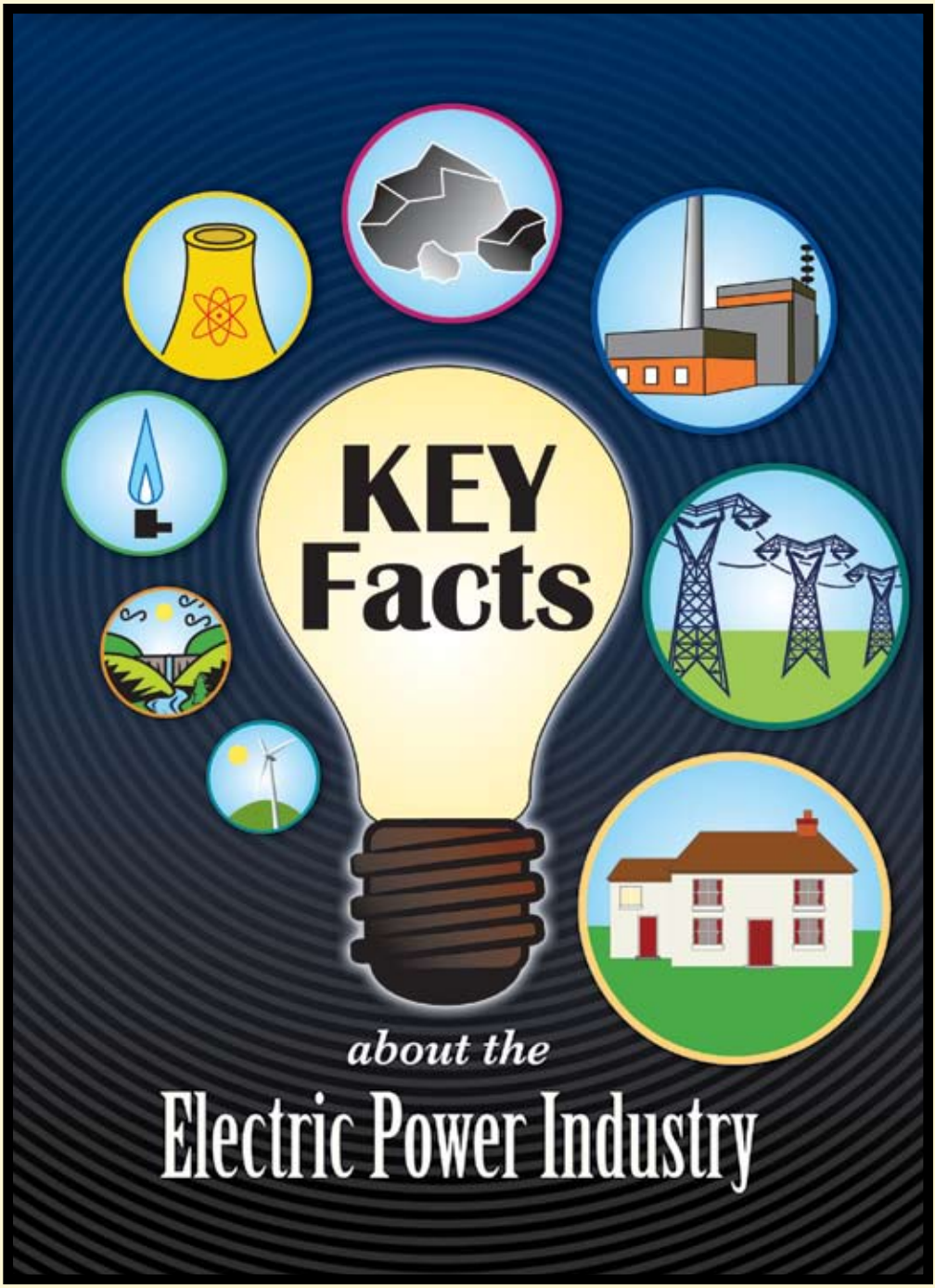
EDISON ELECTRIC INSTITUTE

KEY Facts

about the

Electric Power Industry



Edison Electric Institute
701 Pennsylvania Avenue, N.W. • Washington, D.C. 20004 • www.eei.org

Table Of Contents

Introduction: A Look At The Electric Power Industry

The electric power industry is a $298-billion-plus industry that provides a vital service essential to modern life. It provides the nation with the most prevalent energy form known—electricity.

Electricity is the lifeblood of the U.S. economy. It powers our homes, offices, and industries; provides communications, entertainment, and medical services; powers computers, technology, and the Internet; and runs various forms of transportation. Not only is electricity the cleanest, most flexible, and most controllable form of energy, its versatility is unparalleled.

Clearly electricity is a crucial commodity we all take for granted. We scarcely think about it, unless we don't have it. Fortunately, almost without exception, electricity is there for us when we flip the switch.

In addition to providing reliable electricity to our homes and businesses, America's electric companies are solid supporters of local economic development efforts in thousands of communities across the nation. They contribute to the growth, strength, and stability of these communities by paying billions of dollars in tax revenue, by employing more than 400,000 workers, and by providing a variety of public service programs that address the local needs of the communities they serve.

Today the electric power industry operates in a hybrid model of competition and regulation. This booklet helps to familiarize you with many of the issues facing electric companies. It also helps to deepen your understanding of the different elements and dimensions that make up the electric power industry.

SECTION ONE:

Electric Power—An Overview Of The Industry And Its Impact

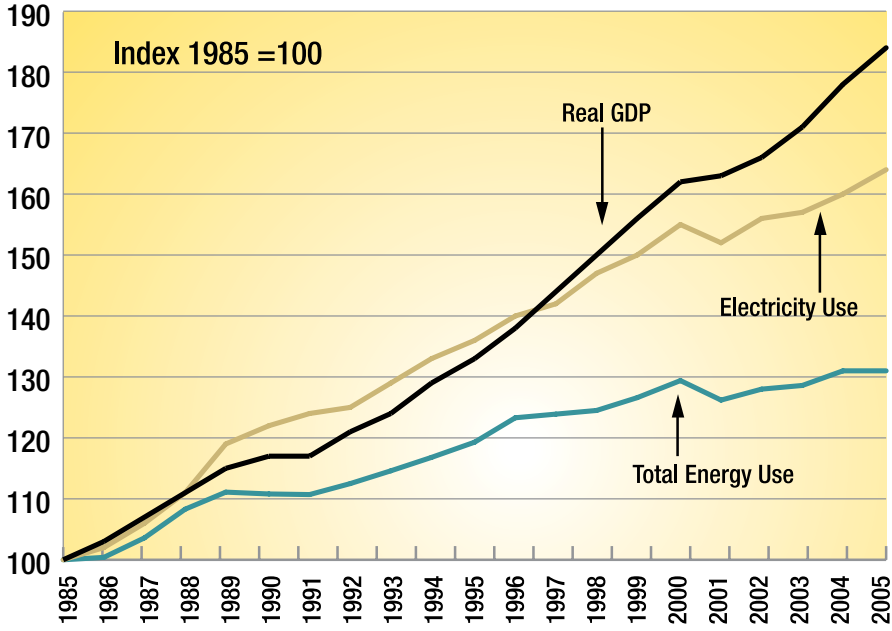
The electric power industry plays a critical role in our society on many levels. It advances the nation's economic growth and productivity; promotes business development and expansion; and provides solid employment opportunities to American workers. It is a robust industry that contributes to the progress and prosperity of our nation.

The Nation's Economic Growth Is Closely Linked To Electricity.

The U.S. economy is highly dependent on affordable and reliable electricity. Today's high-technology society demands electricity to power nearly all new products that come to market. Analysts use a term called "intensity" to relate electricity and energy use to the gross domestic product (GDP), the nation's gauge of economic health. Electricity intensity in our economy (measured by electricity consumption per dollar of real GDP) shows a close relationship between electricity and the general level of economic activity.

Historically, electricity demand has been sensitive to changes in economic growth. Growth in electricity use has coincided with growth in the GDP since the end of World War II. The tie between electricity use and the economy is the product of many factors, including the development of advanced electric technologies, population changes, and the relatively stable price of electricity.

U.S. Economic Growth Is Linked To Electricity Growth



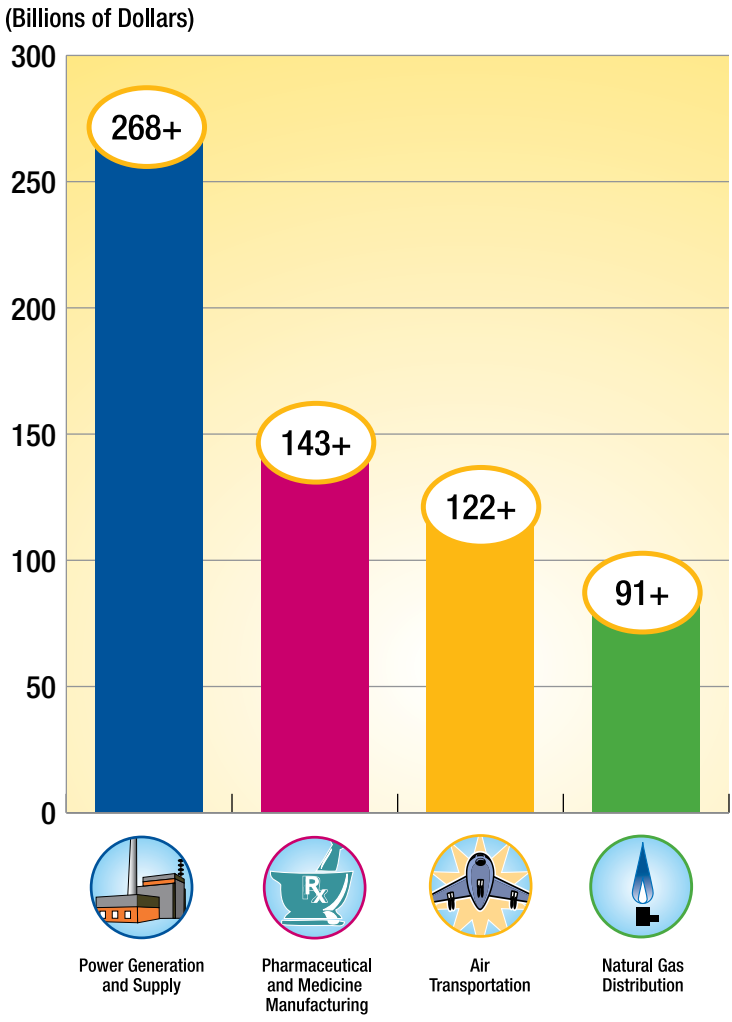
1985 represents the base year. Graph depicts increases or decreases from the base year.

Source: U.S. Department of Energy, Energy Information Administration (EIA).

The Electric Power Industry Is A Large Business Sector.

In 2005, the latest year for which data are available, the electric power industry earned more than $298 billion in revenue from sales to ultimate customers. In our nation's economy, the electric power industry represents three percent of real GDP. In terms of gross output—sales and other operating income, plus commodity taxes and changes in inventories—it is one of the largest industries in the country, surpassing other industries such as the pharmaceutical, airline, and natural gas industries.

Gross Output Of Key Industries

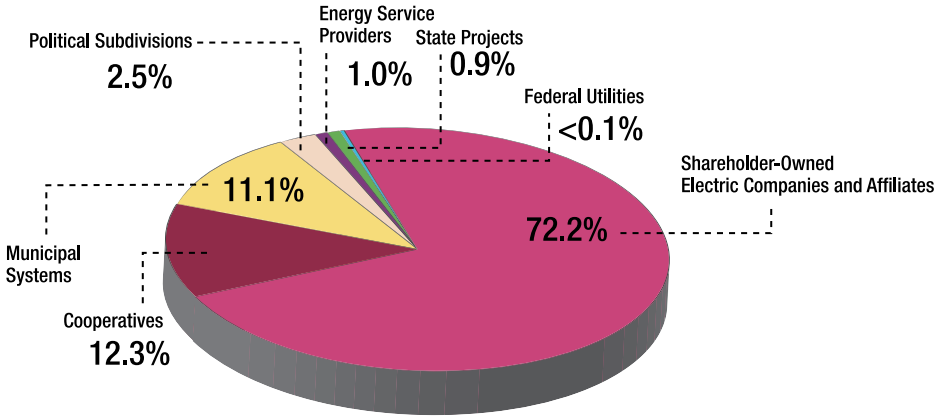


Source: U.S. Department of Commerce, Bureau of Economic Analysis, 2004.

