EPRI | ELECTRIC POWER RESEARCH INSTITUTE

2006 ANNUAL REPORT

TOGETHER...SHAPING THE FUTURE OF ELECTRICITY

THE ELECTRIC POWER RESEARCH INSTITUTE (EPRI) conducts research on key issues facing the electric power industry on behalf of its members, energy stakeholders, and society. EPRI was established as an independent, nonprofit center for public interest energy and environmental research. We bring together members, participants, the Institute's scientists and engineers, and other leading experts to work collaboratively on solutions to the challenges of electric power. These solutions span nearly every area of electricity generation, delivery, and use, including health, safety, and the environment. Our members represent over 90% of the electricity generated in the United States, and international participation represents nearly 15% of our total research, development, and demonstration program. EPRI has major locations in Palo Alto, California; Charlotte, North Carolina; and Knoxville, Tennessee.

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Chairman's Message

THE U.S. ELECTRIC POWER INDUSTRY STANDS ON THE THRESHOLD of its most fundamental transition in a generation. A scientific consensus has formed around the contribution made by greenhouse gas (GHG) emissions to global warming, and climate policies are being implemented at various levels around the world. Because the industry accounts for approximately 33% of GHG emissions in the United States and 8% of global emissions, it will need to play an essential role in stabilizing atmospheric GHG concentrations.

Today's power generation technologies are not adequate to make the necessary emissions reductions at a reasonable cost. Rather, a robust portfolio of new electric power technologies — for generation, delivery, and end use — will be needed to facilitate the transition to lower emissions. Moreover, deploying these technologies in a timely fashion will require a greatly accelerated industry program of research, development, and deployment.

EPRI is in an ideal position to lead this accelerated research program. During 2006, we took the first major step by conducting a top-to-bottom analysis of the technological transition that lies ahead. Specifically, we analyzed the improvements in electric power technology that are technically feasible within the next 10–15 years, worked with a variety of stakeholders to develop detailed research plans in key areas, held Board discussions about how to accelerate deployment of these new technologies, and estimated the additional societal benefits that could be realized by mounting an effective response to climate change.

Specifically, this analysis concluded that the potential for GHG emissions reductions across the electricity sector is large and efforts should be based on both short-term and long-term goals. Already, efficiency improvements in electricity end use, expansion of distributed energy resources, and reduction of transmission and distribution losses are beginning to slow the rate of growth in electricity sector GHG emissions. Meanwhile, development of advanced coal plants with CO_2 capture and storage capability, deployment of a new generation of nuclear plants, and achievement of cost reductions for renewable energy resources promise to stabilize and then begin to reduce emissions over the next decades, while simultaneously meeting increased demand for electricity.

Bringing about this dramatic transition will require long-term commitment of funds — by both government and industry — to accelerate the necessary research. One positive step in this direction was the recent extension of the collaborative research tax credit. This legislation provides a 20% credit for all qualified research expenditures through a not-for-profit energy research consortium, such as EPRI. I urge all utilities that are eligible for the tax credit to take advantage of this opportunity by expanding their commitment to collaborative research through EPRI.

In turn, I am glad to report that EPRI is undertaking a variety of steps to prepare for meeting the industry's rising R&D needs, as Steve Specker details in his message. The payoff can hardly be overestimated: substantially increased research at this time to reduce GHG emissions can greatly reduce the financial uncertainty that a carbon-constrained future would otherwise impose on the electric power industry. In addition, for the U.S. economy as a whole, our recent study indicates that early deployment of advanced nuclear technology and coal plants with CO_2 capture and storage can lower the cost of reducing emissions over the next 50 years by a factor of 3. EPRI's leadership will be essential in accelerating the R&D needed for the industry to meet the technological challenges ahead.

Jeff Sterba
Chairman

President's Message

EPRI'S MISSION IS BEST DESCRIBED BY THE PHRASE "TOGETHER . . . SHAPING THE FUTURE OF ELECTRICITY." And never in its history has this mission been more important. The electricity sector faces daunting technical challenges in order to satisfy the ever increasing demand for reliable and affordable electricity while transitioning into a carbon-constrained future. Successfully meeting these challenges will require an unprecedented commitment to collaborative RD&D on a broad portfolio of electricity technologies. Over the past several years, all of us at EPRI have worked hard to improve the value and relevance of our collaborative programs so that we can "step up" to fulfill our mission in these very challenging times.

And we are ready to "step up" and do more. Although there is always more to be done, I am pleased to report that during the past year we continued to make good progress on four multi-year objectives, first established in early 2005, which focus the Institute on increasing the value that participants derive from our collaborative programs: (1) simplification; (2) broadening participation; (3) strengthening technical programs and staffing; and (4) enhancing technology transfer. Our overall progress towards improving value is best evidenced by a second year in a row of funding growth and a substantial improvement in member satisfaction. Some highlights from the past year related to the specific objectives include:

- the successful integration of EPRI Solutions and EPRI into a single, unified organization, which completes the structural simplification journey begun in 2004
- expanded participation through the addition of 25 new international participants; 10 new participants in our Electric Transportation Program; 13 new participants in the Ocean Energy Project; and expansion of the advanced coal program (CoalFleet) from 36 to 54 participants
- strengthening of our technical programs and staffing with 54 new hires, in addition to bringing EPRI Solutions' 70 outstanding technical personnel and their Knoxville laboratory facilities into a unified organization
- establishment of the EPRI Energy Technology Assessment Center to provide a focal point for collaboration among strategic EPRI programs and for helping set RD&D portfolio priorities

To fulfill our role, we must provide leadership in key areas of technology which can truly shape the future of electricity. Our annual Summer Seminar provides one of the most effective forums for this leadership. And by all accounts this past year's seminar on the topic of energy efficiency was a home run. All attendees came away with a much better understanding and a greater sense of urgency for the key role that efficiency and demand response play in the portfolio of technologies for a carbon-constrained future. We followed in the fall with a series of five regional workshops to gain additional stakeholder input on RD&D needs. This culminated in January with the launch of a new Energy Efficiency Initiative, which as of April has over 40 companies committed or interested in participating. This is leadership…now we must deliver results.

Energy efficiency is one of the technical areas highlighted in the following pages which are essential to a successful transition to a carbon-constrained future. But it is certainly not the only one. We need them all. A range of R&D activities is being pursued to help fulfill the promise of diverse renewable and distributed energy resources. Meanwhile, EPRI remains a leading provider of technical support to nuclear plant owners, in areas ranging from fuel reliability and radioactive waste management to new plant design. And our advanced coal programs are playing a key role in helping develop and demonstrate the technologies needed to improve plant efficiencies and reduce the cost of capturing and storing CO_2.

Society has high expectations…to continue to enjoy the benefits of reliable and affordable electricity while expecting that the environmental impacts from its generation, transmission, and distribution will be reduced. Collectively, the electricity sector has a long and successful track record of meeting these expectations. At EPRI, we are committed to doing everything we can to keep this record intact as the world transitions to a carbon-constrained future.

Steve Specker
President and CEO

Electricity Technology for a Carbon-Constrained Future

IN RESPONSE TO GROWING SCIENTIFIC CONSENSUS AND PUBLIC concern over the contribution of greenhouse gas emissions to climate change, EPRI has conducted an assessment of technologies that have the potential for achieving significant reduction of carbon dioxide (CO_2) emissions from the U.S. electric power sector over the coming decades. Specifically, EPRI has developed a series of aggressive but potentially feasible technology deployment targets and estimated the CO_2 reductions that could result between now and 2030.

The overriding conclusion of this assessment is that the potential does exist for the power industry to significantly reduce its CO_2 emissions, but that no one technological approach will suffice. Rather, a varied portfolio of technologies will be needed, and in each case, substantial research, development, and demonstration will be required if emission reduction goals are to be achieved.

