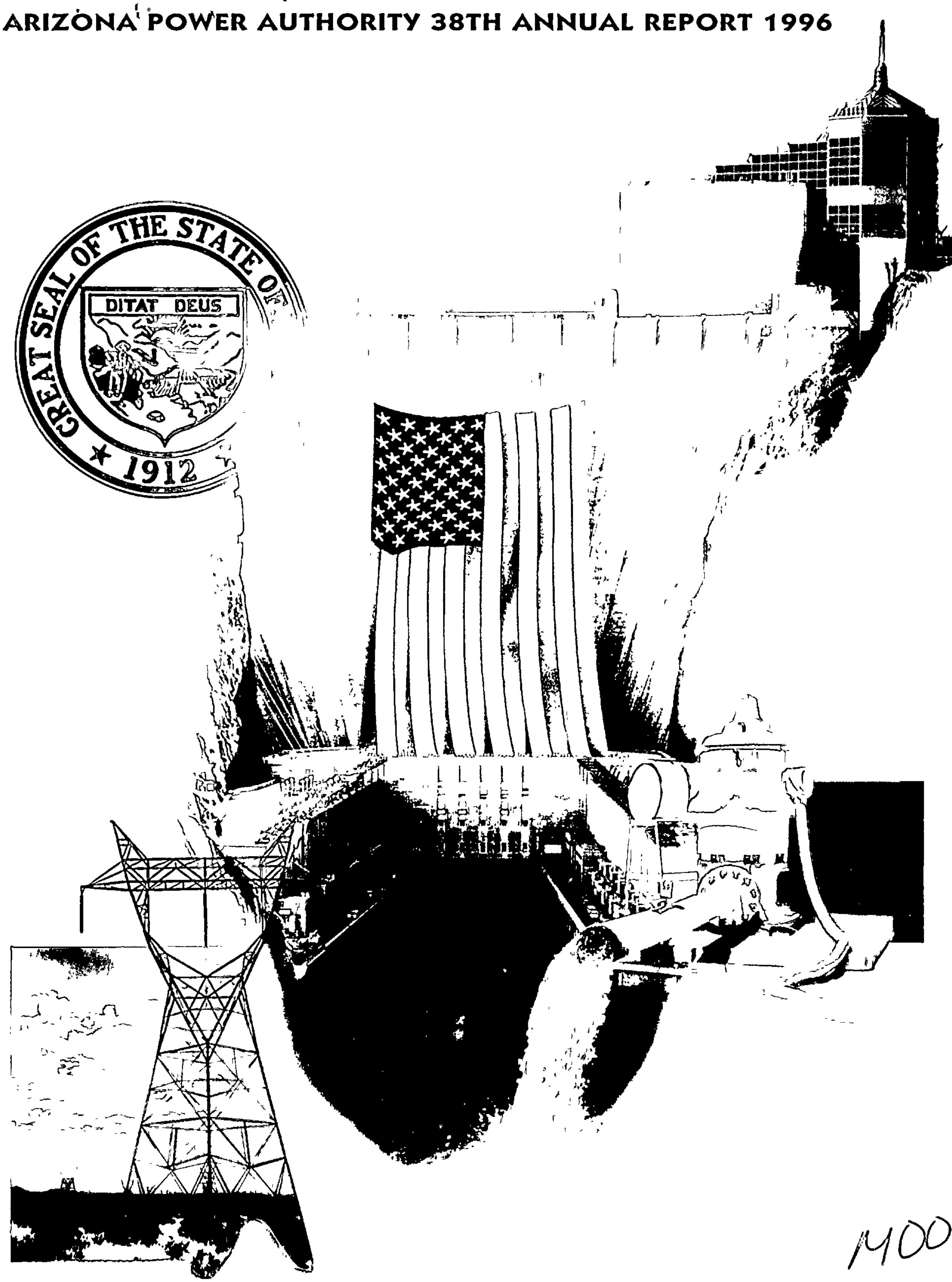
# ARIZONA POWER AUTHORITY 38TH ANNUAL REPORT 1996

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*This generation of Americans has a rendezvous with destiny.*

– Franklin Delano Roosevelt

# ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

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*Front Cover: The images on the front cover illustrate the Authority's role as a state agency in delivering Hoover Dam power for the benefit of the state, including water pumping for agricultural and domestic use. On May 1, 1996 when the Olympic torch crossed Hoover Dam on its way to Atlanta, Georgia, a 500 ft. American flag was draped on the face of the dam to honor the event and to symbolize the history and value of this facility to the Western United States.*

ARIZONA POWER AUTHORITY

December 1, 1996

The Honorable Fife Symington
Governor of Arizona
State Capitol
Ninth Floor, West Wing
Phoenix, Arizona 85007

**Re: The Challenges and Opportunities of Competition**

Dear Governor Symington:

When future historians write about 1996, they will remember this year as a pivotal time in the restructuring of the electric utility industry in the United States - the year when the Federal Energy Regulatory Commission issued Order 888 which mandated that electric utilities open their transmission systems to other users. It will also be remembered as the year in which several state regulatory commissions either initiated competition in their respective states through pilot programs, or passed explicit transition rules under which electric utilities would begin to open their systems to competition. This is an exciting time to be involved in the electric utility industry. It is a time filled with challenges and opportunities for the Arizona Power Authority, and we are here to meet them.

We are meeting these challenges by participating in the national, regional, and state organizations fashioning the course of change in the electric utility industry. We will ensure that the concerns and interests of the Authority's customers are represented and protected as the industry transitions into an era of competition. With each change we are seeking opportunities to expand the services and reduce the cost of power provided by the Authority to its customers.

In addition to our participation in utility related organizations we are involved with the environmental community and federal and state agencies in the review of Colorado River operational effects. The Authority fully supports the efforts to ensure the future of native species. However, these efforts must also consider the agricultural and power related benefits derived from the utilization of the Colorado River's resources.

This annual report includes a discussion of key events which have transpired over the past year and the actions we are taking to meet the resulting challenges and opportunities for the Authority and its customers.

Sincerely,

James K Henness

James K. Henness, Chairman

## REPORT OF THE COMMISSION

The Commission and staff of the Arizona Power Authority are dedicated to ensuring that the power provided to our customers is at the lowest cost possible. The Authority's operating budget for 1997 is lower than its 1996 budget, and has fallen each year since 1994. This accomplishment is a result of controlling our own internal operating expenses and our active participation in the cost control and rate setting process of the Bureau of Reclamation (Bureau) and the Western Area Power Administration (Western). The cooperative effort among the Bureau, Western and the contractors of the Boulder Canyon, Parker-Davis, and Intertie projects has lowered expected rate increases for each of these projects. Direct actions of the Authority, in restructuring its debt obligations, played a significant role in eliminating an expected rate increase in 1997 for Boulder Canyon Project power. The Authority will continue to play an active role in all forums which may directly or indirectly influence the cost of power to our customers.

## MEMBERS OF THE COMMISSION

### JAMES K. HENNESS (CHAIRMAN)

Jim Henness has served on the Commission for 14 years and was chairman from 1984 to 1986. He was reappointed to a third term which ends in January 2000. A cotton farmer from Casa Grande, Arizona, Mr. Henness is active in many agribusiness, environmental and community organizations. He is past president of the Agri-Business Council of Arizona, chairman of the State Farm Service Agency and a member of the National Association of Conservation Districts.

### J. S. FRANCIS, JR. (VICE-CHAIRMAN)

Jack Francis was appointed to the Commission in 1984 and served as its chairman from 1988 to 1990. He is serving a third six-year term which ends in January 2002. Mr. Francis is chairman of the board of Valley Industries, a family-owned cotton ginning company in Glendale, Arizona, which has recently leased its west side ginning facilities to Anderson Clayton. He serves on the boards of the National Cotton Council, the Arizona Cotton Growers Association, and the SuPima Association of America.

### ROBERT P. CASILLAS

Bob Casillas served as chairman from 1992 to 1994. First appointed to the Commission in 1985, he was reappointed in 1996 for a third term which ends in January 2002. A native of Miami, Arizona, Mr. Casillas, along with his brother, founded C.C. Foods, Inc., a tortilla manufacturing and distributing firm in Phoenix. He served as a Gila County supervisor for eight years, and was chairman three of those years. He is a former director of the Globe Lions Club and is a member of the Globe-Miami Economic Development Committee.

### JEWELL M. LEWIS

Appointed to the Commission in 1986, Dr. Lewis is serving her second consecutive six-year term which ends in 1998. She served as Chair from 1994 to 1996. Formerly a teacher for 20 years in the Florence and Coolidge, Arizona school systems, Dr. Lewis is chairperson of the board of MAC Communications, which owns KTVK Channel 3 and has a marketing agreement with Channel 61, Phoenix Magazine, KESZ and KOAZ Radio and Desert Production Center in Arizona. Dr. Lewis is a member of the Arizona Perinatal Board of Trustees, the NAU Center for Excellence in Education Advisory Board, the D.O.A.R. Advisory Board, and co-chair of the Orpheum Theatre Renovation Foundation.

## RICHARD S. WALDEN

Appointed to the Commission in June of 1984, Dick Walden is serving his second consecutive six-year term which ends in 1998. He served as Chairman from 1990 to 1992. Mr. Walden heads the Farmers Investment Company, a family-owned pecan growing and processing firm, headquartered in Sahuarita, Arizona. He is past director of the First Interstate Bank of Arizona, and past chairman and currently a director of the National Pecan Shellers Association. Mr. Walden was appointed in 1996 as a commissioner to the Arizona Water Banking Authority, and as a member of the Advisory Council on Small Business and Agriculture of the Federal Reserve Bank of San Francisco.

## MEMORIUM - CHARLES E. HEFLIN

Charles E. Heflin, who served the Authority for 33 years, passed away in Phoenix, Arizona on April 3, 1996. Charlie will be remembered for his sense of humor and infectious laughter which were the counterpoints to his meticulous dedication to the positions he held with the Authority, first, as Secretary, and later as Power Dispatcher, Scheduling Officer, Power Manager, Electrical Engineer and finally, before his retirement in December, 1983, as the Authority's Utility Consultant.

The Commission and customers were well served during Charlie's years of devoted attention to the goals and purposes of the Authority.

## REPORT OF THE EXECUTIVE DIRECTOR

This has been an extremely challenging year as we have continued to deal with the many and varied issues surrounding the restructuring of the electric utility industry. The Arizona Power Authority has been actively engaged in the debates, discussions and decision making at the state and federal regulatory levels, as well as in Congress as we try to help define the future shape of the power business. Some major steps have been taken such as the development of regional transmission groups and the issuance of Federal Energy Regulatory Commission Orders 888 and 889. However, there are many issues yet to be addressed.

