



Efforts to Conserve Energy by the Village of Lake Placid

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Background

Since 2004, the Village of Lake Placid has made considerable efforts to conserve energy through a number of projects resulting in increased energy efficiency. The Village Municipal Electric Department buys power from the New York Power Authority (NYPA) which has established a program called the Independent Energy Efficiency Program (IEEP). IEEP is a program that assists member municipalities to fund energy conservation initiatives. Lake Placid charges 1/10 of a penny per kilowatt hour (kWh) sold to fund the IEEP, resulting in funds of about \$150,000 per year. The accumulated funds can be used to finance energy efficiency projects. Through the projects and rate changes described in this case study, Lake Placid has succeeded in lowering its peak load of electricity use by 5 megawatts (MW) of power over a three year period.

Rate Changes

Since joining the IEEP, the Village of Lake Placid has collected \$1.4 million, of which \$954,000 was spent on energy conservation projects. Electricity in the Village is very inexpensive with rates averaging 3.6 cents per kWh during the summer months and 4.9 cents per kWh in the winter. These low electricity rates did not create any incentives for customers to monitor and conserve energy and actually induced customers to purchase electric boilers. To discourage this purchasing behavior the Village enacted a moratorium on electric boilers. The Village of Lake Placid spends an average of \$4.8 million per year on electricity, using more than Tupper Lake, Saranac Lake, and Ray Brook combined. The Village's peak electricity load before the energy efficiency programs were implemented was 48 megawatts in the winter months. This is enough energy to power 28,800 homes at their peak load. To create an incentive for consumers to conserve, the Lake Placid Municipal Electric Department changed some of their policies on usage. For example, a cap of 5,000 kWh per month for residences was enforced, above which customers pay 12.5 cents per kWh. The average electricity use of a household in New York is 604 kWh per month and 7,248 kWh annually. When customers

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began to realize how the rate change affected their electric bills, residents started to monitor energy use so as not to rise above the 5000 kWh per month cap. NYPA has a contract with the Municipal Electric Department that allows the Village to purchase inexpensive hydro-electric power up to approximately 28 megawatts. Above 28 MW, the Village must purchase incremental power at much higher rates resulting in customers paying the higher rate as well. This usually occurs during the winter months between October and March when electricity usage is highest.

To help the Village stay under the 28 MW cap for as long as possible, the Municipal Electric Department installed a 'demand side management' load control system. As usage approaches 28 MW, the Municipality can lower the voltage for the entire town, extending the amount of time it takes to reach 28 MW. A complication to the usage caps is the amount of energy used by the Olympic Regional Development Authority (ORDA), which operates Whiteface and Gore Mountain ski areas, the Olympic Sports Complex, and the Olympic ice and ski jumping complexes. ORDA purchases power from the Municipal Electric Department and uses up to 5 MW of power for its winter operations, requiring the Village to purchase more expensive incremental power earlier in the winter heating season than would otherwise be the case, thus driving up all customers' rates. ORDA's energy use is especially problematic in the winter months when both residents and ORDA are using much more energy.

Conservation Projects

Using the funds available through the IEEP, the Village of Lake Placid replaced many lights with compact florescent lights (CFLs) in municipal buildings, schools, and the hospital. The Village also purchased 20,000 CFLs and gave them to the local Boy Scout troop to sell for \$1 each in the community. To provide

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incentives to consumers, the Village implemented an ENERGY STAR rebate program for Lake Placid Municipal Electric customers. As long as a customer shows a Lake Placid energy bill, they can receive \$100 on all ENERGY STAR appliance purchases. To increase energy efficiency in public housing buildings, the Village purchased 125 ENERGY STAR refrigerators through NYPA's refrigerator replacement initiative for \$75,000. NYPA's program assisted Lake Placid, Tupper Lake and Plattsburgh in the purchase of over 600 refrigerators, reducing the amount of oil consumed by 314 barrels per year and reduced emissions by 94 tons of greenhouse gases per year. With these improvements in efficiency and the incentive provided by the 5000 kWh cap for residential customers, Lake Placid was able to reduce its peak load by 5 MW and extend the time that it is able to purchase cheaper and cleaner hydro-electric power by one month.

To address the energy use of vehicles, Lake Placid purchased a fleet of hybrid vehicles including three pick up trucks, a 55 foot bucket truck, and two small electric vehicles for the Lake Placid Beautification Committee. The Village also installed drive-by meters shortening the meter reading process to one day rather than two weeks, reducing carbon dioxide emissions as well as the amount of fuel used. Most recently, the Village purchased an infrared camera to help show residents where energy is escaping houses. This process is free of charge in order to create awareness of the amount of unnecessary energy that can escape a building.

Future Initiatives

The next objective of the Village of Lake Placid is to address the issue of residential energy use, especially for low income households. The residential buildings are aging and most are not insulated adequately. The Village, in partnership with NYPA, is hoping to insulate lower income households as part of its next energy conservation project. NYPA will fund the cost of the insulation project and the Village will repay the cost through IEEP funds.

Conclusion

The efforts made by the Village of Lake Placid are not well known and the actions taken by the municipality should be recognized. It is essential for people to understand what energy efficiency means especially in terms of the cost savings that can result from conserving energy. It is important to note, that although the Village has inexpensive electricity rates, it does not mean that they are wasting energy. The actions taken by the Village, especially the changes in the rate structure have ensured that consumers have an incentive to conserve energy.

ADKCAP

ADKCAP is a coalition of the Adirondack region's organizations and people, which is coordinating a region-wide plan to catalyze a rapid transition to an efficient, renewable energy and resilient, low-carbon economy in the Adirondacks. It is helping existing groups to think broadly, to build cross-sectoral partnerships, to access resources and to develop innovative, action-oriented solutions in this sector. It provides a comprehensive framework in which a broad set of actions and programs can be aggregated to achieve a common goal.

www.adkcap.org

Clean Air-Cool Planet

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