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ACCESSION NBR:7903300392 DOC.DATE: 79/02/22 NOTARIZED: NO DOCKET #  
 FACIL:STN-50-528 PALO VERDE NUCLEAR STATION, UNIT 1, ARIZONA PUBLI. 05000528  
 STN-50-529 PALO VERDE NUCLEAR STATION, UNIT 2, ARIZONA PUBLI 05000529  
 STN-50-530 PALO VERDE NUCLEAR STATION, UNIT 3, ARIZONA PUBLI. 05000530  
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1. The first part of the document is a list of names and addresses, which are arranged in a columnar fashion. The names are written in a cursive script, and the addresses are written in a more formal, printed style. The list is organized into two main sections, with the first section containing names and the second section containing addresses. The names are listed in alphabetical order, and the addresses are listed in a more random order. The list is a typical example of a directory or a list of contacts from the early 20th century.

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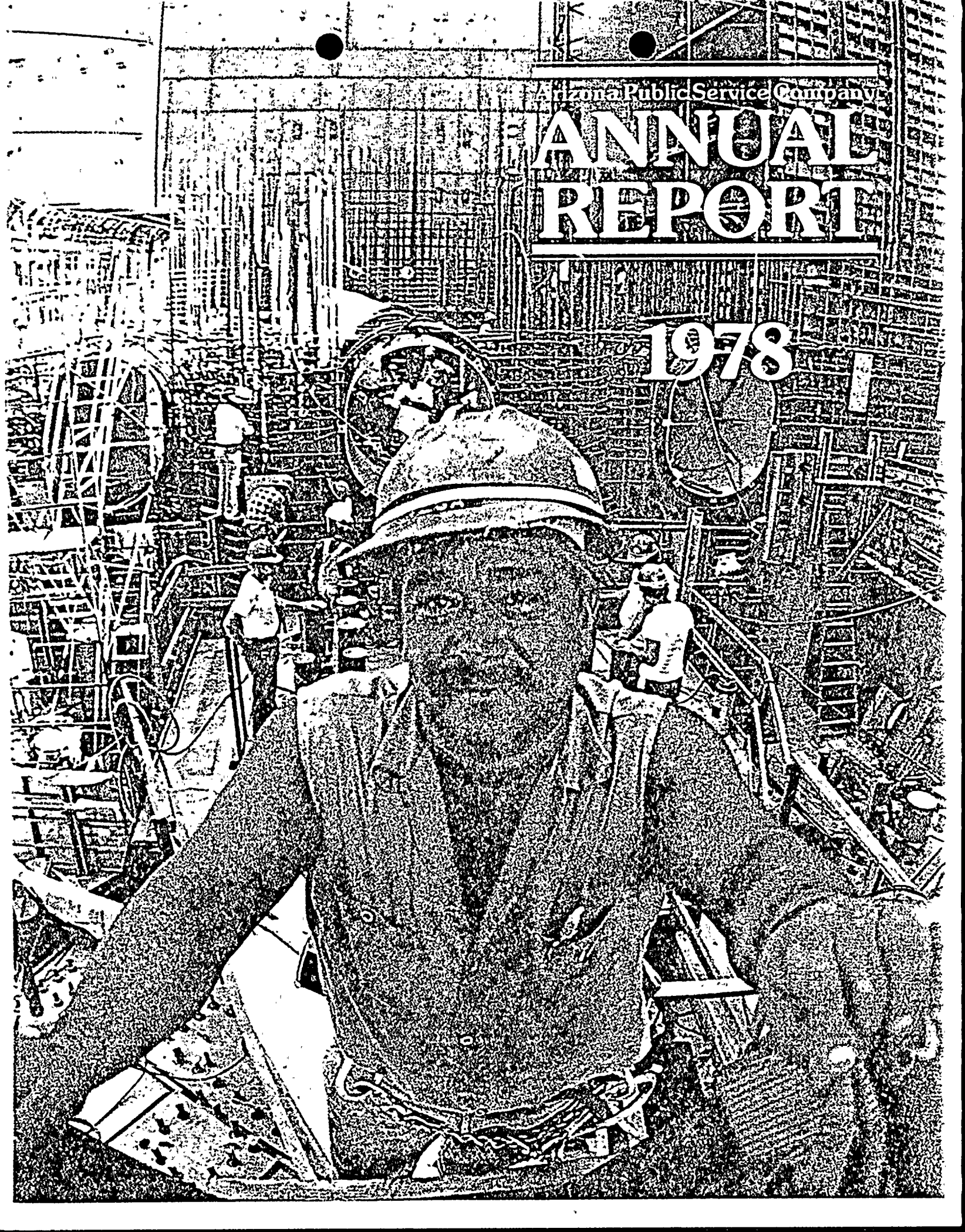
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Arizona Public Service Company

# ANNUAL REPORT

1978



# Highlights 1978

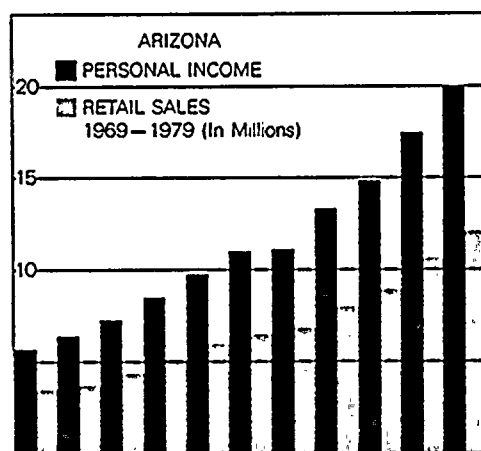
	1978	1977	% Increase (Decrease)
<b>Property and Plant:</b>			
Total utility plant, year end	\$2,288,605,000	\$1,889,320,000	21.1
Capital expenditures	\$ 405,789,000	\$ 311,773,000	30.2
<b>Sales and Customers:</b>			
Total operating revenues	\$ 562,217,000	\$ 493,684,000	13.9
Total electric sales (mwh)	10,912,704	10,481,972	4.1
Electric customers, year end	378,553	357,884	5.8
Total gas sales (m therms)	449,451	463,643	(3.1)
Gas customers, year end	339,803	339,949	—
<b>Income, Earnings, Dividends:</b>			
Net income	\$ 106,759,000	\$ 84,011,000	27.1
Earnings for common stock	\$ 89,288,000	\$ 69,383,000	28.7
Average common shares outstanding	28,363,223	22,970,741	23.5
Earnings (based on average shares outstanding)	\$ 3.15	\$ 3.02	4.3
Dividends paid per share of common stock	\$ 1.73	\$ 1.53	13.1
<b>Shareholders:</b>			
Common	78,275	66,358	18.0
Preferred	7,158	7,232	(1.0)
<b>Employees, year end:</b>	4,951	4,570	8.3

## Annual Report

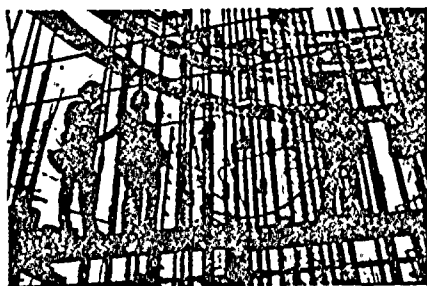
This report is published to provide general information concerning the company and not in connection with any sale, offer for sale, or solicitation of an offer to buy, any securities.

## Annual Meeting of Stockholders

All stockholders are invited to attend the company's fifty-ninth annual meeting. It will be held at 10 a.m. Thursday, April 19, in the Grand Ballroom of the Adams Hotel, Central Avenue at Adams, Phoenix, Arizona.



# Meeting the challenges of tomorrow



## Our financial health...

We met the challenge to maintain an improved earnings and dividend picture despite a hefty construction budget . . .Page 5.

## Our vital growth...

We added 20,669 electric customers; began adding new natural gas customers; saw new coal and nuclear-fueled generating units continue to rise on Arizona's horizon. . .Page 8.

## Our concern for today...

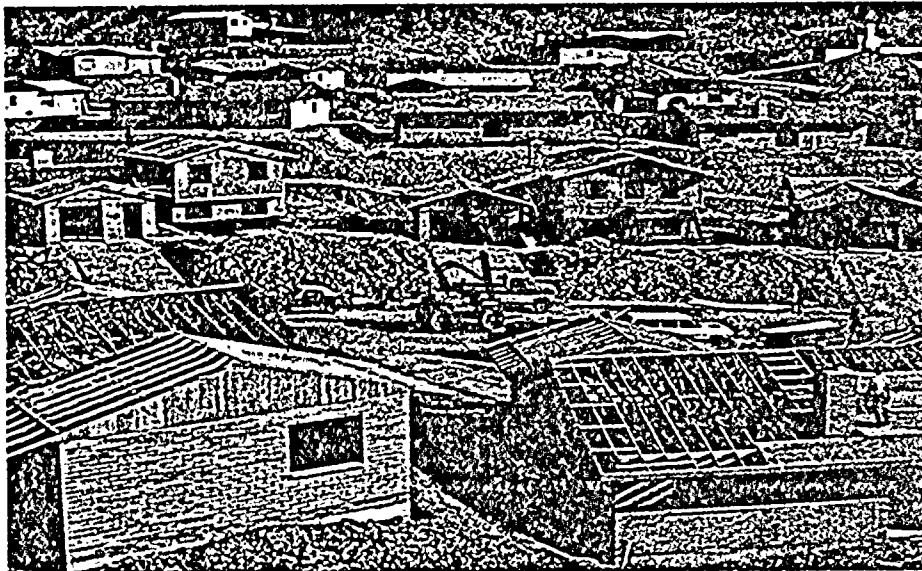
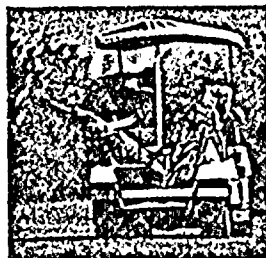
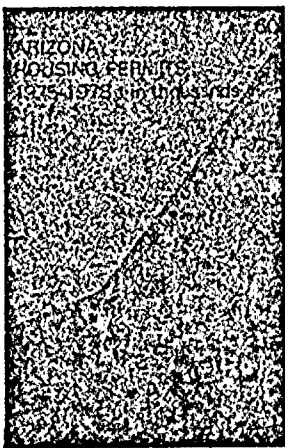
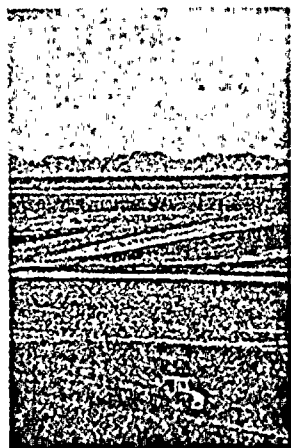
We saw increased public understanding and more effective customer participation become hallmarks of a marketing program aimed at trimming peak power demands; we've continued development of the most economical fuel mix for power generation, and have sustained our efforts to protect our unique southwestern environment . . . . .Page 10.

## Our search for tomorrow...

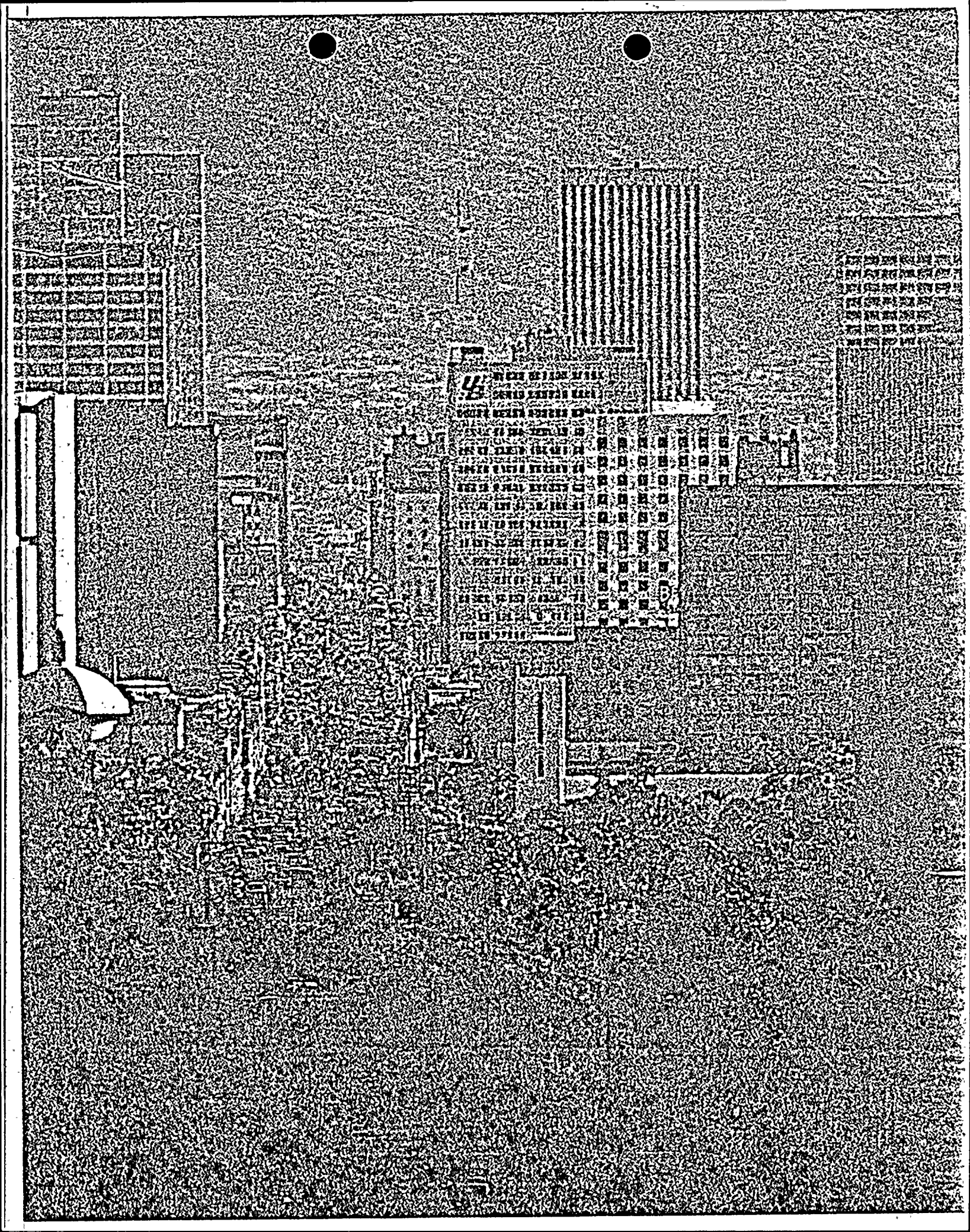
We continued our search for new sources of fuel to meet our customers' needs for economical energy, and expanded our research in new energy technologies for Arizona's tomorrow . . . . .Page 13.

## Our continuing dialogue...

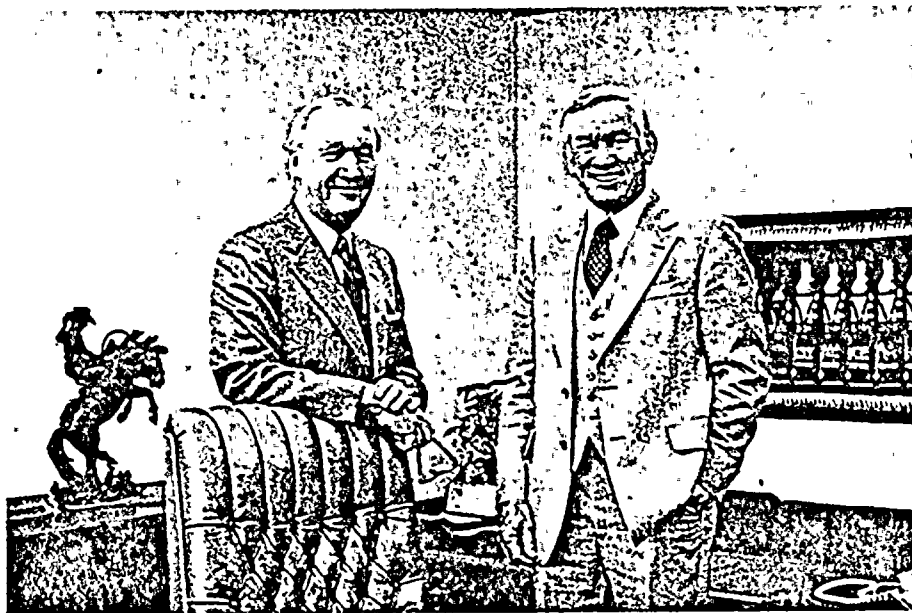
We launched new and improved communication and education programs to keep customers, employees and investors better informed about the Arizona energy scene, about our plans for tomorrow and the challenges we will face . . . . .Page 15.











