

Our Perspective

Electric Cooperatives of the Southwest

Looking Out for You: *Rate Increases*

One of a Series of Reports Covering:

- *Growth Implications*
- *Rate Increases*
- *Climate Change and the Rush to Renewable Energy*



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Who We Are

Electric cooperatives in the Desert Southwest include: Anza Electric Cooperative, Anza, California; Duncan Valley Electric Cooperative, Duncan, Arizona; Graham County Electric Cooperative, Pima, Arizona; Mohave Electric Cooperative, Bullhead City, Arizona; Navopache Electric Cooperative, Lakeside-Pinetop, Arizona; Sulphur Springs Valley Electric Cooperative, Willcox, Arizona; and Trico Electric Cooperative, Marana, Arizona.

In addition, three cooperatives (Arizona Electric Power Cooperative, Sierra Southwest Cooperative Services and Southwest Transmission Cooperative, all headquartered in Benson) comprise the Arizona Generation and Transmission cooperatives.

We Are Responding to Consumer Concerns

The electric cooperatives are responding to issues the boards of directors and management are facing today and forecast for the future. As Glenn English, the chief executive officer of the National Rural Electric Cooperative Association, announced in early 2008, "With a shortage of electric capacity, huge increases in demand for power, and the cost of climate change, we have the making of a perfect storm."

Many of these concerns have been voiced by cooperative members. However, many cooperative members are unaware of the issues facing the electric cooperatives and their own personal budgets.

These issues include growth implications, rate increases, climate change and the rush to renewable energy. The cooperatives have developed three documents that examine these issues.

This document examines the rate increases issue.

Why Are Co-op Rates Increasing?

Cooperatives have boards of directors who don't like rate increases any more than any other members. Unfortunately, sometimes these boards have to seek rate increases. The reasons for the increases can be varied. Below, several of the major reasons are reviewed.

Wholesale Power Increases

When the firm that generates power for your utility has price increases, those cost increases are going to find their way into the bills of the consumer.

Most wholesale power costs are defined as separate line items in the consumers' bills. Some utilities have a "Power Cost Adjustment" component on the bills that reflects the increases in those wholesale power costs. This will fluctuate as the wholesale firm faces higher or

lower fuel costs and other generation expenses associated with providing power.

Arizona's Generation and Transmission Cooperatives provide power to most of the electric distribution cooperatives in the Desert Southwest. The generation and transmission cooperatives provide either all or a majority of the power to the distribution cooperatives. Navopache Electric Cooperative receives their wholesale power from Public Service of New Mexico.

All generation utilities are facing higher fuel costs.

Natural gas prices have jumped from approximately \$4/MMbtu in 2003 to nearly \$15/MMbtu in 2008, and this trend is likely to continue. The cost of electricity from the generation cooperative that is fueled by natural gas reflects this increase. Additionally, as the price of natural gas goes up, the cost of purchased power follows.

The generation cooperative's fuel costs are also affected by increasing demand for coal that is occurring on a global level. Coal is the primary fuel used by the cooperatives for generation. For 2009, a 50 to 100 percent increase in coal and transportation costs is projected, according to initial pricing estimates.

The Arizona generation cooperative is a captive rail shipper on the Union Pacific railroad line, and therefore, faces serious obstacles in procuring competitive costs to transport coal to its coal-fired plant. This and recent unexpected increases in global coal market demand for coal, are likely to result in a precipitous increase in the combined cost of coal and transportation for the cooperative and other western utilities in the coming years.

Captive rail customers are shippers who must rely on a single railroad to deliver their products. These customers usually move bulk commodities such as coal, grain or lumber, or certain materials that, due to size or characteristics, cannot be moved on our nation's highways.

Arizona's Generation and Transmission Cooperatives have taken a leadership role in a national shippers group, Consumers United for Rail Equity (CURE), which is seeking changes in federal law and policy that would require railroads to provide more competitive pricing and reliable service. CURE's goal is to hold railroads accountable to their customers and the public.

Currently, CURE is working for two major changes in law. First, the coalition supports legislation that will improve the Surface Transportation Board (STB), which is failing in its mission to ensure competition and protect rail customers from railroad monopoly power. Second, CURE supports legislation that removes current railroad exemptions from the nation's antitrust laws.

An umbrella membership organization, CURE includes large trade associations that represent more than 3,500 electric, utility, chemical, manufacturing and forest and paper companies and their customers.

Historically, 20-30 percent of the nation's rail movements have been "captive," with many of these movements covering rural America. Today, in a capacity-constrained rail system, a majority of rail movements may lack competition.

With no competitive options, no antitrust protection, and a passive STB that is failing to provide effective oversight, freight rail customers face unrestrained shipping costs and unreliable service. The resulting cost increases are passed on to consumers who buy their products and use their services.