Some of the issues to be dealt with in the coming year are the development and role of independent system operators, the scope of transmission pricing permitted under the Order 888 tariffs, allowing competition at the retail level and ensuring system reliability in the face of all of these changes. The Authority will continue to be actively involved in the processes which are shaping the outcome of these and other areas of change.

In addition to addressing industry restructuring, the Authority continues to focus on containment and reduction in the cost of operating and maintaining Hoover Dam and the transmission facilities used to deliver Hoover power. We will continue to work closely with the Bureau of Reclamation and Western Area Power Administration to improve efficiency. We will also continue to work with federal and state agencies and the environmental community to find effective ways to protect and recover the endangered species on the lower Colorado River, while maintaining the value of the water and power resources.

The Authority is committed to the preservation and enhancement of the valuable resources at Hoover Dam and will work diligently to protect the interests of the State of Arizona and the customers of the Authority.

## ELECTRIC INDUSTRY RESTRUCTURING AND THE ARIZONA POWER AUTHORITY

From the end of World War II until the mid-1970s, the average price of electricity fell continuously as utilities took advantage of economies of scale and favorable economics to build electric generation on a declining unit cost basis. This condition perpetuated and fostered the monopoly supply of utility services with a regulatory protected service area at regulated rates of return for a large majority of customers. A change began with the economic and political response to the world wide inflation and recession of the 1970s.

From the late 1970s to the present, the electric utility industry has been moving away from its regulated monopolistic market structure toward a competitive environment. The movement followed deregulation in transportation, banking and finance, natural gas, and most recently in telecommunications.

Until 1996, the move to an unregulated marketplace focused primarily on wholesale transactions and the transportation of electricity in interstate commerce. Although much has been said and written about any supplier having access to retail customers, serious efforts to bring competition to the general retail market began in 1996 in a number of states. The catchall term of "restructuring" is being used within the industry as shorthand for all the dynamics of the moves to open wholesale and retail electric markets and reduce regulation.

Because of the nature of Hoover power and the need to electrically and economically reduce the risks to Authority customers that rely on Hoover for their power supply, the Authority and the Authority's customers have a vital interest in the outcome of this "restructuring" of the wholesale power market segment and the facilities employed to serve at wholesale.

## THE AUTHORITY'S CHARTER - MARKETING OF HOOVER POWER

As an agency of the state, the Authority is charged with purchasing the state's allocation of Hoover power and reselling it to Arizona entities that are eligible purchasers under federal and state law. Hoover power is produced by the Bureau of Reclamation at the federally-owned Boulder Canyon Project hydropower plant, located near Las Vegas, Nevada.

## USE OF HOOVER POWER

*Nothing great was ever achieved without enthusiasm.*
– Ralph Waldo Emerson

The availability of Hoover power is important to many economies in Arizona. Hoover power marketed by the Authority helps meet electrical needs of small towns, pumps groundwater to irrigate agricultural lands, and is used to move Colorado River water through the Central Arizona Project. The irrigation and electrical districts, municipalities and the Central Arizona Project receiving Hoover power rely on its availability to serve their customers' needs.

## REDUCING HOOVER CUSTOMER POWER RISKS

The Authority takes a number of actions to assure Hoover power usefulness at the retail level. The Authority enters into energy banking arrangements that allow the Authority to pattern the delivery of Hoover energy throughout the year to better match the demands of the end users. The Authority assists its customers in meeting electrical needs, above those supplied by Hoover, by delivering supplemental power purchased on the open market. The Authority also promotes the efficient use of resources by supporting banking and pooling arrangements among its customers.

The Authority buys rights to have Hoover and supplemental power delivered to its customers at their point of receipt in Arizona by use of high voltage wires of the federal Parker-Davis Project and Intertie Project transmission systems operated by Western. The rights to transport the Hoover power and supplementary power are firm, and, in the judgment of the Authority, those rights have a first call on the use of the federal transmission systems.

## INTEREST OF THE AUTHORITY AND AUTHORITY CUSTOMERS IN INDUSTRY RESTRUCTURING.

The purchase and delivery of Hoover power, and the arrangements for supplementary power are wholesale transactions which require use of high voltage wires. Consequently, the Authority and the Authority's customers have an overriding interest in the wholesale power market and interstate electrical transportation aspects of restructuring. Purchase and delivery of Hoover power and related transactions fall within the segment of industry restructuring that is evolving first and has taken the most definitive form. 1996 was a banner year for the wholesale market, a year in which major events and activities began to shape an identifiable industry restructuring. While these events were instructive and permit some degree of predictability, they created as many questions as they resolved.

## FERC ORDERS 888 AND 889 - OPEN ACCESS AND COMPARABILITY

Since the 1930s the Federal Energy Regulatory Commission (FERC) has been charged with ensuring that wholesale power pricing by entities within its jurisdiction is just and reasonable. The Energy Policy Act (EPACT) enacted by Congress in 1992 moved electric utility industry restructuring forward by authorizing FERC to take steps for facilitating competition in

wholesale markets. As the industry moves toward competition, FERC anticipates the marketplace will be self-regulating and will assure that prices are "just and reasonable".

The issue for FERC has been how to assure developing and maintaining a competitive wholesale electric market. FERC found what it believes to be the answers in Orders 888 and 889 issued on April 14, 1996.

*It is time for a new generation of leadership, to cope with new problems and new opportunities. For there is a new world to be won.*
—John Fitzgerald Kennedy

Order 888 requires all FERC jurisdictional utilities that own, operate, or control wires to file with FERC tariffs offering access to capacity available in their wires on non-discriminatory terms and conditions and to move their own generation, purchases and sales across their wires on the same terms and conditions. The terms and conditions for third party use of wires must be comparable to the utility's own use, and vice versa. This mutuality of terms and conditions for wire-owner use and third-party use is known as "comparability".

Order 889 requires jurisdictional utilities to develop and maintain a computerized information system, that all potential users can access, which shows the real time amounts of electricity that can be transported between various points and the pricing that applies.

FERC seeks to sweep non-jurisdictional utilities into compliance with Orders 888 and 889 by a requirement that non-jurisdictional utilities cannot take advantage of jurisdictional utility open access and comparability unless they adopt reciprocity and file open access tariffs for use of their wires, and comply with the informational requirements, as if they are jurisdictional.

## CAPACITY RESERVATION TARIFFS

The industry had been anxiously awaiting Orders 888 and 889, anticipating their providing "the rules of the road" for new competitive markets. However, when FERC issued these orders they also provided notice of the proposed rule for a new type of transmission tariff. This new tariff, called the Capacity Reservation Tariff (CRT), would eliminate the two types of transmission service historically provided ("network" and "point-to-point") and allowed under Order 888. Network service and point-to-point service would be replaced with capacity reservation service identifying multiple points of receipt and delivery.

The proposed rule has received mixed reaction from the industry. A majority of the industry comments and the view of the Authority is that FERC should allow restructuring, under Order 888 and 889, to take place and to be lived with for a time to allow potential problems to come to light before making additional changes. A capacity reservation approach may work well, but it may not be the best approach. The Authority's hope is that FERC will allow time for the industry to develop, bring forward and discuss many tariff alternatives. FERC has not yet acted on its proposed CRT rule.

## REGIONAL TRANSMISSION GROUPS

While FERC was struggling with proposed rules following the passage of EPACT, utilities in various parts of the country decided to form regional organizations that might act as proxy for, and influencing mechanisms to, FERC in various aspects of administering restructuring.

One such Regional Transmission Group (RTG) is the Southwest Regional Transmission Association (SWRTA). SWRTA was organized by, and its membership consists of, forty transmission owning and transmission dependent utilities, and non-utility suppliers such as power marketers and

independent power producers in the Southwestern United States. The Authority is actively involved in SWRTA as a representative for transmission dependent utilities on its Board of Directors and on its Planning Committee.

SWRTA is working to provide a forum for the coordinated development of the transmission system in the southwest, with the goal of meeting the transmission needs of all players. SWRTA is also looking at transmission pricing alternatives and is investigating the possibility of a single independent operator of the transmission grid. The Authority will continue to work with the SWRTA membership to advance effective open access, comparability and transmission development in the region.

*Take calculated risks. That is quite different from being rash.*
– George S. Patton

## LOCAL "AS IF" UTILITIES

A number of Authority customers transport their Hoover power and supplementary power to their system and their end users over the facilities of FERC jurisdictional utilities, or those that have served notice of intention to become as if jurisdictional. Western, the federal entity with whom the Authority has contracts for use of the Parker-Davis and Intertie transmission systems to deliver Hoover power, has announced its intention to become an "as if" utility. Western is in the process of developing a comparability tariff for conformance with Order 888 and information systems for compliance with Order 889. The Authority, as well as other Western customers, are working closely with Western on the development of their tariff.

## INTEREST OF THE AUTHORITY AND AUTHORITY CUSTOMERS IN ORDER 888 AND 889

Orders 888 and 889 provide that they are not intended to amend existing contracts for use of transmission systems. However, the Orders will apply to any new contracts or arrangements made upon the termination of existing contracts. To the extent new sources of power supply become available to the Authority and its customers, requiring transportation over the wires of third parties, Orders 888 and 889 will apply beginning in 1997.

The Authority's goal is to assure that the Authority and the Authority's customers will continue to have access to the wires of the federal transmission systems on the basis intended by the laws creating the obligation of the United States to sell and deliver federal power, including Hoover power. In addition, the Authority intends to assure that delivery of federal project power, including supplementary power, will be maintained over systems owned or controlled by others on non-discriminatory terms and conditions. Access to power transportation systems is a pre-requisite for delivery of Hoover power, and the supplementary power and services the Authority's customers require to maintain electric service to their homes and businesses when and where needed. Thus, the Authority and its customers have a major interest in the immediate application of Orders 888 and 889 to supplementary wholesale power supply as well as its subsequent application to the Authority and Authority customers' contracts for use of wires controlled by Western and other local and regional utilities. In pursuit of its interest, the Authority has taken an active role in various forums that are engaged in the interpretation and implementation of Orders 888 and 889.

## THE AUTHORITY'S ROLE IN RESTRUCTURING

Orders 888 and 889 are subject to ongoing interpretation and implementation process before FERC, in local and regional RTG's and before the regional and national reliability councils.

