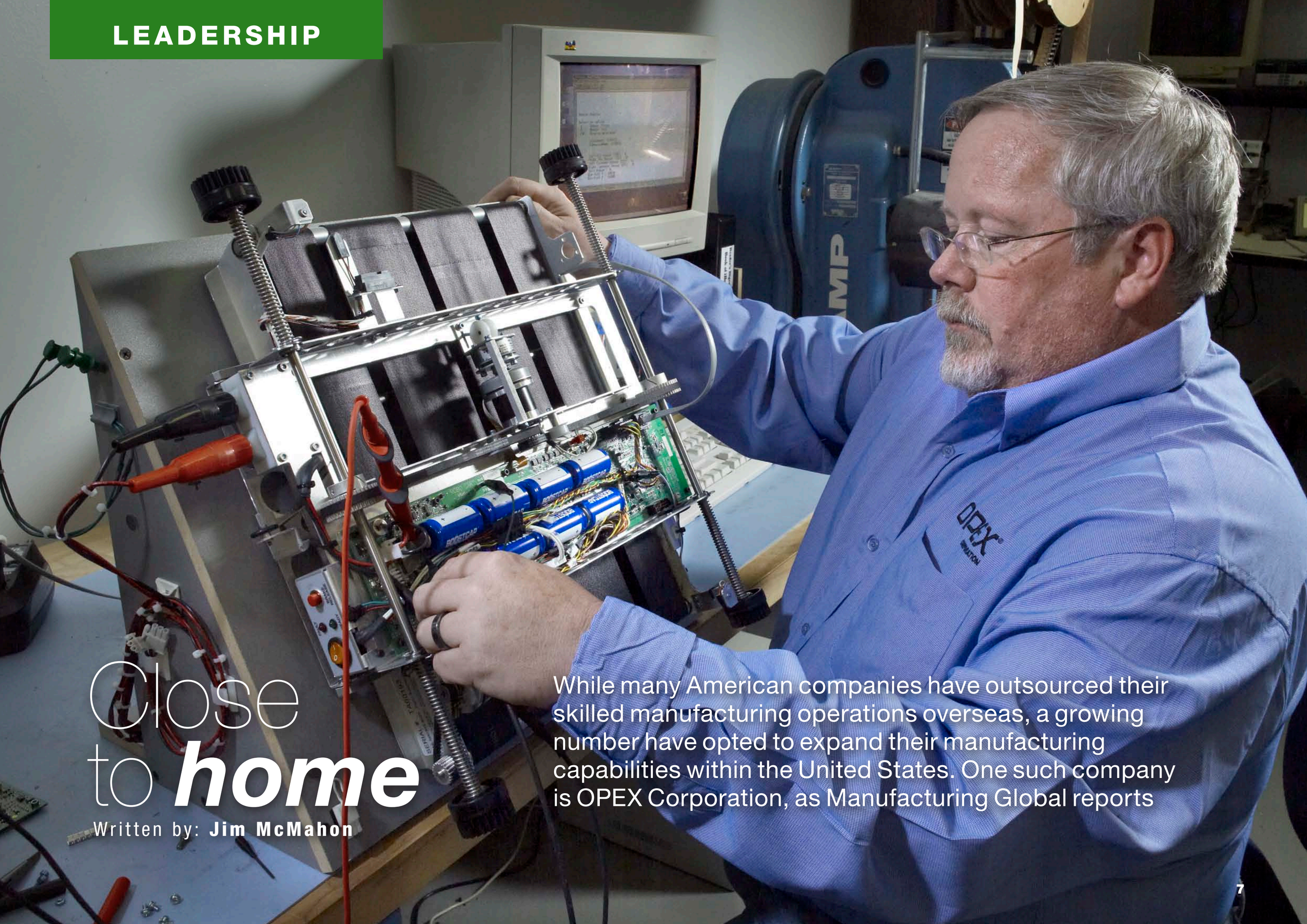


Close to *home*

Written by: **Jim McMahon**

While many American companies have outsourced their skilled manufacturing operations overseas, a growing number have opted to expand their manufacturing capabilities within the United States. One such company is OPEX Corporation, as Manufacturing Global reports

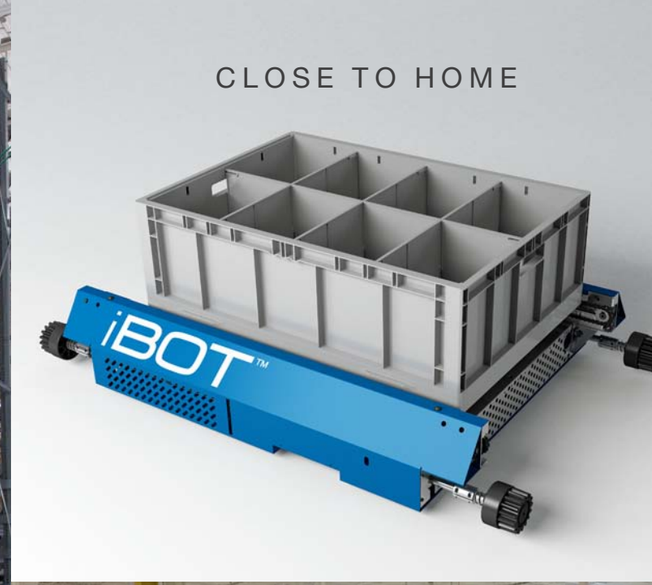
FOR DECADES AMERICAN manufacturing prospered, spurred on by an insatiable desire for new products, continual improvements in technology and an abundant workforce of skilled manufacturing tradesmen. But as companies progressively moved their manufacturing overseas, so went the jobs for hundreds of thousands of skilled workers. Those companies that elected to keep their manufacturing in America however, still needed skilled manufacturing workers, and the most efficient and direct way to achieve this was through company-sponsored, structured training programs.

