

**POWER**  
**PARTNERS**<sup>SM</sup>

*Voluntary Climate Actions to Sustain Economic Growth*<sup>SM</sup>

# America's Electric Companies Are Committed to Protecting the Environment.

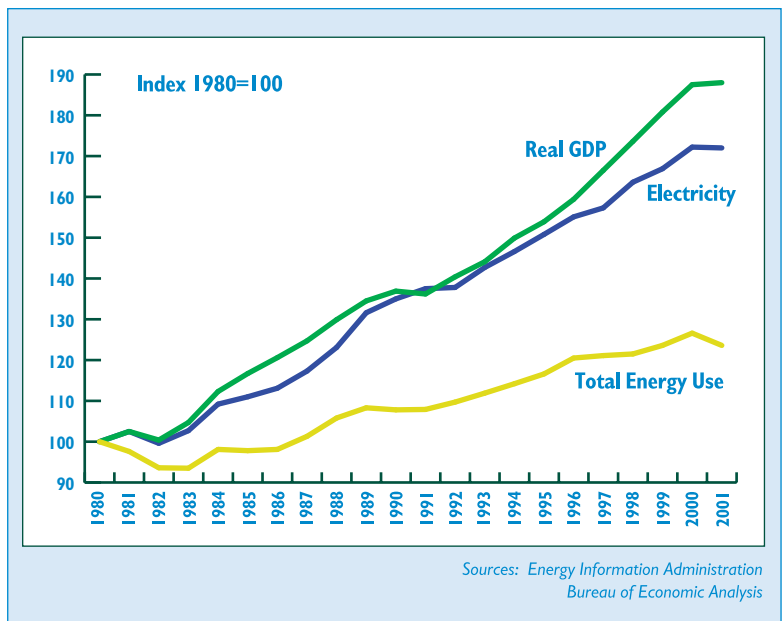
Electricity is crucial to our everyday lives.

**T**he electric power industry provides a vital service to our nation. Electricity runs our homes, offices, and industries, and powers our TVs, computers, air conditioners and appliances, and other electric technologies. Electricity enhances the quality of life for everyone and is a driving force behind our nation's economy.

## U.S. economic growth is closely linked to electricity growth.

The use of electricity has grown dramatically over the last 30 years and mirrors the equally robust growth of the gross domestic product (GDP), the gauge of economic health in the United States. Today, our economy relies more than ever on reliable, affordable supplies of electricity, as illustrated in the chart to the right.

As the chart also shows, growth in electricity demand has far outpaced overall energy consumption since the 1980s. That's because a steadily increasing number of businesses and homes have replaced end-use fossil fuel technologies and other energy sources with highly efficient, advanced electric technologies that save energy and money.



## Environmental stewardship and sustained economic growth go hand in hand.

To generate the electricity we need, electric companies must harness the Earth's natural resources. We recognize that our operations can have impacts on the environment, so we work diligently to use resources efficiently as we meet the ever-growing demands for power. And, we are always searching for new and innovative ways to generate electricity—and to use it wisely—while also protecting the environment.

# The Electric Power Industry Is a World Leader in Taking Voluntary Actions to Address Climate Change.

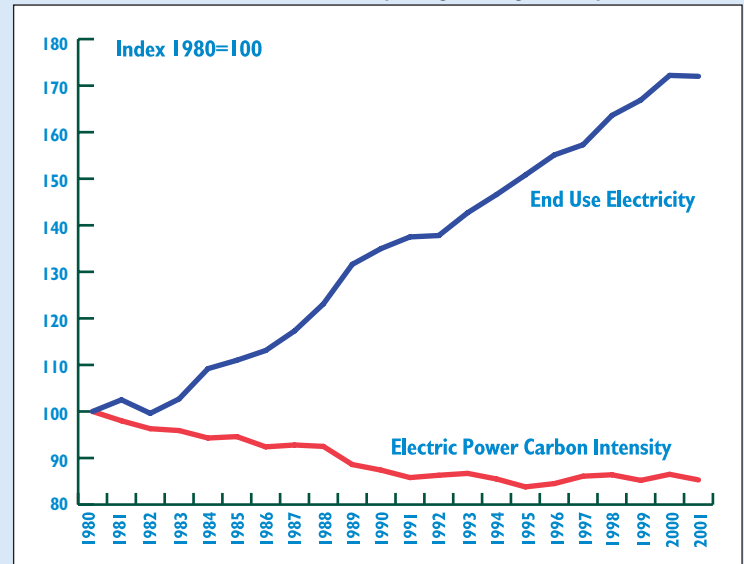
## Meeting the “Climate Challenge”

Electric power companies take climate change concerns seriously. As an industry, we have implemented flexible and cost-effective voluntary programs to mitigate greenhouse gas emissions. Since 1980, electric power carbon intensity—the amount of carbon dioxide (CO<sub>2</sub>) emissions per kilowatt-hour of electricity—has decreased, while the demand for electricity has grown significantly, as illustrated in the chart on the right.