The following pages review EPRI's leadership role in four of the major technical areas related to preparing the industry for a carbon-constrained future: improving the efficiency of electricity end use, fulfilling the promise of renewable and distributed energy resources, supporting expansion of nuclear energy, and reducing CO_2 emissions from coal-fired power plants. Particular attention is given to accomplishments during 2006 and how these fit into EPRI's research strategy for addressing the industry's technological needs.

Improving Efficiency to Counter Climate Change

EFFORTS TO MITIGATE CLIMATE CHANGE BY REDUCING ATMOSPHERIC CONCENTRATIONS OF GREENHOUSE GASES need to focus on both supply-side and demand-side approaches, and the efficiency option appears to be one of the most cost-effective ways to reduce CO_2 emissions, particularly in the near term. Increasing the efficiency of electricity end use not only helps limit the demand for fossil fuels but also enables consumers to shift energy use to electric power resources and still reduce overall CO_2 emissions.

EPRI's efforts in this area are focused on helping establish the smart grids and communications infrastructures that can support end-use efficiency and demand response, together with integration of distributed generation, energy storage, and plug-in hybrid electric vehicles.

Smart energy efficiency systems depend on four building blocks: (1) smart and efficient end-use devices that can respond automatically to market signals, (2) an integrated communications infrastructure to deliver those signals, (3) innovative rates that reflect changing supply and demand, and (4) efficient electricity markets that support the rate structure. EPRI programs are making technological contributions in each of these areas.

Underlying EPRI's comprehensive approach to improving energy efficiency is the IntelliGrid[SM] program, which develops the methods, tools, and technologies needed to enable utilities to deploy dynamic energy management systems. Through this program, smart grid activities are coordinated among all stakeholders, including utilities, equipment suppliers, and regulators. As a result, integrated electric-communications networks are evolving in ways that ensure equipment interoperability, open network architecture, and the use of industry-accepted standards.

An important application of the IntelliGrid architecture in 2006 came at Southern California Edison (SCE) as the company successfully completed the first phase of its ambitious Advanced Metering Infrastructure (AMI) initiative. This phase centered on requirements development, technology assessment, and cost-benefit analysis — and, with help from EPRI's IntelliGrid consulting team, it was completed five months ahead of schedule and under budget.

Using IntelliGrid's systems engineering approach, SCE was able to identify additional functionality that would provide substantial benefits to both the utility and its customers. Specifically, advanced meters with two-way communications were chosen as a way to provide customers with information on time-of-use rates and to support demand response through direct load control. Through this process, SCE developed some 400 technical requirements for use in implementing its $1.5 billion AMI program.

Future IntelliGrid work will focus on putting in place the enabling technologies that will allow utilities to supply customers with advanced services while improving their own operations. An important element of this effort will involve new technology assessment activities at EPRI's research facility in Knoxville, Tennessee. Among the technologies to be analyzed are high-efficiency end-use devices, Internet protocol addressability for appliances, control systems to optimize device performance, and two-way communications systems that allow automated control of devices in response to pricing or emergency demand-reduction signals.

One of the most important ways to leverage efficiency improvements to reduce carbon emissions is through electrification of the transportation sector. EPRI is leading efforts in this area through a series of projects related to plug-in hybrid electric vehicles (PHEVs), which use battery power to supplement the propulsion energy of an internal combustion engine. The difference between PHEVs and the already popular conventional hybrid vehicles is that the former will gain much of their stored energy by charging batteries overnight using power from the electricity grid.

Specifically, EPRI is partnering with utilities, the Ford Motor Company, and Eaton Corporation to develop a plug-in hybrid power train suitable for use in utility service vehicles. The PHEV Trouble Truck will use a Ford F550 chassis and either a diesel or a gasoline engine. During 2006, funding was received from SCE, Pacific Gas and Electric, and Los Angeles Department of Water and Power to initiate development of the first diesel prototype and to begin engineering work on the first gasoline prototype. EPRI is also establishing a research and demonstration program focused on integrating electric vehicles into the electricity grid infrastructure. The program will outline the issues affecting vehicle grid connectivity, describe potential solutions, and begin developing standards and specifications to guide hardware and software development.

In 2006, EPRI initiated groundbreaking research to determine how PHEVs will impact fuel consumption, CO_2 emissions, electricity demand, and air quality. These studies will be published in mid-2007. In addition, a three-year collaborative agreement between EPRI and Argonne National Laboratory, announced in 2006, will provide detailed analysis of PHEVs, aimed at assessing the commercial feasibility of this technology.

Fulfilling the Promise of Renewable and Distributed Energy

AS INCREASING INTEREST IN RENEWABLE AND DISTRIBUTED ENERGY TAKES SHAPE IN THE ELECTRIC POWER INDUSTRY, EPRI is conducting multiple R&D activities that will enable utilities to better plan for and leverage these assets in ways that bring value both to the electricity enterprise and to society. Such activities range from objective technology assessments to greenhouse gas reduction analysis to collaborative field demonstrations of promising applications.

An example of EPRI's efforts to demonstrate promising new technologies is the current public-private collaboration to site, build, and evaluate a pilot plant for tidal in-stream energy conversion (TISEC). In 2006, the TISEC Power Project completed phase 1 feasibility studies in five states and two Canadian provinces. The purpose of the initial studies was to identify and characterize sites in North America that have significant TISEC development potential.

TISEC devices — conceptually similar to wind turbines but driven by the flow of water rather than the flow of air — are placed in a tidal stream to harness the kinetic energy of moving water. An advantage of this approach, compared with some other renewable resources, is that TISEC is predictable, has a high power density, and avoids aesthetic issues by using submerged equipment. As a result of the recently completed feasibility studies, nearly 30 applications for preliminary TISEC development permits have been filed in the United States, and one Canadian project participant has announced the intention to construct a multimillion-dollar pilot plant. In offshore wave energy conversion, a preliminary permit has been issued for a 50-MW plant off Reedsport, Oregon, and another eight applications are being considered, including two recent ones from PG&E in Northern California.

A persistent problem with one of today's most popular renewable resources — wind — is its intermittency and limited predictability. To address the latter difficulty, EPRI has been working with the California Energy Commission to develop and test improved wind forecasting methods. Specifically, the research

team developed a rapid-update algorithm to forecast wind speed and direction and wind power generation for up to 3 hours. This is coupled with a 48-hour forecasting capability using wind flow models and statistical methods. And to improve longer-term forecasts, the researchers conducted wind tunnel tests to better understand wind behavior over complex terrain.

Results of this project will assist power system operators as they schedule same-day and next-day generation resources. The improved algorithms have already been incorporated into regional forecasting systems in California that generate daily forecasts for several wind projects in the state and for a large utility company.

Rapid advances are also taking place in both solar-thermal and photovoltaic energy conversion technologies. During 2006, EPRI published a survey of the solar-thermal electric (STE) industry and found that, after several years of relative inactivity, STE is experiencing renewed interest and investment. Specifically, the survey found that STE prototype plants with production totaling more than 1 GW are now in various stages of planning and early construction. To develop engineering and economic models, developers will need to build more large-scale STE installations. In response to this need, EPRI has formed the Solar Thermal Electric Project (STEP), in collaboration with Electricité de France, Salt River Project, Public Service Company of New Mexico, and Energias de Portugal.

