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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
Bob Stump - Chairman
Gary Pierce
Brenda Burns
Bob Burns
Susan Bitter Smith

IN THE MATTER OF THE COMMISSION'S INQUIRY INTO RETAIL ELECTRIC COMPETITION

Docket No. E-00000W-13-0135

Filing of

COMMENTS
and
SERVICE LIST REQUEST
by
Marshall Magruder

Before responding to the specific questions in your letter of 23 May 2013 on this subject, several preliminary comments are necessary. This filing also includes a service list request.

Part I

SOME PRELIMINARY COMMENTS

First, the ***State of Arizona does not have the various infrastructures necessary to conduct retail electric competition.*** In particular, the disarray of various generation, transmission and distribution owners under different jurisdiction and regulatory structures, some that cross state lines, make integration of an Arizona "grid" of these into a ***real-time situation awareness picture,*** so that financial and electricity transactions can be conducted instantly for present and future rates is almost impossible. This will be VERY EXPENSIVE.

Second, the ***Commission staff will need to be increased by at least 100 technical personnel or contractors*** involved in many new technical and financial areas for the staff. These technical specialists are not readily available, nor could be present staff be trained to do these operations. For example, there is no CAL-ISO equivalent, whereby the public, traders and utility industry participants can even see in real-time the present demand and generation resources

available, and today's predicted demand and generation resources, as provided by CAL-ISO. My company in CA required this demand versus resources display to be on every employee's desktop during the 2000-2001 California energy crises. Nothing approaching this basic information capability is available or possible in Arizona. All must participate in retail competition.

Third, the ***present Commissioners do not have the*** necessary technical and management ***skill sets necessary to design, manage evaluate, and operate such a program.*** Experiences in the Arizona legislature do not provide the quality of technical and financial leadership required.

Fourth, ***based on the lack of infrastructure, staff or management skills, and an over abundance of attorneys*** in the utility industry and large industrial concerns, any such retail competition in Arizona **invites another "Enron" disaster** in our state, with a high reliability risk, leading to **total disruption of our existing un-integrated Arizona electric "grid".**

Fifth, the ***track record for retail electric competition only contains failures.*** Today's *Wall Street Journal* article[1] is typical of these failures, with major companies going into Chapter 11, profits annually falling by double-digits, failures to meet peak load demands, and widespread customer and investor dissatisfaction.

Further, these questions seem slanted to indicate there are **only benefits** from retail electric competition but it is the costs, which lead to cost-to-benefit ratios maybe very high based on an in depth preliminary assessment of both cost and benefit sides of all the critical, unresolved issues.

And, "risk" has two components: (1) the consequential cost of failure and (2) the likelihood (probability) of failure. When normalized, the product of the Cost (C) x Probability (P) yields an common industry term equals "Risk Index" (RI). Using the quantitative RI approach permit one to compare diverse risk impacts. **Total Systems Risk** is multi-variant, involving many technical, programmatic, financial and logistic, personnel, and other variables. Some variables may appear insignificant at one time but dominate at other times. All must be included in an integrated risk management approach, using both risk components, with comparable and quantitative risk indices. A simple (fictitious) example is discussed below.

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[1] *Wall Street Journal,* 15 July 2013, "At Texas Electric Firm, Users May Hold Key," p. B5.

Part II

RESPONSE COMMENTS TO SPECIFIC QUESTIONS

1) Will retail electric competition reduce rates for all classes of customers- residential, small business, large business and industrial classes?

Only large business and industrial classes of customers could possibly benefit from retail electric competition. Based on working with residential and small business ratepayers, most ratepayers in these categories do not understand the basics of electric rates and most are disinterested in these processes. They pay their bills monthly and gripe in between.

The new and additional costs of retain competition will include a new "cost to compete" (new marketing costs that are not required at present), additional confusion by most ratepayers (residential and small business), lack of ability to participate with over 30% of the adults in our state not having access to the Internet, and annoying phone calls and TV commercials "selling" electric services. None of this is without new, additional costs, of course, included in their rates.

2) In addition to the possibility of reduced rates, identify any and all specific benefits of retail electric competition for each customer class.

Retail electric competition does NOT guarantee reduced rates. The lack of continuous oversight by a controlling authority, or collusion, could easily cause rates to increase. Arizona utilities were charged in the Enron scandal, there "skirts are not clean".

One obvious cost of electricity to lower-income ratepayers will be their loss of subsidies from higher-income ratepayers. Under retail competition, this rate category will not benefit and some with have to forgo electricity with adverse health and living conditions.

3) How can the benefits of competition apply to all customer classes equally or equitably?

The residential and small business ratepayers cannot compete against the utilities and their favorite large and industrial customers. The Residential Utility Consumer's Office (RUCO) does not have adequate staffing to represent residential ratepayers today, and this will be even

worse under retail electric competition.

