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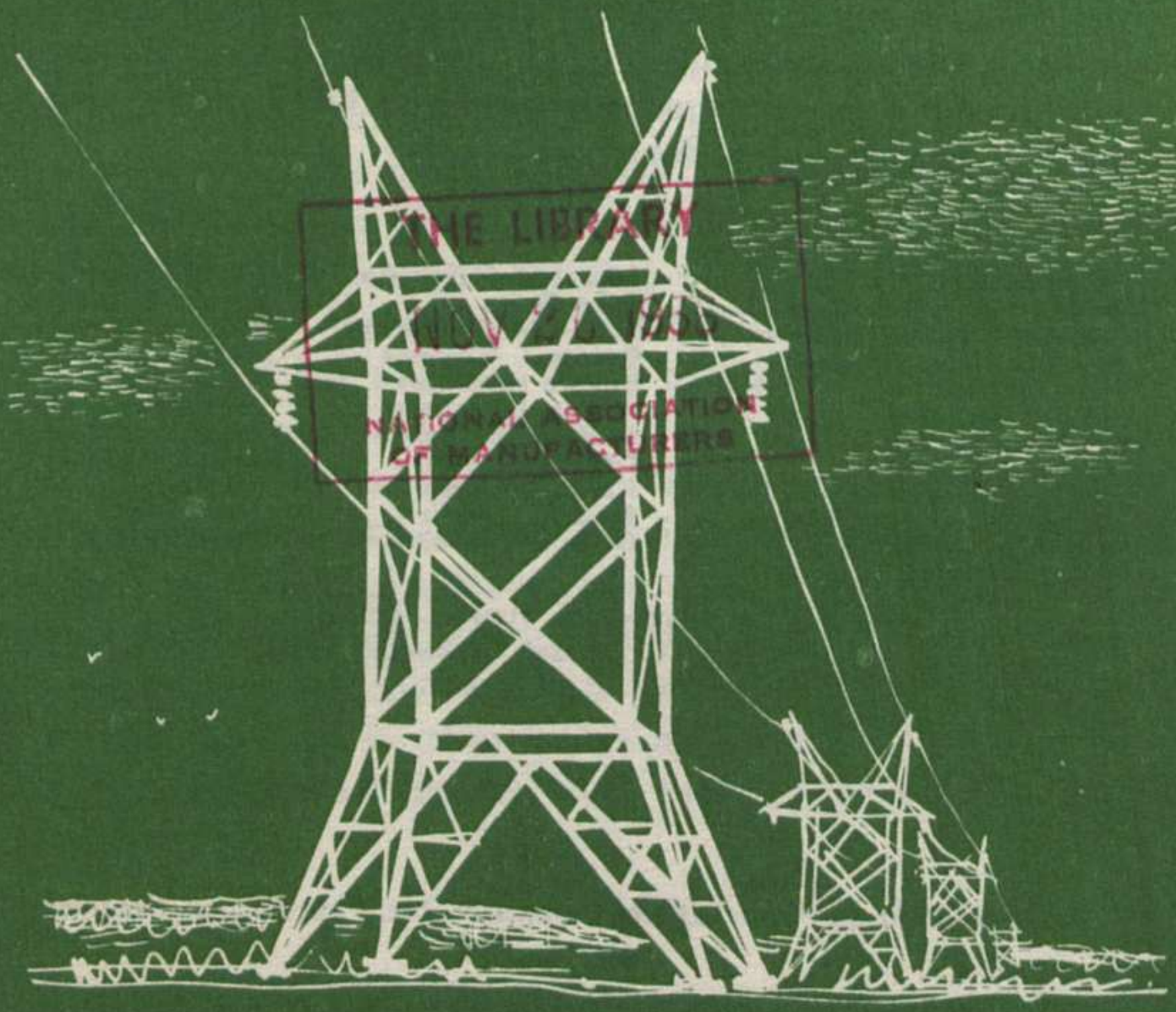
THE CASE FOR COMPETITION IN ELECTRIC POWER

BY CLAY L. COCHRAN AND RON ROSS

Suggests a mixed system of private, public, coops & cooperation between public & private

PUBLIC AFFAIRS PAMPHLET No. 241



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No issue in recent years has aroused more emotional fireworks than the controversy over the relative merits of private or public ownership of our electric power resources. Although the bulk of our electric power has long been produced by private companies, the federal government has provided an element of competition through the TVA, Grand Coulee, and other major hydroelectric projects. The case of the private companies against such competition has been widely stated through billboards, radio, and other forms of commercial advertising. Less well known, but equally essential to an informed public opinion, is the case for competition as presented in this pamphlet.

the public affairs committee

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THE CASE FOR COMPETITION IN ELECTRIC POWER

BY CLAY L. COCHRAN AND RON ROSS

The authors of this pamphlet have been concerned with different phases of the electric power problem for many years. Clay L. Cochran is Director of the Legislation, Research and Management Department of the National Rural Electric Cooperative Association, and Ron Ross is Managing Editor of Public Power. . . . *Illustrations are by Bunji Tagawa.*

We live in an electric age. Our standard of living, our health and welfare are all affected by the supply of electricity. Economic progress (increased productivity of industry and agriculture), and national security are tied directly to the supply and cost of electricity.

More than two decades ago, the Federal Power Commission asserted that "Modern civilization would collapse with the failure of the sources of electric power and light." Since then, our homes, farms, and factories have grown far more dependent on electricity.

A few figures will indicate the extent to which our way of life and the national security depend upon electricity. It is estimated that the work output of one man—in terms of energy—rarely exceeds 150 kilowatt-hours per year. The labor force in the United States is about 65 million. In recent years, we have been producing more than 500 billion kilowatt-hours of electricity, more than 50 times the energy produced by our labor force. This is the equivalent of over three billion man-years of work. Assuming that the world labor force is one billion, this means that to get as much work done for us by manual labor as is done for us by electricity, it would be necessary to have three times the work force of the world as our slaves.

A dramatic demonstration of our dependence upon electricity is our atomic energy program. The harnessing of nuclear energy was made possible by the use of large quantities of electric energy. Today, the Atomic Energy Commission uses approximately one of every 10 kilowatt-hours produced by the entire electric utility industry.

We shall require greatly increased supplies of electricity in the future. How much more? The answer is not easy, but we know that most past estimates of our future electric needs have been too low. The Federal Power Commission has consistently underestimated the Nation's appetite for electricity, as have most other forecasters.

A glimpse at today's home, farm and factory shows that our demand for electric energy is growing at an astonishing rate. In 1955, we used over six times as much electricity as we did in 1925. In 1965, we shall need almost twice as much as we used in 1955.

importance of cheap, abundant power

As our use of electricity increases, so will the economic significance of electric rates. A reduction of only half a cent in the cost of a kilowatt-hour in the home electric bill of the future would bring savings of $150 or more to the average family budget in a single year, and the savings on farms would be even greater. To the electric bills which we pay directly must be added the increasing share of the cost of electricity in the price of the products we buy.

It is clear that the central problem for the American people with respect to electric power is that of securing abundant power at the lowest possible cost. Our standard of living, the health of our economy and perhaps even our survival as a nation may depend upon how successfully we meet the challenge of more power at the lowest possible cost. Since the electric utility business—whether privately, publicly or cooperatively owned—is public business, we all share a responsibility for meeting this challenge.

In shaping public policies to meet our electric power needs, we are dealing with the organization of an industry that is essentially and inherently monopolistic in character. This fact raises a num-

ber of questions: Shall we because of the vital role of electricity in our lives and the monopolistic character of electric service abolish private power systems in favor of government ownership? Shall we abandon all competing types of ownership and turn our electric service over completely to private owners? Or shall we recognize the value of competing kinds of electric organizations and maintain and promote the competitive elements in the electric industry as a means of stimulating the essential expansion of our electric power producing capacity at the lowest possible cost?

HOW OUR ELECTRIC INDUSTRY DEVELOPED

Competition between different types of electric utility organizations has existed from the beginning of the industry. In 1882, the first year of modern electric service, four municipally owned electric systems were established along with a number of private power companies.

municipal utilities

For the first half-century, until the mid-thirties, municipal utilities provided the chief competition to private companies. This competitive influence worked two ways: it led to direct comparison of rates between private and publicly owned systems, and provided a threat of municipal ownership where private power companies either did not provide satisfactory service or did not charge reasonable rates. Although scattered municipal systems did have a significant influence in holding down rates and improving service, the municipal utilities had severe limitations.

Municipal electric systems could not expand far beyond city limits nor grow much faster than the communities they served. Legal and financial restrictions carefully circumscribed and even hindered the operations of city electric systems. On the other hand, private power companies enjoyed almost unlimited freedom of organization and financing, and they were able to enjoy the advantages of large-scale operations and diversified markets.

state regulation of the electric industry

With only the limited and scattered competition from municipal systems to curb possible exploitation, regulation was seized upon as a solution to the problem of private monopoly in electric service. At first, city or county governments sought to regulate the power companies, but the companies spread far beyond the jurisdictions of local governments. State regulatory commissions were established or the functions of existing state agencies were expanded to include electric utility regulation.

State regulation, however, was inadequate from the start as electric companies sprawled across state boundaries. The great merger and promotion schemes of the twenties resulted in the virtual bankruptcy of state and local regulation of private electric power monopoly.

Effective regulation of private monopoly has never been very successful. There are good reasons for this. The purpose of regulation is stated to be to protect the consumer and the investor alike. The consumer is held to be entitled to good service at rates as low as possible, provided the investor receives a "fair" return on his investment. An immediate problem which arises is: How much is the "investment" on which the investor is entitled to how much "fair return"?

