



General Energy Corporation

Delivering sustainable MEP services to clients across the Midwest

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Based in Oak Park, Illinois, General Energy Corporation (GEC) is a full-service mechanical, electrical, plumbing and fire protection (MEP/FP) engineering firm offering leading solutions to commercial, industrial and institutional clients looking for energy efficient, sustainable designs.

Established in 1985, GEC has completed over 900 projects throughout the Midwest over the last 31 years. “We’ve been very involved in sustainability since we started out,” says Prem Mehrotra, LEED AP, founder and president of GEC.

“We know how to produce greener power and have a broad base of knowledge about various types of renewable energy and energy efficiency projects including solar thermal, photovoltaic and wind farms; you won’t find an MEP company that has that much focus on all these types of energy efficiency,” he adds.

Growing up green

Mehrotra was involved in the power generation industry long before founding GEC. During the early ‘70s, the GEC founder worked as a power plant consultant in Chicago, aiding in the construction of nuclear and fossil fuel plants from concept to permitting.

“In the later stages most of the work being done was paperwork and there was not too much engineering involved for me,” says Mehrotra. “At that time, because of the oil embargo, there was a big focus on how to save energy and the U.S. Department of Energy (DOE) came up with a program that provided matching funds for institutions looking to become more sustainable, so we left the supply side and started working on the demand side.”



Mehrotra founded GEC in the mid '80s, starting out as a small company providing energy conservation studies for clients, that now has grown into a full-scale MEP engineering company with a slate of services that includes complete LEED design, commissioning, turnkey implementation of energy projects and development of renewable energy projects.

The company now provides this full range of architecture and engineering services to the education sector, hospitals, correctional facilities, industrial plants and laboratories. GEC's client list includes some of the leading names in Midwest business and institutional marketing, including Exelon, University of Chicago, Alcatel-Lucent, Illinois Capital Development Board, Chicago Public Schools and Chevron. "My background is in power generation and with gas prices at a historic low, this provides a

lot of opportunity for combined heat and power (CHP) generation right now," says Mehrotra. "The DOE is promoting CHP and we're working with ComEd which provides incentives for energy efficiency and CHP projects; we're intensively involved in energy programs right now."

General Energy works to incorporate green and sustainably-minded features into every project. On a recent job at James B. Conant High School in Hoffman Estates, Illinois, the team replaced the building's boilers and chillers with newer, more energy-efficient equipment. General Energy opted for hot water boilers over steam boilers, eliminated heat exchangers and added modular boilers, eliminating the losses associated with boilers short cycling. The project earned recognition for General Energy as 2004 Energy Project of the Year from the Association of Energy Engineers' Chicago chapter.

In Glenview, Illinois, General Energy assisted with a zero energy, LEED Platinum certified facility for the Evelyn Pease Tyner Interpretive Center. Designed to help further learning and appreciation for the surrounding prairie, sustainable features were a central theme throughout the project. General Energy completed MEP work on the building, including a green roof, state-of-the-art automation, heat recovery system and solar panel array. Completed in 2006, the building won the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Technology Award in 2012.

The company has earned numerous awards for its green building efforts throughout its history, including multiple ASHRAE awards going back to 1991, regional awards, excellence in engineering awards and energy design awards.

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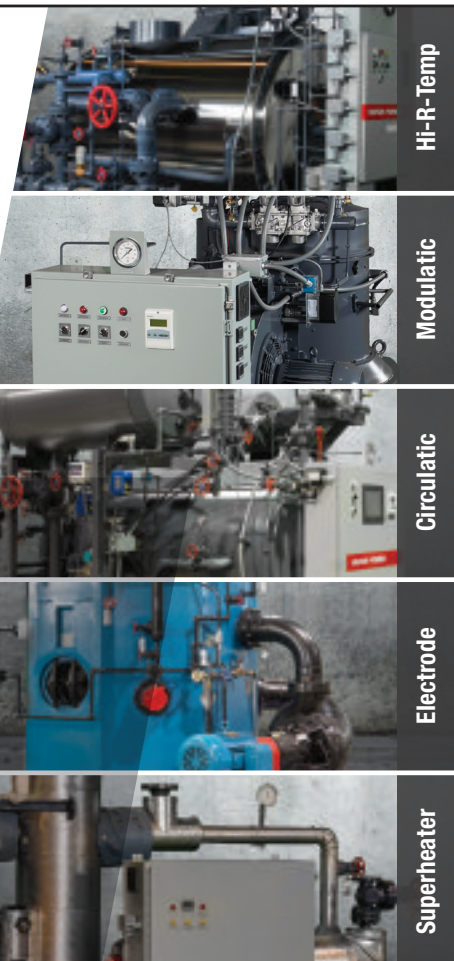
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“On the industrial side, we are currently working with more than 20 industrial plants to optimize their compressed air systems, process cooling systems, refrigeration systems, and boiler and chiller plants,” says Mehrotra. “Helping clients to participate in utility incentive programs for electric and gas savings, and federal tax credits can improve their bottom line while reducing their carbon footprint.”

Setting the sustainability benchmark

For Mehrotra, sustainability comes down to the simple matter of energy efficiency. “It’s all about how much damage you do to the environment, so energy conservation and water conservation are all part of sustainability,” he says.

GEC’s sustainable credentials stretch back to the early 2000s when the company helped to one of the first new Evelyne Pease Tyner Center projects in Chicago to achieve LEED Platinum certification.

“It was a very small building, but it was very important. We had all kinds of sustainable energy systems including geothermal, state-of-the-art ventilation, lighting and controls,” Mehrotra says. As a turnkey provider of sustainable and energy efficient MEP/FP services, GEC develops systems for its clients and then relies on a network of trusted subcontractors to help deliver on each project.

The company is currently working on a number of renewable energy efforts, including the development of a wind farm, solar thermal systems to heat water and swimming pools and an ever-expanding expertise in roof-mounted solar panels.

“Those have been very popular on the East Coast and the West Coast for the past 10 or 12 years, but it’s becoming more popular here in the Midwest with more incentives being offered by the states and people just becoming more conscious about their responsibility toward nature,” says Mehrotra.

While a cultural shift has brought many customers around to his way of thinking in recent years, Mehrotra still finds the consciousness-raising aspect of his job one of the most challenging. “The biggest challenge is convincing people they can benefit economically from energy conservation. In the beginning it was very hard, but now people have begun to understand and the industry has developed to a huge extent,” he says.

As a member of the U.S. Green Building Council (USGBC), Mehrotra says the organization is instrumental in helping companies find the best, most sustainable products and incentive programs. “I’ve been involved in working with new construction guidelines developed by the USGBC. They have a lot of good technical information and their whole education system has improved tremendously,” he says.

Mehrotra measures success at GEC by a few simple metrics. “One of the key indicators is the response from clients. It’s also very important for us that we can track performance and make sure that what we have done was done correctly and will produce the desired results,” he says.

A strong background in sustainability-minded projects will keep General Energy Corporation at the forefront of industry trends as it continues to serve clients throughout the Midwest as a leading full-service mechanical, electrical, plumbing and fire protection (MEP/FP) engineering firm. •

