

The History of Economic Thought Surrounding the Public Utility Holding Company Act of 1935

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This paper answers the question, what was the history of economic thought surrounding the Public Utility Holding Company Act? More specifically, how did it come about; what problems did it solve? What was the mood of the country and was it a threat to the laissez-faire government-business relationship? What economic theory was applied to rationalize the radical restructuring of public utility ownership in the mid 1930s?

William H. Emmons, III, discusses the contributions of Franklin D. Roosevelt's New Deal on the electric utility industry, specifically its impact on competition. Roosevelt's policies toward electric utilities forced them to compete directly and indirectly. Emmons' research finds statistical evidence that Roosevelt's pro-competition policies actually produced better results than the traditional "natural monopoly"¹ method of regulating electric utilities.²

During the 1932 presidential campaign, Franklin D. Roosevelt targeted U.S. investor-owned electric utility industry for abusing ratepayers and "slowing national economic development through monopoly pricing practices, facilitated by ineffective state-level regulation." As the nominee for the Democratic Party, he denounced the growth of economic power, political influence, and alleged financial abuses of utility holding companies, which then owned more than 75% of total electricity generating capacity in the United States. Roosevelt promised a solution to what he called the "utility problem." The solution was New Deal legislation, which was designed to pay for major federal power projects, support municipal competition as a viable threat, and dismember holding companies.³

Roosevelt was no stranger to conflicts with the power crowd. As Governor of New York, Roosevelt swept to victory on a referendum to begin a public power project on the St. Lawrence River. For fifteen years, New York's Republican legislature had been controlled by members supported by the private investor-owned utility companies. They finally surrendered to Governor Roosevelt, granting him authority to commission

a study to gauge the feasibility of a state-owned water power development on the St. Lawrence⁴.

Candidates in the elections across the country were frequently divided into two groups: pro-public or pro-private development. There were many examples of pro-public development candidates defeating their opponents in Oregon, Washington, Nebraska, New York, and Wisconsin.⁵

Electricity Industry 1882 to 1932

From 1882 to 1932, electricity production and consumption grew considerably. The electricity industry in the United States began its life as a novel luxury service to a few wealthy customers growing to \$12.7 billion in capital assets and equipment by 1932, providing service to approximately 25 million customers. From 1902 to 1932, the growth of electricity output was 12.2% compounded annually, compared to the growth of GNP during the same period of only 1.7% per year.⁶

In the late 1880s and 1890s, technological limitations supported competition. Most utilities were using Thomas Edison's direct current (DC) systems which limited distribution to about one mile surrounding the generation site. Municipalities could grant exclusive rights to electric utility companies to serve all territories. Exclusivity would never need to be enforced because technology so limited the distribution. Companies simply could not physically reach all customers, and, more importantly, one another's customers. In many cases, municipalities granted general franchises to any company aspiring to supply electricity.⁷

Structure and Regulation

Beginning in the 1900s, advances in technology permitted companies to generate more electricity and transmit it further using alternating current (AC). Suddenly, companies were able to reach into the unrestricted territories and compete with one another. This competition was not necessarily beneficial to a company's bottom line. Competition would drive prices down, although costs to produce electricity were relatively steady. The decreases in revenue were incentive enough for companies to start consolidating⁸ and selling to new customers.

New developments in business, namely the corporation, gave businesses a new means to organize in the form of corporations. The corporation was modern mechanism designed to coordinate existing assets. The late nineteenth century saw a rise of excess production capacity, in all industries including the electricity industry, resulting in destructive pricing

¹ A natural monopoly is a monopoly that exists because a market can be better served by one large company (who does not have to compete with other firms) than by many smaller competitive firms. This large firm becomes a monopoly producer "naturally," because no small firm can achieve the same efficiencies production, and thus lower operating costs.

² William M. Emmons III, "Franklin D. Roosevelt, Electric Utilities, and the Power of Competition," *The Journal of Economic History* 53, no. 4 (Dec. 1993): 881.

³ *Ibid.*, 882.

⁴ *Ibid.*, 885.

⁵ F. G. Crawford, "Public Power Control—Discussion," *The American Economic Review* 21, no. 1 (Mar. 1931): 260-261.

⁶ Emmons, "Franklin D. Roosevelt," 882.

⁷ *Ibid.*

⁸ *Ibid.*

competition. Individual firms had used retained earnings to invest in new technologies, which they then used to create larger markets, which ultimately caused excess capacity. The old solution for companies finding themselves in this state was bankruptcy and liquidation of individual firms.