Utility commissions in the 1920's faced incredible difficulties in meeting this problem. They lacked clear legal authority to establish realistic rate bases—the very right to regulate. Many power companies did not have an orderly accounting system which permitted an accurate determination of costs.

Decisions of regulatory commissions were appealed to the courts by power companies, and the companies charged the court costs to expenses, which, in turn, were paid by consumers in their rates. The commissions were hampered by small staffs and by lack of funds to pursue necessary investigations and carry on lengthy court battles.

A basic defect of all monopoly regulation is the difficulty in reducing rates. High rates hold down use of electricity and result in higher unit costs, thus tending to reduce profits. Low rates stimulate consumption of electricity, producing lower unit costs, and thus may

bring higher profits. Yet a regulatory commission cannot order a utility to lower its rates if the company is not making more than a reasonable return—even if the commission is convinced that the company would make higher profits if rates were lowered. Without the pressure of competition to drive costs downward, monopoly fosters high costs. Regulation is no substitute for competition.

Whatever limited successes may have been achieved by regulation before World War I, the 1920's provided ample evidence of the inadequacy of regulation of the electric utility industry.

private monopoly and corporate corruption

The era of the 1920's saw the greatest merger movement in business this country had ever witnessed. In the electric utility industry, advancing technology provided a basis for consolidation, but the electric power mergers were largely financial rather than physical.

The key device for these operations was the "holding company," a super-corporation which held the stocks of other corporations and enabled a few promoters to control huge companies with little personal investment.

The organizers of the electric utility holding companies were not inspired by any dream of reducing the cost of electricity to consumers. Competing with each other, they bid up the price of smaller utilities, privately or publicly owned. The price paid was not important because they paid it with issues of stock. The whole transaction was written up on books heavy with the "water" of fictional values, and one transaction provided the basis for the next uneconomic consolidation. For the consumer, it meant higher rates; for many investors, it ultimately meant ruin.

By the end of the twenties, 10 groups of private electric systems controlled by one corporate device or another, sold approximately 75 per cent of the electricity in the nation. The Insull companies alone served 4.5 million customers with electricity or gas and produced nearly an eighth of the country's electric power.

Investors, company employees and citizens from every area of American life were led to buy the worthless stocks of the power

companies. When the stock market crash of 1929 brought the house down about their heads, the investors' savings were wiped out. In the Insull companies alone, investors lost $700,000,000.

the revolt against corruption and monopoly

Even before the collapse of the pyramided holding companies in the crash of 1929, Congress had authorized the Federal Trade Commission to launch an investigation of the private power companies. After six years of revelations of the electric utilities' excesses, Congress acted in the 1930's to protect investors and consumers.

An expanded Federal Power Commission was charged with regulating the accounts, security issues, mergers, interlocking directorships and interstate wholesale rates of the private power companies. The Commission also was charged with turning the daylight on all electric utility operations through the authority to require full disclosure of the facts about the Nation's electric business. It established uniform accounting and reporting and squeezed some $1,600,000,000 of "water" out of power company books.

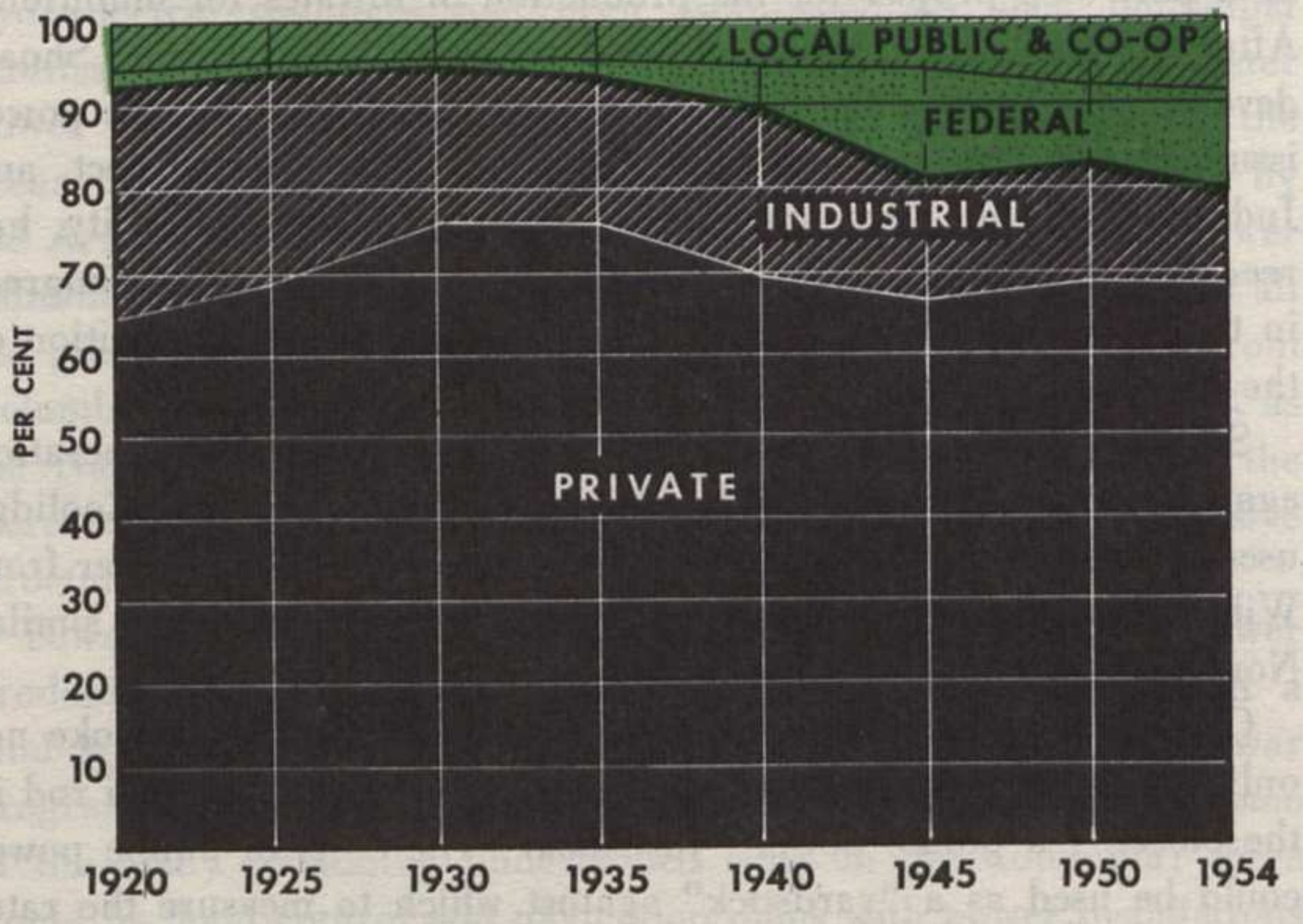
The Securities and Exchange Commission, created to regulate financial dealings, not only prescribed reforms to safeguard investors but also was directed to carry out the "death sentence" provisions of the Public Utility Holding Act of 1935. Interstate utility holding companies were broken up except where they could be operated as integrated systems. The long process—not yet completed—of bringing order out of the holding company era was begun.

The private power companies had fallen on bad days; their esteem in public opinion was at low ebb; their friends in public office had been defeated; they no longer could block the emergence of vigorous competition in the form of a public power program.

FEDERAL POWER

Early in the century a federal power program had its origin on a modest scale. Conservationists, led by Gifford Pinchot, felt that the exploitation of river basins for private profit was no more in the public interest than the plundering of the forests. President Theodore

WHO PRODUCED OUR ELECTRIC POWER



Roosevelt vetoed several bills to approve private water power schemes. In the Pinchot-TR era began the long fight that continues to this day to achieve the twin objectives of preserving our water power sites for the people and bringing about the comprehensive development of our river basins.

The early twentieth century also saw the first humble beginnings of federal water project construction with the building of irrigation projects in the West. As early as 1906, Congress was enacting legislation dealing with electric energy produced at a federal dam, built primarily to control the flow of water for irrigation. During the heyday of the holding companies in 1928, Congress authorized the Bureau of Reclamation to begin construction of the highest dam in the world, Hoover Dam in Boulder Canyon on the Colorado River.

Meanwhile, the cornerstone had been laid for a great integrated federal wholesale power system. During World War I, the Army

built Wilson Dam on the Tennessee River at Muscle Shoals, Alabama, as a part of a project for the production of nitrates for munitions. After the war, the question of what to do with the Muscle Shoals development became the Nation's first great national electric power issue. Henry Ford, among others, offered to buy the project, and Judson King, the historian of the Tennessee Valley Authority, has recorded that no fewer than 138 bills were introduced in Congress in the dozen years between 1921 and 1933 relating to disposition of the development.

Senator George W. Norris led the fight for public operation against numerous private sale plans. In 1928, President Coolidge used a pocket veto to kill a Norris bill to provide public power from Wilson Dam, and two years later President Hoover vetoed a similar Norris bill. But the tide was turning.

Campaigning in 1932, Governor Franklin D. Roosevelt spoke not only of reviving and strengthening regulation but of "a birch rod in the closet"—a public power "yardstick." The costs of public power could be used as a "yardstick" against which to measure the rates charged for similar service by private companies. Although the famous first 100 days of the Roosevelt Administration produced unprecedented legislative activity, the most enduring achievement was the enactment of the Tennessee Valley Authority Act of May 18, 1933. This provided not merely for public operation of Wilson Dam but spelled out a program for the comprehensive development of the entire Tennessee River Basin. Dams and reservoirs throughout an area including parts of seven states would, among other things, control flood waters, provide navigation channels and produce electric power.