Most American Consumers Are Served By Shareholder-Owned Electric Companies.

The shareholder-owned segment of the electric power industry serves more than 72 percent of American consumers. These companies are owned by millions of shareholders directly or indirectly through other investments such as retirement funds, life insurance policies, or mutual funds. The rest of the nation's consumers are served by energy service providers and government-owned and cooperatively owned electric utilities.

Percentage Of Customers Served By Each Type Of Provider

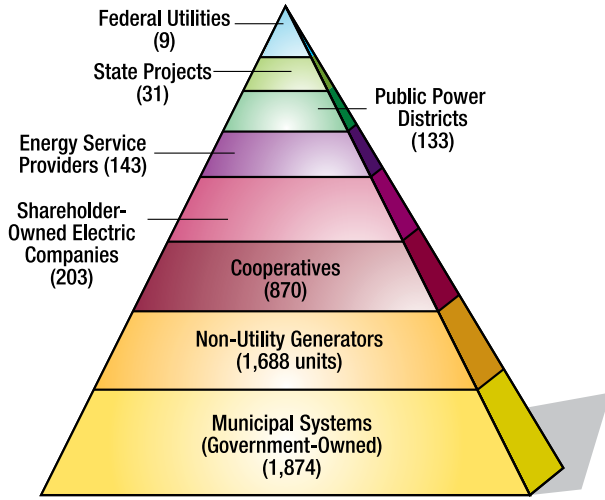


Source: Edison Electric Institute Business Information Group.

There Are Thousands Of Electric Power Suppliers Competing In Today's Markets, And The Number Is Increasing.

The U.S. electric power industry is becoming increasingly diverse and includes any entity producing, selling, or distributing electricity. In today's electricity markets, there are "traditional" electric utilities, such as shareholder-owned companies, electric cooperatives, and government-owned utilities. There are also many new electricity suppliers that have emerged as competition advances and that are vying to compete in wholesale and retail electricity markets.

Number Of Electric Power Suppliers In Today's Market



Source: Edison Electric Institute Business Information Group.

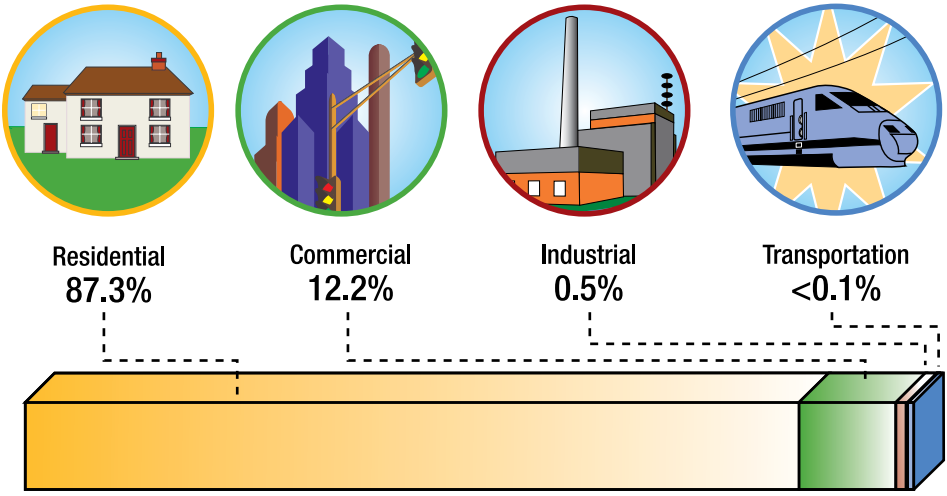
- Shareholder-owned electric companies are tax-paying businesses that are highly regulated and are financed by the sale of stocks and bonds to the general public.
- Cooperatively owned electric utilities are eligible for subsidized financing from the Rural Utilities Service (part of the Department of Agriculture), and are generally unregulated and exempt from paying federal income taxes.
- Government-owned electric utilities—including municipal systems, public power districts, state projects, and federal utilities—are generally unregulated. Municipal utilities are owned by the municipality in which they operate and are financed through municipal bonds. Federally owned utilities are involved in the generation and/or transmission of electricity, most of which is sold at wholesale prices to local government-owned and cooperatively owned utilities.
- Non-utility generators include cogenerators, small power producers, independent power producers, and merchant generators. In 2005, electricity generated from non-utility generators accounted for 35 percent of the total electricity generated in the United States.
- Energy service providers include corporations, generators, brokers, utility generation subsidiaries, or any other entity licensed to sell electricity to retail or end-use electric customers, in a competitive market, using the transmission or distribution facilities of an electric distribution company.

The Majority Of Customers Served By Electric Companies Are Residential Users, Yet Large Industrial Customers Consume More Than One-Third Of The Electricity Sold.

Electric companies serve customers in three major groups: residential, commercial, and industrial.

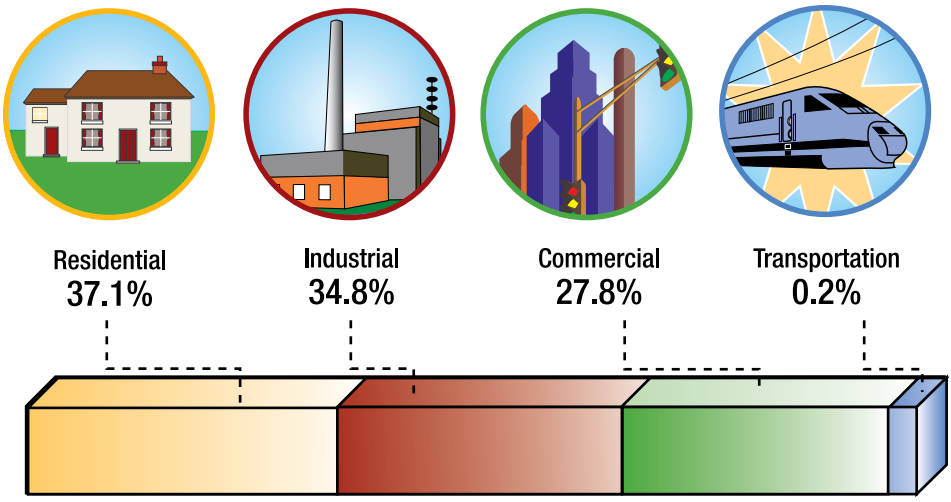
Residential consumers—those in individual homes and apartments—are the largest class of customers. Commercial customers are the next largest class and include businesses such as stores, hospitals, office buildings, hotels, supermarkets, and restaurants. Industrial customers—factories, refineries, textile mills, and other industrial plants—account for less than one percent of all customers, but consume more than one-third of electricity sold. Transportation customers, which account for less than one-tenth of one percent of all customers served by electric companies, include only electrified rail and urban transit systems.

Electric Company Customers By Class (2005)



Sources: U.S. Department of Energy, Energy Information Administration (EIA), and Edison Electric Institute.

Electricity Sales To Total Ultimate Customers (2005)



Sources: U.S. Department of Energy, Energy Information Administration (EIA), and Edison Electric Institute.

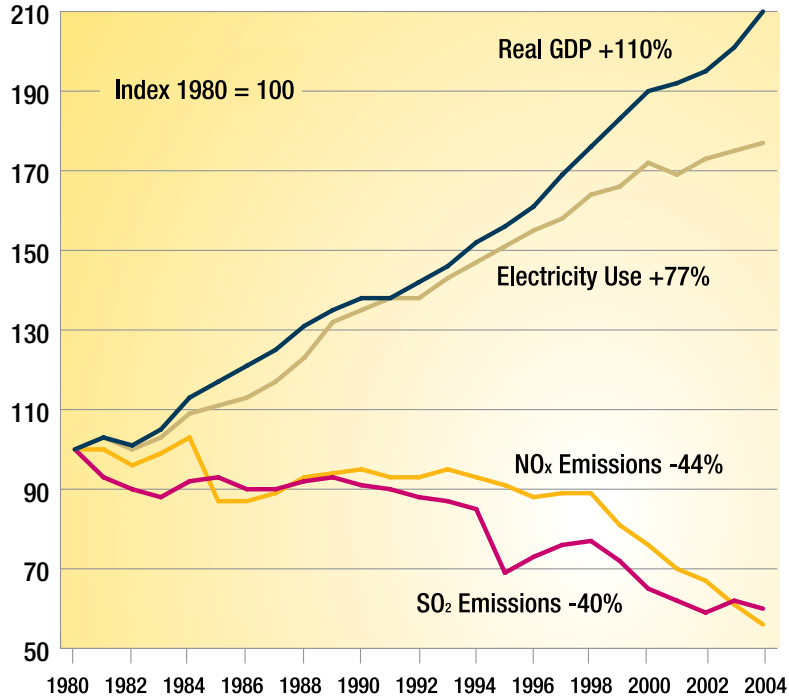
More Than 400,000 People Are Employed By The Electric Power Industry.

The electric power industry directly employs more than 400,000 Americans, thus enhancing the economic health of thousands of communities, and, in some cases, acting as the primary source of employment. Electric companies are also a source of revenue and employment for other businesses in the community, as they depend on private contractors for goods and services ranging from administration to complex generating equipment.

Power Plants Are Reducing Emissions Even As Demand For Electricity Increases.

Electric companies work hard to protect the environment of the communities in which they operate. Electric companies spend billions of dollars each year on environmental practices, technology, and operational measures to protect human health and the environment. As a result, air quality in the United States has improved dramatically in recent years. In fact, since 1980, electric companies have reduced emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO_2) significantly, while electricity demand has grown by 77 percent. The electric industry is constantly searching for new and innovative ways to generate electricity—and to use it wisely—while also protecting the environment.

Power Plants Reduce Emissions Despite Increasing Electricity Demand (1980-2004)



1980 represents the base year. Graph depicts increases or decreases from the base year.

Sources: U.S. Department of Energy, Energy Information Administration (EIA), and U.S. Environmental Protection Agency (EPA).

SECTION TWO:

Generating Power And Getting It To The Consumer

Delivering electricity to America's consumers is a complex task. Behind it lies a series of highly technical functions such as the generation of power, its transmission, and its final distribution to the consumer. Because of the physical nature of electricity, the entities performing these functions are not isolated. To a degree, all power suppliers and delivery systems are interconnected; thus, the decisions they make affecting the generation, transmission, and distribution of power have widespread effects on all consumers. Consequently, communication and cooperation among all power suppliers and delivery systems are essential to the smooth working of this industry.

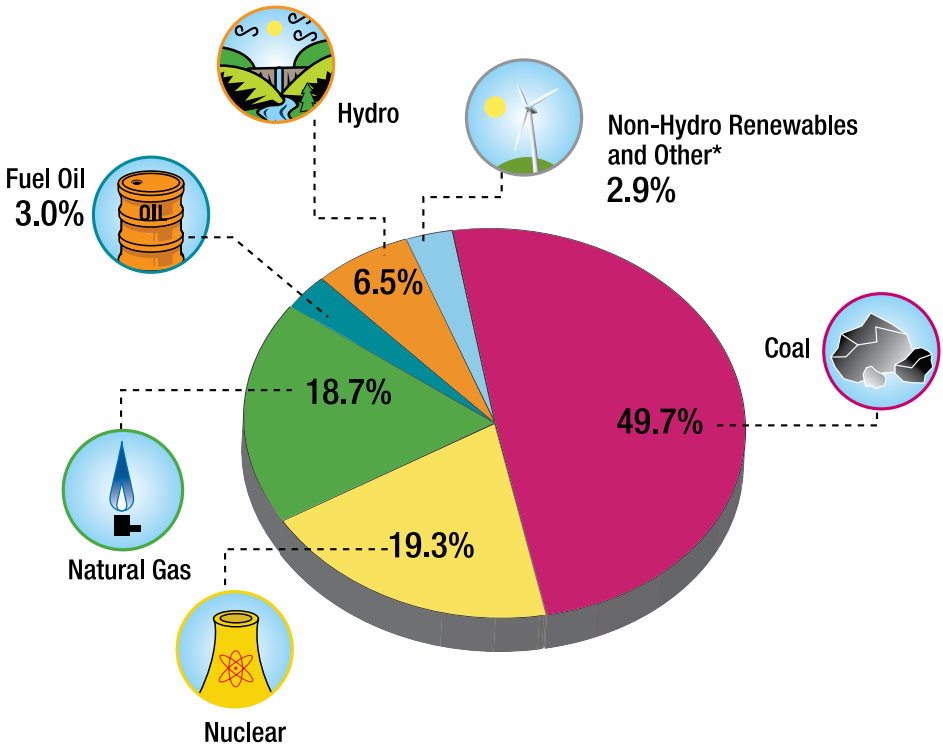
The Energy Policy Act of 2005 (EPAct 2005), which was enacted in August 2005, provided many important provisions to improve electric reliability, promote infrastructure investment and fuel diversity, and enhance energy efficiency.