The evolution of corporate laws made corporations more attractive to businesses. In 1896, New Jersey, in an effort to attract businesses to the state, changed their laws to allow corporations to use shares to acquire shares of other corporations. The key attraction was that corporations set the value of the shares used to buy other shares, effectively enabling the corporation to pay nearly any price because they valued their own currency. This feature was so attractive that between 1895 and 1904, 400 corporations were created from 3,000 constituent firms combined primarily through equity swaps. The newly created companies comprised the assets of former competitors.⁹

Manufacturing and industry primarily used gas- or oil-powered engines and equipment. It was difficult to sell electricity to such firms because DC current had been less reliable and could only be supplied over short distances. Electricity companies had to assure quality continuous electric service before they could promote themselves as a feasible alternative to gas or oil. Alternating current technology made it possible for generating stations to connect to one another. Electricity providers could connect to each other, and most importantly, redirect supplies in the event of electricity supply failures. Industry could now count on reliable power supplied by companies who could assist each other in the event of an emergency.¹⁰

When AC electricity distribution made it possible for power companies to compete *and* cooperate with each other, mergers became quite common. Actually, mass mergers were occurring in the largest markets. With the increase in concentration in these large markets came increased attention from politicians. They pushed for the establishment of state-run regulatory commissions for reform. These commissions negotiated regulation in exchange for monopoly franchises granted to electricity utilities. Theoretically, consumers would be protected from monopoly pricing and guaranteed a reasonable quality of service. Companies would be protected from destructive competition. By the early 1930s, thirty-seven states had commission-based regulation of their electric utilities.¹¹

This time period also revealed a substantial problem facing electric utility companies. With the rapid expansion of markets, companies needed greater investment in production and distribution facilities. Interest rates

⁹ Eric R. Hake, "Capital and the Modern Corporation," in J.T. Knoedler, R.E. Prash & D.P. Champlin, eds., "Thorstein Veblin and the Revival of Free Market Capitalism" (Massachusetts: Edward Elgar, 2007), 40-41.

¹⁰ C.O. Ruggles, "Regulation of Electric Light and Power Utilities," *The American Economic Review* 19, no. 1 (March 1929): 179-180.

¹¹ Emmons, "Franklin D. Roosevelt," 882.

for borrowed capital were high and many companies simply could not finance new development, especially in rural or "marginal" areas.¹²

Holding companies were a solution to financing and organization problems. In the late 1890s changes in state laws had opened doors for new forms of business organization and capitalization. In 1893, New Jersey changed its laws to allow for corporations to use shares to acquire shares of other corporations. In 1896, this law was "extended with the provision that the director's valuation of assets acquired would be accepted, except in the case of fraud." States including Delaware, Pennsylvania, and New York made similar adjustments to their corporate laws but not as extensively as New Jersey.¹³

The rapid expansion of the electricity industry got the attention of economist C. O. Ruggles, of Harvard University, which was a stronghold of classical economics. Ruggles wrote that the proposed regulation of public utility companies was subject to two extreme views. One view was that the state regulatory commissions had failed. The other was that the commissions had done an adequate job regulating and there was no need for intervention on a federal level.

According to Ruggles, there was no rhyme or reason to the arrangements of state commissions. They were ideal examples of uniformity and haphazardness. There was no uniformity to the type of problems that confronted the commissions individually, but almost all comprised three members. The commissions were, however, uniformly understaffed, underpaid, and inexperienced. In some cases, jurisdictional issues circumscribed their power, an issue that would be resolved by federal-level regulation. Ruggles concluded that state commissions had to be strengthened *and* that a federal system of regulation should be organized, one over which states would have no jurisdiction. Regulation on state and federal levels would encourage initiative in management and give some free reign. He wrote that

both operating companies and parent organizations should be held responsible for results and allowed a rate of return in accordance with the contributions which they make toward efficiency in management and toward the maintenance of satisfactory service.¹⁴

State commissions were often unable to enforce competition. In Crisp County, Georgia, when a publicly owned utility began supplying electricity to county residents, it did so at prices 10-15% lower than the investor-owned Georgia Power Company serving the same area. Shortly after the

¹² W.S. Nelson, "The Private Companies and a Public-Power Paradox," *The Business History Review* 35, no. 4 (Winter 1961): 537.

¹³ Hake, "Capital and the Modern Corporation," 40.

