About the Environmental Finance Center:
The EFC at UNC is dedicated to enhancing the ability of governments and other organizations to provide environmental programs and services in an effective and financially sustainable ways, working with decision makers to assess the effectiveness of environmental finance policies at a regional or state level, and to improve those policies as a way of supporting local efforts. 

How you PAY for it matters.

Rate Comparison Tab
This comparative review of the pricing and rate structures electric utilities used in 2011 for residential customers in North Carolina includes information from all investor-owned utilities (IOUs) and the majority of municipal utilities and electric cooperatives. Financial operations data was collected from the North Carolina Cooperative System, Social Security Administration, and the Energy Information Agency. The price and rate data was taken from the utility's 2011 rate sheets. Thus, the affordability of the electric utility billing was as of May. Finally, using the GIC audit and the Energy Information Agency’s Residential Electricity Rates Dashboard, financial sustainability was assessed using the operating margin of the utilities and their combined monthly-equivalent bill, as well as the median operating margins as compared to the median bill at 1,000 kWh per month.

Who’s who among NC Electric Utilities:
- Municipal utilities fall under the North Carolina Public Utility Commission organization and, for the most part, utilize the services of billing, customer service, training, communications, government affairs, and legal services.
- Electric cooperatives, which are private, independent, and non-profit entities, provide service to rural areas in NC. Cooperatives are owned by their members, who elect their board, but the majority are themselves members of Touchstone Energy.
- Municipalities and Co-ops often have power-purchase-agreements with investor-owned utilities to purchase electricity, so rates may vary.

Rate Structures:
Electric utilities employ a range of rate structures to determine what their customers pay. All utilities in North Carolina use a combination of a base service fee and a variable charge in their rate structures, to account for fixed (salaries, operations) and variable (power purchases, maintenance) costs.

Base Charges:
Base service charges do not vary from month to month (other than, rarely, for seasonality or consumption level) and, thus, contribute to a utility’s revenue stability.

Seasonal Rates:
Electric utility billing is linked to changes in temperature. It is common to have different rates during different seasons of the year. Two trends are a peak in winter as a higher peak in summer, due to heating and cooling requirements. In North Carolina there is a smaller number of utilities charge seasonal rates; all others charge them, as a majority of customers face seasonal rates.

Uniform and decreasing block structures are the most common or decreasing block decreases or increases according to the size of the block. In the cold season, we see an increase in the number of utilities with a decreasing block, likely implemented to increase the base service fee as a revenue stabilization.

The median bill for investor-owned utilities is significantly lower than for municipal and cooperative utilities. Part of the explanation is likely explained by the economies of scale that are at work as larger investor-owned utilities spread their costs, particularly high fixed costs, over much larger customer bases.

Moving Forward:
For a future rates and pricing survey of North Carolina Utilities, it might be interesting to look at the relationship between the financial sustainability of the utilities and the structure of their rates, as well as do a little more analysis as to how the structures impact both the utilities and the consumer financial well being. This may result in seeing that a poorer municipality needs a certain structure while a larger coop in a major city would want one. As such, it is important to note that about 1/3 have operating margins below zero, indicating that there are municipalities that use bills that cost more exceeding median bill.

A tool to help visualize the breakdown of the bill:
This dashboard provides insight as to why such a large amount of the utilities use a decreasing block rate structure. For example, a poorer municipality needs a certain structure while a larger coop in a major city would want nothing to see its costs exceed its median bill.

Characteristics Tab
Looking at Morganton, we see a range of special case characteristics, rates, and other bill additions.

- The bill is below the average, but still in the top 50%.
- The price per kWh in the 25-50 percentile range, meaning that consumers should be well aware of their usage to ensure they are not using too much.
- This is a base flat charge for the rate, and is a way to ensure that the base fee is not overcharged.
- The total annual bill was typically between 2 and 3.5 times the median bill.
- The size of the blocks varies, but the majority seen here in the warm and cold seasons have their first block in the 300 kWh range.

Riders:
In addition to charges for electricity service, many utilities charge for priority must-serve, emergency, and other bill additions.

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