

*The following is a testimonial from Tom Ostasiewski, a Senior Project Manager at Clark Nexsen.*

## Introduction



### CLARK NEXSEN

For nearly 100 years Clark Nexsen, Inc. has improved the daily lives of hard-working people through buildings designed to facilitate their goals. Clark Nexsen Energy takes this knowledge to existing buildings and applies Energy Intelligence to allow the people and the building to operate at their peak performance. Clark Nexsen Energy works with clients ranging from large Federal agencies to local municipalities, and universities to Energy Service Companies to identify these energy savings and comfort/productivity enhancing opportunities through specialized building analysis.

*"The use of simuwatt Energy Auditor has allowed us to focus more time on analysis and less time on raw data collection, providing more effective outcomes for our clients."*

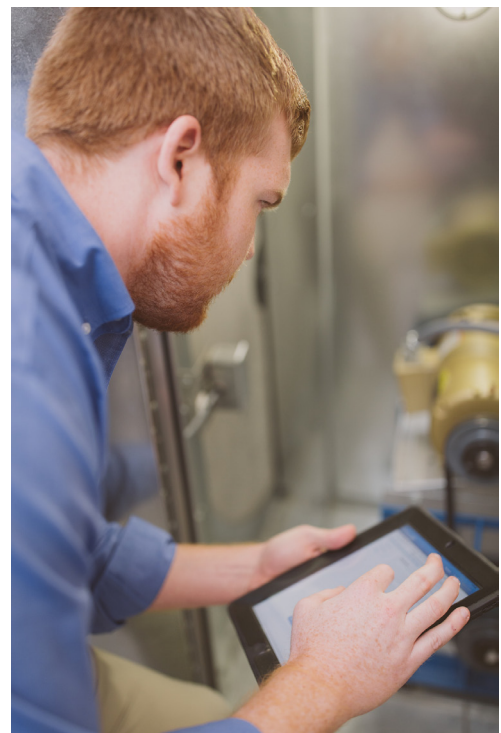
In-depth building analysis provides a detailed understanding of both how the building needs to properly serve the users and how it is actually operating. Developing a database of knowledge filled with personal interviews, equipment data, photographs, and test results are critical to the process but time intensive. An in-house software solution was developed by Clark Nexsen to improve efficiency over paper and pencil methods, however managing the collection, organization, and retrieval of data was increasingly taking time that could be better focused on delivering the right solution to their customers. simuwatt® Energy Auditor was selected to streamline the data collection process and optimize access for higher value analysis.

## The Challenge

Proper building analysis requires a survey of critical building information including the condition of existing assets and operational performance. The faster accurate and complete information is obtained, the faster the desired results of the effort can be achieved. The value added in an audit, retro-commissioning or condition assessment is rarely only in collecting the data. Rather, it is in what is done with that data. We strive to get in, get the information needed, and get out of the occupants' way, so we can get on with the business of analyzing the information, making creative and practical recommendations and seeing them through to completion.

The collection of building information via field survey is inherently a manual process. We've diligently streamlined that process over the years, and have used various tools to enable that effort. These tools have included everything from paper and pencil to developing our own application for iPads. Each has their place, but in the end the tool must serve the process well, and none that we had tried did so.

In many data collection tools, there are two main issues. First, the collection must be streamlined and work across building types, physical environments and staff capability. Even paper and pencil has collection issues (weather, penmanship and loss of the physical document are examples). Second, the data should be handled once, when entered by the people in the field, in front of the equipment. To have to re-write it, type it, copy and paste it, or otherwise have to



manually manipulate the data is silly with the technology we have today. All these things lead to spending too much time in a building, spending too much time organizing gathered information, errors in the information itself, and potentially poor decision-making on the project.

## The Solution

Our internal solution was ultimately successful, however the ongoing costs of further development, IT hosting and deployment were significant. We always seek ways to improve our processes and tools, and discovered a new product was available – simuwatt® Energy Auditor. Our engineers performed a trial audit of our own building using the software and reported their experiences as a group. The unanimous feedback was that the user interface was easy to use, intuitive, and allowed us to effectively gather needed information in a collaborative way. The fast, accurate, electronic capture of building, space and equipment level data allows us to get what we need to provide great advice to our clients. The less time we're in their building, and the more data we get from the building, the quicker we can identify energy saving, maintenance or comfort opportunities.

simuwatt's commitment to continually improve the solution including feedback we provide was a key factor in our selection of their solution. Throughout our initial deployments of the tool on various projects and building types, our feedback has been actively solicited, with follow on sessions to ensure full understanding of the issues, suggestions and solutions. Frequent updates that provide value and are seamless for our staff are a true benefit.

## Retro-Commissioning at NASA Langley Research Center

Our first client facing use of simuwatt is on a Retro-Commissioning project at NASA Langley Research Center in Hampton, VA. The seventeen buildings in this project range widely in their use,



types of equipment and level of security and/or accessibility. Being able to effectively gather the information we need is crucial to satisfying our client. As of this writing, we have conducted preliminary audits and functional testing in half of the buildings. During the first round of evaluations, our two engineers were joined by a simuwatt representative to assist with any questions or issues with the software. This team worked side-by-side using the software, and while there were some initial questions, the tool performed as expected, and the team was able to stay on or ahead of schedule the entire site visit.

## Conclusion

Clark Nexsen Energy was able to utilize simuwatt Energy Auditor to streamline their building assessment process to improve the speed and accuracy of their field teams. Integrating simuwatt into their current workflow came at little investment due to a simple, intuitive interface requiring minimal training, and a powerful export into currently used analysis solutions. Ultimately Clark Nexsen was able to spend more time identifying energy savings opportunities for their customer while still effectively capturing needed site information.

## About simuwatt®

simuwatt Energy Auditor is an innovative cloud-based software solution that lowers the time and cost of performing commercial building energy audits. simuwatt was developed in partnership with the National Renewable Energy Laboratory (NREL) and U.S. Dept. of Defense's (DoD).