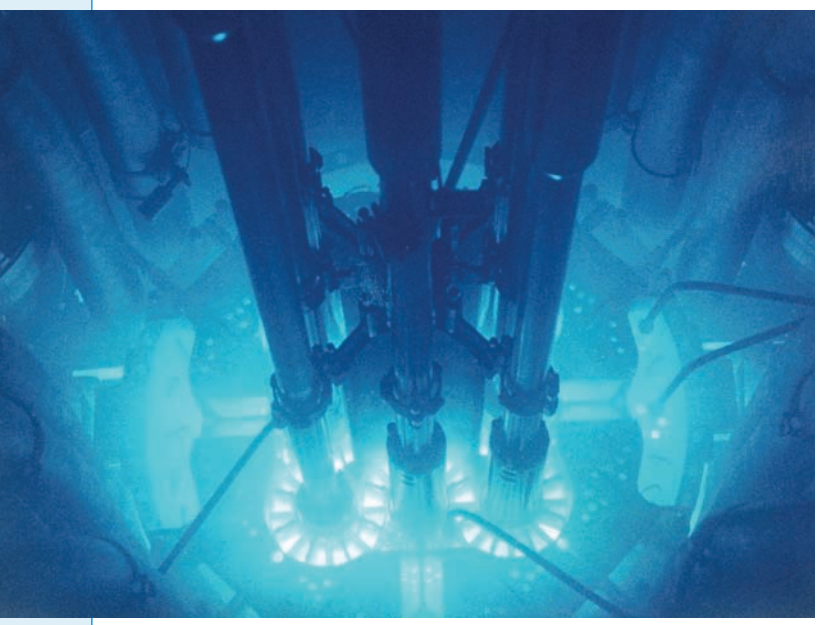
In addition, the Solar Electric Interest Group (SEIG) has been formed to provide a forum for members to exchange information about a broad spectrum of solar-electric technologies, applications, and market developments.

EPRI's Distributed Energy Resources (DER) program conducts in-depth technology assessments; addresses grid interconnection and integration issues that face small generation units, including some renewables; and supports the testing and demonstration of distributed generation and energy storage systems. During 2004–2006, the program conducted case studies on new combined heat and power products aimed at the residential and commercial sectors that could both provide a low carbon footprint and offer increased energy efficiency solutions to end users.

In 2006, the DER program also completed phase 1 of a project to demonstrate and assess the ability of sodium-sulfur (NaS) batteries to reduce peak demand on specific distribution feeders while providing backup power and lowering costs for customers. The ongoing study, in collaboration with the New York Power Authority and a consortium of utilities, involves a 1-MW NaS battery with 7.2 MWh of stored energy; phase 1 included equipment specification, procurement, and installation.

Supporting Expansion of Nuclear Energy

NUCLEAR ENERGY IS POISED TO EXPAND ITS ROLE AS A SAFE AND RELIABLE SOURCE OF CLEAN ELECTRICITY. An EPRI analysis conducted in late 2006 that examined the technology challenges of a carbon-constrained future estimated that a dramatic increase in new advanced nuclear power capacity by 2030 is plausible and would support efforts to reduce CO_2 emissions. To support the development, construction, and operation of this new fleet of nuclear power plants, several technical challenges — including fuel reliability, radioactive waste management, and new plant deployment — urgently need to be addressed. Through a variety of collaborative R&D programs, EPRI is a leading provider of technical support to plant owners in each of these areas. A successful outcome of this work will also be critical for efforts to reduce CO_2 emissions from the electric power sector, since nuclear energy represents nearly 70% of all emission-free power in the United States.



Improving fuel reliability is particularly necessary to enhance the performance of both existing and new nuclear plants. Over the last decade or so, higher fuel burnup and longer fuel cycles have allowed reactors to operate more efficiently and produce more electricity, but they have also increased expensive fuel failures. In response, the industry's Institute of Nuclear Power Operations (INPO) has set a goal of achieving zero fuel failures by 2010. To reach this goal, the industry's chief nuclear officers are backing a new effort, the Fuel Integrity Initiative, which places substantial emphasis on the development of fuel reliability guidelines.

EPRI is currently developing five sets of technical guidelines to improve fuel reliability in cooperation with INPO, fuel vendors, the Nuclear Energy Institute, and individual utilities. Most of these guidelines will directly address a known mechanism — such as elevated stress, corrosion, or wear — that can lead to a breach in the fuel rod. There will also be a guideline defining surveillance and inspection best practices to ensure the fuel is operating as expected. An additional guideline, related to fuel fabrication oversight, is also under consideration.

In 2006, EPRI published results of a preliminary analysis of the physical capacity of the Yucca Mountain geologic repository site to hold additional commercial spent nuclear fuel (CSNF). Three options for increasing the storage capacity of the Yucca Mountain facility were explored: expanding the current high-temperature repository design over the maximum rock area; constructing a multi-level set of waste emplacements; and constructing a single-level repository with additional emplacements. Each of these options was analyzed using assumptions that would eliminate the need for additional site characterization work prior to the construction license application.

The study found that the site is technically capable of holding four to nine times the current legal limit of waste — the entire CSNF output of the United States until past the middle of this century, at least. With an expanded storage capacity, the Yucca Mountain site could potentially hold not only the waste produced by today's reactors but also that from a significantly expanded U.S. nuclear fleet. In addition, implementation of an expanded facility could secure the time necessary for the further R&D that will be required to create a full-scale, economically competitive closed fuel cycle involving the use of advanced reactors. Any of the proposed changes at Yucca Mountain would require congressional approval, and the U.S. Department of Energy (DOE) recently submitted legislation to facilitate licensing and construction of the facility, while also eliminating the current statutory capacity limit.

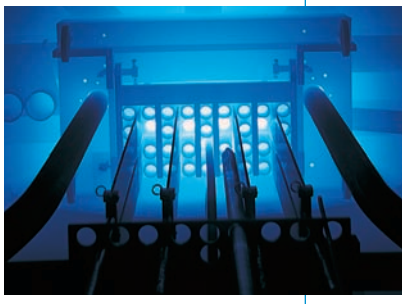
Even if Yucca Mountain is licensed and the repository is ready to receive fuel, federal regulations are not yet in place to allow for cost-effective transportation of spent fuel. Current regulations governing cask packaging, for example, are overly conservative, threatening the economic viability of cross-country transportation. The nuclear industry and its regulators are examining the likelihood that railroad transportation of spent nuclear fuel could result in a criticality accident — that is, one involving a sustained nuclear reaction. Previous studies have assessed the chances of accidents capable of breaching the transportation package and releasing radioactive material to the environment, but they have not quantified the expected frequency of criticality accidents.

A 2006 EPRI report examines this question directly by evaluating the specific circumstances necessary for criticality. In particular, the report concluded that a criticality event would require the simultaneous occurrence of three conditions: the presence in a spent-fuel cask of fuel assemblies with sufficient reactivity to produce criticality; sufficient damage to such a cask to permit the in-leakage of water; and circumstances that would allow the cask to become submerged in water, leading to internal flooding under conditions needed to support criticality.

The report concluded that the chances of having a criticality accident during 11,000 spent-fuel shipments would be negligibly small — on the order of one in a hundred trillion. Further, the report concluded that reducing the number of shipments would have a positive effect on cost-benefit considerations, but that enhancements to safety would mostly derive from reducing handling and nonradiological transportation risks.

A crucial element in expansion plans for nuclear energy is the combined construction and operating license (COL) process for new nuclear plants. COL applications for more than 30 new reactors have been announced. To assist applicants in decision making and planning for a new generation of nuclear plants, EPRI has developed the New Plant Deployment Program Model (NPDPM). This model enables COL applicants to organize and assess various activities and schedules, conduct critical path analyses, and estimate resource requirements from the perspective of the licensee.

A revised version of NPDPM was released in 2006, incorporating enhancements requested by the New Plant Deployment Action Plan Working Group. In addition, the new version of the model can be used to identify important characteristics of the overall development program for new plants and to examine particular first-plant development issues and special licensing cases identified by utility reviewers.



Reducing Coal Plant CO_2 Emissions

AT A TIME WHEN ORDERS FOR NEW COAL-FIRED POWER PLANTS ARE RUNNING AT THE HIGHEST LEVEL IN DECADES, a key question arises: how can we utilize coal for power generation without adding to CO_2 levels in the earth's atmosphere? The answer lies in demonstrating and deploying technologies that reduce the amount of CO_2 produced in such plants and that provide ways to capture and store CO_2 rather than release it to the atmosphere. EPRI is playing a leadership role in both efforts.

One of the most far-reaching technological advances that will enable coal-dependent utilities to reduce CO_2 emissions while also saving on fuel costs is the planned deployment of a new generation of ultra-supercritical (USC) pulverized-coal power plants. By operating with steam conditions at very high temperature and pressure, USC plants may eventually achieve heat-to-electricity conversion efficiencies of up to 46%.

