July 29, 2014

Via e-mail to mike@powerauthority.org,
original hand-delivered

Mike Gazda
Arizona Power Authority
1810 W. Adams Street
Phoenix, AZ 85007

Re: Comments on APA Issue Paper on Post-2017 Hoover Allocation (June 24, 2014)

Dear Mike:

This letter constitutes written comments by Electrical Districts Nos. 2, 3, 4, and 5 of Pinal County, Arizona (the "Districts") on the Arizona Power Authority's June 24, 2014 Issue Paper regarding the Post-2017 Hoover Power Allocation ("Issue Paper"). The Districts have attended the consultants' workshops and other meetings held by the APA relating to this matter, and they appreciate the opportunity to continue to provide input on the process.

1. The Districts

Each of the Districts is an APA customer and an existing recipient of Hoover power. The service area of each District lies in Pinal County, Arizona. Electrical District No. 2 was formed in 1923 and has a service area that covers approximately 120,000 acres in the vicinity of Casa Grande, Coolidge, and Florence. Electrical District No. 3 was formed in 1926 and has a service area that covers approximately 245,500 acres, generally around Maricopa and Stanfield. Electrical District No. 4 was formed in 1928 and has a service area that covers approximately 110,000 acres near Eloy. Electrical District No. 5 was formed in 1946 and has a service area that covers approximately 75,000 acres, generally south of Eloy.

Although some urbanization has occurred in the area in recent years, the service area of each of the Districts remains primarily agricultural. Most of the farmers to whom each District supplies power are also landowners within the Hohokam Irrigation and Drainage District, the Maricopa-Stanfield Irrigation & Drainage District, or the Central Arizona Irrigation and Drainage District ("Pinal County Irrigation Districts"). Many of those farmers currently receive Central Arizona Project ("CAP") water, which they use in conjunction with

groundwater withdrawn from wells using pumps powered by electricity served by the Districts. As the availability of CAP water is curtailed as currently planned starting in 2017 and completed in 2030, the Districts expect that many of those farmers will need to increase their pumping of groundwater, thereby further increasing the demand for electricity to operate those pumps and making the Districts' federal hydropower resources even more important. The CAP curtailments could occur much more quickly if the Secretary of the Interior declares a shortage on the Colorado River in 2016 or 2017, as currently anticipated.

2. Comments on the APA Issue Paper

The Districts' comments on particular aspects of the Issue Paper are set forth below. The number of the corresponding section in the Issue Paper is noted at the end of each heading.

a. Length of contracts (§ I)

The Districts agree with the statement in the Issue Paper that the contract term length is a policy decision for the APA and largely not a legal issue. The Districts continue to support as long a contract term as possible, preferably fifty years.

b. Reimbursement (§ IX)

The Districts generally agree with the prior comments submitted by the law firms of Moyes Sellers & Hendricks and Ryley Carlock & Applewhite on behalf of their respective clients regarding reimbursement of costs by new allottees, with respect to three specific categories. First, all new D-1 and D-2 allottees should be required to reimburse existing customers for a pro rata share of "repayable advances"—i.e., those costs that then-existing Hoover customers have been billed for the full amount of a capital expense in the year in which the expenditure was made.

Second, all new allottees should be required to pay their fair share of the amounts spent by the APA on legal and technical consultants in developing the Hoover Allocation Post-2017 Plan and application process. These expenditures benefit existing customers and new customers, but the entire cost is currently being borne by the existing customers. The Districts strongly support requiring the new APA allottees to pay a reimbursement fee on a pro rata basis, with such fee being paid or credited to the existing customers in proportion to their pre-2017 contributions.

Third, at the July 15, 2014, APA Commission meeting, considerable discussion occurred regarding the advance that the APA made to the Western Area Power Administration in order to pre-pay for Intertie transmission service. If that amount is to be collected from the existing APA Hoover customers and remains in place to pre-pay the first month's transmission service for new customers, the new allottees also should be required to reimburse the existing customers in the same way as the repayable advances are reimbursed.

c. Seasonal allocations (§ X)

The Districts are not in favor of the APA making seasonal allocations of Hoover for the post-2017 period. Instead, the Districts continue to believe that the existing Resource Exchange program allows sufficient flexibility to accommodate the difference between entities with summer peaks and those with winter peaks.

d. Power Purchase Certificates for existing customers (§ XII)

