

Mintz Levin Energy Technology

## Energy Technology Connections Newsletter

Your Law Firm Link to Industry News

NOVEMBER 2015

### A Note from the Editors

Our November edition of *Energy Technology Connections* brings you recent industry highlights, the latest news from Capitol Hill, and a list of upcoming energy industry events. In Leaders in the News, we profile our friends at Vionx and highlight their recent partnership with an array of firms that will be helping the company launch and commercialize its batteries. We also congratulate our clients Nexamp and Cambrian Innovation on their wins at the NECEC's Green Tie Gala. Our Innovator Profile explores the rapid expansion of Bigbelly in several cities across America. For event highlights, we feature Paul Dickerson's speech at the 40th Annual Interarab Cambist Association Conference in Cairo, along with the Cleantech Global Showcase: GloSho'15, at which Tom Burton moderated a panel, and Eric Macaux's upcoming keynote at Sustainatopia. Finally, our Washington Update summarizes the potential impact of Congress's recent budget deal, and assesses the Obama administration's strategy leading up to the Paris climate summit later this November.

For links to industry grant opportunities and stories from the business, policy, and research sectors of the energy and clean technology industry, please [see our Energy Navigator](#).

You can [subscribe to our Energy Tech Matters blog here](#).



Thomas R. Burton, III



Sahir Surmeli

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### Leaders in the News

**Vionx**, a Massachusetts-based company and Mintz Levin client, has taken aim at tackling the battery problem, recently making news for its work producing a battery for use by large-scale users and utility companies in particular. As solar and wind energy have flourished over the past few years, the importance of effective, large-scale energy storage has increased dramatically. Solar and wind, after all, only produce energy under specific circumstances – batteries, like those made by Vionx, fill the void when the sun isn't shining or the wind isn't blowing.

The Vionx battery uses an approach known as vanadium redox flow. Traditionally, lithium-ion batteries have held a wide lead over other battery storage options, but flow batteries like Vionx's have the potential to be cheaper while providing longer-duration storage. Lithium-ion battery tech generally provides up to four hours of power, but flow batteries can give users up to 10 hours of electricity. Since the energy is stored in the electrolyte, the Vionx system can add capacity simply by adding more liquid and maintains full storage capacity over a 20-year period, longevity that lithium ion batteries and other competitors cannot offer.

While flow batteries have received significant investment over the years, Vionx is one of the first companies to begin bringing a competitively priced flow battery for utility-scale customers to market. Investors have, with the help of the Mintz Levin team, rewarded the company's efforts. Vionx garnered significant press in early October with the [announcement](#) that it was partnering with an "ecosystem" of firms to launch and commercialize its batteries. The firms constituting this ecosystem are 3M, Jabil Circuit, Siemens, Vantage Point Capital Partners, UTC, and Starwood Energy Group. They will be helping license, finance, manufacture, and deploy Vionx's energy storage system. Check out the company's recently released [video overview](#) for an in-depth look at what

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makes its battery a game changer and for a glimpse of what the future has in store for this energy innovator. Congratulations to the team at Vionx for their recent accomplishments – we look forward to your continued success in the future!

We'd also like to congratulate our clients [Nexamp](#) and [Cambrian Innovation](#) on their respective [victories](#) at the [Northeast Clean Energy Council's](#) 2015 Green Tie Gala Awards! The NECEC named Nexamp as the Clean Energy Company of the Year. The company provides dynamic and comprehensive solutions for solar development, ownership, and operation at all scales. Cambrian Innovation was named the Emerging Company of the Year. The company has developed, scaled, and validated a pipeline of solutions that use natural systems to solve water resource challenges through products that recover valuable resources from wastewater, eliminate energy input for wastewater treatment, radically reduce the cost of nitrate removal, and enable agricultural operations to monitor their inputs more easily and efficiently. The Mintz Levin team was proud to see these companies star at a great night of celebration and recognition of the region's clean energy industry.

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## Innovator Profile

This month's innovator is [Bigbelly](#), the worldwide leader in smart waste and recycling solutions. Although their iconic waste and recycling stations are highly recognizable, Bigbelly's comprehensive solutions reach far beyond bins. The company offers an enterprise approach to waste management deployments where representatives work with municipalities and campuses to build out waste station systems tailored to their needs. Customers can leverage the CLEAN Management Console, a single destination software dashboard, to capture data points on station fullness, collection frequency, route efficiency, and more. This provides the actionable data that leads municipalities, universities, and corporate campuses to realize greater operational efficiency.

