

Electric Rate Reduction Through Load Management

City of Southport's Electric Rates are designed to allow the customer to reduce their rates.

Since July 1st, 1996, the customer's electric rate is determined by how much the customer participates in helping to reduce the City's monthly "Peak Demands". The more a customer participates, the lower that customer's rate will be for ALL the electricity the customer uses.

The rate reductions are structured so that customers will receive the benefit of their actions regardless of their neighbor's actions. If a customer does not or cannot participate, their electric rate will reflect peak demand rates. However, with all the options available, *everyone* should find *some way* to participate and reduce their rate.

Rate reduction for Load Management is available for both residential and commercial customers. The rate reductions are tiered, based on the level of participation.

Rate reductions are offered for Load Management on the following major electrical appliances:

- A. Cycling (50%) Air Conditioning control on Heat Pumps during cooling season – CA/C**
- B. Water Heaters all year long – WH**
- C. Auxiliary (emergency) Heat Strips on Heat Pumps during heating season – HS**
- D. Total (100%) Control of Air Conditioning on Heat Pumps during cooling season – TA/C**

Detailed descriptions of these programs are located within this information packet. The available combinations of these programs and the resulting reduced rates for both Residential and Commercial customers are also included.

Because of the benefits customers will receive from lower electric rates, customers will be required to accept certain Responsibilities and Liabilities. Three basic requirements to which customers must agree to are also explained within this packet. Before receiving the lower rates, customers must sign a copy of the enclosed Agreement and return it to the Utility Office at City Hall or the Public Works office at the City Garage.

How to Participate in the Load Management Program

- 1. Carefully read the accompanying descriptions of the programs available. Decide which program(s) you wish to participate in, taking careful consideration to which program(s) you would be most comfortable with.**
- 2. Carefully read the Customer Requirements section included within this packet. If you have any questions, please contact the Utility Office Public Works 457-7935 or the Load Management office at Public Works 457-7938.**
- 3. Fill out a copy of the enclosed Agreement and return it to the Utility Office or Public Works.**

General Description of the Load Management Program

Load Management is a program that allows the Utility Provider to control electricity use at certain times to help avoid costly Peak Power Demands. A peak demand is when consumers try to use more electricity than the provider can supply. Power Generation plants running already at maximum must rely on auxiliary generation to supplement power to “The Grid”.

Peak demands occur in the summer or winter when temperatures are extreme or sustained. The highest demands are during the hours of 6 to 8 a.m. when people are getting up and ready for work, and from 4 to 6 p.m. when people are getting home and settling in for the night. This “Peak” amount of power used determines costs for power. When the peak goes up, so do the costs.

Description of Load Management Programs

Cycling Air Conditioning Control – CA/C

This program consists of cycling air conditioners during Load Management periods. Units will be off for 50% or *approximately* 15 minutes, *twice* every hour during load management. Only the compressor on the heat pump is switched off, so the circulatory fan inside the structure may continue to run during the off cycle.

This is the most tolerable of the air conditioning control through load management. Most participants are unaware that the unit is being controlled. It is estimated that on the hottest summer day during load management, the temperature inside only increases two to four degrees.

Total Air Conditioning Control – TA/C

Total Air Conditioning control is an expansion of the cycling air conditioning program. Instead of cycling units, 100% shed control shuts the units off completely during the peak period.

Also, unlike cycling air conditioning control, participants will fully notice when their air conditioning is being controlled. Under Total A/C control, units will be off from three hours or longer at a time during high temperature extremes. In some isolated cases, this may occur for many days in a summer month.

Participants under Total A/C often state that they are used to living without air conditioning or are not at home during the peak. Others willingly endure the inconvenience for the savings presented by the lower rate.

Description of Load Management Programs

Water Heater Control – WH

This program consists of turning off your electric water heater for the duration of the load management period. Customers with water heaters sized sufficiently for their family size and lifestyle, report they rarely if ever run out of hot water.

Water heaters are controlled 12 months of the year. During cold winter months, control is usually from 6-8 a.m. Control is usually from 4-6 p.m. during hot summer months and at various afternoon and evening hours during the beginning and ending months of summer. Occasionally during the spring and fall, control will be during both the morning and afternoon hours.

Heat Strip Control – HS

This program consists of turning off the auxiliary (emergency) Heat Strips in the Heat Pump during the load management period. In extremely cold weather, heat strips are used to provide additional heat when the efficiency of heat pumps decreases.

Heat strips are controlled during the heating season usually between 6-8 a.m.

As with all of the Load Management programs, switches are installed by a licensed electrician.