The Issue Paper recommends that APA customers with existing Power Purchase Certificates should be separately analyzed to determine whether their Certificate will expire with the existing Power Sales Contract for post-1987 Hoover power. The Districts have been informed that many (if not all) of the existing Power Purchase Certificates contain the following sentence: "This certificate shall terminate upon termination of the Authority's Power Sales Contract with the above-named entity . . ." The term "Power Sales Contract" is not defined in the Power Purchase Certificate. At the time most of these Power Purchase Certificates were issued (1987 and later), however, the Certificate holders and the APA were parties to the contract dated September 15, 1986, entitled "Power Sales Contract," providing for the long-term sale of Hoover power. In addition, some time after the Power Purchase Certificates were issued in 1987, the APA revised its rules, adding "Power Sales Contract" as a defined term. Under the rules, Power Sales Contract means a contract under which the APA sells Long-term Power to a Purchaser. *See* A.A.C. R12-14-101.15.

The Districts suggest that the Commission confirm (perhaps by resolution) that, if an existing Power Purchase Certificate holder holds a Power Purchase Certificate with substantially the above-quoted language, the Power Purchase Certificate will not terminate so long as the holder is a party to any Power Sales Contract, as defined in A.A.C. R12-14-101.15.

e. Application process and opportunity to cure (§ XIII)

The Districts concur in the recommendation, set forth in Section XIII of the Issue Paper, that the APA adopt a "pre-approval" process for applications for Hoover power.

f. Assumptions related to the 2011 Act (§ XIV)

The Districts, like the other existing Hoover customers, support the renewal of the Hoover A contracts of all existing customers at their respective capacity levels consistent with the five percent reduction in energy that was withheld to create the Hoover "D" pool. The existing customers have contributed their time and resources to protect, maintain, and improve the Boulder Canyon Project and to assure that the APA continues to be entitled to the vast majority of its allocation, with the potential to increase the amount of Hoover power coming to Arizona.

The Issue Paper refers to the assumption and expectation of many of the existing customers that the APA will allocate power consistent with the 2011 Act. That was and is the Districts' assumption and expectation, as well. The existing customers did far more than simply "support" the 2011 legislation, they actively promoted it and effectively helped cause its enactment. Several of the customers, including some or all of the Districts, expended substantial resources in making trips to Washington, D.C., in order to ensure passage of that legislation. Representatives of the customers also were actively involved in working with California and Nevada to resolve any interstate differences and to get the bill passed.

Section XIV of the Issue Paper discusses whether the APA is required by law to offer existing customers an amount of power equal to existing allocations, less the five percent (5%) pool of power created by federal law for new entrants. Regardless of the answer to the legal issue, strong policy reasons exist for the APA to adopt this allocation. Among those policy reasons is the fact that the existing customers spent their time and resources to get the federal legislation passed, for their own benefit and the benefit of the APA and the new allottees, and have made considerable investments in the Hoover infrastructure over the years.

g. Data submission and standardization (§ XV)

As stated above, the Districts share in the commonly expressed desire of the existing customers that the Hoover A contracts of all existing customers be renewed at their respective capacity levels consistent with the five percent reduction in energy that was withheld to create the Hoover D pool. The Districts recognize, however, that the APA Commission is interested in at least examining alternative methodologies for allocating post-2017 Hoover power. If the APA is to seriously consider adopting any such alternative methodology, it is critical that any data that it collects and analyzes for that purpose be reliable and consistent. Using inconsistent data could produce an outcome that favors one applicant over another simply due to how the APA collects and analyzes the data.

(1) Load measurement

Section XV of the Issue Paper contains considerable discussion regarding how to collect load data from the various applicants. That section states that the desired location for measuring load is at the transmission delivery point. As the Issue Paper acknowledges, however, many of the prospective applicants are districts that consist of a group of meters connected to a third party's distribution system. Although some likely applicants (such as these Districts) do own and operate distribution systems that can be metered at the transmission delivery point, many do not. Therein lies the problem with using load data as a basis for allocation. Because the Issue Paper contemplates using system peak demands as a potential factor in developing allocation methodologies for post-2017 Hoover power, any calculation of coincident peak demand that would be derived from the summation of kilowatt-hours of the individual retail meters must be based on an assumed coincidence factor. This can result in a large variation of peak demands.

The following hypothetical example illustrates this point:

Entity A consists of 400 individual accounts with total annual sales of 50,000,000 kWh and an assumed annual coincidence factor of 45 percent.

Entity A's computed peak demand would be 50,000,000 kWh divided by 8760 hours divided by .45, which would equal 12,684 kW

Entity B consists of 300 individual accounts and also has annual sales of 50,000,000 kWh, but has an assumed annual coincidence factor of 55 percent.