The Authority's Executive Director, Mark Mitchell, has participated regularly in FERC's technical conferences and related activities concerning the implementation of Orders 888 and 889. He and other members of the Authority's staff participated in the development, organization and operation of the Western RTG's. Mr. Mitchell is on the governing board of SWRTA where he holds the Vice President's chair. Authority staff are also members of various other committees.

*The whole of science is nothing more than a refinement of everyday thinking.*
– Albert Einstein

A number of issues that must be resolved to successfully implement Orders 888 and 889 are of a regional or west-wide scope. One example is the methodology which utilities will use to determine the available capacity of their wires (Available Transmission Capacity or ATC) that is posted for use by wholesale buyers and sellers and the capacity that will be up for re-contracting when existing contracts terminate. Efforts are being made through all of the Western RTG's to develop standard practices for the determination and posting of ATC on the information network. The Authority is directly involved in this activity through its participation in national, regional and local organizations.

## CONGRESSIONAL ACTIONS ON RESTRUCTURING

Several bills dealing with the industry were introduced into the House of Representatives by the 104th U.S. Congress. Some bills were narrow in scope and targeted a single segment of the industry. Among them, as discussed below, were bills for taking the federal government out of the function of generating and transporting electricity. More encompassing restructuring measures dealing with retail consumer choice were also considered and introduced in 1996. Although, there was considerable discussion, the bills did not move forward. The Authority anticipates that both types of bill will be introduced during 1997.

## SALE OF PMAS

During 1996, much Congressional attention was focused on the topic of de-federalization of the Federal Power Marketing Administrations (PMAs), including Western, from which the Authority purchases, and delivers, its allocation of hydroelectric power generated at the Boulder Canyon Project.

Although the concept of de-federalization is not new (the proposal has arisen a number of times in the past), the political makeup of the 104th Congress and the federal budget process revitalized the notion of privatization and gave rise to a number of schemes for the sale or disposition of the PMAs assets. The electric industry met such proposals with varying degrees of acceptance. For the most part, the investor owned utilities voiced strong support for an auction scheme of de-federalization, while municipalities and electric cooperatives voiced opposition.

In the Southwest, the Authority, in cooperation with other entities such as the Salt River Project, Metropolitan Water District of Southern California, Colorado River Commission of Nevada and many of the Authority's customers, formed an independent group to assess the advantages and disadvantages of possible de-federalization. The self-styled Desert Southwest Customer Group, while acknowledging risks, saw a number of advantages in a plan which would allow the existing PMA customers to acquire the generation and transmission facilities of projects which currently provide service to them.

*The reward of a thing well done, is to have done it.*
– Benjamin Franklin

While some of the de-federalization proposals were the subject of committee hearings, no formal action was taken prior to the close of the Congressional session, with the exception of the Alaska Power Administration (whose assets are considerably different from those of other PMAs). It appears certain, however, that the topic will receive renewed attention in the coming year.

The Authority has been, and will continue to be, one of the principal participants in all phases of the ongoing restructuring of the electric utility industry, including proposals to auction off the federal generation and transmission projects which have historically served the needs of the Authority and its customers.

## RETAIL COMPETITION IN ARIZONA

On October 9, 1996, the Arizona Corporation Commission (ACC) adopted proposed rules under which Arizona's regulated utilities would be required to open their service areas to competition. Non-regulated entities will only be allowed to compete for the customers of regulated utilities by first agreeing to comply with all Commission rules, orders, and other relevant provisions. The rules include the concept of retail customer access to all suppliers, plus an important provision allowing for recovery of "stranded investment." Key elements of the proposed rules approved by the ACC include:

- A phase-in of retail customer access commencing January 1, 1999 with 20% of a utility's 1995 system retail peak made available to competitive generation suppliers. The percentage increases to 50% by January 1, 2001 with full competition by January 1, 2003.
- Retail customers will have the option of continuing to receive full service, at regulated rates, from their current provider or switching to an approved alternative supplier for their energy source.
- Beginning January 1, 1999, any approved electric service provider must derive at least one-half of 1% of the total retail energy sold competitively from new solar resources. This percentage increases to 1% by January 1, 2002.

At present, neither the Authority nor any of its customers are subject to regulation by the ACC and, therefore, will not be required to comply with these rules. How retail competition will effect the irrigation and electrical districts in Arizona is unclear. However, it is the Authority's intent to participate in the proceedings before the ACC through which the final rules governing retail competition are to be developed.

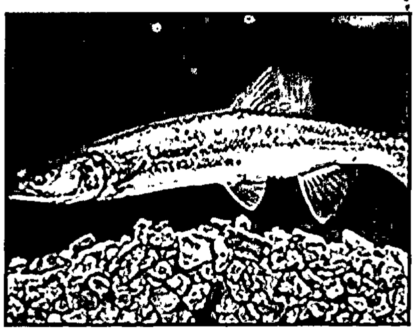
In addition, the state legislature has formed an industry restructuring committee made up of legislators and representatives of public and private utilities, non-utility suppliers, and electric consumers to evaluate competitive issues and retail access alternatives in the state. Although not formally a member of the committee, the Authority will be actively involved with this group.

*Colorado squawfish – North America's largest minnow, the Colorado squawfish once grew to nearly 6 feet long and was called "white salmon" by early settlers.*

*Razorback sucker - This fish can grow to 3 feet long and is one of the largest suckers in North America. Razorbacks evolved about 4 million years ago.*

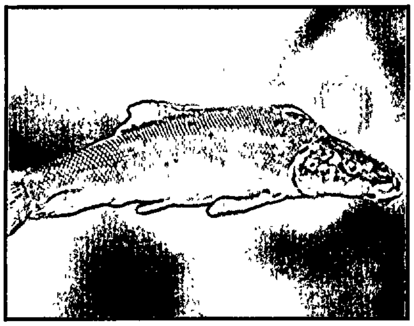
*Humpback chub – Humpback chubs can grow to 20 inches long. A pronounced hump behind its head gives this fish a striking, unusual appearance.*

*Bonytail – Wild bonytails can live nearly 50 years. The rarest of the four endangered fish species, bonytails are now nearly extinct.*



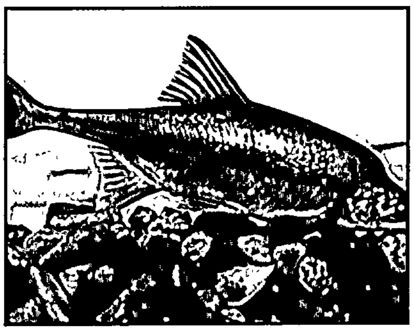
## ENVIRONMENTAL ACTIVITIES

The Authority actively participates in various organizations which are helping to direct the course of environmental/conservation activities related to the Colorado River. These activities are of significant concern to the Authority due to their potential effect on the operations of the Boulder Canyon and Parker-Davis projects. One of the principal organizations in which the Authority participates is the Multi-Species Conservation Program (MSCP).

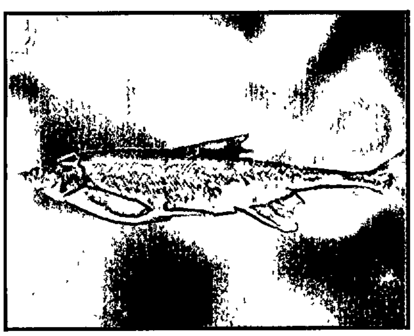


## MSCP

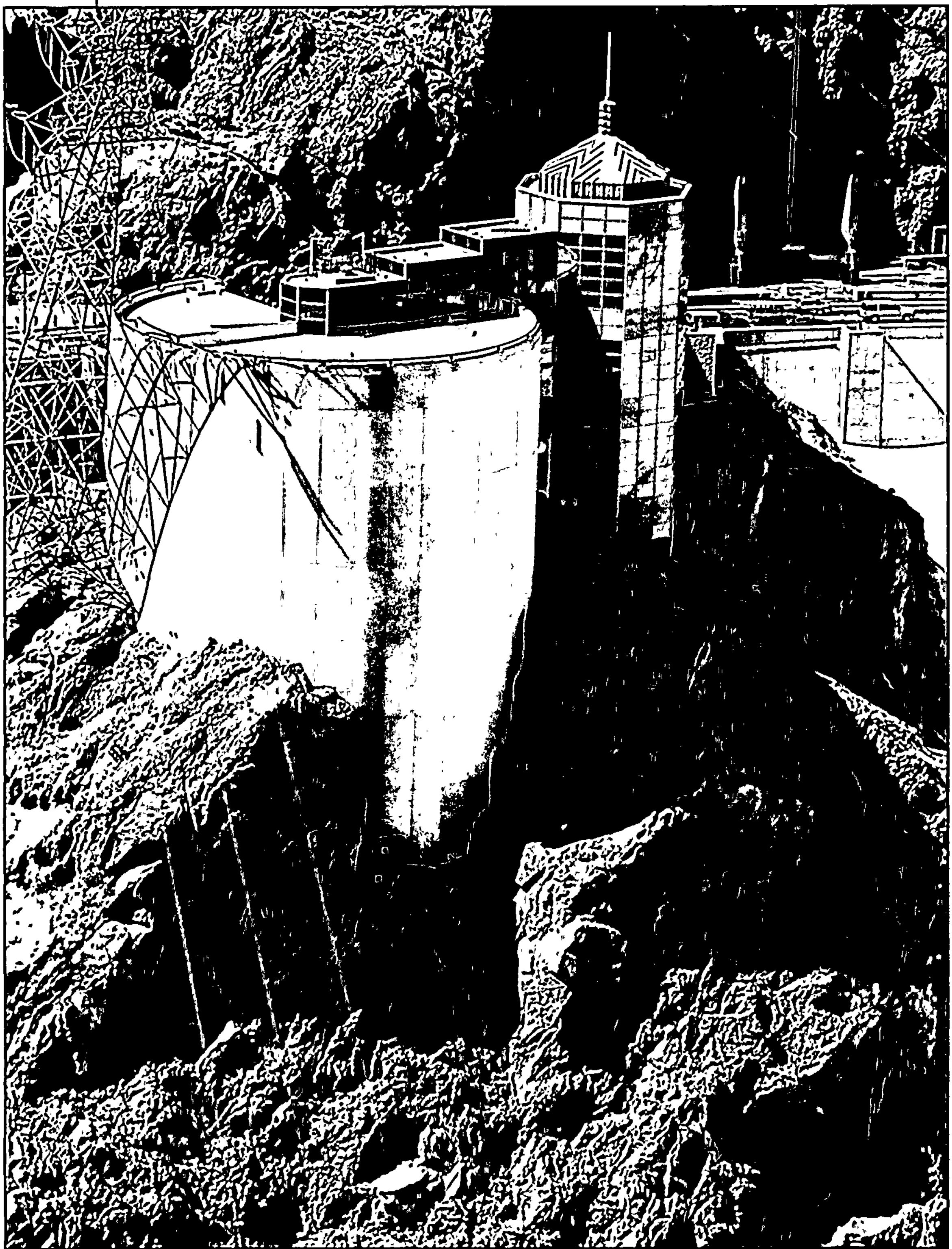
The MSCP is a joint effort by state agencies and water and power interests in the states of Arizona, California and Nevada, along with Native American Tribes, environmental groups and other interests in cooperation with Department of the Interior agencies. The program is intended to develop solutions to Endangered Species Act (ESA) requirements on the Colorado River from Hoover Dam to the Mexican boundary which have minimal impact on present and future development of water and power resources while meeting the requirements of the ESA. The MSCP involves a three year planning period during which the participants working together will develop a long-term (fifty-year) program to address the needs of the endangered or threatened species of the area. In addition, as a demonstration of good faith during the planning period, the MSCP will fund interim conservation measures to assist in conservation of the species.