The TVA is not a giant publicly owned electric company. It sells power at wholesale to locally owned and operated utilities. The TVA power system, coupled with the municipal and cooperative distributors of TVA power, provides a full-scale yardstick demonstration of public operation of an integrated power system. Its success as a yardstick is written into sharply reduced rates charged electric consumers over a vast area of the Nation.

In the Pacific Northwest, a yardstick of public development of hydroelectric resources had been established by such municipal utilities as Seattle and Tacoma. But the continent's greatest water power resource, the Columbia River, roared unharnessed to the ocean. Bonneville Dam was constructed near Portland, Oregon, by the Army Corps of Engineers in the 1930's. The Bonneville Power Administration was established to build a grid which would pool all the power in the Pacific Northwest and to market the power from Columbia Basin projects constructed by the government. In 1941, as the Nation geared for war, first power production began at the Bureau of Reclamation's Grand Coulee Dam, the most massive structure ever built by man on the face of the planet.

Toward the end of World War II, during which the electric power produced by TVA and federal dams in the Northwest played a vital role in our defense production, Congress planned a postwar program of dam construction. There would be new dams at some of the many remaining undeveloped sites on the Columbia; there would be flood control and navigation dams with power installations in the Southwest and Southeast outside of the Tennessee Valley; and there would be a series of large flood control, navigation and power projects on the Missouri River in the upper Midwest.

Today, many of these projects are in operation and others are under construction. Yet the job of developing our great river basins other than the Tennessee is barely begun. To the projects now in operation or under construction many others must be added if we are to realize the full benefits of flood control, navigation, irrigation and hydroelectric power production.

When Congress first considered the disposition of power from federal dams in connection with a reclamation project in 1906, it wrote a provision into the law—giving the first opportunity to buy the electricity to municipalities. In the half-century since, this provision, now including cooperatives as well as local publicly owned utilities, has been included in every important federal power law. This so-called "preference clause" is essentially an anti-monopoly provision. Municipal, cooperative and other local consumer-owned

electric utilities in most cases lack the resources and legal authority to construct transmission lines to federal power projects, and the power from these projects would be monopolized by larger private power companies without this important provision.

The "preference clause" has been made effective by federal transmission lines bringing electricity to the load centers of the local utilities. Consumers on the lines of municipal systems, rural electric cooperatives and other types of consumer-owned electric utilities thus receive the benefits of abundant, low-cost electric energy. Their electric bills not only more than repay the federal government's investment in power facilities but also serve as a visible yardstick against which all electric bills can be measured.

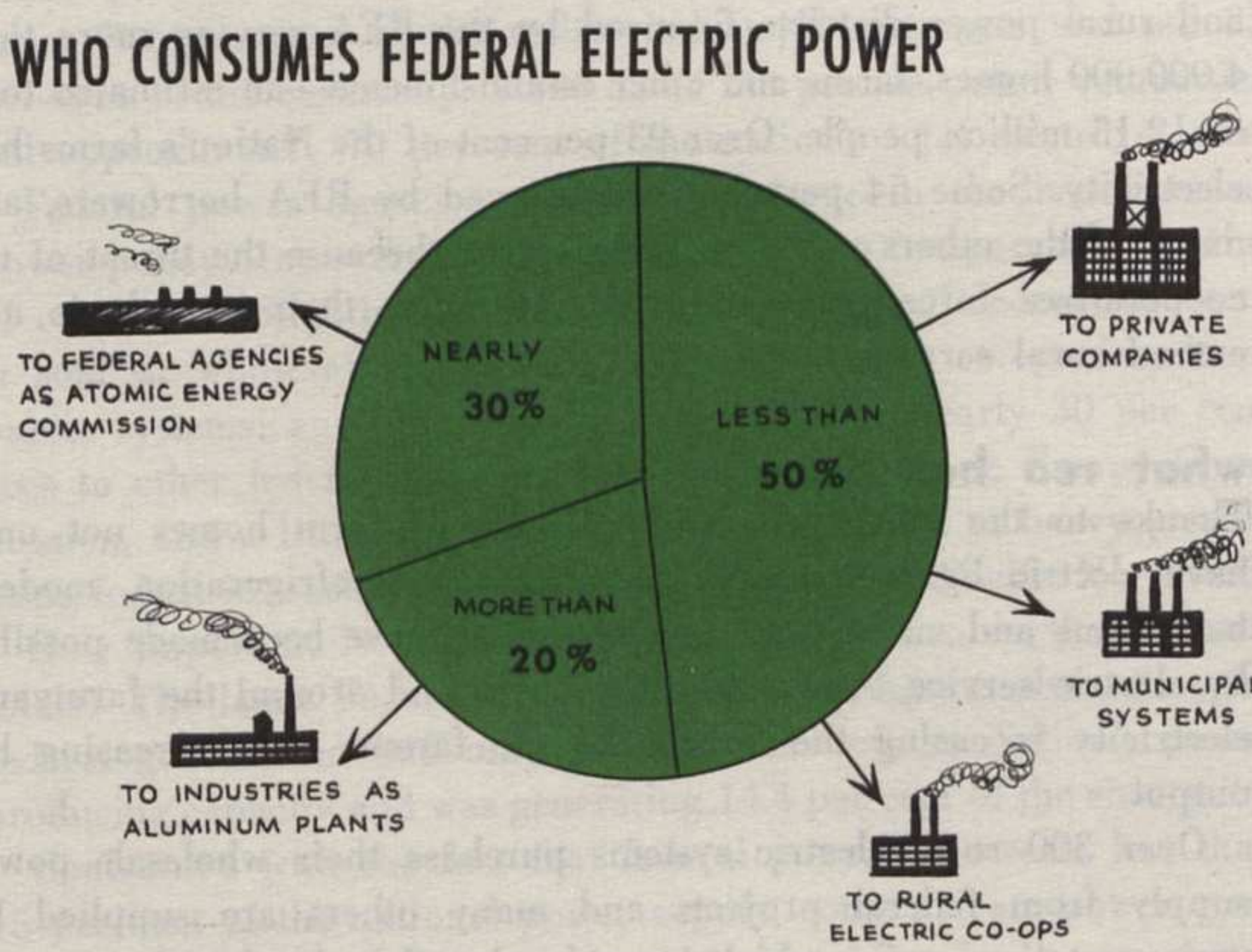
Only the Northeast is without federal power projects or so remote as to be virtually immune to the competitive influences of federal power. Electric bills in the Northeast are the highest in the Nation.

The federal hydroelectric projects have been part of the broad, comprehensive development of our rivers, a dream of the conservationists early in the century. The waters that turn turbines to generate electricity as they flow to the sea are a valuable resource. As you read this, millions of kilowatts of electricity are being lost as other waters race by other undeveloped hydroelectric sites. If we do not lose sight of our goal of comprehensive development—if we do not settle for partial, piecemeal schemes—we shall be able to achieve not only millions of new low-cost kilowatts of electricity but priceless savings in lives and property from effective flood control and economic benefits from navigation and irrigation from our future federal water programs.

In addition to providing low-cost electric energy, the federal programs have offered an important lesson to the entire electric industry in the encouragement of promotional rates, which stimulate greater use of electricity and, in turn, increased usage results in a decrease in costs per kilowatt hour. Not only has this brought greater benefits to consumers but it has also been profitable for the utilities. Those private power companies adjacent to the TVA and the federal system in the Northwest not only have reduced their rates, but they have

discovered their electric sales and their returns soaring. Private power companies as well as electric consumers have reaped benefits from the new competition in the electric power industry.

Millions of Americans use low-cost electric energy generated at federal projects. Additional tens of millions pay lower light bills because of the competition created by federal power.



bringing electricity to rural america

Coupled with the development of our waterpower potential, the federal government in the mid-thirties moved to create electric power competition in another area—rural America. With only one farm in 10 receiving electric service, President Roosevelt by executive order established the Rural Electrification Administration (REA) in 1935, and in May 1936, Congress passed the Norris-Rayburn Rural Electrification Act.

At first, the REA sought to encourage rural service by low-interest loans and technical help to private power companies, but company spokesmen reiterated their argument that most farms could not be economically hooked onto the high lines. The REA then turned to a pattern pioneered by TVA and set about encouraging farmers to form non-profit cooperatives to serve themselves. Many states adopted legislation to permit or encourage formation of such cooperatives.

By 1956, there were nearly a thousand rural electric cooperatives and rural power districts financed by the REA serving more than 4,000,000 homes, farms and other establishments—an estimated total of 12-15 million people. Over 93 per cent of the Nation's farms had electricity. Some 54 per cent were served by REA borrowers, and many of the others were receiving service because the threat of the cooperatives forced the companies to reject their own logic and extend rural service.

what rea has done

Thanks to the REA program, millions of farm homes not only have electric lights but also running water, refrigeration, modern bathrooms and many other benefits which have been made possible by electric service. And out in the barns and around the farmyard, electricity is easing the burden of the farmer and increasing his output.

Over 300 rural electric systems purchase their wholesale power supply from federal projects and many others are supplied by various state agencies which have developed hydroelectric projects.