Entity B's computed peak demand would calculate out to be 10,378 kW.

Entity A's peak demand would be 22 percent higher than entity B's number.

This example uses annual sales, but the same result could occur if monthly data was used. Another complicating factor would be the calculation of system losses that would need to be added to the retail energy sales to produce a number that corresponded to the level of the transmission system delivery point. Using calculated peak demand values together with actual measured values will inevitably produce distortions that will flow through any allocation methodology that incorporates annual or monthly peak demands.

Use of one month's peak demand in the allocation methodology while ignoring the other months also could produce winners and losers. Consider that cropping patterns differ among districts, such that some districts might have farmers that specialize in summer crops (such as cotton) and farmers in other districts might have a larger seasonal diversity of crops planted (such as alfalfa and barley).

The Commission could choose to simplify calculating peak demands by using one coincidence factor that applies to all applicants. This also would create distortions and grounds for disagreement, however, especially if actual coincident peak demand values are available from some of the applicants. To use a standard assumed peak demand calculation instead of a known coincident peak demand for a particular entity could subject the Commission to considerable scrutiny and challenge.

If the Commission desires to use actual load data as a basis for allocating post-2014 Hoover power, it probably should stick to using kilowatt-hour sales at the retail level and not attempt to factor demand data into the formula. There does not appear to be any statutory provision requiring consideration of peak demands in determining allocations of Hoover power to applicants.

(2) Pumping equivalents

The Issue Paper also invites a more in depth discussion of temporarily available surface water that ultimately will need to be replaced, or partially replaced, by pumped

groundwater. The Districts are likely to have more pressure to replace CAP supplies to serve electricity to their customer Pinal County Irrigation District due to the fact that these Districts receive the majority of the Central Arizona Irrigation Project Agricultural Pool Water ("Ag Pool"). This water supply will be reduced in 2017, 2024, and eliminated by the end of 2030. In all likelihood, these reductions will be much deeper and come sooner as a result of shortage declarations on the Colorado River because the Ag Pool has one of the lowest priorities within the CAP. Many CAP irrigation districts have additional CAP supplies through "in lieu" storage agreements with higher priority CAP contractors, such as the cities and Indian tribes. The vast majority of these agreements are situated in the Phoenix Active Management Area ("AMA"), as opposed to the Pinal AMA. Many of the Phoenix AMA storage agreements likely will remain in place after 2030 and/or post shortage declarations due to the higher priority water utilized in the Phoenix AMA arrangements. A "deep dive" into this issue requires recognition of this fact.

(3) Difficulties in distinguishing based upon type of use

An overarching factor in many alternative methodologies the Commission might consider is the type of customer classes to be given preference over other classes. Most applicants likely are capable of developing data by customer class (e.g., residential, commercial, agricultural, municipal and industrial). If the Commission were to differentiate among customer classes, it likely would favor those that could be classified as "agricultural" in nature over other classes. As the Issue Paper recognizes, however, there is a broad range of loads representing a variety of energy uses that must be parsed to produce an aggregate "agricultural" class of loads. For instance, if irrigation loads are given preference, do golf courses that pump water to irrigate their fairways qualify as an irrigation load? How about municipally-owned golf courses versus private courses? Should they be treated the same? What about dairies, cattle feedlots, and food processing facilities?

3. Summary of Districts' Comments

Although the Commission has wide discretion in choosing a methodology to allocate post-2017 Hoover power among the applicants, virtually any methodology chosen will inevitably be based on assumed data points. Rather than create a mix of winners and losers among the entities who already receive Hoover power (A or B) by creating a new methodology to develop allocations, maintaining the contract levels for the existing Hoover A and B customers would produce a result that would be less divisive. The APA still would have flexibility in developing an appropriate methodology for determining Hoover D-2 allocations for new entrants.

Thank you again for the opportunity to submit these comments. We look forward to continuing to work with the Commissioners and the APA staff as we move through the allocation process. If you need any additional information, please contact any of us directly.

Sincerely,

Thomas S. Martin
General Manager, ED2

William H. Stacy
General Manger, ED3

Ron McEachern
General Manger, ED4 & ED5

District Contact Information

Electrical District No. 2
P.O. Box 548
Coolidge, AZ 85228
(520) 723-7741

Electrical District No. 3
41630 W. Louis Johnson Drive
Maricopa, AZ 85239
(520) 424-9311

Electrical District No. 4
P.O. Box 605
Eloy, AZ 85131
(520) 466-7336

Electrical District No. 5
P.O. Box 576
Eloy, AZ 85131
(520) 466-7336