



environmental performance

Pinnacle West has an unwavering commitment to environmental stewardship.

Our primary environmental challenges arise from the need to generate and deliver electricity to a rapidly growing customer base. As noted in our Key Issues section, the APS service territory is one of the fastest-growing in the nation. In addition to the increase in actual numbers of customers, there has been a significant increase in the consumption of electricity by customers as well. For example, in the 1960s, the average Arizona home was about 1,500 square feet and had an eight-foot ceiling, resulting in an average home volume of 12,000 cubic feet. Today, the average Arizona home has grown to about 2,000 square feet, and ceiling heights have increased to make the average home volume go up to about 20,000 cubic feet - more than a 66 percent increase. That is space that needs to be heated in the winter and cooled in the summer, and that space also houses a lot more electricity-consuming appliances and devices than in years past, resulting in each customer using more electricity, despite gains in energy efficiency and energy conservation.

APS customers are using more electricity each year



All of that increased energy use requires increased electricity generation and increased transmission and distribution infrastructure, which increases our environmental impact. However, with growth and its inherent challenges, come opportunities for innovation and leadership.

We will meet ever-growing environmental responsibilities by continuing to enhance our leadership role in this vital area. We will continue to operate our facilities in compliance with all applicable laws and regulations, and implement the best management practices to ensure we facilitate an energy future that is economical, reliable and increasingly renewable. Throughout this report we highlight various programs we have implemented and are researching in order to meet this demand — in a sustainable manner that best protects and enhances our environment.

These efforts include maintaining fuel-mix diversification, including a significantly expanded role for renewables to help meet increased generation needs, demand-side management programs to help reduce energy growth and a robust technology innovation effort to identify, research and implement new technologies that contribute to a sustainable energy future. We must also employ more "typical" environmental efforts such as reuse of materials such as coal ash and other materials, waste minimization, air emissions controls and wildlife and forest protection.

This section of our Corporate Responsibility Report details our company's environmental philosophies and performance for 2006. We believe it demonstrates our dedication to performing at a high level while maintaining our long-term commitment

Policy, Organization and Management

APS adopted its first environmental policy in 1973. Over the past 33 years, environmental stewardship has been a core value for the company. During that time, our policies have evolved to keep up with our current thinking and our commitments to the environment. At Pinnacle West, we believe in promoting a healthy environment for our community and our businesses. Taking care of our environment and promoting the health and safety of our employees and community is not just our business, it's our obligation.

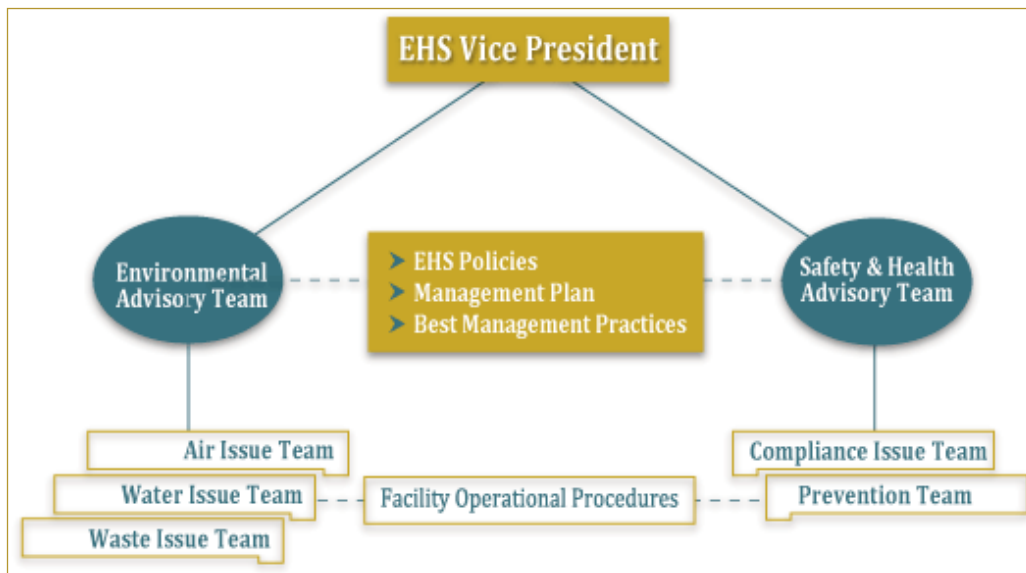
We are committed to responsible environmental practices that meet and surpass regulatory requirements. APS adheres to the environmental principles set forth by Ceres, a coalition of investors and public interest organizations. These commitments are clearly stated in our Environmental, Health and Safety Policy, which is the cornerstone of our EHS Management System. Our EHS Policy is available to view in the online version of this Corporate Responsibility Report.

Organization

Our Environmental, Health and Safety program is decentralized, with primary responsibility for complying with EHS requirements resting with the leaders and frontline employees at our various facilities. Departments such as Corporate EHS and Corporate Law are available to assist and support the operating areas with technical, strategic, regulatory and legal EHS issues. They also provide strategic direction and leadership on issues such as EHS risk analysis and companywide issues such as Superfund. Throughout the company, each employee shares responsibility for EHS compliance and has an obligation to bring issues and concerns forward for resolution. This obligation is clearly identified in our EHS Policy and in our Corporate Ethics Policy.

APS' EHS strategic direction and leadership on company-wide safety, health and environmental issues is determined by a hierarchy of cross-departmental committees and teams, as shown in the Figure below. The EHS management team consists of two committees: the Environmental Advisory Team and the Safety and Health Advisory Team.

These teams make recommendations to EHS Vice President Edward Z. Fox on matters requiring executive oversight. The teams are also responsible for developing and updating the EHS Policy and EHS Management Plan, and ensuring integrated implementation of these and other critical documents into the company's operations. These teams have various issues teams reporting to them. The issues teams are responsible for more detailed work on important cross-company issues.



Fox provides primary executive oversight for our EHS efforts, and makes periodic reports to the Board of Directors regarding EHS issues and compliance status. Frontline EHS professionals handle issues that arise in the field and at company facilities. These professionals provide daily, on-the-spot attention to EHS issues. They are the backbone of the company's EHS program and work hard to keep things operating smoothly and safely.

EHS Management Systems

Our EHS Management System (EMS) is a systematic framework for managing our EHS practices and ensuring we meet our goals and objectives. Our EMS is modeled upon the general format of the ISO 14000 standard for Environmental Management Systems, though we have not pursued formal certification since all of Pinnacle West's operations are based within the United States. The EMS is based on APS' EHS Policy, which sets the vision and operating foundation for our EHS efforts. In addition to the EHS policy, APS has several policies, standards and plans that underscore the importance of our commitment to excellence and ethical business practices, including protection of our environment.

- The APS EHS Management Plan augments the EHS policy, and outlines our EHS organization and responsibilities for meeting federal, state, county, municipal and tribal environmental, health and safety laws and regulations under which we operate.
- The APS Accident Prevention Manual details the Safety Policy, Responsibilities, and APM rules for employees across the company.
- Our Ethics Policy helps us comply with policies, laws and regulations.
- Our Standards of Business Practices focuses on meeting company standards and legal requirements.
- The APS Code of Conduct outlines the relationship between our traditional energy delivery corporation, APS, and our competitive retail company, APS Energy Services.

In 2005, APS participated in an Environmental Compliance and Management Systems Benchmarking Study of electric utilities sponsored by the Electric Utility Benchmarking Association. In that study, APS was identified as a "Top 5" performer among participating utilities, and components of our EMS were included in the best practices final report from that study. As a participant in the study, APS received a copy of the report for use in reviewing national best practices for further improvement of our EMS.

We believe that the foundation of sound environmental, health and safety management is not only compliance with the regulations that apply to our business, but being an EHS leader. We believe that environmental stewardship and sustainable business practices are a sound business strategy.

In this respect, APS' EHS programs go beyond basic compliance, where activities are consistent with good business practices and goals. The results of these efforts are documented in this report as well as our other EHS annual reports dating back to 1994.

To evaluate and strengthen our compliance management systems we have an EHS Compliance Assurance Program. This program has a four-tier assessment process which includes ongoing facility self-assessments, formal focused self-assessments, an aggressive EHS audit program and periodic extensive compliance reviews. EHS professionals across the company are also active in many professional and industry groups which monitor regulatory changes, evolving EHS and sustainability issues, and other critical EHS matters affecting our industry. APS also has a Public Affairs department that monitors and participates in federal and state legislative processes that may impact the company. All of these efforts are coordinated within the EMS to ensure ongoing compliance and continuous improvement.

Organizational Changes

In 2006, APS created a new department, Eco-efficiency/Technology Innovations, whose charge is to develop sustainability programs through every level of the enterprise.

According to Bill Wiley, senior manager, Eco-efficiency/Technology Innovations (EETI), sustainability is about the long term.

"Sustainability means meeting our business needs today while implementing the strategies, business practices and policies that support a vibrant economy, healthy environment and strong community for future generations," Wiley said. "It is about our actions today supporting a smarter and better tomorrow."

The department's charge is to plan and make decisions that integrate consideration of the long-term economy, environment and community.

At Pinnacle West, sustainability is not a question of how to minimize potential negative impacts of decisions already made, but instead is a set of questions about long-term impacts that must be addressed before business decisions are made.

The new department is comprised of:

- An internal working group
- An advisory committee comprised of individuals from inside and outside the company
- Arizona Businesses Advancing Sustainability (ABAS) – an APS/Intel partnership to encourage and work with other businesses (For more on this partnership, please see our Pinnacle West's Approach to Sustainability section)
- Technology partnerships
- The EETI organization

Compliance Assurance Program

Our written Compliance Assurance Program establishes types of assessments and audits, reporting results to management, corrective actions, tracking status of open items, confidentiality of information, record retention, and roles and responsibilities. Results of EHS audit exceptions are reported quarterly to executive management and at least annually to the Board of Directors.

Officers receive quarterly and annual reports on audit activities and trends in audit findings. Additionally, facility managers are provided with quarterly summary reports on EHS audit exceptions for incorporation into their EHS self-assessment activities.

In order to assure every effort is made to maintain compliance in our complex and diverse operations, the following four-tier process is established by our Compliance Assurance Program management practice.

Tier I — Ongoing Self-Assessments

The Tier I process is relatively informal and involves routine checks of EHS programs to ensure the program elements and standards are being accomplished. Each business unit or facility creates and maintains a plan describing how their Tier I process is implemented. Typical program elements include:

- Reviews of mandatory training progress reports
- Reviews of monthly trend reports
- Field observations and walk-downs
- EHS data review
- Review of company/industry event reports/lesson learned, critiques and the use of the department's performance indicators

Tier II — Focused Self-Assessments

Company EHS professionals conduct more formal and focused self-assessments annually in each business unit/department. Tier II assessments are structured, comprehensive reviews of program performance across the facility or department and/or the company. The Environmental Advisory Team and the Safety and Health Advisory team develop the Tier II assessment plan at the beginning of each year.

In 2006, APS facilities completed 70 Tier II self-assessments.

Tier III — Audit Program

Our EHS audit program is managed by a dedicated corporate EHS Audit Group, which reports organizationally to the PNW director of Audit Services, while maintaining a direct report to the vice president of Environmental, Health, Safety and Communications. The director of Audit Services reports directly to the Chairman and CEO of Pinnacle West.

The corporate EHS Audit Group is responsible for creating a schedule of audits at the beginning of each year and to facilitate the process so that each audit is completed. Cross-functional teams are used to conduct detailed annual compliance audits of EHS programs. These teams can include technical and operational experts from departments across the company. Our audits incorporate all applicable environmental, health and safety regulatory requirements and internal EHS policies, procedures and management practices.

The Tier III process also includes an annual review of the Tier I plans and Tier II process to ensure they are being implemented according to the APS EHS Best Management Practice.

The EHS Audit Group conducted 20 formal Tier III audits at APS facilities in 2006.

