designation as a marine national monument affords it the highest level of federal protection. Learn more about Conservation Law Foundation at: <https://www.clf.org/>

Mar 1, 2017 - The Blackburn Energy Story: Creating a Sustainable World Through Entrepreneurship & Local Manufacturing

Speaker: Andrew Amigo, the founder and CEO of Blackburn Energy

Andrew discussed how invention, entrepreneurship and local manufacturing can create a sustainable world today. We learned about [Blackburn Energy](#)'s approach to rapid adoption of elegantly simple carbon reduction solutions that can be brought to market in the short term. Blackburn Energy's use of its kinetic energy recovery system is an example of how a low cost solution can provide clean energy to truck drivers in the USA as well as school children and medical clinics in Africa.

Apr 5, 2017 - Developing a Waterfront Resiliency Plan for the City of Beverly

Speakers: City of Beverly Planning Director Aaron Clausen, AICP and BSC Group Senior Project Manager Katie Moniz, P.E., AICP, CFM

City of Beverly Planning Director Aaron Clausen, AICP and BSC Group Senior Project Manager Katie Moniz, P.E., AICP, CFM presented the City of Beverly Waterfront Resiliency project. The City of Beverly is the recipient of a ~\$90,000 grant from the Massachusetts Office of Coastal Zone Management (CZM) to identify potential impacts of sea level rise due to climate change and develop a resiliency strategy to begin addressing these potential impacts. In an ongoing effort to address the present and future risks of climate change and sea level rise to critical infrastructure, public facilities and residential and commercial uses, the City of Beverly is undertaking an assessment of critical infrastructure most vulnerable to coastal flooding.



May 3, 2017 - Energy, Democracy, Gender and Equity in the Renewable Energy Tradition

Speaker: Jennie Stephens, Dean's Professor of Sustainability Science & Policy at Northeastern University

Energy democracy is a novel concept and emergent social movement that connects energy policy and social policy in response to growing concerns about socio-economic and racial inequities, the powerful influence of conventional fossil fuel energy companies on politics and policy, and the negative impacts of climate change. A gender imbalance in the energy sector is apparent in countries throughout the world, yet the societal value of more diverse and inclusive participation in the renewable energy transition is not widely acknowledged. This presentation highlighted the opportunities for re-envisioning the renewable energy transition as a larger social transformation that redistributes power literally and figuratively. Learn more [here](#).

Jun 7, 2017 - Energy Savings & Indoor Environmental Quality in Bioscience Labs, Vivariums and Other Critical Spaces

Speaker: Eric Desrochers, CTO, Measured Air Performance, LLC
Hosted by: Measured Air Performance, LLC

Proper building system performance is critical to energy efficiency, occupant health and productivity. Yet most of today's Biotech/Life Sciences laboratory buildings underperform due to a lack of ventilation information, improper air balancing, poor system commissioning and maintenance. Critical spaces like labs typically use 100% outside air, making them one of the largest energy users in any building. However, due to the dangerous nature of work in critical spaces, safety is paramount. Eric discussed recent design trends in lab air change rates, how to effectively baseline ventilation systems and help to ensure that flow reduction energy conservation measures actually deliver target energy savings. Learn more about Measured Air Performance at: <https://www.measuredap.com/>

Aug 11, 2017 - 7 Seas Whale Watch

[7 Seas Whale Watch](#) is located in the heart of historic downtown Gloucester, MA and in one of the busiest parts of Gloucester harbor. We were took aboard the Privateer to explore Gloucester's working waterfront. A naturalist briefly presented on the Stellwagen Bank National Marine Sanctuary, the area we visited, and local wildlife



before the trip, as well as guided us throughout our trip by pointing out historic Gloucester landmarks. Some of the landmarks we sailed past included: the Cape Pond Ice company, US Coast Guard station, the Gloucester Sea Jacket Marine Paint Factory, Ten-pound Island, Hammond Castle, Eastern Point Lighthouse and the Dog Bar Breakwater. We were honored to be guided by some of the most experienced whale watch captains on Cape Ann with over 60 years of combined whale watching experience.