In 1994, our industry teamed with the U.S. Department of Energy (DOE) to create the “Climate Challenge,” a joint government-industry partnership that eliminated 237 million metric tons of CO<sub>2</sub> in the year 2000 alone. These power sector actions comprised about 70 percent of the total reductions and offsets reported to the government that year.

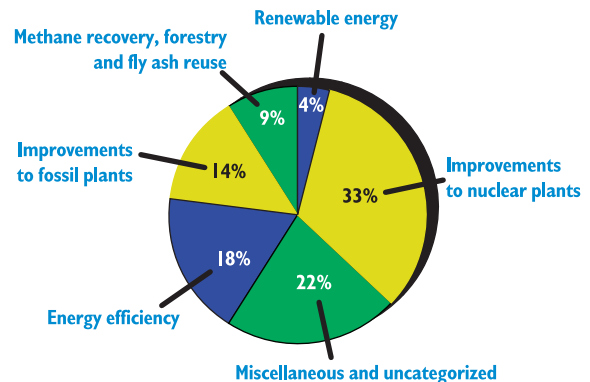
The Climate Challenge accord demonstrates the benefits of voluntary climate change approaches that rely on flexible programs and a robust use of technology and good practices, rather than mandatory targets and timetables, to reduce greenhouse gas emissions.

Electric power carbon intensity has decreased since 1980, while demand for electricity has grown significantly.



Source: Energy Information Administration

## Portfolio of Power Sector Actions under the Climate Challenge



Source: U.S. Department of Energy

## Taking The Next Step...

On February 14, 2002, President Bush challenged American businesses to further reduce their greenhouse gas emissions. The Administration's plan relies on the use of a new measure known as "greenhouse gas intensity"—the amount of greenhouse gas emissions per dollar of GDP—to slow and eventually reverse growth in greenhouse gas emissions. Such an approach reflects the electric power industry's tradition of harmonizing economic growth with environmental protection.

The President has set a goal of reducing U.S. greenhouse gas intensity by 18 percent by 2012. The electric power industry is proud of the progress we've made to reduce greenhouse gas emissions, and we're ready to take the next step to help meet this new goal.

## ...By Forming Power Partners<sup>SM</sup>

Power Partners<sup>SM</sup> is the latest voluntary partnership between the electric power industry and DOE. Through Power Partners<sup>SM</sup>, the power sector and DOE are working together to develop and implement voluntary climate actions to sustain economic growth.

Power Partners<sup>SM</sup> climate actions are guided by the principles of improved energy efficiency, increased investments in research and development, technological innovation, market-based initiatives, and cost-effective CO<sub>2</sub> emissions reductions. The exemplary results from the Climate Challenge served as the platform upon which Power Partners<sup>SM</sup> was built.

## THE POWER PARTNERS<sup>SM</sup>

The **Power Partners<sup>SM</sup>** organizations listed below—with their individual member companies—are committed to addressing climate change and to protecting the environment. That's why we're undertaking new voluntary climate actions to reduce, avoid, and sequester greenhouse gas emissions.

Here's a look at the organizations that have partnered with DOE, along with a snapshot of their individual climate initiatives.

*The **American Public Power Association (APPA)** represents the interests of the nation's nearly 2,000 not-for-profit community- and state-owned electric utilities.*

*The **Large Public Power Council (LPPC)** is an organization of 26 of the largest publicly owned electric utilities. Publicly owned electric utilities provide electric service to more than 40 million Americans.*

Through Power Partners<sup>SM</sup>, APPA's and LPPC's members are taking climate actions to:

- Forge partnerships with local/federal government and environmental groups to implement effective greenhouse gas mitigation programs, and enter into utility-specific commitments to achieve quantifiable greenhouse gas mitigation activities;
- Increase the use of wind, hydropower, and landfill gas to generate electricity;
- Improve end-use efficiency through demand-side management and conservation programs;
- Reduce, avoid, or sequester greenhouse gas emissions through "Tree Power," APPA's national tree planting program that was established in 1991.

