

## **ENERGY CONSUMPTION MONITORING**

### **EXHIBIT X. C.7**

The Sterling Forest Resort will use energy consumption monitoring (ECM) to reduce energy costs through improved energy efficiency and energy management control. Other benefits will include increased resource efficiency, improved production budgeting, and reduction of greenhouse gas (GHG) emissions. ECM techniques will provide energy managers with feedback on operating practices, results of energy management projects, and guidance on the level of energy use that is expected during a certain period. In addition, it also gives early warning of unexpected excess consumption caused by malfunctions, operator error, unwanted user behaviors, maintenance errors, and the like. Results and findings are reported through the building management system (BMS) and are readily available to the facility director and ownership. The ultimate goal is to reduce energy costs through improved energy efficiency and energy management control.

The BMS that will be used for this project will have the capability to provide real-time, daily, weekly and monthly logging of electrical and natural gas usage for the overall building. This requires minimal additional componentry and would parallel the information from the utility companies. “Enhanced” monitoring may be provided to segregate the central utility plant energy, lighting energy, hot water heating, kitchens, etc. Specific detail to the electrical panel loading designations and routing of piping to isolate the different mechanical, electrical, and plumbing (MEP) systems will need to be provided. Again, the BMS will be able to handle these tasks easily. Since the building will use Leadership in Environmental and Energy Design (LEED) practices, a configuration similar to the enhanced monitoring above, will be monitored to receive the points necessary for the desired LEED certification.

Excess electricity produced by the renewable energy system, but not consumed by the development, can flow into the utility grid and is registered as a credit through the meter. If consumption of electricity exceeds what is generated by the energy system, the meter will register the amount of electricity that is consumed from the electricity grid. The ORU tariff details the rules and regulations applicable to electrical consumption.

The Sterling Forest Resort consists of several site destinations—Sterling Forest Gardens, New York Renaissance Faire, World Fairgrounds and Ski Village, and Resorts World Grand Hotel. New York Renaissance Faire ground and the Gardens will be essentially in the same location as the existing grounds. It will be relatively easy to maintain the existing Orange and Rockland Utilities (ORU) feed on a separate sub meter. The Resorts World Grand Hotel will have the solar system deployed and also will be on a separate meter (net metering). Depending on the major systems’ design for equipment and electrical loads, sub metering will be incorporated into those designs. The Ski Village will be designated as a third area for energy consumption and have a sub meter. The developer can create a program for each of the sub groups establishing goals for energy efficiency, equipment optimization, and peak consumptions.