In other areas, the cooperatives have introduced their own competition into the production of electric energy in order to obtain power at reasonable costs. REA loans have financed generating stations constructed by groups of small distribution cooperatives in some areas, and the competitive challenge of cooperative generation of electricity has brought down the private utility rates charged to cooperatives in many others. Although many farms are served by the generating stations of the cooperatives, more farms have received lower rates as a result of the threat of cooperative generation.

ELECTRIC SERVICE TODAY

There are more than 2,000 municipal electric systems in the nation, about 80 public utility districts and other local publicly owned electric utilities, and 947 rural electric cooperatives. Typically, these systems are small, and many of the municipal and cooperative utilities purchase their power requirements at wholesale rates from private power companies. Contrasted with these more than 3,000 consumer-owned utilities are only some 588 private companies which serve 79.6 per cent of the utility industry's customers and sell 85 per cent of the electricity. Some 82 of the private power companies sell approximately 70 per cent of the nation's total electric power.

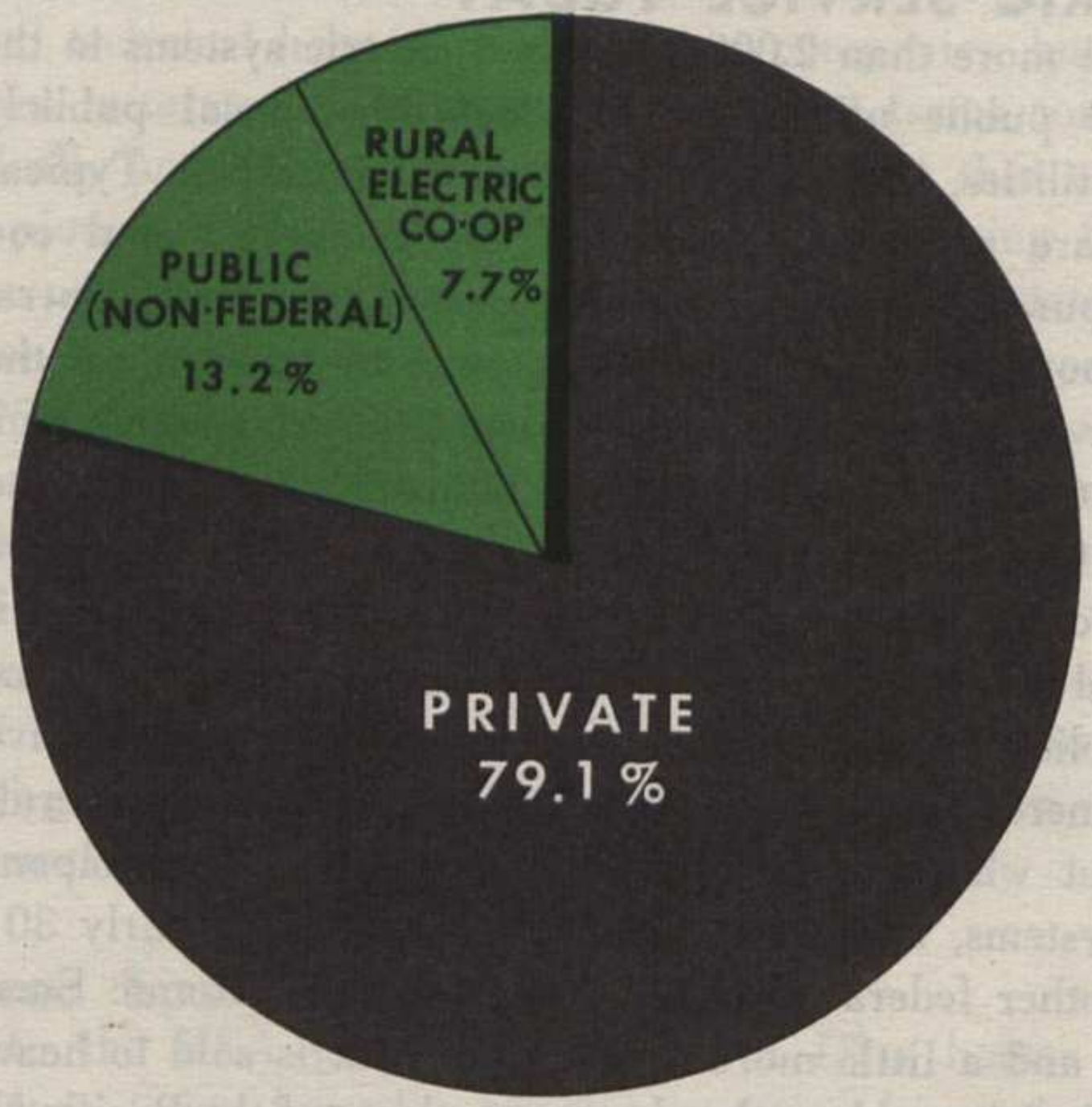
Federal power agencies, which loom large in the headlines of power policy controversies, serve directly only a comparative handful of customers. Slightly less than half the output of federal projects is sold at wholesale to electric utilities—private companies, local public systems, and rural electric cooperatives. Nearly 30 per cent goes to other federal agencies, principally the Atomic Energy Commission, and a little more than 20 per cent is sold to heavy power-using industries such as the aluminum plants of the Pacific Northwest.

How important is this federal power production in the national totals? The latest Federal Power Commission figures show that the federal government had only 13.2 per cent of the Nation's power producing capacity and was generating 14.4 per cent of the electricity.

Confronted with the fact that federal power represents less than 15 per cent of the national power supply, some private power company spokesmen soberly warn that policies of developing our water resources and providing orderly expansion of our federal power systems will lead to nationalization. Let's look ahead to see the future role of federal power.

It is generally accepted that our total electric utility generating capacity will at least double in the decade 1955-1965. Let us assume that all federal power projects authorized by Congress but not constructed—including some 40 authorized projects for which construction funds have never been requested—were to be built by 1965. And to that add the high Hells Canyon Dam for the smaller project

CONSUMERS OF ELECTRIC POWER - BY SOURCE



which has been approved by the Federal Power Commission.

It would not be possible to complete such a program even on a "crash" basis by 1965, but let's suppose that it is. Would such a program, exceeding the dreams of the most optimistic advocates of federal power projects, increase the government's share of our electric power supply. Not at all. The federal government still would be generating less than 15 per cent of our power.

Unless such a program, encompassing all the federal power projects which Congress has authorized at one time or another, plus the high Hells Canyon Dam, is carried forward during the coming decade, the federal government's role in our electric power supply will be substantially reduced.

This same challenge to double their electric generating capacity within 10 years or decline in relative importance within the electric utility industry confronts the local public power systems and rural electric cooperatives.

ABOUT THIS PAMPHLET

PRIVATE MONOPOLY of electric power, especially when legalized, protected and subsidized by government, is inimical to the public interest. Is there any practicable alternative, short of complete socialization? The authors of this tract say there is. They visualize a mixed system, designated as institutional competition, in which diverse organizations—private, public, public utility and cooperative—compete for public favor on the basis of their respective performance. Such rivalry, it is thought, will operate the disciplinary effect of competition to insure an adequate supply of electricity at minimum cost.

This proposal is not new or revolutionary; a mixed system already exists, but it is unbalanced and only partially effective. If the potentialities of institutional competition are to be realized greater equality of opportunity among the several types of organization must be maintained. Two courses of action are required: first, expand the public and cooperative sectors of the industry, including atomic energy; second, curb the power, privileges and aggressions of private monopoly.

This approach follows no doctrinaire model or utopian illusions. It proceeds by practical, common sense measures to improve the existing system in the direction of greater freedom and diffusion of power.