Tier IV — Periodic Compliance Reviews

Periodically, a detailed review of the compliance status of EHS programs are conducted. These reviews are used to establish the baseline of compliance within the EHS programs and identify areas for future Tier II assessments. The reviews are completed either by an independent third party, by internal teams of EHS professionals or by a combination of internal and external professionals. Such reviews may also be done at the direction of the Pinnacle West Law Department, utilizing an independent third party or an internal team of EHS professionals.

No Tier IV reviews were conducted in 2006.

EHS Training

In 2006, our employees completed more than 63,000 EHS related training courses. This included training in 326 different compliance required topics, and 32 non-required topics areas. Compliance required topics include training required by agencies including OSHA, Department of Transportation (DOT), EPA, NRC and the Mine Safety and Health Administration (MSHA). Through a detailed profiling process, employees are assigned required topics based on the type of work they do. This ensures a safe and healthy work environment, while allowing the company to maintain compliance. EHS training is tracked via a dedicated computer tracking system to insure employees are assigned and received the necessary training during the year.

| EHS Training Summary | | | |
|--|---------------|---------------|---------------|
| | 2004 | 2005 | 2006 |
| Total # EHS training completions | 63,730 | 69,207 | 53,993 |
| Avg. # completions per employee (office & field combined) | 11 | 12 | 9 |
| # Required EHS topics covered | 326 | 323 | 327 |
| # Non-required EHS topics covered | 32 | 58 | 35 |
| Total # EHS Topics covered | 358 | 381 | 362 |

EHS Excellence Awards

In addition to normal employee merit and incentive recognition, outstanding individual environmental, health and safety performances and initiatives are recognized through the APS Environmental, Health and Safety Excellence Awards program. In 2006, 16 EHS Excellence Awards were given to individual employees and employee teams. The honored employees were also recognized in our internal company communications.

Employees can recognize each other for EHS excellence, based on Pinnacle West's EHS values, which are:

- Ensuring a safe and healthy work environment
- Being an environmental leader

The EHS Excellence Awards Program's goals are to:

- encourage employees to recognize each other, individuals and teams, specifically for embracing our company values through EHS excellence, with increasingly greater participation by employees who do not have primary roles and responsibilities in EHS
- be accessible to areas of the company, easy to use, immediate, flexible and meaningful
- distinguish those who have contributed a significant or extraordinary amount of EHS value with the Quarterly EHS Excellence Award of Distinction
- provide a CEO EHS Excellence Award to those who meet the stringent criteria established for this ultimate level of recognition

EHS Targets

Our EHS policy and EHS Management Systems (EMS) sets the framework, goals and objectives of our EHS activities. In addition, APS sets more specific targets in certain key EHS areas. These targets are integrated into corporate and departmental level business plans, and are included as part of employee performance reviews and as a component of corporate incentive pay.

In 2005, APS developed a new long-range business plan encompassing the years 2005 to 2010. This Business Plan identifies safety and the environment as two of our six core values. The Business Plan establishes specific short- and long-term corporate targets for environmental, safety and customer satisfaction, including the following targets to be met by 2010:

Safety

- To achieve the number one ranking among like-sized investor-owned utilities for OSHA recordable injuries (all injury incident rate, lost work incident rate and severity incident rate) (current results discussed in our Employee Safety section of this report)
- To achieve a green rating (no negative findings) for nuclear safety performance in the areas of reactor performance, maintenance rule systems and collective radiation exposure

Environmental

- To reduce carbon intensity by 10 percent in year 2010 from a year 2000 baseline (current results discussed in the Air Emissions section of this report)
- To implement voluntary emissions-reduction programs at the Cholla and Four Corners Power Plants (current results discussed in the Air Emissions section of this report)
- To meet environmental portfolio standard requirements for renewable energy (current results discussed in the Clean Energy section of this report)

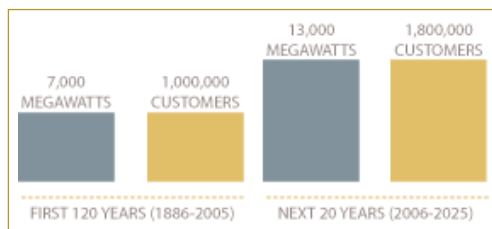
Customer Satisfaction

- To achieve a 44 percent "very satisfied" and 92 percent "satisfied" rating on customer satisfaction survey (current results discussed in the Customer Satisfaction section of this report)

Climate Change

Climate change is one of the most significant issues facing our global community. It is a long-term problem requiring long-term vision and steadfast effort. APS has recognized the challenges presented by Climate Change since 1995 when APS signed the Department of Energy Climate Challenge and committed to limiting emissions to 1990 levels by 2000. We met that goal in large measure because of operational excellence at our Palo Verde Nuclear Power plant. Since 2000 however, the rapid growth in Arizona, as discussed below, has created ever greater demands for electricity requiring APS to acquire additional fossil fueled baseload capacity. We have met that demand with natural gas and its lower carbon content enabling APS to establish a trend for reducing the carbon intensity of our electricity supply even while meeting the growing demand. Our ability to achieve this result in 2006, contributed to the United States Environmental Protection Agency recognizing APS' with EPA's prestigious 2006 Climate Protection Award.

In 2025, APS will be nearly twice the Electric Company we are today



4 times the national average, our peak demand growth has been nine percent year over year for the past three years. Looking forward, Arizona's population is predicted to double by 2025 with a commensurate increase in the demand for electricity. Even as we increase our use of renewable energy and implement more time-

of-use and demand side management programs, our energy outlook continues to require additional new capacity.

Coordinating climate change considerations with our generation forecasting and planning efforts allows APS to evaluate the potential financial and operating impacts of proposed legislation and regulatory programs, including cap and trade programs, and facilitates appropriate early actions for responding to this issue in a competitive manner. Our resource planning and models incorporate various scenarios for a future carbon constrained world and apply a range of potential carbon prices thus allowing us to internalize the potential carbon costs of fossil fuels over the life of generation options. APS has historically recovered costs of environmental controls and programs in its rates approved by the ACC and we anticipate that the costs associated with any regulatory climate program will also be recovered through rate adjustments. The potential impact of these costs on rates is a concern to our customers and us, especially low and fixed income customers. We anticipate that such increased costs, will necessitate expanding our existing programs to assist these members of our community.

Many climate change activities are in process at the international, federal, regional and state levels, including potential legislation. This results in a high degree of uncertainty about the regulatory future and potential financial and operational impacts to specific companies such as Pinnacle West. Our company is actively monitoring and participating in these activities on a number of levels. This includes legislative and regulatory participation through our Public Affairs Department, active participation through our many professional associations (see the Affiliations section of this report), participation in state and regional climate change initiatives such as the Arizona Climate Change Committee formed by Governor Napolitano, and other activities.

PNW/APS Climate Change Position

APS supports a practical, long-term and sustainable approach to addressing Climate Change. The program must be national in scope and address all major sources of green house gas emissions economy-wide.

Any program to reduce green house gas emissions must realistically address the significant challenges presented by rapid growth in certain areas of the United States, like Arizona, which is the fastest growing state in the Nation with population growth three times the national average and electricity consumption growth four times the national average.

Under these rapid growth conditions short term mandates to roll-back green house gas emissions to past levels are not realistic and will be practical only when low and no carbon technologies are commercially available to achieve the mandates AND meet the affordable energy needs of our customers.

Emission reduction goals must be predicated upon the development and commercial deployment of low and no carbon technologies. Timely and successful deployment of new energy technologies will require significant sustained levels of federal and state financial support.

In the short term, strategies should focus on (i) energy efficiency in all sectors of the economy, including transportation, construction, appliances, electric utilities and consumption patterns, (ii) deployment of cost effective renewable resources, and (iii) utilizing low and no carbon generation technologies that are available to address demand growth and fuel diversity risk.

In the longer term, APS supports a market based approach to addressing Climate Change, such as a cap and trade program. Such a program should be (i) phased-in and include a price cap to avoid the economic disruption that will occur in the event that the technology to achieve emission reductions are not developed or deployed, (ii) updated periodically to recognize and account for rapidly growing areas of the United States, (iii) conditioned to require participation by developing nations, and (iv) designed to create new economic opportunities arising from emerging new technologies and processes.

Any federal regulatory process and structure must avoid conflicts and redundancies with state climate change programs and be (i) crafted to allow regulatory rate-based treatment for associated costs, and (ii) developed to provide incentives for utilities to undertake early investment in low and no carbon technologies.

Finally, any legislation must recognize early action/investments to mitigate green house gas emissions including the recognition of domestic and international green house gas offsets.

APS Voluntary Climate Change Goal

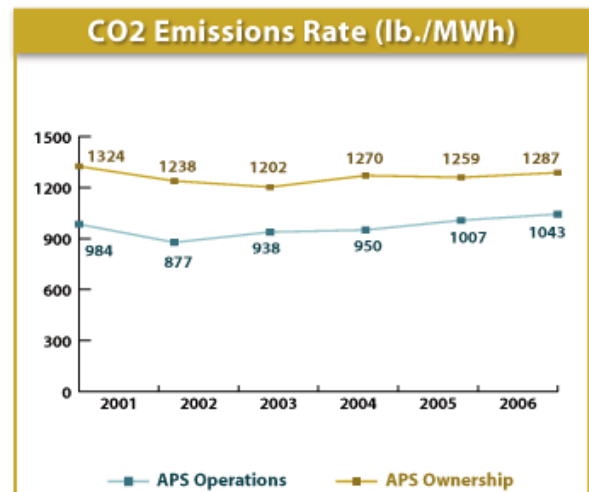
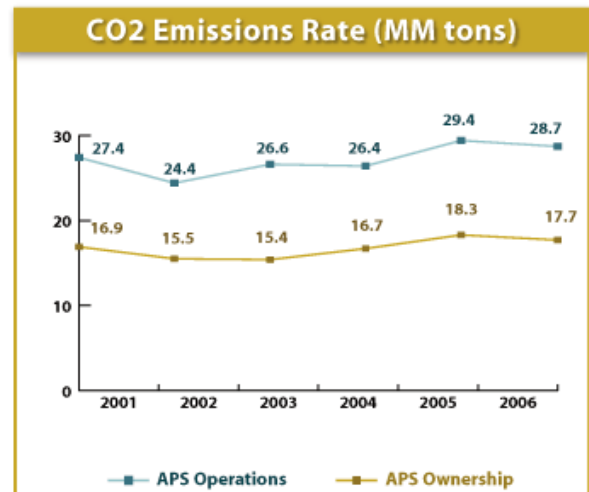
We have established an internal voluntary climate change goal in our 2005-2010 business plan.

The goal: To reduce carbon intensity in power plant emissions by 10 percent in target year 2010 from a baseline year 2000. Carbon intensity has reduced to 1287 lbs/MWh in 2006 from 1324 lb/MWh in baseline year 2000. This is a 3% reduction.

APS GHG Emissions

Based on an internal evaluation of APS direct emissions of greenhouse gases, we estimate that more than 98 percent of GHG emissions at APS owned facilities is carbon dioxide coming from smokestack emissions at our fossil fuel power plants. About one percent of our overall GHG emissions are from sulfur hexafluoride (SF6) emissions from electrical equipment located across our system (SF6 is discussed further below). The remaining small contribution is from activities such as our fleet transportation (line trucks, bucket trucks and other company vehicles). We have a number of programs in place to address each of these areas, examples of which are discussed in this report.

As shown in the charts below for APS owned and operated generation, over time, the net effect of customer growth and increased electricity demand has been an increase in the overall company CO2 emissions, but with a corresponding reduction in CO2 intensity (lbs/MWh). This means APS has become more efficient at providing electricity to our customers with fewer CO2 emissions per megawatt-hour generated. In 2006, our intensity increased a bit because of the effect of increased outages at our Palo Verde Nuclear Generating Station, which caused APS to utilize correspondingly more fossil fuel generation. We expect that in 2007, our CO2 intensity will once again decline, and for that declining trend to continue through the next 10 years.