## CRITICAL HABITAT



Significant sections of the Colorado River and its tributaries have been designated as "critical habitat" areas for four endangered fish: the Colorado squawfish, razorback sucker, bonytail, and humpback chub. These endangered fish exist only in the Colorado River Basin. Efforts to ensure the survival of these species, while allowing for the continued utilization of the River's economic potential, is a major purpose of the MSCP.

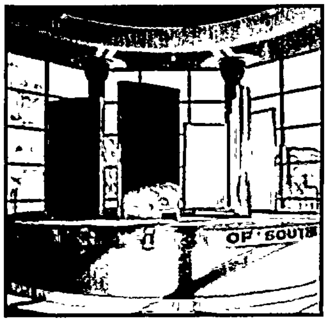


*A view of all seven sculptured panels of the contractor's exhibit.*

*One of the two panels illustrating the benefits to Arizona of Hoover Dam Generation.*

*Second Arizona panel.*

*New Hoover Dam Visitor Facility - The circular concrete structure (left) houses the reception lobby and theater. The glass structure houses the elevator entrance and contractors exhibit on the upper level.*

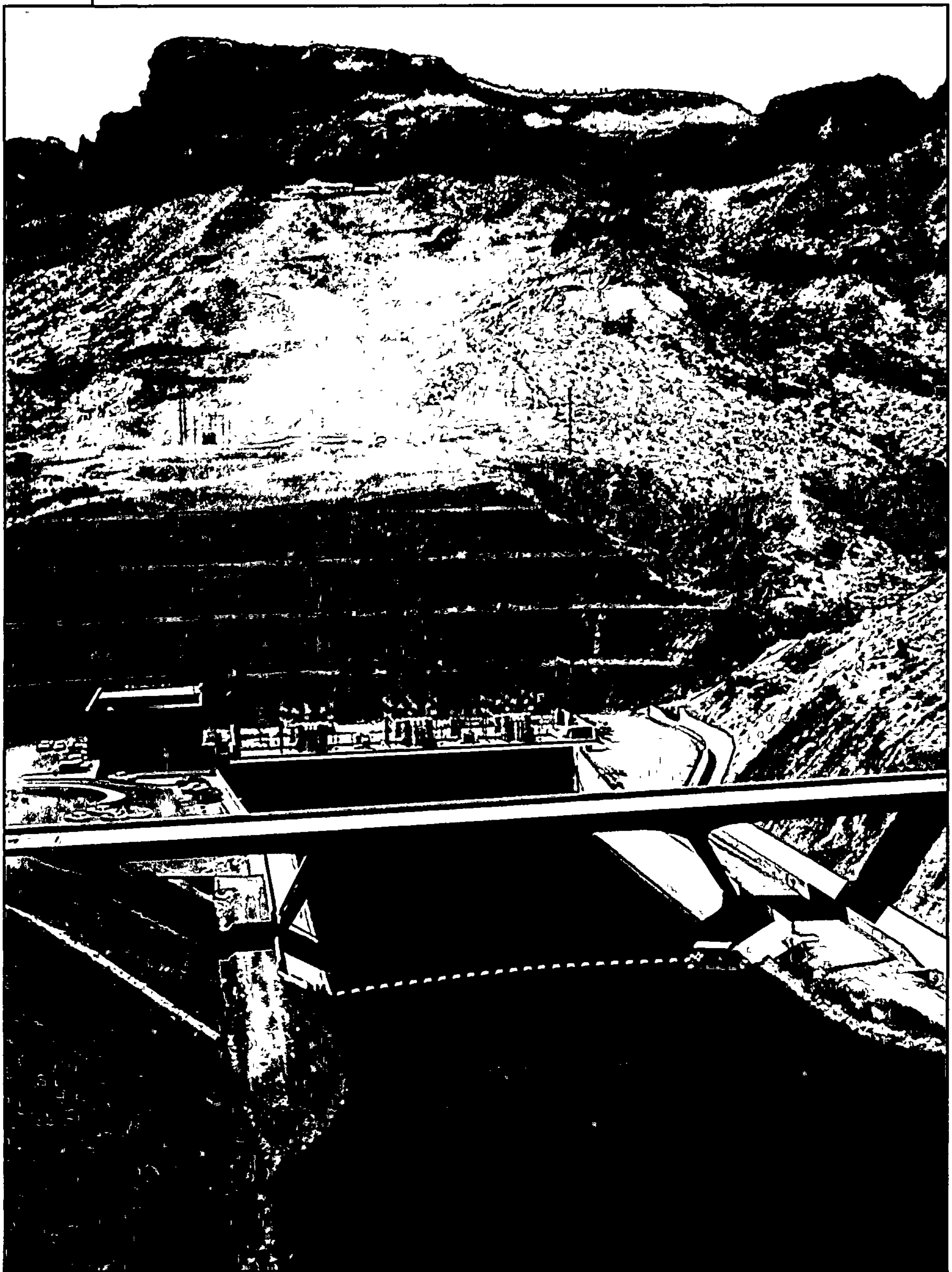


## HOOVER VISITOR FACILITIES

The new visitor facilities, including the Visitor Center, parking structure, passenger elevators, and penstock viewing platform, were opened to the public at Hoover Dam on June 21, 1995. Construction of these new facilities was authorized by the Hoover Power Plant Act of 1984 in an attempt to meet the increasing visitation to the Dam. The costs associated with this facility became an obligation of the Boulder Canyon Project in operating year 1996.

The Visitor Center is a three-level, 110-foot diameter circular concrete structure with a rooftop overlook. The lower level houses the reception lobby, a rotating theater divided into three 145-seat sections, and the tour elevator entrance. This level is also the departure point for the 25 minute tour of the dam and power-house. The tour allows visitors to look at the dam and its power house, and learn about their construction and operation. Visitors see the Dam's hydroelectric generators, stand on the power-plant deck to view the dam's crest 560 feet above them. Two 50 passenger, high speed elevators carry visitors 530 feet down through the rock wall of Black Canyon for the tour. The plaza level, located one floor above the reception lobby, features an exhibit gallery. One floor above the plaza level is an exhibit prepared by the Arizona Power Authority, Colorado River Commission of Nevada, and the Metropolitan Water District of Southern California, to demonstrate Hoover Dam's benefits to the lower Colorado River Basin states of Arizona, Nevada and California. The outdoor viewing area provides an unobstructed view of the dam and powerhouse, Lake Mead, Black Canyon, and the Colorado River 770 feet below. Nearly 32 million people have taken the guided tour of Hoover Dam since the tours were initiated in 1936.

Power contractors of the Boulder Canyon Project are responsible for payment of both debt service and operating expenses associated with the visitor facility. As a result, the operation and revenues received from visitor fees are of significant importance to the power contractors. Debt service obligations are associated with the facility's construction cost of approximately $125 million. This could increase due to additional claims filed by the entities which built the facility. The combination of debt service and operating expenses associated with the facility is approximately $14 million annually. This annual expense was partially offset by revenues of approximately $4.5 million in 1996 from visitor fees. The level of revenues from fees is estimated to increase to approximately $6.5 million for 1997. The Bureau of Reclamation, which operates the facility, is pursuing various options in an attempt to increase the facility's annual revenues.

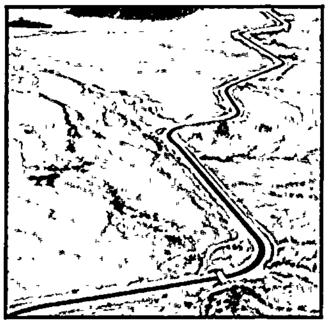


Havasu Pumping Plant – First and largest of the 14 pumping plants incorporated into the aqueduct. Terminus of the aqueduct near Tucson is nearly 2,400 feet higher than its origin at Lake Havasu.

*Central Arizona Project canal snakes its way west of Phoenix, near Tonopah Arizona.*

*New Waddell Dam located about 35 miles Northwest of Phoenix provides approximately 750,000 acre-feet of storage for CAP operations.*

# CUSTOMER PROFILE



The Central Arizona Water Conservation District (CAWCD) is the single largest customer of the Authority in terms of power allocation and revenues. The following customer profile was provided by CAWCD.

## CAWCD MEETS CHALLENGES AND OPPORTUNITIES IN 1996

CAWCD is a tax-levying public improvement district, a political subdivision and a municipal corporation. CAWCD was formed in 1971 for the purposes of contracting with the Secretary of the Interior for the delivery of the water supplies available to the Central Arizona Project (CAP) and the repayment of costs properly allocable to CAWCD. CAWCD is governed by a 15 member Board of Directors elected on a population basis from its Maricopa, Pinal and Pima county service area.

The CAP and its operating entity, the CAWCD, successfully faced a year of opportunities and challenges in 1996. For the third consecutive year, CAP water deliveries set a record. In 1996, for the first time, CAP provided more than one million acre-feet of Colorado River water to cities, industries, farms and Native American communities in Maricopa, Pinal and Pima counties.

Another first occurred for CAWCD when Colorado River water was received directly by Salt River Project (SRP) water users. In June and July, SRP received more than 9,000 acre-feet of CAP water which was used to replace groundwater. SRP ordered an additional 20,000 acre-feet of surplus water from September through the end of the year when the U.S. Department of Interior declared a "surplus condition" on the Colorado River system.

