

## 2018-2019 Officers:

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Dear Mr. Sweeney,

I am enclosing the La Crosse Area Chapter's 37th entry for the Gold Ribbon and Lou Flagg award. The La Crosse Area Chapter, 115, is pleased to present the history of Michaels Energy.

In 1984, Jim Michaels, who had been working at an engineering and architecture firm in La Crosse, WI, partnered with Waffenschmidt and Hamilton to start Michaels Engineering— a business focused on energy efficiency consulting for commercial and industrial customers. Michaels' primary service offerings include energy efficiency program design and implementation, research and evaluation, retro-commissioning and systems optimization, and building systems design. Michaels currently has offices in La Crosse, Minneapolis, Madison, Green Bay, Cedar Rapids, and Denver with a total of 45 employees.

Respectfully Submitted,

John L. Sustar Historian La Crosse Area Chapter



## ASHRAE History of a Company: Michaels Energy

The story of Michaels Energy starts with a partnership between Jim Michaels, Dave Waffenschmidt, and Dave Hamilton. In the 1980's, Jim Michaels, who had been working at an engineering and architecture firm providing mechanical, electrical, and plumbing design services in La Crosse, WI, saw an opportunity to split off from the company to create a business focused on energy efficiency consulting for commercial and industrial customers. Jim Michaels joined forces with Waffenschmidt and Hamilton to form Michaels Engineering in 1984. At the time, energy efficiency consulting was beginning to emerge as a growing business largely due to the oil embargo that led to skyrocketing energy costs in 1970's. Building owners were becoming more aware of their utility bills, therefore opening up an opportunity for energy efficiency consulting work.

In the beginning, Michaels Engineering tapped into the funding provided by federal programs and utilities companies. These programs incentivized energy audits that helped implement efficiency retrofit projects for large commercial and industrial customers. One popular federal program that Michaels Engineering participated in was called the Federal Institutional Conservation Program (ICP) that provided grants for energy efficiency upgrades with quick paybacks less than 5 years.<sup>1</sup> Additionally, Michaels Engineering partnered with Wisconsin and Minnesota utilities, such as Northern States Power (now Xcel Energy), to provide feasibility studies for rebate programs for energy efficiency technologies.

In addition to managing projects in these programs, Michaels had an engineering team to design lighting, HVAC, controls, and building envelope upgrades. The company eventually started offering other offshoot services as well, such an environmental, fluid balancing, and indoor air quality engineering, to accompany their portfolio of building energy services. With their environmental services, Michaels worked mostly with school districts to clean up underground storage tanks, which was common in the 1980s and 1990s.

By the mid-1990s, the federal and utility funding landscape was changing with the introduction of deregulated utility markets and waning federal funding for efficiency projects. There was a growing trend among states in the U.S. to move to a deregulated electric and gas market. The deregulated market allowed for competition among retail electric and gas companies to provide services to the customer. The shifting marketplace led some to speculate that utility efficiency rebate funding would dissolve. As a response, some states took action to preserve funding in the event of deregulation. For example, Wisconsin introduced the statewide program called Focus on Energy, funded by electric and natural gas utilities that required utilities to spend a percent of their revenue on efficiency programs. The program ensured that energy efficiency funding would continue regardless of the regulatory future.<sup>2</sup> Under the threat of deregulation, Michaels Engineering began to expand their utility program evaluation services beyond Wisconsin and Minnesota. In particular, Michaels began delivering efficiency services to states such as lowa and California.

<sup>&</sup>lt;sup>1</sup> "Energy Management: Energy Conservation Work", Madison Metropolitan School District <u>https://buildings.madison.k12.wi.us/energy-management</u>

<sup>&</sup>lt;sup>2</sup> "Department of Administration's Energy Services", Wisconsin Legislative Fiscal Bureau <u>https://docs.legis.wisconsin.gov/misc/lfb/informational papers/january 2017/0087 department of administration s e</u> <u>nergy services informational paper 87.pdf</u>

In the early 2000s, with the expansion of their efficiency services in other states, Michaels discontinued their environmental, fluid balancing, and indoor air quality engineering services. Since 2003, Michaels' sweet spot has remained in the large commercial and industrial sectors. In 2012, the company decided to rebrand itself as Michaels Energy due to its primary focus on energy efficiency services.

When working with commercial and industrial customer, Michaels has an affinity to do retrocommisioning work— where they diagnose design and control problems in building systems and suggest remedies for control sequences. On the utility side, they work on both the rebate program design and implementation as well as measuring and verification for the programs. Currently, Michaels has contracts with 33 utilities in 15 states/provinces.

In 2008, Michaels Engineering established their headquarters on the 2<sup>nd</sup> floor of the historic Doerflinger Building in downtown La Crosse, WI. Upon moving in, Michaels completely renovated the space and installed a high efficiency HVAC system with a new boiler, chiller, and variable frequency drives on pumps and fans. The office received a LEED Gold Certification in 2010 as a result of their remodel. After the retrofit, the building owner asked Michaels to investigate why the 3<sup>rd</sup> floor of the building was experiencing four times as much gas consumption as the Michaels office on the 2<sup>nd</sup> floor during the winter after moving in. Michaels diagnosed that there was excessive reheat in the variable air volume system. They disabled a temperature sensor in an overheating server room which resulted in a 50% reduction in gas consumption.<sup>3</sup>

"The corporate culture is open. The company shares financials with staff, is flexible with schedules, has a strong wellness program, and provides incentives for biking to work," says Scott Siefkes, Chief Operating Officer who has worked at Michaels since 1997. As a testament to their corporate culture, the company has received several accolades throughout the years, including a "Small Business Well Workplace" award in 2017 and a "Bicycle Friendly Business" award in 2012 and 2016.

"Looking into the future, as equipment becomes more efficient, the opportunity for savings through efficiency is becoming smaller, so Michaels is exploring ways to adapt for future work with the client's needs," says Siefkes. With more renewables being installed, one of the company's focus is on when energy is consumed, not total energy being consumed. This is becoming more important as more renewables are integrated onto the grid. When wind isn't blowing, there is more emphasis on customers reducing consumption during those times to avoid having to switch to other resources of electricity generation.

Michaels currently has offices in La Crosse, Minneapolis, Madison, Green Bay, Cedar Rapids, and Denver with a total of 45 employees. The current owners are Scott Siefkes, Eric O'Neill, Jeff Ihnen, Ryan Kroll, Bryce Dvorak, and Kristin Laursen.

<sup>&</sup>lt;sup>3</sup> "Doerflinger Building, La Crosse Case Study" <u>https://michaelsenergy.com/project/doerflinger-building-la-</u> <u>crosse/</u>



Figure 1: The founders of Michaels Engineering: Jim Michaels and Dave Waffenschmidt



Figure 2: Current owners of Michaels Energy (from left to right – Scott Siefkes, Eric O'Neill, Jeff Ihnen, Ryan Kroll, Bryce Dvorak, Kristin Laursen)



Figure 3: The veterans who work at Michaels Energy (from left to right – Andrew Wiegand, Chris Pinkowski, Brent Sammann, Jeff Ihnen)