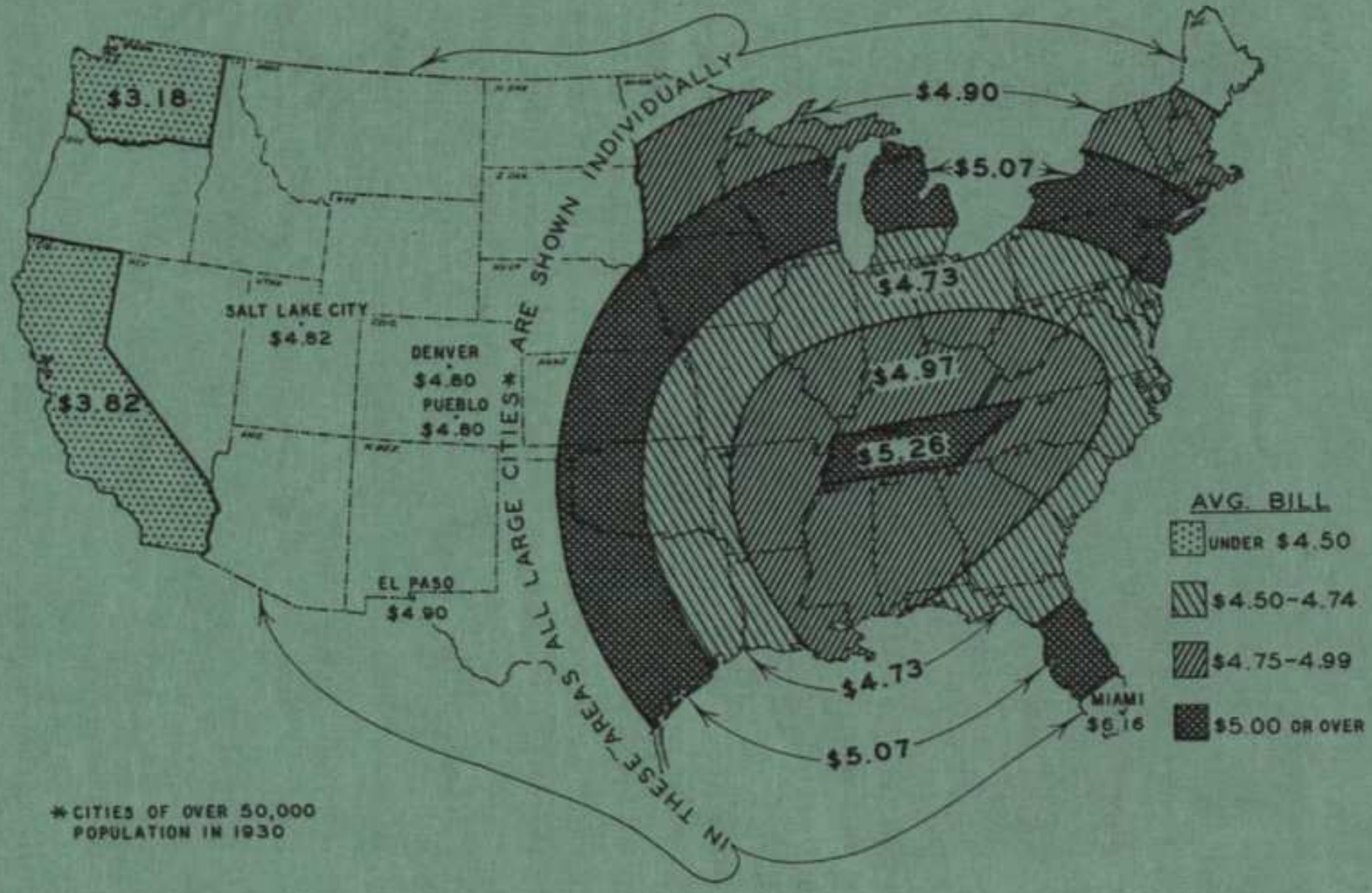
Horace M. Gray

Professor of Economics
University of Illinois
Urbana, Illinois

NOTE:

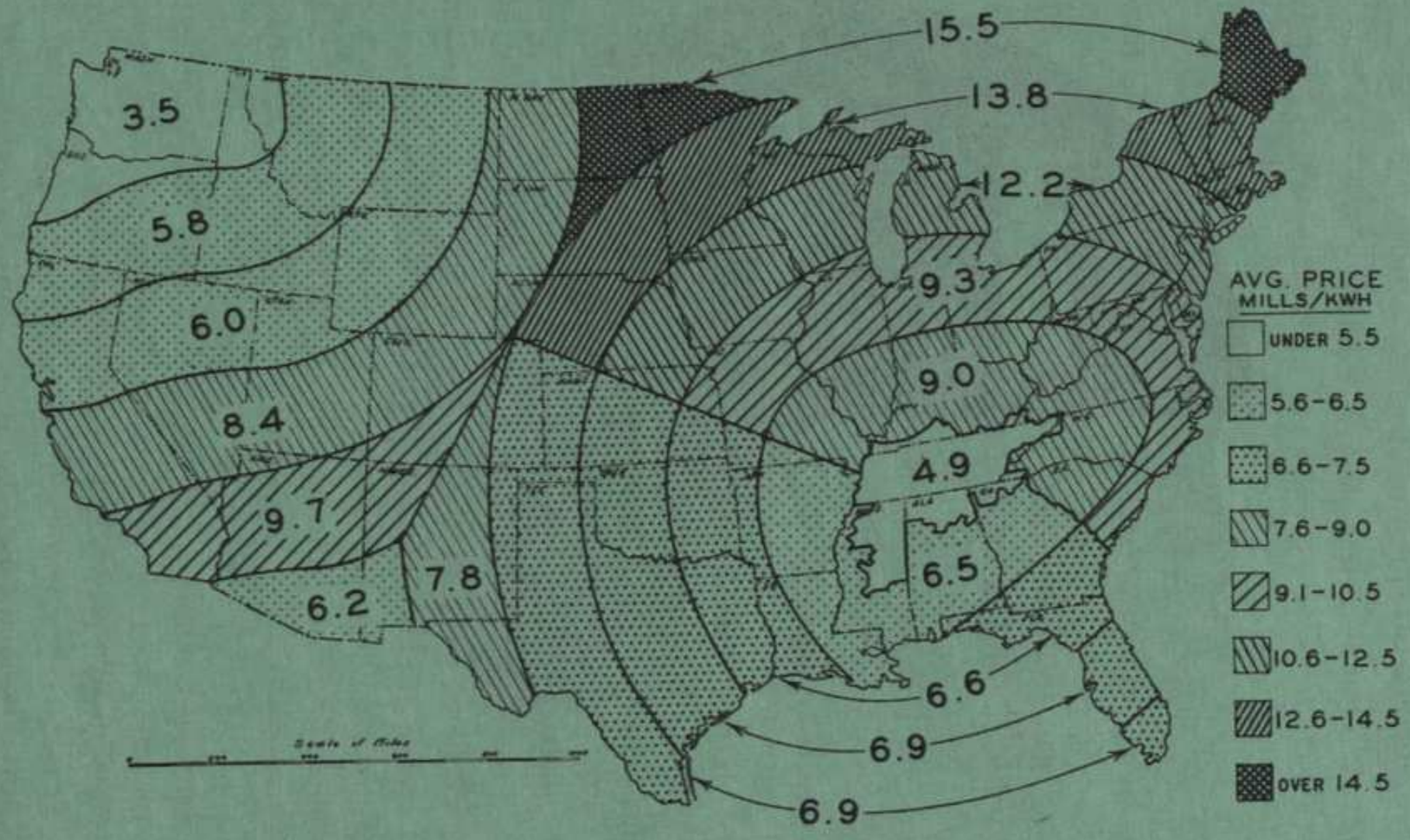
The charts in this supplement, based on Federal Power Commission statistics, replace those on pages 18 and 11 in the pamphlet which were inadvertently obscured by the color overlay.

AVERAGE BILL FOR 100 KWH RESIDENTIAL SERVICE IN LARGE CITIES*
OCTOBER 1932



In 1932, the year before TVA was created, residential electric rates in Tennessee and in the area surrounding Tennessee were among the highest in the nation. The lowest rates were in the State of Washington, largely because of the influence of the municipal electric systems in Tacoma and Seattle. There was no well-defined regional pattern.

AVERAGE PRICE OF POWER PURCHASED BY REA BORROWERS
FISCAL YEAR 1952

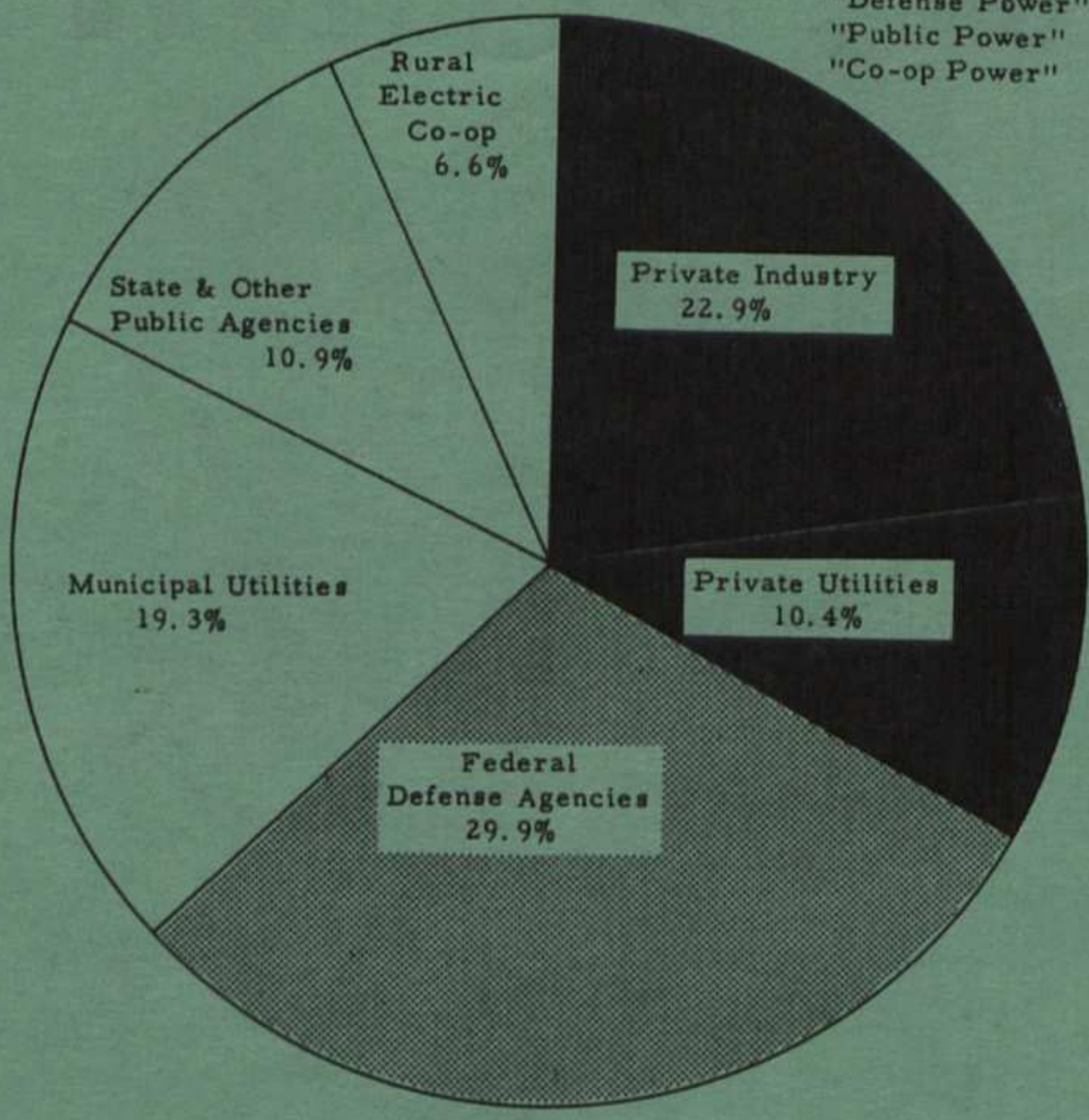


The influence of TVA's and Bonneville's low wholesale electric power rates on wholesale electric rates to rural electric cooperatives elsewhere in the nation is indicated by the average price per kwh which grows progressively higher as the distance from TVA and Bonneville increases.