Ralph M. Bilby (left), Chairman of the Board; Keith L. Turley, President and Chief Executive Officer.

## To our Shareholders

This long lens compression of Phoenix' central corridor is not so much an exaggeration as a reflection of the extraordinary and continuing growth we have experienced in Arizona through the last three decades. Throughout our service territory there is evidence to confirm predictions that Arizona's population, which now totals about 2.5 million, will top the four million mark by the turn of the century.

In 1978, we successfully met many of the major challenges created by the area's dynamic growth. Our earnings reflected those successes, reaching a record \$3.15 per share, up 13 cents over the previous high of \$3.02 we reported in 1977. Dividends paid per share during 1978 totaled \$1.73, an increase of 20 cents per share over 1977 totals. With your board's decision last fall to raise quarterly dividends from 42 cents per share to 47 cents, our indicated annual dividend is now \$1.88.

We are encouraged by these

figures as we continue our efforts to maintain and improve our financial health. Yet numbers alone fall far short of telling the whole story of Arizona Public Service Company's accomplishments in 1978. As the state's largest energy utility, we are planning, managing and building for the future . . . a future that will require even more reliable, economic energy supplies for a growing Arizona.

### For today . . . and tomorrow

In this report, you'll read about our growth. About concrete and steel rising from the desert floor at the Palo Verde Nuclear Generating Station; about construction progress at the Cholla Power Plant in northeastern Arizona. You'll also read about efforts to assure future gas supplies for our customers whose numbers will increase with the lifting of a natural gas moratorium. In addition, you'll learn about the company's program to generate most of our electricity from economical coal and nuclear fuel.

Also highlighted is the company's continuing commitment to research in solar energy and other future energy sources. You'll find details about APS' efforts to locate, here in Arizona, the world's largest solar photovoltaic power plant.

### . . . aware of our responsibilities

We see our role as more than that of energy supplier. APS has a unique opportunity to help shape Arizona's future — to address a whole series of interdependent issues that stem from the state's rapid growth. Our management objectives recognize these challenges. They will be met with the interests of stockholders, customers and all Arizonans in mind. In light of these objectives, it is our policy to speak out on local, state and national issues which can affect these interests and our future.

If we are to gain understanding and support for the programs vital to our company's future, we must recognize the importance of strengthening and improving information channels between the company and Arizona leaders. We must also recognize our responsibility to contribute to the development of future leaders who have the vision and imagination to guide our state. Action has been taken on both these fronts.

### . . . we are preparing

Our own employees mirror the characteristics of Arizona's population. Many have been with the company or lived in Arizona less than five years. Some of these new employees are part of the highly-trained work force already preparing to operate the Palo Verde Nuclear Generating Station. But special skills and education are not

limited to the company's nuclear operations.

All areas of the company are increasingly dependent on highly trained individuals. They're needed, for example, to help APS search for economical fuels, improve customer service through computer technology, upgrade power plant efficiency, analyze environmental data, spearhead research efforts. Our challenge is to attract competent people and develop all our employees, because their performance is integrally linked to the company's future. We must sharpen their skills and provide the incentives that will keep these valuable people at Arizona Public Service.

In January, 1979, we implemented a savings plan for salaried employees designed not only to meet these goals, but to establish a method for giving employees a stake in the company's earnings performance. The plan should strengthen employee interest in APS and provide incentives for employees to work toward goals which are mutually beneficial to them and to shareholders. Participation has been encouraging, with 36 percent of eligible employees joining the plan during its first month.

As a part of our continuing employee development effort, a concentrated management training program was initiated in 1978 in conjunction with Arizona State University. In addition, APS began a formalized development program aimed at providing employees the chance to acquire knowledge and skills necessary for advancement to

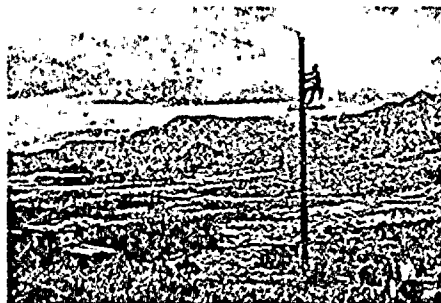
managerial positions.

#### ... for the challenges ahead

You, along with APS employees, have shown the support that helped us to successfully meet 1978's financial and operational objectives. Members of the executive team and the board of directors had the chance to outline our future plans and discuss the company's goals with many of you at the annual meeting and at additional shareholder meetings held in Tucson and Sun City.

But many challenges lie ahead, not the least of which will be raising the capital needed to build facilities to meet Arizona's growing energy needs. This difficult task, coupled with the increasing cost of doing business, fueled by our nation's high inflation rate and complicated by uncertainties created by federal price standards, will require even greater management effort in 1979.

These circumstances will severely test our ability to achieve the financial results we saw in 1978. Moreover, we can't overlook the fact that Arizona's past two summers were among the hottest in history. Thus, our customers used more electricity than normal and that use was reflected in better earnings than




would have been achieved under cooler weather conditions.

In plain words, if we're going to maintain our financial stability and a healthy earnings picture, rate increases are absolutely necessary.

As you'll read in this report, APS increased electric rates by five percent on January 10, 1979 as provided in a previous Arizona Corporation Commission order. We will seek an additional increase, in hearings scheduled to begin May 16 before the commission. We will make every effort to stay within the guidelines issued by the President's Council on Wage and Price Stability as we seek these needed increases, provided we can do so without jeopardizing our financial health or impairing our ability to raise construction funds to meet the needs of a growing Arizona.

While growth provides feelings of anticipation, excitement and vitality, it also brings financial challenges we must meet. We will meet them with your continued support, with an enthusiastic, skilled group of employees and with public understanding.

  
Ralph M. Bilby  
Chairman of the Board

  
Keith L. Turley  
President and Chief Executive Officer

February 22, 1979

## Our Financial Health

Our year-end earnings report reflects the success we've had at meeting the challenges of 1978.

Earnings per share of common stock rose to \$3.15, an increase of 13 cents per share over the previous high of \$3.02 per share reported in 1977. A quarterly dividend increase from 42 cents per share of common stock to 47 cents, payable December 1 to shareholders of record November 6, brought total dividends per common share for the year to \$1.73, up from \$1.53 paid in 1977. The indicated annual dividend becomes \$1.88.

The earnings improvement was due in part to the addition of more

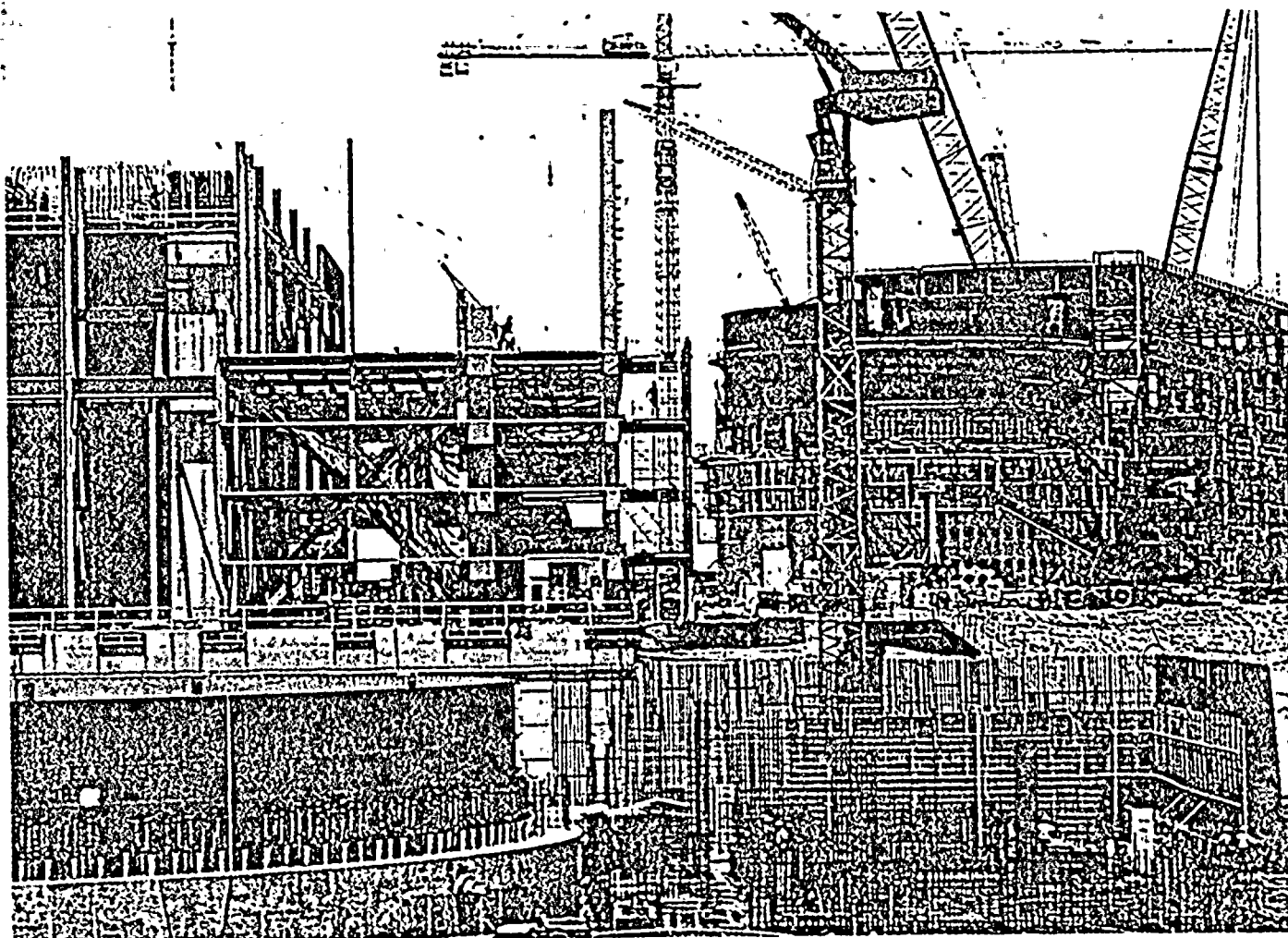
than 20,000 electric customers, reflecting the continuing vigorous growth of the area. Playing a major role in our financial health was the full effect of a 5.94 percent rate increase, put into effect on August 1, 1977, and an additional 5 percent electric rate increase effective January 10, 1978. The second hottest summer in Phoenix history also worked in favor of our earnings picture.

### Planning, action, highlight efforts

But the improvement wasn't just a reflection of favorable circumstance. Our ability to maintain economic stability in the face of

continued growth and soaring inflation is the result of extensive planning and aggressive action. We've pursued necessary rate increases in the face of rising concern over escalating consumer prices and we've gone to a highly-competitive capital market to find the millions of dollars needed for our vital construction program. A skillful employee team, with a blend of experience and youth, is working to find ways to squeeze more from every dollar spent.

We recognize the impact rising energy costs have had on our customers, and are continuing our efforts to balance customers' concerns with the needs of our share-



*Palo Verde takes shape in steel and concrete. APS owns 29.1 percent of Units 1-2-3.*

holders. This balance allows us to provide our customers with the energy they require, at the lowest possible cost.

### Three-step sequence

Under terms of a three-stage rate order approved by the Arizona Corporation Commission in August, 1977, the company has implemented three separate "step" rate increases.

Step 1, effective in August, 1977, permitted an overall revenue increase of 5.94 percent; step 2, a five percent retail electric rate increase, was implemented in January, 1978; step 3, allowing an additional five percent electric rate increase, was put into effect on January 10, 1979. Final approval of the step 2 increase was received in December, 1978; a final decision on step 3 is expected from the commission later this year.

Part of the 1977 order required the company to submit detailed information to the commission, using 1978 as a test year, for a full-scale rate case later in 1979. Preliminary documents were filed in January indicating that an additional rate increase, above and beyond the five percent step 3 electric rate increase, will be needed. In question, however, is the extent to which federal price standards will influence our request.

By allowing the inclusion of certain amounts of construction work in progress in the rate base for the step one increase, and by approving the normalization of liberalized tax depreciation, the Arizona Corporation Commission demonstrated a forward-looking approach to the economic realities the company faces. The commission also allowed a 17.5 percent return on historical end-of-period common equity, thus recognizing the earnings attrition that takes place between the end of the historical "test period," and the time the company can actually collect the rates authorized by the commission.

### Rate design improvements

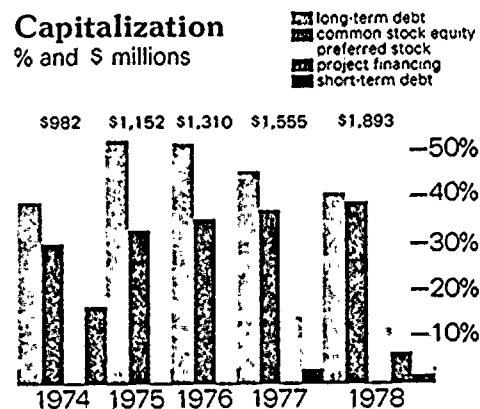
Major rate design improvements were also made in 1978 to better reflect the higher cost of producing electricity when customers' energy demands are highest. While eliminating regional differences in APS residential electric rates, the commission also approved a new rate design that tends to discourage wasteful use of electric energy.

APS is seeking additional residential rate design improvements that would help discourage energy waste and reduce peak loads. One of these proposals is for an energy capacity rate that would measure energy demand as well as consumption.

Extensive testing of these rates indicate that they offer customers financial incentives to trim peak energy demands, while taking into account the unique characteristics of Arizona's climate.

APS has also conducted time-of-use rate studies and examined other proposals advanced in recent national energy legislation. Many of these concepts have been discussed

### Capitalization % and \$ millions

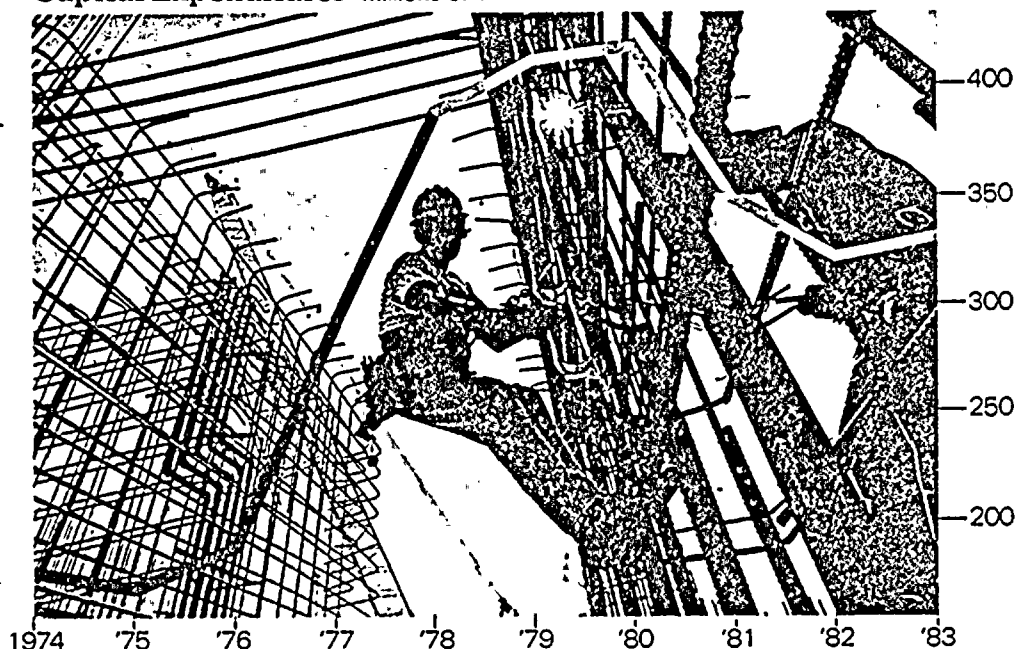


in past proceedings before the Arizona Corporation Commission and the company will continue its effort in this important area.