Climate Change Activities at Pinnacle West:

Our efforts in increasing energy production through renewable energy sources, reducing energy demand through our Demand Side Management programs and researching innovative technologies are major components of our overall climate change program, and are discussed elsewhere in this report. In addition to these efforts, here are some of our climate change response actions:

APS/DOE Climate Change Accord and Emissions Commitments

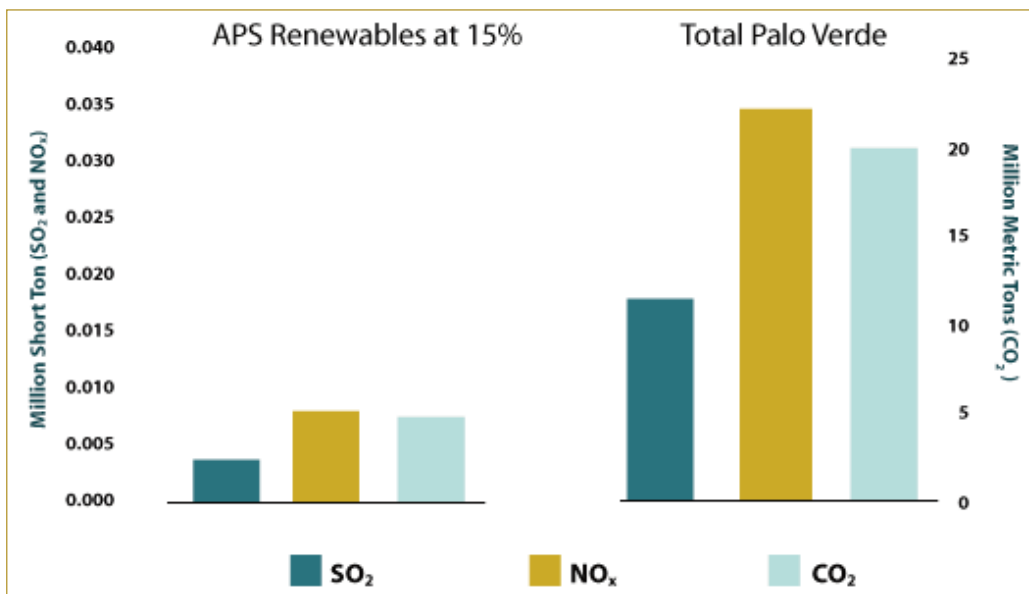
APS was one of the original signatories to the Department of Energy's (DOE) "Climate Challenge Program" in 1995 and was one of the first utilities that committed to maintain system-wide GHG emissions (in tons) to below the 1990 level through 2000. Because of Arizona's rapid growth, APS wanted an "insurance policy" to comply with that commitment. In 1994, APS entered into a first of its kind "inter-pollutant trade agreement" with Niagara Mohawk Power Corporation (NMPC) of Syracuse, New York. The DOE and the Environmental Defense (formerly, Environmental Defense Fund) also were signatories to the agreement. Under the agreement, APS transferred 20,000 SO₂ "allowances" (under the Acid Rain Program) in return for 2.5 million tons of CO₂ reductions, which APS would be able to use, if necessary, to keep its commitment to the DOE. APS upheld its commitment with the DOE, and only a small fraction of the APS/NMPC insurance policy (CO₂ reductions) was utilized in the final year of the agreement, 2000. Furthermore, as part of the agreement, the SO₂ allowances were permanently "retired." As a result, those 20,000 tons of SO₂ emissions will never be emitted into the atmosphere.

APS/CFE San Juanico Mini-Grid Project

The APS/NMPC agreement called for joint funding of a renewable energy (solar-wind) project in the small fishing village of San Juanico in Baja California Sur, Mexico. APS designed, engineered and oversaw the construction of the system. The renewable energy plant, supplemented with a battery back-up and diesel generator, provides 24-hour electricity to the village. This project was completed in cooperation with the national electric utility of Mexico, la Comission Federal de Electricidad (CFE), and with additional financial support from DOE and the Mexico City office of the U.S. Agency for International Development (AID). The overall cost for the project exceeded \$1 million. The San Juanico project has been fully operational since 1999 and at the time of its construction was the largest renewable energy project of its kind in North America. It was also selected as a USJI Project (U.S. Initiative on Joint Implementation).

Up-Rating at PVNGS and Avoided GHG Emissions

The Palo Verde Nuclear Generating Station is the largest nuclear power plant in the U.S. with a generating capacity of 3,810 MW. It is owned by a consortium of utilities, including APS, which holds the largest share (29.1%) and operates the plant. On average, the plant displaces about 30 million tons of CO₂ annually when compared to the equivalent amount of power produced by coal resources. About 9.5 million tons is APS' annual share of the offset. By 2007, the plant's total generating capacity will be increased by 210 MW, and it is estimated that it will avoid an additional 1.71 million tons of CO₂ annually. APS' share of that offset will be about 0.5 million tons per year. As seen by the figure below, which shows the estimated impact of our renewables program and PVNGS on avoided emissions, PVNGS will continue to provide significant annual emissions reductions far into the future.



2025 Annual Estimated Emissions Avoided in Arizona

Ash Sales to reduce GHG

U.S. power plants produce millions of tons of coal fly ash annually. APS is using its fly ash to help reduce greenhouse gases while adding to its bottom line. APS sells much of its fly ash to Salt River Materials Group for use in concrete production. This allows them to use the coal ash as a base product in cement production, eliminating their need to produce this material and significantly reducing their energy consumption in cement production. In 2006, APS recycled 658,380 tons of coal ash for cement production or other use, reducing overall greenhouse gas emissions by over 150,000 tons of carbon dioxide.

Ownership of GHG reductions from activities such as ash recycling are current established by APS in contractual language with the other parties involved, in order to prevent "double reporting" of reduction numbers and to establish potential ownership of future emission credits.

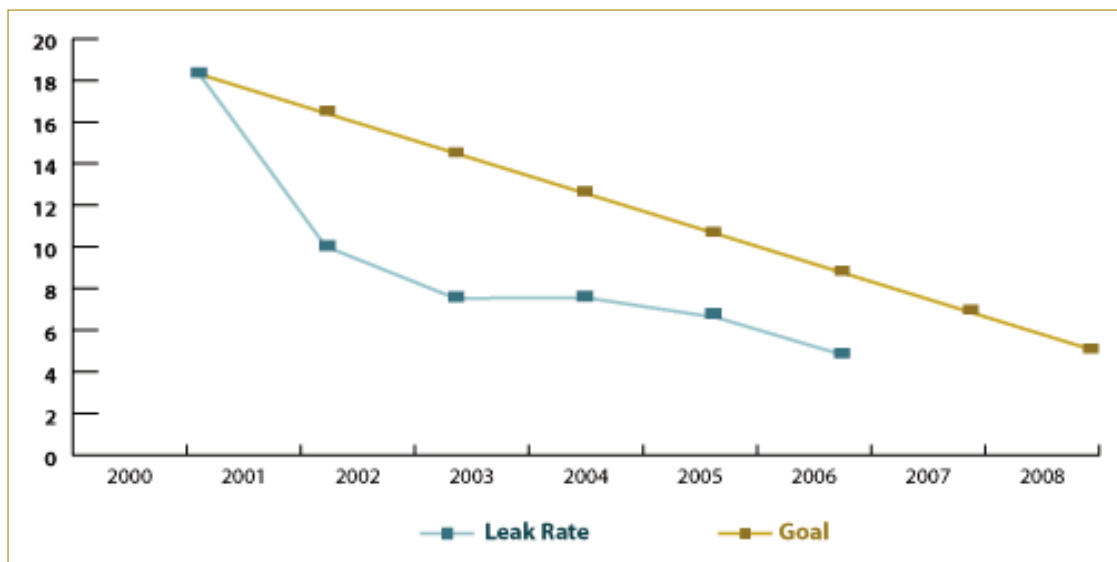
EPA SF6 Partnership

In 2004, APS joined the EPA's SF6 Emission Reduction Partnership for Electric Power Systems. This is a voluntary, collaborative effort between EPA and the electric power industry to identify and implement cost-effective solutions to reduce sulfur hexafluoride (SF6) emissions. SF6 is a highly potent greenhouse gas used for insulation and current interruption in electric transmission and distribution equipment. As part of this partnership, APS is taking voluntary efforts to significantly reduce SF6 emissions. APS' goal in the SF6 partnership is to reduce equipment leak rate from 18.38 percent in the base year of 2001, down to 5 percent by the end of 2008. APS implemented a number of industry-leading steps to reduce the leak rate, including:

- Utilizing SF6 recycling gas carts to minimize atmospheric releases by reclaiming and purifying the SF6, which was placed back into the equipment after service or repair activities
- Use of a laser-imaging camera to effectively identify SF6 leaks and confirm repairs
- Development of an inventory of our top priority SF6 containing equipment for planning the maintenance, repair and replacement activities of SF6 breakers

By the end of 2006, APS had reduced equipment leak rate from 18.38 percent down to 4.9%, beating our target date by 2 years. We will continue to work on voluntarily reducing our emissions even further. Our results in 2006 resulted in eliminated an estimated 19,624 pounds of SF6 emissions in 2006 compared to our baseline year of 2001. Based on the EPA's greenhouse gas equivalencies, this reduction of SF6 is equivalent to a reduction of 212,741 tons of carbon dioxide.

SF6 Leak Rate Base on EPA Calculations



PowerTree Carbon Company

To achieve additional CO₂ reductions, APS joined 24 other electric utilities in the PowerTree Carbon Company, which plants trees in ecologically sensitive areas of the lower Mississippi Valley in cooperation with local and national, governmental and conservation organizations. Planting began in 2003 and over two million tons of CO₂ are expected to be sequestered over the 100-year life of the project. In 2006, APS' share of PowerTree Carbon Company sequestration results was the equivalent of a reduction of over 60 short tons of carbon dioxide.

Emission Reduction/Sequestration

APS has an active technology research and development program which is exploring new ways to reduce or sequester carbon dioxide emissions from existing and future electric generation. This includes the development of renewal energy sources, innovate pollution reduction technologies for fossil fuel power plants and other clean energy strategies.

In addition, we are looking at other types of innovative (and sometimes unusual) technologies that can help create a sustainable energy future and reduce greenhouse gases (See Technology Innovation section for details). An example of this effort is our Emissions to Fuel project in which APS is evaluating the possibility of using carbon dioxide in stack emissions to grow algae, which will then be used for bio-fuel. The company and its partner, GreenFuel Technologies, recently shared the Emissions Energy Project of the Year Award at the 8th Annual Platts Global Energy Awards for this project. Another example is our Manure to Renewable Energy project, which explores using methane generated from animal wastes from Concentrated Animal Feeding Operations (CAFOs) to generate electricity and lower methane emissions, a powerful source of greenhouse gases.

Trees for the Rim

APS also partnered with Trees for the Rim, an organization dedicated to replanting trees on Arizona's residential, commercial and community lands damaged by the Rodeo-Chedeki fires of June 2002. APS donated \$25,000 and transported trees, provided volunteers, dug holes for the trees and will continue to be involved as the project unfolds.

Changes to Generation Mix

In addition to our other greenhouse gas-reducing projects, changes to APS' generation mix have helped reduce the intensity of CO₂ emissions measured in pounds per megawatt hour of energy. This reduction is illustrated in the chart above. Key to these reductions is the addition of high-efficiency natural gas capacity, increasing emphasis on renewable energy and the capacity improvements at the Palo Verde Nuclear Generating Station discussed above.