Sep 6, 2017 - Climate Action By Your Local Business Can Have a Significant Environmental Impact

Speaker: Joseph Carpenter, Programs Director, Climate Action Business Association

Joseph provided tips on how local businesses can stay ahead of the curve and be leaders on climate action. This topic discussion covered the basics of what carbon pricing is, why it can be an effective means for addressing climate change, current proposed carbon pricing legislation in Massachusetts, where businesses fit into this conversation, and what you can do to make your voice heard. Learn more about the Climate Action Business Association at: <http://www.cabaus.org>

Oct 4, 2017 - Understanding Mass Solar Incentives; SRECs to SMART

Speaker: Bob Morton, Design Consultant, ReVision Energy

Host: ReVision Energy

[ReVision Energy](#) is a full service design, engineering, and installation company with an unmatched depth of experience in Northern New England. They have been ranked #1 in New England for rooftop solar installation and our work has been featured in industry magazines such as Solar Pro. With over 6,000 successful installations across the region, Revision has refined their design and installation practices such that their renewable energy systems are as dependable as the conventional systems they replace. They install and service mature technologies that are ready to suffer through 35+ years of harsh New England winters.

November 1, 2017 - Renewable Energy in Developing Countries

Speaker: Julie Smith-Galvin, Principal, JSG Communications

An estimated 1.2 billion people in the world do not have access to any electricity, while many more live with poor quality service. The problem is large and complex, but there are effective efforts underway which are narrowing the gap. Julie Smith-Galvin, the now



owner and founder of a communications company working with energy enterprises, shared her personal experiences working on solar-based rural electrification projects in unelectrified regions of Latin America as a Peace Corps volunteer and later with the pioneering non-profit organization, Enersol. Learn more about JSG Communications at: <http://jsgcommunications.com/>

December 13, 2017 - Reducing Community Risk through Increasing Natural Resource Resiliency

Speaker. Wayne Castonguay, Executive Director, Ipswich River Watershed Association

We were pleased to welcome Wayne Castonguay, Executive Director of the Ipswich River Watershed Association, who spoke on a recently-concluded 3-year study with the National Wildlife Federation and the six coastal towns in the Great Marsh on Massachusetts' North Shore, to identify strategies for reducing community risks from coastal storms and flooding. The report's findings emphasized the regional strategies for increasing the resiliency of the Great Marsh with a focus on nature-based and green infrastructure strategies. For more information, visit their website: <http://www.ipswichriver.org>

2016

Jan 13, 2016 - What's Next for Offshore Wind Power?

Speaker. Amber Hewett, Regional Campaign Coordinator, National Wildlife Federation

Massachusetts legislators and Governor Baker had the opportunity to encourage the replacement of the Pilgrim Nuclear Power Station's nuclear energy with zero-carbon power by tapping the massive energy resource sitting right over our horizon: offshore wind. There is enough power to replace Pilgrim several times over in areas currently designated for wind energy development far off the coast of Massachusetts. Leading global developers have competitively purchased leases in those areas and are ready to build reliable, local, rate-stabilizing power into our energy mix at a scale that matches the Commonwealth's urgent needs. The [National Wildlife Federation's](#) Amber Hewett presented an overview of the current state of these potential wind projects and detailed the issues that must be addressed in the path forward to a clean energy future.

Feb 3, 2016 - Sustainable and Responsible Investing – Impactful Growth – Hosted



by Cambridge Trust Company

Speaker. Aimee Forsythe, CFA, VP and Investment Officer, Cambridge Trust Company

A growing number of people believe that investors bear responsibility for the impact their money has in the world. To learn more about sustainable investing, we hosted Aimee B. Forsythe, CFA, who helped to establish [Cambridge Trust Company's](#) Sustainable and Responsible Investment Strategy – an investment discipline that considers environmental, social, and corporate governance (ESG) criteria to generate long-term, competitive financial returns and positive social impact. Aimee talked about the evolution of SRI, how investing sustainably makes a difference, and how the SRI team at Cambridge Trust Company conducts proprietary and ESG analysis.

