



YOUR UTILITY RATE SPECIALISTS
 Editor: Brian W. Coughlan, PE
 BSEE, MSEE, MBA, CEM, CEA, CEP, CDSM
 President of UMS



POWER NOTES - DUKE ENERGY PROGRESS EDITION

SPRING 2015 ISSUE - POWER NOTES
 FALLOUT FROM DUKE COAL ASH SPILLS...PAGE 1
 SAVE MONEY AT HOME.....PAGE 1
 ELECTRIC BILL FUNDAMENTALS...PAGE 2

FALLOUT FROM DUKE COAL ASH SPILLS

In February 2014, a leak at a Duke Energy coal ash pond caused 78 million pounds of coal ash to spill into the Dan River in North Carolina; polluting 70 miles of the river. Coal ash is a by-product of burning coal in coal-fired power plants. Coal ash contains mercury, lead and arsenic.

Duke has been criminally charged by federal prosecutors for nine violations of the Clean Water Act. These charges are associated with illegal coal ash dumping from five Duke locations since 2010.

Duke has accepted responsibility and agreed to pay \$102 million in federal fines, restitution and community service projects. In addition, Duke was fined \$25 million by the state of North Carolina; the largest environmental fine imposed in state history.

Leaks from Duke Energy coal ash ponds are occurring as you read this. Duke filed a report indentifying 200 seeps at NC power plants in December. Seeps at two plants are leaking almost 1 million gallons per day. The same report identified six plants where the seeps had up to 140 times the allowable level of arsenic.

Duke has approximately 300 billion pounds of coal ash stored across 4,500 acres of ash dumps. Plans are being developed to clean up these dumps.

The good news is that Duke is being held accountable for the pollution and our rivers will be made cleaner going forward.

The bad news is that clean-up may cost anywhere from \$3 billion to \$10 billion. This will be passed to customers in the form of higher electric rates for years. This will significantly increase electric rates for Duke Energy Progress customers in North Carolina.

SAVE MONEY AT HOME

The vast majority of Duke Energy Progress residential customers in North Carolina are being served under Schedule RES-Residential Service. For about 50% of those customers, their electric bill could be reduced if they were to switch to the Schedule R-TOU – Residential Service – Time Of Use.

If your average bill at home is more than \$125/month, we suggest you consider receiving service under the R-TOU rate. Many customers can save money on this rate without making any change in their operations.

Schedule R-TOU includes a peak demand charge, a higher charge for energy used during on-peak periods, a moderate amount for energy used during “shoulder” periods and a very low amount used during off-peak periods.

For service used during April, the following charges apply:

	Schedule RES	Schedule R-TOU	Hours
All kWh	\$.09635/kWh		All Hours
On-Peak kWh		\$.21343/kWh	1:00 PM thru 6:00 PM- Monday thru Friday only
Shoulder kWh		\$.11381/kWh	11:00 AM thru 1:00 PM & 6:00 PM thru 8:00 PM Monday thru Friday only
Off-Peak kWh		\$.06943/kWh (28% lower than Schedule RES)	All other hours and all weekend hours (73% of all hours)

If you are at work or school during the weekdays you will likely do well on R-TOU. Also, running your dishwasher and washing and drying your clothes during off-peak hours can create a lot of savings.



Electric Bill Fundamentals

The electric bill for most commercial customers includes:

- Basic Customer Charge (BCC)
- Demand Charge
- Energy Charge

Understanding these can help you minimize your electric bills.

Basic Customer Charge (BCC)

The BCC is a fixed charge for the basic facilities and services for the average customer in that rate class. This includes the transformer, wires between the transformer and the customer, right of way clearing and maintenance for those wires, the meter, meter reading and printing/mailling bills.

Depending on the size of the customers on a particular rate, the BCC can range from less than \$10/month to more than \$1,000/month. For most customers, the BCC is insignificant.

Customers must pay the BCC on all active electric accounts whether or not they use electricity through the account. If you have accounts that are expected to not use electricity for an extended period, you should consider having the service disconnected on those accounts to avoid paying the BCC. Be advised that an electrical inspection and reconnection charge may be required to reestablish service at the facilities.

Demand Charge

The demand charge is based on the peak 15 minute or 30 minute (depending on your provider) average consumption of electricity. It is measured in kiloWatts (kW). Ten 100 Watt light bulbs running at the same time have a demand of 1,000 Watts, or 1 kW.

The demand charge reimburses the utility for the capital investments they make in their system plus a profit margin. Capital investments include the cost of power plants, transmission systems, distribution systems, right of way clearing and maintenance, vehicles, buildings and other fixed assets.

The demand charge can be up to 50% or more of a commercial customer's total bill. The demand charge can range from \$0/KW (for smaller customers) to \$18/KW or more.

Instead of running all equipment at the same time, stagger startup times to reduce peak demand which can ultimately lower the demand charge.

For example, if you have multiple air conditioning units, it is best to start some of them and allow the space to achieve the desired temperature. Afterwards, startup the remaining units. This will avoid having all air conditioning units running at full load for an entire 15 or 30 minute demand interval.

Energy Charge

The energy charge is based on the demand in KW multiplied by the running time for the equipment in hours. Energy is measured in kiloWatt hours (kWh). For example, a 1,000 Watt (1 kW) space heater running uninterrupted for 5 hours will consume 5 kWh.

The energy charge reimburses the utility for the fuel, operating and maintenance costs associated with service customers. This includes coal, labor, and many other routine expenses associated with running a business. The energy charge can range from less than \$.01/kWh to more than \$.15/kWh. Customers paying less than \$500/month often pay no demand charge but a very high energy charge.

The amount of energy consumed and the associated energy charge is a function of the amount of equipment a customer has and the number of hours the equipment is operated. Customers can reduce their energy costs by reducing the number of hours their equipment runs. For example, shutting off as many lights as possible before leaving for the day can reduce your energy consumption.

REMINDER: Replace your air filters!

Utility Management Services, Inc.

6317 Oleander Drive, Suite C
Wilmington, NC 28403
888.867.3230

www.UtilManagement.com

Payments ONLY to:
PO Box 890134, Charlotte, NC 28289