Participation in Industry Climate Change Activities

APS employees build their knowledge of climate change issues through active involvement with industry groups with effective Climate Change programs and activities, including the Edison Electric Institute, the Electric Power Research Institute, the Center for Clean Air Policy and others. The company and its partner, GreenFuel Technologies, recently shared the Emissions Energy Project of the Year Award for work using carbon dioxide (CO₂) emissions to create reusable biodiesel and ethanol fuel at APS' Redhawk Power Plant. The award came at the 8th Annual Platts Global Energy Awards

Green House Gas Emission Reporting

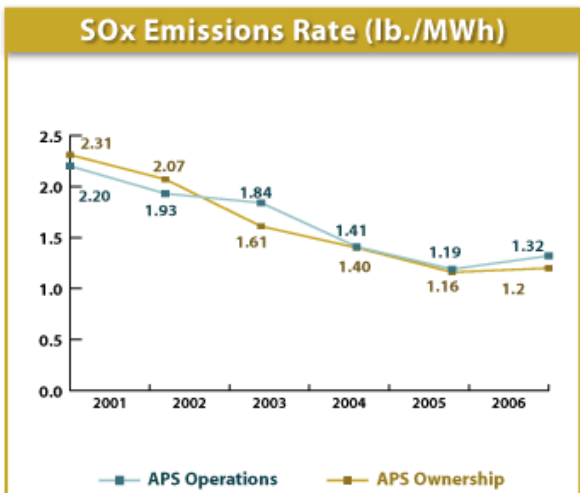
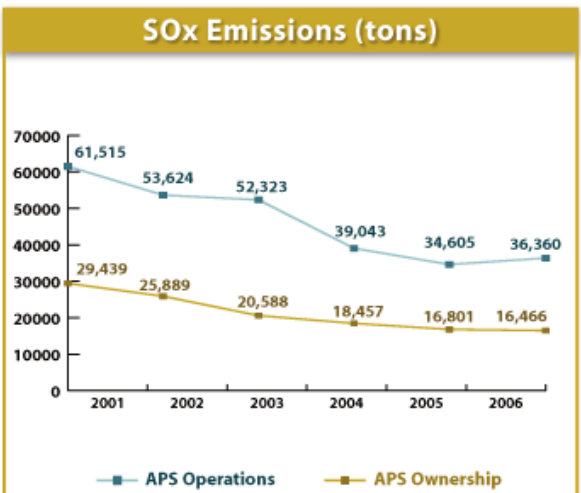
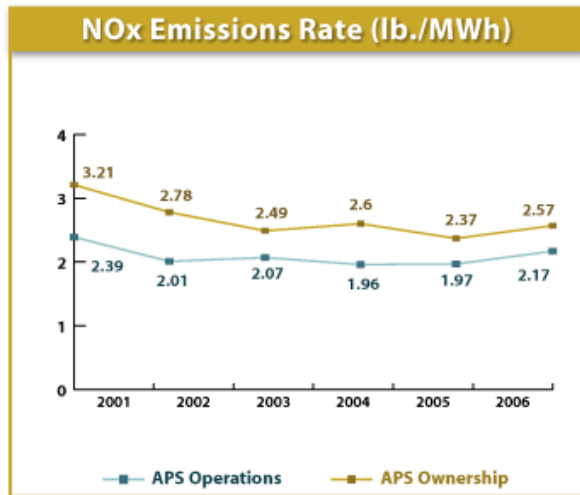
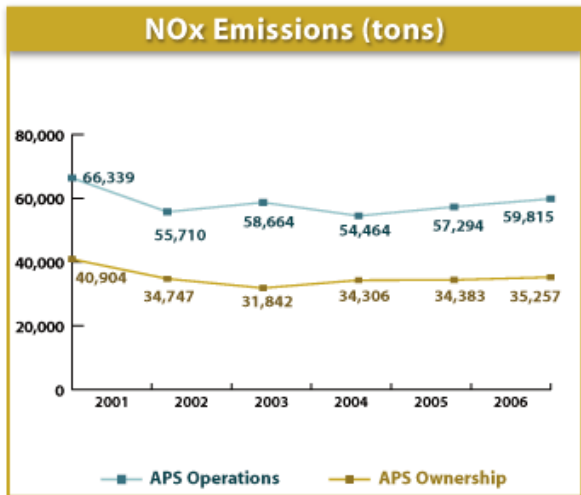
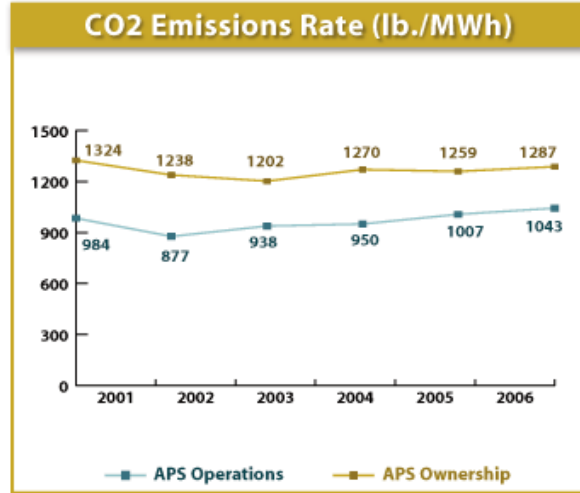
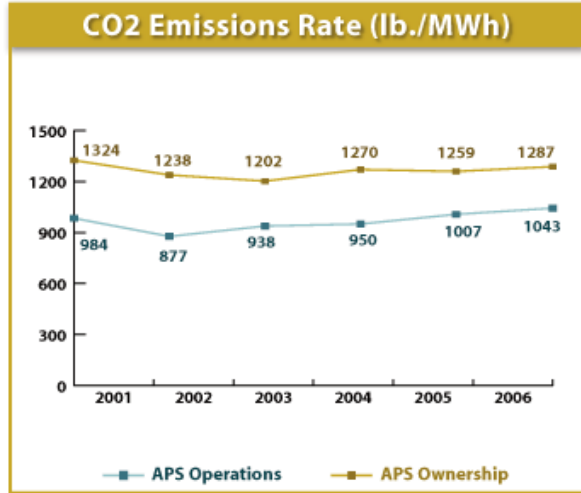
APS voluntarily reports GHG emissions and GHG reduction results to the U.S. Department of Energy (DOE) through its 1605(b) voluntary GHG reporting program. APS also provides an annual report to the EPA (starting in 2005) regarding results in SF₆ emission reduction through the EPA Utility SF₆ Partnership program.

Air Emissions

Our company maintains air emissions per megawatt-hour at or below industry averages. This is achieved through the use of nuclear power in the generation mix, emissions control technology, improved power plant efficiency and a more-diverse fuel mix which includes nuclear, gas/oil, coal and renewables. In addition, we have an aggressive demand-side management program that works to improve energy efficiency and reduce per capita demand.

Pollutant Emissions from the APS Generation System

The air emission charts below show our air emissions of primary pollutants from power plant generation over the last five years.



Additional emission charts for: Carbon Monoxide, Lead, Mercury, Particulates, and Volatile Organic Compounds (VOCs) can be viewed in the Air Emissions section of our online report.

APS plants comply with existing Clean Air Act (CAA) regulations. However, as we plan for the future, we recognize the need to significantly reduce emissions over the next several years to comply with new, proposed, and expected laws and regulations.

Sulfur and nitrogen oxides (SO₂ and NO_x), particulate matter (PM) and mercury (Hg) are by-products of fossil fuel combustion at power plants. The CAA requires the Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ) to set emission limits for these pollutants to protect public health and the environment. These limits are imposed through regulations and incorporated in the plants' operating permits. The expectation is that by meeting these permit limits, the emissions will not impact the environment or public health negatively. These limits, however, are based upon what is currently known, and as the state of the science on these pollutants improves, the regulatory agencies revise the emission limits. Thus, since the inception of the CAA in 1970, EPA and ADEQ have periodically set new, more stringent emission limits for operating sources. The regulators setting these limits anticipate that industry will respond by installing state-of-the-art pollution control technology as the standard method to minimize pollutant emissions into the environment.

Voluntary Emission Controls at Four Corners and Cholla Coal-fired Plants

In the late 1990s, APS initiated a dialog with four environmental-interest groups that are involved in environmental issues in the West (Environmental Defense, the Grand Canyon Trust, Western Resource Advocates, and the New Mexico Citizens for Clean Air and Water – hereafter referred to as the “Environmental Groups”).

The goal of this dialog was to discuss the complexities of environmental laws confronting the electric utility industry and explore common ground for navigating that complexity without the historic confrontation that exists between industry and the Environmental Groups.

The dialogue centered on the issue of visibility in the Western United States. The Clean Air Act designates 156 large national parks and wilderness areas as “Class I areas” and provides for protecting visibility in those areas. EPA's visibility regulations require specific emissions limitations on sources causing, or contributing to, visibility impairment in Class I areas. Those rules focus primarily on SO₂ emissions, and to a lesser extent on NO_x and particulate matter (PM) emissions, from large stationary sources such as coal-fired power plants. All three of the APS-owned coal-fired power plants are located on the Colorado Plateau, which contains numerous Class I areas.

The dialogue resulted in APS proposing a plan to voluntarily reduce pollutant emissions (especially SO₂) from its coal-fired plants in a cost-effective manner that would allow APS to meet or exceed the future emissions limits and programs proposed by EPA and ADEQ. This initial plan was then jointly presented to the Navajo EPA, the U.S. EPA and the ADEQ.

Four Corners Power Plant

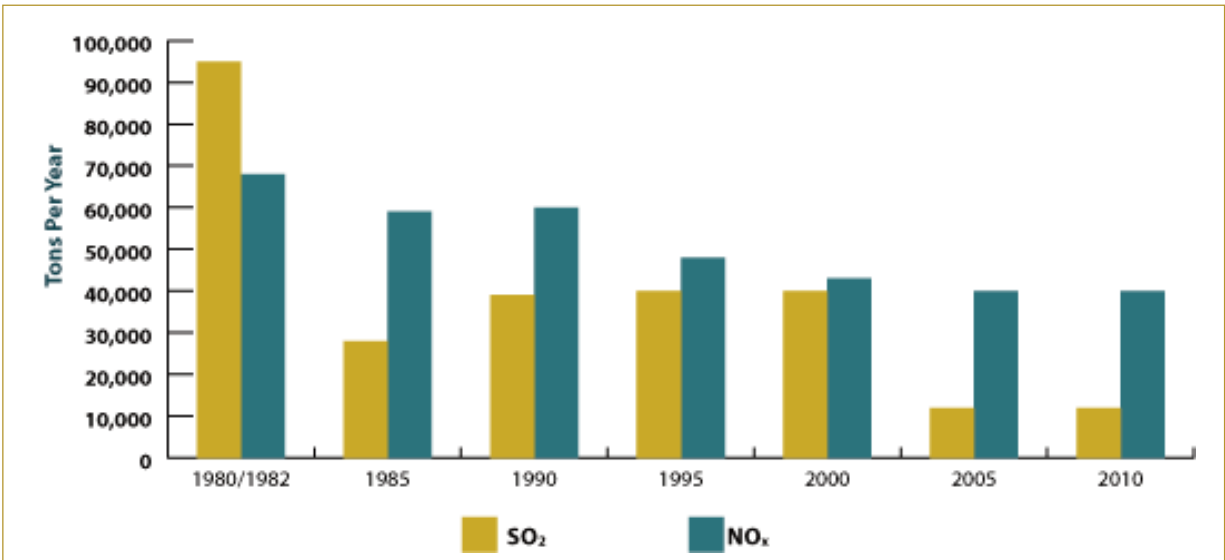
In 2003, APS, the Environmental Groups, Navajo EPA, U.S. EPA and the National Park Service agreed on a proposal to reduce SO₂ emissions at the Four Corners plant utilizing an 18-month-long test program. The test program involved certain phased operational changes and scrubber chemical process changes to increase the SO₂ control level from 72 percent to 85 percent, without triggering operational problems or incurring significant new capital expenditures. APS initiated the test program in early 2004.

The test program was completed during summer 2005. APS prepared a report concluding that the plant not only was able to meet the goal set in the proposal, but it also improved SO₂ controls to the 88 percent level. At that elevated control level, the plant was able to cut its annual SO₂ emissions by more than 55 percent, compared to the pre-test level.

The figure below shows historic and projected future Four Corners emissions, and illustrates a dramatic drop in SO₂ in 2005 from the test program. APS is working with the EPA, NEPA, the NPS and the Environmental Groups to incorporate the higher SO₂ control level as an enforceable emission limit for the plant. In September 2006, the EPA proposed a Federal Implementation Plan that would incorporate the 88 percent SO₂ controls as an enforceable emissions limit for the plant.

The dialog with the Environmental Groups also dealt with NO_x emissions. As a result of those discussions, an independent consultant was retained to assess the potential for reducing the plant's NO_x emissions using combustion modifications. The consultant's report concluded that there was little room for improving combustion controls at the three smaller units, although further detailed evaluations were needed to assess potential combustion controls for the two larger units. APS is studying such control options and other post-combustion control options.