APS derived approximately 9.7 percent of electric operating revenues in 1978 from sales and charges regulated by the Federal Energy Regulatory Commission (FERC) and has various rate cases pending before that agency. The company anticipates resolution of these cases by FERC or settlement with the parties involved.

On December 29, 1978, a

### Capital Expenditures millions of \$



request was filed with FERC asking that a 13 percent increase in wholesale electric rates (in addition to our last proposed rates) be put into effect later in 1979. Previously, interim rate increases averaging approximately 20 percent were put into effect for most wholesale customers in July.

#### Outside financing

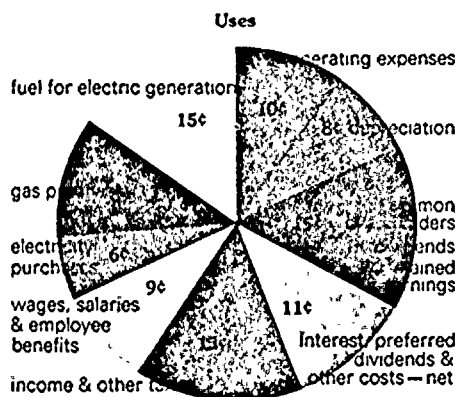
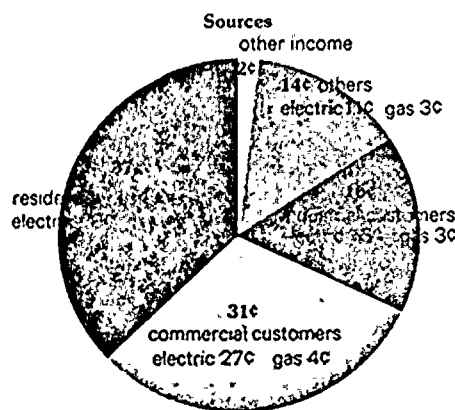
Two common stock offerings represented major sources of capital raised outside the company in 1978. Net proceeds from the issues were used to repay short-term debt incurred primarily in APS' construction program.

A June public offering of 2.5 million shares, priced at \$19.75 per share, brought net proceeds of approximately \$48 million. Approximately \$67 million was raised following a November public offering of 3.5 million common shares which sold for \$19.625 per share. In addition, we renegotiated \$50 million in term loans with two of the company's principal banks which extended the maturities of these loans from 1979 to 1985 and brought in \$20 million of new money, for a total loan of \$70 million.

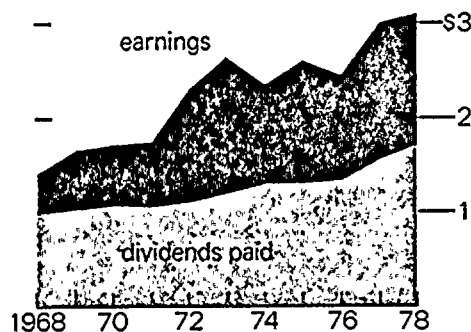
New permanent financing in 1979 will total approximately \$300 million. Of this amount, some \$150 million will come from the sale of mortgage bonds. The company has placed privately a 9.95 percent, \$75 million first mortgage bond issue with closing dates scheduled in March and May, 1979, and plans another sale later in the year to raise an additional \$75 million.

On February 14, 1979 the company sold 600,000 shares of \$8.80 new cumulative preferred stock, Series K, \$100 par value, priced at \$100 per share. Net proceeds were approximately \$59.3 million. Common stock totaling about four million shares and a possible pollution control bond issue are also planned for 1979.

### 1978 Income Dollar



### Earnings, Dividends, Reinvested Earnings per Average Share of Common Stock



### Common Stock Price Ranges (Symbol: AZP)

	1978	High	Low	Dividend per Share
1st quarter	\$21 1/2	\$19 1/2	\$17 1/2	\$0.42
2nd quarter	\$20 1/2	\$18 1/2	\$16 1/2	\$0.42
3rd quarter	\$21 1/2	\$19 1/2	\$17 1/2	\$0.42
4th quarter	\$20 1/2	\$18 1/2	\$16 1/2	\$0.42

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1st quarter	\$20 1/2	\$18 1/2	\$16 1/2	\$0.37
2nd quarter	\$21 1/2	\$19 1/2	\$17 1/2	\$0.37
3rd quarter	\$21 1/2	\$19 1/2	\$17 1/2	\$0.37
4th quarter	\$21 1/2	\$19 1/2	\$17 1/2	\$0.42



About 50 miles of precast concrete pipe will carry nearly 50,000 gallons of treated effluent per minute, from a Phoenix sewage treatment plant, to cool the Palo Verde Nuclear Generating Station.

# Our Vital Growth

The continuing need for additional energy sources so vital to Arizona's growing economy is reflected in the record \$389.3 million for capital expenditures in 1978, up from \$295.9 million in 1977.

More than two-thirds of the money was earmarked for expansion of the coal-fired Cholla Power Plant

and the company's share in the Palo Verde Nuclear Generating Station. Total expenditures for electric property and equipment, including environmental protection facilities, amounted to \$385 million.

As a part of the Cholla expansion, APS completed a 500,000-volt transmission line to carry energy 206

miles from the plant in northern Arizona to a switchyard at our Saguaro Power Plant 30 miles north of Tucson. The \$60 million line was energized in May.

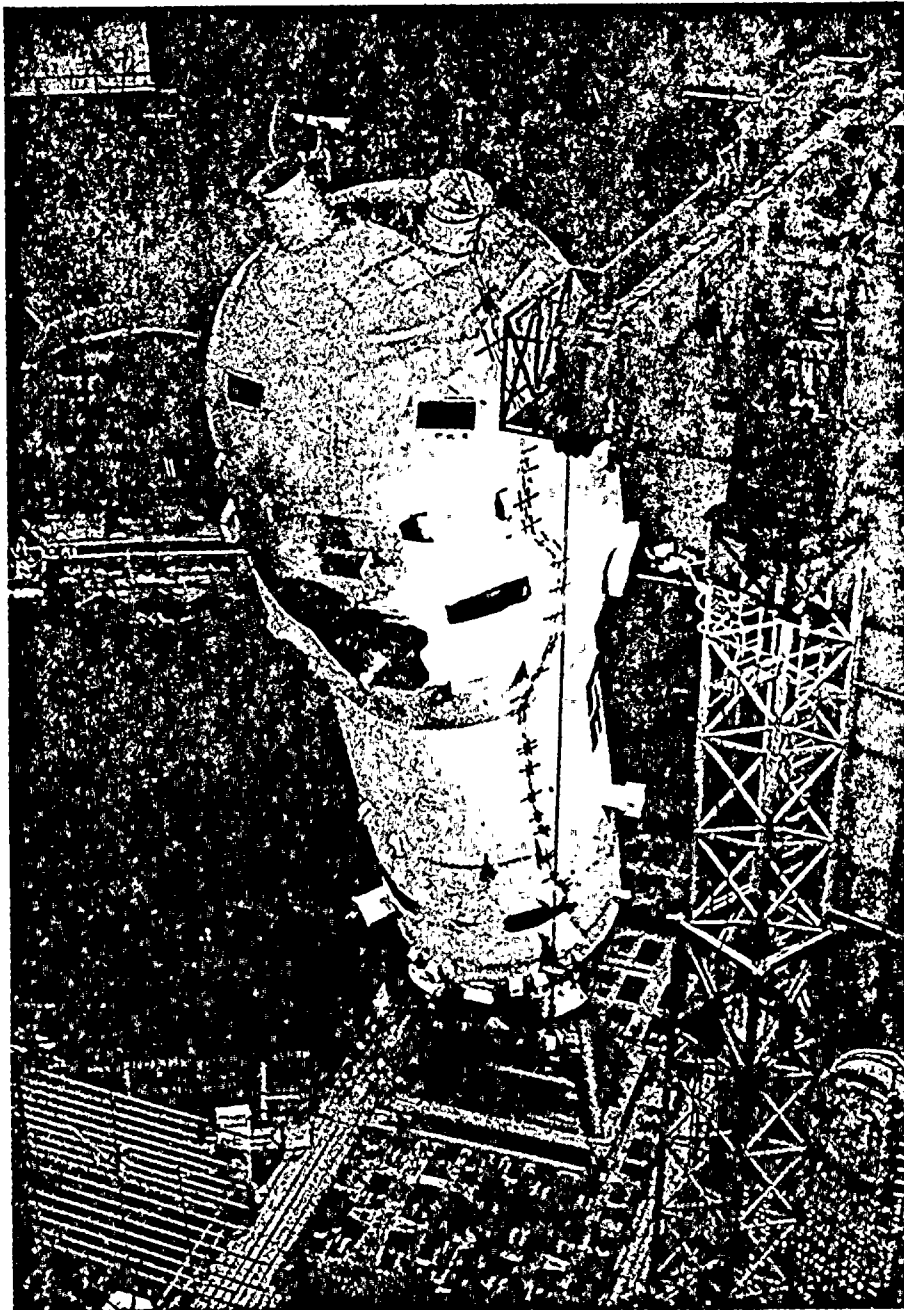
Gas facilities accounted for only \$4.3 million, reflecting the moratorium on new gas hookups in effect for most of the year.

While we are building these facilities, we're continuing our efforts to reduce operating and maintenance costs. New computer systems, hardware and equipment to improve efficiency were among major expense items included in the expenditures for facilities, equipment and property common to electric and gas systems.

Capital expenditures for 1979 are estimated at \$413.8 million but, from 1981 through 1983, reductions are anticipated, as the chart on page six indicates.

## Building for tomorrow

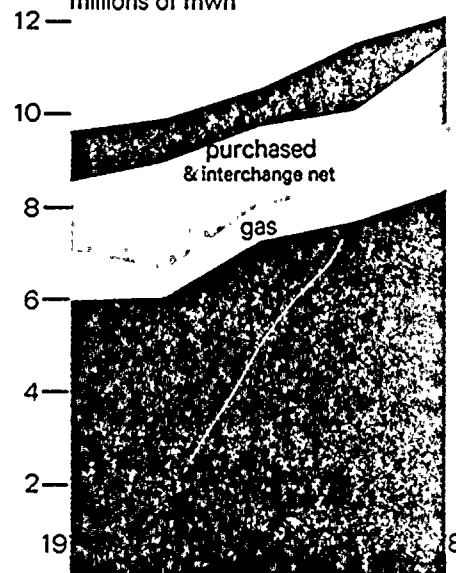
Progress continues at the Palo Verde Nuclear Generating Station, the largest construction project in the state's history. The three 1,270,000-kilowatt units under construction 50 miles west of Phoenix will provide about one-fourth of Arizona's electric generation by 1986, at a lower cost than energy from



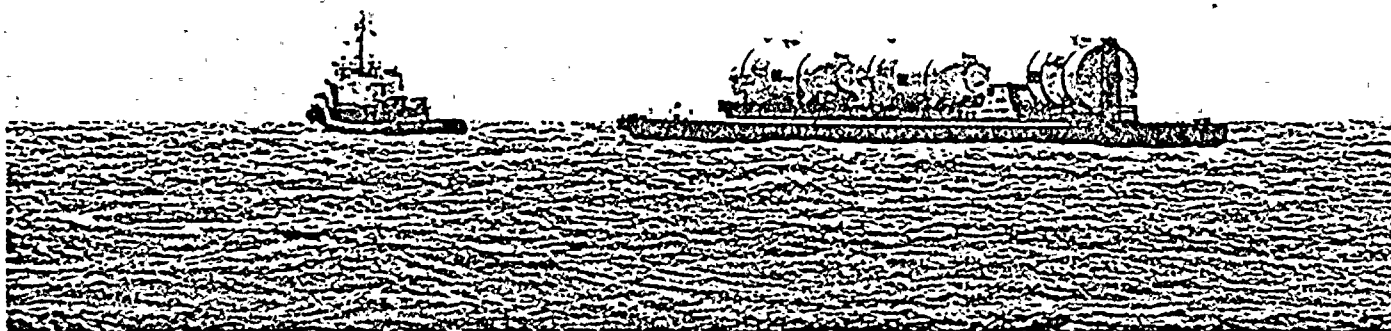
The 793-ton steam generators for Palo Verde's first unit were installed in the containment building using a special construction trolley and lift frame.

## Sources of Electric Energy

millions of mwh







An ocean-going barge heads for Puerto Penasco, Mexico carrying 2,200 tons of equipment for the Palo Verde Plant. It had come from Chattanooga, TN, through the Panama Canal, and up the Gulf of California, a water journey of approximately 5,500 miles.

alternative sources.

Aside from the fact that nuclear energy will produce electricity cheaper than either coal or oil, more economic benefits will flow to Arizona as millions of dollars in ad valorem taxes, from out-of-state participants, are added annually to Arizona's tax coffers. We have already seen significant economic impact as Palo Verde payroll dollars are used to purchase Arizona goods and services and to pay state sales,

income and property taxes.

Total construction payroll for the \$2.9 billion plant is expected to reach \$640 million. Additionally, about \$500 million will be spent in Arizona for materials and supplies.

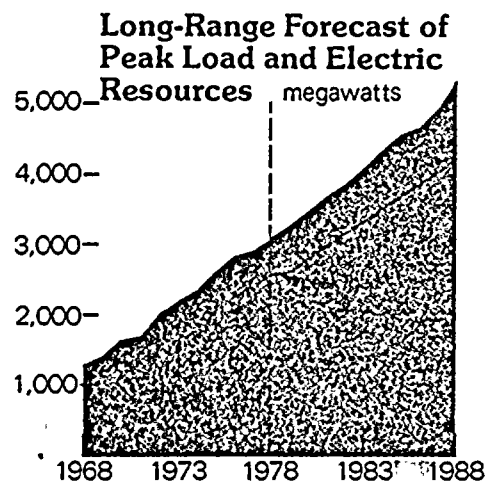
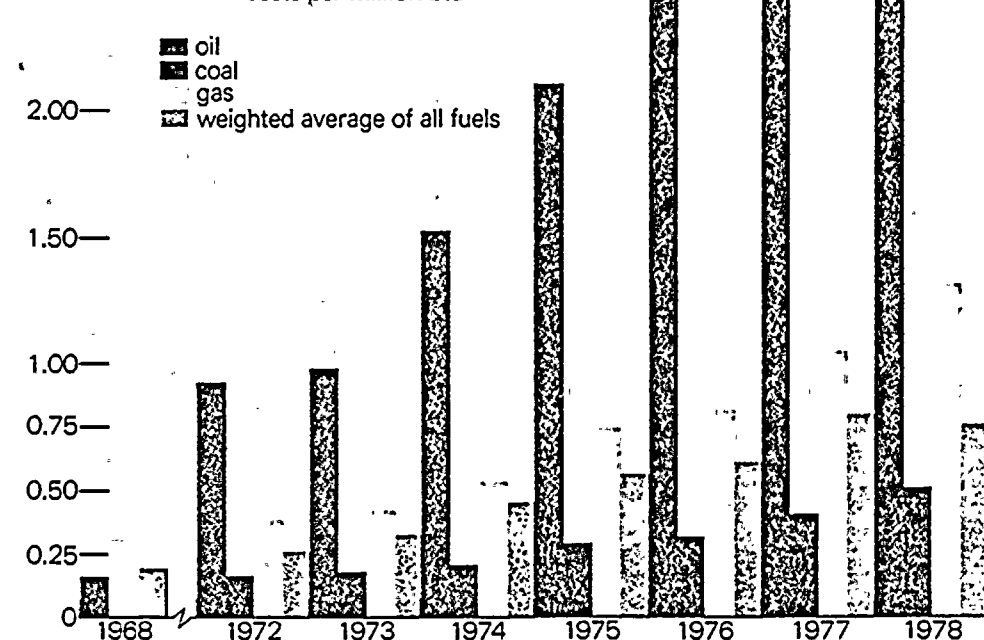
The project employed 3,340 manual construction workers at year end, when Unit 1 was 32 percent complete and the overall project reached the 22.3 percent completion level.