To ensure that adequate supplies of CAP water are available for future use, CAWCD has been proactive in a comprehensive recharge program. CAWCD unveiled its first demonstration water recharge project on August 1, 1996 when the Avra Valley Recharge Project (AVRP) went on-line southwest of Marana, Arizona. AVRP is expected to recharge 8,300 acre-feet of water during the two year life of the pilot study. Plans are currently being developed for a recharge site in the Agua Fria River bed and another in the Tucson area. Significant amounts of incentive priced recharge water was made available for use by municipal and industrial contractors.

CAWCD assumed responsibility for CAP's current and future construction activities, embarking on a massive $30 million dollar project to replace the Agua Fria River siphon and repair of the Centennial Wash siphon in 1996. The new Agua Fria siphon is anticipated to be operational in the summer of 1997.

A major change in near term water deliveries occurred as a result of the passage in Tucson of the "Consumer Water Protection Act" also known as Proposition 200. Problems with the City's treatment of CAP water and an antiquated delivery system led to suspension of CAP direct use. CAWCD made staffing changes to accommodate changes generated by the initiative and has collaboratively worked with Tucson as leaders in dealing with the issue.

At its June 6, 1996 meeting, the Board of Directors of CAWCD adopted a set of strategic planning goals which are: increasing CAP water use; establishing, maintaining and improving appropriate relationships with CAP beneficiaries and other parties impacted by, interested in, or affecting the benefits of CAP for Arizona; promoting the development and use of the Groundwater Replenishment District to meet growing water needs of smaller communities and developments within the three county CAP service area. By ensuring the maximum use of CAP water, CAWCD can prolong the life of Arizona's

underground water supplies, protect the state's interests in the Colorado River from others, and provide the long-term water supply surety that Arizona needs to maintain its quality of life and meet the needs of future Arizona water users. A significant public outreach effort has been initiated to engage all CAP water users, other beneficiaries, and interested parties in the planning and implementation process to ensure that the CAP provides adequate reliable supplies of water at reasonable prices and of sufficient quality. Included in this effort are initiatives to engage Native American Tribes with CAP allocations in discussions and planning for their long-term use of CAP water.

*When the well's dry, we know the worth of water.*
**– Benjamin Franklin**

Underlying these goals is the need for CAWCD to resolve its repayment differences with the United States so that final financial obligations are defined and longer range water rate setting can be accomplished to provide the surety that water users need when contemplating the availability and cost of water supplies to meet their long-term needs.

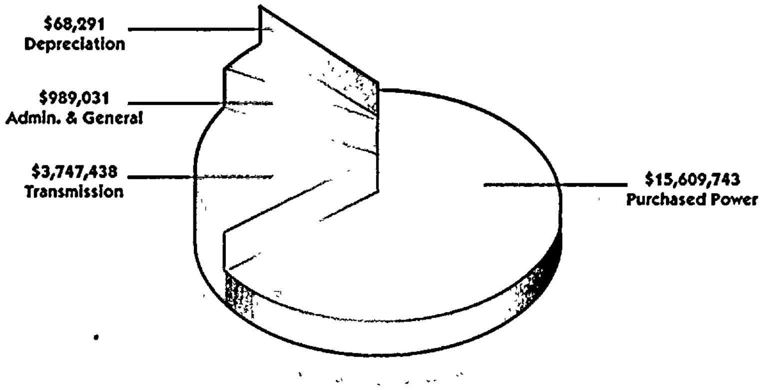
# ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

**Schedule of Capacity and Energy Sales Year Ending June 30, 1996**

| Year Ending June 30, 1996 | Average Billing Demand (kW) | Energy Delivered (kWh) | Sales ($) | Mills Per (kWh) |
|---|---|---|---|---|
| **Sales of Hydro Power** | | | | |
| Aquila Irrigation District | 6,144 | 12,640,000 | 324,599 | 25.68 |
| Avra Valley Irrigation & Drainage District | 648 | 2,764,000 | 55,550 | 20.10 |
| Buckeye Water Conservation District | 2,855 | 6,934,000 | 166,400 | 24.00 |
| C.A.W.C.D. | 137,255 | 183,995,000 | 5,791,642 | 31.48 |
| Chandler Heights Citrus Irrigation District | 790 | 2,400,000 | 53,329 | 22.22 |
| Cortaro-Marana Irrigation District | 4,370 | 13,000,000 | 290,287 | 22.33 |
| Electrical District No. 1, Pinal | 0 | 0 | 0 | 0.00 |
| Electrical District No. 2, Pinal | 16,761 | 69,731,000 | 1,406,332 | 20.17 |
| Electrical District No. 3, Pinal | 18,613 | 70,990,000 | 1,465,069 | 20.64 |
| Electrical District No. 4, Pinal | 8,160 | 40,004,000 | 778,715 | 19.47 |
| Electrical District No. 5, Pinal | 6,632 | 29,140,000 | 582,131 | 19.98 |
| Electrical District No. 5, Maricopa | 297 | 1,049,000 | 22,219 | 21.18 |
| Electrical District No. 6, Pinal | 5,523 | 26,901,000 | 521,879 | 19.40 |
| Electrical District No. 7, Maricopa | 11,579 | 25,217,000 | 632,026 | 25.06 |
| Electrical District No. 8, Maricopa | 21,263 | 50,531,000 | 1,222,618 | 24.20 |
| Harquahala Valley Power District | 3,989 | 8,574,000 | 216,259 | 25.22 |
| Maricopa County Municipal Water District#1 | 10,874 | 22,294,000 | 573,902 | 25.74 |
| McMullen Valley Water Conservation & Drainage District | 7,491 | 18,460,000 | 440,274 | 23.85 |
| Ocotillo Water Conservation District | 1,316 | 4,427,000 | 95,094 | 21.48 |
| Queen Creek Irrigation District | 1,362 | 5,246,000 | 108,259 | 20.64 |
| Roosevelt Irrigation District | 6,277 | 13,554,000 | 340,941 | 25.15 |
| Roosevelt Water Conservation District | 6,861 | 32,924,000 | 638,646 | 19.40 |
| Salt River Project | 23,687 | 113,008,000 | 2,195,496 | 19.43 |
| San Tan irrigation District | 453 | 1,771,000 | 36,591 | 20.66 |
| Silverbell Irrigation & Drainage District | 592 | 2,408,000 | 48,936 | 20.32 |
| Tonopah Irrigation District | 2,025 | 4,763,000 | 115,721 | 24.30 |
| Wellton-Mohawk Irrigation & Drainage District | 1,591 | 9,317,000 | 174,325 | 18.71 |
| City of Mesa | 0 | 0 | 0 | 0.00 |
| City of Page | 884 | 3,205,00 | 66,856 | 20.86 |
| City of Safford | 4,029 | 8,602,000 | 218,251 | 25.37 |
| Town of Thatcher | 992 | 2,449,000 | 58,247 | 23.78 |
| Town of Wickenburg | 1,431 | 4,046,000 | 91,617 | 22.64 |
| Ak-Chin Indian Community | 0 | 0 | 0 | 0.00 |
| Arizona Electric Power Cooperative | 0 | 0 | 0 | 0.00 |
| Arizona Public Service Co. | 0 | 0 | 0 | 0.00 |
| Tohono O'odham Utilities Authority | 0 | 0 | 0 | 0.00 |
| San Carlos Project | 5,283 | 1,768,000 | 143,100 | 0.00 |
| Tucson Electric Power Co | 0 | 0 | 0 | 0.00 |
| **Total Hydro Power Sales** | 320,027 | 792,112,000 | 18,875,311 | 23.83 |
| **Total Thermal Power Sales** | 21,589 | 223,951,000 | 3,228,225 | |
| **Other Electric Sales** | | | 33,819 | |
| **Total Sales** | | | 22,137,355 | |

## OPERATING EXPENSES

The following pie chart illustrates the relative magnitude of the various components which make up the Authority's annual operating expenses. As indicated, the cost of obtaining power for sale to its customers (purchased power) combined with the cost of delivering this power (transmission) comprise the vast majority of the Authority's annual expenses.




## CHANGE IN DEBT SERVICE

With the completion of the Uprating Program at the Boulder Canyon Project, the Authority was able to use monies remaining in its construction fund to defease outstanding debt. The determination of which bonds should be defeased was based on the desire to mitigate expected rate increases at Boulder Canyon over the next few years. The initial defeasance, in March 1996, reduced debt service obligations by $9.3 million over the period 1996 through 2001. Timing of the second defeasance, in October 1996, corresponded with the Authority's restructuring of its debt service reserve funds. This second defeasance reduced debt service obligations by $1.9 million over the period 1997 through 2002.

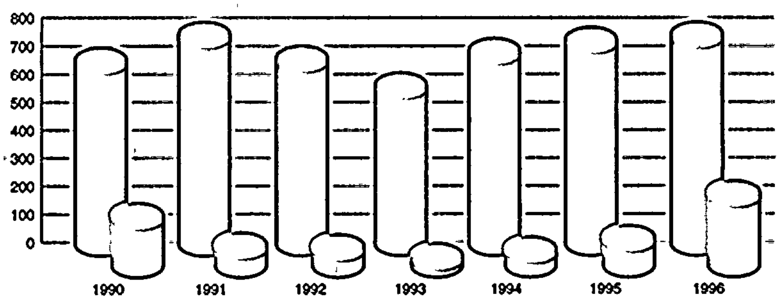
**CHANGE IN DEBT SERVICE OBLIGATION**

| Date | 1993 Issuance Annual Debt Service | March 1996 Defeasance | October 1996 Defeasance | Net Annual Debt Service | Reduction In Debt Service Obligation |
|---|---|---|---|---|---|
| 1996 | $5,376,804 | $ 970,252 | $ - | $4,406,552 | $ 970,252 |
| 1997 | 5,429,444 | 1,710,215 | 72,905 | 3,646,324 | 1,783,120 |
| 1998 | 5,487,864 | 1,768,635 | 72,905 | 3,646,324 | 1,841,540 |
| 1999 | 5,553,579 | 1,834,350 | 72,905 | 3,646,324 | 1,907,255 |
| 2000 | 5,630,454 | 1,911,225 | 72,905 | 3,646,324 | 1,984,130 |
| 2001 | 5,712,029 | 1,152,800 | 912,905 | 3,646,324 | 2,065,705 |
| 2002 | 5,793,909 | - | 697,585 | 5,096,324 | 697,585 |
| Total | $38,984,083 | $9,347,477 | $1,902,110 | $27,734,496 | $11,249,587 |

## HISTORICAL ENERGY SALES

The following graph illustrates the Authority's historical energy sales (GWh) for power obtained from the Boulder Canyon Project and for supplemental sales. Supplemental power is obtained by the Authority for sale to customers on an "as requested" basis. This energy augments the customers' allocation from the Authority.