Rates will become even more skewed to hurt (e.g., not being "fair') the lowest income consumers while the largest consumers will end up paying even less per kilowatt-hour. This violates Article XV Section 12 of the Arizona Constitution whereby there shall be no discrimination between locations and customers that "just and reasonable" rates cannot be assured under retail electric competition.

An equal or equitable benefit for all rate classes does not seem possible without ALL Arizona customers participating.

4) Please identify the risks of retail electric competition to residential ratepayers and to the other customer classes. What entity, if any, would be the provider of last resort?

Most residential ratepayers, at present, cannot read (some because of English not being their native language) or understand the cost elements of their electric bill. When the additional "unbundling" factors are included, probably less that 0.1% of residential customers could react to minor changes in one or more of these factors. In general, they don't understand generation, transmission, distribution and administrative cost differences. All many want is for the lights or TV to come on. The extensive education concerning retail electric competition required to achieve this across the board for residential ratepayers will be impossible and is not worth the costs. All these new "costs" will have to be included in their rates.

The "risk" for residential ratepayers demonstrate how Risk Index, in a fictitious example, shows that lost revenue from lower income customers has the highest risk (RI = 24), that 1,000 customers are lost to a competitor (RI = 16), lost revenue because ACC disapproved a rate structure is third (RI=15), and a customer illegally tap a line has the lowest risk index.

In my years involving risk management, the top three to five Risk Index Consequences become the top concerns of upper management, with Risk Index updated and presented to management weekly because many factors impact risk. An example is in Table I below.

Table 1 – An Illustration of the Relationship between the Cost of Risk (C) and Probability of Occurrence (%) and the Resultant Risk Index (RI).

Cost of Consequence (Failure)				
RISK CONSEQUENCE	Cost Estimate ($)	Normalized Cost © (Note 1)	Probability (P) of Consequence (%)	Risk Index (x 100) (= C x P)
Low income cannot pay 100 customers @ $300)	30,000	0.8	0.30	24.0
Customers Change Service (lost 1,000 customers)	6,000	0.8	0.20	16.0
ACC does not approve rate structure (lost revenue)	1M	1.0	0.15	15.0
Company overcharges and must refund to 100 customers @ $125	12,500	0.8	0.10	8.0
500 kW Transformer burns up	50M	1.0	0.05	5.0
138 kV Transformer burns up	5M	1.0	0.05	5.0
Reliability failure (minor, lost revenue)	75,000	0.9	0.02	1.8
Reliability failure (major, lost revenue and customers)	10 M	1.0	0.01	1.0
Company goes bankrupt (losses)	100 M	1.0	0.01	1.0
1 Ratepayer Illegally taps line	500.00	0.6	0.01	0.6

Note 1. Normalized, in terms of dollars:

0.1 if less than $0.25
0.2 if between $0.25 and $1.00
0.3 if between $1.00 and $5.00
0.4 if between $5.00 and $50.00
0.5 if between $50 and $200
0.6 if between $200 and $1,000
0.7 if between $1,000 and $5,000
0.8 if between $5,000 and $50,000
0.9 if between $50,000 and $200,000
0.95 if greater than $200,000 and less than $1,000,000
1.00 if greater than $1,000,000

This table uses various potential (example only) Risk factors for an electricity utility company. These are described in the first column; with the second column indicating the dollar impact (or consequence) of the risk event occurs. These "costs" (C) are normalized on a logarithmic-type cost scale from 0.00 to 1.00 (this example is arbitrary, in practice, this scale requires analysis of the cost impacts on the system. For each risk, there is a probability of occurrence (P), shown in the fourth column.

The produce of C x P =Risk Index, in the fifth column. In this example, the highest RI value is listed first with lower RI values underneath. Many managers frequently use RI values as the most effective way to avoid serious problems, computed on a rather frequent basis.

5) How can the Commission guarantee that there would be no market structure abuses and/or market manipulation in the transition to and implementation of retail electric competition?

The Commission can NEVER guarantee that there would be no market structure abuses or manipulation. Even a 99% guarantee would be discriminatory and illegal as our constitution is rather clear on the requirements for the Commission, and it is only the Commission, that can set utility rates, not market commodity traders. Changing the Arizona Constitution is the ONLY way that retail electric competition could be legal.

6) What, if any, features, entities or mechanisms must be in place in order for there to be an effective and efficient market structure for retail electric competition? How long would it take to implement these features, entities, or mechanisms?

There are <u>many preliminary</u> tasks required to prepare for retail electric competition. The general comments above indicate that this is a major challenge for the Corporation Commission, because a retail electric competition market structure does NOT exist in our state.