¹⁴ Ruggles, "Regulation of Electric Light and Power Utilities," 185.

new utility opened, it ran full-page ads in local newspapers announcing it was slashing its rates by 50%. Georgia Power Company accused the public utility of “unfair competition” but the state utility commission ordered Georgia Power Company to “show cause why it should not reduce rates by the same percentage all over Georgia.” The company was able to circumvent the instruction by winning a court injunction to prevent the new rates.¹⁵

According to Crawford, there was too much variation in state commission laws and authority. In 1930, in at least sixteen states, local-rule over utilities was subject to state authority and approval. Some states’ laws already favored municipality rights. In Ohio, Illinois, and Colorado, cities or municipalities had the right to buy, build, and operate utilities in competition with investor-owned firms. Despite the few states with working utility commissions and laws, too many were virtually defunct. Federal-level laws would be the only uniform solution.¹⁶

Ownership and Control

Private investors and local governments undertook development of electric utilities. In some cases, small towns’ primary or only demand for electricity was to supply street lighting. Some municipalities established utilities specifically to compete with an established investor-owned utility that was perceived to be charging exaggerated rates.

By 1932, approximately half of all electric utilities in the U.S. were municipally owned but they accounted for only 5% of total electricity generation. On the private side, investor-owned public utility holding companies orchestrated the growth and integration of formerly independent firms.¹⁷

The following is an example given by Stuart Nelson of the convoluted structures of public utility holding companies and of the use of new business laws in New Jersey, Delaware, and other states. This example also highlights the jurisdictional limits faced by state-level regulation commissions:

The Nebraska Light and Power Company was chartered under Delaware law in 1924, and served the McCook area in southwestern Nebraska. Nebraska Light and Power Company was controlled by Consolidated Power and Light Company of South Dakota, which also controlled the Gothenburg Light and Power Company operating southeast of North Platte, NE. Consolidated Power and Light Company was controlled by General Public Utilities, part of the still larger American Power Company. The Interstate Power

¹⁵ Crawford, “Public Power Control—Discussion,” 261.

¹⁶ *Ibid.*, 263.

¹⁷ Emmons, “Franklin D. Roosevelt,” 883.

Company of Nebraska, operating along the northern border of the state, was absorbed by the Interstate Power Company, a large holding company. The Interstate Power Company, in turn, was under the Utilities Power and Light Corporation, a Virginia enterprise controlling scattered properties from Maine to Oklahoma. In the Panhandle area of Nebraska, the Western Public Service Company was created in 1929 to consolidate municipal and other properties there. It also acquired scattered properties in Colorado, Kansas, Missouri, and Iowa. This company was a constituent of the Eastern Texas Electric Company. Both of these companies were constituents of Engineer’s Public Service, and all were under the control of the Stone and Webster interests in New England.¹⁸

Holding companies were attractive as a form of business organization because they offered the opportunity for larger profits and allowed for the application of the financial principal of “trading on equity” also known as the equity swap. This was important in the early days of the electricity industry because it was difficult to secure the large amount of capital needed to fund such a capital-intensive endeavor.¹⁹

Holding companies solved the efficiency problem facing the industry but in 1927, the Federal Trade Commission revealed gross financial abuses committed by these holding companies. The abuses included

asset overvaluation, transfer price manipulation, expense padding, and the development of leveraged capital structures that enabled a small number of individuals to control vast utility properties with a tiny equity stake. By 1932 the three largest holding company groups controlled 44.5 percent of investor-owned utility output, and the remaining holding company systems controlled an additional 34.3 percent.²⁰

Public Utility Policy Reforms and the New Deal

Roosevelt had had experience with electric power issues while he was state senator and governor of New York. By the late 1920s he believed that state electric utility regulation had been rendered ineffective for several reasons. The state commissions had lacked standards for valuing rate bases and necessary returns. Additionally, the commissions lacked the resources to handle the complicated nature of utility operating companies and the holding companies who owned them. Canadian electricity prices were much

¹⁸ Nelson, 539.

¹⁹ Norman S. Buchanan, “The Public Utility Holding Company Problem,” *California Law Review* (July 1937): 517.

²⁰ Emmons, “Franklin D. Roosevelt,” 883.

lower and consumption was much greater. Roosevelt used the Canadian statistics to support his position that the U.S. electric utility industry was contributing far too little to national economic development.