An ambitious public-private program is under way to identify, fabricate, and test advanced alloys required to operate power plant boilers under USC conditions. A separate project is aimed at investigating advanced steam turbine materials for use in USC plants. Both projects are sponsored primarily by DOE and the Ohio Coal Development Office and managed administratively by Energy Industries of Ohio. EPRI is the lead technical organization on the team.

A major stumbling block hindering capture of CO_2 produced by a pulverized-coal plant has been the extra cost and energy penalty associated with using the most common solvent currently available to remove the CO_2 from flue gas. Employing this solvent in a power plant would reduce net power output by about one-third and raise the cost of electricity produced by 60–80%. To overcome this barrier, EPRI has been evaluating a variety of process options and is sponsoring development and testing of an alternative process that has potential to greatly reduce the loss of power, with a goal of limiting the increase in the cost of electricity to about 20%.

Called the chilled-ammonia process, this promising technology is now ready to move from the laboratory to larger-scale testing. In 2006, EPRI and ALSTOM announced plans to build a 5-MWth (1.7-MWe) pilot plant that will focus on the use of chilled-ammonia solvent to remove CO_2 from flue gas. This

pilot facility is large enough to use commercial components designed for CO_2 capture, a critical step in preparing the new process for commercialization. Over two dozen power producers have already committed funding for the pilot project, as has ALSTOM.

An alternative to postcombustion capture from a pulverized-coal plant is the removal of CO_2 from the high-pressure, concentrated syngas stream of an integrated gasification–combined-cycle (IGCC) plant before combustion. Capturing CO_2 from the syngas at high concentration and pressure can be achieved by means of a low-energy process involving physical absorption, rather than requiring a high-energy chemical reaction. So far, CO_2 capture has not been demonstrated in a large coal-fired IGCC power plant, but the process is used commercially in some industrial gasification facilities.

CoalFleet, EPRI's advanced coal program, has developed a long-term R&D roadmap for advanced coal technologies with CO_2 capture that by 2025 could potentially produce electricity on a competitive basis. Improvements such as these could enable IGCC and supercritical pulverized-coal technologies to achieve similar levels of performance with CO_2 capture, so that utilities could choose between the two options on the basis of local factors, including particularly the type of coal available.

Once CO_2 can be captured routinely at coal-fired power plants, it must be stored indefinitely at an unprecedented scale. Initially, the most likely storage sites will be deep geologic formations where porous sediments have been covered by impermeable caprock. The availability of potentially suitable formations has been studied by the Global Energy Technology Strategy Program under sponsorship of several major research institutions, including EPRI. A 2006 report presenting results of this study concluded that "the United States is fortunate to have an abundance of theoretical storage potential, well distributed across the country."

Considerable research is needed, however, before CO_2 storage can be undertaken on the massive scale required. In particular, more-detailed and more-comprehensive site selection techniques will be needed — as well as methods of permanently securing injection wells and a variety of new measurement, monitoring, and verification technologies to ensure storage integrity and to detect any leaks. EPRI is currently planning expansion of the scale and scope of CO_2 capture and storage to move the technology forward quickly. EPRI intends to conduct CO_2 capture, injection, and storage tests at a number of sites, both as a participant in DOE's Carbon Sequestration Regional Partnerships—EPRI is managing a significant portion of the research work at two of the partnerships—and as a partner in demonstrations with the private sector.

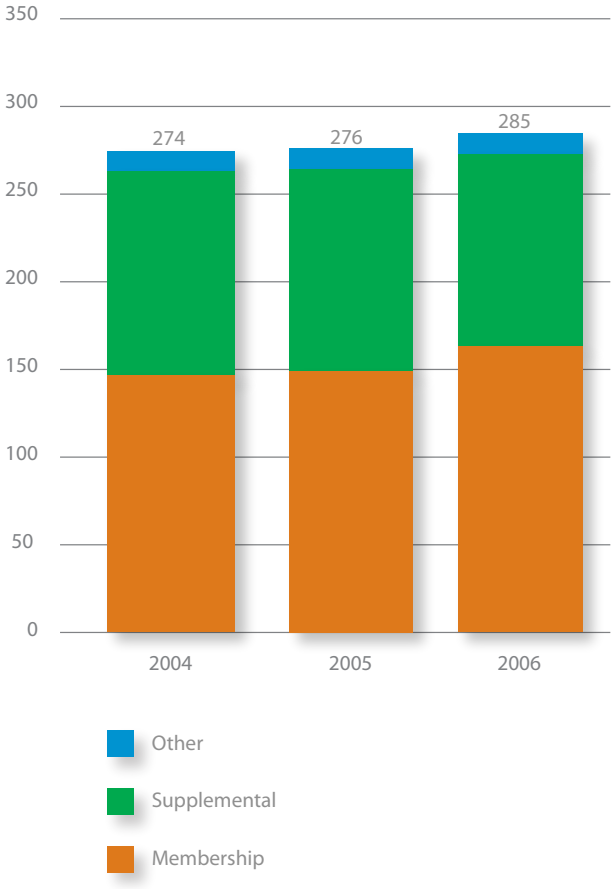
Statistical Highlights

EPRI Financial Summary ($ millions)

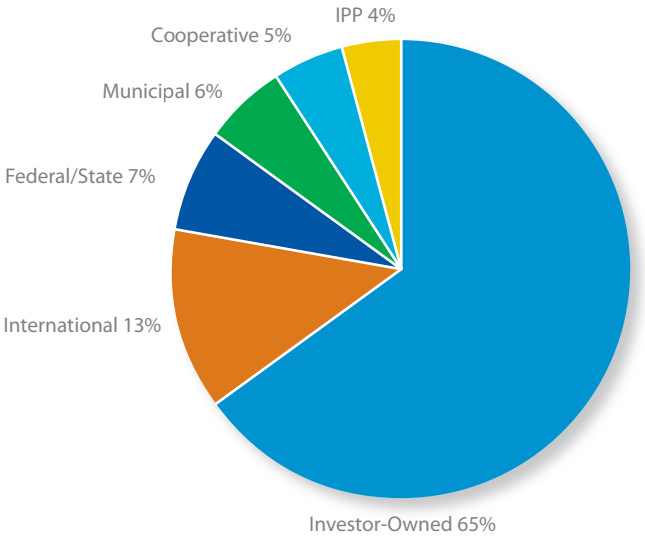
	2004	2005	2006
Funding	272	285	294
Revenue	274	276	285
Total Costs	267	265	268
Net Asset Change	7	11	17
Net Asset Balance	7	18	35
Cash/Invest	75	110	108
CAPEX	3	6	15
Backlog	100	110	134
Headcount	743	695	663
Members	182	176	186

Consolidated Funding by Sector ($ millions)

Revenue ($ millions)



Market Segments



EPRI Financial Report

Consolidated Statements of Financial Position, December 31 (thousands of dollars)

	2006	2005
Assets		
Current assets:		
Cash and cash equivalents	$39,063	$31,383
Investments	67,179	74,962
Receivables — members, net of reserves	16,419	2,295
Receivables — supplemental funding, net of reserves	18,816	26,084
Other current assets	4,276	7,390
Total current assets	145,753	142,114
Investment in other companies	242	423
Long-term investments	1,572	3,600
Property, facilities, building improvements, and equipment, net of accumulated depreciation and amortization	32,323	22,392
Total assets	$179,890	$168,529
Liabilities and Net Assets		
Current liabilities:		
Accounts payable	$41,235	$40,984
Deferred revenue	75,203	79,315
Accrued liabilities	16,983	18,464
Obligation under capital leases — current portion	307	283
Total current liabilities	133,728	139,046
Long-term research and development expenses payable and other deposits	193	197
Accumulated postretirement benefit obligation	8,888	7,756
Unearned prepaid rent	1,953	3,020
Obligation under capital leases	190	497
Total liabilities	144,952	150,516
Net assets, unrestricted	34,938	18,013
Total liabilities and net assets	$179,890	$168,529

See accompanying notes to financial statements.

