



## Forming an E3 Team to Provide Kentucky Manufacturers with a Sustainable Future

Numerous Kentucky organizations have joined forces with E3— Economy, Energy, and Environment—to connect Kentucky’s small and medium-sized manufacturers with a sustainable growth strategy. The Kentucky E3 partnership conducts customized technical assessments that offer practical, sustainable approaches to reduce energy use, minimize carbon footprints, prevent pollution, and increase the productivity of participating manufacturers.

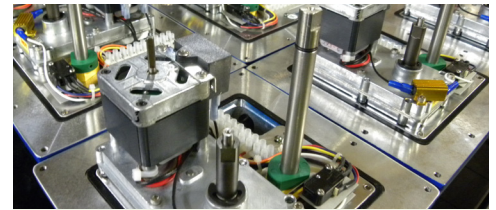
Kentucky’s E3 project started in the fall of 2012, as a result of interest within Kentucky Pollution Prevention Center (KPPC) and the organization’s existing relationship with the U.S. EPA’s Region 4 Pollution Prevention Program. KPPC received funding to take the lead in bringing E3 to Kentucky manufacturers. Duke Energy—another Kentucky E3 partner—was already engaged in other E3 projects throughout the country and was looking for an opportunity to bring E3 to its Kentucky-based customers.

*“E3’s triple bottom line approach provides an action-focused perspective that results in substantial positive impact for its manufacturing customers.”*

*—Bob Bandenburg, Business Relations Senior Account Executive, Duke Energy*

Duke Energy realizes that it must be forward-looking and adaptive to succeed in the changing energy landscape. Over the past few years, the company has developed various programs designed to promote the efficient use

of electricity by its customers. Promoting sustainable manufacturing through programs like E3 is an extension of Duke Energy’s efforts to collaborate with its customers.



### E3 Kentucky Partners

- Kentucky Pollution Prevention Center
- Advantage Kentucky Alliance, a NIST-MEP Center
- Kentucky Community and Technical College System
- Kentucky Education and Workforce Development Cabinet, Office of Employment and Training
- Kentucky Energy and Environment Cabinet
- Kentucky Small Business Development Center
- Duke Energy Corporation
- East Kentucky Power Cooperative
- LG&E and KU Energy LLC
- U.S. Department of Agriculture
- U.S. Environmental Protection Agency
- U.S. Small Business Administration

E3 is a collaborative effort that partners communities, industry, and several federal agencies who share a common focus on sustainability, job growth, and economic development. As a flexible framework, rather than a prescribed program, it can adapt to the unique needs of any community. E3 helps connect small and medium-sized manufacturers with experts from federal agencies, states, and regions. E3 provides manufacturers with customized, hands-on assessments that target the root cause of waste. As a result, E3:

- Fosters a smarter, more efficient green workforce.
- Promotes sustainable manufacturing and growth through innovative technology.
- Reduces environmental impacts while gaining a competitive advantage.
- Helps retain jobs in companies better positioned for global competition.

Can an E3 assessment benefit your Kentucky business? Contact [info@kppc.org](mailto:info@kppc.org) or visit [www.e3.gov](http://www.e3.gov) to learn more.



ECONOMY  
ENERGY  
ENVIRONMENT

## Kentucky Manufacturer Jumps into E3 with a Sustainable Mindset

Indelac, a family-owned small manufacturer that produces multi-purpose and customizable electronic actuators in Florence, Kentucky, was looking to expand sales and distribution of its American-made actuators into new international markets. Indelac's products are used in limitless applications across industry sectors including petroleum, natural gas, water and waste water utilities, food and beverage manufacturing, automotive manufacturing, aerospace, and defense.

*"E3 plugged us into a new way of thinking, and a vast network of assistance opportunities like internship programs, matching services, and others that we never would have realized if we hadn't participated."*

—Matt Robinson,  
Chief Business Development Officer, Indelac



Indelac executives soon realized that they would face stiff price competition in a global market. To succeed in its expansion efforts, Indelac needed to find its competitive advantage. Knowing that Indelac was seeking technical assistance, KPPC marketed E3 to the company—and E3 provided the answer.

Indelac began its E3 journey by forming a cross-functional team that included the company's president and members of its sales, engineering, accounting, customer service, repairs, assembly, and machining staff. Matt Robinson, Chief Business Development Officer, noted that Indelac felt it was important that each area of production participate in E3. "We wanted the employees to own it and that helped with implementation because they saw the purpose and enjoyed making the changes," Mr. Robinson said.

Indelac's E3 assessment focused on its M-series quarter-turn actuator, which travels through all the stages of the company's onsite production and is one of Indelac's most customizable products. The E3 assessment identified 40 opportunities, of which Indelac has already implemented 38. One of the changes involved setting up a comprehensive recycling program that diverted 80 percent of Indelac's solid waste stream, reduced waste management costs by 75 percent (saving \$1,000 a year), and created a small revenue stream in selling aluminum shavings and scrap.

Indelac also generated significant savings by reorganizing to reduce assembly time and product movement within the facility. This was one of the more difficult things to

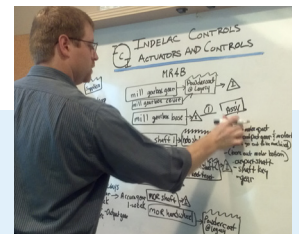
implement, said Mr. Robinson, but it resulted in the best payback. "Employees don't have to walk all over the place anymore," he explained. "They have well stocked and organized work cells where more parts are readily available. Walking around the facility was an inefficient use of our assemblers' time."

KPPC also provided Indelac with a comprehensive energy assessment, which saved 85 million BTUs of energy, 70 metric tons of carbon dioxide emissions, and \$1,800 in energy costs per year.

Indelac executives were initially concerned about shifting focus away from production for a few days, but quickly realized the potential benefits far outweighed the alternative. Mr. Robinson said that "E3 is an investment in yourself and your employees. You've got to give a little bit to get a significant return." Indelac has seen consistent growth since the E3 assessment in December 2012. In fact, the company's sales are up more than 40 percent in the first quarter of 2014 compared to the same time last year.

## E3 Helped Indelac Realize Unprecedented Growth

Indelac is now competing in a global market and has expanded its sales to 10 countries. By stabilizing lead times, it is now producing at a higher rate, generating new jobs, and bringing on more engineering staff and assemblers. Its efforts have enabled the company to add seven new product lines to its portfolio. "E3 plugged us into a new way of thinking," Mr. Robinson said, "and a vast network of opportunities like internship programs, and other assistance opportunities that we never would have realized. Indelac is now participating in the European American Chamber of Commerce and the Department of Commerce Gold Key Matching Service. E3 helped guide us down this path."



### Indelac's Results:

- **Reduced the solid waste stream by 80 percent for a cost savings of more than \$1,000 a year.**
- **Reduced energy use by 85 MMBtu and eliminated 70 metric tons of carbon dioxide emissions.**
- **Reduced energy costs by \$1,800 a year.**
- **Realized \$9,600 a month in lean savings.**
- **Increased staff by 40 percent.**
- **Expanded into 10 new international markets.**
- **Added seven product lines.**