Energy Technology



Energy Technology Connections Newsletter: Your Law Firm Link to Industry News

DECEMBER 2014

In the December edition of *Energy Technology Connections,* we bring you recent industry highlights, the latest news from Capitol Hill, and a list of upcoming energy industry events. In our Leaders in the News section, we highlight the recent successes of two clients and partners: EnerNOC, for its recent acquisition of customer engagement software leader Pulse Energy, and FastCAP Systems, for its recent multimillion-dollar fundraising success in support of a new Aerospace Technologies subsidiary. In addition, our Events section provides information about the upcoming US Solar Market Insight Conference, being held in San Diego from December 9 to 10. Finally, we highlight the recent success of our client Gotham Greens, the New York–based urban agriculture pioneer, in our Innovator Profile. 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.

Leaders in the News

We'd like to congratulate our client and partner EnerNOC on its recent acquisition of Pulse Energy, the customer engagement software leader based in Vancouver, Canada. EnerNOC, already a leading provider of cloud-based energy intelligence software (EIS), will take on the Pulse Platform, a scalable software solution for utilities that delivers detailed energy intelligence to commercial customers, helping improve performance, engage occupants, and accurately measure and verify energy usage and performance. Pulse's software will assist EnerNOC in enabling utilities to deliver targeted energy saving recommendations to commercial and industrial customers of all sizes and across industries, catered to each customer's unique profile, including business type, location, and energy use.

Additionally, we're excited to commend our client, FastCAP Systems, on raising over \$2 million as it creates a new division, FastCAP Aerospace Technologies, a subsidiary aimed at using its technology for orbital and suborbital space exploration. FastCAP is known for its high-performance ultracapacitor technology, which is currently used in the oil, gas, and geothermal drilling industries. The company is also currently developing systems intended for use in terrestrial vehicle, aeronautics, and defense applications. FastCAP's ultracapacitors contain no lithium, and offer significant safety benefits when used in conjunction with — or in some applications as a replacement of — lithium batteries. FastCAP's ultracapacitors currently hold five validated world records, including one for highest operating temperature, another for highest power, and yet another for highest energy.

For additional press on this exciting development, please click here. For more information on the company, its products, and the story behind what it has achieved, please visit FastCAP Systems' website.

Event Highlights

The much anticipated US Solar Market Insight Conference is coming up next week, December 9 through 10, in San Diego, California. Hosted by our friends and partners at Greentech Media, the conference boasts a starstudded lineup of speakers and fantastic information and networking events. Speakers slated to present remarks at this year's conference include NBA Hall-of-Famer and NRG Home Solar advocate Bill Walton, San Diego Gas & Electric's James Avery, SunEdison's Zeina El-Azzi, SunPower Corp.'s Tom Starrs, California Public Utilities Commissioner Michael Picker, and other notable figures. The conference's talks, panels, and other events will touch on distributed generation, utility solar and grid integration, and solar financing among other important topics.

Be sure to register for this can't-miss event soon, as ticket prices will increase on-site. We hope to see you there!

Innovator Profile

In this month's Innovator Profile, we're proud to highlight the accomplishments and ongoing efforts of our client Gotham Greens. Gotham has established itself as an urban agriculture leader by designing, building, and operating commercial-scale greenhouse facilities in the New York area since 2011, and it is beginning to expand to other urban centers across the United States and the globe. Just recently, Gotham announced its plans to build the world's largest rooftop greenhouse in the Pullman neighborhood of Chicago's South Side — a 75,000-square-foot behemoth that will produce up to 500 tons of fresh, sustainably grown, pesticide-free produce per year.

Gotham's greenhouses are well known both for their astounding productivity and their innovative uses of efficient and clean energy sources. With climate-control technologies in each of its greenhouses, Gotham possesses the rare ability to grow year-round, and this has helped its two existing New York facilities achieve a prolific output of more than 300 tons of premium-quality produce per year. Technologically, Gotham Greens employs a truly vast array of innovations to maximize productivity and efficiency. For starters, its fully enclosed greenhouse facilities minimize pest and disease risk, protect against inclement and extreme weather conditions, and provide its urban farmers with the ability to control light, temperature, humidity, CO2, and nutrition levels. In addition, Gotham's facilities employ specialized "hydroponic" growing technologies that substitute recirculated mineral nutrient solutions for soil to save land, save water, and eliminate agricultural runoff and chemical pesticides. Finally, Gotham offsets the electrical demands of its greenhouses with on-site solar PV panels and high-efficiency design features like LED lighting, advanced glazing, passive ventilation, and thermal curtains. With a 157 kW combined heat and power (CHP) plant and a 325 kW solar PV system located in the parking lot, Gotham's rooftop farm atop the Gowanus, Brooklyn Whole Foods has created perhaps the most ecologically advanced supermarket in the country.