Mar 2, 2016 - MassCEC 2016 Program Update – Driving the State's Sustainable Energy Industry

Speaker. Sarah Colao, MassCEC Acting General Counsel

The [Massachusetts Clean Energy Center](#) is dedicated to accelerating the growth of the Massachusetts clean energy industry and making Massachusetts a global destination for the clean energy sector. With economic growth in mind, MassCEC invests in early-stage technology companies, provides incentives for the adoption of renewable energy and develops programs to prepare workers for the next generation of clean energy jobs. To visit their website, go to <http://masscec.com>

Apr 6, 2016 - How Cell Signaling Technology is Advancing Sustainability in the Laboratory Environment – Hosted by Cell Signaling Technology at their facility

Speaker. Elias Witman, Sustainability Coordinator, Cell Signaling

The April Sustainability Forum was hosted by [Cell Signaling Technology](#) (CST) and held at their facility in Danvers. The meeting focused on CST's current sustainability programs and emphasized the company's efforts to mitigate laboratory waste and reduce the energy use of their operations. While these projects were in their planning phases at the time, they discussed the significant potential for economic and environmental benefits and the valuable insights for other laboratory based life science organizations from their work.

May 4, 2016 - Why Whales?

Speaker. Dr. Iain Kerr, CEO of the Ocean Alliance

We dove into the world of whales with Dr. Iain Kerr, CEO of Gloucester based oceanographic research and innovation NGO [Ocean Alliance](#). Having returned from a SnotBot expedition to the Sea of Cortez, Iain talked about his 30+ years in the field of marine mammal science, developing benign research tools and what it is like to work



with the largest animals that have ever lived on this blue planet. Found in all oceans of the world feeding at the top of ocean food chains Iain believes that whales are humanity's "canary in the coal mine."

Jun 1, 2016 - Where Does My Recycling Bin Go?

We took a tour of [Waste Management](#)'s Materials Recovery Facility in North Billerica, MA to see what happens to our recyclable materials after they are picked up curbside. This was a great opportunity to see firsthand how single stream recycling works.

August 2016 - Our Annual Summer Outing – 7 Seas Whale Watch

[7 Seas Whale Watch](#) is located in the heart of historic downtown Gloucester, MA and in one of the busiest parts of Gloucester harbor. As we boarded the Privateer, we were surrounded by the sights and sounds of Gloucester's working waterfront. We were able to see fishing boats returning from sea unloading fish, lobstermen baiting and setting their traps, and were surrounded by some of our indigenous wildlife such as Harbor seals, Gray seals, Common eiders (a beautiful sea duck common in the harbor), Double-crested cormorants. Of course, we also heard the ubiquitous "seagulls" (mostly Herring, Great black-backed, and Ring-billed gulls).

Sep 7, 2016 - Net-Zero Homes; Yes, They Can Work in Massachusetts

Speaker: Donald E. Bowen, Jr. PLS, Principal, Meridian Associates, Inc.

Don Bowen of [Meridian Associates](#) provided some background on net-zero homes and how they have evolved over the years. Don presented on the political, economic, environmental and technical issues that led him to design, build and occupy a net-zero energy home right here in Massachusetts. He also reviewed the actual energy performance results that he has achieved.

Oct 26, 2016 - Business Breakfast: Harvesting River and Tidal Energy - A sustainable, local, low-cost approach

Speakers: David Duquette, CEO and founder, Sceata Technology Group LLC and John Asburne, Energy, Minerals, Power and Infrastructure Advisor to CFO, CEO, and Treasurer at Black Horse Advisors

Governor Baker signed an energy bill into law that, among other things brings new sources of renewable energy to the Commonwealth. While this is an important step, most of these resources come from long distances (Canadian hydro and offshore wind). Energy resources that exist right on our doorstep, or rather lap at our shores are also under development and have the potential to bring an enormous contribution to the North Shore economy. One company at the forefront is Littoral Power Systems (LPS) of New Bedford, MA, which designs, manufactures and sells tidal and river and wave power equipment.



