

## SECTION SIX: ELECTRICAL EQUIPMENT

### LOAD MANAGEMENT

Load management is the process of reducing electric load from the City's electric system during periods of peak demand by the installation and use of load management switches on applicable appliances. The state of North Carolina has required that all electric utilities will comply with the Renewable Energy Portfolio Standards (REPS) starting January 1, 2008. Demand Side Management and Energy Efficiency programs are an integral part of the compliance with the REPS Program. In addition, load management is an effective method to control electric service rates by reducing the cost of service for our utility and increasing our utility efficiency. Customers with water heaters (30-gallon minimum and 240 volts), total electric heat pumps, electric furnaces, central air conditioners, or swimming pool pump motors (3/4 hp minimum) can apply by telephone, in person, or by mail for the Load Management Program. The City will install load management switches only where it is cost effective.

1. Effective January 1, 2009, participation in the Load Management Program on all applicable appliances is part of the qualifications for the Energy Efficient Residential Rate Schedule 07 with the corresponding 5% energy discount for all residential customers. In addition, load management is required on all new residential construction within the City to be served by the City of New Bern Electric Utility as a condition of electric service before a certificate of occupancy is issued. Provisions for the installation of load management switches shall be provided by the builder during the construction of the home and will be a requirement of the rough inspection. A minimum six-conductor thermostat control wire (18/6 AWG Solid Copper) will be required to be installed between air handlers and condensing units, where applicable, for the purpose of load management. Homes currently receiving a 5% discount will be grandfathered in, and customers will continue to receive a 5% energy efficiency discount with no change. If load management switches are installed in these grandfathered homes, then once installed, retaining the switches would be required to continue receiving the 5% discount. Existing homes applying for the 5% discount must be all electric and participate in the Load Management Program no later than January 1, 2009.

2. The term of participation in the Load Management Program is unlimited. If necessary, load management switches can be removed at the customer's request. If a request is made to the Utilities Department from a customer to discontinue participation in the Load Management Program, that customer will also no longer be able to receive the Energy Efficient Residential Rate Schedule 07, with its corresponding 5% energy discount. Refusal to participate in load management will also prohibit that customer from participating in the Appliance Rebate Program. For customers to retain the 5% energy efficiency discount rate, the home must be all electric (range-oven, heating, air conditioning, water heater, dryer) and meet the existing thermal requirements. If these conditions are not met, any appliance rebates that have been given will be charged back to the customer's electric account as explained in Item Seven of this section. When a switch is removed at the request of the customer and under the condition that the load management switch is returned to the City, switch credits will be paid through the switch

removal date. If a customer fails or refuses to return disconnected load management switches, or allow the reconnection of the switches, the customer will be charged the most recent purchase price for the load management switch on their electric account.

3. The load management switches will be installed by qualified, licensed personnel. These installers may be City employees or independent contractors approved by the City. The customer pays no installation costs and no ongoing maintenance costs. The City will provide inspections and maintenance at regular intervals. In the event that a licensed contractor is contacted to respond to a customer's business or residence for a problem with an appliance attached to a load management switch and the load management switch has caused the problem with the appliance, the City will reimburse the customer for the cost of the service call after the City verifies improper operation of the load management switch. The customer should call the City's Utility Control 24-hour manned number, 636-4070, if this particular situation occurs so that the City can check both the switch and the appliance operation at no charge to the customer. In the event that a contractor has misdiagnosed a problem with a customer's appliance as being due to the load management switch attached to the appliance, the City will not reimburse the customer for the service call, and any and all costs for the City personnel to respond and troubleshoot the appliance problem will be billed to the contractor initially called by the customer.

4. The customer's appliances should be accessible so that load management switches can be installed to operate satisfactorily. Switches will be installed on all applicable appliances if the customer has more than one such appliance at one address. The customer is required to provide City access to the load management switches for inspection, or testing, within 30 days from the date of the request to access the switches. If the customer refuses access to the load management switches, exceeding the 30-day period, the credits to the customer's account outlined in Section Seven of the Customer Service Policies will be stopped, and the details of Section Two of this policy will apply.

5. Bill credits are listed in the City's Fee Schedule, Section Seven. Credits will be posted against the normal monthly billing of a customer's account. The total credits of any monthly bill will not exceed 35% of the current monthly bill as calculated on the applicable schedule, exclusive of such credits, nor should the monthly bill be less than the basic facilities charge for the applicable schedule. Credits from closed accounts will be posted against other accounts the customer may have with the City before a check is issued to the customer. If the City fails to credit a customer's monthly bill, the error will be corrected with credit being given the customer from the date of the original error consistent with the City's billing adjustment policy.

