



## Lean Energy and Environment (LE2) Workshop

LE2 is an acronym for Lean, Energy, & Environment. It combines two programs previously developed by EPA; the Lean and Environment program, and the Lean and Energy program. The Lean and Environment program offers practical strategies and techniques to Lean implementers about how to improve Lean results while achieving environmental performance goals. Similarly, the Lean and Energy program offers practical strategies and techniques to Lean implementers about how to improve Lean results while reducing energy use, costs, and risk. LE2 combines both of these programs into a single program. The workshop will include a description of the process, overview of tools and techniques, and a review of practical examples. **This training workshop will help build your understanding in conducting or determining when to request such as assessment.**

The LE2 initiative is critically important to the New York State Pollution Prevention Institute (NYSP2I) because it provides a baseline against which future P2 improvements can be compared, allows savings resulting from process changes to be accurately quantified and measured, and involves the client in the problem-solving process, thus encouraging them to utilize this tool elsewhere. LE2 is an excellent supplemental tool for the Regional Technology Development Centers (RTDCs). It also greatly facilitates subsequent implementation of optimized P2 technology that will then show actual reductions in waste generation and energy use in addition to improvements in productivity and profitability.

An LE2 project conducted for a remanufacturing company in New York State yielded very encouraging results. NYSP2I worked with this company to improve the remanufacturing operation for cylinders and other parts in large internal combustion engines. Using the LE2 analysis, the following annual benefits were obtained for just the cylinder operation. Because a single engine remanufactured by this company contains thousands of parts, actual savings are even higher.

- Savings in operating costs of \$64,335
- Reduction in electricity use of 32,709 KWH
- Reduction in water use of 1,480 gallons
- Reduction in generation of 5,791 pounds of non-hazardous waste
- Reduction in 3,631 pounds of abrasive media
- Reduction in 259 gallons on non-hazardous wastewater
- Reduction in 41 gallons of detergent