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|
| HOOVER | 701 | 792 | 707 | 612 | 734 | 773 | 792 |
| THERMAL | 146 | 41 | 34 | 1 | 25 | 65 | 224 |
| TOTAL | 847 | 833 | 740 | 613 | 759 | 838 | 1,016 |



## ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

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# INDEPENDENT AUDITORS' REPORT

ARIZONA POWER AUTHORITY COMMISSION

We have audited the accompanying combined financial statements of Arizona Power Authority (an Agency of the State of Arizona) ("APA") and the separate financial statements of the APA General Fund and the Hoover Uprating Fund of APA as of June 30, 1996 and 1995 and for the years then ended, listed in the Table of Contents. These financial statements are the responsibility of the management of APA. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the combined financial position of APA and the financial positions of the APA General Fund and the Hoover Uprating Fund of APA at June 30, 1996 and 1995 and the results of their operations and their cash flows for the years then ended in conformity with generally accepted accounting principles.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule listed in the Table of Contents, which is also the responsibility of the management of APA, is presented for purposes of additional analysis and is not a required part of the basic financial statements of APA. Such supplemental schedule has been subjected to the auditing procedures applied in our audit of the basic financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

Deloitte & Touche LLP
Phoenix, Arizona
July 31, 1996

# ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

## APA General Fund, Hoover Uprating Fund and Combined Balance Sheets

| June 30, 1996 and 1995 | APA General Fund 1996 | APA General Fund 1995 | Hoover Uprating Fund 1996 | Hoover Uprating Fund 1995 | Combined 1996 | Combined 1995 |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Property, Plant and Equipment-Net (Note 3) | $ 355,284 | $ 388,090 | | | $ 355,284 | $ 388,090 |
| Advances for Hoover Uprating Project-Net (Notes 2 & 5) | | | $52,377,799 | $53,863,368 | 52,377,799 | 53,863,368 |
| Current Assets: | | | | | | |
| Cash (Note 4) | 4,930,662 | 4,932,921 | 5,347,411 | 4,836,987 | 10,278,073 | 9,769,908 |
| Accounts receivable - customers' power purchases | 251,654 | 289,155 | 2,336,512 | 1,865,132 | 2,588,166 | 2,154,287 |
| Interest receivable | 21,845 | 24,274 | 136,475 | 228,463 | 158,320 | 252,737 |
| Prepaid purchased power and other | 164,582 | 52,793 | 1,940,040 | 1,659,157 | 2,104,622 | 1,711,950 |
| Total current assets | 5,368,743 | 5,299,143 | 9,760,438 | 8,589,739 | 15,129,181 | 13,888,882 |
| **Total** | $5,724,027 | $5,687,233 | $62,138,237 | $62,453,107 | $67,862,264 | $68,140,340 |
| **Funds Equity and Liabilities** | | | | | | |
| Fund Equity: | | | | | | |
| Contributed capital | $ 9,000 | $ 9,000 | | | $ 9,000 | $ 9,000 |
| Retained earnings (Note 8) | | | | | | |
| Allocated: | | | | | | |
| Investment in property, plant and equipment | 355,283 | 388,090 | | | 355,283 | 388,090 |
| Property replacement reserve | 844,698 | 785,888 | | | 844,698 | 785,888 |
| General reserves | 4,000,000 | 4,000,000 | | | 4,000,000 | 4,000,000 |
| Unallocated | 292,687 | 217,414 | $ 1,263,062 | $ 236,216 | 1,555,749 | 453,630 |
| Allowance for available-for-sale- security | | | (571,000) | | (571,000) | |
| Total fund equity | 5,501,668 | 5,400,392 | 692,062 | 236,216 | 6,193,730 | 5,636,608 |
| Bonds payable (Note 7) | | | 70,450,000 | 79,105,000 | 70,450,000 | 79,105,000 |
| Discount on Bonds Payable | | | (1,798,878) | (2,096,934) | (1,798,878) | (2,096,934) |
| Less Investment Held By Trustee - Including unamortized net premium on investments of $54,481 and $71,862 in 1996 and 1995, respectively (Note 6) | | | (9,917,685) | (18,088,997) | (9,917,685) | (18,088,997) |
| Bonds payable - net | | | 58,733,437 | 58,919,069 | 58,733,437 | 58,919,069 |
| Current Liabilities | | | | | | |
| Accounts payable | 5,249 | 1,964 | 80,191 | 35,958 | 85,440 | 37,922 |
| Power contracts payable | 217,110 | 284,877 | 1,172,740 | 1,037,548 | 1,389,850 | 1,322,425 |
| Accrued interest payable | | | 929,807 | 1,034,316 | 929,807 | 1,034,316 |
| Bonds payable (Note 7) | | | 530,000 | 1,190,000 | 530,000 | 1,190,000 |
| Total current liabilities | 222,359 | 286,841 | 2,712,738 | 3,297,822 | 2,935,097 | 3,584,663 |
| Commitments and Contingencies (Note 11) | | | | | | |
| **Total** | $5,724,027 | $5,687,233 | $62,138,237 | $62,453,107 | $67,862,264 | $68,140,340 |

See notes to combined financial statement

## ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

**APA General Fund, Hoover Uprating Fund and Combined Statements of Operations**

| Years ended June 30, 1996 and 1995 | APA General Fund 1996 | APA General Fund 1995 | Hoover Uprating Fund 1996 | Hoover Uprating Fund 1995 | Combined 1996 | Combined 1995 |
|---|---|---|---|---|---|---|
| Operating Revenues | $3,262,044 | $1,448,183 | $18,129,811 | $17,751,667 | $21,391,855 | $19,199,850 |
| Operating Expenses: | | | | | | |
| Purchased power (Note 2) | 3,186,839 | 1,407,614 | 12,422,904 | 13,657,756 | 15,609,743 | 15,065,370 |
| Western credits (Note 5) | | | (4,715,284) | (5,118,675) | (4,715,284) | (5,118,675) |
| Amortization of Hoover Uprating Project cost | | | 4,715,284 | 5,118,675 | 4,715,284 | 5,118,675 |
| Transmission and distribution | 4,333 | 6,721 | 3,743,105 | 3,273,051 | 3,747,438 | 3,279,772 |
| Administrative and general | 98,759 | 92,348 | 890,272 | 833,367 | 989,031 | 925,715 |
| Depreciation | 68,291 | 79,406 | | | 68,291 | 79,406 |
| Allocation of depreciation | (43,701) | (55,186) | 43,701 | 55,186 | | |
| Total Operating Expenses | 3,314,521 | 1,530,903 | 17,099,982 | 17,819,360 | 20,414,503 | 19,350,263 |
| Operating (Loss) Income | (52,477) | (82,720) | 1,029,829 | (67,693) | 977,352 | (150,413) |
| Other Income (Deductions): | | | | | | |
| Interest expense (Note 7) | | | (4,103,715) | (4,239,313) | (4,103,715) | (4,239,313) |
| Deferred interest expense (Note 5) | | | 2,920,680 | 3,020,457 | 2,920,680 | 3,020,457 |
| Interest income | 278,211 | 266,663 | 1,175,148 | 1,175,999 | 1,453,359 | 1,442,662 |
| Other - net | (124,458) | (63,340) | 4,904 | 2,524 | (119,554) | (60,816) |
| Total Other Income (Deductions) | 153,753 | 203,323 | (2,983) | (40,333) | 150,770 | 162,990 |
| **Net Income (Loss)** | $ 101,276 | $ 120,603 | $ 1,026,846 | $ (108,026) | $ 1,128,122 | $ 12,577 |

See notes to combined financial statement

## ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

**APA General Fund, Hoover Uprating Fund and Combined Statements of Changes in Fund Equity**

| Years ended June 30, 1996 and 1995 | APA General Fund 1996 | APA General Fund 1995 | Hoover Uprating Fund 1996 | Hoover Uprating Fund 1995 | Combined 1996 | Combined 1995 |
|---|---|---|---|---|---|---|
| Unallocated Retained Earnings: | | | | | | |
| Balance, Beginning of year | $ 217,414 | $ 112,448 | $ 236,216 | $344,242 | $ 453,630 | $ 456,690 |
| Net income (loss) | 101,276 | 120,603 | 1,026,846 | (108,026) | 1,128,122 | 12,577 |
| Net transfers to allocated retained earnings | (26,003) | (15,637) | | | (26,003) | (15,637) |
| Balance, end of year | 292,687 | 217,414 | 1,263,062 | 236,216 | 1,555,749 | 453,630 |
| Allocated Retained Earnings: | | | | | | |
| Balance, beginning of year | 5,173,978 | 5,158,341 | | | 5,173,978 | 5,158,341 |
| Net transfers from unallocated retained earnings | 26,003 | 15,637 | | | 26,003 | 15,637 |
| Balance, end of year | 5,199,981 | 5,173,978 | | | 5,199,981 | 5,173,978 |
| Contributed Capital | 9,000 | 9,000 | | | 9,000 | 9,000 |
| Allowance for Available-For-Sale Security | | | (571,000) | | (571,000) | |
| **Total Fund Equity** | $5,501,668 | $5,400,392 | $ 692,062 | $236,216 | $6,193,730 | $5,636,608 |

