

Net Zero Ready: 10 Years in the Making

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ABSTRACT

Ten years ago, King + King Architect's new headquarters started design with the goal to achieve 80% less energy consumption than the typical Syracuse office building. With this and other goals set from the beginning, close collaboration with our engineering team, and innovative whole-building systems design, the result became the first LEED Platinum building in Central New York, completed in 2009. As we continue to grow and add tenant space to our Near West Side location, the building is still ever present as a symbol of innovation in design, construction, and staff culture. Late 2017 marked the ground breaking of a 250KW photovoltaic parking canopy array that, when finished is intended to bring the building, including tenants to near net zero electric consumption.

This presentation will dive into analysis of nine years of energy production and consumption data of the building and its tenant spaces, giving insight into operational energy use verses design intent. By April 2018 King + King will have approximately four months of data on the new array to analyze and predict the road to net zero electricity. Examples will be shared on simple and effective strategies implemented to reduce plug and other building loads to achieve net zero and to stay on target.

Additionally, team members from Taitem Engineering, overseeing the design and construction of the PV array, and from National Grid's interconnection team will join the presentation to discuss the challenges and opportunities for installing in an urban setting, and the financing options available for large PV projects. The process for King and King's team started five years ago, it took perseverance and out-of-the-box thinking to become a success. The road is now freshly paved, is it your turn to become a net-zero facility?

BIOGRAPHIES

Tom holds a Master's Degree from Stevens Institute of Technology and held a leading role on the winning 2015 USDOE Solar Decathlon team. Previously, he studied architecture at Roger Williams University, and composite manufacturing technologies at the International Yacht Restoration School (IYRS). Tom is now a designer at King and King Architects, exploring high performance buildings, renewable energy resources and leading architectural detailing to reduce energy consumption and increase occupant comfort in buildings.