The company has had a busy summer and fall as it rapidly expands operations. Recently, its Smartbelly and Bigbelly stations have popped up in [Brooklyn](#), [Philadelphia](#), [Pittsburgh](#), and [Detroit](#), just to name a few cities. In addition, Bigbelly is attempting to push their stations beyond simply collecting trash. The wireless capability that makes the CLEAN Management Console such a valuable source of real-time data also opens up its possibilities in the Internet of Things (IoT). Bigbelly stations have the potential to serve as hubs in a "mesh network" municipal WiFi system. Cities could leverage these systems and their data to improve infrastructure, update residents on footfall traffic, and issue emergency public space alerts. These efforts are giving the company national exposure. W. David Stevenson, a *Huffington Post* contributor who writes on the IoT, conveyed his excitement about Bigbelly's transformative potential [on his blog](#). Last month, the company was also named a [BostInno 50 on Fire finalist](#). Congratulations Bigbelly on these exciting developments – the Mintz Levin team cannot wait to see what the future has in store!

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## Event Highlights

Earlier this fall, Paul Dickerson spoke at the [40th Annual Interarab Cambist Association \(ICA\) Conference](#) in Cairo, Egypt. Paul's speech was entitled, "What The Future Holds For Global Energy," and he covered topics such as advances in technology and how they will impact production costs, how the 2016 US presidency will impact energy prices, and changes in the oil and gas market across the globe. Stay tuned for an upcoming blog post on [Energy Technology Matters](#) with highlights from Paul's speech!

In addition, our own Tom Burton recently moderated a panel entitled, "The Emerging Cleantech Investor Landscape: Corporate Strategic," at the Los Angeles Cleantech Incubator's (LACI) [Cleantech Global Showcase: GloSho'15](#), which Mintz Levin proudly sponsored. This panel covered how corporate investors think about climate change, how this drives their investment strategies, what technologies they look for, how they think about IP protection, how they integrate new innovation into their organizations, and how they work with entrepreneurs and other types of investors.

Coming up in November, Mintz Levin's Eric Macaux will provide a keynote at [Sustainatopia](#) on November 17 in Boston, MA. Founded in 2009, Sustainatopia focuses on social, financial, and environmental sustainability and impact. Later that day, New England Women in Energy and the Environment ([NEWIEE](#)) will host its 2015 Annual Meeting and Fall Fête. For more information on this event, view Katy Ward's [blog post](#) on [Energy Technology Matters](#).

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## Washington Update

Both Congress and the Obama administration had a busy October, with several energy and climate related happenings set to occur before year's end.

In his final major effort prior to retiring, Speaker of the House John Boehner (R-OH) reached a bipartisan agreement, the Bipartisan Budget Act of 2015, with other House and Senate leaders and the White House on a two-year, \$80 billion budget deal that suspended the federal debt limit until March 2017 and raised spending caps for defense and non-defense programs. To pay for some of the additional spending, the measure allowed the federal government to sell more than 8 percent of the Strategic Petroleum Reserve, or 58 million gallons of oil, between 2018 and 2025. Some policy riders, such as those blocking Environmental Protection Agency ozone and Waters of the United States rules, may complicate the measure when it comes time to address funding specifics. Negotiations continue in both chambers on a best path forward for any possible end of the year package, which may include tax extenders, the lifting of the 40-year old crude oil export ban, and more.

The Senate Foreign Relations Subcommittee on Multilateral International Development, Multilateral Institutions, and International Economic, Energy, and Environmental Policy held a hearing October 20 to consider the economic and environmental impacts of the 2015 Paris international climate negotiations. State Department Special Envoy for Climate Change Todd Stern testified. Senator James Inhofe (R-OK) was unable to schedule a similar hearing in the Senate Environment and Public Works Committee, as the State Department, Environmental Protection Agency, and White House Council on Environmental Quality declined to provide witnesses. Inhofe asked the agencies October 15 to reconsider their refusals.

The Obama Administration will continue its climate theme through the end of the year as it continues its march toward international climate negotiations in Paris this November and December and seeks an ambitious global climate agreement. The White House held October 19 an event with 68 companies as they signed on to the [American Business Act on Climate Pledge](#). The second round of signatories, combined with [the initial](#) rollout in late July, commits 81 companies to supporting an ambitious climate change agreement in Paris later this year and reducing their corporate greenhouse gas emissions through various company-specific efforts. The Obama administration has been working to demonstrate broad domestic corporate support for a global climate accord, and expects more companies to sign the pledge before the Paris summit.

