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BEFORE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission
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CARL J. KUNASEK
CHAIRMAN
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COMMISSIONER

IN THE MATTER OF THE APPLICATION OF CITIZENS UTILITIES COMPANY FOR APPROVAL OF ITS PLAN FOR STRANDED COST RECOVERY.	DOCKET NO. E-01032C-98-0474
IN THE MATTER OF THE FILING BY CITIZENS UTILITIES COMPANY OF UNBUNDLED AND STANDARD OFFER SERVICE TARIFFS PURSUANT TO A.A.C. R14-2-1606.	DOCKET NO. E-01032C-97-0774
IN THE MATTER OF COMPETITION IN THE PROVISIONS OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.	DOCKET NO. RE-00000C-94-0165

NOTICE OF FILING

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Direct Testimony of Richard Rosen, in the above-referenced matter.

RESPECTFULLY SUBMITTED this 19th day of July, 1999.

Karen E. Nally

Karen E. Nally
Counsel

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DIRECT TESTIMONY OF

DR. RICHARD A. ROSEN

On the Stranded Cost Recovery Plans of Citizens Utilities Company-Arizona Electric Division

On behalf of the
Residential Utility Consumer Office
July 19, 1999

I. QUALIFICATIONS

Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?

A. My name is Dr. Richard A. Rosen. My business address is Tellus Institute, 11 Arlington Street, Boston, MA 02116-3411.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?

A. I am testifying on behalf of the Residential Utility Consumer Office (RUCO).

Q: HAVE YOU TESTIFIED IN THIS DOCKET BEFORE?

A: Yes. I testified in this docket on January 21 and February 4, 1998, about the calculation and recovery of stranded costs.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I hold a B.S. in Physics and Philosophy from M.I.T., an M.S. in Physics from Columbia University, and a Ph.D. in physics from Columbia University. Currently I am a senior research director at Tellus Institute, as well as executive vice-president of the Institute. I am also the manager of the Institute's Electricity Program.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF TELLUS INSTITUTE.

A. Tellus Institute is a non-profit organization specializing in energy, natural resource, and environmental research. Within Tellus Institute, the Energy Group focuses on energy and utility research areas which include demand forecasting, conservation program analysis, electric utility dispatch and reliability modeling, least-cost utility planning and integrated resource planning, avoided cost analysis, financial analysis, cost of service and rate design, non-utility generation issues, bidding systems, incentive regulation, cost of capital analysis, and utility industry restructuring.

Q. PLEASE ELABORATE ON TELLUS' EXPERIENCE WITH ELECTRIC UTILITY SYSTEM SUPPLY PLANNING.

A. The Energy Group has had wide experience assessing utility system supply options on both a service area and a regional basis. These assessments have encompassed all types of generation plant, transmission plant, purchases of capacity and energy, fuel purchases and contracting, central station district heating and decentralized cogeneration plants, and alternative sources of energy such as wind, biomass, and solar energy connected to electricity grids. These assessments have dealt with the technical, economic, environmental, regulatory, and financial aspects of supply planning, including the relationships between supply planning, load forecasting, rate design, and revenue requirements. Tellus Institute also has reviewed the prudence of many past supply planning decisions by utilities.