While the major railroad companies log record profits and stock prices on Wall Street, delays in coal deliveries have caused higher electricity prices on Main Street. Skyrocketing transportation costs are forcing chemical and paper companies to consider moving American jobs overseas. Already a handful of utilities are importing coal from Columbia and Indonesia in order to meet consumer demand because the railroads are not delivering adequate supplies of U.S. coal.

U.S. taxpayers helped build the rail routes and the companies who operate them. A reliable and reasonably priced freight rail system is critical to the American economy and infrastructure. While railroads are enjoying record profits, rail customers are paying more and getting less.

Material Cost Increases

The items used to build components for electrical generation, transmission and distribution systems are in high demand around the world. Emerging nations, notably China and India, are investing huge amounts into their electrical systems. Consequentially, the costs for those components are rising. Plus, the lead times—the period between placing an order and delivery—for those components are increasing, sometimes extending up to 18 months for large transformers.

The cost of substation transformers has risen from 40 to 100 percent since 2004. The price of copper alone has gone up 400 percent between 2003 and 2006, and the price of steel rose 55 percent during that same time frame. With an aging transmission infrastructure, and the demands of growth for additional generation and transmission capacity, these increases in costs will be reflected in the price of electricity we all pay.

A final example of increased material costs is the same many consumers face when they pull up to the pump—gasoline. The combined fleet of bucket trucks, meter-reading vehicles and other motorized equipment at seven distribution cooperatives traveled more than two million miles in 2007.

Labor Shortage

Cooperatives, like other utilities around the country, are paying more to get good people. Certain jobs are demanding more pay, simply because there are few applicants for the positions. Technical positions, such as electrical engineers and meter technicians, and line workers are among those that utilities are increasing wages in hopes of finding qualified personnel.

Growth Issues

More consumers and consumers using more power mean growth. Nationally, cooperatives are growing faster than the national average for utilities. The Desert Southwest cooperatives are growing over the past 10 years at rates of 10 percent on the low side and as high as 90 percent on the high side.

Growth means more materials are needed to supply the new consumers. New poles, conductor, insulators, transformers and meters contribute to the higher costs of supplying power. With new subdivisions come additions to the transmission systems. However, the cost of providing the new generation facility is a much higher cost. Combined, the cost of providing distribution, transmission and generation is increasing.

Federal and Regulatory Mandates

Business is not "as usual" for utilities. The rules they operate under are changing.

The U.S. Congress is considering a number of bills that will impact the way utilities operate. Some climate change proposals currently being considered, if passed, are projected to increase costs by 50-to-80 percent by 2020. Cooperatives are monitoring the legislation.

The Arizona Corporation Commission (ACC) has mandated a portion of the Arizona cooperatives' (except Anza Electric Cooperative) generation be derived from renewable energy resources. The ACC rules associated with the renewable requirements are called the Renewable Energy Standard and Tariff, commonly referred to as the REST Rules. The ACC considers renewable resources to be solar, wind, biomass, bio gas, geothermal and solar daylighting.

Arizona cooperatives are responding to the mandate by instituting a variety of programs.

The Arizona cooperatives provided wholesale power by the Arizona Generation and Transmission Cooperatives have instituted the SunWatts program to comply with the REST Rules.

In addition, the ACC directed the Arizona cooperatives to collect a fee to help pay for the REST program.

Currently, customers in the service territories of Duncan Valley Electric Cooperative, Graham County Electric Cooperative, Mohave Electric Cooperative, Navopache Electric Cooperative and Trico Electric Cooperative are paying the following fee. For residential customers the fee is \$0.04988 per kilowatt hour up to a monthly cap of \$1.05. For commercial customers, the cap is \$39. For customers whose demand is 3,000 kilowatts for three consecutive months, the cap is \$117.

Sulphur Springs Valley Electric Cooperative charges \$0.005 per kilowatt hour subject to the maximums per month.

Maximums:

- \$1.30 for residential consumers
- \$42.00 for commercial and industrial accounts
- \$150.00 for industrial (over 3 megawatts load)

What Is the Rate Increase Process?