Results of APS Emission Reduction Program



Four Corners Total Plant Emissions of SO₂ and NO_x

Cholla Power Plant

The APS dialog with the Environmental Groups also resulted in an agreement in 2005 to implement several pollution control enhancements at the Cholla plant. The ADEQ and the EPA also were involved in the year-long discussions on selecting the pollution control upgrades and setting the schedule for implementation. Following this activity, APS filed and received a Title V Operating Permit renewal from ADEQ for the Cholla plant, which includes the following pollution control projects:

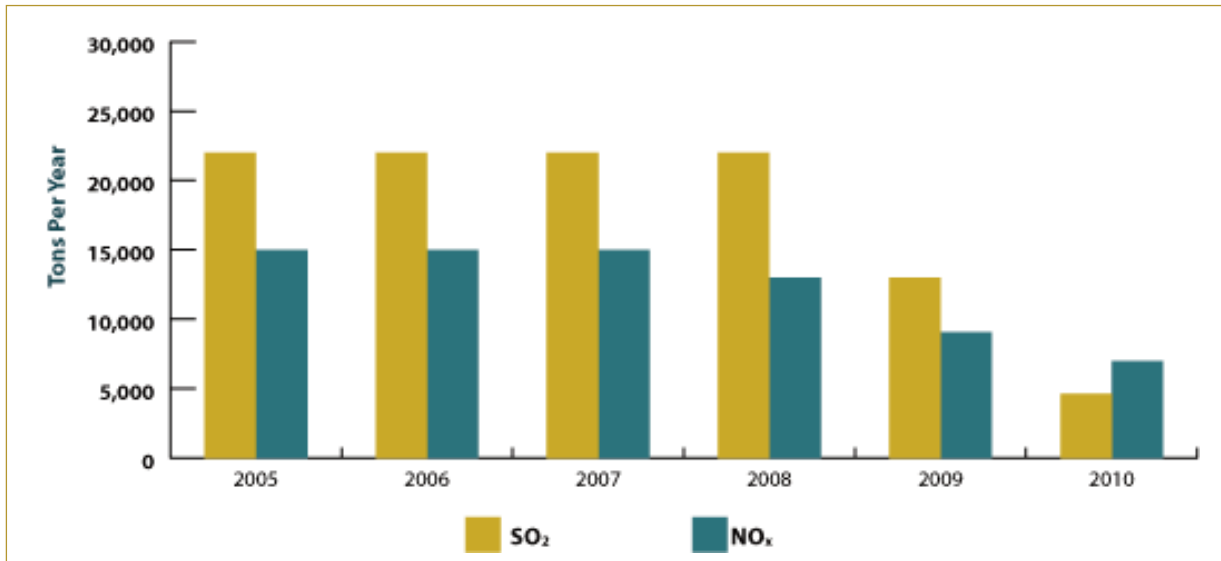
- Install new fabric filter bag-houses, low-NO_x burners (LNBs), carbon monoxide (CO) continuous emissions monitoring system (CEMS), and upgrade SO₂ scrubber on Unit 1 from 80% to 90% sulfur removal efficiency by 2007.
- Install new LNBs and CO CEMS on Unit 2 by 2008.
- Replace existing hot-side electrostatic precipitators (ESPs) with a new fabric-filter bag-house, install new LNBs, CO CEMS, and a new 95% SO₂ controls on Unit 3 by 2009.
- Upgrade existing SO₂ controls to 92.5 percent, install new LNBs and CO CEMS; replace existing hot-side ESPs with a new fabric-filter bag-house on Unit 4 by 2008.

APS designed the new Cholla pollution control equipment to be flexible enough to meet stringent new rules for 90 percent removal of mercury from flue gas as proposed by ADEQ. APS will also evaluate the need for a new fabric-filter bag-house on Unit 2 by 2010 to meet the proposed mercury removal standards. The total costs for these new pollution control projects are estimated to be about \$393 million.

The control levels and the associated schedule were developed to ensure continued operational viability with a secure coal supply, minimize costs and allow equipment to be installed during scheduled outages.

This collaborative approach for voluntarily achieving more emission reductions sooner – and at lower costs – assures Cholla's economic viability and benefit APS shareholders, customers, regulators, the Environmental Groups, and most importantly, the environment.

Results of APS Emission Reduction Program



Cholla Total Plant Emissions of SO₂ and NO_x

Emissions technology mix

APS has a total of about 1,100 MW of generation capacity (all coal) which is scrubbed with Venturi scrubbers, flooded disc scrubbers or absorbers. APS has about 1,500 MW of generation capacity with SCR (all natural gas). APS has another 1,300 MW of generation capacity with low NOx burners.

Travel Reduction Program

Employee Travel Reduction is an important part of our EHS programs, particularly in the Phoenix area – a U.S. Environmental Protection Agency (EPA) non-attainment area for particulate matter and eight-hour ozone standard. We encourage employee travel reduction activity and offer subsidies to further persuade our employees to use alternative means of transportation. Our subsidies cover a portion of the costs for vanpooling, bus fares and carpool parking. We accommodate compressed work weeks, telecommuting and videoconferencing. We also offer assistance to employees in finding carpool partners, and in setting up carpools. The Travel Reduction Program also has a reward program for employees participating in travel reduction on High Pollution Advisory days.

APS maintains a fleet of 167 vans that operate daily for employees commuting between Palo Verde Nuclear Generating Station (PVNGS) and the Phoenix area. APS began operating this program in 1994 and almost 62 percent of the permanent APS employees at PVNGS participate. This program has significantly contributed to the site achieving a single occupant vehicle (SOV) rate well below the 60-percent target. The fleet approaches five million commuting miles annually. The commuting miles eliminated with this outstanding program is more than 32.7 million annually, resulting in a pollution savings of approximately 442 tons each year.

Travel reduction incentives for employees include:

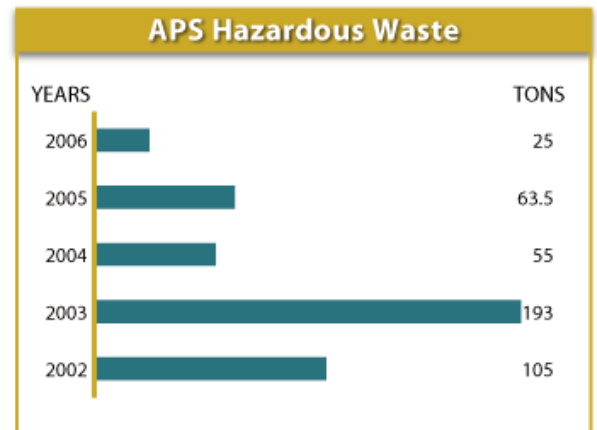
- \$25 monthly subsidy toward vanpool expense for employees who commute in any local Valley Metro vans. The employee monthly costs are payroll deducted
- A 50 percent subsidy of the monthly accrued fares up to \$20 to employees who commute by bus
- Employees carpooling do not pay the monthly \$46 for parking at company headquarters
- Employees carpooling with three or more people do not pay the cost of parking and are given a reserved parking space in the parking garage at headquarters

Wastes

Hazardous Wastes

We have had hazardous waste minimization programs in place for a number of years, which has resulted in significant reductions in the amount of hazardous wastes generated at APS facilities.

All our facilities are now normally classified as Small Quantity Generators (SQG) or Conditionally Exempt Small Quantity Generators (CESQG) of hazardous waste, and in 2006 none of our facilities were classified as Large Quantity Generators of Hazardous Waste. In 2006, APS has continued to show good results in hazardous waste reductions, as shown in the chart below. The primary difference between the 2005 and 2006 numbers was that PVNGS had a large episodic generation of mixed wastes (including lead) in 2005.



| Waste from Non-Hazardous Wastes (sent to land fill) | | | | |
|---|------------------------------|------------------------------|------------------------------|------------------------------|
| Waste Stream | 2003 Volume Generated (tons) | 2004 Volume Generated (tons) | 2005 Volume Generated (tons) | 2006 Volume Generated (tons) |
| Solid | 23,061 | 14,885 | 4,862 | 4,497 |
| Other Electricity Manufacturing Waste | 137,341 | 47,547 | 25,471 | 25,471 |

Non-hazardous Wastes

Our facilities employ a wide variety of pollution-prevention activities based on the facilities individual and diverse needs. The Deer Valley Service Center is charged with managing the waste and recycling for our service centers. Through a centralized facility, we are able to implement a variety of reuse and recycling activities.

APS is a member of the EPA's WasteWise Partnership and Coal Combustion Products Partnership (C2P2). WasteWise is a voluntary EPA program through which organizations work to minimize solid waste. C2P2 is a cooperative effort between the EPA and the Utility Solid Waste Activity Group (USWAG) to help promote the beneficial use of coal combustion products and the environmental benefits that can result.

Used Nuclear Materials

Nuclear power plant operators are required to enter into spent fuel disposal contracts with the DOE, and the DOE is required to accept and dispose of all spent nuclear fuel and other high-level radioactive wastes generated by domestic power reactors. Although the Nuclear Waste Policy Act required the DOE to develop a permanent repository for the storage and disposal of spent nuclear fuel by 1998, the DOE has announced that the repository cannot be completed before at least 2017.

The Palo Verde Nuclear Generating Station and other nuclear power plants produce two forms of radioactive waste: high-level waste and low-level waste. High-level waste consists primarily of spent nuclear fuel. This spent fuel is highly radioactive for many years, but can be safely stored in spent fuel storage pools or specially designed and licensed spent fuel storage casks.

We have existing spent fuel storage pools at Palo Verde and have constructed and are using a facility for on-site dry cask storage of spent fuel while we are awaiting the completion of the Nuclear Waste Storage facility at Yucca Mountain in Nevada. With the existing storage pools and the addition of the on-site dry cask storage facility, we believe spent fuel storage methods will be available for use by Palo Verde on-site to allow continued safe operation through the term of the operating license for each of Palo Verde's three units. On average, Palo Verde replaces 200 fuel assemblies annually.

| APS Recycled/Reused Materials (2006) | |
|--------------------------------------|---------|
| Material | Tons |
| Paper/Cardboard | 407 |
| Scrap Metals | 7,346 |
| Used Oil | 1,584 |
| Wood | 351 |
| Coal Combustion Products | 991,599 |
| Street Lights | 27 |
| Electronic Component | 70 |
| Miscellaneous | 76 |

Some low-level waste has been stored on-site in a low-level waste facility; however APS is currently shipping low-level waste to off-site disposal facilities which are permitted to accept these types of wastes. Examples of low-level waste include used protective clothing, resins and filters.

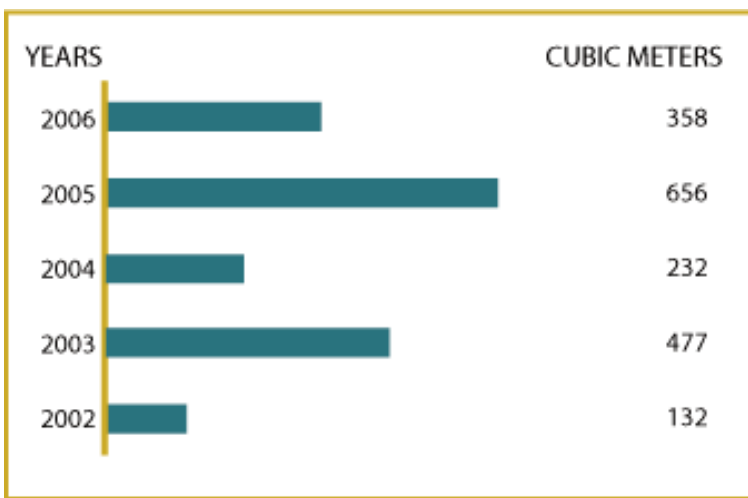
New Protective Clothing at PVNGS

Palo Verde employees who work in radiological controlled areas of the plant now are using environmentally friendly protective clothing (PC) that will eliminate on- and off-site management of plant laundry.