Electric Companies Use A Broad Mix Of Fuel Sources To Generate Electricity.

No single fuel is capable of providing the energy to meet all of our nation's electricity demands; therefore, many energy sources provide the fuel necessary to generate electricity. The combination of energy sources used is referred to as the generation or fuel mix. Nearly half of the nation's electricity supply is generated from coal. Nuclear fuel produces more than 19 percent. Natural gas supplies nearly 19 percent. Hydropower provides more than six percent of the electricity supply. Fuel oil provides three percent of the generation mix. Biomass supplies nearly two percent. Other renewable sources—such as wind, solar, and geothermal—provide more than one percent of the generation mix.

Most electric companies rely on a variety of fuels to generate electricity. A varied fuel mix protects electric companies and their customers from

Electric Companies Use A Diverse Mix Of Fuels To Generate Electricity



* "Other" includes generation by agricultural waste, batteries, biomass, chemicals, geothermal, hydrogen, landfill gas recovery, municipal solid waste, non-wood waste, pitch, purchased steam, solar, sulfur, wind, and wood.

Source: U.S. Department of Energy, Energy Information Administration (EIA), 2005 data.

contingencies such as fuel unavailability, fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel. Fuel diversity also helps to ensure stability and reliability in electricity supply and strengthens national security.

The electricity generation mix also differs in various regions of the country. For example, in New England, more than 60 percent of power is generated from natural gas and nuclear power combined. However, in the South Atlantic region, more than 50 percent of power is generated from coal alone. Therefore, major changes in the generation mix could have economic and reliability impacts, especially on a regional basis.

Electric Companies Consider Numerous Factors To Determine Their Fuel Mix.

Many factors influence an electric company's decision to use particular fuels to generate electricity. Chief among them are price, availability, and reliability of supply. Government policies also influence fuel choice, and the mix of fuels used to generate electricity in the United States has shifted over the past 30 years. For example, in the late 1970s—the midst of an energy crisis—new utility power plants were prohibited from burning natural gas or petroleum products to generate electricity by the Powerplant and Industrial Fuel Use Act (repealed in 1987). Instead, decisions were made to build more coal-based power plants.

However, as environmental regulations continued to create uncertainty and high costs for coal-based plants, natural gas emerged as the fuel of choice for new electricity generation in the 1990s. After natural gas prices began to rise early in the 21st century, a renewed emphasis was placed on building new, large baseload coal and nuclear generating plants to respond to growth demands, environmental requirements, and the relatively high cost of natural gas.

The fuel choice of electric companies also depends on whether power plants will be used continuously or only during peak usage times, their environmental impact, and necessary environmental controls.

EPAct 2005 helps preserve a stable, diverse supply of fuels for electricity generation. Provisions within the law substantially increase federal funding for clean coal power initiatives and coal-based gasification technologies; promote the use of nuclear energy; increase natural gas and oil supplies; and promote hydropower and other renewables—all without government mandates as to which fuel must be used.

Each Fuel Source Faces Challenges.

The impact of rising energy prices on the economy underscores the importance of fuel diversity in ensuring a reliable supply of electricity. However, policy makers and regulators are asked to remember that each fuel source faces its own challenges that can restrict fuel generation options.

Coal

The U.S. Department of Energy's Energy Information Administration (EIA) predicts that the share of electricity produced from coal-based power plants will increase to 57 percent of the national fuel mix in 2030.[1] In order to meet the increased demand for electricity generated from coal, electric companies must invest in more power plants and clean coal technologies. EPAct 2005 provides incentives for the development of clean coal technologies, and electric companies are committed to investing in these emerging technologies.

However, coal-based generators face a variety of environmental challenges and regulations aimed at reducing power plant emissions. While today's coal-based plants are much more efficient and cleaner than those built 20 years ago, there are still concerns about the environmental impact of coal-based plants. In addition, coal-based plants are more expensive to build than natural gas-based plants, and require a more extensive permitting process and longer construction times. Also, rail and barge transportation issues can affect the cost and availability of coal. Finally, the possibility of federal regulation of carbon dioxide (CO_2) and other greenhouse gases presents an element of regulatory uncertainty, while the electric power sector strives to develop ways to capture and store CO_2 emissions from coal-based power plants.

Despite these challenges, electric companies have made significant reductions in the emissions of nitrogen oxides and sulfur dioxide, even as demand for coal-based electricity increased. Going forward, electric companies remain committed to even further reductions. By investing in emerging clean coal technologies, electric companies are helping to develop the next-generation of clean, efficient coal-based plants, including demonstration of a near-zero emissions generating unit. Through continued collaboration with the federal government, the electric power industry will help move these projects along the research and development path to full-scale commercialization.

[1] U.S. Department of Energy, Energy Information Administration, *Annual Energy Outlook 2007*, February 2007.

Nuclear Power

Interest in building nuclear power plants continues to grow as supporters recognize the improved efficiencies of the plants and the carbon-free source of energy they provide. The electric power industry is working together to create new nuclear projects through a nuclear development company owned by nine power companies. The industry also is actively participating in domestic and international partnerships to further the development of next-generation nuclear technologies. EPAct 2005 encourages investment in new nuclear facilities with financial incentives and risk protections for initial project development. After an energy company receives the necessary permits, building a nuclear power plant can take four to five years.

However, unresolved questions about how to dispose of spent fuel from nuclear power plants are a significant impediment to further utilization of this fuel source. In addition, the next generation of nuclear plants is expected to face higher capital costs than conventional fossil fuel units.

Natural Gas

Increasing demand for natural gas has created pressure on the supply of this fuel source and increased its price dramatically over the past few years. Importantly, EPAct 2005 provides incentives to increase natural gas production and encourage investment in natural gas delivery facilities. Congress also passed legislation in late 2006 to open more than 8.3 million acres in the Lease 181 area of the Outer Continental Shelf for oil and natural gas exploration. Lawmakers should continue to reconsider long-standing policies that restrict energy exploration and limit the availability of natural gas. Reforming these policies will allow further utilization of this fuel source and will help to reduce price pressures.

Hydropower

Hydropower is our country's most prevalent renewable resource, providing more than six percent of total U.S. electricity supply. Importantly, there are no fuel costs or air emissions associated with hydropower. Due to the locations of large water sources, certain parts of the country have become highly dependent on hydropower. In fact, in the Pacific Northwest, up to 70 percent of electricity is generated from hydropower. EPAct 2005 modestly improved the relicensing process for existing hydropower projects, a key component to the future of this fuel source. However, ongoing pressures from federal and state

regulators and non-governmental organizations threaten the continued viability of existing hydro facilities, while creating hurdles for the development of new hydro capacity.

Non-Hydro Renewable Sources

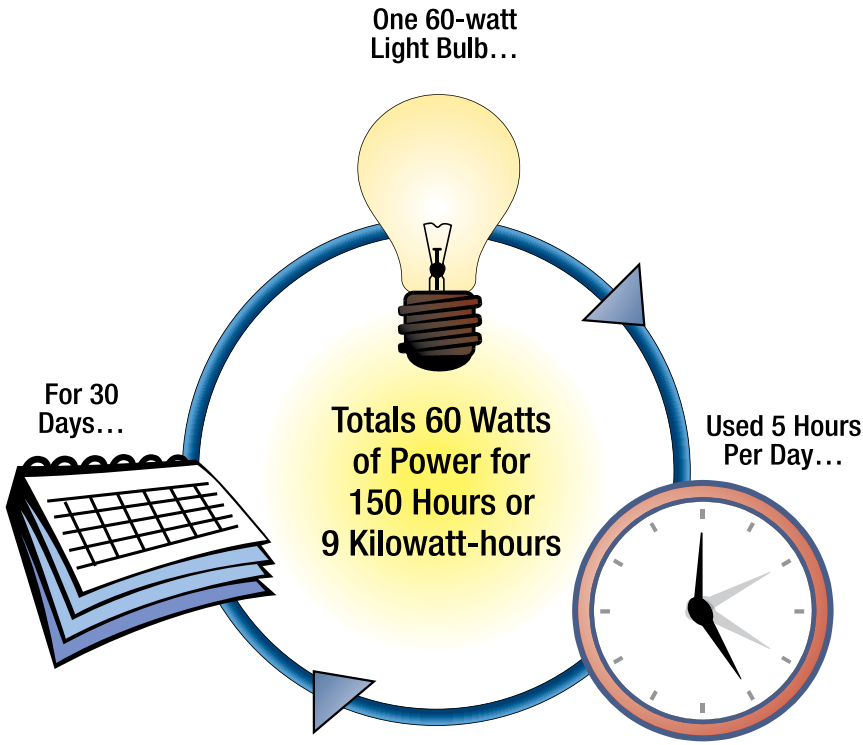
Renewable energy sources—such as solar power, wind, geothermal, and biomass—produce minimal environmental impact and generally have low or no fuel costs. To promote non-hydro renewables, EPAct 2005 extended the production tax credits for certain renewable energy sources and authorized research and development programs in renewable energy. Over the past few years, wind power has become the fastest-growing renewable energy source in the country, with wind farms currently operating in 32 states.

However, many renewable sources are intermittent—that is, not available at all times or not readily available when electricity is required immediately. As a result, intermittent renewable resources must be backed up by generating facilities that can be better controlled, such as natural gas plants. Renewable technologies generally are more expensive to build (on an installed $/kilowatt basis) than fossil fuel-based generation, although wind power has become more competitive in this area. Renewable sources of energy also face their own environmental and siting concerns.

Electricity Is Measured In Watts.

Electricity is measured in units of power called watts. One watt is such a small amount of power, however, that the more commonly used measurement is the kilowatt, representing 1,000 watts. The higher the watt or kilowatt rating of a particular electrical device, the more electricity it requires.

The amount of electricity a power plant generates or a customer uses over a period of time is measured in kilowatt-hours (kWh). Kilowatt-hours are determined by multiplying the number of watts required by the number of hours of use, and then dividing by 1,000. For example, if you use a 60-watt light bulb five hours a day for 30 days, you have used 60 watts of power for 150 hours, or nine kWh of electrical energy. Although electricity use varies widely depending on the season and the region of the country, a typical household uses about 938 kWh of electricity a month.[2]

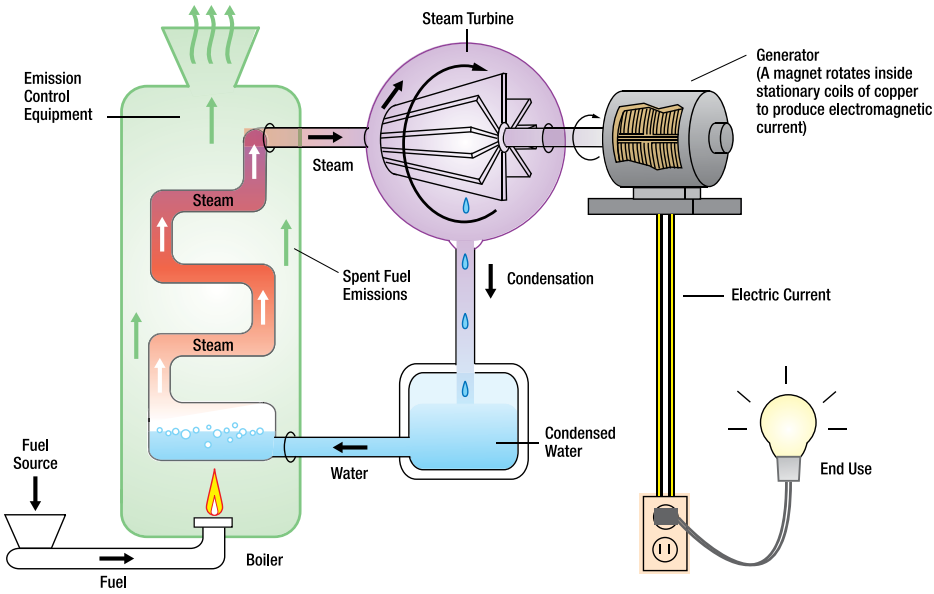


[2] U.S. Department of Energy, Energy Information Administration, *Electric Power Annual 2005*, October 2006.