There are only three Investor Owned Utilities (IOUs) are under the regulatory authority of the Commission as they are public service companies, as defined by other statutes, and the Constitution. The other electric servicing companies from independent generation, independent transmission and a whole variety of distribution entities must be directly involved and is a full participant in this scheme. It is very doubtful that the Commission could ever gain such authority, well beyond that in the Constitution and Statutes. Without their participation, there cannot be an effective or an efficient market structure for electricity.

If anything, maybe one small step at a time, might be a long-term approach; however, complications of joint ownerships by various unrelated and non-Arizona entities of generation, transmission and distribution systems, must be unified and integrated. We do not have a CAL-ISO in our state. We do not have an integrated Arizona Grid as the IOUs, cooperatives and WAPA have independent "grids", each with different rules and regulations, under various federal, regional, state and various tribal authorities including municipalities.

A serious amount of preliminary work, maybe this questionnaire is an initial step, in a long series of steps, is essential just to scope out this issue. Responses to a question such as this require several hundred pages and mostly of actions required to just integrate the Arizona Grid, a fictional term, as this grid does NOT exist today.

Before starting this task, a "lessons learned" from other retail electric competitions needs to be complied and validated to help lead such action. The prior attempt in Arizona had such negative consequences; continuation along that path will also not be successful.

7) Will retail electric competition require the divestiture of generation assets by regulated electric utilities? How would FERC regulation of these facilities be affected?

Arizona tried and failed to accomplish this a decade ago, with higher costs passed on to all IOU ratepayers as a result of this failure.

There are additional complications, as the Department of Energy is involved with the Western Area Power Administration (WAPA) that charges different transmission line "wheeling charges" than state-regulated utilities.

8) What are the costs of the transition to retail electric competition, how should those costs be quantified, and who should bear them?

This process would need at least ten years to accomplish. First, a plan would need to be developed, including various alternatives. Each Alternative would need to be evaluated and compared (a trade study) so that an optimal Alternative that meets the "goals" (presently unspecified) for retail electric competition. During this evaluation, the cost and implementation plans would need to be developed. Since the Arizona Constitution, many statutes (ARS) and regulations (A.A.C.) must be changes, each Alternative during this evaluation must to include a package of these changes. As a package, then the citizens of Arizona will need to approve the changes by vote, preferably at a General Election.

The Alternatives need to compare costs and who should bear them as the distribution of implementation costs will include many different parties, from WECC, ACC, IOUs, cooperatives,

federal electricity resources, etc. No one party should fund such an implementation. Further, NO implementation should commence until the voters have approved the preferred Alternative, its legal changes, and costs.

It is my conservative estimate that such an implementation will cost well over $1 billion.

9) Will retail electric competition impact reliability? Why or why not?

Since there is no incentive for reliability, or said another way, there is no disincentive for being unreliable; therefore, reliability, especially at the generation and distribution levels will suffer and degrade over time (Texas being a current example). There is no rational reason why reliability will improve with retail electric competition.

The National Electric Reliability Commission (NERC) mandates transmission reliability. The Corporation Commission reviews reliability as an action during electricity rate cases usually involving the distribution subsystem but may include other areas.

10) What are the issues relating to balancing area authorities, transmission planning, and control areas which must be addressed as part of a transition to retail electric competition?

First, very few understand how these processes are accomplished in Arizona due to the complex infrastructure in this state. Until an Arizona ISO has been implemented, and these functions must be included in an Implementation Plan approved by the voters. These functions primarily are related to transmission and thus are under the rules and regulations of FERC and NERC. Thus, liaison with these federal agencies is an essential step in plan formulation.

The Corporation Commissions use of utility Integrated Resource Plans, Ten-Year Transmission Plans, and Biennial Transmission Assessments will lose validity and become meaningless documents, over time, because companies will not want their "competitors" to know their future plans. Integrated planning groups (SWAT, etc) will slowly dissolve. The "summer preparedness'" briefs will be very short.

As the nation is moving away from remote, distant, large and central generation plants

to distributed generation, micro-Grids, qualified facilities (QFs) and more local generation (with higher reliability and better power quality), retaining the existing, outdated state-wide (un-integrated) system, by using only such a concept in retail electric generation prevents innovation, creativity and better management.

The future of two-way digital grid will lead to automated substations (See ISO 51000), self-correcting faults, much better understanding of demand (compared to once a month), and lower energy margins (with significant cost savings), and grid management, will all be ignored. These competitors will not spend funds for any items that do not impact this quarter's SEC Form 10-Q/K. Therefore, the future of a modern Arizona electricity system will be delayed until innovation, creativity and research and development are re-introduced, after failure of retail electric competition.

11) Among the states that have transitioned to retail electric competition, which model best promotes the public interest for Arizonans? Which model should be avoided?