During his campaign, Roosevelt promised reforms of the electricity utility industry. He said that “where a community...is not satisfied with the service rendered or the rates charged by the private utility, it has the undeniable basic right...to set up, after a fair referendum to its voters has been had, its own governmentally owned and operated service.” He branded his actions as the “birch rod” that would be used, “only when the ‘child’ gets beyond the point where a mere scolding does no good.”²¹

During the 1932 campaign, Roosevelt cited the numerous and well documented holding company abuses and attributed them to twelve years of “laissez-faire Republican leadership.” According to Roosevelt, President Hoover avoided any regulatory reform and blocked proposals for public utility projects, including building publicly-owned hydroelectric plants on the St. Lawrence and Tennessee Rivers. Roosevelt’s opponents warned that government intervention would cause lower efficiency, higher rates, and great losses to investors.²²

Electricity Industry Reforms

The general sentiment of the country was revealed when Roosevelt was elected president. He moved quickly to design plans to reform the electric utility industry as a part of his larger New Deal program for economic recovery. The Tennessee Valley Authority (TVA), created in 1933, was a major step toward publicly-owned electricity production. To encourage consumption and boost economic development, the TVA’s electricity was priced at cost, or roughly 2.75 cents per kilowatt hour (kwh) compared to the national average price of 5.5 cents per kwh. This did increase consumption and forced investor-owned generators to reduce their price. Roosevelt established ‘yardstick’ programs—such as mandating the reporting of annual survey data including rates charged, quantities generated, and plant capacities—which were all published each year by the Federal Power Commission, for public inspection.

Roosevelt’s “birch rod” was implemented by the Public Works Administration established in 1933. The PWA made low-interest loans to local governments to create jobs. Harold Ickes, Secretary of the Interior, and head of the PWA, “encouraged cities dissatisfied with the rates charged by monopoly investor-owned electric firms to apply for PWA funding to construct competing facilities.” They followed his advice. In some locations, the application alone encouraged local privately owned utilities to lower their rates voluntarily. In other locations, the funding received from the PWA was used by rural communities to purchase the local privately owned

²¹ Ibid., 884.

²² Ibid., 885.

electric company. Many rural electric cooperatives were established using capital from the PWA and the Rural Electric Administration. Rural areas could build their own plants to generate electricity rather than wait for investor-owned utilities to offer service at some indefinite future date. ²³ Electricity flowed where once there was none.

Public utility holding companies received their “death sentence” in 1935 when the strongly contested Public Utility Holding Company Act (PUHCA) was passed by Congress.

Title I, the Public Utility Holding Company Act, placed the capital structure of interstate public utility holding companies under the supervision of the Securities and Exchange Commission and required these companies to confine their operations to utility service in a single state or in contiguous states. Title I subjected wholesale interstate electric rates to Federal Power Commission (FPC) approval.²⁴

Investor-owned utilities fought fiercely against the PUHCA in Congress and later in the courts. Ultimately, the Supreme Court upheld the constitutionality of the Act. Despite this success, the full effectiveness of the reforms was burdened by the “birch rod” and “yardstick” areas of the Act. Regarding the “birch rod,” when the PWA offered funds to cities to build plants that would compete with investor-owned utilities, investor-owners called it extortion.

Congress succumbed to pressure and commanded the PWA to reject applications for funds “unless the applicant offered without success to buy the private facilities at a reasonable price.” The ‘yardsticks’ faltered as well. By 1938, attempts to develop more TVA-like projects failed due to differences with Congress and between it and President Roosevelt. Despite these troubles, the core and intent of Roosevelt’s solution to the utility problem survived.

In Emmons’s research, he investigated how accurate Roosevelt’s diagnosis of the U.S. electric utility sector was, and how appropriate his “corrective” policy initiatives were. His results suggest a largely favorable verdict on Roosevelt’s approach to reforming the electric utility industry. “Roosevelt,” he concludes, “basically got it right.” Specifically, Emmons concludes that by harnessing the power of competition, both direct and indirect, Roosevelt’s policies induced reductions in rates consumers paid for electricity and monopoly rents earned by investor-owned utilities. Emmons also found that although Roosevelt’s holding company policies had no measurable impact on electric rates, the policies seem to have lowered

²³ Ibid., 885-886.

²⁴ Ibid., 886.

holding company returns without disserving those who invested in operating company stocks. Emmons writes that there is

a certain irony in the fact that Roosevelt, branded a socialist by the investor-owned utility community, relied heavily on the principle of competition in designing his New Deal reforms for the electricity sector. It would appear that ultimately, Roosevelt perceived a dual nature in the power of competition: in certain instances, an indispensable tool for industry reform and renewal.²⁵

It would be fair to characterize the Public Utility Holding Company Act as an attack on laissez-faire attitudes toward businesses. It came at a time when the public was frustrated with twelve years of Republican rule, and still reeling from The Great Depression. The New Deal, the Public Works Administration, and the PUHCA were all attempts to get the country back on track, help the economy recover, and put people to work. Roosevelt's progressive solution was a victory over what was at the time perceived as laissez-faire run amok.

²⁵ Ibid., 901.