Electricity Is Produced Around The Clock By Generators In Power Plants.

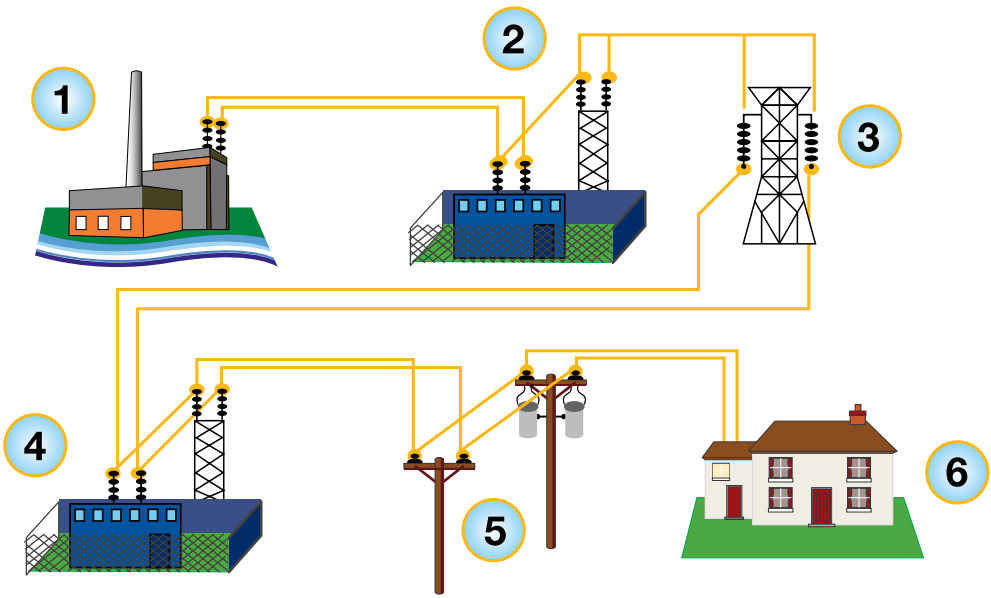
Electricity is produced in a generating plant. The simplest type of generator has two main components: a rotating magnet called the "rotor," which turns inside stationary coils of copper wire called the "stator." When the rotor rotates through the magnetic field, it generates a flow of current through the copper coils of the stator. Generating plants must use some form of energy or fuel to turn the rotor.

Most electricity is produced by burning fossil fuels—coal, natural gas, and, to a much lesser extent, fuel oil. These fuels are burned in a boiler to turn water into steam. Under high pressure, the steam turns the blades of a turbine that spins a generator, producing electricity. In a nuclear plant, steam is produced by the controlled splitting of uranium atoms in a process known as nuclear fission. In a hydroelectric power plant, moving water provides the energy to turn the turbine blades. With wind turbines, the flow of wind turns the turbine blades, which then turn an electric generator. With solar power, sunlight is converted into electricity through solar cells that absorb the sun's energy.



Electricity Must Travel From Power Plants Through A Vast Network Of Overhead Lines And Underground Cables To Reach Consumers.

Electricity moves through a complex transmission system. Transformers are located in substations near an electric generating plant. In much the same way that a pump builds up the pressure of water in a hose, transformers step up the electricity voltage to levels ranging from 69,000 to 765,000 volts. The voltage level depends on the distance the electricity must travel and the amount desired. From the transformers, electricity enters the transmission system. Transmission lines, which consist of heavy cables strung between tall towers, carry electricity to the point where it is needed. Electricity travels at nearly the speed of light, arriving at a destination at almost the same moment it is produced.



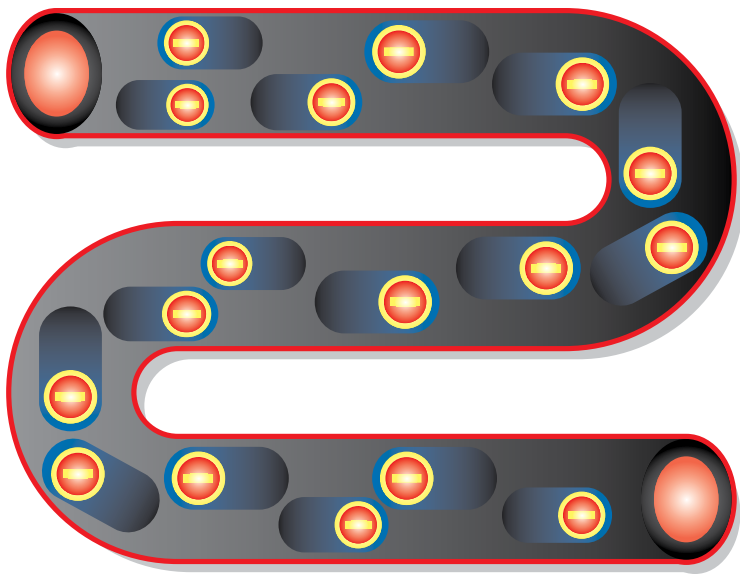
When electricity leaves a power plant (1), its voltage is increased at a "step-up" substation (2). Next, the energy travels along a transmission line to the area where the power is needed (3). Once there, the voltage is decreased or "stepped-down," at another substation (4), and a distribution power line (5) carries the electricity until it reaches a home or business (6).

Step-down transformers located in distribution substations reduce the voltage of the electricity from transmission lines to lower levels so it can be carried on smaller cables or distribution lines. Smaller transformers on poles or underground further reduce the voltage so that it can be used by residential customers. Homes, businesses, and farms require 120- or 240-volt service. Industrial customers using large amounts of electricity ordinarily require higher service voltages.

Electricity Has Unique Properties That Do Not Allow It To Be Stored Or Routed.

Unlike oil or gas in a pipeline, electricity cannot easily be stored. It must be generated and delivered at the precise moment it is needed. To reach consumers, electricity must travel from a power plant through miles of transmission and distribution lines until it reaches its final destination where it will be used.

Electricity travels through the path of least resistance. This path must be made of a material—such as metal—through which electrons can easily travel. Unlike telecommunications, electricity cannot be routed from one destination to another. Electricity will travel down whatever paths are made available to it but cannot be directed to go to a particular destination. Utilities have interconnected their transmission systems so that they may buy and sell power from each other and from other power suppliers, and to ensure reliability of service.



Electric Companies Meet Peak Consumer Demand By Keeping Additional Generating Capacity Available.

Electricity must be produced when customers need it. Because electricity cannot be stored easily or economically, electric companies and other electricity suppliers must have enough generation facilities available to meet the maximum demand on their systems, whenever that occurs.

The electric load that electric companies and other electricity providers must supply is the sum of all customers' demands. Because customer needs vary constantly, demand varies constantly, too. Heaviest demand usually occurs during the day from all sectors—industrial, commercial, residential, and transportation—and lowest demand during the night. Demand also varies with the seasons and with changes in the weather.

To ensure that there is enough electricity available to meet customer demand, some plants work around the clock, allowing electric companies and other power providers to generate a steady supply of electricity equal to the demand of their customers. Typically, companies use coal-based, hydro, or nuclear plants to provide this continuous service because they are cheaper to run for prolonged periods.

Pumped storage hydro, natural gas, or oil-based units are usually the units of choice for providing service for the hours of the day when demand hits its highest levels or peak. These peaker units may be started and stopped quickly, unlike coal- and nuclear-based plants.

Reliable Service Is The Result Of Cooperation And Communication Among Electric Companies.

The North American electric system is comprised of an interconnected network of generating plants, transmission lines, and distribution facilities. Transmission lines link the generators of electricity to the distributors, transporting electricity to local companies, which in turn deliver it to consumers.

These transmission lines are divided into three regional grids: one in the East that connects the Eastern seaboard and the Plains states and Canadian provinces; another in the West that connects the Pacific coast and the Mountain states and provinces; and another that operates in most of Texas. These networks provide electric companies with alternative power paths in emergencies and allow them to buy and sell power from each other and from other power suppliers.

The structure of the grid makes reliability possible, but what makes it a reality is the coordination in operations of the electric companies that make up this network. For the electric power grid to work smoothly and without disruption, a transmission operator must be aware not only of the power flowing over its own system created by its own generators and the electricity demand of its customers, but it also must be aware of the transfers of electricity between other systems and how those transfers might flow through its own system.

To coordinate power flow, control areas have been formed. Control areas consisting of one or several transmission operators ensure that there is always a balance between electricity generation and the amount of electricity needed at any given moment to meet demand. A margin of capacity beyond the actual load is needed to ensure reliability at times of peak demand and to provide for maintenance down times. Operators use computerized systems to exercise minute-by-minute control over the network and to ensure that power transfers occur during specified times in pre-arranged amounts.

EPAct 2005 mandated important changes to help ensure electric reliability in several ways. To begin, it made electric reliability rules mandatory on all users, owners, and operators of the nation's transmission system. To accomplish this, an independent, self-regulating organization, called the Electric Reliability Organization (ERO), was created with Federal Energy Regulatory Commission (FERC) oversight to enforce reliability rules. FERC certified the North American Electric Reliability Corporation (NERC) to serve as the ERO in July 2006, and the ERO became operational in January 2007.

EPAct 2005 also gives FERC the authority to approve the location, or "siting," of electric transmission facilities in certain areas if states cannot or will not approve the siting in a timely manner. The law also streamlines the permitting process of federal agencies by designating the U.S. Department of Energy as the lead agency for federal permits needed for transmission projects.

Electric Companies Are Using Resources More Efficiently To Meet Growing Demand And To Protect The Environment.

The electric power industry works hard to meet two challenging goals: provide an increasing amount of electricity to consumers while also reducing the amount of emissions released into the environment. The electric industry is constantly searching for new and innovative ways to generate electricity—and to use it wisely—while also protecting the environment.

As a result, since 1980, air quality in the United States has improved dramatically, and emissions of nitrogen oxides (NO_X) and sulfur dioxide (SO_2) have fallen significantly—all during a time in which demand for electricity increased significantly. (See graph on page 8 for more details.)

In addition to complying with hundreds of state and federal regulations to protect human health and the environment, shareholder-owned electric companies also have implemented their own programs to protect the environment and the communities in which they serve. For example, the electric power industry incorporates responsible land management practices into all of its programs, including tree planting, vegetation control, timber management, fisheries and wildlife protection, transmission and facility line siting, recreation, and education.

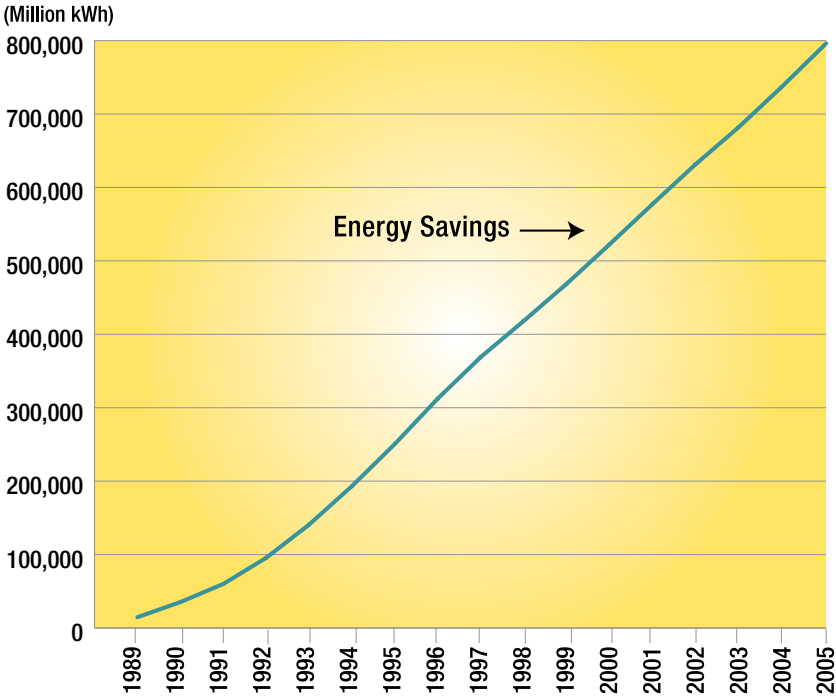
Electric Companies Are Working With Their Customers To Use Energy More Efficiently.