Consolidated Statements of Activities, Years Ended December 31 (thousands of dollars)

	2006	2005
Changes in Net Assets		
Revenues:		
Membership	$162,575	$149,065
Supplemental funding	109,892	114,998
Interest income	5,180	2,757
Other income	7,367	9,588
Total revenues	285,014	276,408
Expenses:		
Environment	36,326	36,378
Power Delivery and Markets	53,837	55,245
Generation	57,587	61,544
Nuclear	93,694	89,976
Technology Innovation Activities	25,178	22,273
Total expenses	266,622	265,416
Change in Net Assets, Unrestricted, Before Cumulative Effect of Change in Accounting Principle	18,392	10,992
Cumulative Effect of Change in Accounting Principle (Note 3)	1,467	—
Change in Net Assets, Unrestricted	16,925	10,992
Net Assets, Unrestricted, at Beginning of Year	18,013	7,021
Net Assets, Unrestricted, at End of Year	$34,938	$18,013

See accompanying notes to financial statements.

Consolidated Statements of Cash Flows, Years Ended December 31 (thousands of dollars)

	2006	2005
Cash Flows From Operating Activities		
Change in net assets	$16,925	$10,992
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Change in accounting principle	1,467	—
Depreciation and amortization	4,300	4,102
(Amortization)/prepaid rent received on leased buildings	(1,067)	3,020
Gain from sale of building and other assets	(1,003)	(1,885)
Loss on retirement of equipment and other changes in properties	513	17
(Gain)/loss on investments	181	(311)
Allowance for doubtful accounts	398	(63)
Amortization of basis difference in acquisition	(102)	(231)
Changes in assets and liabilities:		
Receivables — members	(14,124)	2,948
Receivables — supplemental funding	6,870	(1,940)
Other current assets	3,114	3,526
Accounts payable	(717)	(101)
Deferred revenue	(4,112)	15,116
Accrued liabilities	(1,585)	3,563
Accumulated postretirement benefit obligation	(335)	617
Long-term research and development expenses payable and other deposits	(4)	—
Net cash provided by operating activities	10,719	39,370
Cash Flows From Investing Activities		
Change in restricted cash	—	(152)
Cash received from sale of assets	819	2,913
Purchase of minority interest and sale of Global Energy Partners	—	(411)
Capital expenditures	(14,230)	(5,474)
Purchases of investments	(43,820)	(52,362)
Proceeds from sale and maturity of investments	53,631	32,109
Net cash used in investing activities	(3,600)	(23,377)
Cash Flows From Financing Activities		
Accounts payable	844	(341)
Obligation under capital leases	(283)	(298)
Net cash provided by (used in) financing activities	561	(639)
Net Increase in Cash and Cash Equivalents	7,680	15,354
Cash and Cash Equivalents at Beginning of Year	31,383	16,029
Cash and Cash Equivalents at End of Year	$39,063	$31,383
Supplemental Disclosure of Cash Flow Information		
Cash paid for income taxes	$876	$755
Properties, facilities, and equipment purchased in accounts payable	$538	$424

See accompanying notes to financial statements.

Notes to Financial Statements

NOTE 1. Description of Organization and Summary of Significant Accounting Policies

Organization

The Electric Power Research Institute, Inc. (EPRI) was organized in 1972 under the District of Columbia Nonprofit Corporation Act. The purpose of EPRI is to conduct a research and development program relating to the production, transmission, distribution, and utilization of electric energy. EPRI's activities include technological assessment of both near-term and long-term research needs, their arrangement into an orderly strategic plan, the assignment of priorities and allocation of funds, the implementation and management of the resulting projects, and the integration and dissemination of the information gained. These activities are carried out primarily under the sponsorship of the public, private, and cooperative sectors of the U.S. and international electric utility industries.

EPRI has been determined to be exempt from federal taxes as a scientific organization under Section 501(c) (3) of the Internal Revenue Code (the Code). Hence, only unrelated business income, as defined in the Code, is subject to federal income taxes. In 2006, as in prior years, EPRI had no significant taxable income.

The financial statements are consolidated to include the accounts of EPRI and its wholly owned subsidiaries. All intercompany accounts have been eliminated. The EPRI subsidiaries are EPRI Solutions, Inc. (ESI), EPRI International, Inc. (EI), and EPRI Innovation Institute (a non-operating tax-exempt corporation). EI is a wholly owned for-profit subsidiary (incorporated in Delaware) and includes the accounts of its for-profit subsidiaries (i) EPRI International S.A. (Brussels/Belgium, 99% owned by EI and 1% by EPRI), and (ii) Beijing Electric Power Technology Company, Ltd. (China, Beijing, 100% owned by EI).

As of January 1, 2005, ESI owned 60% of the membership interest in for-profit entity Global Energy Partners, LLC (Global). As of January 31, 2005, ESI acquired the remaining 40% of the membership interest in Global that it did not own previously, making Global a wholly owned subsidiary of ESI. Effective as of December 16, 2005, ESI sold 100% of the membership interest in Global, ending any ownership interest in Global. Global's operations are included in ESI's financial results up to and including December 16, 2005.

In May 2006, ESI sold the assets of its Market Intelligence Business Unit, which was formerly Primen, Inc. The Market Intelligence Business operations are included in ESI's financial results up to and including May 26, 2006.

On December 31, 2006, certain assets and obligations of ESI were transferred to EPRI, and EPRI now maintains many of the operations and functions formerly fulfilled by ESI.

Summary of Significant Accounting Policies

CASH AND CASH EQUIVALENTS For purposes of its statements of cash flows, EPRI considers all highly liquid investment instruments with an initial or remaining maturity of three months or less at the time of purchase to be cash equivalents.

INVESTMENTS are generally carried at fair value or amortized cost, which approximates fair value. Investments in which EPRI maintains an ownership in excess of 20% are reflected under the equity method. Cash is concentrated with the Bank of America, while investments are diversified principally among four investment managers. Realized and unrealized gains or losses on investments are reflected in the statements of activities. The aggregate carrying amounts of investments, including cash and cash equivalents, at December 31, 2006 and 2005, were as follows:

	2006	2005
	(thousands of dollars)	
Money market accounts and cash	$5,115	$8,318
Commercial paper	33,948	23,065
Cash and cash equivalents	$39,063	$31,383
Government securities	$4,600	$16,100
Corporate bonds	35,022	37,112
Municipal bonds	21,750	21,750
Other	5,807	—
Investments	$67,179	$74,962
Investments in other companies	242	423
Long-term investments, primarily government securities	1,572	3,600
Total	$108,056	$110,368

Other and long-term investments include fixed time deposits of $729,000. Net realized and unrealized gains/(losses) on investments of ($181,000) and $315,000 were recognized and included in Other Income in 2006 and 2005, respectively.

FAIR VALUE OF FINANCIAL INSTRUMENTS Unless otherwise noted, the fair value of EPRI's financial instruments at December 31, 2006 and 2005, was approximately equal to their recorded value.

PROPERTY, FACILITIES, AND EQUIPMENT The cost of buildings under capitalized lease and land leaseholds used in the management of research projects is amortized over the respective lease terms. Depreciation is computed using the straight-line method over the expected useful life of the item or over the lease life, if shorter. Internal use software is capitalized, if appropriate, based on the project stage. Equipment that is highly specialized and offers no alternative future use to EPRI or its contractors is expensed as incurred. Costs associated with individual research and development projects conducted at the facilities are charged to expense as incurred. Any gain or loss from the sale or other disposition of property, facilities, and equipment is recorded in Other Income.

OTHER ASSETS Other assets consist primarily of prepaid expenses, miscellaneous receivables, and cash and cash equivalents restricted for workers' compensation and certain government contracts.