Customer Requirements for Rate Reduction through Load Management Control

A. Customer requests the LM switch or switches.

The City covers the cost of the switch and installation fee on new switches. In some instances, should a disconnected switch need to be reconnected, the City may charge a reconnection fee. Customers can request a switch be removed or deactivated but will lose the discount or credit.

The rates are based on yearly averages, but appliances are only controlled during certain seasons. It must be insured that the City has actually saved on the switch operation an amount equal to the savings the customer has received through the reduced rate.

For instance; the City only controls air conditioning during the summer months, but will give the customer credit all year long based on average savings. Customers can not be allowed to take the credit during the winter months when there are no real savings, and then have the switch removed at the beginning of the summer before the savings are realized.

B. Customers must accept responsibilities for insuring switches are not tampered with! For this rate structure to work, the LM switches must work properly. All that's required is that the City is notified within 2 days after a controlled appliance is serviced or replaced. We will inspect the switch to insure it is working properly. If it is discovered that the switch has been tampered with, the City will deal with the party who did the work on the appliance.

It is a VIOLATION of NC State Law to tamper with any Load Management Switch (G.S. 14-151.1). The City has a policy of randomly testing all LM switches. Customers must agree to allow City representatives to audit and inspect LM switches installed on your appliances. If a routine inspection finds switches that are tampered with (missing, not connected or opened and otherwise bypassed), without notification of work on the appliance, any savings granted that account for that switch for the previous 12 months will be billed to the customers electric account. Switch reconnection or replacement will be performed by a licensed electrician. The cost will be added to the customers account. If there are any customer questions concerning these requirements prior to signing the agreement, please call the Utility Office 457-7900 or Public Works 457-7935.

Smart Thermostat Control

Customer Participant Agreement through Smart Thermostat Load Management Pilot Program

Customer Eligibility Requirements:

The customer certifies that they have a compatible air conditioner, heat pump or electric furnace in good working order.

The customer agrees to maintain an active connection between their enrolled thermostat(s) through an Internet Service Provider through Wi-Fi connectivity.

The customer agrees to maintain an active electric account in order to keep the thermostat(s) and to continue their discounted rate.

The customer agrees to assist support personnel in resolving connectivity or other issues relevant to the smart thermostat program.

The customer agrees to participate in monthly thermostat controlled events just as they would agree to with traditional load management events.

Control Events:

The customer agrees to allow ecoBee, in coordination with the Power Agency to adjust the temperature setting up or down up to four degrees from the normal setting, or to temporarily cycle off the unit during monthly control events. A control event should last from two to four hours. The customer should expect normally three to five events in any one month, or more in months with extreme heat or cold.

The customer will receive event notifications on the thermostat screen and via email. The customer may opt out of any control event.

NOTE: If the customer opts out of EVERY control event in a given month, or they opt out of the monthly peak event twice in a 12 month period, they will forfeit their discount for the months they opt out and may be requested to return the thermostat.

Program Cost and Customer Compensation:

The City of Southport agrees to issue up to two ecoBee3 Lite or ecoBee4 thermostats to the electric customer that the customer may be compliant to receive the applicable load management discount.

The customer agrees to have the thermostat(s) installed at the customer's expense at the customer's electric service location within sixty (60) days after the customer takes possession of the thermostat(s).

Customer Ownership:

The customer certifies that he or she is the owner of the premises or has permission from the owner to participate in the smart thermostat program.

Indemnification:

The customer shall indemnify, defend and hold harmless the Power Agency or Electricities, City of Southport their affiliates, contractors, officers, directors, employees, agents, successors, assigns and representatives (collectively, the "Indemnified Parties") from and against any and all claims, damages, losses and expenses (including reasonable attorneys' fees and costs incurred to enforce this indemnity) arising out of the customer's participation in this agreement, except to the extent caused by the negligence or willful misconduct of any of the Indemnified Parties.

Warranty Disclaimer/Liability:

Except as expressly stated herein, The City of Southport makes no other representations, warranties or guarantees (including third-party warranties). In no event shall The City of Southport be liable to the customer for any special, indirect, incidental, penal, punitive or consequential damages of any nature in connection with the use of the customer's portal, equipment or participation in this program. To the fullest extent allowed by law and as part of the consideration for participation in this agreement, the customer waives and releases The City of Southport, its affiliates and their contractors, officers, directors, employees, agents, successors, assigns and representatives from all obligations (other than provision of the equipment) and for any and all liability or claims arising in connection with the equipment, the customer portal, or any work or service provided by City of Southport provided resulting customer agrees to look solely to the manufacture of the equipment.