Electric companies work with their customers on ways that consumers can reduce their electricity use and control their energy bills with energy-efficiency programs. Programs include cash rebates, direct load-control programs, low-interest loans to buy energy-efficient appliances, and home energy audits to help consumers learn where they can reduce their energy use.

Energy-efficiency programs are making a difference. Between 1989 and 2005, electric company demand-side management programs saved almost 797 billion kilowatt-hours (kWh) of electricity. That is enough to power almost 74 million average U.S. homes for one year.[3]

[3] U.S. Department of Energy, Energy Information Agency, *Electric Power Annual 2005*, October 2006.

Cumulative Energy Saved By Electric Utility Demand-Side Management And Energy-Efficiency Programs (1989-2005)



Source: U.S. Department of Energy, Energy Information Administration. Some utilities were spending money on DSM as early as 1976. National data are not available for expenditures from 1976-1988.

Electric companies now are pursuing a variety of innovative business and regulatory approaches that will encourage the use of state-of-the-art efficiency technologies and services. They also are pursing actions to seize a wide range of opportunities to improve energy efficiency. These are improving the efficiency of buildings and appliances, accelerating the development of advanced metering infrastructure, supporting innovative rates and regulation, advancing more efficient distribution transformers, and encouraging the development of plug-in hybrid electric vehicles.

SECTION THREE:

The Regulation Of Shareholder-Owned Electric Companies

Although the electric power industry is a diverse one with thousands of suppliers, not all of them are regulated in the same way. Some suppliers, such as shareholder-owned electric companies, are highly regulated at the federal and state levels; others, such as electric cooperatives and government-owned utilities, are not subject to the same regulatory requirements.

The promotion of wholesale electric competition by the Federal Energy Regulatory Commission and the introduction of retail choice in some states, beginning in the late 1990s, changed the regulatory landscape for utilities. The enactment of the Energy Policy Act of 2005 (EPAct 2005) in August 2005, meanwhile, mandated important regulatory changes to enhance reliability, promote investment and fuel diversity, modernize outdated federal electricity laws, and enhance consumer protections.

The Federal Power Act

The Federal Power Act (FPA), enacted in 1935, is the primary federal law that regulates the shareholder-owned segment of the electric power industry. The FPA regulates interstate wholesale power transactions and the transmission of electric power. The FPA also created the Federal Power Commission (FPC), which ensured that electricity rates were "reasonable, nondiscriminatory, and just to the consumer." In 1970, the FPC's functions were transferred to the newly created Department of Energy and the Federal Energy Regulatory Commission (FERC).

The Federal Energy Regulatory Commission (FERC)

Today, FERC regulates interstate transmission and wholesale power transactions, which involve shareholder-owned electric companies buying or selling electricity from one another or from other power suppliers for resale to the ultimate customer. FERC has the authority to regulate the prices, terms, and conditions of these wholesale power sales and transmission services.

While FERC has primary jurisdiction over shareholder-owned electric companies, the agency has only very limited jurisdiction over federal- and state-owned utilities and electric cooperatives.

In 1996, FERC issued Order 888, opening the electric transmission lines owned by shareholder-owned companies to all suppliers. Virtually thousands of suppliers are now competing for use of these lines in the wholesale electricity market. EPAct 2005 allows FERC to extend a similar version of these requirements to the largest electric cooperatives and government-owned utilities.

After FERC opened access to transmission lines in the wholesale market, electric companies began joining together to form Regional Transmission Organizations (RTOs), which provide independently operated transmission service under consistent terms and conditions. FERC has encouraged the formation of RTOs.

The Energy Policy Act of 2005 (EPAct 2005)

EPAct 2005 modernized several major federal laws governing the electric power industry—including the Federal Power Act—and made important changes, which are detailed below, to guarantee electric reliability for consumers. EPAct 2005 also expanded FERC's existing authority to review merger and acquisition activity by shareholder-owned electric companies and strengthened FERC's anti-manipulation authority.

Repeal of the Public Utility Holding Company Act (PUHCA)

PUHCA was enacted in 1935 to regulate the corporate structure and financial operations of utility holding companies. EPAct 2005 repealed the outdated PUHCA, effective February 8, 2006, and transferred strong consumer protection authorities to FERC and the states. The congressional repeal of PUHCA eliminated significant federal restrictions on the scope, structure, and ownership of electric companies. PUHCA repeal encourages critically needed investment in energy infrastructure by opening the door to new classes of non-utility investors, thus broadening the pool of capital available to enhance the electric power infrastructure.

However, the repeal of PUHCA is explicitly accompanied by new provisions in EPAct 2005 that transfer to FERC and state regulatory commissions access to the books and records of most holding companies and their affiliates to assure consumer protection. FERC also obtained authority to approve cost allocation issues within holding company systems if requested by a utility or state commission. Additionally, some states may reconsider the scope of their existing regulation and impose additional restrictions on holding companies in light of PUHCA's repeal.

Reform of the Public Utility Regulatory Policies Act (PURPA)

PURPA is one of five bills signed into law on November 8, 1978, as the National Energy Act. A major objective of PURPA was to expand the use of cogeneration and renewable energy sources. Regulated utilities were required to purchase power produced by a "qualifying facility" at a price equal to that which the utility would otherwise pay if it were to build its own power plant or buy power from another source (its avoided cost), regardless of whether they needed the power. In large part because of the way PURPA was implemented, it resulted in electricity consumers being forced to pay billions of dollars in above-market electricity prices. PURPA similarly imposed an obligation on electric companies to sell requested energy and capacity to qualifying facilities.

EPAct 2005 removed some of these costly requirements. The law established conditions for eliminating the mandatory purchase obligation and revising the criteria for new qualifying facilities that seek to sell power under the mandatory purchase obligation. To qualify for relief from the mandatory purchase obligation, electric companies must demonstrate that qualifying facilities in their region have nondiscriminatory access to competitive wholesale power markets.

Creation of the Electric Reliability Organization (ERO)

EPAct 2005 added a new section to the FPA to create the ERO, an independent, self-regulating entity that will enforce mandatory electric reliability rules on all users, owners, and operators of the nation's transmission system. This will require otherwise unregulated utilities, such as electric cooperatives and government-owned utilities, to comply with the mandatory reliability standards, as well. FERC is given oversight authority for the ERO. In July 2006, FERC certified the North American Electric Reliability Corporation (NERC) as the ERO. The ERO became operational in January 2007.

Environmental Regulations

The electric power industry must comply with literally hundreds of environmental regulations, including dozens of rules created in the wake of the federal Clean Air Act (CAA) and Clean Water Act (CWA). Other significant federal regulations include the Toxic Substances Control Act and the Resource Conservation and Recovery Act, which control chemicals and hazardous waste, respectively. In addition to federal rules, electric companies are subject to environmental regulations issued by individual states.

The most significant environmental regulations for the electric power industry involve air emissions from fossil fuel-based plants. The Acid Rain Program, created with a series of amendments made to the CAA in 1990, and subsequent programs to address ozone transport have helped to significantly reduce emissions of sulfur dioxide (SO_2) and nitrogen oxides (NO_X) from electricity generation.

In 2005, the U.S. Environmental Protection Agency (EPA) issued three new major regulations to further reduce SO_2, NO_X, and mercury emissions: the Clean Air Interstate Rule (CAIR), the Clean Air Mercury Rule (CAMR), and the Clean Air Visibility Rule (CAVR). EPA estimates that complying with these rules will cost the electric power industry $47.8 billion between the years 2007 to 2025.[4] Affected states are now focusing on how to implement CAIR and CAMR. Many states will adopt both federal

rules, while others are considering adopting regulations or passing legislation that go beyond the requirements in EPA's rules.

While CAIR applies to 29 eastern states and the District of Columbia, CAVR applies to all states and will require additional controls for SO_2 and NO_X to reduce haze that affects National Parks and wilderness areas.

In addition, many companies participate in programs to reduce emissions of carbon dioxide (CO_2) and other greenhouse gases. In 2004, leaders from the nation's power sector pledged to reduce collectively the industry's greenhouse gas emissions intensity—the amount of CO_2 emissions per kilowatt-hour of electricity. In 2004, the latest year for which data are available, the electric power sector undertook programs or projects that reduced, avoided, or sequestered more than 282 million metric tons of carbon-equivalent greenhouse gas emissions—accounting for approximately 63 percent of all reductions reported to the federal government in that year.[5] A number of states are imposing regulatory control programs on CO_2 emissions, and Congress continues to consider mandatory greenhouse gas emissions-reduction programs.

The electric power industry uses billions of gallons of water each day to operate fossil, nuclear, and hydroelectric generating plants. The CWA controls the discharge of pollutants into U.S. waters through the National Pollutant Discharge Elimination System (NPDES) program. It also directs EPA to set technology standards to control the release of pollutants to waters, key provisions of which affect utility cooling water intake structures, thermal discharges, storm water run-off, wetland management, and hydropower licensing. The electric power industry faces significant new investments to comply with recent rules initiated in 2004 under the CWA, which require modification of water intake structures to minimize adverse impacts on aquatic organisms. According to EPA, complying with the new water regulations will cost the electric power industry $400 million per year.[6]

Electric companies also are subject to numerous regulations for waste disposal, hazardous waste handling, recycling, species protection, and land management.

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[4] U.S. Environmental Protection Agency, Office of Air and Radiation, October 2005.

[5] U.S. Department of Energy, Energy Information Administration, *Voluntary Reporting of Greenhouse Gases Program 2004*, March 2006. Analysis by Edison Electric Institute.

[6] U.S. Environmental Protection Agency, Office of Water, *Economic and Benefit Analysis for the Final Section 316(b) Phase II Existing Facilities Rule*, February 2004, Chapter B-1, "Summary of Compliance Costs."

Additional Federal Regulations

Finally, the shareholder-owned segment of the electric power industry must comply with the many federal regulations that apply to all U.S. businesses. These regulations include financial and accounting requirements from the Securities and Exchange Commission and Commodity Futures Trading Commission; and anti-trust regulations from the Department of Justice and Federal Trade Commission.

A Number Of States Have Adopted Electric Competition.

In the mid-1990s, a number of states, especially in the Northeast, Mid-Atlantic region, and the Midwest, along with California, moved to restructure portions of the retail electricity industry. Aiming to lower costs by stimulating competitive markets for the generation portion of customers' bills, these states moved away from the traditional model in which state regulators set the retail prices for power. Today, 19 states and the District of Columbia have adopted programs for retail electric competition; competitive models vary by state. For example, only large customers have access to competition in Nevada and Oregon. The differences in approach reflect each state's unique circumstances, including current and historic electric rates, the availability and cost of different fuels, purchased power contracts, environmental policies, state and local taxes, and social programs such as low-income energy assistance.

State Regulation Of Electric Utilities Varies By State.