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The **Edison Electric Institute (EEI)** is the association of U.S. shareholder-owned electric companies, international affiliates and industry associates worldwide. EEI's U.S. members serve nearly 70 percent of all electric utility ultimate customers in the nation.

Through Power Partners<sup>SM</sup>, EEI's member companies are taking actions individually to reduce, avoid, and sequester greenhouse gases. Among these activities will likely be: additional natural gas and clean coal technology generation; additional nuclear generation; additional renewable energy, energy efficiency, and wise electricity use programs; and additional tree planting, methane projects, and international projects to offset CO<sub>2</sub>. Companies also are jointly taking climate actions to:

- Remove CO<sub>2</sub> from the atmosphere through forestry projects in the lower Mississippi River Valley;
- Divert coal combustion products (CCPs) from land disposal and increase the beneficial uses of CCPs;
- Harvest wind power and biomass for electricity generation;
- Develop international power partnerships that focus on climate and sustainable development.

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The **Electric Power Supply Association (EPSA)** is the national trade association representing competitive power suppliers. Using the cleanest, most efficient generating technologies available, EPSA members are serving the nation's growing need for power.

Through Power Partners<sup>SM</sup>, EPSA's member companies are taking climate actions to:

- Promote policies to encourage greater utilization of efficient power plants through increased competition within regional electricity markets. Enhanced operation of these plants will help to lower greenhouse gas intensity;
- Promote solar electrification, reforestation, carbon sequestration initiatives, and methane reduction programs;
- Participate in market-based greenhouse gas emissions reduction initiatives, such as the Chicago Climate Exchange.

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The **National Rural Electric Cooperative Association (NRECA)**

is the national service organization that represents the nation's 900-plus, consumer-owned electric cooperatives, which provide electric service to more than 36 million people in 47 states.

Through NRECA initiatives and Power Partners<sup>SM</sup>, every generation and transmission facility in the cooperative network is taking climate actions to:

- Reduce greenhouse gas emissions by enhancing efficiency at electricity generation, transmission, and distribution facilities;
  - Plant trees to sequester carbon from the atmosphere and restore forests;
  - Invest in low- and zero-emission renewable energy sources;
  - Expand long-term research and development efforts in energy efficiency and clean coal technology;
  - Work with co-ops in developing nations to increase their efficiency and reduce greenhouse gas emissions globally.
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The **Nuclear Energy Institute (NEI)** is the policy organization of the nuclear energy and technologies industry and participates in both the national and global policy-making process. NEI's objective is to ensure the formation of policies that promote the beneficial uses of nuclear energy and technologies in the United States and around the world.

Through Power Partners<sup>SM</sup>, NEI's member companies are taking climate actions to:

- Increase the output of America's 103 nuclear power plants, which provide one-fifth of our nation's electricity, by the equivalent of about 10,000 megawatts of capacity (a 10-percent increase) by 2012. NEI analysis shows that the emissions avoided by this action would be significant—the equivalent of 22 million metric tons of carbon. The increased output will be realized through power plant capacity uprates, improved productivity, and planned plant restarts.

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The **Tennessee Valley Authority (TVA)** is a federal corporation and the nation's largest public power company. Congress established TVA in 1933 primarily to provide flood control, navigation, and electric power in the Tennessee Valley region.

Through Power Partners<sup>SM</sup>, TVA is:

- Participating in industry-wide forestry and CCP projects, as well as activities to reclaim abandoned mine lands;
- Co-firing biomass at a TVA coal-based plant in Alabama and co-firing wastewater treatment methane at a coal-based plant in Tennessee. These processes will reduce greenhouse gas emissions by utilizing a waste product that would not otherwise be used;
- Increasing the operating efficiency of Units 2 and 3 (and restarting Unit 1) at the Browns Ferry nuclear plant in Alabama;
- Working with local distributors and the environmental community to further develop and increase participation in "Green Power Switch"—the Southeast's largest renewable energy program, which offers consumers the opportunity to buy electricity generated from solar, wind, and methane gas resources.

Many of the Power Partners<sup>SM</sup> organizations are working on additional climate projects with the Electric Power Research Institute (EPRI)—a non-profit energy research consortium that provides science and technology expertise to global energy customers worldwide. EPRI's members are engaged in specific programs focused on carbon sequestration research and climate technology development.

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Large Public Power Council