APS is project manager and

operating agent for Palo Verde, a joint effort of five southwestern utilities. Other participants are El Paso Electric Company, Public Service Company of New Mexico, the Salt River Project, and Southern California Edison Company.

A unique and innovative feature of the Palo Verde project is the use of sewage effluent as make-up water in the plant's condenser cooling system. The effluent will come from six communities in the metropolitan

**Generation Fuel Costs**  
costs per million btu



Phoenix area. We'll take delivery at the City of Phoenix' 91st Avenue treatment plant, then transport the effluent underground through concrete pipe to the Palo Verde site.

Not only is this use of effluent unique, but an economic study by an independent research firm indicates that using the effluent for cooling, rather than for other purposes, would bring the highest economic benefits to the community and to state and local governments. Use of this water also leaves the area's surface and ground water supply available for other vital uses.

Last March, APS and 10 other western energy suppliers filed an application with the Federal Nuclear Regulatory Commission (NRC) for construction permits for two additional units at the Palo Verde site. The filing was made in accordance with NRC's replication policy, which will result in significant savings in design, siting, regulatory and construction costs.

Approval for a certificate of environmental compatibility for the two units was granted in January,



*APS' efforts to protect the environment extend to studying the habits of wildlife. With power lines slated to be constructed in the habitat of desert bighorn sheep, the company is participating in a study of this endangered species' behavior and diet patterns, to insure their existence will not be jeopardized by man's presence.*

1979 by the Arizona Corporation Commission. The construction application and environmental certificate

do not, however, represent a final decision to proceed with construction of Units 4 and 5.

## Our Concern for Today

Average residential use in 1978 was 9,918 kilowatt-hours, up 3.6 percent over 1977. One reason: most new customers were all-electric customers, with higher use levels.

At year-end, electric customers totaled 378,553, up 5.8 percent over 1977. Electric sales increased in nearly all retail categories, with the industrial category showing the largest percent gain, 12.1 percent, or 240,081 megawatt-hours. The residential category had the largest overall gain, 269,694 megawatt-hours.

This growth in both customer number and demand created a peak electric load in July of 2,548,900 kilo-

watts, 7.4 percent above the 1977 peak. Electric resources consisted of 2,795,700 kilowatts of generation



*Nearly 80 percent of the electricity APS generates comes from economical coal. The Cholla Power Plant (above) in northeastern Arizona, and the Four Corners Plant near Farmington, New Mexico, provide the lion's share.*

plus 265,900 kilowatts of firm purchased power, for a total of 3,061,600 kilowatts.

A new 235,000-kilowatt coal-fired unit (Unit 2) went into service in June at our Cholla Power Plant near Joseph City. Completion of Cholla Units 3 and 4 has been delayed to better align with anticipated customer energy needs.

Unit 3, with a capacity of 250,000-kilowatts, is now scheduled for completion in 1980; the 350,000-kilowatt Unit 4 is targeted for 1981. The status of a fifth unit, originally scheduled for operation in 1983, is being reviewed, with the possibility of proceeding at a later date.

### Reducing the peaks

Successful peak-trimming can help hold down our total construction budget and reduce the need for outside financing.

Due in part to a carefully thought-out array of innovative load-management programs, we have reduced our 10-year long-term construction forecast by \$1 billion.

State legislation, passed during the year, is helping sell customers on the dozens of programs or devices that can help eliminate energy waste. Under the new law, certain energy-

saving devices now qualify for state income tax credit.

Among these is HotTap, a device marketed by APS that uses waste heat from refrigerated air-conditioning units to heat water. Providing homeowners with essentially "free" water heating during air-con-

ditioning months, HotTap has also brought significant savings to commercial customers. Success stories include a restaurant owner who estimates his HotTap installations will return his initial investment in just four months.

Continuing in 1979 are still other successful programs such as the Professional Home Energy Analysis, which helps a homeowner discover where energy is wasted. The analysis produces authoritative information on what improvements will cost and how much they'll save on home utility bills.

Also continuing are a series of energy audit seminars and energy products workshops for commercial and industrial customers. These help business operators cut waste, better manage energy use and cut their total energy demand.

So far these programs have helped reduce peak demand by an estimated 24,000 kilowatts in 1977 and an additional 29,000 kilowatts in 1978. If our objective for 1979 is reached, the cumulative effect of the three-year program will be a reduction in peak demand of nearly 85,000 kilowatts.

Through the years we have worked to provide energy to our customers from the most economical sources available. Additions of new coal-fired units at the Cholla Plant, and of nuclear units at Palo Verde, will further help limit the use of more expensive gas and oil as power plant fuels in the years ahead. In the mid-1980s, when Palo Verde units are on line, coal and nuclear fuels will provide nearly 94 percent of our energy needs.

In 1978, coal produced 79.6 percent of the electricity APS generated, while gas was the fuel for 14.3 percent and oil provided 6.1 percent of APS generation. In addition to our own resources, purchased power was used to meet 13.6 percent of our customers' energy needs.



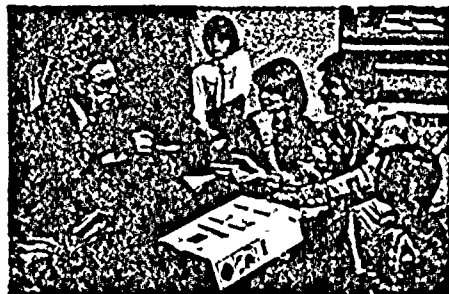
APS began installing meters again in the fall of 1978 with the lifting of a moratorium on new natural gas customers. Extensive exploration for natural gas (top, right), launched in 1978, began paying off as the company had acquired over 2.4 billion cubic feet of proven reserves by mid-January, 1979. APS is also conducting a long-range uranium acquisition program. One exploration site is on a 40,000-acre tract near Wickenburg, Arizona (center, right). While contracts have been signed for enough uranium concentrate to supply three Palo Verde units through the end of this century, APS wants to assure supplies far into the future, and obtain more economical nuclear fuel by acquiring reserves now in the ground.

In 1978 APS, through its wholly-owned subsidiary, Bixco, Inc., launched a four-state search for natural gas in an effort to shore up future supplies and keep costs down. Bixco entered into exploration and drilling agreements with several companies, drilling exploratory wells in Texas, Oklahoma, Louisiana and New Mexico.

In December, the Arizona Corporation Commission issued an order allowing Bixco to use the full cost accounting method for rate making purposes in recovering costs of the 1978 program. Under the order, Bixco may recover exploration and development costs on a full-cost basis to be amortized over units of production. These costs are reflected in future gas rates.

The order approved expenditures of \$14 million authorized by the board of directors for the 1978 program. The company has also asked the commission to approve Bixco's 1979 program, which would include expenditures of \$14 million for exploration and development, plus an estimated \$3.5 million for associated operating expenses.

Bixco's drilling efforts have resulted in APS' acquisition of over 2.4 billion cubic feet of proven reserves through mid-January, 1979. Anticipated production from Bixco's successful wells is estimated at 2.1 million cubic feet per day, which will



Customers are becoming active partners in finding ways to trim peak energy demands with minimum effect on lifestyles. One test involves use of load controllers, installed at customers' homes, to sequence major appliance operation and keep total electric demand below a preset level. Data from such tests will also provide information useful in developing future rate structures.

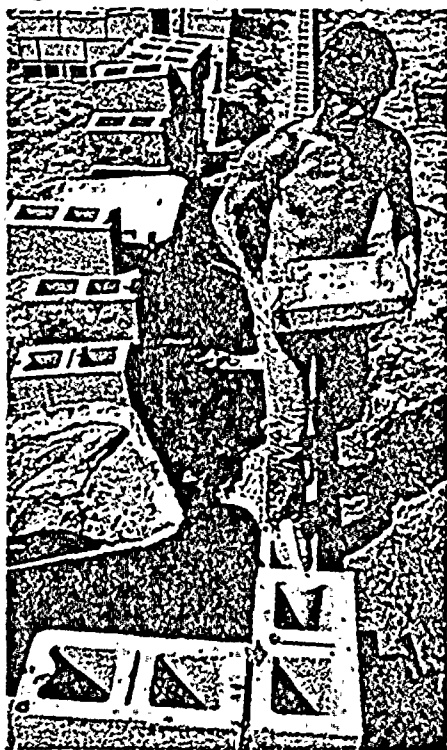
be transported to the company's distribution system as required. Natural gas produced, but not required for APS' resale business, will be sold to El Paso Natural Gas Co. with proceeds used to reduce our distribution system gas costs.

The improved availability of natural gas from our wholesale supplier, El Paso Natural Gas Co., and the initial success of our explorations, contributed to the Arizona Corporation Commission's decision to lift a moratorium on new gas services.

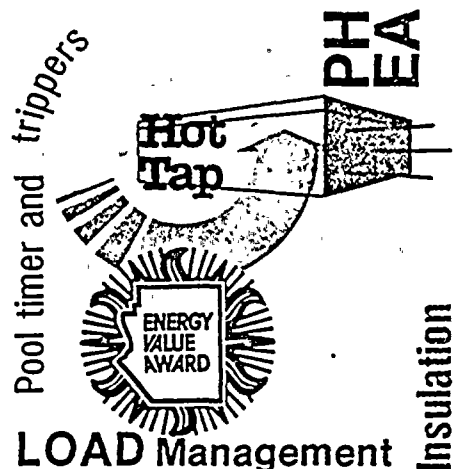
#### Balancing benefits with costs

Our commitment to balance environmental concerns with proven, cost-effective technology is evidenced by programs involving more than \$200 million in capital costs to date.

These environmental programs have touched nearly every area of the company's operation. For example, an environmental improvement project is currently in its early design stages at the Four Corners Power Plant. Required to meet New Mexico air quality regulations, the project has a preliminary engineering estimate of \$330 million, to be



## PEAK LOAD

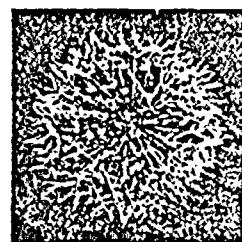


shared by all participants.

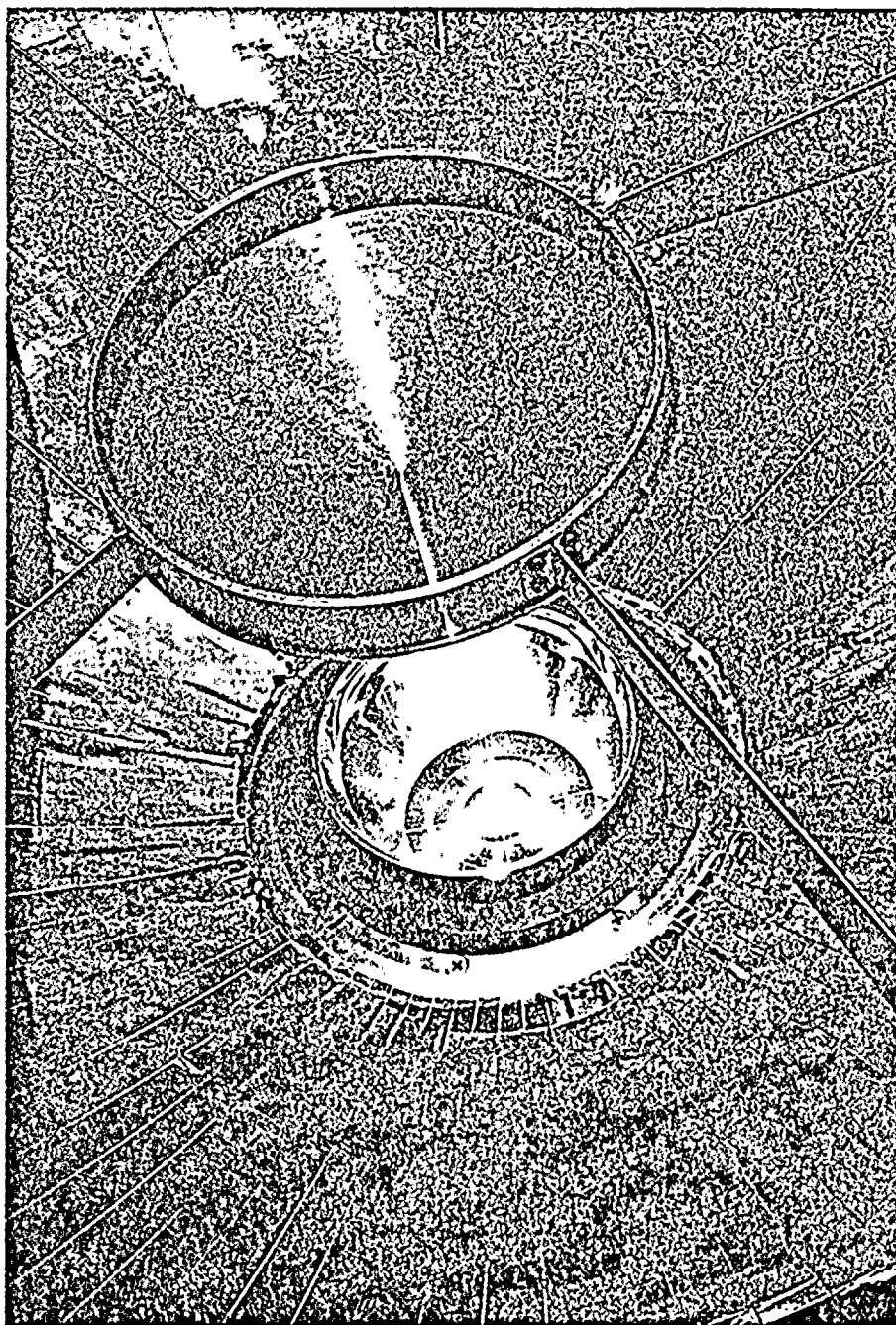
Design work on the system is proceeding in order to meet the New Mexico Environmental Improvement Board's compliance date of year-end 1982. However, there are uncertainties about Environmental Protection Agency (EPA) approvals and regulations yet to be promulgated under certain sections of the Clean Air Act (federal), as well as pending legal questions involving the Navajo Tribe (see page 32).

Additionally, air monitoring stations, located on high terrain surrounding the plant, have recorded levels of sulfur dioxide that indicate that the plant, as presently equipped, is in compliance with New Mexico ambient air standards. The company will ask New Mexico authorities to reconsider the need for the improvement program if final monitoring results confirm this preliminary evaluation.

The company has taken aggressive action, through discussion and through the courts, to remove uncertainties, since delays will only inflate the already heavy environmental costs borne by plant owners and their customers.



# Our Search for Tomorrow



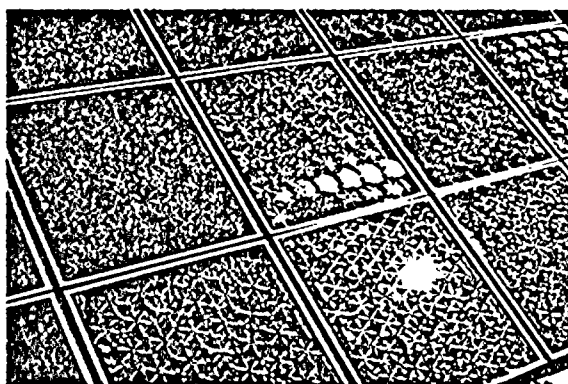
During 1978 we continued to explore new energy technologies and develop techniques that will help us provide for our customers' growing needs. We've been seeking ways to augment our existing generating facilities, as well as developing alternative energy sources that will help level generating peaks.

A major effort is being made in the area of solar energy. "Arizona — Solar Energy State" is a popular and valid slogan. And the search for ways to harness the sun's vast energy resources has been a corporate goal since APS sponsored the first world conference on solar energy in Phoenix more than 20 years ago.

Design of the world's largest direct conversion solar cell power plant — which would be built at Phoenix Sky Harbor International Airport — continues on schedule, with construction completion targeted for late 1980.