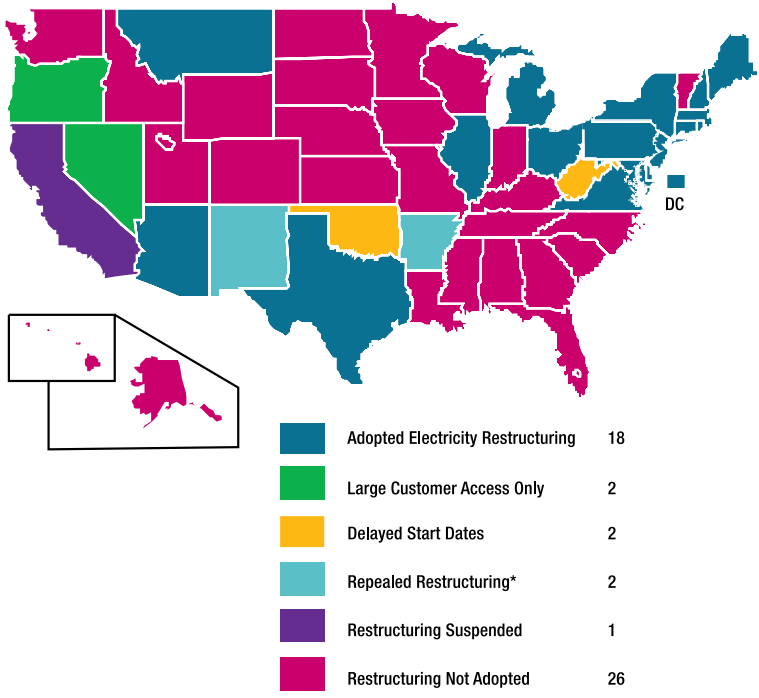
Traditionally, state governments regulated shareholder-owned utility transactions at the retail level, where the company is selling electricity directly to the end-user such as a home or business. The sale of electricity at the retail level was under the jurisdiction of state agencies known as Public Utility Commissions or Public Service Commissions. In most cases, the states also regulated the construction and siting of power plants and transmission lines.

As electricity choice evolved, state regulation changed on a state-by-state basis. Today, in all states, utility transmission and distribution functions remain highly regulated. How electric generation—and electricity rates—are regulated, however, varies by state. In the 31 states that have not adopted electricity choice, electricity rates are still determined by

state regulators who examine a company's entire cost of generating and delivering electricity to customers, and then set an electricity rate that will reimburse the company for those costs plus a fixed rate of return or profit. The regulators' goal is to keep customers' rates as low as possible, while also allowing companies to remain financially healthy and meet their obligations. This is called "cost-of-service" ratemaking and was the traditional model governing electric rates for many decades.

In the 19 states and the District of Columbia where electricity competition is in place, the electric power generation portion of customers' rates is frequently subject to competitive bidding, or auctions, in which electricity producers compete for contracts to serve the retail customers of electric companies. (Again, in these states, the transmission and distribution portions of customers' bills are still governed entirely by state regulators.) The exact competitive model varies by state, but the goal is to lower rates by fostering competition among suppliers. State regulators still must oversee this process, but the actual wholesale price for electricity is set in the competitive market.

Status Of Retail Electric Competition



* Arkansas and New Mexico repealed their restructuring laws 2/24/03 and 4/8/03, respectively.

Source: Edison Electric Institute, status as of December 2006.

Electricity Rates Reflect State Policies And Priorities.

While all electric companies use similar methods to generate electricity, each operates differently to meet the unique needs of its service area. As discussed, where you live determines how your rates are set. Regardless of whether your state has adopted electric choice or not, electricity costs nationwide are affected by variables such as fuel prices and availability, usage patterns, infrastructure investment costs, and regulatory policy.

The cost of fuel used to generate electricity has a direct bearing on the price an electric company charges for service. That cost not only depends on the type of fuel used, but also on the distance between the source of fuel and the power plant, and related transportation costs.

Environmental considerations in many locations require the burning of fossil fuels of low sulfur content to meet strict air quality restrictions regarding power plant emissions. Such fuels tend to be more expensive than those with higher sulfur content. Federal or state public policies may even preclude the use of certain fuel sources altogether.

State tax rates are another major variable that affects retail electricity rates. For example, some states impose a power generation tax. This tax is based on kilowatt-hours sold and is passed through to customers in the form of higher rates. The revenue from these taxes is used to address local needs.

Differences in customer electricity usage patterns have an effect on the price per kilowatt-hour. Most electricity is used during daytime hours when businesses are operating and residential customers are active. During the night, when businesses are closed and residential customers are asleep, the rate of consumption is much lower. Electric companies schedule the operation of their generating units to meet these changing patterns of use, with more expensive units operating only at times of high demand.

SECTION FOUR:

Electric Companies Are Operating In A Rising Cost Environment

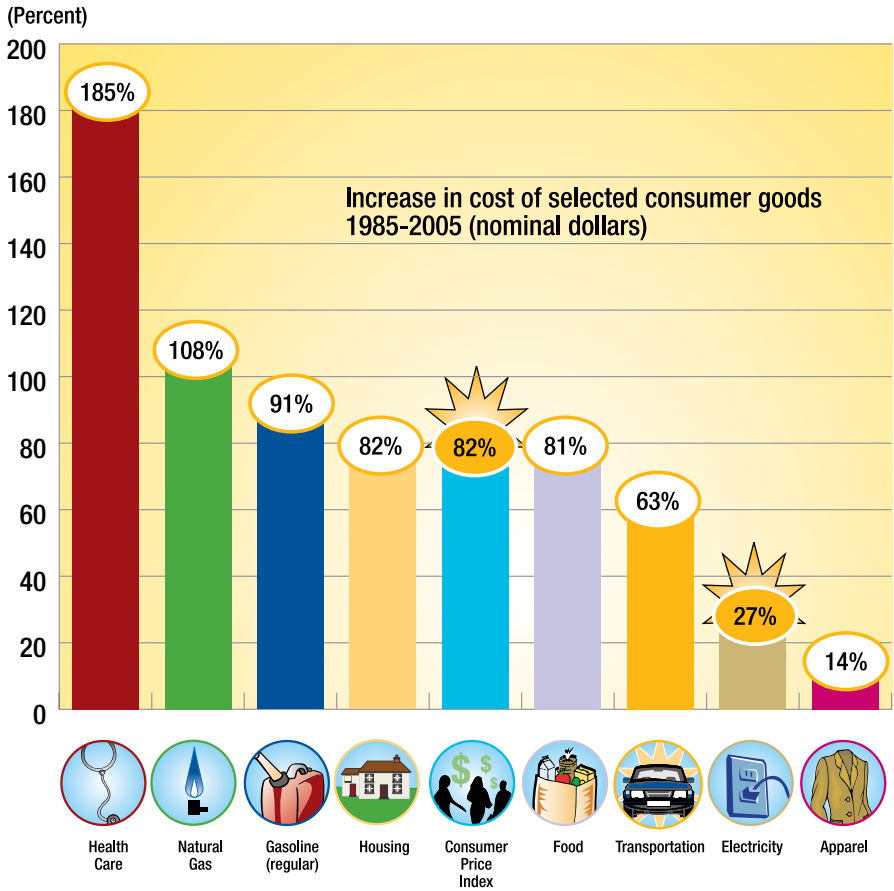
The electric power industry is among the country's most capital-intensive sectors, with many of its costs stemming directly from investments in and maintenance of the power plants, transmission and distribution lines, equipment, and structures that are used to deliver electricity. Electric companies typically cannot recover their costs when they are incurred; instead, they are required by regulatory authorities to spread out their costs to customers over the physical life of the investment—sometimes as long as 30 years—under the assumption that there will be a stable customer base.

Today, electric companies are facing steadily increasing costs to generate and deliver electricity to American homes, businesses, and industries. While electric companies make continuous efficiency improvements and are working closely with regulators to contain costs and to keep electricity prices as low as possible, rising electricity costs are becoming inevitable throughout the United States. And yet, electricity remains one of the true bargains among crucial U.S. commodities.

Electricity Prices Remain An Excellent Value.

Electricity prices—unlike the prices for most other common consumer goods—did not keep pace with the rate of inflation for many years, despite an ever-increasing national appetite for electricity. In fact, from 1985 to 2000, electricity prices rose, on average, by 1.1 percent per year, while inflation rose at a rate of 2.4 percent per year during this timeframe.[7]

Even with recent price increases, the growth rate for electricity prices remains comparable to, and even lower than, other important goods. The price of one kilowatt-hour of electricity (in nominal dollars) has increased by just 27 percent since 1985, while the prices of most other consumer goods have risen at much higher levels. This evidence points to an industry that has become more efficient itself—both in management and in technology.



Sources: U.S. Department of Labor, Bureau of Labor Statistics (BLS), and U.S. Department of Energy, Energy Information Administration (EIA).

The Costs To Generate Electricity Are Rising.

As discussed in Section Two, electric companies use a variety of fuels to generate electricity. Rising fuel costs significantly affect the price of electricity—for both electric companies and consumers. On an industry–wide basis, fuel and purchased power costs account for approximately 95 percent of the cost increases experienced by electric companies between 2002 and 2005. The increases in fuel costs were unprecedented by historical standards, affecting every major electric industry fuel source.[8]

Natural gas experienced a more than 100-percent increase in spot prices between 2003 and 2005 and a more than 300-percent increase since 1999. The price of oil-based fuels delivered to electric generators rose about 50 percent between 2003 and 2005. (While fuel oil is used to generate only 3 percent of electricity nationally, there are regions of the country that rely more heavily on oil for electricity.) Oil prices also have a significant impact on other fuels, and have driven up the costs of mining and shipping coal.

Average coal prices to electric companies increased 20 percent from 2003 to 2005. In some cases, coal prices rose much more. Finally, the price of uranium, the primary component of nuclear fuel, increased by about 40 percent between 2001 and 2005.[9]

Electric companies take steps to help shield customers from these rising fuel costs. For example, they frequently try to mitigate market volatility by "hedging," or entering into long-term, fixed contracts at set prices. But not all companies have this option, and such forward contracts cannot cover all of their fuel needs. At some point, customers inevitably will see these rising fuel costs that electric companies must pay reflected in their electric bills.

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[7] Gregory Basheda, Marc W. Chupka, Peter Fox-Penner, Johannes P. Pfeifenberger, and Adam Schumacher, *The Brattle Group*,"Why Are Electricity Prices Increasing? An Industry-Wide Perspective." Prepared for The Edison Foundation, June 2006, p. 5.

[8] Ibid, p. 9.

[9] See U.S. Department of Energy, Energy Information Administration's Web site for historical fuel price data, http://eia.doe.gov/.

Demand For Electricity Is Growing.

While efficiency improvements have had a major impact in meeting national electricity needs relative to new supply, the demand for electricity continues to increase. According to the U.S. Department of Energy's Energy Information Administration (EIA), consumer demand for electricity is projected to grow at an average rate of 1.5 percent per year through 2030. Overall, electricity consumption is expected to increase by at least 40 percent by 2030.[10]

Today, our nation's demand for electricity is at an all-time high. American homes use 21 percent more electricity today than they did in 1978. Going forward, electricity use will continue to grow as house sizes increase and consumers use more electric appliances and devices. Yet, even as electricity use increases, the average American household's total spending on electricity has fallen over time. As shown on page 36, average annual expenditures on electricity fell from 2.7 percent of total household expenditures in 1994, to 2.5 percent of household expenditures in 2004.

To meet the increasing demand for electricity and to ensure fuel diversity and reliability, electric companies must invest in new baseload power plants. According to EIA, 258 gigawatts (GW) of new capacity will be needed by 2030.[11] Based on EIA assumptions, if all of this new capacity is built, costs would be approximately $412 billion (in 2005 dollars).

Electric companies work with their customers on ways that consumers can reduce their electricity use and control their bills with energy-efficiency programs. Between 1989 and 2005, electric company demand-side management (DSM) programs saved almost 797 billion kWh of electricity. That is enough to power almost 74 million average U.S. homes for one year.[12] These savings are equal to the annual electricity output of slightly more than 336 baseload power plants (rated at 300 megawatts each). During the same period, the electric utility sector spent more than $30 billion on DSM programs. In 2005 alone, electric companies spent more than $1.9 billion on DSM programs—an increase of more than 23 percent from 2004.

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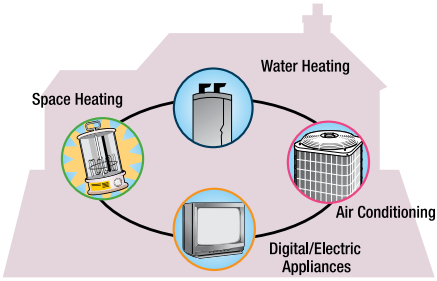
[10] U.S. Department of Energy, Energy Information Administration, *Annual Energy Outlook 2007*, February 2007.

