

Mintz Levin Energy Technology

## Energy Technology Connections Newsletter

Your Law Firm Link to Industry News

DECEMBER 2015

### A Note from the Editors

Our December edition of *Energy Technology Connections* brings you recent industry highlights, the latest news from Capitol Hill, and a list of upcoming energy industry events. First, we feature a special report about the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change. In Leaders in the News, we profile our friends at **Gradiant** and highlight their success in the water purification sphere. We also announce the launch of “**The State of the Cleanweb**” report, which we are proud to support. In this section, you will find a link to the full report. Our Innovator Profile explores **Intellihot**’s tankless water heater system, which cuts down on water and energy waste for its customers. For event highlights, we discuss two recent successful events hosted at **MassCEC** that the Mintz Levin team was proud to be part of: Water Pitch Night, presented by the **New England Water Innovation Network (NEWIN)**, and Boston Cleanweb Tech Night, presented by **MassCEC**. Finally, our Washington Update summarizes Congress’s race to finalize the omnibus appropriations package as well as the goings-on at the **UN Convention on Climate Change in Paris**.

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](#).



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### COP21

The 21st Conference of the Parties to the United Nations Framework Convention on Climate Change concluded this month with the approval of a landmark climate accord that seeks to combat climate change on a global level. The structure of the agreement, which departs significantly from prior CoP agreements and protocols, is truly remarkable. In addition to its climate benchmarks and funding commitments, the deal facilitates and encourages the advancement of a low carbon economy for policy makers and corporate actors seeking a competitive advantage. The agreement goes beyond simply beseeching people to change their ways, instead adopting incentive systems for leaders and citizens to make it in their own interest to advance a low carbon economy. It seems more likely now than at any prior time that wide spread carbon pricing will be considered and adopted at

many national and sub-national levels. The agreement adopts a “steer rather than row” approach – the open question is, however, whether countries will row fast enough.

The talks began in Paris November 30 and ran through December 11. President Obama and about 120 other heads of state and dozens of other world leaders travelled to Paris for the beginning of the two-week talks, which included delegates from 197 nations. The negotiation of the deal featured highly contested debates regarding emissions reduction targets; long-term renewable energy and decarbonization goals; aspirational targets; loss and damage; climate financing; the issue of whether nations’ voluntary emissions pledges should be strengthened over time without reopening the entire conference; climate risk insurance; transparency; and other issues. The deal represents a significant diplomatic breakthrough on an issue that has divided the global community for decades.

While the tangible impact of the agreement remains to be seen, one thing is certain: it is primed to have far reaching effects on energy markets for years, if not decades, to come. To view the full Paris Agreement, [click here](#). Also, be on the lookout for an upcoming summary blog post on [Energy Tech Matters](#).

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## Leaders in the News

### Gradiant Corporation

Our leader for December is Boston-based [Gradiant Corporation](#), a company dedicated to industrial water purification. The company has its roots in oilfield water treatment, working with highly contaminated water produced during fracking. Traditionally, when a company injects water into the ground to release oil, the highly contaminated post-fracking water is simply disposed. Gradiant researchers, however, developed a way to remove particulate and dissolved contaminants out of post-fracking liquid by way of water vaporization so that it can be re-used, a process called carrier gas extraction (CGE).

CGE is a refined version of an uncommercialized concept known as humidification-dehumidification (HDH). During HDH, dirty water is warmed into a vapor before condensing back into fresh water without contaminants. Whereas previous HDH attempts have failed to achieve widespread implementation due to high energy costs needed to boil water at very high temperatures and then condense it at very cold ones, Gradiant’s CGE process utilizes a proprietary technique that vaporizes water well below boiling temperatures before passing the vapor through an innovative “bubble column.” In this column, the vapor mixes with water at various levels, condensing and creating fresh, nearly distilled quality water for re-use. The CGE process doesn’t require extreme temperatures to be effective, and thus does not incur high energy costs. Not only is the CGE system efficient and economical, but it has also proved to be a highly effective means of tackling the dirtiest water. CGE can treat water with a maximum contamination level of up to 25% salinity—far exceeding the capabilities of several other technologies, such as reverse osmosis.