With funds to be provided mostly by the U.S. Department of Energy, we have joined with Motorola, Inc. to build the experimental 500-kilowatt Sky Harbor plant that will provide much of the energy required by the airport's new East Terminal. The State of Arizona is providing cooperative research support.

Another research project involves the addition of "solar repowering" equipment to our oil-fired Saguaro Power Plant near Tucson. With solar heated molten salts to flash water to steam for the turbines, the system would save nearly 7 million gallons of oil, and \$4 million annually in fuel costs.



Helping to put the sun to work will be solar hardware like the Motorola Meinel optical module (top photo) which will convert sunlight directly into electricity. Some 14,000 will be used at the solar cell power plant APS hopes to build and operate at Phoenix Sky Harbor International Airport. Solar panels (lower left) are being used today to power APS radio repeaters in remote locations.





Secretary of Energy James Schlesinger and APS President Keith Turley discussed the role that solar and other energy sources will play in Arizona's future when the secretary visited Phoenix in 1978.

#### A vital research role

APS will directly contribute to and derive benefits from national research and development projects totaling more than \$200 million. Many of these benefits will come from our active participation in the Electric Power Research Institute (EPRI), research arm of the U.S. utility industry. APS executives, scientists and engineers serve on EPRI study and advisory committees and on its board of directors, and regularly exchange research information with other member companies.

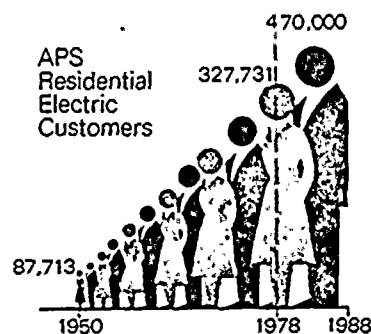
APS researchers are also playing national roles in advanced nuclear research and were instrumental in bringing together representatives from several utilities to assist in development and commercialization of high temperature gas-cooled nuclear reactors for powering gas turbines. Such reactors are more efficient and, particularly important to the water-conscious southwest, they require little water.

Looking toward cleaner, better ways to use coal, we are partners in a number of coal gasification research projects. We expect to find ways to both reduce the high cost of cleaning up coal-burning and

improve plant efficiency.

In total, we're a vital part of a nationwide utility effort, one that will see utilities spend nearly \$1.5 billion over the next five years in the development of new energy supply systems.

Our research dollars not only enhance our ability to serve our customers' future needs, but result in near-term improvements and efficiencies that show a very real payback.

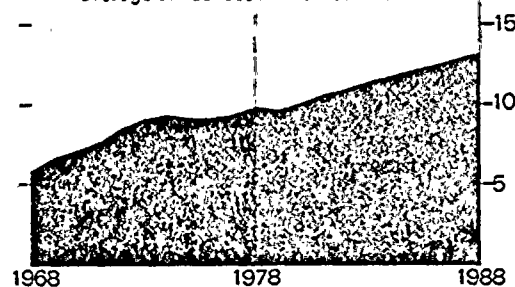


O. Mark De Michele (left) joined the company in April as vice president of Corporate Relations, with responsibility for the company's public and community relations activities, marketing operations, advertising and communications programs. He was formally vice president of Public Relations at Niagara Mohawk Power Corporation, Syracuse, N.Y.

John C. Ogden was elected vice president of administration and economic planning by the board of directors in July. He's responsible for the company's audit, budget, productivity, materials management services and computer operations. He was manager of economic planning and control prior to the election.

#### Residential Electric Consumption

average annual use in thousands of kwh



## Safety

Our ongoing safety program produced significant gains in 1978. Although the number of injuries resulting in lost time increased, the actual number of days lost as a result of these injuries was down slightly, and the incident rate — the number of medical treatment cases — showed a 33 percent decrease over the previous year.

We began the first phase of a three-part educational program to reduce back injuries. This has already reduced such injuries by 34 percent, and we expect further reduction as the second phase of the program reaches employees system-wide.

Our public safety efforts were highlighted by films on natural gas safety, and audiovisual programs, produced by the Pacific Coast Gas Association, for schools and civic groups.

We reached out to municipal fire departments to train their personnel in handling electric and natural gas fires and related emergencies. This program will be extended to law enforcement agencies in the months ahead.



## Our Continuing Dialogue

The company's success at playing a leading role in the orderly development of Arizona's energy resources is closely tied to the success of its communication efforts. Shareholders, customers, employees, opinion leaders — all these and many others — have a stake in the company's future. Thus, we have stepped up our communication and education efforts in an attempt to reach these diverse audiences. The major goal is to provide each with meaningful information tailored to their interests and concerns, as well as explaining how APS plans to meet the needs of a growing Arizona.

To obtain an accurate reading of Arizona leaders' opinions on energy questions and to explore the potential for community support, APS conducted a leadership survey in 1978. Some 137 community leaders in the Phoenix and Tucson metropolitan areas participated.

The survey unearthed a number of areas of growing concern; among them were growth and energy. The two are interdependent. Our company holds primary responsibility for the key area, energy, and our efforts in this area are recognized and supported.

We hope to open constructive dialogue among leaders, to involve them more directly in confronting these challenges and to make them more aware of what we are doing to meet our state's energy needs.

Continuing strong leadership within our company is also important to insuring Arizona's long-term energy supplies. With this in mind, our ongoing employee development program was expanded in 1978 to include a system for identifying employees with high potential for managerial positions. Training programs were implemented to groom these employees for added responsibility. The goal is to provide even better employees who can meet tomorrow's needs and, at the same

time, improve our efficiency right now.

The first management academy, conducted through the Arizona State University business college, was held in 1978 for a small group of employees with high leadership potential. During an intensive three-week course, these employees received extensive training in management skills and an overview of utility operations. Several academy participants



have already moved up to assume key positions within the company.

Recognizing the needs of women, who continue to take on more responsible positions with APS, the company sponsored its first energy seminar for women employees.

Surveys were conducted among employees and our customers to determine their opinions about APS and energy-related issues. Results of the surveys have helped the company develop communication programs that effectively deal with these issues.

The customer survey showed improved support of our efforts to provide good, reliable service. This was particularly gratifying, since it affirms the validity of service principles APS has espoused through the years.

Responding to customers' needs, our communication efforts support load management goals by making information on effective energy use more accessible.

Our customers want to know what we are doing to meet the energy needs of a growing state. A new information center (above) at the Palo Verde Plant opened in 1978 to explain how Palo Verde works and why it's needed. The center offers bonus information: it will be heated and cooled by solar energy. APS' customer information programs include intensive training for employees who must answer questions from today's more knowledgeable customers. We have published a system-wide report to customers and public, and are using a more informative monthly bill. Company officers and board members fielded questions from shareholders at meetings in Tucson and Sun City.

Installing a statewide toll-free telephone number for customer inquiries, initiating a report to customers, implementing a balanced payment plan to help customers even out energy bills and revitalizing our popular Speakers Bureau were some of the efforts made to increase our dialogue with the people we serve.

The customer survey also showed Arizonans continue to support construction of the Palo Verde Nuclear Generating Station. We're working for better understanding of the facts about nuclear power by increased communication with the media, intensifying efforts to reach more audiences and making more speaking presentations on nuclear energy.

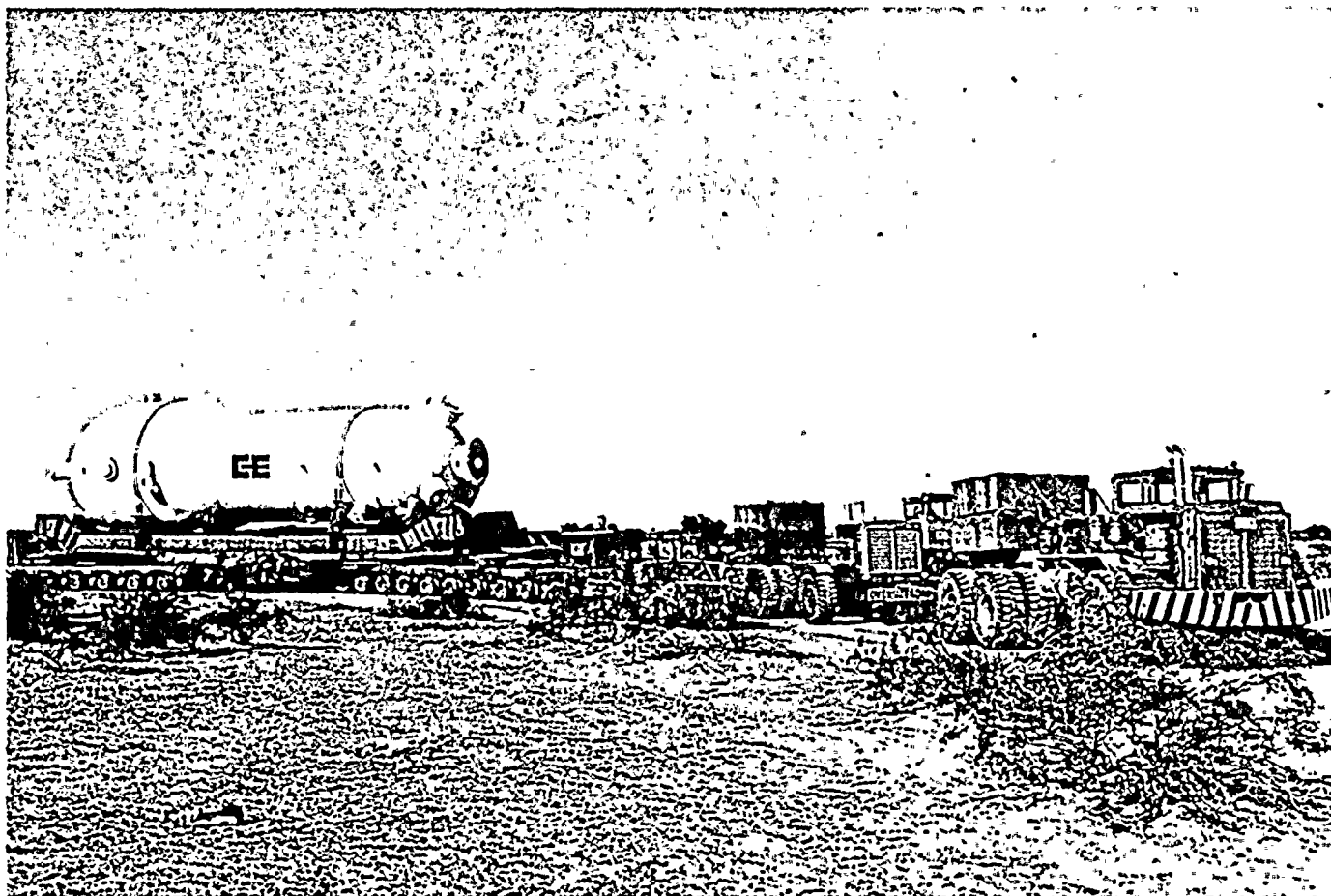
The new energy information center at the Palo Verde construc-

tion site represents a key element in the company's communication program. The center is complete with small theater, energy exhibits and a time-lapse film condensing the project's two years of construction into just two minutes. The public and shareholders are invited to visit.

To answer employee needs for more and better information, APS' internal communications took on a new dimension in 1978 with the advent of "Dateline APS," the company's monthly videotaped news program, an innovative way to keep employees informed about issues affecting the company and the utility industry. Videotape has also become a valuable tool for safety, training and recruiting programs where a picture says a thousand words.



*The company's ongoing communication efforts include special employee programs. Managers and key personnel were briefed by experts such as John Childs, vice president, Kidder Peabody & Co.*



*The reactor vessel and steam generators for Palo Verde Unit 1 travelled overland the final 200-mile leg of their 5,500-mile journey from Chattanooga. They're now in place at the plant site, being readied for operation in 1982 when Unit 1 will begin generating 1,270,000 kilowatts of electricity for customers in one of the fastest growing areas of the nation.*

# SUMMARY OF OPERATIONS

	1978	1977	1976	1975	1974
	(Thousands of Dollars)				
<b>Operating Revenues</b>	\$ 562,217	\$ 493,684	\$ 394,779	\$ 359,747	\$ 273,599
<b>Operating Expenses:</b>					
Operating and maintenance expenses	291,908	269,581	215,500	196,475	153,006
Depreciation and amortization	48,295	40,370	36,621	32,793	26,398
Taxes*	83,314	71,885	59,617	56,414	38,413
<b>Total</b>	<b>423,517</b>	<b>381,836</b>	<b>311,738</b>	<b>285,682</b>	<b>217,817</b>
<b>Other Income*</b>	14,914	12,662	26,301	22,003	17,065
<b>Interest Deductions</b>	46,855	40,499	48,863	39,572	35,890
<b>Net Income</b>	<b>\$ 106,759</b>	<b>\$ 84,011</b>	<b>\$ 60,479</b>	<b>\$ 56,496</b>	<b>\$ 36,957</b>
<b>Preferred Dividend Requirements</b>	\$ 17,471	\$ 14,628	\$ 13,311	\$ 10,422	\$ 6,258
<b>Earnings for common stock</b>	<b>\$ 89,288</b>	<b>\$ 69,383</b>	<b>\$ 47,168</b>	<b>\$ 46,074</b>	<b>\$ 30,699</b>
<b>Common Stock Data:</b>					
Book value per share	\$ 22.56	\$ 21.83	\$ 20.64	\$ 19.98	\$ 20.13
Earnings per average share of common stock outstanding	\$ 3.15	\$ 3.02	\$ 2.47	\$ 2.60	\$ 2.34
Dividends paid per share	\$ 1.73	\$ 1.53	\$ 1.39	\$ 1.36	\$ 1.36
Shares of common					
— year end	32,777,258	26,576,428	22,500,000	19,000,000	15,000,000
— average	28,363,223	22,970,741	19,105,191	17,739,726	13,102,740
Number of common shareholders	78,275	66,358	56,011	56,003	43,497

\*Federal and State income taxes are included in Taxes, Other Income and, in 1977, Interest Deductions. Total income tax expense (credit) was as follows (in thousands): 1978, \$13,937; 1977, \$6,265; 1976, \$1,554; 1975, \$2,122; 1974, \$(2,664).

## Comments on the Summary of Operations

Increases in operating revenues and expenses reflect increases in unit sales of electricity. Operating revenues also reflect rate increases (some of which are subject to refund) and effects of adjustment clauses.

The increase in unit sales of electricity was less in 1978 than in previous years because of declines in sales for irrigation (due to heavy rainfall) and in sales to wholesale customers (principally one that serves a large copper mine which has discontinued operations). Conservation efforts by customers in reaction to higher energy costs have affected unit sales for the past several years. Offsetting factors resulted in 1976 and 1977 from a significant increase in wholesale sales and in 1977 and 1978 from extraordinarily warm summers. Unit sales of gas are substantially affected by weather conditions, but have declined in the past because of a moratorium on new gas connections (which was recently lifted) and service curtailments by the company.

In addition to the effect of volume increases on operating expenses, the cost of fuel used for the generation of a given amount of electricity has risen, as has the unit price paid by the Company for gas purchased by it for resale. The rise in generating fuel cost was particularly acute in 1977 due to a renegotiated coal contract, higher priced boiler gas and the necessity for burning more oil to meet demand growth and to replace hydroelectric power formerly available from other sources. A subsequent decrease in 1978 was largely due to a favorable change in fuel mix resulting from unusually large supplies of boiler gas and from the startup of coal-fired Cholla Unit 2.

Maintenance expense has increased with system size and age and a particularly intensive program at the Four Corners Plant. Depreciation and amortization expenses and taxes (other than income) increase with the size of the company's utility plant, and both property and sales taxes increase with the amount of the

company's operating income. Fluctuations in income tax expense are shown in Note 5 of Notes to Financial Statements.

The principal component of other income is a portion (and before 1977 all) of the allowance for funds used during construction, the total amount of which is primarily a function of construction work in progress during a given period; see Note 1 of Notes to Financial Statements for changes in the rate of the allowance and the presentation of related tax benefits. Interest deductions have increased substantially with the incurrence of large amounts of new long-term debt and liability.