PURCHASERS OF FEDERAL POWER, FISCAL 1955

By Class of Wholesale Customer

"Private Power" = 33.29%
"Defense Power" 1/ = 29.92%
"Public Power" = 30.19%
"Co-op Power" = 6.60%



1/ Virtually all to the Atomic Energy Commission

SOURCE: National Rural Electric Cooperative Association

In terms of competition in electric supply, the problem of the next decade is whether the competitive stimulus provided today by only about 20 per cent of the industry through governmental or consumer ownership can be maintained.

HOW COMPETITION WORKS

Although some industrial concerns have found that they can generate their own electric supply more cheaply than they can purchase it and others have received lower rates by threatening to produce their own power, most consumers can no more compete individually with electric utilities than they can build their own automobiles. To secure competitive benefits in electric service such as we find in most areas of our economy, we must look to the competition of rival types of electric utility service—institutional competition.

Does competition benefit the electric consumer? Latest Federal Power Commission statistics show that homes served by local publicly-owned electric utilities used an average of 44.1 per cent more electricity in a year than those served by private companies, yet for this larger amount of electricity, the home served by the public power systems paid an average annual bill that was 7.9 per cent less than the bill charged against the average home served by a private power company. Moreover, rates charged by private power companies are lower where there is competition. In its study *Electric Power and Government Policy* in 1948, The Twentieth Century Fund declared that "in general as the number of communities served by public plants in a state increases, the average typical private bills decrease."

Are the self-styled "business-managed" private power companies more efficient? Or are the public power systems more efficient despite the economic disadvantages of smaller systems? Again referring to the latest Federal Power Commission statistics for class A and B privately and publicly owned electric utilities, we find that the public power systems had lower operating costs in every one of six expense categories: production expenses per kilowatt-hour sold; transmission

expenses per kilowatt-hour sold; distribution expenses per customer; accounting and collections per customer; promotion and advertising per $100 of revenue; and administrative and general expenses per $100 of revenue. These comparisons, which do not include tax costs, show clearly that the local publicly-owned electric utilities are giving more economical service to their consumer-owners than the private power companies are providing for their customers.

Are the lower rates of public power systems the result of higher taxes paid by private power companies? The consumer-owned systems do not pay federal income taxes, but the charge that these systems "do not pay taxes" is not true. Local publicly owned electric utilities generally pay taxes or make payments to their local governments which are equivalent to the taxes which would be paid by private power companies. So do rural electric systems and TVA. In addition, municipal utilities frequently make a far larger contribution to cities than any private power company would in taxes. This may take several forms such as free services, support of various municipal activities or direct payments to the local government.

The Tennessee Valley Authority was the leading taxpayer to the State of Tennessee in 1955, and the combined taxes and payments in lieu of taxes by TVA and its municipal and cooperative power distributors were—in view of the greatly increased power sales—200 per cent greater than the total tax payments received from electric systems in the Valley in 1937 when most of the area was served by private power companies.

The lower rates of public power systems cannot be accounted for solely by the fact that they do not pay income taxes. The record shows that more efficient operations, lower returns on investment (interest and profits), and the amortization of debt are major factors.

The federal power programs have provided a dramatic demonstration of the yardstick concept of competition in electric power. The Tennessee Valley in 1932, before the establishment of TVA, had electric rates among the highest in the Nation. Today, its rates are among the lowest, and rates charged by other utilities increase as one moves increasing distances away from TVA territory.

Not only have lower TVA rates reduced the cost of electricity and stimulated electric use in the Tennessee Valley, but they have resulted in lower rates and increased electric consumption by the customers of neighboring private power companies. In 1937, common stock earnings of these companies were about average for the private electric utility industry, but during the next 15 years of TVA competition these companies' earnings grew more than twice as fast as the industry average.

The only region boasting lower electric rates than the Tennessee Valley is the Pacific Northwest, the only other area in which the federal government has a large-scale, integrated, wholesale electric system.

Perhaps the greatest yardstick of all has been the demonstration of the REA program that electric service could be brought to our farms. Most of rural America received modern electric service only after the farmers themselves had created the competition of their own cooperatives.

The history of our electric utility service shows not only that competition works but that the keener the competition, the greater the benefits to consumers.

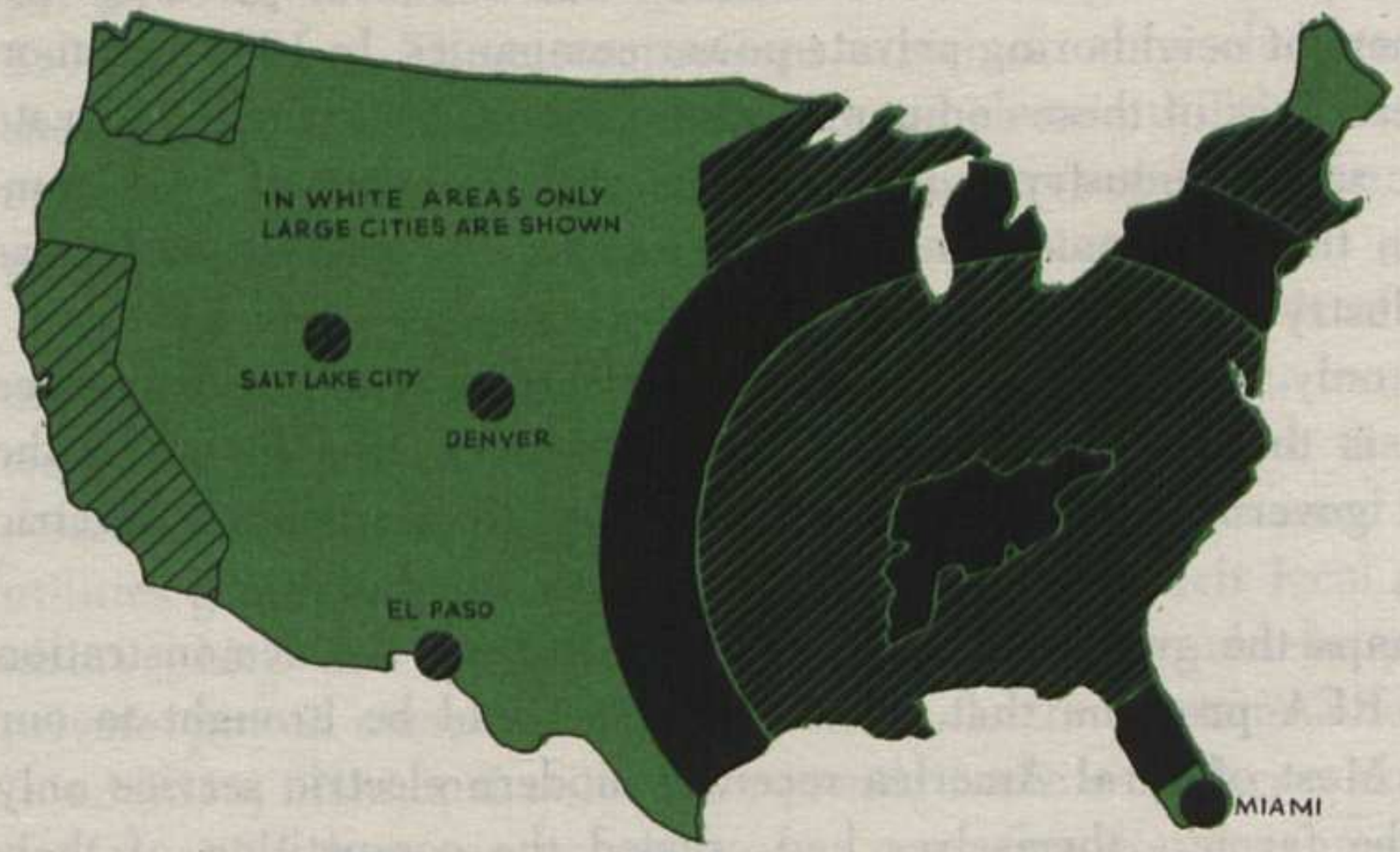
MONOPOLY, CORRUPTION AND PROPAGANDA

Any private monopoly exists by virtue of a grant of privilege from the government. Once this grant of privilege has been secured, it is inevitable that those who control the monopoly will challenge any effort to re-establish competition, will resist efforts to regulate its affairs, and drive for a combination of continued dominance, security, and high profits.