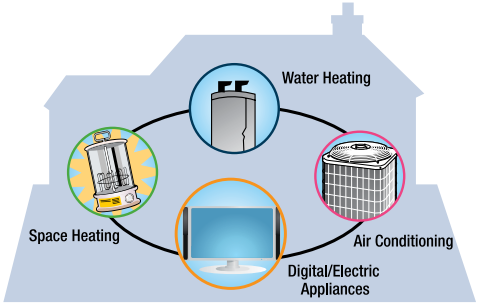
[11] Ibid.

[12] EIA, *Electric Power Annual 2005*, October 2006.

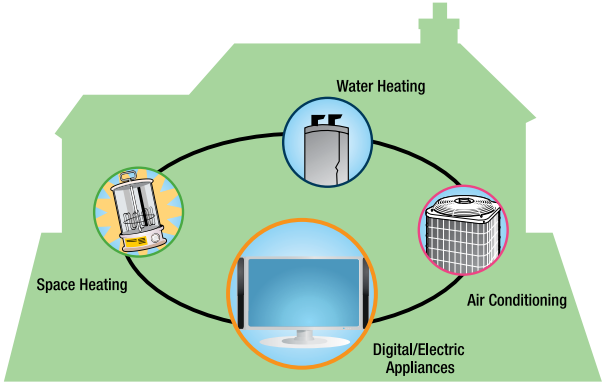
Electricity Use In The Typical U.S. Home — Yesterday, Today, And Tomorrow



Past (1978)
(1,755 sq. feet)
Average Total Use:
1.07 kW/Hour/Household



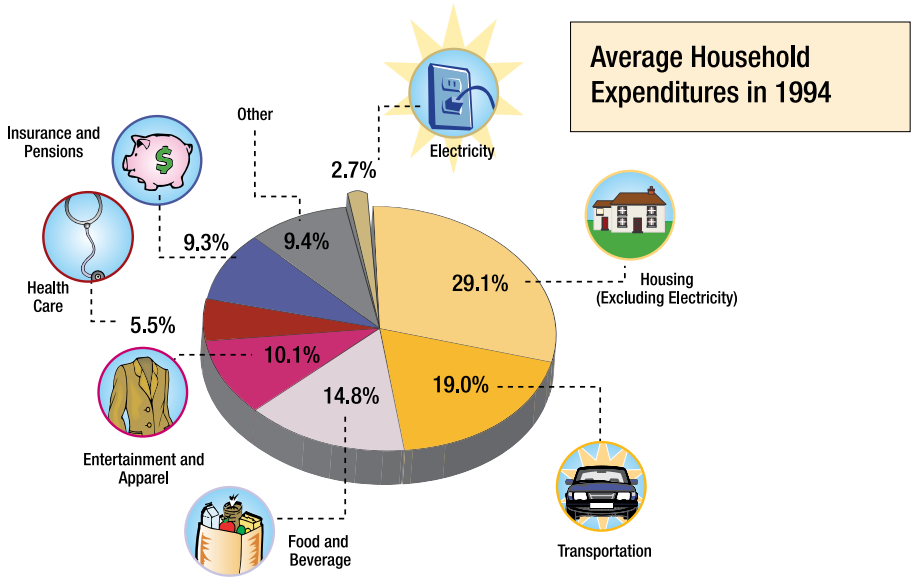
Present (2003)
(2,330 sq. feet)
Average Total Use:
1.30 kW/Hour/Household

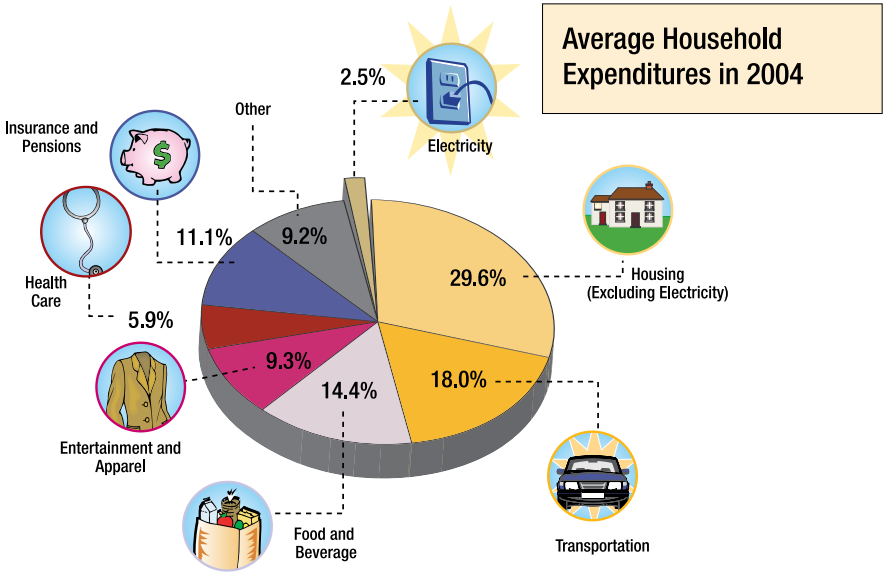


Future (2030)
Average Total Use:
1.45 kW/Hour/Household

Sources: *The Brattle Group*,
National Association of Home Builders.

At Today's Electricity Prices, Electricity's Share Of The Household Budget Is Smaller Than It Was In 1994





Source: Bureau of Labor Statistics.

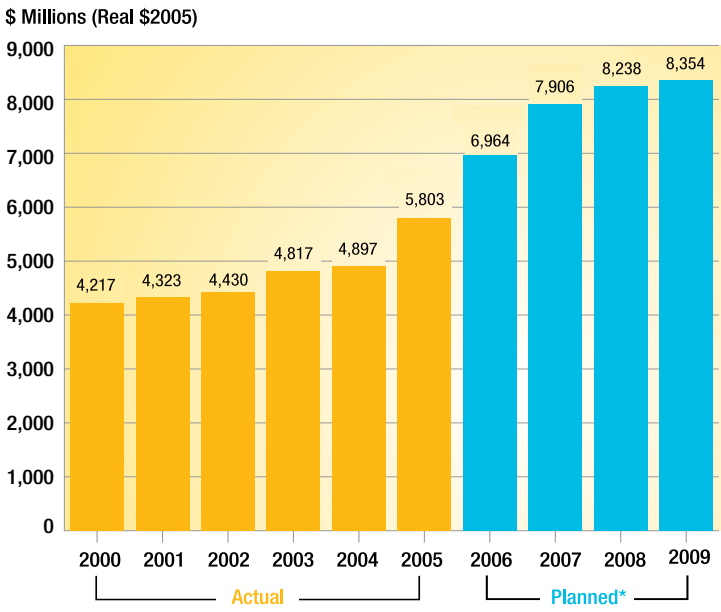
Infrastructure Investment Costs Are Growing.

In addition to building new power plants, electric companies also must reinforce the nation's electricity infrastructure, namely the high-voltage transmission lines, substations, and distribution systems that carry electricity to customers. More investment is needed to ensure that we have a robust infrastructure network to maintain reliability.

In order to build the system to better meet current and future demand, to alleviate congestion, and to reinforce system reliability, electric companies have earmarked billions of additional dollars for investment in the coming decade. In fact, from 2000 to 2005, electric companies invested more than $28 billion in the nation's transmission system, and are planning to spend an additional $31.5 billion from 2006 to 2009.

While the transmission system delivers high-voltage electricity from generators to substations, the distribution system reduces the voltage and then delivers the electricity to retail customers. In addition to substations, the distribution system includes wires, poles, metering, billing, and related support systems involved in the retail side of electricity delivery.

Actual And Planned Transmission Investment By Shareholder-Owned Electric Companies (2000-2009)



Note: In 2004 and 2005, the industry exceeded investment projections in their transmission capital budgets. *The Handy-Whitman Index of Public Utility Construction Costs* is used to adjust for inflation from year to year. Data represent both vertically integrated and stand-alone transmission companies. *Planned total industry expenditures are estimated from a 90 percent response rate to EEI's Electric Transmission Capital Budget & Forecast Survey. Actual expenditures are taken from EEI's Annual Property & Plant Capital Investment Survey & FERC Form 1s.

Source: Edison Electric Institute, Business Information Group.

The need to expand our distribution infrastructure and install new distribution equipment to meet population and demand growth will require continued investment. In addition, companies face ongoing non-recoverable costs associated with supporting other facilities attached to utility distribution infrastructure, such as telephone and cable wires. Electric companies are estimated to spend $14 billion per year on average over the next 10 years on distribution investment—almost triple the size of transmission spending. Over the next decade, distribution investment is likely to exceed capital spending on generation capacity as well.[13]

Environmental Compliance Costs Are Significant.

All electric companies are subject to hundreds of environmental rules, including dozens of federal and state air and water quality requirements created with the Clean Air Act and Clean Water Act. In fact, electric companies spend billions of dollars each year to help ensure protection of the air, land, and water. From 2002 to 2005, the electric power industry as a whole spent at least $21 billion on compliance with federal environmental laws; state and local rules drive that total even higher.

As a result, air quality in the United States has improved dramatically in recent years. In fact, since 1980, electric companies have reduced emissions of nitrogen oxides and sulfur dioxide by 44 percent and 40 percent, respectively, while electricity demand grew by 77 percent.

The costs associated with continuous environmental improvements are significant. For example, according to the U.S. Environmental Protection Agency, complying with two new federal rules aimed at further reducing power plant emissions of nitrogen oxides, sulfur dioxide, and mercury will cost the electric utility industry $47.8 billion between the years 2007 to 2025.[14] As electric companies enter another phase of emissions reductions, those costs will be reflected in customers' bills.

Price Caps Set During Industry Restructuring Are Expiring.

As discussed in Section Three, a major shift in the electric utility landscape began in the mid-1990s, as a number of states, especially those in the Northeast, Mid-Atlantic region, and the Midwest, along with California, moved to restructure portions of the retail electricity industry. Aiming to lower costs by stimulating competitive markets for the generation portion of customers' bills, these states moved away from the traditional model in which state regulators set the retail prices for power.

Today, 19 states and the District of Columbia have adopted programs for retail electric competition. One prominent hallmark of nearly every state that adopted such markets was this—as part of the gradual transition to competition, state policymakers decreed that customers' bills would be frozen, and in many cases reduced, typically for a period ranging from two to 10 years. The first rate caps were put in place in 1997, and the last are set to expire in 2011.

Beginning in 2004, many of those rate freezes and reductions began to be phased out. The result is that many customers now perceive that their rates are being "increased," when in fact they are gradually reflecting the costs already incurred by companies during the years the rates were frozen.

Electric Companies Help Control Rising Prices.

Over the past decade, the electric power industry has focused on improving the efficiency of its baseload generating fleet plants in order to save money and reduce the need for new investments. Since 1995, utilization of coal and nuclear generation has increased by 15 and 17 percent, respectively. Over the same period of time, non-fuel operations and maintenance costs have decreased by 17 percent for existing coal-based generators and 30 percent for nuclear generating units.

To help their customers manage their electricity costs and use energy wisely, electric companies have taken a leading role in developing energy efficiency and demand response programs for residential, commercial, and industrial customers. Between 1989 and 2005, electric utility demand-side management programs saved about 797 billion kilowatt-hours of electricity. That is enough electricity to power nearly 74 million average U.S. homes for one year. Efforts like these have been, and will continue to be, key factors in helping to mitigate rising fuel costs and the need for new infrastructure investments. For more information about the electric industry's efficiency efforts, visit EEI's Wise Energy Use Web site, www.eei.org/wiseuse.

[13] *The Brattle Group*, p. 64.

[14] U.S. Environmental Protection Agency, Office of Air and Radiation, October 2005.

SECTION FIVE:

The Financial Side Of The Electric Power Industry

From a financial perspective, the shareholder-owned sector of the electric power industry is vastly different from other sectors. It relies more heavily on the private sector for investment capital needed to finance its operations than other sectors, such as electric cooperatives and government-owned utilities. Traditionally, millions of Americans have relied on the modest, steady growth of utility stocks to supplement their retirement income. Shareholder-owned electric companies also contribute substantially to the nation's tax base through federal, state, and other local taxes, such as property taxes.

