

### **Center for Energy and Environment**

Center for Energy and Environment, CEE, is a 501(c)(3) clean energy nonprofit with special expertise in energy efficiency that stretches back 40 years. We offer practical energy solutions for homes, buildings, and communities to thrive. Over the decades, we've built our reputation by balancing a science-driven mindset with values-driven strategies. Midwestern to the core, we tailor our pragmatic approach to each unique relationship and location-specific data — we work with you and for you. Our engineering team helps businesses plan for big energy savings with practical actions that cut energy waste and improve equipment functionality while enhancing comfort. Our team is with you during the entire process to help you identify the best opportunities, help implement your choices, and verify that your savings are realized.

### **DLR Group**

DLR Group is a nationally recognized leader in commissioning services with over 250 successfully completed commissioning and retro-commissioning projects over the past five years. DLR Group's Commissioning team has a deep understanding of building codes and a history of successfully completing commissioning projects nationwide. Our quality process has helped our clients realize thousands of dollars in operational savings through functional testing and commissioning of building systems. DLR Group's Commissioning team provides additional value by leveraging powerful analytics on trended systems data to provide insights into opportunities for deeper energy savings, increased occupant comfort, proactive maintenance and ensuring a healthy indoor environment. DLR Group is an active member company of the AABC Commissioning Group (ACG) and has Qualified Commissioning Process Providers (QCxP), Building Energy Modeling Professionals (BEMP), Professional Engineers and LEED Accredited Professionals.

We are an integrated team of architects and engineers as well as commissioning process and systems performance experts. With offices around the globe housing specialized design expertise, your integrated design team is backed by the more than 1,000+ design professionals and the resources of the entire firm. This enables DLR Group to scale teams to meet your challenge and deliver specialized expertise to any location whenever, and wherever, it may be needed. We have a center of commissioning excellence in our Minneapolis office. DLR Group is a passionate advocate for sustainable design. We are an early adopter of the Architecture 2030 Challenge, and an initial signatory to the AIA 2030 Commitment and the China Accord. We believe sustainability is best judged by disciplined, systematic evaluation of high-performance building metrics to measure the effectiveness of design. Our promise is to elevate the human experience through design. This inspires a culture of design and fuels the work we do around the world. We are 100 percent employee-owned and aspire to be the most creative enterprise on the planet.

### **Edward H. Cook and Associates, P.A.**

The firm of Edward H. Cook & Associates, P.A. has been performing Re/retro commissioning Studies as its primary business with Xcel Energy and other electric/gas utilities for the past 15 years. The principal of the firm, Edward H. Cook, P.E. is a registered Mechanical Engineer and has over 40 years of relevant experience in the field of building mechanical systems, with a special emphasis on energy efficiency, controls and automation. Most of our work is with Government, Commercial, Higher Education and Institutional buildings.

In addition to developing a list of Energy Conservation Opportunities (ECOs) as required by the utilities, our firm

also provides a review of Operations and Maintenance topics and Capital Improvement Needs for every building where it performs a study. This allows the building management to obtain a full and clear picture of the health of the building.

One other distinct advantage that our firm provides is that the owner and principal, Edward Cook is the primary evaluator of the building and performs all of the building assessment tasks. This ensures that each client receives the full benefit of Mr. Cook's experience in the field based on his long tenure working with complex mechanical and control systems. In addition, our firm takes pride that a very high percentage of the ECOs that are recommended are completed, and almost every study proceeds to implementation.

### **Hammel Green & Abrahamson (HGA)**

It is no small thing to leave a mark on the world.

Our responsibility is both inspiring and humbling: to **create a positive, lasting impact through design**. We value **empathy**, are fueled by **curiosity**, and embrace the **hard work** that leads to **innovation**. Our interdisciplinary teams develop critical insight into the unique needs, culture, and design goals of our clients. This insight is the springboard for innovative solutions during all phases of the process. In addition to engineering excellence, we are known for collaboration, communication, and professionalism.

