



Analytical Engineering, Inc. is a proud grantee of the Indiana Office of Energy Development (OED) 2011 Conserving Hoosier Industrial Power (CHIP) program. CHIP is a competitive program that offers financial assistance to commercial and industrial businesses for projects that reduce a facility's energy consumption. AEI is based on green operation. The business develops technologies that make engines more fuel efficient and lower exhaust pollutants. Additionally, the facility operational equipment has been designed with energy efficiency as part of the technical specification.

Upon receiving notice of the CHIP program for 2011, AEI proposed upgrading two of the company's older, less energy efficient dynamometer systems with two regenerative motor/generator dynamometers and controls. Additionally, AEI proposed to replace 117 inefficient 400 watt metal halide light fixtures with energy efficient fluorescent lights.

AEI will use these two new energy efficient 860 HP AC motors and motor control systems to research, develop, and manufacture prototype clean diesel engine hardware and related engine exhaust systems. The total estimated energy savings that will result from these upgraded AC motors and control systems is equivalent to at least 432,536 kW-hours per year. The lighting upgrades will save 164,200 kW-hours per year. The combined energy savings for the lighting and AC motor upgrades is 596,736 kW-hours per year.

AEI is one of a few manufacturing facilities in Indiana that is electrically configured for parallel operation with the electric utility company. This means that equipment within AEI has the ability to generate electricity and subsequently export that electricity to the Duke Energy Grid for use by others.

AEI proposed to pay for 50% of the total material cost for the AC motor systems and requested the grant to fund remaining 50%. AEI also requested the grant to pay for all the material cost of the lighting from CHIP. In turn, AEI supplied all of the required labor to install both the AC motors and lighting.

Similarly, AEI successfully implemented two new energy efficient 860 HP AC motors and motor control systems in early 2011. This retrofit was the result of a previous award from the CHIP program received in 2010. Both of these new AC motors and control systems are operating well and saving energy. AEI is very appreciative of the financial support from the CHIP program that enabled the purchase of this equipment.