Americans Of All Walks Of Life Own Shares In Electric Companies.

Millions of Americans own utility shares either directly or indirectly through mutual funds, life insurance policies, pension funds, and employer 401K programs. Many individual shareholders fall in the middle-income brackets and often rely, at least in part, on the dividends they receive to meet their living expenses. The typical utility shareholder is more than 65 years old and has owned utility stocks for more than 10 years. Sixty percent of these shareholders earn less than $75,000 annually.

The electric power industry continues to pay out a higher percentage of earnings than any other U.S. business sector, with a payout ratio of 61.9 percent for the year ended September 30, 2006.

Investors in electric companies greatly benefited from the Jobs and Growth Tax Reconciliation Act of 2003, which temporarily reduced to 15 percent the top individual tax rate on dividends. As a result, more companies are offering dividends—and dividends are larger. Millions of Americans—including millions of senior citizens—are receiving more dividend income. In the electric utility sector, for example, a significantly higher percentage of companies increased their dividends each year from 2004 to 2006. By 2006, 41 companies—or 64 percent of the industry—raised their dividend payments, the highest percent since 1993, when 65 percent of the industry increased their dividend payments.[15]

The reduced dividend tax rate also has attracted additional investment in electric companies, which has increased stock prices and lowered the cost of capital (i.e., fewer new shares of stock need to be issued to raise the same amount of new capital). This lower cost of capital provides one measure of helping companies raise the billions of dollars needed for infrastructure improvements and environmental controls over the next several years (the industry's capital expenditures are projected to increase by 30 percent in 2006 alone). These investments will help ensure a reliable supply of electricity to consumers and continued environmental improvements in the future. The 15 percent tax rate is currently extended through 2010; however, efforts are underway to further extend—or make permanent—the reduced tax rate.

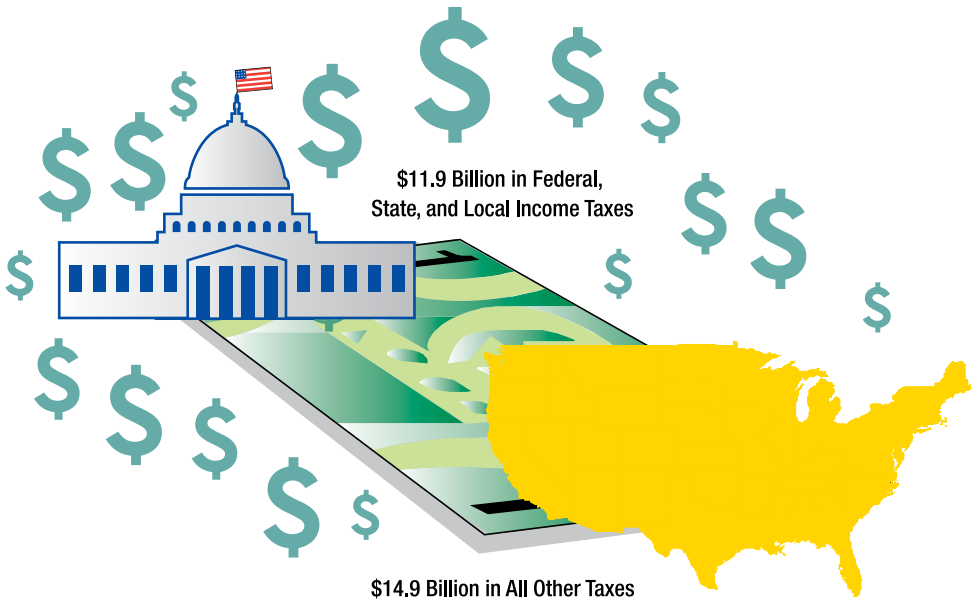
[15] Edison Electric Institute, "Dividends – Q4 2006 Financial Update," EEI Finance and Accounting Division, January 2007.

Shareholder-Owned Electric Companies Are A Significant Source Of Tax Revenue For Thousands Of Communities Across America.

Governments have traditionally relied on shareholder-owned electric companies as a source of tax revenue. These electric companies pay federal and state income taxes and other local taxes, such as property taxes. For the year ended December 31, 2005, shareholder-owned electric companies paid a total of $26.8 billion in taxes. Of that amount, $11.9 billion was spent on federal, state, and local income taxes, and $14.9 billion was paid for taxes other than income taxes.

Most electric cooperatives are exempt from federal and state income taxes, but do pay other types of state and local taxes. Local government-owned utilities also are not subject to most federal, state, and local taxes but some make payments in lieu of taxes. Federally owned utilities generally are exempt from federal, state, and local taxes.

In 2005, Shareholder-Owned Electric Companies Paid $26.8 Billion In Taxes



Edison Electric Institute, *2005 Financial Review*, June 2006.

Shareholder-Owned Electric Companies Are Self-Sustaining Business Entities That Raise Money By Issuing Stocks And Selling Debt Securities.

Since customer revenues are insufficient to finance all plants, facilities, and equipment needed to provide electric service from current cash flow, electric companies raise additional money by issuing stock and selling debt securities. This financing, called capitalization, takes three forms: long-term debt, common stock, and a very small amount of preferred stock (less than one percent). Electric companies attempt to implement an appropriate balance of debt (bonds) and equity (stock) that matches the risk profile of their investors.

Although long-term debt remains an important source of financing, companies have reduced their reliance on this type of financing in recent years. More debt can mean more risk, as companies must repay the debt obligations on a specific schedule (called debt servicing). Since 2002, most electric companies have reduced debt as part of an overall "back-to-basics" approach or a renewed focus on the core utility business.

The debt-to-capitalization (debt-to-cap) ratio is a common measure used by electric companies, credit rating agencies, and other financial entities that represents the percentage of overall capitalization being derived from long-term debt. As part of an overall effort to restore financial health and boost the confidence of investors and credit rating agencies, the shareholder-owned electric utility industry gradually reduced its debt-to-cap ratio from 62.2 percent on December 31, 2002, to 56.5 percent on December 31, 2005.[16]

Common stock represents ownership in the electric company. Each common stockholder has a right to participate in the election of the company's board of directors and may receive part of the company's earnings as dividends. The dividend amount can be increased or decreased depending on the company's financial needs and the dividend return required to attract investors.

In recent years, the popularity of common dividend payments has re-emerged for the electric utility industry, which is known for its strong dividend payments. The renewed interest in dividends is due to favorable tax changes, increasing cash flows, and the overall "back-to-basics" strategy of the shareholder-owned electric utility industry. Currently, more than 90 percent of electric companies pay a common stock dividend.

State Regulations Affect The Rate Of Return For Shareholder-Owned Electric Companies.

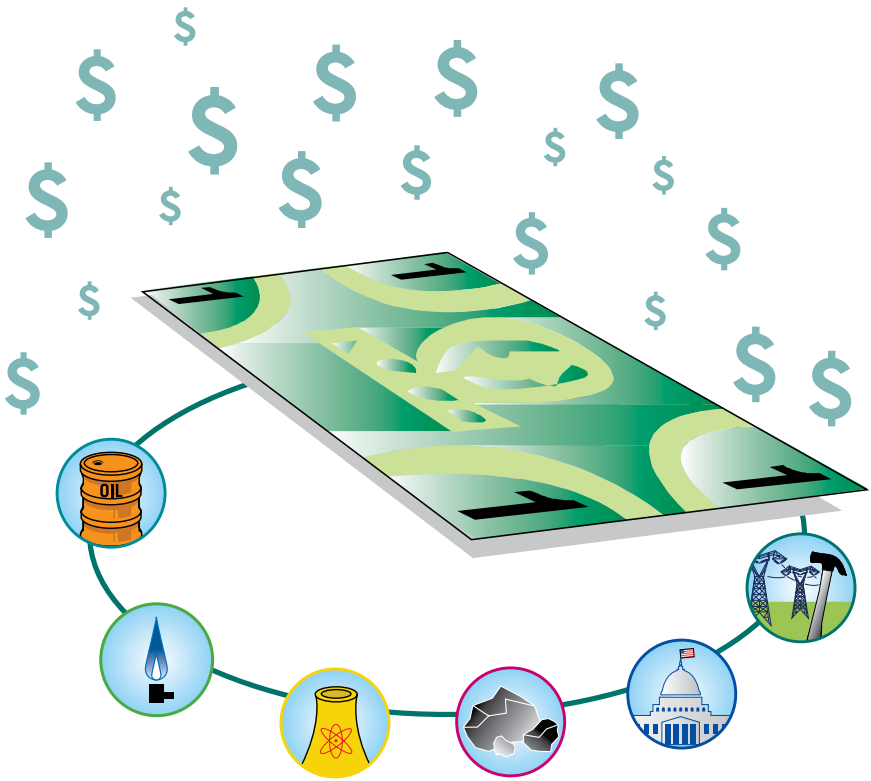
State commissions are charged with determining electric companies' maximum possible rate of return. These determinations are made after a series of hearings are held. These hearings are open to the public and take into account the public's input. The rate of return must be a dollar amount that is enough to cover commission-approved company expenses and allow for a reasonable return to investors for use of their money. However, electric companies are not guaranteed they will achieve this rate of return.

For the 19 states and the District of Columbia where electric competition is in place, competitive models vary, and state regulators continue to approve electric distribution rates set by these electric companies. However, the prices charged by competitive electric energy providers are not regulated.

[16] Edison Electric Institute, *2005 Financial Review*, June 2006.

Electric Companies Spend Most Of Their Revenue On The Day-to-Day Expenses That Come With Operating A Power Plant.

Most of the revenue electric companies receive goes to pay operating and maintenance costs. Purchased power and fuel are the single largest operating expenses for an electric company. The next largest expense is taxes. The cost of salaries, materials, supplies, services, and a variety of other expenses also must be met. In addition, the company must be compensated for the cost of depreciation, amortization, and the cost of capital, which includes the return paid to debt and equity investors for the use of their money.



Investing In America's Electric Future: The Time Is Now.

America's electric companies are committed to providing reliable and affordable electricity to their customers. With rising costs and growing demands for electricity, electric companies are working harder than ever to meet these goals. For example, in 2006, the nation's electric output was the second highest yearly total ever recorded, falling just shy of the record set in 2005. The electric power industry set an all-time weekly electric output record in late July 2006, which was eclipsed only two weeks later.

Looking ahead, it is likely that more records for electricity use will be set. The population of the United States is anticipated to grow 23 percent between now and 2030, while the nation's gross domestic product is projected to double in that time. Electricity use will increase by at least 40 percent over the same time period.

This sustained growth in electricity demand requires electric companies to invest in new power plants, as well as the transmission and distribution infrastructure used to deliver the power where it is needed. The electric power industry has already begun increasing its capital expenditures to keep pace with growing demand. In 2005, capital expenditures totaled $46.5 billion, while 2006 capital expenditures are expected to increase to nearly $60 billion.

However, building for the future will be difficult. The electric power industry has identified five issues that must be addressed to ensure that its investments will keep pace with demand: expanding energy efficiency, addressing environmental concerns, sustaining effective tax policies, developing needed federal/state regulations, and educating the public about the need for major new investments and what these mean for them.

By investing in America's electric future, the electric power industry will ensure that Americans continue to enjoy the reliable, affordable supply of electricity that we often take for granted.

For More Information About The Electric Power Industry...

EEI publishes a variety of publications about the electric power industry. The majority of the statistical information found in this booklet came from the Edison Electric Institute's Statistical Yearbook of the Electric Utility Industry 2006 Edition. This book contains data compiled from a variety of sources, and reports on the entire electric power industry, including shareholder-owned, cooperatively owned, and government-owned electric utilities. (A major source of EEI's data and data on the electric utility industry is the U.S. Department of Energy, Energy Information Administration, www.eia.doe.gov.) The majority of financial information was taken from EEI's 2005 Financial Review, the annual report of the shareholder-owned electric utility industry. For more information on these reports, or information on other EEI publications, please call 1-800-EEI-5453 or visit EEI's Web site at www.eei.org.

In an effort to provide the most current industry data, EEI will update the Web site version of this booklet as new data becomes available. Please visit EEI's Web site, www.eei.org, for the most current version of this booklet.

All information current as of February 2007.

EDISON ELECTRIC INSTITUTE

701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2696
202-508-5000
www.eei.org