Since its founding in 2012, Gradiant has built three plants and commercialized two product lines, with more partnerships and technologies on the way. Its first Permian Basin plant received the “[Industrial Project of the Year](#)” award at the 2014 Global Water Summit in Paris. Along with its operating business, the company continues to work on its wider patent portfolio of water technologies, and is in the process of developing desalination and water-softening technologies designed to reduce costs and increase efficiency across a number of applications. Additionally, Gradiant was recently selected by White Mountain Titanium (WMT) to design, deploy, and operate a desalination plant at WMT’s Cerro Blanco Mining Project in Chile. Congratulations to [Gradiant](#) for making waves in the water purification sphere. The Mintz Levin team looks forward to its continued success in the future!

### SuperCollider and CB Insights

This month we’re featuring a second leader in the news. Mintz Levin is very excited to announce the launch of “[The State of the Cleanweb](#)” report, which we are proud to support. In the report, resources and energy are referred to as “software’s next meal”—and you’ll want to know why! The report was produced by SuperCollider with data powered by CB Insights, and is also supported by the New York State Energy Research and

Development Authority.

Our support of this report stems from the Mintz Levin team's involvement in this sector since its inception. We see the vast opportunities in this space and we are thrilled that our friends at SuperCollider do too! Whether you're an entrepreneur, investor, someone who is engrained in the energy and/or software spaces, or someone who is unfamiliar with cleanweb, this report contains information of interest to you. The largest takeaway is that this space is budding with opportunities, and there is research from CB Insights to support this conclusion.

We are delighted to remain committed to the cleanweb space as it continues to grow. Notably, Mintz Levin and our client EnerNOC have sponsored Cleantech Open Northeast's annual Cleanweb Prize since it was introduced in 2014. In addition, Mintz Levin's Evan Bienstock, who has a depth of experience in this space, serves as a judge for this prize. Most recently, Energy Technology Practice Chair Tom Burton moderated the "Boston Cleanweb Tech Night" hosted by MassCEC.

Read the report at:

[https://medium.com/@SuperColliderHQ/software-s-next-meal-1d811b5df4f6#\\_xcs4h4cqm](https://medium.com/@SuperColliderHQ/software-s-next-meal-1d811b5df4f6#_xcs4h4cqm)

Join the conversation on social media by using **#SoftwaresNextMeal**

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## Innovator Profile

Our Innovator Profile for December is [Intellihot](#), an Illinois-based energy company that makes commercially sized water heaters that heat water quickly and efficiently without the use of large water tanks. Not only does Intellihot's heater eliminate the need for tanks, but it also analyzes water usage patterns and then automates the water delivery system to reduce the water waste, saving customers 30% to 65% on their energy and water bills. Their heaters are powerful and versatile enough to handle the often heavy loads required by commercial and industrial applications, and the company's customers include members of the hotel, hospital, and federal correction industries.

Traditional water heaters use large tanks of water with a constant heat source—often wasting energy to heat water 24/7, even when hot water isn't needed. Intellihot, on the other hand, does not use a tank and is able to heat water on demand. Additionally, Intellihot's sensors and self-learning capabilities allow it to learn a user's typical use patterns and provide hot water instantly at typical peak usage times.

According to the company's founders, the Intellihot water heater is approximately twice as efficient as traditional water heaters, and can save users 30% more water. Intellihot also manufactures a residential product that can both heat your water and your living space via radiant, baseboard, or fan coil heat. Again, the unit self-learns, determining how quickly a home needs heating or cooling to maximize energy savings without sacrificing comfort. Intellihot's innovative products have been recognized not just by satisfied customers, but also by the clean tech community. In late 2014, the company won \$400,000 as the first-place winner of the Illinois Clean Energy Fund Award, using the investment money to continue the growth of its various product lines. Earlier this year the company announced the successful installation of its technology at a 62-story high rise in Chicago (340 on the Park)—the first time tankless technology has powered a high-rise building. Congratulations to Intellihot for its continued growth and its leadership in the push for a more efficient future!

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## Event Highlights

Earlier this month, Mintz Levin's Kristin Gerber spoke at Water Pitch Night, presented by the [New England Water Innovation Network \(NEWIN\)](#). Mintz Levin was the proud sponsor of this event, which brought together more than 50 people in the water community at [MassCEC](#). Five start-ups pitched their water technology, and we'd like

to congratulate [Sourcewater](#) for being voted the winner. Sourcewater provides an online marketplace for energy operators, service companies, and landowners to buy, sell, recycle, and manage water and wastewater services. To read more about Sourcewater and the other teams who pitched their water technology, view NEWIN's blog post by [clicking here](#).

