

ENERGY ACQUISITION, CONVERSION, DISTRIBUTION AND SALES

ELECTRICITY GENERATION

PRIMARY SOURCES OF GENERATION (APS-OPERATED POWER PLANTS)

	QUANTITY USED			% OF TOTAL BTUs USED	MWH GENERATED FROM SOURCE	% OF TOTAL GENERATION
	NATURAL UNITS		MMBTU			
	AMOUNT	UNIT				
COMBUSTIBLE FUELS						
Coal	12,109,225	Tons	223,411,723	90.3	21,565,271	39.9
Natural Gas combustion	23,876,682	MCF	24,037,670	9.7	2,074,551	3.8
Diesel	7,599	Gallons	42,091		2,061	
TOTAL USE			247,491,484	100%		
OTHER						
Hydro (excluding pumped storage)					33,560	0.1
Nuclear					30,407,763	56.2
Solar					550	0.001
TOTAL GENERATION					54,083,756	100%

Water is a vital natural resource for traditional electric generating systems, and APS works to minimize its impact on fresh water usage. The Company purchases treated effluent from seven cities in the Phoenix metropolitan area to use as a cooling agent at the Palo Verde Nuclear Generating Station.

Palo Verde is the only U.S. nuclear power plant to use treated effluent as a cooling water source. The Company constructed a 35-mile pipeline that carries treated water from a City of Phoenix sewage treatment facility to Palo Verde. At Palo Verde, an advanced wastewater treatment plant is capable of preparing 90 million gallons of water each day for use in the plant.

In 1999, the plant's water reclamation facility received a total of 22,558,664,730 gallons of treated effluent which, reduced the amount of effluent discharged from municipal wastewater treatment facilities into the lower Salt River and conserved high-quality water.

TRANSMISSION / DISTRIBUTION

APS TRANSMISSION AND DISTRIBUTION BY FUEL SOURCE

SOURCE OF ENERGY TRANSMITTED	MWH TRANSMITTED GENERATED FROM SOURCE	% OF TOTAL
Coal	11,097,852	46.81
Natural Gas Combustion	1,247,624	5.26
Hydro (excluding pumped storage)	33,461	0.14
Nuclear	8,848,660	37.33
Solar	441	0.002
Purchased Power & Interchange Net	2,479,342	10.46
Total Transmission Distribution	23,707,380	100%

By the end of 1999, APS had 4,422 miles of 69 kV and above transmission lines. An additional 873 miles of line is listed in an APS Federal Energy Regulatory Commission report as circuits on another line. Of the 4,422 miles, 14 miles are 230 kV underground and nine are 69 kV underground; 99 percent of the APS transmission

network is above ground. Approximately 20 percent of the APS transmission network is on shared structures (shared right-of-way).

As of January 1, 2000, APS maintained 11,540.8 miles, (52 percent) of above-ground local distribution and 10,710.9 circuit miles, (48 percent) of below ground distribution.

ENSURING RELIABLE SERVICE

Proper maintenance of transmission and distribution lines is critical to APS for delivering reliable electric service to its customers. Electric line maintenance involves more than identifying line faults; it includes pole selection, vegetation management and raptor and wildlife protection. The Company's line maintenance programs are a shining example of APS' beyond compliance activities.

In 1998, APS began to replace its wooden utility poles with steel utility poles. APS tested the steel poles in a variety of Arizona climates and locations to guarantee safety and maximum environmental and economic benefits. Additional research and life cycle analysis indicated that steel is the better economic and environmental material for APS' poles. Steel poles are less vulnerable to high winds and do not transfer any chemicals into the ground.

The APS Vegetation Management program is centered around Integrated Vegetation Management (IVM) techniques that incorporate proper trimming and minimized pesticide and chemical use. APS follows industry tree trimming standards that minimize damage and improve the overall health of the trees. The Company also follows the Edison Electric Institute's (EEI) strategy on pesticide use.

A variety of industry and environmental groups have recognized APS for its best practices and commitment to arborist education. In 1999, the Environmental Protection Agency recognized APS under its Pesticide Environmental Stewardship Program. In addition, APS participated with the U.S. Fish and Wildlife Service in the development of a training video titled *Western*

Rights-of-Way Habitat Management. The Company also received its fourth consecutive Tree Line USA Award.

APS works with a variety of community groups to share its knowledge of vegetation management techniques. The Company offers several tree-care seminars to both the public and working professionals. Topics range from simple tree care, to arborist certification, and to line-clearance training for non-utility workers who may encounter electric lines while working in the field.

Preventing wildlife and birds of prey from contacting electric lines is another APS reliability program. The APS raptor protection program takes the three-pronged approach of prevention, training and partnerships to protect wildlife and birds of prey.

APS uses a variety of tools to prevent wildlife and raptor contact with electricity. The first is to design power poles so that there is at least a 10-foot clearance between conductors. Where a 10-foot clearance is not possible, the Company can install wildlife protection or perching diversion devices to avoid electrical contact.

The Company ensures that employees who work with raptor protection devices receive adequate training, and Customer Call Center employees are equipped to handle any customer reports about wildlife contact or potential contact with APS' electric system. APS also forms partnerships with public and private wildlife rehabilitation organizations to foster an open dialogue and a mutually beneficial learning environment.

SEEKING PUBLIC COMMENT ON SITING LINES AND SUBSTATIONS

APS actively engages the public in the siting of new electric lines and substations, seeking their opinions on the projects, including comments on electromagnetic field (EMF) issues. APS updates local news media and residents about the most recent scientific information about EMF issues. Additionally, APS will measure ambient EMF levels for customers and provide third-party educational materials upon request.