The process a cooperative takes to implement a rate increase first requires approval from the board of directors. The cooperative then files this request with the Arizona Corporation Commission (ACC). This begins the ACC's time clock rules. The timeline includes the following steps:

- ACC has 30 days to review for sufficiency (if found insufficient then time clock stops until utility makes it sufficient).
- ACC has 12 months to rule on rate case from the sufficiency date (so 13 months total processing time).
- After application has been declared sufficient, ACC ALJ will issue a procedural order that sets hearing and public comment date and testimony due dates, and public notice information that must be provided to customers by the utility. ACC Staff typically have 6 months from sufficiency date to file testimony.
- Hearing is usually held approximately 3 months before the deadline of when the application must be processed by the ACC.
- After the written testimony has been filed by the parties, a hearing is held where witnesses are cross-examined and provide verbal testimony on outstanding issues.
- After the hearing has been held, the ALJ will draft a Recommended Opinion and Order (ROO) based on the record and testimony provided. The ROO states an open meeting date when the ACC commissioners will vote to approve, amend or decline rate case.
- After the ACC Commissioners approve the rate application in an ACC Decision, there is usually a 30 day period before the rates become effective.
- Within that 30 day period, the electric cooperative must file tariffs that are in compliance with the ACC Decision.

Several cooperatives have indicated rate increases are being considered. Mohave Electric Cooperative, Navopache Electric Cooperative and Trico Electric Cooperative are all considering filing rate cases in the next few years.

Graham County Electric Cooperative filed for a rate case that was approved in April of 2008. Duncan Valley Electric Cooperative filed for and received a rate increase in December of 2004. Arizona Electric Power Cooperative and Southwest Transmission Cooperative received a rate increase in August of 2005 that was in three steps. The first step was in 2005. The second step was in 2006 and third step was in 2007. Sulphur Springs Valley Electric Cooperative announced in late June 2008 that after 16 years without a rate adjustment the cooperative was seeking an approximately 11.75 percent increase to be effective in late 2009 or early 2010.

What Are Co-ops Doing to Avoid Increases?

Statewide Group Purchasing Committee

The Desert Southwest cooperatives have formed a committee which is charged with providing a forum to consider and discuss common, standard materials available for group purchase. Upon analysis, the committee initiates those purchase opportunities that make economic sense to their cooperatives. These purchases include conductor, cross-arms, transformers and meters. In a three year period, the participating cooperatives jointly saved more than \$1 million compared to making the purchases individually.

Adopting New Technology

Cooperatives are embracing technology which could streamline their operations and ultimately save money. Smart meters and automated meter reading systems, which communicate data to the utility, have the potential of reducing outage times and cut some operation costs. Several of the cooperatives in the Desert Southwest have begun implementing these systems.

Cooperative Research Network

The cooperatives participate in a national network of research to find savings in their operations. The Cooperative Research Network (CRN) monitors, evaluates and applies technologies that help electric co-ops control costs, improve productivity and enhance member/customer service. Several of the Arizona cooperatives have participated in some of the studies conducted by CRN.

Processes Reviews

Much like CRN looks at technologies that can improve operations, many of the cooperatives in the past several years have done process evaluations to see if their work procedures can be improved. Most of the Desert Southwest cooperatives participate in a joint loss control and safety training program designed to reduce their exposure to safety violations and the expenses related to the accidents.

SPPR

Southwest Public Power Resources Group (SPPR Group) is an association of approximately 40 not-for-profit electric utilities, including cooperatives, municipalities, tribal power authorities, and irrigation and electrical districts, located in Arizona, southern California and southern Nevada. SPPR Group allows its members to jointly identify and develop

a variety of electric power supply projects, aggregate power purchases, and provide other related services to achieve economies of scale and efficiencies not obtainable by individual members. The electric cooperatives in Arizona and southern California are members of SPPR.

In the rapidly growing Southwest, power supply resource capacity is becoming fully utilized requiring utilities to plan and construct new generation to meet future electrical needs. The efficiencies created by SPPR Group allow its members to more effectively balance the energy needs of their consumers with the economic and environmental considerations of electricity supply.

What Can Members Do?

Energy Audits

Many of the electric cooperatives offer professional energy audits.

These include:

- Mohave Electric Cooperative – residential and commercial audits available on-site and over phone at no cost;
- Navopache Electric Cooperative – offers heat loss studies for members;
- Sulphur Springs Valley Electric Cooperative;
- Trico Electric Cooperative directs members to their web site which has a number of audit tools and their customer service representatives are trained to address audit issues over the phone.

In addition to on-site, physical audits, there are other resources for the do-it-yourself consumers. On-line audits are available to residential and commercial customers. These include the following resources:

http://www.eere.energy.gov/consumer/your_home/energy_audits/index.cfm/mytopic=11160

http://www.energystar.gov/index.cfm?fuseaction=home_energy_yardstick.showStep2

<https://touchstoneenergy.cooperative.com/public/programs/energyefficiency/lblfiles/launch.htm>

Energy Efficiency

By purchasing energy efficient appliances, consumers can reduce the amount of electricity they consume. This lowers their bills.

An added benefit is that more efficient appliances reduce the amount of the electrical demand the cooperative must supply.

