## The Price of Power

Not every kilowatt-hour of electricity is created equally. Some kilowatthours cost more to make than others. There are reasons for that, including the kind of fuel that generates the electricity. But a big factor is when people use it.

- Did you know it costs much more to make electricity in the middle of a heat wave than on a mild spring day? Most people don't because every kilowatt-hour has cost consumers the same, no matter when it was made or used.
- As more electricity is used, the cost of producing it also rises. Providers also may have to buy more expensive power from other companies to supplement their supply.
- TVA and local power companies have begun a gradual transition to pricing that reflects the changing cost of electricity during different seasons and different times of day. Many utilities across the nation also have begun this process.
- The chart below shows the mix of generation sources needed to supply power across the Tennessee Valley region on a hot summer day. The quick start natural gas plants, which are typically used during peak demand times, are by far the most expensive to operate.





## **Bigger Demand = Higher Cost**





- Over time, peak demand has grown faster than the growth of everyday power requirements. That means more generators designed to meet peak demand must be built.
- Peak demand occurs at predictable times of the day and year like summer afternoons when many people return home from work and turn on the lights and air conditioning, or on winter mornings when the heat is turned up while people get ready for work or school.



- The peak demand hours on the TVA power system occur in the afternoons and evenings of summer (June-September) and early to mid-mornings of winter (December-March).
- In April 2011, TVA transitioned to billing that better reflects these high demand, high-cool periods. Some local power companies adopted prices that change with the seasons, called seasonal demand and energy pricing. Others adopted time-of-use pricing that changes with the hours as well as the seasons.
- The new pricing structures are not designed to create additional revenue to local power companies, or to TVA, which makes no profits.
- Time-of-use pricing for consumers will become more common as new meters that can track hourly changes in a consumer's electricity use become available. This will allow consumers to make decisions about when they can use less-expensive power to lower their bills.
- Finding and implementing ways to lower peak demand on the power system will reduce the need for expensive new power plants and keep costs low for everyone.