Energy Technology Practice Chair Tom Burton recently moderated a panel at the Boston Cleanweb Tech Night, which was part of [MassCEC's Boston Cleanweb Meetup Series](#). The panel focused on bridging the developer and clean tech communities and highlighting exciting opportunities in the field of Cleanweb.

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## Washington Update

While the Obama administration and global community focused on the Paris climate change conference, Congress sought to wrap up negotiations on tax extenders, the omnibus appropriations package, and other end of the year measures. Congress needed several days beyond the December 11 deadline to finalize the omnibus spending deal, with policy riders providing the biggest obstacle to negotiating a final agreement. The measure includes a tax extenders package, which was a sticking point in negotiations along the way. In addition to business extenders and middle class tax package issues, energy issues include the lifting of the crude oil export ban, a five-year extension of the production tax credit for wind energy, a five-year ratcheting down of the investment tax credit, and "commence construction" eligibility for solar producers. House Republicans had planned on packing the legislation with policy riders designed to block EPA greenhouse gas, ozone, fracking, and other rules and regulations, but most of these riders were ultimately dropped. Congress is scheduled for a vote on the agreement on December 18. This flurry of Congressional activity to close out the year will no doubt be the object of much analysis going forward. Check back for more information about on our blog, [Energy Tech Matters](#), in the coming weeks.

The upper chamber approved measures (S. J. Res. 23 and S. J. Res. 24) mid-November disapproving the Environmental Protection Agency's power plant rules. Both measures have companion Congressional Review Act resolutions in the House (H. J. Res. 71, H. J. Res. 72), and the White House has already [threatened to veto](#) the measures. When it comes to it, Congress will not have the votes to override the veto. The House addressed energy issues, including the North American Energy Security and Infrastructure Act (H.R. 8), portions of which were adopted as an amendment to the Highway Bill, and the power plant opposition efforts on the floor. After working through 81 [amendments](#), the House approved, 249-174, December 3 the first broad revision of energy policy in eight years, but the bill is unlikely to advance because congressional Democrats and the White House oppose the measure, and the Senate will return to its own more bipartisan energy language in 2016. The House also approved S. J. Res. 23 and S. J. Res. 24 December 1, and the president is expected to veto the measures.

In agency news, the EPA issued the [final](#) 2014-2016 renewable volume obligations under the renewable fuel standard, significantly increasing the requirement for total renewable fuels in the fuel supply over its May proposal; new blending requirements go slightly over the 10% level. The 2016 total is 14.5 billion gallons of conventional ethanol and 3.61 billion gallons of advanced biofuels, lower than the 22.5 billion gallon combined statutory level.

In state news, the California Alternative Energy and Advanced Transportation Financing Authority suspended November 27 new applications under its sales and use tax exclusion program because of significant oversubscription. The program provides an incentive for businesses working on alternative energy sources and advanced transportation projects. New York Governor Andrew Cuomo, meanwhile, [issued](#) December 2 a Clean Energy Standard to require the state to achieve 50% of its power from renewable sources by 2030. The standard will also provide support for upstate nuclear power plants whose operations are under threat because of low natural gas prices. Nuclear sources will not count toward the requirement.

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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

### Designing Electric Vehicle Programs in the Northeast

January 16, 2015

Webinar

<https://attendee.gotowebinar.com/register/3485348876482207234>

### NEWEA 2016 Annual Conference

January 24 – 27, 2016

Boston, MA

<http://newengland-win.us9.list-manage1.com/track/click?u=d7e027b9dcff8c931e0345305&id=2c1ea739a9&e=4dc0cb0317>

### Cleantech Forum San Francisco

January 25 – 26, 2016

San Francisco, CA

<http://events.cleantech.com/cleantech-forum-sf/>

### Solar Summit: Mexico

January 27 – 28, 2016

Mexico City, Mexico

<http://www.greentechmedia.com/events/live/solar-summit-mexico>

### EnergySMART 2016

April 4 – 6, 2016

Washington, DC

<http://www.energysmart.enernoc.com/conference/>

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