REVENUE RECOGNITION Revenue from memberships is generally recognized over the annual membership period. Supplemental funding and other contract services are considered exchange transactions. Revenue for those projects is recorded on the percentage of completion basis, upon execution of a funding agreement and determination that collection of the resulting receivables is reasonably assured. Advances on projects are reflected as deferred revenue. Supplemental funding included $603,000 for EPRI in 2006 and $1,187,000 in 2005, respectively, of contractual revenue where funding had not yet been received by EPRI but related costs had been incurred on cofunding projects. Revenue is concentrated among members of the U.S. electric utility industry. EPRI maintains reserves for doubtful accounts and other collection issues for membership and supplemental funding on the basis of historical experience and an analysis of specific accounts. Such reserves amounted to $302,000 and $292,000 at December 31, 2006 and 2005, respectively.

ACCOUNTS PAYABLE Certain research contracts provide for the retainage of contract payments by EPRI until completion of the contract. Retainage amounts where the scheduled contract completion date is beyond one year are recorded as Long-Term Research and Development Expenses Payable.

BASIS OF PRESENTATION EPRI's financial statements are prepared on the accrual basis of accounting and in conformity with accounting principles applicable to not-for-profit organizations. Generally accepted

accounting principles require management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could vary from those estimates.

NOTE 2. Statement of Financial Position Detail

Properties, Facilities, and Equipment	2006	2005
	(thousands of dollars)	
Buildings and land leases	$51,278	$39,132
Equipment and leasehold improvements	12,735	18,434
Software and computer equipment	15,823	14,887
	79,836	72,453
Accumulated depreciation and amortization	(47,513)	(50,061)
	$32,323	$22,392

Accrued Liabilities	2006	2005
	(thousands of dollars)	
Accrued compensation	$11,222	$13,790
Accrued vacation	3,048	2,871
Other	2,713	1,803
	$16,983	$18,464

NOTE 3. Benefit Plans

EPRI has a defined contribution pension plan for its employees. It is EPRI's policy to fund pension costs accrued. The pension expense was $8,227,000 for 2006 and $6,428,000 for 2005.

EPRI provides an unfunded postretirement health care benefit plan that covers all employees who retire on or after age 55 with a minimum of 5 years of service and whose aggregate years of service plus age total 70 years or more. Spouses of eligible participants are also covered. Each non-officer participant and spouse receives up to $75 monthly for medical insurance premium reimbursement or up to $125 if under the early retirement incentive program. Officers are required to pay 15% of the actual premium cost of the medical plan of their choice. EPRI pays the remaining 85% of the premium cost. For officers, health care costs are assumed to increase at a rate of 9.0% for 2007, then grade down by 1% per year to an ultimate trend rate of 5% for 2011 and later.

The weighted average discount rate used in determining the accumulated postretirement benefit obligation was 5.50% in 2006 and 5.25% in 2005. The health care trend is assumed to be between 5.00% and 9.00% per year for all future years.

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 158 (FAS 158), Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R). FAS 158 requires organizations to recognize a net liability or asset to report the funded status of their defined benefit pension and other postretirement benefit plans in their statement of financial position. It also requires that plan assets and benefit obligations be measured as of the date of an employer's statement of financial position. An employer without publicly traded equity securities is required to recognize the funded status of a defined benefit postretirement plan and to provide the required disclosures as of the end of the fiscal year ending after June 15, 2007. However, EPRI has elected for early adoption of this statement and has adopted this statement as of December 31, 2006. In addition, FAS 158 requires EPRI to adjust its measurement date to its fiscal year end date for fiscal years ending after December 15, 2008.

Adoption of FAS 158 has reduced unrestricted net assets by $1,467,000 and is presented as a cumulative effect of change in accounting principle. The measurement date for the required disclosures shown below is September 30, 2006.

	2006	2005
	(thousands of dollars)	
Change in Benefit Obligation		
Benefit obligation at end of prior year	$10,774	$9,018
Service cost	186	216
Interest cost	492	561
Actuarial (gain)/loss	(1,501)	1,355
Benefits paid, 10/1–9/30	(433)	(376)
Benefits obligation at end of year	9,518	10,774
Change in Plan Assets		
Employer contributions, 10/1–9/30	433	376
Benefits paid, 10/1–9/30	(433)	(376)
Funded Status at 9/30	9,518	10,774
Estimated contributions, 9/30–12/31	(108)	—
EPRI Solutions Accrual	58	—
Funded Status at 12/31	$9,468	$10,774
Amounts Recognized in Statement of Financial Position		
Current liabilities	($580)	$—
Noncurrent liabilities	(8,888)	7,756
Total Liabilities	($9,468)	$7,756
Change in Accounting Principle		
Net loss	$1,467	$—
	$1,467	$—
Net Periodic Benefit Costs		
Service cost	$186	$216
Interest cost	492	561
Amortization of net loss	81	41
Net periodic benefit cost	$759	$818

The estimated net loss (gain) for the other defined benefit postretirement plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the next fiscal year is $34,912. The net (gain) or loss to be amortized will be recalculated as of the beginning of the fiscal year based on updated census and assumptions.

NOTE 4. Commitments and Contingencies

Unresolved claims and litigation against EPRI have arisen in the normal course of business. EPRI believes that it is unlikely that the outcome of these issues will materially affect EPRI's financial position.

Occasionally, EPRI is involved in lawsuits arising in the ordinary course of its operation. While the ultimate liabilities cannot now be determined due to uncertainties that exist, management believes the ultimate resolution of these lawsuits is not expected to have a material effect on EPRI's financial position.

EPRI provides limited indemnifications in the ordinary course of business, such as to its Board in connection with their service on the Board. On the basis of the nature of the indemnifications provided, management has determined they have minimal value.

EPRI has three standby letters of credit with a bank which provides for security for total obligations of $1,044,000. There was no balance outstanding under the letters of credit at both December 31, 2006 and 2005. Two letters totaling $909,000 expire on June 30, 2007, and one letter in the amount of $135,000 expires on December 31, 2007. EPRI is currently in the process of reducing this letter of credit from $135,000 to $79,500.

EPRI has entered into lease arrangements under operating leases for research, office, and storage facilities and for equipment. Rental expense under these leases was $1,500,000 in 2006 and $2,076,000 in 2005. The terms included in certain of these leases provide that EPRI is responsible for property taxes, insurance, and maintenance expenses, and in certain cases renewal options are included. EPRI is currently in negotiations to extend the Knoxville office lease.

EPRI leases certain buildings under a long-term non-cancelable capital lease. The current lease has been extended to January 31, 2019. The ten-year extension is being accounted for as an operating lease. The capitalized cost of these buildings at December 31, 2006, was $3,807,000, and the related accumulated depreciation was $3,689,000.

Future minimum lease commitments by year and in the aggregate, under the capital leases and non-cancelable operating leases with initial terms of one year or more, at December 31, 2006, are as follows:

	Capital Leases	Operating Leases	Total
		(thousands of dollars)	
2007	$336	$1,001	$1,337
2008	190	736	926
2009	9	807	816
2010	—	775	775
Thereafter	—	3,473	3,473
	$535	$6,792	$7,327
Less amount representing interest	(38)		
Present value of the minimum capital lease commitments	497		
Less current portion	(307)		
Present value of the long-term obligation under capital leases	$190		

In 2005, a long-term lease to a third party was entered into for three buildings until 2018, which resulted in a prepayment of the first three years of rent of $3,278,000. The sum of future lessee payments is $20,709,000 as of December 31, 2006.

EPRI's net assets at December 31, 2006 and 2005, and all activities for each year then ended are unrestricted. However, $5,317,000 and $4,508,000 of net assets were appropriated as Tailored Collaboration matching, respectively.

Annually EPRI authorizes the maximum amounts that may be expended on research projects. EPRI negotiates research contracts on those projects with companies and organizations that result in a contractual commitment for a given year. Such commitments cannot exceed the cumulative authorization. At December 31, 2006, EPRI had commitments with contractors to reimburse their future research costs in the amount of approximately $36,024,000. Generally, EPRI has the right to cancel research and development contract commitments on 30 days' notice, subject to the payment of certain termination costs.