At this breakfast, Littoral Power's David Duquette and John Ashburne addressed the role that Littoral Power plays in sustainable energy resources and discussed opportunities for local municipalities to get government-backed power purchase contracts with local utilities.

Dec 7, 2016 - How the Mass Energy Bill & A Sensible Carbon Policy Can Accelerate the Shift to a Thriving Renewable Energy Driven Economy

Speaker: David Radue, CCL North Shore

David Radue leads the North Shore chapter of Citizens' Climate Lobby (CCL), a grassroots, non-profit, non-partisan organization building political will for climate legislation. David has organized and led numerous meetings between constituents and federal and state officials. He has also conducted a range of outreach events to increase public awareness of legislation.

Professionally, David is a fabrication engineer at MIT Lincoln Laboratory. He has supported projects ranging from a laser communication system for a NASA lunar science mission to a shipboard radar for the Ballistic Missile Defense Agency. David has a BS in Mechanical Engineering from Rose-Hulman Institute of Technology. To learn more about the North Shore chapter of Citizens' Climate Lobby (CCL), visit their website at http://citizensclimatelobby.org/chapters/MA_Northshore/

2015

Sep 2, 2015 - Geothermal Heat Pumps Shrink Energy Use

Speaker: Dr. Melanie Head – Principal, EnergySmart Alternatives

Ground Source (geothermal) heat pumps eliminate the need for fossil fuels for heating and are nearly double the efficiency of other state-of-the-art air conditioning systems on the market. Geothermal systems are not as complicated as one might think – most of the infrastructure required is identical to traditional HVAC systems. This presentation showed how a geothermal system is installed through the use of video and photos from actual installations in Massachusetts. It further provided data from local installations where 50 to 70% savings on annual heating and cooling costs have been realized -- exemplifying how renewable energy products can minimize impact on climate change and save money. Read more on the company: <http://energysmartalternatives.com/>



Oct 7, 2015 - Look Up, Rooftop Farms Are Synonymous with Sustainability

Speaker: Jessie Banhazi, Founder and CEO, Green City Growers

Green roofs are rapidly becoming accepted as the pinnacle of “going green” in urban development. They alleviate the urban heat island effect, saving energy. They curb energy costs by providing insulation for buildings. They help offset carbon emissions, absorb pollutants, and manage stormwater. The subset of green roofs, rooftop farms, have the added benefit of providing fresh, delicious, local food. They can be a hands-on educational resource for youth and adults, curbing childhood obesity and teaching lifelong healthy habits. They create meaningful jobs, benefiting the local economy. All this, from otherwise unused space. At this luncheon, we learned about the history of the planning, design, installation, and maintenance of the rooftop farm at Whole Foods Market in Lynnfield, the very first open air rooftop farm on a supermarket. Jessie illustrated how [Green City Growers](#) is taking rooftop farming to new heights, like farming at Fenway Park, and how rooftop farms are becoming more accessible than ever.

Nov 4, 2015 - Prepping for Sustainable Innovation Forum in Paris....

Speaker: Michael Green, Executive Director of the Climate Action Business Association

What role can businesses play on the road from Boston to Paris? Michael discussed the Climate Talks in Paris: what he was expecting to see accomplished, major challenges we still face and the insiders thoughts’ preempting these historic talks. Read more about the Climate Action Business Association at <https://cabaus.org/>

Dec 2, 2015 - Turning a Home into a Positive Energy Producer

Speaker: John Livermore, Founder, Healthy Home Healthy Planet

John recently founded [Healthy Home Healthy Planet](#) with a mission to empower people to reduce their home’s carbon footprint and increase their quality of life. The organization just completed a 10-minute video, also titled Healthy Home Healthy Planet, which tells the story of creating Massachusetts’ first Positive Energy renovated home. John discussed how to turn homes into positive energy producers. He talked about his own experience zeroing out his home’s carbon footprint, stopping paying energy bills, and helping the planet -- and having the 1st renovated home in Massachusetts to produce more energy than it consumes.