



Energy Storage Panel Summary, April 17, 2018

On Tuesday, April 17, a full house of commercial facility owners and managers, and energy storage experts and vendors joined A Better City, Boston Green Ribbon Commission, and Sustainable Buildings Initiative members and partners at Wilmer Hale for a panel event and the launch of A Better City's new report, [Harnessing the Power of Energy Storage in Boston's Commercial Buildings](#).

Rick Dimino, President and CEO of A Better City, kicked off the event by underscoring energy storage's crucial role in meeting the City of Boston's ambitious goal to be carbon neutral by 2050. His colleague, Yve Torrie, Director of Sustainability Programs, emceed the event and framed its context: to explore opportunities to encourage energy storage deployment in commercial buildings in light of declining energy storage system costs and a series of supportive state policies and incentives. Following Yve's opening remarks, Kathryn Wright from Meister Consultants Group, A Cadmus Company, provided an overview of A Better City's new report. She shared a series of pathways to use energy storage within commercial buildings including demand charge management, grid services, and emergency power for resiliency, providing decision support tools for determining the best technology options and uses for energy storage within facilities. The opening remarks were followed by two expert panels.

The first panel explored current Massachusetts policies, incentives, and the economics for energy storage systems in Boston. Jason Burwen from the Energy Storage Association, began the panel by describing how storage provides commercial building owners with flexibility to deliver power where and when it is needed at any given time as opposed to using energy at the time of generation. Kavita Ravi from the Massachusetts Clean Energy Center (MassCEC) provided a primer on the Massachusetts policy context for energy storage. She discussed the Commonwealth's target of 200MWh of storage by 2020 and recent grants under the [Advancing Commonwealth Energy Storage](#) (ACES) initiative which is designed to develop demonstration projects showcasing the economic benefits of energy storage across a range of use cases. The third panelist, Todd Olinsky-Paul from the Clean Energy States Alliance, explained how storage can help commercial building owners shave their peak loads and in turn reduce their demand charges on utility bills, making storage a cost-effective option. Jamie Dickerson of NECEC moderated the panel. During the discussion, some main trends in the energy storage industry were discussed including how system costs are declining and commercial market offerings are maturing to include a range of applications from demand response to uninterruptible power supply provision. Mention was given to the Massachusetts Department of Energy Resources' proposed incentives for solar+storage technology under the [SMART](#) program, and the current investigation underway to include solar+storage in the state's Alternative Portfolio Standard, which offers performance payments for qualifying technologies.

The second panel highlighted examples of cutting-edge projects recently implemented in the Boston area that utilize financing models ranging from direct ownership to shared savings

agreements. Steve Tuleja from Alternative Power Source Inc. shared his company's current work with the Boston Medical Center on an ACES grant to install a large storage project. This will provide demand response savings to the hospital and emergency power capabilities, which would work in combination with the onsite CHP system in the case of power outages. David Herbert from EnerNOC, Enel Group, described their current ACES project with the University of Massachusetts-Boston to install a 500 kW battery project with a solar system. The project is owned by Enel and includes a shared savings agreement with the University for the market revenue and energy services generated by the project. The third panelist, Bob Gohn of NEC Energy Solutions, shared trends from several active projects in the Northeast, including using storage to build microgrids for resiliency, to maximize solar power generation, and to reduce peak demand charges. The panel's moderator, Mike Kleinberg from DNV GL, led a discussion that began with outlining the next steps building owners should take to pursue storage. The panelists stated that a key factor is, determining if a building's demand charge rates are sufficiently high to benefit from energy storage. The panel recommended looking for rates of \$15 per kilowatt hour or higher and high peak loads. Many Boston-area commercial rates meet the pricing threshold. Panelists also discussed the need for building codes to evolve as storage technology deployment grows; as one step, the Boston Fire Department is [piloting a safety project](#) on Moon Island with MassCEC.

The key takeaway from the event is that energy storage has reached a tipping point where many commercial building owners in Boston can realize cost effective paybacks on installations by taking advantage of current incentives and available technologies. John Cleveland from the Boston Green Ribbon Commission provided closing remarks, emphasizing that A Better City members, as innovators and first movers, can continue to bring the energy storage market in Boston to scale.