Demand Response, Process Optimization and AI

I have had the honor to manage manufacturing operations as COO for a couple of high-tech companies and was able to leverage that experience into two patents on process optimization. At Exergy we help other organizations become:

100% Green

Resilient

More Profitable

A key aspect of Exergy’s solution is the use of demand response to lower overall energy spend. Industrial demand response is much trickier than most DR advocates admit. As a process becomes more streamlined, efficient and optimized, the ability to shed loads will tend towards zero. This is because in an optimized system, everything is essential and electric loads should already represent the optimized process flow. If there are excess loads to shed, the process is inefficient and should be fixed rather than using profit losing loads to perform demand response. Artificial intelligence in manufacturing is likely to make industrial demand response even more difficult because it is able to reoptimize in real time, changing the required load profile faster than the management of demand response. There is the very real risk of a race condition, whereby the manufacturing AI and the Demand Response AI are trying to outsmart each other. Exergy Energy avoids this risk by performing demand response with behind the meter generation that has no effect on process optimization. The process isn’t even aware that demand response is occurring. In this way, two AI’s, working independently achieve coordinated optimization.