Sustainability, energy efficiency, and cost savings are the trifecta of our energy and infrastructure group. Carefully designed systems and processes to support all three can have a significant impact on both buildings and campuses. As engineering specialists within an interdisciplinary practice, we have a more holistic understanding of the impact of our work; we are able to integrate our technical solutions with other important elements of a project. From tackling small projects like energy audits to retro-commissioning buildings to designing significant new facilities, we are industry leaders in optimizing and implementing systems that best fits the current and future needs of our clients. We deliver reliable, resilient, effective, and sustainable infrastructure systems that are integrated into their environments, enabling our clients to:

- **Reduce** use of energy and resources, decreasing environmental impact and operating costs
- **Protect** financial resources by limiting exposure to energy market volatility
- **Optimize** current physical resources by assessing them for energy efficiency and reliability
- **Seek** LEED® Certification

Our work succeeds because it is always built upon a foundation of insight into the unique needs of each organization. The drive for deep understanding shapes the way we collaborate with each client and deploy the diverse resources within our firm. It's how we deliver unexpected solutions that deliver added value. Ultimately, it's the way we create an enduring legacy for our clients and our firm.

From planning to design, commissioning to operations, retro-commissioning to optimization, our energy and infrastructure group is a catalyst for positive change, partnering with clients to secure an efficient, renewable and sustainable future.

### **KFI Engineers Retro commissioning**

KFI Engineers has been providing commissioning (Cx) and retro-commissioning (RCx) services since 1998 and is at the forefront of building performance and energy efficiency work in government facilities. We are proud to have successfully executed hundreds of millions of dollars in retrofits and new construction.

KFI is a hands-on organization that believes in not only identifying operational issues, but also finding the root causes of these issues and providing effective solutions in the field. KFI's building performance group is comprised of more than just engineers, we also have certified test and balance personnel, and active controls programming engineers who will be engaged in the State's RCx projects. This expertise allows KFI to make active balancing corrections while we test, as well as the ability to read control logic real-time to help identify the root cause of sequence issues. This approach to RCx is key for quickly improving and optimizing system operations. We recognize the value of making a difference as soon as possible within each facility - in lieu of simply providing a long list of recommendations the State will need to contract out and manage. We will focus on items that can provide immediate savings, and document capital opportunities for future implementation. We believe in training staff to continue to optimize system operations and establish a benchmark to which future operations can be compared against.

We thoroughly review and verify equipment, control systems and all mechanical and electrical systems. We can also identify preventive maintenance measures that when implemented, can save you additional energy resources and costs. Retro commissioning is the lowest cost method to improve actual building performance available. Some commissioning firms provide energy audits disguised as retro commissioning projects, but these energy audits do not provide any correction or immediate benefit from the results of the study. KFI is a NEBB certified firm for both building systems commissioning, and test and balance (TAB), for both air and hydronic systems. An internal review of our last 55 RCx projects has identified an average of \$145,000 annually in potential energy savings per building, with an average payback of 4.2 years.

## **Michaels Energy**

Michaels Energy, a veteran-owned energy efficiency consulting firm, has been helping businesses minimize waste and maximize value since 1984. We help businesses and organizations be more energy efficient and solve problems like poor indoor air quality, building integrity, and occupant comfort. Our experience and obsession with all-things energy allow us to provide the best solutions quickly and cost-effectively for energy savings or building issues. This includes providing new construction design assistance to clients looking to build a new facility that is optimized for comfort, air quality, and energy savings from the get-go. We offer a variety of energy efficiency solutions such as retro-commissioning, strategic energy management, new construction design assistance, in-person, and virtual energy audits, and more. In addition to creating and implementing energy programs, our team of energy gurus provide comprehensive research and evaluation services such as impact and process evaluation, focused market and policy research, and cost-benefit assessments. Our clients choose us because we have a deep understanding of how their buildings are using energy versus how they should use energy. We translate what we see into actionable solutions, making it as easy as possible for them to achieve their goals.

### **Retro-Commissioning (RCx)**

At Michaels, we offer two types of data-driven RCx programs: a full, detailed study and a lighter touch study with focused measures. Our full RCx program maximizes energy savings for large commercial and industrial facilities, while our lighter touch study (Find and Fix) provides smaller buildings with quick-turnaround improvements for instant savings.

In the past 5 years, we've conducted over 60 RCx studies, covering 15 million square feet of commercial and industrial facilities from health care buildings, schools and universities, correctional facilities, refrigerated warehouses, and more. Our customers have saved an average of \$60,000 after implementation of measures, with a payback of less than 2 years.