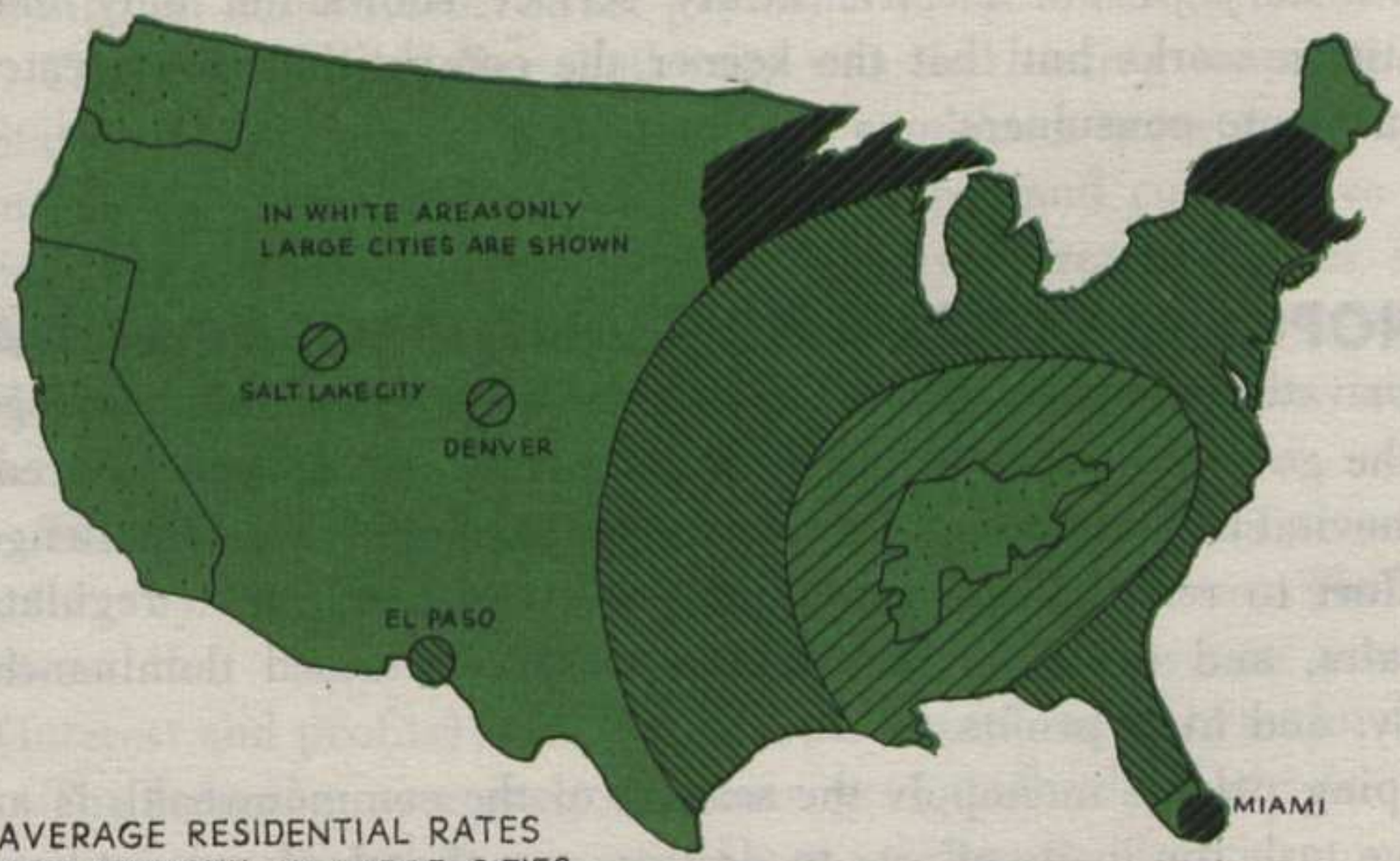
Keeping private monopoly the servant of the commonwealth is an arduous task for in its efforts to destroy any threat of competition, or effective regulation, the monopoly may resort to propaganda to influence public opinion. We have seen how the efforts of regulatory agencies in the twenties were helpless to prevent the private power scandals. After the revelations of corruption, influence and manipula-

TVA'S INFLUENCE ON ELECTRIC RATES

1932



1952



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tion by the private power interests, legislation was adopted to curb the worst abuses. Have these laws been successful? Has the private power industry been reformed?

That some abuses still exist is suggested by several recent events:

> A former treasurer of the Mississippi Power and Light Company testified under oath that he was sent virtually blank sheets from New York City to sign for filing with his company's tax returns. He told how the needs of the company's service area in Mississippi were made subsidiary to the financial maneuverings of a holding company in New York. He described lavish expenditures for bottled "miscellaneous merchandise."
>
> A vice-president of a leading investment banking firm dealing in private power company securities served as consultant to the Bureau of the Budget on Federal power policies. He helped negotiate a contract between the Government and an electric holding company client of his banking concern.
>
> Widely circulated magazines carry advertising showing youngsters doomed to "socialism" because of Federal power dams, and the advertising agency is credited with "one of the biggest shifts of public opinion in the United States in years."
>
> An Iowa Congressman wrote a pamphlet denouncing Federal power programs in the Southwest. When asked who had financed printing and distribution of the pamphlet, he replied, "So help me God, if I die on this spot, I don't know all the private utilities that contributed to it."
>
> In 1954, a former Governor of Arkansas testified under oath before a Senate subcommittee that he was told by spokesmen for a private power company that he would receive financial support and other backing for re-election if he opposed construction of a rural electric cooperative steam generating plant. He supported the plant and was defeated, with the power company working against him.

These are not revelations from the holding company investigations of a quarter-century ago. These are documented events of the mid-1950's.

In January, 1955, the Subcommittee on Antitrust and Monopoly Legislation of the Senate Judiciary Committee warned that many of the worst abuses disclosed in the investigations of the Insull-Hopson era exist today, despite laws designed to curb them. Modern holding companies, through engineering and accounting firms, were found to be in remote control of electric operating companies. They were charged with "rendering state and local regulation of electric rates largely ineffective;" they were found to be "milking" operating electric utilities; and "engaging through operating companies in questionable practices in local and state politics, coupled with support of nationwide power monopoly organizations, generously financed to conduct public relations and lobbying activities designed to influence national legislative and administrative action."

In addition to the revival of the evils of the old holding companies, the Senate subcommittee found evidence of dangerous new forms of mergers of private power companies.

Such a situation is of concern to all electric consumers because all of these activities run counter to the national need for abundant, low-cost electricity. After the holding company scandals of the twenties and thirties, new laws were passed enlarging regulation to include Federal jurisdiction. The new laws have been largely effective in protecting investors in utilities, but efforts to protect the interests of consumers have been less successful.

The basic problem lies in the difficulty of grappling effectively with private monopoly. Technologically, direct competition in most electric service is not possible. This was apparent very early in the life of the industry. Economists and lawyers came up with the concept of "natural monopoly" under public regulation as a solution to the problem. Advocates of regulation as opposed to competition in the electric industry—and private power company spokesmen are at the forefront in this group today—continue to rely upon this theory. But the concept of "natural monopoly" ignores the advantages of institutional competition, or competition by example, between competing types of enterprise, one type consumer-owned and oriented, the other investor-owned and oriented.

Historically, the friends of regulated private monopoly have contended that by granting franchises and other monopoly privileges to private companies, the progress of the community was being furthered without reducing the power of government over these organizations. It was believed that regulation could fence private monopoly into limited areas, and that by compelling privately owned utilities to serve the community at cost (including a reasonable return to investors) we would have the equivalent of competition for the consumer.

In their study *Monopoly in America*, two prominent economists in the field of monopoly studies, Walter Adams and Horace M. Gray, in 1955 declared, "Among all the devices used by government to promote monopoly, public utility, or public interest, regulation is in some respects perhaps the worst."

They point out that the grants of monopoly privilege have produced powerful, entrenched private monopolies which have continued to grow in strength as the forces of regulation were weakened. Regulation is inherently negative, providing the consumer with no protection against scarcity or inefficient operations.

As private electric monopoly grew, it created through the sale of its "securities" an increasing vested interest in the maintenance of monopoly privileges. Because the value of their private utility holdings hinged on the maintenance of monopoly privilege, such important groups as bankers, investment trusts, insurance companies, charitable institutions and individual investors became a potent force for less drastic regulation.

Early advocates of regulation underrated the aggressiveness of private monopoly under regulation. In the ensuing years, the power companies have been able to make steady inroads against effective regulation through propaganda, campaign contributions, retainers and advertising in the press and radio and TV amounting to millions of dollars annually. The costs are paid by the electric ratepayers in their bills. The regulatory commissions, and to a varying degree the general public, have thus fallen under the influence of the private companies.

subsidizing private power companies

Where there is lack of competition, there is also lack of incentive for expansion. Thus, we are forced to buy our progress by subsidizing the necessary expansion to meet our growing needs. At this point we would appear to be subsidizing private monopolies to carry out the purpose for which they were granted their monopoly privileges.

Subsidies to the private power companies result from the issuance of "certificates of necessity" for rapid amortization of new facilities for tax purposes. To conventional businesses, the certificates produce a tax saving. Electric utilities, however, do not "pay" taxes in the usual sense but merely collect them from their customers as a business expense. Under the rapid amortization certificates, the private electric utilities collect sums from their customers as tax expense but are permitted to keep some of the money. The effect to the utility has been described by the Federal Power Commission as that of an "interest-free loan" by the Government, and the benefits calculated over the life of the project exceed the total value of the certificates.