As the Paris negotiations loom, nations across the globe continue their preparations. The final Paris preparatory talks ran October 19–23 in Bonn, and the negotiations themselves will take place November 30 – December 11 in Paris. After conducting 22 meetings with negotiating blocs, negotiators spent opening day of the Bonn talks adding “surgical insertions” to the text intended to eventually become a global climate agreement, but many parties fear that the language could again become unwieldy before it is finalized in December. Ad Hoc Working Group on the Durban Platform for Enhanced Action negotiating track cochairs Ahmed Djoghlaif and Dan Reifsnyder unveiled October 5 a 20-page draft negotiating text that was significantly more concise than previous versions, cutting out many of the national positions previously included in the extensive Geneva text from February, but delegations are already working to reinsert those positions. The October 5 text addresses mitigating emissions, adapting to climate change's impacts, addressing technological development, and making transparent domestic global warming pledges. Some of the biggest issues of disagreement, including how responsibilities for developed and developing countries will be differentiated under the agreement, are like to remain unresolved until Paris itself. This year's negotiations have been tame, as nations have largely embraced the bottom-up structure that allows them to craft their own domestic plans, and State Department Special Envoy for Climate Change Todd Stern has indicated that any tension in Bonn should not be cause for concern, as this

is a typical part of the final negotiations.

In agency news, the Department of Energy's Advanced Research Projects Agency – Energy announced October 7 funding up to \$30 million for the Single-pane Highly Insulating Efficient Lucid Designs program to reduce heat-loss for improved building efficiency by developing innovative materials that are transparent and insulating to retrofit existing single-pane windows. At the Department of Interior, the agency scrapped plans October 16 to sell new oil and gas drilling rights in the Arctic waters, following Shell's costly failure last month to find crude oil in the environmentally sensitive region. Interior Secretary Sally Jewell announced that the agency had decided to abandon Arctic oil and gas leasing sales planned for 2016 and 2017 in the Beaufort and Chukchi seas, citing a lack of interest, and that it would deny requests by [Shell](#) and [Statoil](#) to extend their current Arctic lease terms past the 10-year mark.

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## Energy Navigator

Please visit and bookmark our [Energy Navigator](#) to easily view all of the latest headlines from the most trusted publications reporting on developments in the energy and clean technology industries. It is housed on our blog, [Energy Technology Matters](#).

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## Upcoming Events

### 2015 MIT Water Summit: Thriving Amid Change

November 13, 2015  
Cambridge, MA

[More Info »](#)

### Sustainatopia

November 15-18, 2015  
Boston, MA

[More Info »](#)

### International Water Conference

November 15-19, 2015  
Orlando, FL

[More Info »](#)

### NECEC Annual Meeting

November 16, 2015  
Boston, MA

[More Info »](#)

### The American Water Resources Association Annual Conference

November 16-19, 2015  
Denver, CO

[More Info »](#)

### NEWIEE's Annual Meeting and Fall Fête

November 17, 2015  
Boston, MA

[More Info »](#)

### Solar Power Northeast

November 18-19, 2015  
White Plains, NY

[More Info »](#)

### Startup Weekend Blue

November 20-22, 2015  
Falmouth, MA

[More Info »](#)

### NEWIN Water Pitch Night

December 2, 2015  
Boston, MA

[More Info »](#)

### U.S. Energy Storage Summit

December 8-9, 2015  
San Francisco, CA

[More Info »](#)

### NEWEA 2016 Annual Conference

January 24-27, 2016  
Boston, MA

[More Info »](#)

### Cleantech Forum San Francisco

January 25-26, 2016  
San Francisco, CA

[More Info »](#)

## Cleantech Open Global Forum

November 17-19, 2015  
San Francisco, CA

[More Info »](#)

## Water 2.0 Conference

November 18, 2015  
Washington, DC

[More Info »](#)

## Boston Cleanweb Tech Night

November 19, 2015  
Boston, MA

[More Info »](#)

## Solar Summit: Mexico

January 27-28, 2016  
Mexico City, Mexico

[More Info »](#)

## EnergySMART 2016

April 4-6, 2016  
Washington, DC

[More Info »](#)

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