Recent issues of preferred stock (which increase the dividend requirements) and common stock (which increase the average number of shares outstanding) are summarized on pages 26 and 27.

The company's net income and its earnings for common stock represent composites of cash and non-cash items (see the Statement of Changes in Financial Position) and, in part, reflect accounting practices unique to regulated public utilities. See Note 7 of Notes to Financial Statements for certain contingencies.

## OTHER FINANCIAL AND OPERATING STATISTICS

	1978	1977	1976	1975	1974
	(Thousands of Dollars)				
<b>Capitalization:</b>					
Common equity	\$ 739,349	\$ 580,170	\$ 464,410	\$ 379,535	\$ 302,009
Preferred stock	218,561	218,561	168,561	168,561	138,561
Long-term debt	763,450	701,917	673,639	595,569	340,976
Project financing liability	127,723	53,617	—	—	—
Total	\$ 1,849,083	\$ 1,554,265	\$ 1,306,610	\$ 1,143,665	\$ 781,546
<b>Utility Plant — Gross</b>	\$ 2,288,605	\$ 1,889,320	\$ 1,580,672	\$ 1,368,370	\$ 1,190,399
<b>Utility Plant — Depreciated</b>	\$ 1,901,044	\$ 1,547,486	\$ 1,279,533	\$ 1,103,569	\$ 955,399
<b>Number of Employees at Year End</b>	4,951	4,570	4,042	3,731	3,898
<b>Average Wage per Hour</b>	\$ 8.57	\$ 7.99	\$ 7.44	\$ 6.82	\$ 6.16
<b>Electric:</b>					
Electric resources (kw)	3,061,600	2,872,500	2,790,700	2,568,700	2,343,600
Peak load (kw)	2,548,900	2,373,400	2,190,900	2,068,300	2,032,000
Electric sales — total (mwh)	10,912,704	10,481,972	9,606,571	8,892,570	8,692,304
Number of customers at year end	378,553	357,884	342,059	331,382	323,094
<b>Gas:</b>					
Total gas sales (m therms)	449,451	463,643	491,007	526,659	518,999
Number of customers at year end	339,803	339,949	339,265	336,839	334,908

# **LINES OF BUSINESS**

Operating revenues, and operating income before income taxes, attributable to electric and gas operations of the company during the five years ended December 31, 1978 were as follows:

Year Ended December 31,	Operating Revenues				Operating Income Before Income Taxes			
	(Millions of Dollars)				(Millions of Dollars)			
	Electric		Gas		Electric		Gas	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1978	\$452.4	80.5	\$109.8	19.5	\$141.0	92.4	\$11.6	7.6
1977	397.3	80.5	96.4	19.5	109.2	91.3	10.4	8.7
1976	312.0	79.0	82.8	21.0	78.8	88.0	10.7	12.0
1975	281.1	78.1	78.7	21.9	70.6	87.2	10.4	12.8
1974	213.3	78.0	60.3	22.0	49.6	89.2	6.0	10.8

## **OPERATING REVENUES**

	1978	1977	% Increase (Decrease)	1976	1975	1974
	(Thousands of Dollars)			(Thousands of Dollars)		
<b>Electric:</b>						
Residential	\$158,383	\$135,274	17.1	\$106,334	\$ 98,420	\$ 74,348
Commercial	155,669	135,585	14.8	108,506	97,508	71,220
Industrial	72,677	61,617	17.9	47,055	40,737	31,502
Irrigation	12,252	13,512	(9.3)	9,799	9,669	6,387
Other	41,716	39,657	5.2	28,565	21,880	18,425
Total	440,697	385,645	14.3	300,259	268,214	201,882
Transmission for others	9,021	9,328	(3.3)	9,591	10,598	9,216
Miscellaneous services	2,713	2,291	18.4	2,119	2,268	2,173
<b>Total Electric Operating Revenue</b>	<b>452,431</b>	<b>397,264</b>	<b>13.9</b>	<b>311,969</b>	<b>281,080</b>	<b>213,271</b>
<b>Gas:</b>						
Residential	53,879	48,351	11.4	42,922	42,096	32,058
Commercial	24,223	20,779	16.6	17,156	15,761	11,412
Industrial	17,646	13,219	33.5	10,130	8,760	7,818
Irrigation	11,969	12,359	(3.2)	10,979	10,639	7,877
Other	1,169	860	35.9	830	652	441
Miscellaneous services	900	852	5.6	793	759	722
<b>Total Gas Operating Revenue</b>	<b>109,786</b>	<b>96,420</b>	<b>13.9</b>	<b>82,810</b>	<b>78,667</b>	<b>60,328</b>
<b>Total Operating Revenues</b>	<b>\$562,217</b>	<b>\$493,684</b>	<b>13.9</b>	<b>\$394,779</b>	<b>\$359,747</b>	<b>\$273,599</b>

## Shareholder Information

### Stock Listing

(Symbol: AZP)

Common stock of the company and the \$10.70 cumulative preferred stock, Series I, are listed for trading on the New York Stock Exchange. Common stock is also listed on the Pacific Stock Exchange.

### Transfer Agents

First National Bank of Arizona,  
Phoenix, Arizona  
Irving Trust Company,  
New York, N.Y.  
(Common stock only)

### Registrars

The Valley National Bank of Arizona  
Phoenix, Arizona  
Irving Trust Company,  
New York, N.Y.  
(Common stock only)

### General Counsel

Snell & Wilmer, Phoenix, Arizona

### Auditors

Deloitte Haskins & Sells,  
Phoenix, Arizona

### Dividend Reinvestment and Stock Purchase Plan

A Prospectus describing this plan for holders of the company's Common stock is available to shareholders upon request. Write: Office of the Secretary, Sta. 1892, at the address below.

### Form 10-K

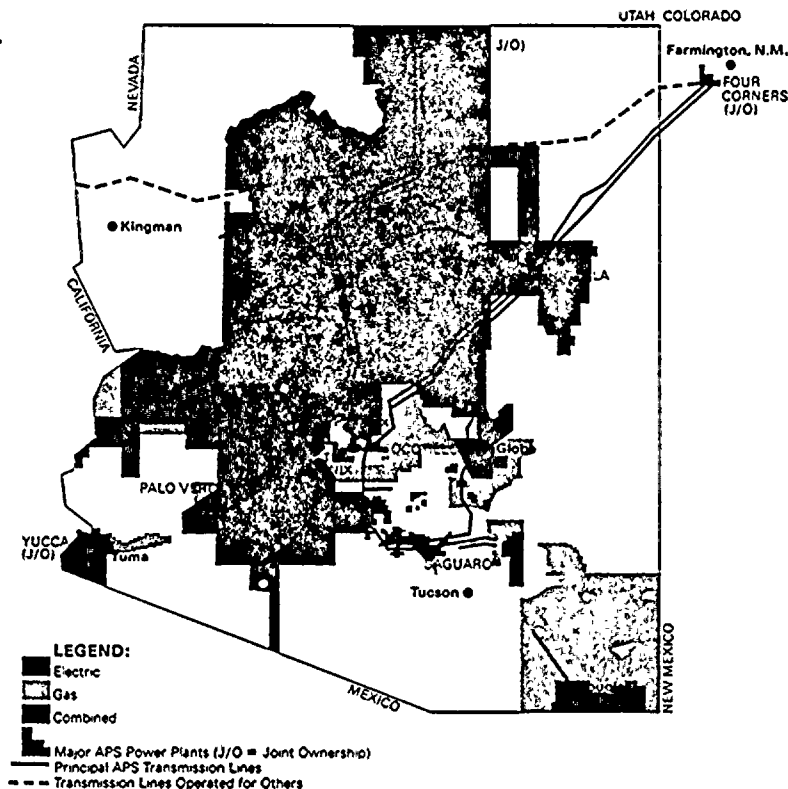
A copy of our Annual Report to the Securities and Exchange Commission, Form 10-K, will be available after March 31, 1979 without charge, upon written request of shareholders. Write: Office of the Secretary, Sta. 1892, at the address below.

### Statistical Report

A detailed Statistical Report for Financial Analysis 1968-1978 will be available by mid-April on request. Direct inquiries to George H. Toler, treasurer, at the address below.

### Mailing Address:

P.O. Box 21666  
Phoenix, Arizona 85036



## ABOUT THE COMPANY

Arizona Public Service is engaged principally in the generation and sale of electricity and in the purchase and sale of natural gas.

Successor to a series of small utility operations originating in 1886, the Company was incorporated in 1920 under the laws of Arizona.

The Company's service territory includes all or part of 11 of Arizona's 14 counties. It is estimated that the company's electric and/or natural gas service reaches approximately 1,735,000, or about 70% of the state's population.

Arizona Public Service Company's principal executive offices are located at 411 North Central Avenue, Phoenix, Arizona. Phone (602) 271-7900.



# STATEMENTS OF INCOME

For the Years Ended December 31, 1978 and 1977 and Comparison

	1978	1977	Increase (Decrease)
	(Thousands of Dollars)		
<b>Operating Revenues (Note 7):</b>			
Electric	\$ 452,431	\$ 397,264	\$ 55,167
Gas	109,786	96,420	13,366
Total	<u>562,217</u>	<u>493,684</u>	<u>68,533</u>
<b>Operating Expenses:</b>			
Operating and maintenance expenses:			
Fuel for electric generation	88,426	85,575	2,851
Purchased gas	63,314	53,232	10,082
Purchased power and interchange — net	31,218	32,431	(1,213)
Other production expenses	10,724	9,434	1,290
Transmission and distribution	12,985	12,224	761
Maintenance	41,845	36,660	5,185
Other operating expenses	43,396	40,025	3,371
Total	<u>291,908</u>	<u>269,581</u>	<u>22,327</u>
Depreciation and amortization	48,295	40,370	7,925
Taxes — other than income	69,397	64,227	5,170
Income taxes (Note 5)	13,917	7,658	6,259
Total	<u>423,517</u>	<u>381,836</u>	<u>41,681</u>
<b>Operating Income</b>	<u>138,700</u>	<u>111,848</u>	<u>26,852</u>
<b>Other Income:</b>			
Allowance for equity funds used during construction	16,536	15,891	645
Income taxes (Note 5)	(20)	(373)	353
Other — net	(1,602)	(2,856)	1,254
Total	<u>14,914</u>	<u>12,662</u>	<u>2,252</u>
<b>Gross Income</b>	<u>153,614</u>	<u>124,510</u>	<u>29,104</u>
<b>Interest Deductions:</b>			
Interest on long-term debt and liability (Note 2)	66,152	53,926	12,226
Interest on short-term borrowings	2,566	1,956	610
Amortization of debt discount, premium and expense	644	613	31
Allowance for borrowed funds used during construction — credit (Note 2)	(22,507)	(15,996)	(6,511)
Total	<u>46,855</u>	<u>40,499</u>	<u>6,356</u>
<b>Net Income</b>	<u>106,759</u>	<u>84,011</u>	<u>22,748</u>
<b>Preferred Dividend Requirements</b>	<u>17,471</u>	<u>14,628</u>	<u>2,843</u>
<b>Earnings for Common Stock</b>	<u>\$ 89,288</u>	<u>\$ 69,383</u>	<u>\$ 19,905</u>
<b>Average Common Shares Outstanding</b>	28,363,223	22,970,741	5,392,482
<b>Per Share of Common Stock:</b>			
Earnings (based on average shares outstanding)	\$3.15	\$3.02	\$ .13
Dividends declared	\$1.73	\$1.53	\$ .20

See Notes to Financial Statements, including Note 1 as to significant accounting policies.

# BALANCE SHEETS

December 31, 1978 and 1977

Assets	1978	1977
	(Thousands of Dollars)	
<b>Utility Plant:</b>		
Plant in service (Notes 2 and 4):		
Electric	\$1,499,005	\$1,099,932
Gas	124,500	123,407
Common, used in all services	47,678	42,868
Total	<u>1,671,183</u>	<u>1,266,207</u>
Less accumulated depreciation and amortization	<u>387,560</u>	<u>341,834</u>
Plant in service — depreciated	1,283,623	924,373
Construction work in progress (Notes 2 and 4)	611,309	619,147
Plant held for future use	6,112	3,966
Utility plant — depreciated	<u>1,901,044</u>	<u>1,547,486</u>
<b>Investments and Other Assets:</b>		
Investments in and receivables from subsidiaries	8,116	7,335
Other investments and notes receivable	3,180	4,542
Other physical property (less accumulated depreciation: 1978, \$36,000; 1977, \$29,000)	994	1,354
Total investments and other assets	<u>12,290</u>	<u>13,231</u>
<b>Current Assets:</b>		
Cash (Note 3)	4,101	3,969
Special deposits and working funds (Note 3)	2,063	2,075
Accounts receivable:		
Service customers	50,708	36,759
Miscellaneous	11,374	7,918
Allowance for doubtful accounts	(1,528)	(1,293)
Materials and supplies (at average cost)	22,002	15,280
Fuel (at average cost)	16,843	23,425
Prepayments and other	9,636	7,543
Total current assets	<u>115,199</u>	<u>95,676</u>
<b>Deferred Debits:</b>		
Deferred interest	—	4,486
Unamortized debt issue costs	5,381	5,472
Other	5,506	6,820
Total deferred debits	<u>10,887</u>	<u>16,778</u>
<b>Total</b>	<u>\$2,039,420</u>	<u>\$1,673,171</u>

**Liabilities****1978                      1977****(Thousands of Dollars)****Capitalization:**

Common stock	\$ 81,943	\$ 66,441
Premiums and expenses	429,476	326,744
Retained earnings (Note 2)	227,930	186,985
Common stock equity	<u>739,349</u>	<u>580,170</u>
Preferred stock	218,561	218,561
Long-term debt, less current maturities	763,450	701,917
Project financing liability (Note 2)	127,723	53,617
Total capitalization	<u>1,849,083</u>	<u>1,554,265</u>

**Current Liabilities:**

Commercial paper (Note 3)	39,000	—
Current maturities of long-term debt	4,594	552
Accounts payable	66,192	47,410
Accrued taxes	45,896	39,739
Accrued interest	12,786	11,106
Accrued dividends on preferred stock	1,456	1,456
Customers' deposits, advances and other	6,478	9,738
Total current liabilities	<u>176,402</u>	<u>110,001</u>

**Deferred Credits and Other:**

Customers' advances for construction	5,450	5,733
Deferred income taxes	3,601	1,000
Other	4,884	2,172
Total deferred credits and other	<u>13,935</u>	<u>8,905</u>

**Commitments and Contingencies (Note 7)**

<b>Total</b>	<b><u>\$2,039,420</u></b>	<b><u>\$1,673,171</u></b>
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See Notes to Financial Statements, including Note 1 as to significant accounting policies.

# STATEMENTS OF CHANGES IN FINANCIAL POSITION

For the Years Ended December 31, 1978 and 1977

	1978	1977
	(Thousands of Dollars)	
<b>Source of Funds:</b>		
Funds from operations:		
Net income	\$106,759	\$ 84,011
Principal non-fund charges (credits) to income:		
Depreciation and amortization	48,295	40,370
Equity in undistributed loss of unconsolidated subsidiaries	1,754	3,043
Deferred income taxes	2,601	27
Allowance for equity funds used during construction	(16,536)	(15,891)
Total funds from operations	<u>\$142,873</u>	<u>\$111,560</u>
Funds from external sources:		
Common stock	\$118,558	\$ 81,660
Preferred stock	—	49,425
Long-term debt	66,300	27,940
Project financing liability	74,106	53,617
Short-term borrowings — net	39,000	—
Sale of investment	—	4,983
Total funds from external sources	<u>297,964</u>	<u>217,625</u>
Other items — net	10,946	2,332
Decrease in working capital*	3,836	16,473
Total source of funds	<u>\$455,619</u>	<u>\$347,990</u>
<b>Application of Funds:</b>		
Capital expenditures	\$405,789	\$311,773
Allowance for equity funds used during construction	(16,536)	(15,891)
Funds used for capital expenditures	389,253	295,882
Repayment of long-term debt	552	3,013
Dividends on preferred and common stock	65,814	49,095
Total application of funds	<u>\$455,619</u>	<u>\$347,990</u>
<b>Increase (Decrease) in Working Capital*:</b>		
Cash	\$ 132	\$ 1,389
Accounts receivable	17,170	4,792
Materials, supplies and fuel	140	2,299
Accounts payable and accrued expenses	(26,619)	(26,264)
Customers' deposits, advances and other	3,260	2,311
Other — net	2,081	(1,000)
Net decrease in working capital	<u>\$ (3,836)</u>	<u>\$ (16,473)</u>

\*Excluding short-term borrowings — net and current maturities of long-term debt.