One company that stands out particularly, which early on developed and implemented in-house training programs for its skilled manufacturing employees is OPEX Corporation, headquartered in Moorestown, New Jersey. This world-leading manufacturer of high-speed automated mailroom, document scanning and material handling systems, has been providing structured, company-sponsored training programs to develop skilled workers, continuously since the early 2000s.

Despite the trend to push manufacturing offshore for the last 30 years, OPEX made a deliberate choice in the other direction, and instead invested heavily into training its employees. It has been at the forefront of employing and training previously unskilled workers, and transforming them into highly skilled manufacturing tradesmen like CNC machinists and programmers, welders, electronic technicians and woodworkers.

The breadth of this company's training programs is extensive, reaching well beyond manufacturing. OPEX maintains one of the most comprehensive service organisations in the industrial sector. Where outsourcing field technicians is the norm, OPEX built its own worldwide network of over 300 locally-based, direct-employee field technicians, which provide full 24/7/365 support to its thousands of customers. Every one of these technicians has been factory trained and certified at OPEX.

"The shortage of skilled manufacturing tradesmen has presented some unique challenges for us," says Doug Hendry, Manufacturing Operations Manager at OPEX, and First Class Journeyman Machinist. "Like so many other manufacturers, when we put out ads for qualified CNC



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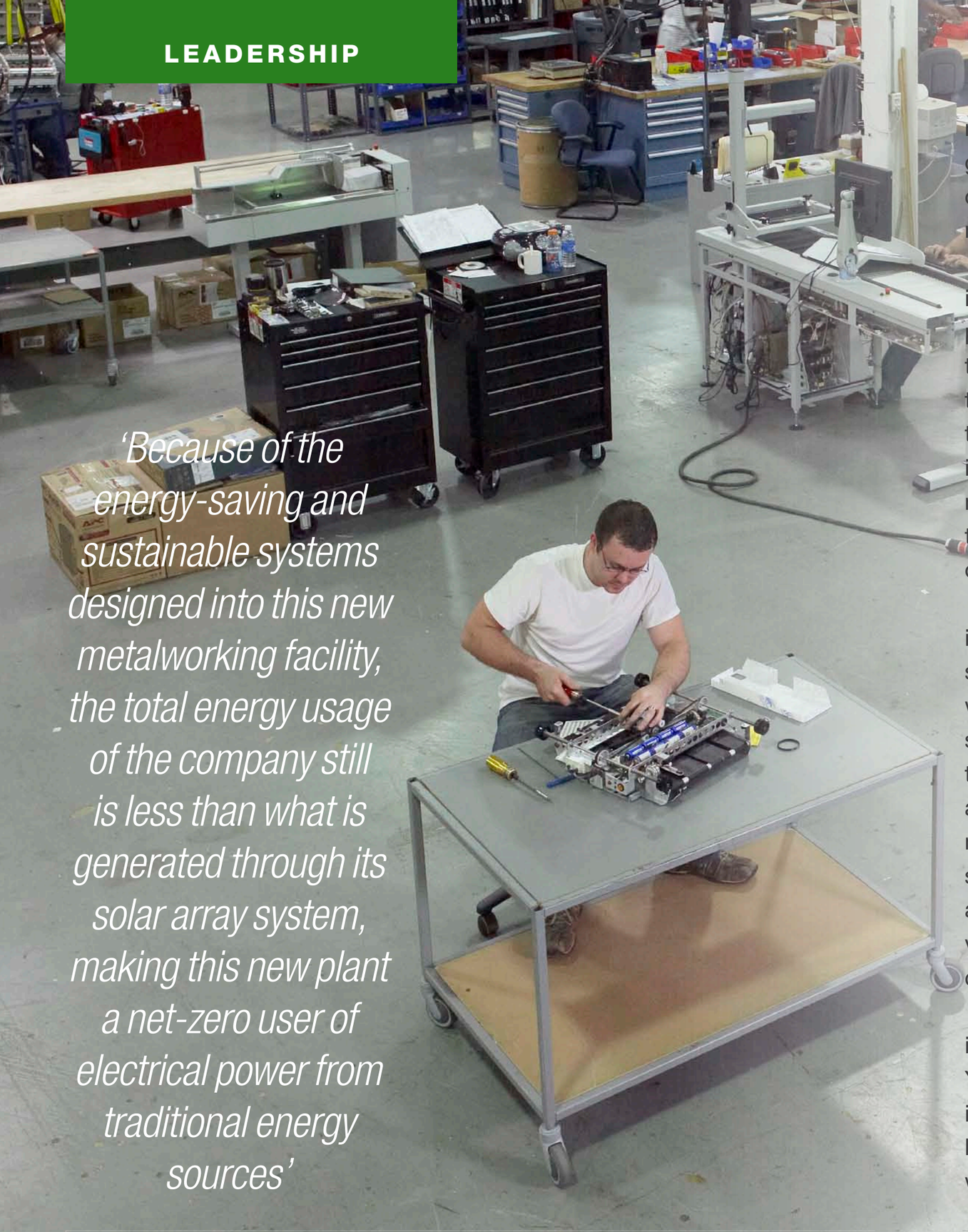