From June, 1951 through April, 1956 the Office of Defense Mobilization had granted certificates entitling private power companies to "interest-free loans" of $1,400,000,000. Total benefits to the companies from these "loans" over the estimated lives of the projects, (33⅓ years), will be $4,800,000,000.

The rapid amortization program was created to stimulate construction of defense-supporting facilities during the Korean conflict. Because of the vital role of electric supply in our national security, it has since been held that most private electric utility construction is entitled to this assistance. New tax subsidies to private power companies will come from the liberalized depreciation provisions of the Internal Revenue Act of 1954, if these are treated by the Federal Power Commission and other regulatory bodies in the same manner as the rapid amortization certificates.

These subsidies to private power companies perpetuate and promote private monopoly. The same federal government which encourages competition in the electric power industry through federal power programs is subsidizing private monopoly. This is an ironic end-

product of our futile efforts to regulate private power monopoly.

Regulation or competition? The answer as to which will meet our future requirements for electricity is clear. The failure of regulation to control powerful private monopoly is a matter of history. Where publicly owned and cooperative utilities have challenged private monopoly, competition has brought reduced rates and better service.

encourage local competition

Competition in the electric power industry depends basically upon the local publicly and cooperatively owned utilities. This is true even when the federal government constructs giant dams or steam plants and provides super-high voltage transmission networks, because it is the local systems which serve the consumers and provide the markings on our electric yardstick. Our success in sustaining and encouraging competition in the electric utility industry will depend in no small measure on the health and vigor of these local utilities.

Too often overlooked in the great debates over federal power programs and policies is the fact that state laws and the enactments of county supervisors and city councils and commissions have a vital influence on electric service. There is little uniformity in laws and ordinances relating to local non-profit electric systems. Some encourage efficient utility operation, while others, frequently enacted with the support of private power interests, may hamstring the consumer-owned systems.

The basic issue in this field is freedom. Although the private power companies may have to conform to the rules of the regulatory commissions, they retain great organizational and financial freedom. Local utilities, on the other hand, are subject to a wide variety of frequently obsolete and artificial restrictions which jeopardize their healthy growth. Laws which prevent the issuance of revenue bonds by municipal electric systems, or prevent joint operation or integration of local publicly owned and cooperative utilities, or subject rural electric cooperatives to loss of desirable territories not only injure these consumer-owned utilities but also restrict competition in electric service.

If we are to gain the fullest benefits of competition in the electric power industry, people throughout the nation must encourage their state legislatures, county boards and city, town and village councils and commissions to adopt laws which permit effective operation of local publicly and cooperatively owned electric utilities.

federal power versus private monopoly

We have seen how competition in electric service has been—along with flood control, irrigation, navigation, recreation and conservation—an important product of the federal development of our river basins. Today, comprehensive development is being replaced by piece-meal exploitation, miscalled "partnership." Full water power development and competition in the electric industry are only two of the more obvious casualties of this policy. Lost will be the benefits that might have been gained from federal irrigation projects. Navigation development will be handicapped to the disadvantage of some of our potentially prosperous inland ports. Recreational opportunities and conservation of wildlife will also suffer if our river resources are developed on a piecemeal basis.

The proposed high federal dam at Hells Canyon, for example, would have stored three times as much water for flood control, navigation and power as would three smaller, run-of-the-river dams proposed by the Idaho Power Company. The high dam would add 914,000 kilowatts of prime power at the dam and at dams downstream, while the three lower dams would contribute only 505,000 kilowatts of prime power. Electricity produced at the high federal dam could be sold at wholesale to utilities in the Pacific Northwest, including private companies, public utility districts, municipal utilities and rural cooperatives for about a third of a cent per kilowatt-hour. Output of the three dams would cost about two-thirds of a cent for each kilowatt-hour. Yet the Federal Power Commission, has approved the three lesser dams.

The effectiveness of federal power competition will decline sharply from even today's modest levels in the years ahead unless we reverse

present policies and push ahead with full-scale development of our water resources.

Only the Tennessee Valley Authority, under the stress of emergency demands for atomic energy programs and other defense-related power loads, has been authorized among federal power agencies to construct steam electric stations. Thanks to the advanced design and efficient construction and operation of TVA steam facilities, millions of dollars are saved each year by the Atomic Energy Commission and other federal agencies. Thanks also to the yardstick of TVA rates, large savings have been realized in the power bills paid by the AEC to private power companies.

If the TVA is permitted to utilize revenue bond financing for the orderly growth of its generating capacity to meet the needs of federal agencies and residential, rural and industrial consumers of its area, the yardstick of a large integrated operation can be preserved.

atomic power: competition or monopoly

More than three-fourths of our electricity today is generated in steam plants burning coal, oil and gas. The remainder is produced by water power and internal combustion engines. As the demands for power grow in the future and as our better hydro-electric sites become fully utilized, the steam plants will take over a larger share of the total. Our requirements for electric power appear to be insatiable. We have been consuming fuel reserves at almost unbelievable rates and as they become more depleted and more costly, we shall turn increasingly to nuclear fuels, rather than burning coal, oil or gas to produce the steam to turn our turbines.

Compared to existing reserves of fossil fuels, the supplies of energy in uranium and thorium—the sources of fissionable materials —are immense. Atomic energy is expected ultimately to become the world's chief source of power.

When we consider that electric power, already essential to modern economic life, is destined to become many times more significant in the future, and that atomic energy some day promises to be the world's principal source of this vital electric power, it is plain that

the question of competition or monopoly in atomic power is vital.

During the prolonged debate on the Atomic Energy Act of 1954, the principal issue was over the terms on which this publicly developed technology was to be opened up to private industrial development. As finally adopted, the Act does not go as far as it might in promoting competition in atomic power. It does not ban public atomic power projects but neither does it provide for an effective program of federal atomic power development and generation. Its emphasis is on shifting to the private power companies the responsibility for building large-scale atomic power plants while retaining federal responsibility for financing research and development work necessary to their design.

The Atomic Energy Commission has administered the Act with this same emphasis, and today the decision as to how fast we develop low-cost atomic power is being left primarily to the private utility industry.

Congressional debate also dealt with the question of competition or monopoly in the reactor manufacturing industry. This issue is also crucial in determining how rapidly cheap atomic power will become available. The Act provides only limited protections against the growth of patent monopolies and these expire in 1959.

The vital importance of atomic power and the fact that the technology has been developed to date by public investments of billions of dollars would seem reasons enough for atomic power to be vested with a public interest. But there are additional reasons. "Enriched" uranium promises to be the principal atomic fuel in this country because reactors using it are more efficient than reactors using "natural" uranium. Enriched uranium is natural uranium which has been processed so that it contains a higher percentage of fissionable material, uranium-235, than does naturally occurring uranium. This more concentrated atomic fuel is available solely because the federal government built the enormous "gaseous diffusion plants," costing billions of dollars, which can accomplish this concentration. If it were not for these public investments, industry could not consider the types of reactors now being proposed.

The principal issue in atomic power is the rate at which we should proceed with development. In order to learn how to design, build and operate plants that will produce cheap atomic power, it is necessary to build numbers of full-size "demonstration" plants which will produce relatively high cost power.

The private utilities have opposed federal developmental power plants, arguing that they will build these first plants and thus finance the development of atomic power at less cost to the taxpayer. Since the extra costs of these first plants and of their expensive power will, the utilities agree, be paid by the electric consumers, the "savings" to taxpayers are largely imaginary.

The question is whether, having brought the technology to the point that the first large developmental plants should be built if we are to progress, the people should pass to the privately owned utility industry the power to decide how rapidly to proceed with this next step. Because of the abnormal costs and economic risks, industry must proceed more slowly and, by and large, adopt more conservative and less promising designs than could the government with its much larger resources. More than 20 months after passage of the 1954 Act, none of these proposed private utility projects is under construction.

A vigorous federal atomic power program, in addition to the projects planned by the private and consumer-owned utilities, would not only speed our progress but increase the number of qualified reactor manufacturing firms, expand our pool of qualified reactor designers and builders and stimulate greater competition in the manufacturing industry.

For similar reasons, local public and cooperative electric utilities should be encouraged to proceed with atomic power development. Their interest is demonstrated by the fact that of the twelve non-federal demonstration atomic power plants definitely proposed to date for construction, seven have been proposed by the consumer-owned utilities.

The public interest requires the vigorous development of economic atomic power. There is much work to be done and many difficult technical problems to be solved—enough to tax the best efforts of

the utilities, both public and private, the manufacturing and construction industries and the federal government. In this undertaking, competition must be nurtured and monopoly prevented if the people are to reap from their huge atomic energy investments not only weapons of war but abundant supplies of low-cost power.

competition and abundant, low-cost electricity

Through whatever lens we look at the future—productivity, jobs, prosperous farms, human comfort, national security—we see our growth and progress being built on a foundation of abundant, low-cost electric energy. Our public policies in the field of electric power must be designed to build this foundation.

Competition or monopoly? Our history, not only in the electric utility industry but in virtually every other field, has shown the benefits of competitive enterprise. Stagnant monopoly, private or public, cannot provide the electric service which our dynamic civilization demands.

Our power policies must stimulate the fullest effort by private, public and cooperative power agencies if we are to realize our potential living standards and economic development and maintain our armed strength. Negative regulation will not get this done. Only by promoting competition in the electric power industry can we achieve the abundant, low-cost electricity we require for better living, full employment and national security.

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