

# Greener than we thought!

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## ABSTRACT

Rick Alfandre, AIA, LEED AP BD+C and Ian Shapiro, PE, LEED AP will explore the journey of 231 Main Street, a LEED Platinum, Net Zero Energy commercial office building in New Paltz NY. Their presentation will cover the development, financing, design, construction, operation and verification methods of this resilient, high performance building. The presentation will illustrate how 231 Main achieved LEED Platinum and Net Zero, with a detailed focus on energy and water efficiency measures. The key elements of how to design and build a net zero energy building in the northeast US will be discussed. Alfandre will briefly discuss the development economics and the cost benefits to the owner and tenants, Specific details involved in creating a healthy indoor environment and workplace; and how this is of economic benefit to tenants will be explained. Development pro-forma illustrations, construction systems, building commissioning, LEED certification process, rainwater harvesting and operations cost metrics. Mr. Shapiro will illustrate the net zero verification process, will discuss the challenges of working with utility billing data and will compare initial energy modeling expectations, to actual results. Lessons learned, both positive and negative will be discussed with action steps for the future. See how we were surprised with actual energy results, in a positive way, and why we think we did so well.

NYSERDA's Low Rise Residential and Multifamily New Construction Programs promote higher levels of comprehensive building and energy performance, up to and inclusive of net zero performance. NYSERDA offers project teams technical support and guidance to achieve higher levels of energy performance and health & safety from planning through construction. Through working with the teams over the course of their projects and conducting case studies, we have identified practical applications of IPD. We will present on the solutions project teams have used that can be replicated, with a focus on cost optimization and strategies that recognize operational costs and savings and management of perceived risks.

## BIOGRAPHY

**Rick Alfandre** has been specializing in the field of environmentally responsive planning, sustainable design, and energy and resource efficient building for over 30 years. He is the founder and President of Alfandre Architecture, he is expert in the design of maximally energy-efficient, climactically responsive buildings that are solar-ready, and that include state of the art construction systems that maximize the health and well-being of their occupants. He launched EcoBuilders Inc. in 2009 to provide full design and build services to his clients.

**Ian Shapiro** founded Taitem Engineering in 1989. He has led several applied energy conservation research projects, has led many design and energy projects, and has delivered workshops in the areas of energy and ventilation. Prior to starting Taitem Engineering, he worked for seven years at Carrier Corporation where he designed heat pumps and air conditioning equipment, and holds eight patents from this work. He is the co-author of the books *Green Building Illustrated* (2014) and *Energy Audits and Improvements for Commercial Buildings* (2016). He has been a visiting lecturer at Cornell University, Tompkins Cortland Community College, SUNY Cortland, and Syracuse University. Ian was honored as Green Building Advocate of the Year during the 2016 New York State Green Building Conference