6. Credits are issued to participating customers' electric accounts for the privilege of interrupting power to the controlled appliances for short periods of time during peak demand periods which occur each month. Credits are issued during the following specified months, although appliances may also be controlled for short periods of time in other months, if necessary, to reduce peak demand. Credits for water heaters will be issued monthly. Credits for central air conditioners will be issued in June, July, August, and September. Credits for swimming pool pump motors will be issued in June, July, August, and September. Credits for heat pumps and electric furnaces will be issued in December, January, February, and March.

7. Effective February 1, 1996, the City initiated its Residential Appliance Rebate Program for heat pumps and water heaters to reward customers for replacing their old and inefficient heating and air conditioning systems or water heaters with new energy efficient electric appliances. Effective with building permits issued on July 1, 2002, new construction will no longer be eligible for rebates. A rebate credit of \$100 per ton per unit for a maximum of \$400 is offered per central heat pump (minimum 14 SEER rating and at least one ton) for replacement units. This rebate applies to total electric heat pumps only; units which utilize gas or other fossil fuel in any way, including hybrid units, will not be eligible for a rebate regardless of SEER rating. A \$150 rebate credit is offered per high efficiency water heater (minimum 0.91 energy factor) for replacement units. Rebates are limited to heat pumps and water heaters that were installed within a period of one (1) year prior to submittal of the rebate application. Load management switches must be installed on these appliances. Customers must request a rebate credit for installing the energy efficient heat pumps and water heaters by completing a rebate request application and submitting the appropriate documentation to the City of New Bern. After the City approves a rebate request application, the rebate credit will be applied to the customer's electric account. If necessary, the load management switches can be removed from these appliances, but if the customer requests that the switches be removed within two years of the date that the rebate credit is issued, then the full amount of the rebate credit will be charged back to the customer's electric account. A request for switch removal after two years but within four years of the date that the rebate credit is issued will result in one-half of the rebate credit being charged back to the customer's electric account. A request for switch removal after four years from the date that the rebate credit is issued will result in none of the rebate credit being charged back to the customer's electric account. Any customer requesting that the switches be removed will no longer be eligible to participate in the Energy Efficient Residential Rate Schedule 07 with the corresponding 5% energy discount.

8. Effective February 1, 1996, the City initiated its 100% Air Conditioner Control Load Management Program for residential services. This voluntary program applies to central air conditioners, one-ton minimum. Under 100% control, an air conditioning system is completely turned off for the duration of every load management period. In return, the customer receives a 15% savings off their bill for all energy usage over 800 kWh that month. The 100% Air Conditioner Control Program is different than the standard 25% Cycling Program under which air conditioner compressors are turned off for only seven and a half minutes out of every half hour during load management periods. Customers should understand that their homes will get hot under 100% control but will quickly cool off after the load management period. While not for everyone, this program is an alternative to higher summer bills for some customers.

9. It is crucial that load management switches remain functional. Disconnecting, bypassing, or tampering with a load management switch in any way is theft of services and is illegal. Under North Carolina General Statutes 14-151-1, "It is unlawful for any unauthorized person to alter, bypass, interfere with, or cut off any load management device, equipment, or system which has been installed by the electricity supplier for the purpose of limiting the use of electricity at peak-load periods, provided, however, if there has been a written request to remove the load management device, equipment, or system to the electric supplier and the electric supplier has not removed the device within two working days, there shall be no violation of this section." If

the City finds that a load management switch has been made inoperable by an unauthorized person, an investigation will commence resulting in an investigation charge of up to \$1000. After a review of the circumstances, the City's theft of services investigator may call for prosecution. A chargeback will also be made to the customer's account for a minimum of one year. If the customer can provide written documentation from a licensed contractor verifying a specific date when the switch was disconnected, the chargeback will begin from that date or minimum of one year if no documentation is provided. If damage to switches is deliberate, the customer will also pay for new switches, at the most recent purchase cost, plus installation charges. The City's load management switches are clearly labeled. If it becomes necessary to disconnect a switch for appliance repair or change out, simply call Electric Utilities 24-hour manned phone number, 636-4070. We will make a record of your call and authorize you to disconnect the load management switch. After the appliance repair or changeout is completed, we will reconnect and test the switch for proper operation. If a customer fails or refuses to return disconnected load management switches, or allow the reconnection of the switches, the customer will be charged the most recent purchase price for the load management switch on their electric account.

SECTION SEVEN:  
FEES AND CHARGES

LOAD MANAGEMENT CREDITS

Water heaters	\$5.00 per unit per month from January - December
Central air conditioners Heat pumps, water source heat pumps	\$5.00 per unit per month from June - September
Heat pump strips, electric furnaces	\$5.00 per home per month December and March \$10.00 per home per month January and February
Water source heat pumps	\$5.00 per home per month from December - March
Swimming pool pumps	\$4.00 per home per month from June - September
100 % air conditioner control	15 % savings off energy usage above 800 kWh per month from June - September
14 SEER heat pump rebate	\$100 per ton, per unit, with a maximum of \$400 for replacement units only
0.91 EF water heater rebate	\$150 per unit for replacement units