



GE
Grid Solutions
4200 Wildwood Parkway
Atlanta, GA 30339-8402

January 29, 2016
Michigan State University
Department of Sustainability

Attention: Sean Barton, Project Coordinator

Subject: AASHE STARS Letter of Recommendation for Spartan Treasure Hunt

Dear Mr. Barton

We are writing to endorse Michigan State University's Spartan Treasure Hunt program (STH). STH is an important and innovative process to support achieving their sustainability goals and is unique in higher education.

Michigan State University (MSU) has undertaken an innovative approach to couple the Energy Treasure Hunt Process, which GE has used for many years to drive manufacturing energy efficiency, with their existing program to identify and drive energy conservation measures in campus buildings. Spartan Treasure Hunt brings the voice and participation of the campus community and allows MSU to drive even further reductions in energy usage and greenhouse gas emissions.

Energy Treasure Hunt (ETH) is an environmental impact discovery process. Cross-functional teams composed of site employees along with internal and external experts investigate a facility's energy use and natural resource consumption during sleep mode, full operations and transition periods in order to identify, quantify, and recommend projects or energy conservation measures (ECMs). The objective is to minimize waste in the form of electricity, natural gas, water, wastewater, compressed air, steam, and chilled water.

ETH is a lean action work-out that applies the concepts of LEAN to find waste in energy streams. An ETH utilizes small group activities (small teams) to effectively analyze energy usage and recommend ways to minimize waste. ETH participants are grouped into teams and assigned specific focus areas.

The purpose of an ETH is to foster the growth and improvement of energy and environmental productivity. This is accomplished by engaging employees during a site-wide effort to identify opportunities to reduce energy waste at their facility, thereby saving money, minimizing greenhouse gas (GHG) emissions, conserving natural resources and increasing the awareness and enthusiasm for energy and environmental reductions. The ETH model is unique in that it brings together employees and external experts together to find reduction of a site's environmental footprint.

MSU has developed a comprehensive building commissioning program that audits their facilities over the life cycle of their use to continuously improve their performance as it relates to energy streams. The program has been optimized and continually improved over time.



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One of the limiting factors identified was that there was very little engagement of the building occupants to take ownership for the energy performance of the buildings.

GE was invited to review and provide inputs to the MSU Energy Transition Plan. One element that was immediately actionable was to organize an ETH and train/transfer the process to MSU.

In October of 2013, the first ETH event was held as a train the trainer session. 45 participants identified 86 ECMs yielding the potential to reduce energy usage by over 70,000 MMBTUs and GHG by over 11,000 MTCE. As a result of the positive outcome and overall experience of the ETH, an internal "Spartan Treasure Hunt" (STH) activity deploying the process was created. STH is used as a preliminary step in the MSU Existing Building Commissioning Program across campus.

This innovation has brought incremental improvements to the MSU campus buildings with improved energy performance and active engagement of the occupants. It is raising awareness and spurring the adoption of other sustainable energy measures that will support the overall MSU Energy Transition Plan.

We conclude that MSU serves as a prime example of how adopting LEAN concepts and ETH spur innovation and support environmental reduction goals.

Very truly yours,

Steven C. Rajnay, P.E.

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