The new protective clothing, which is sold under the trade name OREX, is designed to be worn once and discarded rather than laundered again and again like standard protective clothing. Terry Gober, section leader, RP Contamination Control, said eliminating offsite laundering means less radioactive material is transported on public highways and there is no need to conduct radiation surveys on the PCs when they come back from laundering. Repairing torn PCs also no longer is required.

According to the product's developer, Eastern Technologies Inc., the clothing's lightweight fabric is made from a substance that can be broken down — with the help of microorganisms — into mostly carbon dioxide and water. The water is then passed through resin beds, making the disposal process less expensive.

PVNGS Low-Level Solid Radioactive Wastes



Further information on spent nuclear fuel and low-level wastes can be found in the PNW annual report.

Vendor Audits

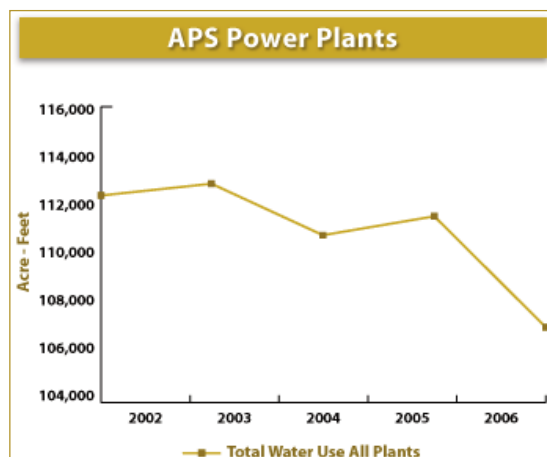
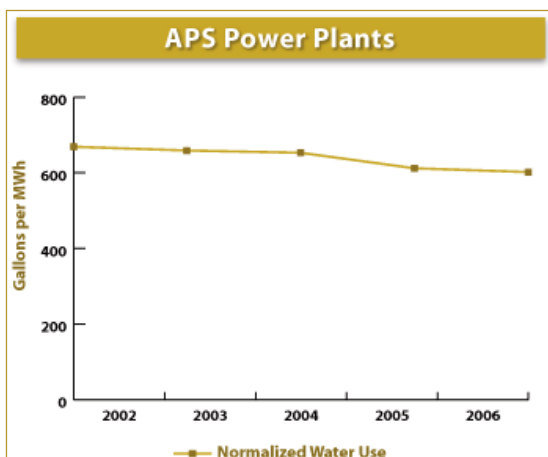
Pinnacle West and APS perform audits of all vendors that provide waste disposal or recycling activities and services to company facilities. This program evaluates our vendor's facility operations, environmental management systems and financial strength in order to minimize short- and long-term liability caused by vendor actions or omissions. The audits also ensure that our waste materials are being properly managed once they leave our facilities. Twenty-three vendor audits were completed in 2006, including 18 audits of waste treatment, storage and disposal facilities, and five audits of recycling firms.

Pinnacle West belongs to the Joint Utility Vendor Audit Consortium (JUVAC), CHWMEG Consortium and the Desert Utility

Vendor Audit Team (DUVAT). The consortiums are made up of various organizations or partnerships that conduct vendor audits and make them available to their members. Participation in these consortiums helps to leverage auditing resources and performance.

Water

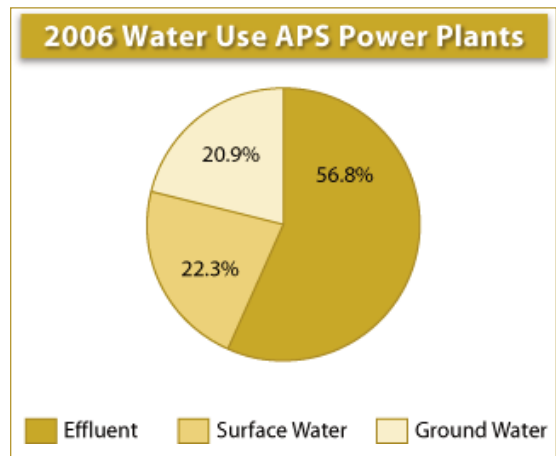
Water is a precious resource in the Southwest, and APS' facilities strive to minimize water usage through a variety of water-conservation activities and through use of treated effluent as a water source. In fact, 56 percent of all water used by APS is treated effluent as discussed in the section below. APS' major use of water is in electricity generation.



Use of Treated Effluent

APS is one of the largest users of treated effluent in the United States for use in power generation. This significantly reduces the amount of surface and groundwater required in our generation activities. As shown in the chart below, in 2006 over 56 percent of our total power plant water came from treated effluent. At the Palo Verde Nuclear Generating Station and our Redhawk natural gas-powered facility, we use treated effluent purchased from seven cities in the Phoenix metropolitan area for cooling. A 35-mile pipeline carries treated waste water from a City of Phoenix sewage treatment facility to Palo Verde, where we use an advanced waste-water treatment process capable of preparing 90 million gallons of water each day for use at both Palo Verde and Redhawk.

Each year, Palo Verde's water reclamation facility processes about 20 billion gallons of treated effluent for power plant use, preserving enough potable water for about 75,000 homes.



Another way in which APS conserves water is through careful water chemistry and treatment. This allows for a high level of water recycling in our electricity-generation process. We reuse our water supplies as much as possible to avoid wasting water; however, some water must be discharged (this is called "blowdown water") to control the salinity of the water used in the power plant processes.

Water use was also an important consideration in the design of our new power plants, and APS strived to incorporate water conservation measures in these new plants, resulting in power plants that utilize less water per MWh generated.

APS has also been able to reduce water use in power plant generation over the past two years as a result of higher capacity factors (leading to better resource efficiency) at our coal plants, and the addition of several new, more efficient natural-gas generation units.

Other Water Conservation Efforts

APS also incorporates water conservation and use ideas into facility building and maintenance as part of our participation in the LEED program.

Material & Chemical Management

At Pinnacle West we realize the importance of properly managing the materials and chemicals used in our daily operations, and we take steps to ensure all materials are tracked, properly disposed of and used in accordance with regulations. Effective procurement management can result in environmental benefits, such as reduced wastes and toxicity, as well as financial benefits. We strive to develop and implement procurement procedures that help maximize these benefits. In addition, we have programs in place that allow us to reuse materials within the company.

We adhere to a specific and focused vision for recycling, resource reduction and conservation of natural resources, including:

- Reduced consumption of virgin materials through product or process redesign
- Water conservation
- Energy conservation
- Habitat conservation
- Risk reduction
- Procurement of goods with recycled content
- Recycling solid waste
- Recycling hazardous waste and toxic materials



Our employees strive to incorporate this thinking into every aspect of our operations; from making environmentally sensitive purchasing decisions to promoting reuse and recycling efforts. Our systems are being integrated to help manage purchasing, chemical use and reuse of company equipment. Our in-house chemical review team is responsible for examining and approving chemical purchases.

Our purchasing and inventory system, called Materials Logistics Information System (MLIS), allows us to better manage purchasing and inventory activities and increase employee awareness of purchasing practices. We also use our electronic Material Safety Data Sheet (MSDS) system in conjunction with the MLIS program to facilitate tracking and reporting the types and quantities of chemicals purchased and stored. These two systems allow us to create baselines to more effectively plan and set goals.

Environmentally Preferred Procurement

Our EHS policy confirms our corporate support for green procurement, including sections on use of safe products and services, sustainable use of natural resources, stewardship of natural resources and pollution prevention. Our internal corporate procurement procedures further defines this policy: The purchase of all products, including chemicals and hazardous materials, will only be made after consideration of the products' total life cycle. Prior to procurement, materials must be evaluated for environmental attributes such as recycled content, toxicity and disposal options. Employees making procurement decisions must share in this responsibility in order to minimize adverse environmental impacts and future liability.

APS has committed to the LEED principles in construction of new facilities, and has developed a LEED policy that incorporates LEED green procurement parameters for use by our facility services departments.

Investment Recovery

APS also has a very successful Investment Recovery department that manages surplus materials. The first objective is to re-deploy useful material within the company. For materials that can not be re-deployed, Investment Recovery may sell, recycle or donate materials. Disposal is the last option. In 2006, Investment Recovery recorded \$4,400,006 of total recovered dollars (up from \$2.5 million in 2005), and an additional \$361,368 of avoided costs (e.g. avoided landfill costs on recycled materials), up from \$200,000 in 2005.

In 2006, more than 11.4 million pounds of materials were recycled through Investment Recovery's programs, up from 6.4 million pounds recycled in 2005.

Chemical Management

All hazardous materials that are used by the company are required to be reviewed by a Chemical Review Team prior to purchase in order to help insure the use of materials with lower environmental and safety impacts. The teams review new products and compares them to existing products to see which provides the greatest overall benefit to the company. These teams also provide on-going reviews of current products to evaluate for "greener" alternatives.

All chemical products are assigned a "EHS Rating" based on the Chemical Abstract Numbers (CAS) of the ingredients in the product and the products National Fire Protection Association (NFPA) rating. This allows us to quickly evaluate and compare the potential risks and hazards of the products we use, and to make better informed decisions regarding the approval of new products.

Through this process, APS has been able to reduce the number of chemical products across our system by about 50 percent over the past 10 years, and to also reduce the potential risk of the chemical products we use by substituting products with a lower potential for health or environmental impacts.

MSDS

All chemical products used at APS are included in an electronic Material Safety Data Sheet (MSDS) system which is available to any employee across the company. APS facilities may use only those products approved for use and which are coded on this system. The electronic MSDS system provides other benefits to our EHS efforts since it allows us to quickly identify the specific chemical ingredients contained in the products at our facilities, while highlighting the risk profile of specific products. The MSDS system also allows users to print labels for secondary containers, and improves our ability to identify hazardous materials, in order to ensure such materials are properly stored and handled.

PCB Management

Over the past seven years, APS has been successful in reducing the use of PCBs in electrical equipment by targeting suspected equipment based on manufacturer name and serial numbers. From 2000 through 2004, APS removed 3,212 pieces of PCBs (> 500 ppm) or PCB-contaminated (> 50 to 499 ppm) equipment from service, resulting in the disposal of 425,336 kilograms (kg) of PCB material. During 2005 and 2006 APS has removed an additional 6,615 pieces of PCB-containing equipment from our transmission and distribution system representing 583,484 kilograms of disposed material, including the following: 5,983 large PCB capacitors (317,458 kg), 287 PCB-contaminated and PCB bushings (29,965 kg), and 345 PCB-contaminated and PCB transformers (236,061 kg).

Facility Energy Management

Our company has long been a leader in energy efficiency and energy conservation, and many of our facility energy management efforts have been described in our past EHS Annual Reports. We continued our efforts with positive results in 2006.

Our facilities implement a variety of energy-efficiency measures including:

- Operating air conditioning systems with energy-efficiency software that manages duty-cycling and set-backs
- Replacing out-dated air conditioning with high-efficiency equipment
- Writing all new construction specifications with energy efficiency in mind
- Requiring energy-efficient Energy Star computers whenever new computer equipment is needed

More than 97 percent of our facility space is equipped with energy-efficient fixtures. We estimate energy savings of more than 13 million kilowatt-hours (kWh) per year from the use of energy-efficient products.

In 2003, our corporate headquarters in downtown Phoenix was converted to the Northwind Cooling system which uses an industrial grade, ice-based chiller that manufactures three million pounds of ice each night when utility loads and rates are lowest. The conversion to Northwind eliminated the on-site requirement need for cooling towers and their associated air-conditioning chillers, resulting in a significant reduction in water consumption in the cooling towers, and the elimination of CFC refrigerant R-11 from the chillers.

APS LEEDs By Example

APS is a registered member of the U.S. Green Building Council and has committed to a goal of incorporating Leadership in Energy and Environmental Design (LEED) principles in our building design and maintenance. LEED principles encourage "design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five broad areas: sustainable site planning, safeguarding water and water efficiency, energy efficiency and renewable energy, conservation of materials and resources, and indoor environmental quality."

The LEED rating system ensures buildings meet a minimum set of criteria in each of five categories, contributing to a sustainable environment, ensuring a healthy and safe workplace and reducing operational costs.

