

## Notice to students enrolled in ECON 4333

This document was prepared by Dr. Bill Belovicz. Dr. Belovicz served as Chief Economist to the Arkansas Public Service Commission for 9 years. He served as a visiting faculty member at Arkansas State University in the Spring semester of 2001. Dr. Belovicz prepared this document to give students enrolled in Government Regulation of Business an overview of deregulation (or what Dr. Belovicz terms "re-regulation") in the electric utility industry.

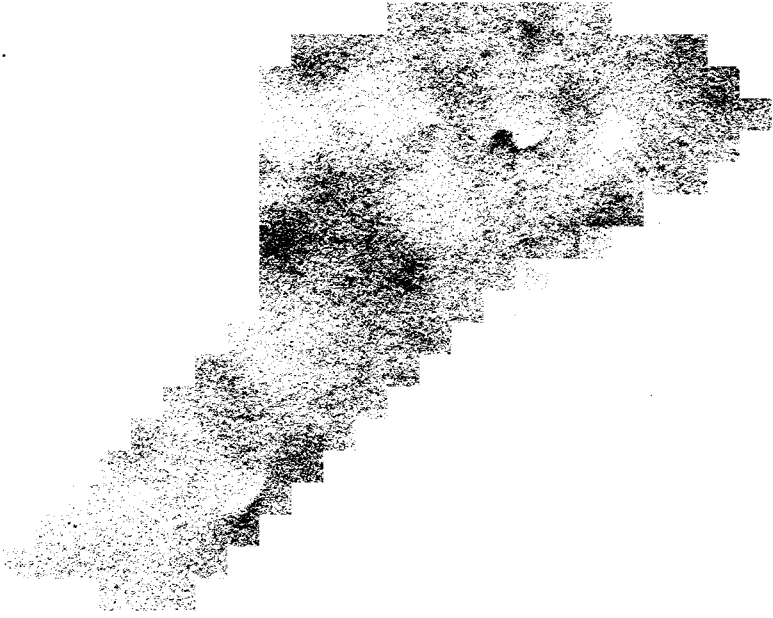
Be advised that Dr. Belovicz participated in a chat/virtual classroom with students on April 11, 2001. You can read this chat at the Blackboard web (go the virtual classroom archives).

Electric - Regulation- To Deregulation (Reregulation)- To ?????

Characteristic or Issue	Regulated	Deregulated - Competitive Goals
Service Territory	Allocated by State Regulatory Body	Compete for customers for energy element, and other services declared competitive.
Structure of Industry	<p>Generation, transmission, distribution, billing, customer service, etc. vertically integrated within jurisdiction. Investor Owned Utilities operate control centers. Regional cooperation accomplished through Power Pools. Also to some degree between state jurisdictions. Transmission regulated by the Federal Energy Regulatory Commission (FERC).</p>	<p>Generation, transmission, and distribution separated. Goal is to make generation competitive. Transmission still regulated by FERC, but new forms of regional transmission control developing. The California Independent System Operator (ISO) is one example. Distribution and other services not declared competitive still regulated by state.</p>
Rate Determination	<p>Revenue Requirement model which is an effort to simulate competitive pricing. The model is Revenue Requirement = Rate Base * Allowable Rate of Return + Expenses, developed from a weather normalized test year. The overall revenue requirement is then allocated to the different rate classes. Variances from these tariffs are treated as special contracts or newly adjusted tariffs requiring state regulatory body approval. This model applies to the <b>nonenergy</b> portion of the bill. Energy costs are "passed through" to the end user. State regulatory body approves investment and policies which affect energy costs.</p>	<p>Revenue Requirement model applies to distribution and other noncompetitive service expenses. Transmission component would be dependent on form of transmission coordination. Energy becomes competitive.</p>

Stranded Cost	When state regulatory bodies approved investment ,e.g., a nuclear plant, they authorized rates which would be expected to recover costs under normal circumstances. This is referred to as the Regulatory Compact.	Deregulation would require separation of the generation, transmission, and distribution components. Divestiture of generation (or transmission) could result in unrecovered costs at the time of divestiture. This is referred to as stranded costs. How do you make the utility whole if you accept the Regulatory Compact concept? Auctions, appraisal, and market studies are several approaches.
Market Power	Not an issue since regulated.	Effective competition requires that no party be able to manipulate the market, controlling the price and quantity outcomes. Should the distribution utility be allowed to own any generation? What rules should govern their relationship with affiliated companies? How do you measure market power? This issue currently at core of California arguments.
Price effects on states	Wide variation in rates paid by state. Because of state jurisdiction states and regions tended to "keep" their own energy or import under other determined market conditions. The Northwest had low cost hydro. Eastern state had higher costs of production. Arkansas was about average for the country.	Would expect prices to tend to equalize within constraint of transmission and other transactions costs.
Opportunities and risks for large users	Required individual treatment through rate case or variance.	Use market. While not necessarily knowledgeable about the energy market, may have some experience in financial and other commodity markets. Conversant with risk issues. Can hedge and do forward planning. Often have a fairly constant rate of energy use over the day and year. Referred to as a high "load factor". Similar to load factor for airlines which is the average percent of plane capacity actually booked.

<p>Opportunities and risks for small users.</p>	<p>Price taker with no options other than amount of energy consumed. Don't know the energy component cost until bill arrives. Stability important.</p>	<p>Can expect to receive offers pretty much as we now do for telecommunications. The Ohio Public Utility Commission has a web site for comparing gas prices which they have deregulated. The site is called Apples-to-Apples. Consumers can lock in the energy rate for one or two years, or choose a variable market price. Several companies have developed programs with which consumers can receive a <b>guaranteed total annual bill</b> which is independent of weather fluctuation. Consumer education is a major issue in this area.</p>
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California

Required that their investor owned utilities auction off their generation. Put a price cap on generation (energy) which guaranteed a 10 percent reduction in residential bills. Average California residential bill had been \$50 to \$60. Has refuse to approve plant additions for about 10 years. Put cap on wholesale prices utilities could pay for imported energy which was below market. In the last year denied a request by PG&E (I think) to increase their future purchases of energy at a fixed price. Recently used an Emergency Powers Act to confiscate relatively low priced fixed price contracts from investor owned utilities. This was done to allow the state to purchase energy at less than the current market. Market power issues have been raised (and several inquiries conducted and ongoing) regarding generator owners withholding power to manipulate prices. ISO establishes price with the following rule: all transactions conducted during an hour will clear at the price of the last transaction for that hour. During the last week the California Legislature and the Utility Commission have recommended residential rate increases totaling 65 percent. They are in the process of determining how quickly to phase them in.