See notes to combined financial statement

## APA General Fund, Hoover Uprating Fund and Combined Statements of Cash Flows

| Years ended June 30, 1996 and 1995 | APA General Fund 1996 | APA General Fund 1995 | Hoover Uprating Fund 1996 | Hoover Uprating Fund 1995 | Combined 1996 | Combined 1995 |
|---|---|---|---|---|---|---|
| Operating Activities: | | | | | | |
| Net income (loss) | $ 101,276 | $ 120,603 | $1,026,846 | $(108,026) | $ 1,128,122 | $ 12,577 |
| Adjustment to reconcile net income (loss) to net cash provided by operating activities: | | | | | | |
| Depreciation | 68,291 | 79,406 | | | 68,291 | 79,406 |
| Gain on disposal | 860 | (2,001) | | | 860 | (2,001) |
| Amortization of premiums and discount on investments | | | 17,378 | 3,933 | 17,378 | 3,933 |
| Changes in assets and liabilities: | | | | | | |
| Accounts receivable | 37,501 | (121,527) | (471,380) | 22,863 | (433,879) | (98,664) |
| Interest receivable | 2,429 | 19,921 | 91,988 | 15,030 | 94,417 | 34,951 |
| Prepaid purchased power and other | (111,789) | (33,450) | (280,883) | 524,530 | (392,672) | 491,080 |
| Accounts payable | 3,285 | (528) | 44,233 | 13,525 | 47,518 | 12,997 |
| Power contracts payable | (67,767) | 119,998 | 135,192 | 20,434 | 67,425 | 140,432 |
| Accrued interest payable | | | (104,509) | (7,805) | (104,509) | (7,805) |
| Net cash provided by operating activities | 34,086 | 182,422 | 458,865 | 484,484 | 492,951 | 666,906 |
| Investing Activities: | | | | | | |
| Cash from trustee funds | | | 7,582,934 | 292,188 | 7,582,934 | 292,188 |
| Acquisition of property, plant and equipment | (36,345) | (25,056) | | | (36,345) | (25,056) |
| Net cash (used in) provided by investing activities | (36,345) | (25,056) | 7,582,934 | 292,188 | 7,546,589 | 267,132 |
| Financing Activities: | | | | | | |
| Decrease in advances for Hoover Uprating Project | | | 1,485,569 | 755,070 | 1,485,569 | 755,070 |
| Repayment of bond principal | | | (9,315,000) | (1,115,000) | (9,315,000) | (1,115,000) |
| Discount on bond defeased | | | 206,566 | | 206,566 | |
| Discount on bonds issued | | | 91,490 | 94,244 | 91,490 | 94,244 |
| Net cash used in financing activities | | | (7,531,375) | (265,686) | (7,531,375) | (265,686) |
| Net (Decrease) Increase in Cash | (2,259) | 157,366 | 510,424 | 510,986 | 508,165 | 668,352 |
| Cash, Beginning of Year | 4,932,921 | 4,775,555 | 4,836,987 | 4,326,001 | 9,769,908 | 9,101,556 |
| **Cash, End of Year** | $4,930,662 | $4,932,921 | $5,347,411 | $4,836,987 | $10,278,073 | $9,769,908 |
| **Cash Paid for Interest** | | | $4,117,034 | $4,152,874 | $ 4,117,034 | $4,152,874 |

See notes to combined financial statement

Notes to Combined Financial Statements
Years Ended June 30, 1996 and 1995

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**System of Accounting** - The accounting records of the Arizona Power Authority ("APA") are maintained in accordance with applicable provisions of the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission ("FERC").

**Property and Depreciation** - Property is stated at original cost. The costs of property additions and replacements are capitalized. Replacements of minor items of property are charged to expense as incurred. Costs of property retired are eliminated from plant accounts, and such costs plus removal expenses less salvage are charged to accumulated depreciation.

Depreciation is provided on the straight-line composite method based on the estimated useful lives of the property items, which range from 5 to 44 years.

**Advances for Hoover Uprating Project** - Proceeds from bonds payable are advanced by APA for uprating the Hoover Power Plant and are recorded as advances. Such advances, including debt issue costs, plus net interest expense incurred by APA are reimbursed in the form of credits on the monthly power bills rendered to APA by the Western Area Power Administration of the Department of Energy ("Western"). The credits are issued over the 30 year life of the bonds. Substantially all net interest expense on the bonds is charged to the uprating project as amounts to be recovered from future credits.

**Investments** - In accordance with Statement of Financial Accounting Standards No. 115, Accounting for Certain Instruments in Debt and Equity Securities, APA has classified its marketable debt securities into held-to-maturity and available-for-sale categories. Held-to-maturity securities represent those securities that APA has both the intent and ability to hold to maturity and are carried at amortized cost. Available-for-sale securities represent those securities that do not meet the classification of held-to-maturity, are not actively traded, and are carried at fair market value with unrealized gains and losses included in fund equity.

**Use of Estimates** - The preparation of financial statements in conformity with generally accepted accounting principles necessarily requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

**Geographic and Product Concentration** - All of APA's revenues are derived from the sale of electrical power to contracted customers in the state of Arizona. The Hoover Uprating Fund purchases electrical power solely from Western. The APA General Fund purchases electrical power from various providers in the state of Arizona.

## 2. FUND ACCOUNTING

**Hoover Uprating Fund** - The Hoover Power Plant Act of 1984 ("Hoover Act") authorized the United States Government to increase the capacity of, i.e., "uprate", existing generating equipment at the Hoover Dam Power Plant ("Uprating Project"). Instead of appropriating further federal funds for the Uprating Project, Congress implemented an advancement of funds procedure whereby prospective non-federal purchasers of the uprated Hoover

capacity and associated energy contribute to the financing of the Uprating Project. The Uprating Project was determined to be complete in September 1995. APA financed a portion of the total Uprating Project by issuing bonds (Note 7).

The Hoover Uprating Fund accounts for advances by APA in connection with the Uprating Project. Effective June 1, 1987, APA executed new power contracts with Western and APA customers which expire in 2017. The revenues and expenditures applicable to the sale and transmission of power and energy received by APA from Western under these contracts are accounted for in the Hoover Uprating Fund.

APA General Fund - APA operations other than those applicable to the Hoover Uprating Fund are accounted for in the APA General Fund. The purchase of steam power and the sale and transmission of such power to APA's customers comprise the majority of this fund.

## 3. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment of the APA General Fund at June 30 are as follows:

| | 1996 | 1995 |
|---|---|---|
| Transmission and distribution plant | $ 506,418 | $ 506,418 |
| General plant | 693,564 | 667,560 |
| Total | 1,199,982 | 1,173,978 |
| Less Accumulated depreciation | 844,698 | 785,888 |
| Property, plant and equipment - net | $ 355,284 | $ 388,090 |

The transmission and distribution plant is comprised of a substation and related equipment. Purchased power is delivered over transmission facilities owned by Western.

## 4. CASH

All cash balances of APA are maintained by State of Arizona Treasurer for pooled investment purposes. Statutes require the State Treasurer to invest these pooled funds in obligations of the United States Government. All investments are carried at cost.

## 5. ADVANCES FOR HOOVER UPRATING PROJECT

Advances for the Hoover Uprating Project were reimbursed by Western through credits on APA's power bills in the amounts of $4,715,284 and $5,118,675 for the years ended June 30, 1996 and 1995, respectively. During the years ended June 30, 1996 and 1995, interest expense on the bonds issued to finance the Uprating Project exceeded interest revenue and gain on sale of investments by $2,920,680 and $3,020,457, respectively. These amounts were charged to the cost of the Project.

## 6. INVESTMENTS

As of June 30, 1996 and 1995, investments are insured or collateralized with securities held by APA's agent in APA's name. The amortized cost and estimated fair value of the investment securities at June 30 are as follows:

| | 1996 (Amortized Cost) | 1995 (Amortized Cost) |
|---|---|---|
| Held-to-maturity investments: | | |
| United States government securities | $3,232,223 | $10,100,653 |
| Repurchase agreements | | 7,445,535 |
| Money market | 76,205 | 542,809 |
| Total held-to-maturity investments | $3,308,428 | $18,088,997 |

| | 1996 Amortized Cost | 1996 Fair Value |
|---|---|---|
| Available-for-sale | | |
| United States government securities | $7,180,257 | $6,609,257 |

During 1996, APA transferred a United States government security from held-to-maturity to available-for-sale and recorded the difference between amortized cost and fair value as a component of fund equity. This allowance was adjusted for current market value at June 30, 1996, resulting in a valuation allowance of $571,000. Due to the short-term nature of the held-to-maturity investments, amortized cost approximates fair value.

On December 1, 1993, APA entered into a master repurchase agreement with Morgan Stanley & Co., Inc. ("Morgan Stanley"), wherein APA agreed to effect a series of repurchase transactions with Morgan Stanley in permitted investments. The agreement was terminated during 1996.

## 7. BONDS PAYABLE

On March 29, 1996, APA defeased certain Power Resource Revenue Refunding bonds totaling $8,125,000, which were originally issued in 1993. APA used $7,863,000 to purchase United States government securities which were deposited in an irrevocable trust with an escrow agent to provide for future debt service on the maturity dates defeased. Partial principal and interest amounts of the October 1, 1996 and October 1, 2001 bonds were defeased as well as the full principal and interest amounts of the bonds due from October 1, 1997 to October 1, 2000. As a result, these bonds are considered to be defeased and the liability for these bonds has been removed from the Hoover Uprating Fund.

In prior years, APA defeased other general obligation bonds by the same methods. Accordingly, these trust account assets and related liabilities are not included in APA's financial statements. Including the bonds defeased in the current year, $97,945,000 of bonds outstanding are considered defeased.

The remaining bonds bear interest ranging from 3.7% to 5.6% and are due serially from 1996 through 2017 as follows:

| | |
|---|---|
| 1996 | $ 530,000 |
| 2001 and thereafter | 70,450,000 |
| Total | 70,980,000 |
| Current portion of bonds payable | 530,000 |
| Long-term portion of bonds payable | $70,450,000 |

The fair market value of APA's outstanding bonds payable is estimated to be $68,000,000 based upon current market values of other power revenue bond issuances with similar ratings, maturities and coupon rates.

## 8. RETAINED EARNINGS

Allocations of retained earnings for specified purposes are authorized by the Arizona Power Authority Commission (the "Commission"), APA's governing board, under provisions of the Arizona Power Authority Act of 1944, as amended. The general reserves shown on the accompanying balance sheets are comprised of the following at June 30:

| APA General Fund | 1996 | 1995 |
|---|---|---|
| Resource Development | $3,500,000 | $3,500,000 |
| Operation funds | 200,000 | 200,000 |
| Power contracts | 100,000 | 100,000 |
| System improvements and repairs | 200,000 | 200,000 |
| Total | $4,000,000 | $4,000,000 |

## 9. RETIREMENT AND PENSION PLANS

All APA full-time employees are required to participate in the Arizona State Retirement Plan (the "Plan"), a multiple-employer, cost-sharing pension plan administered by the Arizona State Retirement System (the "ASRS"). The payroll for employees covered by the Plan for the year ended June 30, 1996 and 1995 was $309,863 and $275,233, respectively; APA's total payroll was $313,733 and $280,543, respectively.