Certain research contracts are funded from federal government sources. Amounts received from these contracts are subject to audit by the awarding agencies. To date, no significant cost disallowances have resulted from such audits.

NOTE 5. Income Taxes

EPRI's for-profit subsidiaries account for income taxes under the asset and liability method. Income tax expense was $1,201,000 in 2006 and $901,000 in 2005. Deferred tax assets and liabilities are recognized for future tax consequences of carrying differences between financial statement and tax bases of assets and liabilities. Income tax expense and deferred taxes are not significant; however, for tax purposes as of December 31, 2006, EPRI subsidiaries have net operating loss (NOL) carryovers available to offset future federal taxable income as follows:

Year Generated	Year of Expiration	Total
		(thousands of dollars)
2000	2020	$2,411
2001	2021	703
2002	2022	1,270
		$4,384

These NOL carryovers provide a potential future income tax benefit of $1,491,000. For financial reporting purposes, a valuation allowance of $1,339,000 has been recognized to offset a portion of the deferred tax assets relating to these NOL carryovers, since their use is limited and a portion is expected to expire before being fully utilized. There was no change in the valuation allowance in 2006.

NOTE 6. Related Party Transactions

Substantially all of EPRI's revenues are derived from members of EPRI. A number of EPRI's Board members are affiliated with companies that are members of EPRI. In addition to membership funding, such member companies have also provided supplemental funding to EPRI for certain research projects. Those members provided approximately 40% of the membership funding for the years ended December 31, 2006 and 2005.

NOTE 7. Subsequent Events

In 2006, EPRI decided to close the facilities in Haslet, Texas, as further action to consolidate operating locations. In January 2007, the Board approved putting up for sale the Haslet land and buildings.

Report of Independent Auditors

To the Board of Directors of EPRI

In our opinion, the accompanying consolidated statement of financial position and the related consolidated statements of activities and cash flows present fairly, in all material respects, the financial position of the Electric Power Research Institute (EPRI) at December 31, 2006 and 2005, and the changes in its net assets and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of EPRI's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 3 to the consolidated financial statements, in 2006 EPRI changed the manner in which it accounts for its postretirement plan.

PricewaterhouseCoopers LLP

San Francisco, California
April 11, 2007

Governance

THE ELECTRIC POWER RESEARCH INSTITUTE IS COMMITTED TO SOUND PRINCIPLES OF GOVERNANCE that support the Institute's public benefit mission. EPRI's work is conducted by its employees, managers and officers under the direction of its Chief Executive Officer, with oversight from its Board of Directors. EPRI's Board is led by a non-executive Chair and consists of 33 directors; no members of EPRI's management sit on the Board. Twenty-seven of the directors represent a combination of public, rural cooperative, investor-owned, and international utilities, plus unregulated energy companies. The Board includes six "external" directors, who are independent of the utility industry.

In addition, EPRI and its Board receive advice from a 30-member Advisory Council, whose membership is broadly representative of the public interest in the Institute's programs. Council members include 10 state utility regulatory commissioners (appointed by the National Association of Regulatory Utility Commissioners) and representatives from other non-utility stakeholder groups, such as environmental organizations, energy and technology policy experts, and the financial, labor, and academic communities. The Advisory Council's direct role in EPRI's governance is limited to selection of the six external directors on the EPRI Board.

Mandate of the Board

EPRI's Board of Directors oversees management of the affairs of the Institute and the Institute's strategy. The Board elects EPRI's Chief Executive Officer and other senior officers, and through delegations to Board committees, approves their compensation and monitors the Chief Executive Officer's performance. In addition, the Board provides oversight for audit, governance, policy, business strategy, finance and financial planning, and corporate compliance through four Board committees: the Executive, Audit, Compensation and Benefits, and Governance and Nominating Committees.

The Board reviews and adopts annual operational and financial objectives for the Institute and monitors performance against those objectives. The Board, through its Executive Committee, ensures that a process is established that adequately provides for succession planning, including the appointment and monitoring of senior management. The Board also oversees an annual audit conducted by an independent public accountant, as well as such other publications as are deemed suitable to keep the members advised of significant developments and progress in the research and development programs of the Institute.

EPRI has a robust Compliance Program that includes annual compliance training, required of all employees; an internal audit committee, which evaluates corporate risk and oversees internal audit of designated risk areas; a hotline to facilitate anonymous reporting; published policies, including policies that protect whistleblowers from retaliation; and regular training for the EPRI Board on relevant compliance topics. The Audit Committee of the Board oversees EPRI's Compliance Program.

Board Committees

The Board appoints members to the four Board committees, and every member of the Board sits on at least one committee. Each committee has a Board-approved charter prescribing its responsibilities and administrative duties.

Executive Committee

The Executive Committee consists of the Board Chair, the Vice Chair, chairs of the three other Board Committees, and up to three additional members. The Executive Committee oversees operations of the Board and acts as the Board's finance committee, reviewing and approving annual financial statements, interim statements, and capital budgets. The Executive Committee conducts the annual performance review of the CEO and sets CEO compensation and incentives. With certain exceptions, it has the authority to act for the Board when required between meetings of the entire Board.

Audit Committee

The Audit Committee reviews reports on the Institute's internal control system as well as the appointment, terms of engagement and provision of audit services. EPRI's internal audit manager has dotted-line responsibility to the Audit Committee and direct access to the Committee and its Chair when needed. The Audit Committee meets regularly with the internal auditor and the external auditor. The Audit Committee's mandate requires

Board Committees

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Phyllis E. Currie
Michael S. Greene
Richard R. Grigg
Kathryn J. Jackson
James H. Miller
Robert P. Powers

Audit Committee

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Jesse H. Ausubel
W. Paul Bowers
Phyllis E. Currie
Takuya Hattori
Seth D. Hulkower
Ralph Izzo
Karen Y. Knutson
Charles W. Shivery
Gary L. Smith

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Kevin Burke
Donald C. Hintz
Stephen J. Lennon
James H. Miller
Steven E. Moore
Mark T. Savoff
Larry L. Weyers

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Yves Bamberger
Michael J. Chesser
Michael H. Dworkin
Steven G. Hickok
Kathryn J. Jackson
Walter R. Quanstrom
J. M. Shafer
Richard H. Silverman
James L. Turner

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that it meets periodically or at least annually with the external auditor without management present and receive, whenever appropriate, reports on compliance issues from EPRI's Chief Compliance Officer.

Compensation and Benefits Committee

The Compensation and Benefits Committee approves the compensation and benefits of EPRI's senior officers and reviews and approves the compensation and benefits policies for all other employees. Specifically, the committee reviews and approves management's salary range, its incentive structure, and salary recommendations for senior officer positions. The committee reviews all salary actions for consistency with the tax laws, rules, and regulations governing tax-exempt organizations under Internal Revenue Code section 501(c)(3).

Governance and Nominating Committee

The Governance and Nominating Committee nominates candidates for seats on the Board and approves committee memberships. It reviews and provides recommendations to the Board with respect to all aspects of governance. The Governance and Nominating Committee, on a periodic basis, assesses the effectiveness of the Board as a whole, the committees of the Board, and the contributions of individual members.

EPRI and its Board are committed to adhering to the highest standards of governance and to continuing to develop and implement best practices in this critical arena.

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Robert W. Fri, Vice Chairman Resources for the Future

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Steven G. Hickok Bonneville Power Administration

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Gregory Tosen ESKOM
John N. Voyles Jr. E.ON U.S.
Ronald J. Williams Tennessee Valley Authority
Richard R. Wistrand TXU Power

Information current as of December 31, 2006.