APS is taking an active role in LEED in order to ensure the sustainability of our own facilities, and to allow us to generate interest for the program as well as educate our customers who may be interested in participating in the LEED program.

In 2006, APS had three registered LEED projects: the Wickenburg and Flagstaff Service Centers and the new Ocotillo Service Center.

Mobile Fleet

APS has 2,209 company-owned vehicles, which are managed by the APS Transportation Services department. These vehicles are used to operate and maintain our electric generation, transmission and distribution facilities, business offices and other operations which are located through-out the state of Arizona.

| Fleet Fuel Consumption | | | | | |
|------------------------|------------------|------------------|------------------|------------------|------------------|
| Vehicle Fuel (gallons) | 2002 | 2003 | 2004 | 2005 | 2006 |
| Gasoline | 1,738,575 | 1,742,686 | 1,565,433 | 1,513,811 | 1,586,446 |
| Diesel | 1,311,557 | 1,338,797 | 1,141,865 | 1,193,090 | 1,75,304 |
| Biodiesel | 53,718 | 62,209 | 55,402 | 60,244 | 67,568 |
| Total | 3,103,850 | 3,143,692 | 2,521,725 | 2,526,170 | 2,729,318 |

We have been able to significantly increase our fleet fuel efficiency over the past several years, as shown in the chart below, primarily by accelerating our purchases of new vehicles with improved mileage.

| Fleet Statistics | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Avg miles per gallon for gas/dieseeel fleet | 4.900 | 5.110 | 7.500 | 9.237 | 9.798 | 9.326 |

Land Use & Biodiversity

APS operates a large number of facilities located throughout Arizona and in the Farmington, New Mexico area that generate, transmit and distribute electricity to our customers. One of our highest priorities is to construct and operate these facilities in a safe, sustainable and environmentally conscious manner, protecting our land and our wildlife.

APS' infrastructure "Footprint"

Transmission and Distribution

Transmission lines are the power lines that bring electricity from power plants to substations in customer areas, where the voltage is lowered. Distribution lines carry electricity at lower voltages and go from substations to transformers near homes and businesses. The trans-

formers, often located on power poles, decrease the voltage lower still so it can be used by appliances in homes or businesses.

Distribution Lines: The company owns and operates a total of 26,196 miles of distribution lines

Overhead : 12,323 miles
Underground: 14,873 miles
Number of Distribution Substations: 34

Transmission Lines: The company owns and operates a total of 5,121 miles of transmission lines

69kV: Overhead: 2,416 miles, Underground: 25 miles
115kV and larger: Overhead: 2,663, Underground: 18
Number of Transmission Substations: 5

While the majority of APS' customers reside in the metropolitan Phoenix area, we serve a large portion of the rest of Arizona, which is largely rural. APS averages 23 customers per square mile of service territory.

Power Plants

| Facility | Acres |
|--------------------|---------------------------|
| Cholla | 7,624 owned, 9,052 leased |
| Palo Verde | 4,287 owned |
| 4-Corners | 3,486 owned |
| Redhawk | 1,874 owned |
| Saguaro | 974 owned |
| Sundance | 310 owned |
| West Phoenix | 141 owned |
| Ocotillo | 126 owned |
| Yucca | 38 owned |
| Douglas | 6 owned |
| Total Acres | 27,917 |

Office and Support Facilities

At the end of 2005, PNW owned or leased 106 facilities to support our operations, with a total of 1,558,073 square feet of building space. This included 18 APS Service Centers and 32 APS Customer Service Business Offices located across Arizona.

Transmission and Distribution Line Siting

APS conducts extensive environmental reviews for siting new transmission and distribution systems. For new power lines rated at greater than 115 kilovolts (kV), the Arizona Corporation Commission requires a Certificate of Environmental Compatibility (CEC) to be issued prior to construction. APS conducts a thorough siting process covering a broad range of environmental issues and factors including, land use, cultural resources, biological resources and habitat studies for rare and endangered species.

APS also conducts a multi-faceted public process which consists of direct mailings, open houses, newspaper advertising and multiple jurisdictional, governmental and public meetings. APS also maintains a Transmission and Facility Siting website that providing on-going information about siting projects to the public.

Beyond the regulatory programs, APS has a voluntary siting process for new transmission lines that are less than 115kV and are not required to follow the state process. This voluntary process is much like the CEC process where numerous environmental factors are evaluated and the public participation process seeks to communicate transmission line siting information to local citizenry to obtain their input. This allows APS to site transmission lines in the most sustainable manner that meets project requirements.

Wildlife Protection Programs

The APS Forestry and Special Programs Department (APS F&SP) is responsible for administering a variety of operations-related environmental programs associated with vegetation management, wildlife protection, landscaping, wood preservation and electrical hardware inspection. To meet the compliance requirements of the National Environmental Policy Act (NEPA) and other pertinent regulations, the department has evolved to include a dedicated staff of degreed natural resource professionals including foresters, arborists, wildlife specialists, biologists, an environmental resources specialist, a herpetologist, and an archaeologist.

Arizona's environment provides ideal habitats for a variety of birds of prey, or raptors. Raptors are naturally drawn to power poles because they offer a high place to perch, roost, nest and hunt. The large wing spans of raptors, however, make them vulnerable to harm by the electricity being carried on the power lines. The most common raptors affected in the APS territory include Harris hawks, red-tailed hawks and great horned owls.

APS F&SP, in partnership with the U.S. Fish and Wildlife Service (USFWS), has developed a comprehensive Avian Protection Plan. Also, the company has implemented new construction design standards that require the installation of raptor protection devices and coverings to shield electrical components. In 2006, all new construction was installed in accordance with these raptor safe standards and hardware on over 700 existing poles was modified with protection coverings. Likewise, on all new substation installations, wildlife protective coverings are installed. In addition, 90 substations were retrofitted with wildlife protection devices in 2006.

Protecting birds from electrical contact also increases safety for members of the cat family, raccoons, squirrels and other wildlife whose curiosity and foraging habits draw them to climb power

poles and other electrical facilities. APS is a member of the Avian Power Line Interaction Committee and has worked closely with this group to revise the industry's "Suggested Practices for Raptor Protection on Power Lines" manual.

In 2005, APS partnered with the USFWS on the agency's California Condor Restoration Project by installing a series of poles and mildly-electrified overhead wires at the project area located at the upper end of the Grand Canyon. Because power poles and lines pose a significant hazard to condors with their nine-foot wingspan, these artificial power lines are used to train young condors to avoid electric lines before they are released.

As a continuation of the Condor Project, in 2006 APS donated and installed a 1.5-ton array of nine solar panels – enough to supply 30 amps of power to the holding pen and to a field lab on top of the cliffs. This will keep the water supply thawed through the winter, make it possible for the staff to utilize video cameras for remote observation and supply electricity directly to the field lab. [Click here to learn more about the this program.](#)

APS has completed habitat enhancement projects in partnership with the National Wild Turkey Federation and has developed right-of-way corridor vegetation management plans that will improve habitat for wild turkeys and other wildlife. APS is currently collaborating with the Federation, the Forest Service, and the Arizona Game and Fish Department on a wild turkey habitat restoration project on Mingus Mountain in central Arizona.

The company also conducts a comprehensive nest-management program. When birds build their nests on electrical equipment it becomes necessary to take action. If the nest is occupied, permits must be obtained from the USFWS permitting office. APS has developed a nest platform that is installed on the pole in a safe place, the nest is relocated to this platform, and the chicks are placed back in the nest. The adults return soon after to care for their young. In most cases birds return year after year to these same nests. A specification for this work was developed in 2006.

APS is involved in many other environmental and wildlife protection efforts:

- Wildlife specialists work closely with wildlife rehabilitation organizations to construct artificial homes for burrowing owls displaced as a result of development. APS provides the equipment and people necessary to construct underground burrows that serve to hold an entire colony of burrowing owls
- The department is currently involved in a biological-assessment project in conjunction with the USFWS. More than 1,000 miles of the company's right-of-way corridors are being evaluated to determine their value to wildlife habitat and to identify areas of concern as they relate to the company's field operations. This multi-year project began in 2006. The company has dedicated two degreed biologists to this project on a full-time basis
- PS collaborates on projects and partnerships with other agencies and non-profit groups for public awareness and education. In 2006 APS partnered with Liberty Wildlife at several birding events

including the Tres Rios Nature and Earth Festival, ASU Earth Day, and National Public Lands Day

•he company works closely with the Southwest Bald Eagle Association. Each year the company donates approximately 20 hours of helicopter flight time to transport Arizona Game and Fish personnel on their annual Bald Eagle Nest inspections. Highlights of the 2006 patrol include finding a new active nest, four baby Eaglets that had fallen out of their nest were rescued, ten nest sites were inspected and 8 new fledglings were tagged and registered

Cultural Resource Program

Arizona's landscape has experienced a significant amount of history spanning from the wild-west era to pre-historic civilizations. To reduce the possibility of damaging national historical treasures and to ensure the company is in compliance with current regulations, APS added a professional archaeologist to its staff. In addition to coordinating the cultural resource compliance component of new construction projects, efforts are underway to survey the majority of the company's existing transmission system.

Forestry Program

The Forestry Program includes the maintenance and control of trees, shrubs and brush growing around APS facilities and equipment – including overhead power lines, poles, guys and underground electrical equipment. Our Vegetation Management program follows professional industry tree-trimming standards to limit damage and improve overall tree health. We follow the Edison Electric Institute's (EEI) strategy on minimizing pesticide use.

Staff arboricultural professionals including both degreed Foresters and Arborists direct these programs. All operations are performed in accordance to ANSI A-300 Standards for Tree Care. All supervisors and crew leaders are required to earn and maintain professional certification as International Society of Arboriculture (ISA) Certified Arborists. Crew members are required to earn and maintain certification as ISA Tree Workers. APS provides an extensive amount of ongoing arboricultural training.

The high-quality standards of the Forestry and Special Programs' vegetation management efforts have been recognized for the tenth consecutive year with the National Arbor Day Foundation's "Tree Line USA Utility" distinction. The department was lauded for administering a superior program of professional tree care, providing annual worker training, as well as implementing tree planting and public education programs related to proper tree care.

It is often necessary to remove established tall-growing species of trees that are growing near power lines. In many circumstances the company provides the customer with low-growing replacement trees. The department has launched a massive tree replacement project in the Phoenix metropolitan area. Thousands of existing street trees which normally require routine trimming in order to provide safe clearances from overhead wires are being removed and replaced with appropriate low-water use trees that do not grow tall enough to affect power lines. This is truly a win-win project.

Every year, APS F&SP visits at least ten local elementary schools to host Arbor Day celebrations. These events involve an educational component involving the importance of trees in the environment. This is followed by a tree-planting ceremony on the school's grounds.

APS F&SP has developed a Web site to educate and inform customers about the department's various programs, and to address questions and concerns.

Decommissioning of the Childs-Irving Hydroelectric Power Plants

In 2006, APS continued its efforts to decommission APS' Childs and Irving hydroelectric power plants and restore Fossil Creek to its original flow. So far, the crews at the Childs-Irving Power Plant decommission site have successfully removed more than 8,700 feet of steel flume on wood trestle, more than 5,400 feet of concrete and steel flume below the Irving Power Plant site, and the majority of facilities at the Childs Power Plant site. Recently the crews combined to complete one of the largest construction projects to date, removal of Bridge 10, also known as the Big Red Pipe.

In 2007, crews will continue to remove wood, steel and concrete flume and the Fossil Springs Dam.

The entire project removal is expected to be completed in June 2010.

Recently, this effort was the subject of a documentary film narrated by actor Ted Danson and produced by five-time Emmy award-winning producer, Paul Bockhorst.

In explaining the decision to support decommissioning of these facilities, Bill Post, Pinnacle West CEO and Chairman of the Board, told producers: "As we looked at the opportunity to give the residents of the state of Arizona a perennial stream in the desert...there is no option to that. We can find other ways to generate electricity. We cannot find other perennial streams in the desert."