## STATEMENTS OF RETAINED EARNINGS

For the Years Ended December 31, 1978 and 1977

	1978	1977
	(Thousands of Dollars)	
Retained earnings at beginning of year	\$186,985	\$152,069
Add — Net income	106,759	84,011
Total	<u>293,744</u>	<u>236,080</u>
Deduct — Dividends:		
Preferred stock	17,471	14,628
Common stock	48,343	34,467
Total	<u>65,814</u>	<u>49,095</u>
Retained earnings at end of year	<u>\$227,930</u>	<u>\$186,985</u>

See Notes to Financial Statements including Note 1 as to significant accounting policies.

# LONG-TERM DEBT

December 31, 1978 and 1977

	1978	1977
	(Thousands of Dollars)	
<b>First Mortgage Bonds:</b>		
3% series due April 1, 1979 .....	\$ 4,000	\$ 4,000
2¾ % series due February 1, 1980 .....	5,000	5,000
9.80 % series due June 1, 1980 ...	75,000	75,000
2¾ % series due December 1, 1980 .....	6,000	6,000
9.50 % series due February 15, 1982 .....	100,000	100,000
3½ % series due February 1, 1983 .....	14,500	14,500
3½ % series due November 1, 1983 .....	5,723	5,723
3¼ % series due March 1, 1984 ...	15,000	15,000
5½ % series due October 1, 1987 .....	15,000	15,000
4.70 % series due March 1, 1989 ...	20,000	20,000
4.80 % series due November 1, 1991 .....	35,000	35,000
4.45 % series due June 1, 1992 ....	25,000	25,000
4.40 % series due December 1, 1992 .....	25,000	25,000
4.50 % series due September 1, 1993 .....	15,000	15,000
6.25 % series due September 1, 1997 .....	25,000	25,000
10.625 % series due November 15, 2000 .....	75,000	75,000
7.45 % series due March 15, 2002 ..	60,000	60,000
6.20 % series due April 1, 2004 ...	50,000	50,000
6.45 % series due April 15, 2007 ...	43,000	43,000
6 % series due January 15, 2008 ...	34,000	—
Less securities held by trustees (a) .....	(2,005)	(14,039)
Unamortized discount and premium .....	(840)	(933)
<b>Total First Mortgage Bonds</b>	<b>644,378</b>	<b>598,251</b>
<b>Unsecured Notes Payable</b> .....	<b>70,000(b)</b>	<b>50,000</b>
<b>Capitalized Lease Obligation (c)</b> .....	<b>53,666</b>	<b>54,218</b>
<b>Total Long-Term Debt</b> .....	<b>768,044</b>	<b>702,469</b>
<b>Less Current Maturities:</b>		
3% series due April 1, 1979 .....	(4,000)	—
Capitalized lease obligation .....	(594)	(552)
<b>Total Long-Term Debt</b>		
Less Current Maturities	<u>\$763,450</u>	<u>\$701,917</u>

(a) Representing pollution control funds deposited with a revenue bond trustee to be disbursed as construction of the facilities being financed progresses.

(b) Consisting of \$30,000,000 payable in thirteen equal quarterly installments commencing June 1, 1983 or, under certain conditions, in ten equal quarterly installments commencing June 1, 1984, with interest at 105% of prime through September 1, 1979 to 110% of prime plus ½ of 1% after September 1, 1984; and \$40,000,000 due February 1, 1985, with interest through September 1, 1979 at 103% of the higher of prime or ½ of 1% above the current rate on 90 to 119 day dealer-placed commercial paper, to 115% thereof after September 1, 1981.

(c) Represents the present value of future lease payments (discounted at the interest rate of 7.48%) of a combined cycle plant sold and leased back from the independent owner-trustee formed to own the facility. The lease requires semi-annual payments of \$2,299,000 through June 1983 and, then, \$2,582,000 through June 2001, and includes renewal and purchase options based on fair market value. This plant is included in plant in service at its original cost of \$54,405,000; accumulated amortization at December 31, 1978 was \$5,558,000.

Aggregate annual payments which will be due on long-term debt and for sinking fund requirements through 1983 are as follows: 1979, \$4,594,000; 1980, \$86,639,000; 1981, \$3,688,000; 1982, \$103,740,000; 1983, \$24,302,000. Other sinking fund requirements through 1983 for the outstanding First Mortgage Bonds (which may be met by property additions) will be as follows: 1979, \$2,662,000; 1980 through 1982, \$2,552,000; 1983, \$2,350,000; as allowed in the bond indentures, requirements of this type have in the past been satisfied by certification of property additions of 1-2/3 times the amount stated and the company expects to meet similar requirements in that manner in the future. For sinking fund requirements and redemptions at the option of the holders of cumulative preferred stock, beginning in 1979, see Capital Stock; for requirements under project financing, see Note 2.

Substantially all utility plant, other than the combined cycle plant mentioned above and the construction work in progress for Cholla Unit 4 (see Note 2), is subject to the lien of the First Mortgage Bonds. The indenture respecting the First Mortgage Bonds includes provisions which would restrict the payment of dividends on Common Stock under certain conditions which did not exist at December 31, 1978.

# CAPITAL STOCK

For the Years Ended December 31, 1978 and 1977

CLASS	Number of Shares			Per Share	Par Value		Call Price Per Share (Before Adding Accumulated Dividends)
	Authorized	Outstanding			Outstanding (Thousands of Dollars)		
		1978	1977		1978	1977	
Common Stock	50,000,000	32,777,258	26,576,428	\$ 2.50	\$ 81,943	\$ 66,441	
Cumulative Preferred Stock:							
\$1.10 preferred	160,000	155,945	155,945	25.00	\$ 3,898	\$ 3,898	\$ 27.50
\$2.50 preferred	105,000	103,254	103,254	50.00	5,163	5,163	51.00
\$2.36 preferred	120,000	40,000	40,000	50.00	2,000	2,000	51.00
\$4.35 preferred	150,000	75,000	75,000	100.00	7,500	7,500	102.00
Subtotal	535,000	374,199	374,199		18,561	18,561	
Serial preferred:							
\$2.40 series A		240,000	240,000	50.00	12,000	12,000	50.50
\$2.625 series C		240,000	240,000	50.00	12,000	12,000	51.00
\$2.275 series D		200,000	200,000	50.00	10,000	10,000	(a)
\$3.25 series E		320,000	320,000	50.00	16,000	16,000	(b)
Subtotal	1,000,000	1,000,000	1,000,000		50,000	50,000	
Serial preferred:							
\$8.50 series F		210,000	210,000	100.00	21,000	21,000	(c)
\$8.50 series G		90,000	90,000	100.00	9,000	9,000	(c)
\$10 series H		400,000	400,000	100.00	40,000	40,000	(d)
\$10.70 series I		300,000	300,000	100.00	30,000	30,000	(e)
\$8.32 series J		500,000	500,000	100.00	50,000	50,000	(f)
Subtotal	4,000,000	1,500,000	1,500,000		150,000	150,000	
Serial preferred	3,000,000	—	—	25.00	—	—	
TOTAL	8,535,000	2,874,199	2,874,199		\$218,561	\$218,561	

(a) From \$51.00 through February 29, 1980; then to \$50.50 thereafter.

(b) From \$51.50 through February 28, 1983; then to \$51.00 thereafter.

(c) Redeemable at par after May 30, 1979 (series F) or May 30, 1982 (series G) at the option of either the Company or the holders. Both series are also subject to redemption at par at the demand of the holders prior to the foregoing dates under certain conditions, which did not exist at December 31, 1978. Sinking fund provisions applicable to the two series require the retirement of a total of 12,000 shares at par semi-annually commencing June 1, 1979 (representing annual payments of \$2,400,000).

(d) Not redeemable prior to September 1, 1984 through certain refunding operations; otherwise at \$108.60 through September 1, 1979 to par after September 1, 2002. Applicable sinking fund provisions require the retirement of 16,000 shares at par annually commencing September 1, 1979 (representing annual payments of \$1,600,000).

(e) Not redeemable prior to December 1, 1985 through certain refunding operations; otherwise at \$110.70 through November 30, 1980 to \$101.00 after November 30, 1990. Applicable sinking fund provisions

require the retirement of 15,000 shares at par annually commencing December 1, 1981 (representing annual payments of \$1,500,000). The Company may, but is not required to, redeem an additional 15,000 shares at par on December 1 in any year beginning in 1981.

(f) Not redeemable prior to September 1, 1982 through certain refunding operations; otherwise at \$108.32 through August 31, 1982 to \$101.00 after August 31, 1992.

In the opinion of counsel, amounts paid in any redemption of capital stock funded other than with the proceeds of a concurrent new issue of capital stock would reduce the amount of retained earnings available under Arizona law for the payment of dividends. Because of the option of the holders thereof to require redemption of the series F and G shares as indicated in note (c) above, the company considers that a portion of its retained earnings which is equal to the aggregate par value of such series (\$30,000,000) is unavailable for dividend payments.

The Company has a dividend reinvestment and stock purchase plan whereby newly issued shares of its Common Stock may be purchased at market on the applicable dates by any participant in the plan. It also has an employee savings plan under which its own

periodic contributions probably would, and the investment of certain funds contributed by participating

employees could, involve its issuance of new shares of Common Stock.

Capital stock sales and changes in premiums and expenses during the years ended December 31, 1977 and 1978 were as follows (dollars in thousands):

Description	Common Stock		Cumulative Preferred Stock		Premiums and (Expenses) — Net
	Number of Shares	Par Value Amount	Number of Shares	Par Value Amount	
Balance, December 31, 1976 .....	22,500,000	\$56,250	2,374,199	\$168,561	\$256,091
Common Stock .....	4,076,428	10,191	—	—	71,338
Cumulative Preferred Stock, \$8.32 Series J .....	—	—	500,000	50,000	(685)
Balance, December 31, 1977 .....	26,576,428	66,441	2,874,199	218,561	326,744
Common Stock .....	6,200,830	15,502	—	—	102,732
Balance, December 31, 1978 .....	32,777,258	\$81,943	2,874,199	\$218,561	\$429,476

On January 22, 1979, the Company filed a registration statement with the Securities and Exchange Commission in connection with a proposed issue of

600,000 shares of Cumulative Preferred Stock, Series K, \$100 par value.

## NOTES TO FINANCIAL STATEMENTS

For the Years Ended December 31, 1978 and 1977

### 1. Summary of Significant Accounting Policies

(a) System of accounts — The accounting records of the Company are maintained in accordance with the uniform system of accounts prescribed by the Federal Energy Regulatory Commission (FERC) and used by the Arizona Corporation Commission (ACC).

(b) Plant and depreciation — Property is stated at original cost as defined for regulatory purposes. The cost of additions to utility plant and replacements of retirement units is capitalized. Replacements of minor items of property are charged to expense as incurred. In addition to direct costs, capitalized items include the present value of certain future lease payments (see Long-Term Debt), research and development expenditures pertaining to construction projects, indirect charges for engineering, supervision, transportation and similar costs, and an allowance for funds used during construction (See (d) below). Costs of depreciable units of plant retired are eliminated from plant accounts and such costs plus removal expenses less salvage are charged to accumulated depreciation. Contributions in aid of construction are credited to plant cost.

Depreciation is provided on a straight-line basis at rates authorized by the ACC annually, which are 2.85% to 4.16% for electric plant, 3.25% for gas plant, and 2.85% to 15.50% for common plant.

(c) Revenues and recognition of certain costs — Timing differences resulting from electric fuel adjustment clauses are reflected by deferring purchased power and fuel costs, or revenues, to be matched against revenues or costs, respectively, in subsequent periods. The estimated cost of gas purchased from the Company's supplier, but not billed to gas customers,

is also deferred to be matched against revenues recorded in the subsequent period. Under its approved rate schedules, and subject to a hearing procedure applicable to purchased power and fuel adjustments in retail rates, the Company may pass through to its customers increases in purchased power and fuel costs, resale gas costs and specified taxes.

(d) Allowance for funds used during construction — In accordance with the regulatory accounting practice prescribed by FERC and the ACC, the Company capitalizes an allowance for the cost of funds used to finance its construction program ("AFC"). AFC, which does not represent current cash earnings, is defined as the net cost during the period of construction of borrowed funds used for construction, and a reasonable rate on funds obtained from other sources. The calculated amount is capitalized as a part of the cost of utility plant, resulting in a corresponding credit to other income for the portion of AFC attributable to equity funds and a credit to interest deductions for the portion of AFC attributable to borrowed funds.

AFC has been calculated using composite rates of 8% in 1977 and 9% in 1978, except for AFC related to project financing which was computed at the actual rate thereon. The increased rate in 1978 was accompanied by the change in income tax treatment described in Note (e) below. The resulting increase in net income was not material.

(e) Income taxes — The Company uses accelerated depreciation methods for income tax purposes. As prescribed by the ACC for rate making and accounting purposes, the Company began providing deferred income taxes for the difference between accelerated and straight-line tax depreciation of prop-



**Note 1 (continued)**

erty placed in service after January 1, 1977. Previously the difference was included currently in income. The effect of this change on the accompanying financial statements is not material. Income tax reduction arising from timing differences respecting certain other items of income and expense reported differently for income tax and financial reporting purposes and from allowable investment tax credits are reflected currently in income, in accordance with orders or practices of the ACC for rate making purposes.

Income tax reductions relating to the five-year amortization of emergency facilities in previous years have been deferred, with the deferred amount being restored to income over a twenty-year period.

Income taxes included in operating expenses for 1977 are reported before tax benefits (computed at the effective rate) due to interest expense applicable to construction work in progress; such benefits are included in the credit to interest deductions for the AFC attributable to borrowed funds. Starting January 1, 1978, such benefits are reflected in income taxes included in operating expenses.

(f) Investments in subsidiaries — Investments in subsidiaries are reported at equity.

(g) Employees' pension plan — The Company's policy is to accrue and fund the current and prior service costs of its pension plan. Prior service costs are amortized over a fifteen-year period.

(h) Research and development costs — The Company expenses research and development costs on a current basis, except that costs which may result in utility plant are deferred for subsequent inclusion in plant or to be written off if the applicable project is abandoned.

(i) The Company has presented its 1978 Statement of Changes in Financial Position, and restated its 1977 Statement, so as to reflect, as a non-fund item under Funds from Operations and as a reduction of Application of Funds — Capital Expenditures, only the equity portion of AFC. Previously, all of AFC was so reflected.

**2. Project Financing**

In 1977 the Company sold the construction work in progress for Unit 4 of its Cholla Plant to an unrelated corporation ("Owner"), which appointed the Company as its agent to complete construction of the Unit and agreed to resell it to the Company. The Company is unconditionally obligated to repurchase the Unit at or about the time of its completion (presently scheduled for May 31, 1981), and in no event later than July 31, 1981, for an amount equal to the Owner's cost of acquiring, completing and financing the Unit.

Financing is to be provided to the Owner by bank loans in two categories, the first consisting of up to \$218,500,000 to be disbursed as construction progresses, to bear interest at 115% of prime and to become due on the date the Company is obligated to repurchase the Unit; such loans can then be refinanced by the Company (with interest thereon after a certain date increasing by  $\frac{1}{2}$  %) for payment in five equal installments in 1981, 1983 and 1984. Loans in the other category aggregate \$41,500,000 of pollution control

financing provided through a governmental authority to the Owner (with funds not yet required for the pollution control facilities included in Unit 4 being held in escrow for temporary investment, \$26,901,000 being so held at December 31, 1978); these loans bear interest at 70% of prime and are due in 1987, but in effect will become due when the Company is obligated to repurchase Unit 4 unless assumed by the Company at that time (which assumption will require the issuance of the Company's first mortgage bonds in an amount equal to the balance of such pollution control loans.)