We very much look forward to watching this pioneering company continue its journey in the upcoming months and years. For more information on Gotham Greens and its inspiring efforts, please visit its website.

Washington Update

The United States and China made a big splash this past month with the announcement of an important climate agreement between the two superpowers. President Obama and Chinese President Xi Jinping jointly pledged November 11 in Beijing to make significant CO2 reductions in the next two decades. The United States will reduce its net greenhouse gas emissions by 26 to 28% below 2005 levels by 2025, accelerating the pace of reductions already planned by 2020. China will peak its CO2 emissions no later than 2030, by which point the country will obtain 20% of its energy supply from non-fossil fuel sources. China's commitment marks the first time the country has pledged to stop its rapidly increasing emissions; the nation has previously resisted calls for reductions, saying that as a developing country, the pollution increases are necessary for its growth. This agreement preceded a November 16 communiqué by G20 leaders to focus their policies and investments on cleaner and renewable energy sources with the goal of mitigating climate change. The next step began December 1 at the United Nations Framework Convention on Climate Change conference in Lima, Peru.

Domestically, after the House approved its version of Keystone XL pipeline (H.R. 5682) legislation the previous week, the Senate failed to move an identical bill (S. 2280) from Senators Mary Landrieu (D-LA) and John Hoeven (R-ND) November 18. The one-vote loss, 59–41, is yet another hit to Senator Landrieu's runoff election campaign against Representative Bill Cassidy (R-LA), and soon-to-be Majority Leader Mitch McConnell (R-KY) is confident that the upper chamber will pass Keystone language in the 114th Congress. Republican gains in the midterm elections may bring the vote count in favor of Keystone passage to 63, but bill supporters would still need 67 votes to override a presidential veto.

The House considered three measures in late November to curtail the Environmental Protection Agency's procedures for writing new regulations. The first, the EPA Science Advisory Board Reform Act (H.R. 1422), would alter the selection process for the panel and increase public participation in its activities. The second, the Secret Science Reform Act (H.R. 4012), would require the agency to make public data used in writing regulations. The third, the Promoting New Manufacturing Act (H.R. 4795), is aimed at reducing delays and increasing transparency in the agency's process for Clean Air Act preconstruction permits for new or modified stationary sources. The House passed the first November 18, the second November 19, and the third November 20. The Senate will not take up the measures this year. The White House Office of Management and Budget released statements of administration policy November 17 about the three bills, saying that they would recommend that President Obama veto them if they were to reach his desk.

After returning from Thanksgiving break, the top issues on Congress's agenda include appropriations, as the current continuing resolution expires December 11, and tax extenders. The tax extenders debate could have a few different outcomes. House Republicans are reportedly only interested in a one-year retroactive extension through the end of the year. House and Senate Democrats believe such a short-term extension to be unacceptable, as they believe the tactic is a back-door approach to killing their priorities when Republicans take control of both chambers in January. Another scenario is a two-year extension package along the lines of the Senate Finance Committee's EXPIRE Act (S. 2260), which House Republicans may accept in exchange for making certain provisions permanent. The wind energy production tax credit, favored by Democrats in both the House and Senate, a few Republicans, environmentalists, and clean energy producers, may be jeopardized as some Republicans eye the break as a way to stand against President Obama's climate policies.

The Environmental Protection Agency is also keeping busy as the year draws to an end. On November 19, the EPA issued a new CO2 guidance for biomass power, which offers a more robust method for calculating the net CO2 emissions from biomass feedstocks, such as wood waste, forestry, and wood. The rule is intended to help account for fuels that would otherwise be waste, and consequently have minimal or net contributions to CO2 pollution. States can use the framework to issue permits or develop compliance plans under the Clean Power Plan. The agency also released data finding that cellulosic ethanol production has met and exceeded agency projections for the first time. The first commercial-scale cellulosic facilities have begun operation, and a recent rule change dramatically increased production this year. The industry produced nearly 18.2 million gallons of the fuel as of November 10, exceeding the 17 million the agency proposed. The agency reclassified in July millions of gallons of advanced biofuels being produced from compressed and liquefied natural gas from landfills and wastewater treatment as cellulosic ethanol.

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*.