Spills & Remediation Programs

Potentially Responsible Party (PRP) Issues

APS was named in 2003 as a Potential Responsible Party in the Motorola 52nd Street Operable Unit 3 Superfund Site located in Phoenix, Arizona. In July 2004, APS completed negotiations with the EPA and signed a formal agreement, an Administrative Order of Consent. The agreement obligates APS to determine the extent, if any, of its contribution to the regional groundwater impacts, and if so, to identify options for addressing the company's contribution to those impacts under the EPA's oversight and guidelines.

APS is currently implementing the scope of work specified in the Administrative Order on Consent to evaluate potential groundwater impacts at our facility. The results of the groundwater investigation to date, indicate that volatile organic compounds have been detected in both the up and down gradient monitor wells at the APS facility at concentrations below the EPA's Maximum Contaminant Level for drinking water. Additional characterization of the soil and groundwater are scheduled for 2007 to 2008.

APS continues to provide funding for the clean-up of the EPA CERCLA Hassayampa Landfill superfund site. APS sent industrial solid waste to this municipal landfill until it closed in the late 1970s. The facility was later designated as a Federal superfund site and APS named as one of a number of PRPs. APS' contribution to this clean-up effort is small, representing approximately 1.5 percent of the total annual assessment.

MGP Voluntary Remediation Program Status

Manufactured Gas Plants (MGPs) operated from the late 1800s to about 1950, making synthetic gas for domestic heating and lighting purposes. Several predecessors of APS operated plants in Arizona communities including Phoenix, Globe, Miami, Prescott, Douglas and Yuma. The manufactured gas process created by-products including lampblack, tar and oils, some of which remained at the sites after operations ceased.

APS has voluntarily investigated and characterized our historical MGP sites. We have entered the MPG sites into the Arizona Department of Environmental Quality Voluntary Remediation Program, which is a program specifically addressing the voluntary investigation and remediation of environmentally impacted sites in Arizona. The company began evaluating each site in 1993 to address any remaining material that may have been generated by MGP activities. We began remediating the sites in 1996. Below is the current status of our MGP remediation sites:

| MGP Remediation Program Status | | | |
|--------------------------------|----------------------------------|--|---|
| Site Location/ Name | Media Impacted | Remedial Option | Status |
| Prescott | Soils, Groundwater Surface Water | Excavation | Post Remediation Monitoring |
| Yuma | Soils, Groundwater | Excavation | Post Remediation Monitoring |
| Phoenix/ Washington St | Soils | Excavation | Remediation Complete |
| Phoenix/ Grant St | Soils | Interim-Courtyard Cap Final Excavation | Interim Remedy Completed 2003 Final Remedial Action Plan Scheduled 2013 |
| Phoenix 505 | Soils | Not Selected | Site Characterization Complete Remedial Action Plan Scheduled 2009-2010 |
| Globe | Soils | Excavation | Site Characterization Completed Development Final Remediation Scheduled 2007-2008 |
| Miami | Soils | Not Selected | Site Characterization Complete Remedial Action Plan Scheduled 2011 |
| Douglas | Soils | Not Selected | Site Characterization Complete Remedial Action Plan Scheduled 2011 |

| Other Remediation Projects | | | |
|---|--------------------|--|--|
| Site Location/Name | Media Impacted | Remedial Option | Status |
| Buckeye Service Center - Fueling Island | Soil, Groundwater | Soil Vapor Extraction/Sparge, Wells/Barrier Wall | System Installed Remediation on-going |
| Cholla Power Plant - Fuel Oil Building | Groundwater | Assisted Monitored Natural Attenuation | On-going Monitoring |
| Cholla Power Plant - Diesel Fuel Pipeline Release | Soil | Not Required | Site Closure Anticipated 2007 |
| West Phoenix Power Plant | Soils, Groundwater | Risk Assessments Bioventing | On-going monitoring Site evaluation 2007 |
| Cholla Power Plant - DR2 | Groundwater | Under Evaluation | Initial Characterization Scheduled 2007 |

Other Remediation Projects

The following table describes the current status of APS' non-MGP remediation projects. Each of these sites is also anticipated to be completed under guidance of the Arizona Department of Environmental Quality (ADEQ) through the Voluntary Remediation Project.

Spill Summary

We take many precautions to avoid spills. However, despite our efforts, on occasion an accidental spill occurs. In 2006, APS had the following releases. These releases do not include small releases of non-PCB mineral oil from electrical equipment, or releases of water.

(Note: releases to water are defined as materials that went into a Water of the USA, as defined in the federal regulations)

Oil Spills:

- Release of PCB oil from a Potential Transformer malfunction with the lid and bottom releasing approximately 3 gallons at our Four Corners Power Plant
- A Pothead was damaged and released between 600-1000 gallons of mineral oil inside a substation

Chemical Spills:

Approximately 150 gallons of 10 percent sodium hypochlorite (bleach) leaked from the Cholla Power Plant lake storage/transport system onto the surrounding concrete/asphalt. The spill was completely contained on plant site

| Spill History | | | | | | |
|----------------------|-------------------|----------------|------------------------|----------------|--|----------------|
| | Oil Spills | | Chemical Spills | | Other Releases (please specify) | |
| | Number | Gallons | Number | Gallons | Number | Gallons |
| 2006 | | | | | | |
| Release to land | 2 | 1003 | 1 | 150 | 0 | 0 |
| Release to water | 0 | 0 | 0 | 0 | 0 | 0 |
| Release to air | 0 | 0 | 0 | 0 | 0 | 0 |
| 2005 | | | | | | |
| Release to land | 6 | 184 | 3 | 305 | 1 | 1000 |
| Release to water | 0 | 0 | 0 | 0 | 1 | 1000 |
| Release to air | 0 | 0 | 0 | 0 | 0 | 0 |
| 2004 | | | | | | |
| Release to land | 2 | 330 | 2 | 60 | 2(a) | 5150 |
| Release to water | 2 | 68 | 2 | 2 | 1 | 20 |
| Release to air | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | | | | | | |
| Release to land | 6 | 144 | 1 | 1300(b) | 2 | 50002 |
| Release to water | 0 | 0 | 2 | 63 | 2 | 129000 |
| Release to air | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | | | | | | |
| Release to land | 1 | 58 | 0 | 0 | 4 | 133500 |
| Release to water | 2 | 3 | 0 | 0 | 1 | 50 |
| Release to air | 0 | 0 | 0 | 0 | 0 | 0 |

(a) The vast majority of other releases are releases of cooling water. In 2004, 5,000 gallons of the 5,170 gallons reported were cooling water and the remainder was sewage. Cumulative between 2000 and 2004, 604,945 gallons of other releases were cooling water, 329,500 gallons were releases of ash sluice water, and 37,500 gallons were releases of treated effluent. The remainder includes 1,000 gallons of reverse osmosis blowdown water and 50 gallons of sewage.

(b) 1,300 gallons of sulfuric acid were released into the facilities drainage system at Saguaro Power Plant. The acid was contained by the facilities surface impoundment where it was neutralized.

Toxic Release Inventory

Our company is required by the Environmental Protection Agency (EPA) to report applicable releases of chemicals listed by the EPA through its Toxic Release Inventory (TRI) program. Our reportable releases under the TRI program are primarily contained in our air emissions from power plant smokestacks, or are contained within coal ash. While the TRI quantities reported by our company are fairly large (as is the case with all utility companies), the majority of these releases are captured by pollution control equipment, or are contained with our waste coal ash (much of which is recycled for beneficial use). The below chart lists our 2005 TRI summary (2006 TRI report is due in July 2007 and was not available at the publication of this report)

| 2005 TRI Release Estimate (APS Operations) | | | | |
|---|-------------------------|--------------------------|------------------------|-----------------------|
| | Released to Land | Released to water | Released to Air | Total Released |
| Barium | 4,188,071 | 0 | 3,697 | 4,191,768 |
| Benzo(g,h,l) perylene | 0 | 0 | 0.34 | 0.34 |
| Beryllium | 28,009 | 0 | 32 | 28,041.00 |
| Chromium | 170,298 | 0 | 628 | 170,926 |
| Cobalt | 48,479 | 0 | 143 | 48,622 |
| Dioxin | 0 | 0 | 0.01 | 0.01 |
| Copper | 215,516 | 6 | 679 | 216,201 |
| Hydrochloric Acid | 0 | 0 | 219,110 | 219,110 |
| Hydrofluoric Acid | 0 | 0 | 506,834 | 506,834 |
| Lead | 179,276 | 4 | 684 | 179,964 |
| Manganese | 522,829 | 1,405 | 910 | 525,144 |
| Mercury | 568 | 0 | 903 | 1,471 |
| PACS | 0 | 0 | 8.53 | 8.53 |
| Nickel | 97,235 | 1 | 612 | 97,848 |
| Selenium | 21,569 | 0 | 744 | 22,313 |
| Sulfuric Acid | 0 | 0 | 120,688 | 120,688 |
| Vanadium | 407,344 | 730 | 319 | 408,393 |
| Zinc | 185,866 | 50 | 2,411 | 188,327 |
| Total | 6,065,060 | 2,196 | 858,403 | 6,925,659 |
| 2004 TOTAL | 4,961,737 | 5,435 | 651,338 | 5,618,510 |
| 2003 TOTAL | 4,741,688 | 3,690 | 591,209 | 5,336,586 |
| 2002 TOTAL | 4,014,728 | 7,405 | 658,932 | 4,681,065 |
| 2001 TOTAL | 4,194,285 | 8,698 | 805,123 | 5,008,106 |

Palo Verde Tritium

In February of 2006, Palo Verde personnel found tritium — a radioactive form of hydrogen — in shallow subsurface water around Unit 3. Although low levels of tritium were detected in water collected in shallow “potholes” excavated in the RCA yard, none has ever been detected in any wells or aquifers beneath the plant property or in offsite wells. The Arizona Department of Environmental Quality (ADEQ) and the Nuclear Regulatory Commission were notified in a “non-hazardous spill” report.

In response to the discovery, a team was formed to conduct exhaustive studies, establish the source of tritium and ultimately remediate the condition. The likely source was determined to be tritium from normal releases of plant gasses from which tritium was washed from the air by rain and from condensation from air ducts. Working closely with ADEQ, Palo Verde has enacted additional procedural controls and made physical changes, including drilling new monitoring wells, at the plant to enhance monitoring and minimize the potential for re-occurrence. During this same period, Palo Verde took an industry leadership role in defining proactive guidance on groundwater protection. Once approval is received from ADEQ, water trapped in the shallow sand lenses will soon be pumped out and eliminated.

EHS Compliance

Compliance is our minimum standard of performance and we strive to perform beyond compliance in all areas of our business. All our managers and employees are required to uphold regulatory compliance as part of their daily activities and business planning. When non-compliance issues do arise, we take appropriate steps to address those issues and prevent them from happening again.

As an energy supplier and producer, we are subject to environmental, health and safety regulations on the federal, state, county and local levels. In addition, the Four Corners Power Plant located on the Navajo Nation near Farmington, New Mexico, works with the Navajo Nation Environmental Protection Agency to address certain environmental issues.

We maintain a goal of zero notices of violation (NOVs) resulting in fines or penalties. Success in meeting this target is reflected in individual employee performance evaluations and compensation.

In 2006, we received the following citations:

- The Four Corners Power Plant received an OSHA citation for \$1500, which we paid. This citation was for conductors not protected from abrasion and a missing junction box cover.
- 2 Notices of Violation (NOV) were issued by Maricopa County Air Quality Department to Palo Verde for failure to comply with dust control requirements, including failure to install trackout control measures. Maricopa County has not yet sought any penalties for these NOVs at the time of this report.
- A Notice of Violations (NOV) was received by Palo Verde from the Maricopa Air Quality Department for exceeding the annual PM-10 emission limit resulting from a failure of the cooling tower performance test conducted in December of 2005. PNW is contesting this NOV. Maricopa County has not yet sought any penalties for these NOVs at the time of this report.
- A Notice of Violation was received by SunCor Development and two of its vendors from the Maricopa Air Quality Department related to dust control requirements. This resulted in a penalty totaling \$17,690, of which SunCor was responsible for \$5,440.