So long as the Owner remains the principal obligor thereon, both categories of loans will be secured by Unit 4 and the Company's repurchase obligation. The two categories are subject in varying degrees to cessation in funding or to acceleration, and interest on the pollution control loans is subject to increase, under certain conditions which did not exist at December 31, 1978. Pursuant to the loan documents, increases in Common Stock dividends are subject to certain restrictions related to current year earnings; for the year ended December 31, 1978 up to \$75,894,000 could have been paid in Common Stock dividends compared to the \$48,343,000 actually paid.

The Company includes costs of construction of Unit 4 in construction work in progress on its balance sheet. Net outstanding balances of the aforementioned bank loans, together with capitalized interest (11.9% for the year ended December 31, 1978) and related fees thereon, appear as a liability. In addition to the construction costs financed by the Owner through December 31, 1978, the Company incurred construction costs of approximately \$5,000,000 which will be reimbursed by the Owner.

The Company has presented its 1978 Statement of Income, and restated its 1977 Statement of Income, so as to include the above interest and related fees in Interest on Long-Term Debt and Liability, offset by a like increase in Allowance for Borrowed Funds Used During Construction — Credit, in the amounts of \$10,859,000 and \$2,958,000 in 1978 and 1977, respectively. This change had no effect on net income.

**3. Short-Term Borrowings and Compensating Balances**

The Company had \$107,000,000 in bank lines of credit, all unused at December 31, 1978 and 1977.

At December 31, 1978, \$39,000,000 of the Company's commercial paper was outstanding at an effective rate of 10.65%.

Average aggregate short-term borrowings outstanding during 1978 and 1977 were \$19,357,000 and \$20,195,000, respectively; weighted daily average interest rates on such amounts were 8.80% and 6.59%, respectively. The maximum amount of short-term borrowings outstanding at any month end aggregated \$49,000,000 in 1978 and \$61,000,000 in 1977.

Compensating balances required at banks, but which were not legally restricted, were generally 10% of the line plus 5% (10% in some instances) of borrowings. Substantially all cash shown in the balance sheet is considered compensating balances.

#### 4. Jointly-Owned Facilities

At December 31, 1978, the Company owned the following interests in jointly-owned electric generating

and transmission facilities (dollars in thousands):

	Percent owned by Company	Plant in Service	Accumulated Depreciation	Net Plant in Service	Construction Work in Progress
Navajo Plant .....	14.0%	\$110,361	\$12,638	\$ 97,723	\$ 30
Four Corners Units 4 and 5 .....	15.0	28,470	8,176	20,294	7,370
Palo Verde Nuclear Generating Station Units 1, 2 and 3 .....	29.1	—	—	—	266,800
Certain transmission lines from the Navajo Plant (the Company's interest in which varies from 14% to 100% ) .....	31.4	27,847	2,934	24,913	110
Total .....		<u>\$166,678</u>	<u>\$23,748</u>	<u>\$142,930</u>	<u>\$274,310</u>

The foregoing amounts represent the Company's interest in each facility. Financing for all such interests is provided by the Company. Its share of related oper-

ating and maintenance expenses is included in its corresponding operating expenses.

#### 5. Income Tax Expense

Details of factors related to income taxes for the years ended December 31, 1978 and 1977 are as follows (see Note 1):

	1978	1977
	(Thousands of Dollars)	
Federal and state income tax expense at statutory rates	\$61,161	\$45,746
Reductions in taxes resulting from:		
Timing differences:		
Tax over book depreci- ation .....	(11,497)	(4,681)
Allowance for funds used during construction capitalized .....	(14,282)	(13,765)
Other — principally taxes, pensions and other items capitalized .....	(1,893)	(2,035)
Investment credit .....	(22,153)	(18,997)
Other items .....	—	(30)
Taxes currently payable .....	<u>11,336</u>	<u>6,238</u>
Deferred taxes included in expenses:		
Deferred .....	2,811	237
Restored .....	(210)	(210)
Total deferred .....	<u>2,601</u>	<u>27</u>
Total federal and state income taxes .....	<u>\$13,937</u>	<u>\$ 6,265</u>

Federal and state income taxes

included in:

Operating expenses .....	\$13,917	\$ 7,658
Other income .....	20	373
Allowance for borrowed funds used during construction — credit .....	—	(1,766)
Total .....	<u>\$13,937</u>	<u>\$ 6,265</u>

Taxes currently payable:

Federal .....	\$ 5,816	\$ 2,216
State .....	5,520	4,022
Total .....	<u>\$11,336</u>	<u>\$ 6,238</u>

At December 31, 1978, the Company had approximately \$19,000,000 of unused investment tax credit which could be carried forward through 1985, of which \$6,500,000 has been recognized as a reduction of deferred taxes.

#### 6. Pension Plan

The Company's pension plan covers virtually all employees. Contributions to the plan were \$8,318,000 and \$7,042,000 in 1978 and 1977, respectively. The liability for unfunded prior service costs at July 1, 1978 was \$1,550,000, which is expected to be completely funded by 1981.

## 7. Commitments and Contingencies

The Company has collected approximately \$8,400,000 of wholesale revenues during the period May 1976 through June 1978 pursuant to a rate filing being contested by certain customers in court. As related to operations through December 31, 1978, alleged tax liabilities to the Navajo Indian Tribe roughly estimated by the Company at \$6,000,000, and \$2,300,000 of alleged tax liabilities to the State of New Mexico, are being litigated by or on behalf of the Company. The alleged tax liabilities continue to accrue at an aggregate rate roughly estimated by the Company at \$2,100,000 per quarter. The Company has collected approximately \$3,000,000 of revenues subject to refund if ordered by FERC in a pending proceeding that relates to an increase in wholesale electric rates effective July 1, 1978. Based upon the opinion of its counsel, the Company believes that the ultimate resolution of the foregoing matters will not have a material effect on the accompanying financial statements.

The Company has significant purchase commitments in connection with its continuing construction program. Plant expenditures are currently estimated at \$370,000,000 in 1979. Annual rentals under non-capitalized, non-cancellable leases were not material.

## 8. Lines of Business

Listed below is selected information relating to the Company's electric and gas operations as of and for the years ended December 31, 1978 and 1977:

	1978		1977	
	Electric	Gas	Electric	Gas
	(Thousands of Dollars)			
Operating revenues .....	\$ 452,431	\$109,786	\$ 397,264	\$ 96,420
Operating income before				
income taxes .....	141,043	11,574	109,154	10,352
Utility plant .....	2,152,937	135,667	1,753,809	135,511
Accumulated depreciation .....	335,533	52,027	292,969	48,865
Capital expenditures (excluding				
AFC — equity; see Note 1(i)) .	384,997	4,256	293,897	1,985

## 9. Selected Quarterly Financial Data (Unaudited)

Quarter	Operating Revenues	Operating Income	Net Income	Earnings for Common Stock	Earnings per Average Share of Common Stock
		(Thousands of Dollars)			
1978					
First	\$128,025	\$25,992	\$19,265	\$14,897	\$0.56
Second	127,699	28,498	21,568	17,201	0.63
Third	164,835	49,304	41,394	37,025	1.27
Fourth	141,658	34,906	24,532	20,165	0.66
1977					
First	\$109,676	\$21,402	\$15,342	\$12,014	\$0.53
Second	113,638	19,679	13,733	10,405	0.46
Third	157,240	42,845	32,813	29,220	1.30
Fourth	113,130	27,922	22,123	17,744	0.73

## 10. Replacement Cost Data (Unaudited)

The impact of the rate of inflation experienced in recent years and other factors have resulted in replacement costs of productive capacity that are significantly greater than the historical costs of such assets reported in the Company's financial statements. In compliance with reporting requirements, estimated replacement cost information will be disclosed in the Company's annual report to the Securities and Exchange Commission on Form 10-K.

## ACCOUNTANTS' OPINION

Deloitte Haskins & Sells,  
Certified Public Accountants  
Phoenix, Arizona 85003

### Arizona Public Service Company:

We have examined the balance sheets of Arizona Public Service Company as of December 31, 1978 and 1977 and the related statements of income, retained earnings and changes in financial position for the years then ended, and the schedules of capital stock and long-term debt. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, such financial statements and schedules present fairly the financial position of the company at December 31, 1978 and 1977 and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

*Deloitte Haskins & Sells*

February 7, 1979

# Additional legal matters

The step 3, five percent increase in retail electric rates that was put into effect on January 10, 1979 is subject to determination by the Arizona Corporation Commission that it was in accordance with the commission's August, 1977 order. A new format for adjusting retail rates for changes in the costs of generating fuel and purchased power has been adopted by the commission; while it may prove more cumbersome than the previous procedure, the company does not expect the change to be materially adverse to it.

Wholesale electric rate matters awaiting action by FERC include a 20 percent increase in effect for certain customers since July 1, 1978, as to which an agreement has apparently been reached, subject to FERC approval, that would lead to an immaterial amount of refunding by the company. A pending court contest of prior FERC rulings favorable to the company relates to approximately \$8,400,000 of wholesale revenues recorded through December 31, 1978.

Certain rate-making and other aspects of the recently enacted federal energy legislation may have effects on the company's future operations that are not yet predictable by it, as may the federal wage and price standards.

The Four Corners and Navajo plants of the company are located on the Navajo Indian Reservation, as are certain of its transmission lines and all of its contracted coal sources. The Tribal Council has adopted three resolutions, two of which purport to impose taxes that, if valid, would cost the company an estimated \$2,000,000 per quarter. The third resolution, which becomes effective only if and when certain action is taken by the Secretary of the Inte-

rior, purports to regulate sulphur emissions through a permit and fee system; if validly imposed, the fee would appear to be in an amount that would make it less costly (but nevertheless extremely expensive) to attempt to remove more sulphur dioxide from plant emissions than is required by federal and state law, so as to minimize the fee.

All three Navajo resolutions are being contested in court. Issues raised by the company pertain to the Tribe's governmental power to impose taxes and regulation, provisions in the plantsite leases whereby the Tribe agreed not to impose regulation or certain taxes, and preemption by the federal government of regulation over air pollution. These and related issues are pending in a suit brought by the company in the U.S. District Court for New Mexico. Certain of the same issues were decided adversely by the U.S. District Court of Arizona in a suit brought there by the operator of the Navajo Plant, and are on appeal.

The Tribe's attempt to regulate sulphur emissions, a related assertion of authority by the Secretary of the Interior and uncertainties as to whether the EPA will approve emission standards recently adopted by the State of New Mexico complicate the company's attempts to design pollution control equipment for the Four Corners plant to comply with the new state standards. The compliance effort is further complicated by a provision of the Clean Air Act Amendments of 1977 relating to "visibility"; implementing regulations, which have yet to be promulgated, may affect the Navajo and Cholla plants as well as the Four Corners plant.

The EPA has issued citations alleging violations of existing regulations in past operations of Four Corners Units 4 and 5, which the company disputes. It is possible that the EPA may seek fines from the participants in the Units of up to \$25,000 per pollutant per day of alleged violation. More serious than that, however, would be the prospect of the company's inability to comply with the EPA regulations applicable to future operation of the Units pending completion of major installations of pollution control equipment; in that circumstance the company could be faced either with inability to maintain Unit operations in the intervening period or with fines in substantial amounts related to cost benefits of non-compliance, the company's share of which could be several million dollars per year.

In late February, the company argued its case against the New Mexico "electrical generation tax" before the U.S. Supreme Court on constitutional and other grounds. If that Court fails to overturn an adverse ruling by the New Mexico Supreme Court, the company's tax liability through December 31, 1978 would exceed by approximately \$2,300,000 the amount provided therefor through collections from its customers.

Messrs. Snell & Wilmer, counsel to the company, believe that the company should ultimately prevail in nullifying the two Navajo Indian taxes and the New Mexico generation tax against it and defeating the Tribe's attempt to regulate it, but that there may be greater uncertainty as to the Navajo taxes against the company's coal suppliers. Based upon opinions of such counsel, the company believes that ultimate resolution of the foregoing matters will not have a material effect on the financial statements appearing herein.

## BOARD OF DIRECTORS

- \*Ralph M. Bilby, 61, Chairman of the Board, Phoenix, Arizona
- \*Karl Eller, 50, President and Chief Executive Officer, Combined Communications Corporation (broadcasting, publishing and outdoor advertising), Phoenix, Arizona
- \*Del W. Fisher, 68, Chairman of the Board, Fisher Contracting Co., Phoenix, Arizona
- \*William T. Garland, 62, Chairman of the Board, Garland-Rhuart Development Corporation (land development), Sedona, Arizona
- Leon Levy, 65, Honorary Chairman of the Board, First National Bank of Arizona, Tucson, Arizona
- \*Victor H. Lytle, 67, Chartered Life Underwriter, Prescott, Arizona
- Marvin R. Morrison, 55, Farmer and Cattle Feeder, Morrison Brothers Ranch, Higley, Arizona
- James B. Rolle, Jr., 70, Senior Partner of the Law Firm of Rolle, Jones, Benton & Cole, Yuma, Arizona
- Henry B. Sargent, Jr., 44, Financial Vice President of the Company, Phoenix, Arizona
- Wilma W. Schwada, 52, civic leader, homemaker, Tempe, Arizona
- Richard Snell, 48, Member of Snell & Wilmer (general counsel to the Company), Phoenix, Arizona
- \*Donald N. Soldwedel, 54, President, Western Newspapers, Inc., Prescott, Arizona; Publisher and General Manager, Yuma Daily Sun, Yuma, Arizona
- \*Maurice R. Tanner, 57, Chairman of the Board, President and Chief Executive Officer, The Tanner Companies (construction and materials supply), Phoenix, Arizona
- \*Keith L. Turley, 55, President and Chief Executive Officer of the Company, Phoenix, Arizona
- †Douglas J. Wall, 52, Member of the Law Firm of Mangum, Wall, Stoops and Warden, Flagstaff, Arizona
- †Morrison F. Warren, 55, Director of Experimental Programs, College of Education, Arizona State University, Tempe, Arizona
- †K. O. Wilbanks, 57, President, First National Bank of Farmington, Farmington, New Mexico
- †Ben F. Williams, Jr., 49, Attorney at Law, Douglas, Arizona
- Thomas G. Woods, Jr., 52, Executive Vice President of the Company, Phoenix, Arizona

## DIRECTOR EMERITUS

E. Ray Cowden, President, Cowden Livestock Company, Phoenix, Arizona

\*Member of Executive Committee

†Member of Audit Review Committee

## OFFICERS

Ralph M. Bilby, 61, Chairman of the Board

D. L. Broussard, 58, Vice President, Research and Development

O. Mark De Michele, 45, Vice President, Corporate Relations

Karl Eller, 50, Chairman of the Executive Committee

Gerald J. Griffin, 58, Assistant Secretary

Howard F. Hersey, 50, Vice President, Gas Operations

Russell D. Hulse, 51, Vice President, Resources Planning

Jerry P. Human, 48, Vice President, Customer Services

Charles D. Jarman, 43, Vice President, Engineering and Construction

Lyman K. Mundth, 61, Vice President, Electric Operations

John C. Ogden, 33, Vice President, Administration and Economic Planning

Wm. T. Quinsler, 54, Secretary and Assistant Treasurer

Henry B. Sargent, Jr., 44, Financial Vice President

George H. Toler, 41, Treasurer

Keith L. Turley, 55, President and Chief Executive Officer

Edwin E. Van Brunt, Jr., 47, Vice President, Nuclear Project Management

Thomas G. Woods, Jr., 52, Executive Vice President, Operations

## DIVISION MANAGERS

A. G. Anderson, 47, Western Division, Goodyear

Glen D. Daly, 50, Cochise Division, Douglas

Jack Duffy, 40, Navajo Division, Flagstaff

Dave Ellis, 40, Metropolitan Division, Phoenix

James C. Lauchner, 53, Pinal Division, Casa Grande

Guy W. Lunt, 45, Mountain Division, Globe

Don Roberts, 58, Yuma Division, Yuma

Jesse F. Thomas, 56, Yavapai Division, Prescott

(Numerals are ages at annual meeting date, April 19, 1979)



Arizona Public Service Company  
1978 ANNUAL REPORT

...the state's energy supplier...  
...a company to help shape Arizona's future...