Upcoming Events

US Solar Market Insight 2014

December 9 – 10, 2014 San Diego, CA More Info »

New England Venture Summit

December 10, 2014 Dedham, MA More Info »

CO2: From Waste to Worth - Exploring the Market for CO2-Based Commodities

January 15, 2015 Providence, RI More Info »

Thomas R. Burton III Member Chair, Energy Technology (Boston) 617.348.3097 TRBurton@mintz.com Paul H. Dickerson Of Counsel Corporate & Securities (Washington) 202.460.9286 PHDickerson@mintz.com Jeffrey A. Moerdler Member Real Estate, Communications, Environmental (New York) 212.692.6700 JAMoerdler@mintz.com Sahir Surmeli Member Co-chair, Energy Technology (Boston) 617.348.3013 SSurmeli@mintz.com

Brady Berg Member Corporate & Securities (San Francisco) 415.432.6003 BBerg@mintz.com

Evan M. Bienstock Member Corporate & Securities (New York) 212.692.6869 EMBienstock@mintz.com

Jonathan T. Cain Member Government Law & Contracts (Washington) 202.585.3508 JTCain@mintz.com

Anne Campbell Associate Intellectual Property (London) +44.20.7776.7317 ACampbell@mintz.com

Kristen Chapman Project Analyst (Boston) 617.348.4868 KAChapman@mintz.com

Ralph A. Child Member Environmental (Boston) 617.348.3021 RChild@mintz.com

Jordan M. Collins Director of Government Relations ML Strategies (Washington) 202.434.7462 JMCollins@mlstrategies.com

Hannah C. Coman Associate Corporate & Securities (Boston) 617.348.1703 HCComan@mintz.com

William "Mo" Cowan Of Counsel Litigation Senior Vice President & Chief Operating Officer ML Strategies (Boston) 617.348.1600 MCowan@mlstrategies.com

Julian Crump Managing Partner, Member Intellectual Property (London) +44.20.7776.7302 JCrump@mintz.com Meryl J. Epstein Member Corporate & Securities (Boston) 617.348.1635 MJEpstein@mintz.com

Gregory S. Fine Member Corporate & Securities (Boston) 617.348.3003 GSFine@mintz.com

Susan L. Foster, PhD Member Corporate & Securities (London) +44.20.7776.7330 SFoster@mintz.com

Kristin A. Gerber Associate Corporate & Securities (Boston) 617.348.3043 KAGerber@mintz.com

Jeremy D. Glaser Member Corporate & Securities (San Diego) 858.314.1515 JDGlaser@mintz.com

Irwin M. Heller Member Corporate & Securities (Boston) 617.348.1654 IHeller@mintz.com

Kanasha S. Herbert Associate Corporate & Securities (Boston) 617.348.3015 KSHerbert@mintz.com

Jonathan L. Kravetz Member Chair, Securities; Corporate & Securities (Boston) 617.348.1674 JLKravetz@mintz.com

Carl A. Kukkonen III Member Intellectual Property (San Diego) 858.314.1535 CAKukkonen@mintz.com

Cynthia J. Larose Member Corporate & Securities (Boston) 617.348.1732 CJLarose@mintz.com

David J. Leiter President, ML Strategies, Washington, DC ML Strategies (Washington) 202.434.7346 DJLeiter@mlstrategies.com David L. O'Connor Senior Vice President for Energy Technology ML Strategies (Boston) 617.348.4418 DOConnor@mlstrategies.com

Jeffrey R. Porter Member Environmental (Boston) 617.348.1711 JPorter@mintz.com

Jennifer Sacco Smith Associate Real Estate (Boston) 617.348.1678 JSaccoSmith@mintz.com

Chuck A. Samuels Member Antitrust/Energy Efficiency (Washington) 202.434.7311 CASamuels@mintz.com

Gabriel Schnitzler Member Real Estate (San Francisco) 415.432.6004 GSchnitzler@mintz.com

Donald W. Schroeder Member Employment, Labor & Benefits (Boston) 617.348.3077 DSchroeder@mintz.com

Terri Shieh-Newton, PhD Member Energy Technology (San Francisco) 415.432.6084 TShieh-Newton@mintz.com

Stanley A. Twarog Member Corporate & Securities (Boston) 617.348.1749 STwarog@mintz.com

Paula J. Valencia-Galbraith Associate Corporate & Securities (Boston) 617.210.6854 PVGalbraith@mintz.com

Michael D. Van Loy, PhD Member Intellectual Property (San Diego) 858.314.1559 MDVanLoy@mintz.com

Katy E. Ward Associate Environmental (Boston) 617.348.1850 KEWard@mintz.com Daniel I. DeWolf Member Co-chair, Venture Capital & Emerging Companies; Corporate & Securities (New York) 212.692.6223 DDeWolf@mintz.com

Jamie Dickerson Project Analyst (Boston) 617.239.8341 JEDickerson@mintz.com R.J. Lyman Member Corporate & Securities, Project Development & Finance (Boston) 617.348.1789 RLyman@mintz.com

Audrey C. Louison Member Chair, Project Development & Finance (Washington) 202.434.7380 ALouison@mintz.com

William F. Weld Member Corporate & Securities Principal ML Strategies (Boston, New York, Washington) 617.348.4412 BWeld@mintz.com

David Wraige Associate Intellectual Property (London) +44.20.7776.7310 DWraige@mintz.com

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