- Duncan Valley Electric Cooperative offers their members a low-fixed rate five year loan for energy efficient heating and cooling systems.
- Mohave Electric Cooperative offers a rebate of \$150 for new heat pumps.
- Navopache Electric Cooperative offers \$25 per kilowatt for the ETS heaters that it sells to their consumers. The cooperative also has an electric water heater rebate program. For new construction or gas replacement and time of use (TOU) there is

a \$70 rebate plus a timer. For new construction or gas replacement on regular rate there is a \$50 rebate. For replaced electric and TOU, the rebate is \$50 plus timer and for replaced electric on the regular rate, the rebate is \$50. There must be a five year time lapse for the cooperative to replace a water heater if member has used this program. The cooperative also has a weatherization loan program (low interest of 5 percent) for heaters, roofing, insulations, etc.

- SSVEC offers an energy efficient new and existing home program, energy audit and load calculations and energy efficiency advertising and education program.

CFLs

Switching from traditional light bulbs to CFLs is an effective, accessible change every American can make right now to reduce energy use at home. Lighting accounts for close to 20 percent of the average home's electric bill. Compared to incandescent bulbs, CFLs last up to 10 times longer and provide a quick return on investment.

See an energy/money savings calculator at

<https://touchstoneenergy.cooperative.com/public/EnergyEfficiency/LightBulbCalculator.html>.

Many cooperatives are promoting CFLs.

- Anza Electric Cooperative has donated CFLs to local charitable organizations for fundraising opportunities.
- Duncan Valley Electric Cooperative has donated CFLs to local charitable organizations for fundraising opportunities.
- Mohave Electric Cooperative is developing a program for roll-out in the fall of 2008.
- Trico Electric Cooperative offers CFL recycling in its lobby. The cooperative also donates CFLs to locate charitable organizations for fundraising opportunities.

There is some concern about CFLs since they contain mercury. To learn more about CFLs and proper disposal see

https://www.energystar.gov/ia/partners/promotions/change_light/downloads/Fact_Sheet_Mercury.pdf.

Energy Star

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping consumers save money and protect the environment through energy efficient products and practices.

In 1992 the US Environmental Protection Agency (EPA) introduced ENERGY STAR as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Computers and monitors were the first labeled products. The ENERGY STAR label is now on over 50 product categories including major appliances, office equipment, lighting, and home electronics. EPA has

also extended the label to cover new homes and commercial and industrial buildings.

Look for new household products that have earned the ENERGY STAR. They meet strict energy efficiency guidelines set by the EPA and US Department of Energy. You can identify them by the blue ENERGY STAR label:



To learn more about ENERGY STAR, visit www.energystar.gov.

Levelized Billing

Many utilities offer levelized billing programs. By averaging the monthly costs of a period of time, consumers don't face the higher costs associated with high consumption months that typically are associated with heating and air conditioning in the winter and summer months.

The following electric cooperatives in Arizona and southern California offer a levelized billing program:

- Duncan Valley Electric Cooperative – 12-month rolling average plan;
- Mohave Electric Cooperative – 12-month average plan offered over eleven months with the 12 month used as an adjustment for over/under payment adjustment; offered to members in good standing.
- Navopache Electric Cooperative – 12-month average plan offered with adjustments made in August; offered to members in good standing.
- Trico Electric Cooperative – 12-month rolling average plan.

What Does the Future Hold?

New Generation

The utility business is very capital intensive. It takes large amounts of money to build the power lines, transmission lines and generation facilities to supply consumers. Because of the growth, the electric cooperatives will be adding additional generation. The cost of that needed generation and associated transmission are going to raise electric rates.

In Arizona, utilities regulated by the ACC, including the electric cooperatives, have been mandated to invest in renewable energy. At this time, the energy from renewable energy sources tends to have higher costs compared to energy generated by fossil-fuels.

Federal Legislation

Congress is considering a number of energy related bills which would require utilities to change the way they have traditionally operated. Stated goals of the legislation are to reduce the carbon dioxide and other fossil-fuel burning emissions in the Earth's atmosphere to lessen the impact of climate change. Utilities do not know what the final language will be, so plans to comply are not yet developed. Some estimate the cost to comply with the legislation could drive electric costs upward of 40 percent by 2025.

Summary

Growth, both in individual usage and number of consumers, is one of the leading reasons for utilities investing in additional distribution, transmission and generation facilities. These investments result in higher costs. Other items with increased costs included government mandates, fuel, fuel delivery, labor and materials. Cooperatives are working together and individually to provide customers with programs to lower their consumption of electricity. However, the need for additional infrastructure, projected increases in labor, fuel and materials, along with the uncertainty of federal legislation, will all play a part in driving the cost of electricity higher.