Members

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Alabama Electric Cooperative, Inc.
Alliant Energy
ALSTOM Power, Inc. (France)
Ameren Services Co.
American Electric Power Service Corp.
American Transmission Co.
Anchorage Municipal Light & Power
Ansaldo Energia SpA (Italy)
Aquila, Inc.
Arkansas Electric Cooperative Corp.
Associated Electric Cooperative, Inc.
ATCO Power Canada, Ltd.
ATCO Power Holdings Pty. Ltd. (Australia)
Austin Energy
Babcock and Wilcox Co.
Basin Electric Power Cooperative
BC Hydro (Canada)
Bechtel Corp.
Benton County Public Utility District No. 1
Bonneville Power Administration
BP Alternative Energy International, Ltd. (United Kingdom)
British Columbia Transmission Corp. (Canada)
British Energy Generation Ltd. (United Kingdom)
Brookfield Power Corp.
Buckeye Power, Inc.
California Department of Water Resources
California Energy Commission
Calpine Corp.
CANDU Owners Group (Canada)
CenterPoint Energy, Inc.
Central Hudson Gas & Electric Corp.
Chemical Lime Co.
Chubu Electric Power Co., Inc. (Japan)
Chugach Electric Association, Inc.
Comisión Federal de Electricidad (Mexico)
Companhia de Electricidade de Macau
Consolidated Edison Co. of New York, Inc.
Constellation Energy Group, Inc.
Consumers Energy
CPS Energy
CS Energy Ltd. (Australia)
CSX Transportation
CVG Electrificación del Caroní CA (Venezuela)
Dairyland Power Cooperative
Delta Electricity (Australia)
Detroit Edison
Dominion Resources, Inc.
Doosan Heavy Industries & Construction (Republic of Korea)
Duke Energy Corp.
Dynegy Generation
East Kentucky Power Cooperative, Inc.
Edison International
Electricité de France
Electric Power Development Co. (Japan)
Electric Power of Henan (China)
Eletrobrás Termonuclear SA—Eletronuclear (Brazil)
Elia SA (Belgium)
ENDESA (Spain)
ENEL SpA (Italy)
Energy Northwest
Entergy Nuclear Operations, Inc.
Entergy Services, Inc.
E.ON UK Ltd. (United Kingdom)
E.ON US
EPCOR (Canada)
Eraring Energy (Australia)
Ergon Energy Corp. Ltd. (Australia)
ESB (Electricity Supply Board of Ireland)
ESKOM (South Africa)
Exelon Corp.
FirstEnergy Service Co.
Florida Power & Light Co.
Genesis Power Ltd. (New Zealand)
Georgia Transmission Corp.
Golden Valley Electric Association, Inc.
Great River Energy
GS EPS Co., Ltd. (Republic of Korea)
Hawaii Electric Light Co., Inc.
Hetch Hetchy Water & Power
Hitachi, Ltd. (Japan)
Hoosier Energy Rural Electric Cooperative, Inc.
Hydro One Networks, Inc. (Canada)
Hydro-Québec (Canada)
Iberdrola SA (Spain)
Indianapolis Power & Light Co.
Intermountain Power Service Corp.
ISO New England
JEA
Kansas City Power & Light Co.
KeySpan Energy
Korea Electric Power Corp.
Korea Midland Power Co., Ltd.
Korea Western Power Co., Ltd.

Kyushu Electric Power Co., Inc. (Japan)
Lincoln Electric System
Long Island Power Authority
Los Angeles Department of Water and Power
Lower Colorado River Authority
Madison Gas and Electric Co.
Manitoba Hydro-Electric Board (Canada)
MidAmerican Energy Holdings Co.
Midwest Generation
Millmerran Operating Co. (Australia)
Minnesota Power
Mirant Mid-Atlantic, LLC
Mitsubishi Heavy Industries, Ltd. (Japan)
NamPower, Ltd. (Namibia)
National Energy Technology Laboratory
National Grid Co. PLC (United Kingdom)
National Grid Property Holdings Ltd. (United Kingdom)
Nebraska Public Power District
New Brunswick Power Generation Corp. (Canada)
New York Power Authority
New York State Electric & Gas Corp.
Northeast Utilities
Northern Indiana Public Service Co.
NorthWestern Corp.
Nova Scotia Power Inc. (Canada)
NRG Energy, Inc.
Nuclear Energy Institute
Nuclear Management Co.
OG&E Electric Services
Oglethorpe Power Corp.
Omaha Public Power District
Ontario Power Generation Inc. (Canada)
Pacific Gas and Electric Co.
PacifiCorp
Pasadena Water & Power Department
Pepco Holdings, Inc.
Pinnacle West Capital Corp.
PNM Resources
Portland General Electric Co.
Power Grid Corporation of India Ltd.
Powerlink Queensland (Australia)
PPL Corp.
Pratt & Whitney Power Systems
Pratt & Whitney Rocketdyne, Inc.
Progress Energy
Provincial Electricity Authority (Thailand)
Public Power Corp.
Public Service Electric and Gas Co.
Reliant Energy, Inc.
Richmond Power & Light
Rio Tinto Ltd. (Australia)
Rochester Gas and Electric Corp.
Sacramento Municipal Utility District
Salt River Project
San Diego Gas & Electric Co.
SaskPower (Canada)
Saudi Arabian Oil Co.
Scottish and Southern Energy PLC (United Kingdom)
Sichuan Electric Power Corp. (China)
Sierra Pacific Resources
Snohomish County Public Utility District No. 1
South Carolina Electric & Gas Co.
Southern California Edison
Southern California Gas Co.
Southern Company
Southwest Power Pool
Stanwell Corp. Ltd. (Australia)
STP Nuclear Operating Co.
Sunflower Electric Power Corp.
Taiwan Power Co.
Tampa Electric Co.
Tarong Energy Corp. Ltd. (Australia)
Teknik Janakuasa Sdn Bhd (Malaysia)
Tenaga Nasional Berhad (Malaysia)
Tennessee Valley Authority
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TransAlta Utilities Corp. (Canada)
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TRUenergy Yallourn Pty. Ltd. (Australia)
TXU Electric Delivery Co.
TXU Power
UNESA (Spain)
Unión Fenosa SA (Spain)
United Illuminating Co.
Verve Energy
We Energies
Western Area Power Administration
Wolf Creek Nuclear Operating Corp.
WPS Resources, Inc.
Xcel Energy, Inc.

In Memory of Chauncey Starr

THE 2006 EPRI ANNUAL REPORT IS DEDICATED TO THE MEMORY OF DR. CHAUNCEY STARR, the founder and guiding force behind EPRI, who passed away on April 17, 2007, at the age of 95. Chauncey was the heart, mind, and soul of EPRI. His spirit is embodied in the commitment and fervor with which EPRI addresses key industry challenges; his intellect is embodied in the technical expertise that defines EPRI; and his soul is embodied in the public service charter that guides EPRI's activities.

Chauncey's lifelong conviction that science and technology should play an important role in improving the quality of life ultimately led to his pioneering work at EPRI. Following a distinguished career in industry, academia, and government, which included seminal work in both nuclear power and risk assessment, he was selected by the utility industry in 1972 to form a research and development organization dedicated to addressing the challenges faced by the electric utility industry.

Chauncey infused the new organization with two core principles: his belief that a collaborative research approach could most effectively address industry challenges, and his faith in the power of innovation. By designing the research and development process to take advantage of the knowledge and experience of technical advisors from public and private electric utilities, and by tapping into the talents and intellectual excellence resident at research institutions around the world, he enabled EPRI to marshal the best resources possible for resolving a particular issue. Over the course of 35 years, EPRI has institutionalized Chauncey's collaborative vision to become a valued and versatile technical resource for the industry.

"Plugged in" to the challenges facing the electric power industry until the very end, Chauncey applied his unparalleled intellect to current and emerging issues, such as risk-based decision analysis of nuclear plant investments and development of the "SuperGrid," which would utilize superconductors to transport electricity with near-zero energy losses.

Chauncey's contributions — of heart, mind, and soul — will never be duplicated. His immediate legacy is tangible, represented by the buildings, people, and research efforts of EPRI and its members. But his larger legacy is intangible, reflected in the commitment to science and technology that he instilled in those he lived and worked with.

Farewell, Chauncey. You'll be missed.

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