ASRS provides for retirement, disability, death and survivor benefits. Retirement benefits are calculated on the basis of age, final average salary and service credit. Members are eligible for retirement benefits on the first day of the calendar month following: 1) the attainment of age 65; 2) the attainment of age 62 and ten years of credited service; or 3) the date when age plus total credited service equals 80. The benefit is based on 2% of final average salary multiplied by the years of service credit. Final average salary is defined as the period of 36 consecutive months during which a participant receives the highest compensation within the last 120 months of service during which the employee made retirement contributions as required by law. The compensation does not include vacation or annual leave, sick leave, compensatory time or any other form of termination pay. Persons who have reached age 50 with at least five years of total credited service may take an early retirement which entitles them to a reduced retirement benefit. Retirement benefits vest after five years of service.

Effective July 1, 1988, members of ASRS became eligible for a disability benefit in the event they become unable to perform their work. A participant continues to earn credit of up to a total of 25 years of service during the period of disability.

Upon termination of employment, a member may withdraw contributions made to ASRS. The acceptance of a refund cancels the individual's rights and benefits in ASRS. Employers' contributions to the System are not refunded.

Covered employees were required by State statute to contribute 3.85% of their salary to the Plan during fiscal year 1995-1996 and 3.75% of their salary during fiscal year 1994-1995. APA is required to match their contribution. Total contributions made by APA and its covered employees were $11,930 for each in 1996 and $10,188 for each in 1995.

The pension benefit obligation is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases estimated to be payable in the future as a result of employee service to date. The measure, which is the actuarial present value of credited projected benefits, is intended to help users assess the public employees retirement system's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among such systems. The Plan does not make separate measurements of assets and the pension benefit obligation for individual employers. The pension benefit obligations at June 30, 1995, for the Plan as a whole, determined through an actuarial valuation performed as of that date, was $10,289,739,678. The Plan's net assets available for benefits on that date (valued at market) were $12,464,462,045. APA's 1995 contribution represented less than one percent of total contributions required of all participating entities, which were $158,559,931 each for employers and employees in 1995 (1996 information not available).

Ten year historical trend information showing the Plan's progress in accumulating sufficient assets to pay benefits when due is presented in ASRS' June 30, 1995, comprehensive annual financial report.

## 10. ADDITIONAL BENEFITS

In addition to the pension benefits described, ASRS offers health care benefits to retired and disabled members that are no longer eligible for health care benefits through their former member employer's group health plan. This program is administered in accordance with ARS 38-781.03. Retired is defined as actively receiving an annuity benefit and disabled is defined as receiving a long-term disability ("LTD") benefit through the LTD program administered by ASRS. ASRS provides the following monthly premium benefits:

| Years of Credited Service | Percent of Premium Benefit | Member Only Not Medicare Eligible | With Dependent(s) Not Medicare Eligible | With Dependent(s) Medicare Eligible | Members Only Medicare Eligible | With Dependent(s) Not Medicare Eligible | With Dependent(s) Medicare Eligible |
|---|---|---|---|---|---|---|---|
| 5.0 - 5.9 | 50% | $ 47.50 | $ 87.50 | $ 72.50 | $ 32.50 | $ 72.50 | $ 57.50 |
| 6.0 - 6.9 | 60% | 57.00 | 105.00 | 87.00 | 39.00 | 87.00 | 69.00 |
| 7.0 - 7.9 | 70% | 66.50 | 122.50 | 101.50 | 45.50 | 101.50 | 80.50 |
| 8.0 - 8.9 | 80% | 76.00 | 140.00 | 116.00 | 52.00 | 116.00 | 92.00 |
| 9.0 - 9.9 | 90% | 85.50 | 157.50 | 130.50 | 58.50 | 130.50 | 103.50 |
| 10.0+ | 100% | 95.00 | 175.00 | 145.00 | 65.00 | 145.00 | 115.00 |

The Arizona State Retirement System reimbursed approximately $28,800,000 towards the cost of group health insurance coverage for the year. This figure represents an increase of 10.34% over the previous year.

## 11. COMMITMENTS AND CONTINGENCIES

In 1990, Western refunded to the Authority approximately $4.6 million of over-collections related to the pre-1987 Hoover Electric Service Contracts. The Authority thereafter made a pro rata refund of this amount to its own pre-1987 customers. Subsequent to the refunds, the Los Angeles Department of Water and Power ("LADWP") and Southern California Edison Company ("Edison") have advised Western of their position that the refunds were incorrectly calculated and that they should have received a larger allocation of the total amount refunded. Based upon its percentage of the overall refund, the Authority might be exposed to a claim of approximately $1,050,000. In the opinion of the Authority and its legal counsel, the refund calculations were entirely appropriate in the first instance and the Authority's risk of exposure is minimal.

# ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

**Supplemental Schedule - Statement of Operations of the Hoover Dam Uprating Fund - Individual Funds and Accounts**
**Year ended June 30, 1996**

| | Revenue Fund | Operating Account | Monthly Payment Reserve Account | Construction Fund |
|---|---|---|---|---|
| Operating Revenues | $18,129,811 | | | |
| Operating Expenses: | | | | |
| Purchased power | | $12,422,904 | | |
| Western credits | | (4,715,284) | | |
| Amortization of Hoover | | | | |
| Uprating Project costs | | 4,715,284 | | |
| Transmission | | 3,743,105 | | |
| Administrative and general | | 890,272 | | |
| Allocation of depreciation | | 43,701 | | |
| Total Operating Expenses | | 17,099,982 | | |
| Operating Income (Loss) | 18,129,811 | (17,099,982) | | |
| Other Income (Deductions): | | | | |
| Interest expense | | | | $(91,190) |
| Deferred interest expense | | | | |
| Interest income | | 157,939 | $170,554 | 259,887 |
| Other - net | | 4,904 | | |
| Total Other Income (Deductions) | | 162,843 | 170,554 | 168,697 |
| **Net Income (Loss)** | $18,129,811 | $(16,937,139) | $170,554 | $168,697 |

| | Debt Service Account | Debt Service Reserve Account | Power Resource Development Fund | General Reserves Fund | Total |
|---|---|---|---|---|---|
| | | | | | $18,129,811 |
| | | | | | $12,422,904 |
| | | | | | (4,715,284) |
| | | | | | 4,715,284 |
| | | | | | 3,743,105 |
| | | | | | 890,272 |
| | | | | | 43,701 |
| | | | | | 17,099,982 |
| | | | | | 1,029,829 |
| | $(4,012,525) | | | | (4,103,715) |
| | 2,920,680 | | | | 2,920,680 |
| | 100,343 | $473,925 | $12,500 | | 1,175,148 |
| | | | | | 4,904 |
| | (991,502) | 473,925 | 12,500 | | (2,983) |
| | $ (991,502) | $473,925 | $12,500 | | $ 1,026,846 |

(Continued)

# ARIZONA POWER AUTHORITY
(An Agency of the State of Arizona)

**Supplemental Schedule - Statement of Operations of the Hoover Dam Uprating Fund - Individual Funds and Accounts**
**Year ended June 30, 1996**

| | Revenue Fund | Operating Account | Monthly Payment Reserve Account | Construction Fund |
|---|---|---|---|---|
| **Net Income (Loss)** | $18,129,811 | $(16,937,139) | $ 170,554 | $ 168,697 |
| Adjustments to Income (loss) under the Power Resource Revenue Bond Resolution: | | | | |
| Changes in assets and liabilities: | | | | |
| Accounts receivable | (471,380) | | | |
| Interest receivable | | (2,343) | 1,560 | 82,604 |
| Prepaid purchase power | | (280,883) | | |
| Accounts payable | | 44,233 | | |
| Power contracts payable | | 135,192 | | |
| Interest payable | | | | |
| Other adjustments: | | | | |
| Amortization of premiums and discounts on investments | | | | (197) |
| Cash from trustee funds | | | | 7,740,211 |
| Repayment of bond principal | | | | (9,315,000) |
| Discounts on bonds issued and defeased | | | | 298,056 |
| Change in advances for Hoover Uprating Project | | | | 4,406,249 |
| Income (loss) as defined under the Power Resource Revenue Bond Resolution | $17,658,431 | $(17,040,940) | $ 172,114 | $3,380,620 |
| June 30, 1996 Cash and investment balance | | $ 2,098,317 | $3,026,804 | $ 335,538 |

NOTE: The above supplemental schedule includes all funds and accounts, as defined by the APA Power Resource Revenue Bond Resolution.

| Debt Service Account | Debt Service Reserve Account | Power Resource Development Fund | General Reserves Fund | Total |
|---|---|---|---|---|
| $ (991,502) | $ 473,925 | $ 12,500 | | $ 1,026,846 |
| | | | | (471,380) |
| 7,963 | 2,084 | 120 | | 91,988 |
| | | | | (280,883) |
| | | | | 44,233 |
| | | | | 135,192 |
| (104,509) | | | | (104,509) |
| 6,441 | 11,134 | | | 17,378 |
| 329,866 | (487,143) | | | 7,582,934 |
| | | | | (9,315,000) |
| | | | | 298,056 |
| (2,920,680) | | | | 1,485,569 |
| $ (3,672,421) | $ | $ 12,620 | | $ 510,424 |
| $1,622,180 | $7,907,776 | $220,000 | | $15,210,615 |

(Concluded)

**ARIZONA POWER AUTHORITY**
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**Debt Service Coverage Ratio of the Hoover Uprating Fund (Unaudited)**

| Year ended June 30, 1996 | |
|---|---|
| Net Income | $ 1,026,846 |
| Add: | |
| Interest Expense (1) | 4,103,715 |
| Depreciation (1) | 43,701 |
| Amortization of Uprating Costs (1) | 4,715,284 |
| Interest Income (2) | 242,571 |
| Total Additions | 9,105,271 |
| Deduction: | |
| Interest Income (3) | (1,175,148) |
| Deferred Interest Expense | (2,920,680) |
| Total Deductions | (4,095,828) |
| Income Available For Debt Service | $ 6,036,290 |
| Debt Service (4) | $ 4,843,357 |
| **Debt Service Coverage Ratio** | 1.25 |

**(1)** Interest expense, depreciation expense and amortization of Uprating Costs are not expenses under the Bond Resolution.

**(2)** Interest income on revenues on deposit in the Debt Service Account and Operating Account is income under the Bond Resolution.

**(3)** Interest income on proceeds of the 1985 and 1993 Series Bonds, other than such proceeds in the Operating Account, are not income under the Bond Resolution.

**(4)** Debt Service is the total of Interest Expense and Principal accrued between July 1, 1995 and June 30, 1996.

ARIZONA POWER AUTHORITY

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*l report upon request can be provided in alternative formats.*