'Because of the energy-saving and sustainable systems designed into this new metalworking facility, the total energy usage of the company still is less than what is generated through its solar array system, making this new plant a net-zero user of electrical power from traditional energy sources'

machinists, for example, we do not get very many applicants. The pool of skilled labour has disappeared, as manufacturing has gone offshore.

"To deal with this problem, we implemented comprehensive training programs," continues Hendry. "We take entry-level workers and put them through a rigorous in-house, two-year, hands-on training program in manufacturing on our various machines. We turn them into skilled tradesmen that we can employ in our manufacturing facilities."

OPEX recruits candidates for its training programs from several sources, such as from existing workers who express interest in becoming skilled in specific manufacturing trades. These workers could have absolutely no experience in skilled manufacturing, or may be proficient in some other occupation. Candidates are also recruited from local-area vocational schools, community colleges and high schools.

Additionally, the company has interned several students from the YALE School for handicapped students in Cherry Hill, New Jersey, over the last few years. The students have worked in the assembly department, where they gained important job skills. The program has worked very well for both YALE and OPEX. Students that are identified as high performers are frequently accepted into the in-house training program.

"Take our electronics shop, for example," says Hendry. "When electronics technology students get to their junior year, they qualify to do internships at local manufacturers. We will recruit some of these students who demonstrate they have the aptitude to perform the work in our electronics shop, and supplement their education with hands-on training. We start them off with very simple testing tasks. Then we incrementally progress them up to testing and fixing circuit boards, configuring and repairing PCs, wiring machines on our assembly floor, and helping to troubleshoot system-level machines before they ship out. We have found this to be a great source of talent for hiring into our electronics department."

Additional facilities

Sticking true to its goal of bringing back skilled manufacturing to the US, in January 2015 OPEX opened its newest manufacturing facility – a 42,000

square-foot metal fabricating plant located in Pennsauken Township, New Jersey, a short distance across the Pennsylvania border from Philadelphia, and about ten minutes down the road from its flagship 250,000 square-foot manufacturing and corporate complex in neighboring Moorestown, New Jersey. Every aspect of the shop has been designed with the latest technology and processes for efficient operation. By any standard, this new metalworking shop is a model for streamlined production.

This latest shop is OPEX's second fully-operational metalworking facility. This shop is focused on producing the company's rapidly growing Perfect Pick material handling technology.

"Perfect Pick was launched just over two years ago, but it has become a rapidly growing segment of our business," says Dave Andrews, Facilities Manager at OPEX. "By December, 2013 we knew we needed additional metalworking space, so we began looking for another building. At the same time, we were evaluating our process flow and equipment needs for the new shop. By June, 2014 we had secured a location, and construction and build-out had begun. By January, 2015 the new shop was up and operational."

Energy efficiency

The new plant was designed with multiple energy-efficient and sustainable systems. OPEX has a strong track record of implementing such initiatives into its manufacturing operations. Just a few years ago the company installed a 2.77 megawatt solar array system, capable of producing more than 100 percent of the electrical energy needed to operate its total manufacturing, distribution and administrative complex in Moorestown, New Jersey. This effectively made OPEX a net-zero user of electrical power from traditional energy sources. Its conversion to sun power made it the largest solar installation in the state of New Jersey operated by a privately-held company, at the time of its installation. In effect, power required to manufacture the company's entire product line is now derived, 100 percent, from a sustainable source.

Because of the energy-saving and sustainable systems designed into this new metalworking facility, the total energy usage of the company still is less than what is generated through its solar array system, making this new plant, as well, a net-zero user of electrical power from traditional energy sources.

Vision

With the many design, production, ergonomic and sustainable systems built into this facility, this new metalworking shop presents a model for more efficient manufacturing. It also overtly makes the statement that manufacturing in the US is on the comeback.

"There are a number of reasons why OPEX has continued to manufacture its products in the US, instead of outsourcing overseas," says Dave Andrews. "We wanted to have better control over our quality, better responsiveness to our customers, more flexibility with implementing engineering changes, and reduce the cycle time for the introduction of new products."

"But underneath all of these, it is simply the commitment to American manufacturing, and the skilled jobs that this brings," adds Andrews. "If more companies shared this vision it would go a long way to building a stronger America." ■