None have been successful, most fail or on the way towards failure.[2]

The Texas model has been a major failure as that state may have rolling blackouts this summer in order to meet rising demand that "competition" has failed to stay ahead of demand. No one would recommend the California model and those in New England are so dissimilar to Arizona their tightly coupled implementation schemes can not be compared to the tasks required for our state.

12) How have retail rates been affected in states that have implemented retail electric competition?

Texas and California residential customer have seen very frequent rate increases. These have been so frequent in Texas that customers don't' care, are not interested and don't give a damn! Retail electric competition was forced on the ratepayers; they never did want it.

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[2] *Ib.*

13) Is retail electric competition viable in Arizona in light of the Court of Appeals' decision in Phelps Dodge Cop. v. Ariz. Elec. Power Coop., 207 Ariz. 95, 83 P.3d 573 (App. 2004)? Are there other legal impediments to the transition to and/or implementation of retail electric competition?

The legal impediments clearly are in the Arizona Constitution in Title XV Sections 3 and 12. Both Sections will have to be changed in order to implement retail electric competition, which basically violates our Constitution. The Commission is required to "set fair and equitable rates" and not discriminate between person and place.

Retail electric competition is not fair and does discriminate between person and place.

14) Is retail electric competition compatible with the Commission's Renewable Energy Standard that requires Arizona's utilities serve at least 15% of their retail loads with renewable energy by 2025? (See A.A.C. R14-2-1801 et seq.)

Retail electric competition must be compatible if all Arizona utilities or <u>any utility that serves Arizona customers</u> (including out-of-Arizona utilities who serve Arizona customers), must meet the REST requirements.

Maybe the 85% of electricity not included under REST could be used for retail competition while the present utilities continue REST.

The 15% of renewable energy (RE) loads is only a minimum. With the cost of RE generation expected to reach parity with coal in a few years, the transition of existing coal-fueled power plants (who also consume more groundwater than any other group in our state) needs to include RE in their portfolios. The "tariff" part of REST should go to zero shortly (at parity) since the utilities would not be making prudent decisions to NOT purchase RE generation sources. The many different storage processes are enhancing RE developments; however, since peak electrical demands occur when the sun is still shinning, reducing of non-RE generation by these companies will also save generation costs.

It would not be fair for different rules, say for a Utah or Colorado electric company to compete against Arizona electric companies that have different REST requirements.

15) Is retail electric competition compatible with the Commission's Energy Efficiency Standard that requires Arizona electric utilities to achieve a 22% reduction in retail energy sales by consumption by 2020? (See A.A.C. R14-2-2401 et seq.)

Retail electric competition could be compatible if all Arizona utilities or any utility that serves Arizona customers, meets the Energy Efficiency Standard requirements. Since the costs of Watts using Energy Efficiency support are less expensive than the actual cost of generated electricity, this program has significant benefits for the utilities that do not have to spend capital on equipment that is not necessary to meet demand.

It would not be fair for different rules, say for Utah electric companies to compete against Arizona electric companies that have different energy efficiency standard requirements.

16) How should the Commission address net metering rates in a competitive market?

Net metering is required by the Energy Policy Act of 2005, as approved by this Commission. There should be no change for netmetering, as the customer's serving utility (if a competitive retailer) is required to accept power from a Qualified Facility (QF), that is, a small generator's watts at retail just as any other utility would. The REST program established the criteria for small generator facilities to meet the QF requirements.

All electric utilities, since 1973, as required by the PURPA, must accept the generated power from a QF. The EPAct of 2005 (which updates PURPA) extended this to include net metering, which was accepted by all Arizona utilities and Commission without objections.

17) What impact will retail electric competition have on resource planning?

Very astute question as NO competitive utility would divulge its plans to competitors thus access of such plans by the Commission will also be curtailed.

As there are no "conflict of interest rules" between personnel moving between the Commission and utilities, even if the Commission knew the details of these "confidential" plans, their compromise or security would be short term.

Resource planning was stopped in Arizona when there was a possibility of electric retail

competition. This is not a good result and greatly inhibits the Commission from meeting its constitutional mandates.

As we saw during the madness of the 2000's California deregulation boom and bust, independent producer power plants were being built in Arizona without any access to transmission lines. Most of these plants were not constructed and several were immediately mothballed when finished, very unwise expenditure of someone's funds.

18) How will retail electric competition affect public power utilities, cooperatives and federal controlled transmission systems?

Another very important question because the public power utilities, cooperatives, and federal transmission systems are essential elements of the Arizona Grid.

Unless ALL electric entitles, from generation, transmission and distribution are integrated into ONE Arizona Grid system, into one grid (we have several in operation now with self-induced congestion), and all under the same set of rules, regulations, statues and financial management processes, there should be no attempt to implement electric retail competition.

Part III

SERVICE LIST REQUEST

It is requested that Marshall Magruder be include in the Service List for this docket.

Respectfully submitted on this 15th Day of July 2013

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By _____

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