

# The Red, Blue & Green



## Part One: Why We Shop For New Sources Of Power

Everyone knows that the EPB is shopping for a new supply of electric power for Glasgow's future. Our present contract for power from TVA will expire December 1, 2008. While there has been continuing sporadic news coverage about our shopping trip, it seems wise for me to commence a detailed explanation of why we are shopping and what we hope to accomplish. It is certain that this subject cannot be covered in one edition of this newsletter, so this might go on for a few months. As we discuss this, it will also become clear that a lot of our decisions in



William J. Ray  
[wray@glasgow-ky.com](mailto:wray@glasgow-ky.com)  
659.3507 (direct)

this shopping venture need to be based upon our net community belief in what the future holds for energy supply for Glasgow, for Kentucky, and for North America in general. It is hoped that this discussion will cause you to ponder your beliefs and that you will share them with us as we shop. After all, what can one really accomplish at the market without a good shopping list?

*For the last 44 years we have been dining at the TVA buffet line.*

First of all we need to understand the nature of the electric power we presently consume and are likely to need tomorrow. For the last 44 years we have been dining at the TVA buffet line. Now, the TVA "market" has not been a bad place to shop. To the contrary, we have been able to purchase some very delicious power from them over the years, but, of late, it has become expensive and not very good for our health or our nation's.

"How is that?", you ask. Well, TVA was created by Franklin Roosevelt, Senator George Norris, and FDR's jolly band of New Dealers back in the Great Depression of the mid-30's. In the beginning TVA was an elegant idea. FDR and company wanted to use a public corporation to break the private utilities' monopoly on electric power which resulted in spotty availability and high costs for electricity in the 30's. TVA was to be "a corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise."

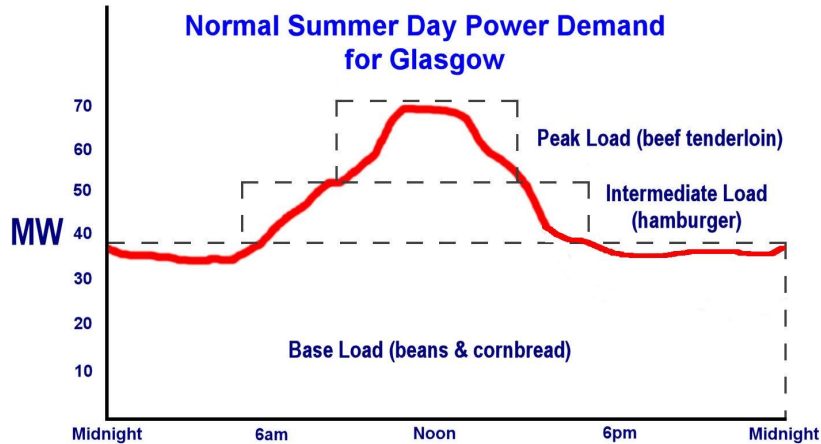
The idea of TVA was a great one and it worked very well to democratize electric power. In fact, in some ways it worked too well. By the 60's demand for electric power to serve our growing economy was increasing by leaps and bounds. Soon, TVA was building many new generation plants just to keep up with the demand for electricity. With the discovery of ways to utilize nuclear fission to produce steam and thus electric power, many thought that its production would be so cheap and plentiful that electricity would become a limitless resource. Unfortunately they were wrong about that. Even worse, TVA took another couple of decades to come to that conclusion.

In the 70's TVA began to plan for a dizzying number of nuclear reactors to supply the rapidly increasing demand for power. After they spent many, many billions of dollars in that pursuit, the OPEC oil embargo, and the resulting deep economic recession brought about sharp increases in the cost of all energy and depressed the demand for electric power. As a result, TVA chose to cancel most of the reactors they had started. So, they invested all of that money in building nuclear reactors that never actually produced any electric power. Of course, someone still has to pay for those mistakes and the only choice for TVA was to pass it along to its customers. In other words, things got very expensive at the market.

In the 80's TVA management hit upon a novel idea for keeping their customers happily shopping at the TVA market. They decided to give their customers an incentive to buy more power! Since TVA still had excess electric power capacity from the few new nuclear units that did get completed, they came up with a plan to sell the power produced by their excess generation capacity by simplifying their wholesale rates. They decided to break with the power pricing strategy used by every other utility in North America by turning their back on the idea of charging their customers for power depending on the highest peak demand for the month, instead, they adopted the "all you can eat buffet" concept for the energy market . . . and it worked. A few years after TVA adopted their new wholesale rate plan they had completely sold up their excess capacity, but by then the wholesale customers had become so addicted to the buffet, TVA decided to keep selling energy as if they had excess capacity, even though they do not have that capacity. That's right, even though they are now short on capacity, they still sell energy as if there is an infinite supply. This hurts everyone and it makes us very afraid of their capacity to deliver this sort of

all-you-can-eat buffet over the long term. You can see what it has done to our waistline.

The graphic represents the electric power consumption during a typical 24 hour period in Glasgow. It also shows the three different products one always finds for sale in the electric power marketplace. The most plentiful and lowest cost product in the marketplace is "base load." This is the power product that one buys 24 hours a day, seven days a week. It is the amount of power that the community uses all of the time, without fail. Comparing it to food in a grocery store, base load power would be like beans and cornbread. It is relatively cheap and widely available in great quantity.



*MW stands for megawatts. A megawatt is equal to about 1000 toasters. Glasgow's total system load runs from about 40 to 80 MW each day.*

The "intermediate" product is needed by a community like Glasgow several hours per day, five days per week (in the summer at least). Using our grocery store analogy, intermediate power is like hamburger and potatoes and it should be priced accordingly compared to the very low cost of base load power.

Finally, "peak" power is needed for only a few hours per day, but it is needed at the same time that everyone else is using power. Thus, it is the expensive beef tenderloin, lobster tail, and pecan pie of the power buffet. Everywhere else in the country, this power is priced like lobster tail and beef tenderloin, but TVA has been selling it all for the same price as beans. So, our customers have been

eating a lot of beef tenderloin and lobster tail at great detriment to our load shape and our prospects for future energy costs. This is what scares us about TVA.

So, to summarize, we are shopping because TVA's rates have now gotten too high and they seem to be headed higher. The likelihood of TVA's future rate increases is based in their need to pay for canceled nuclear power plants and the need to continue the construction of new generation facilities which will be required as a result of their incredibly strange dedication to an all-you-can-eat pricing strategy. This pricing strategy results in dramatically high peak demands and costs to meet those demands.

Now that we understand the underlying reason for our decision to shop, we can start working on our shopping list. In other words, what is it that we want to buy for the 2009-2029 period? This question cannot be answered unless we establish what we think

the world will be like during those years. How many people are we going to be feeding? What is available at the market now and what will be available in 2020? What changes will occur in the natural gas, oil, gasoline, and other energy markets and how will those changes affect our shopping list? These are the questions we are pondering on your behalf.

**Billy Ray**  
**659-3507 direct dial phone**  
**e-mail [wray@glasgow-ky.com](mailto:wray@glasgow-ky.com)**  
**And, I'm on SightSpeed at**  
**<http://billy-ray.sightspeed.com...>**

**Feel free to use any of these means to contact me with any questions or comments!**



**Did you know you can now receive your bill by e-bill, and save \$1.00 each month? Even better, you can sign up for e-bill together with E-Z Pay and never worry about missing another due date! Just go to <http://www.glasgow-ky.com/eregister/> to sign up or call us at 651-8341 to learn more!**

**CHECK OUT OUR WEBSITE AT [WWW.GLASGOW-KY.COM](http://WWW.GLASGOW-KY.COM)**