Q. PLEASE REVIEW YOUR EXPERIENCE IN THE AREA OF UTILITY PLANNING.

A. Power supply system modeling and integrated resource planning has been a major focus of my activities for the past 16 years. My research and testimony in this area began in 1980, and I have testified in numerous cases involving generation planning and the integration of demand and supply technologies on a least-cost basis. For example, I submitted extensive generation planning testimony in the 1980 CAPCO Investigation in Pennsylvania in Case No. I-79070315, and in the 1981 Limerick Investigation as well (Case No. I-80100341). In early 1982, I prepared a major report for the Alabama Attorney General's Office entitled "Long-Range Capacity Expansion Analysis for Alabama Power Company and the Southern Company System," and I filed testimony in Docket No. 18337 before the Alabama Public Service Commission. In addition, I testified on the excess capacity issue regarding Susquehanna unit 1 in the 1983 Pennsylvania Power and Light Co. Rate Case (No. R-822169). In 1987, I testified before the Federal Energy Regulatory Commission on NEPOOL's Performance Incentive Program on behalf of the Maine Public Utilities Commission in Docket No. ER-86-694-001. In 1989, I testified before the Pennsylvania Public Utility Commission on excess capacity and ratemaking treatment regarding Philadelphia Electric Co.'s Limerick 2 nuclear unit. This work was performed on behalf of the Pennsylvania Office of Consumer Advocate in Docket No. R-891364. I also testified in Vermont in Docket No. 5330 on the cost-effectiveness of the proposed purchased power contract between the

Vermont utilities and Hydro-Quebec. Finally, I have testified before the New Hampshire PUC in Docket Nos. 84-200, DF 89-085, 98-012, and DE 97-251. Due to my extensive regulatory experience in the public interest, as outlined above, in 1988 I was chosen to serve a 3-year term on the Research Advisory Committee of the National Regulatory Research Institute, an appointment made by the public utility commissioners serving on the NRRI Board of Directors. In addition, within the last few years, I have been the project manager on contract research that the Tellus Institute has performed for the U.S. Department of Energy, the U.S. Environmental Protection Agency, the National Association of Regulatory Utility Commissioners (NARUC), the New England Conference of Public Utility Commissioners, the New England Governors' Conference, and the National Council on Competition in the Electric Industry.

In the last 3 years, I have spent most of my time analyzing electric utility restructuring issues. I also testified before the New Hampshire Public Utilities Commission on issues affecting the design of the state's pilot programs (Docket No. 96-150), and I testified before the New York Public Service Commission on stranded costs, market structures, and other issues related to the ConEd's, NYSEG's, and RG&E's restructuring plans. I also have worked or testified on other electric industry restructuring issues in Delaware, Maine, Colorado, Nevada, New Mexico, New Jersey, Illinois, Arizona, Texas, Pennsylvania, New York, and Michigan.

II. PURPOSE OF THIS TESTIMONY

Q: WHAT IS THE PURPOSE OF THIS TESTIMONY?

A: The purpose of this testimony is to summarize RUCO's concerns about CUC-AED's stranded cost recovery plans.

III. STATUS OF SETTLEMENT DISCUSSIONS BETWEEN RUCO AND CUC-AED

Q: WHAT PROSPECTS ARE THERE FOR A SETTLEMENT AGREEMENT BETWEEN RUCO AND CUC-AED ON THE PROVISIONS OF CUC-AED'S STRANDED COST RECOVERY PLANS?

A: In recent discussions, RUCO and CUC-AED have made significant progress toward revising CUC-AED's plans to RUCO's satisfaction. The discussions are continuing and I am optimistic that they will resolve RUCO's concerns.

IV. CONCERNS ABOUT THE STRANDED COST RECOVERY PLANS OF CUC-AED

Q: FROM WHAT SOURCES OF INFORMATION HAVE YOU DRAWN WHAT YOU UNDERSTAND TO BE CUC-AED'S CURRENT STRANDED COST RECOVERY PLANS?

A: I have drawn what I understand to be CUC-AED's current stranded cost recovery plans from several sources. I list them here in reverse chronological order:

- Telephone conversation with Sean Breen of CUC-AED on May 11, 1999.

- Three "Alternatives to Explore" on last three pages of April 29, 1999 presentation by Citizens.
- March 19, 1999 testimony of Sean Breen to ACC.
- Unbundled rates settlement between Staff, RUCO, and Citizens. Summarized in Staff's December 22, 1998 transmittal memorandum and proposed order on unbundled and standard offer service tariffs.
- Unbundled and standard offer tariffs filed with Commission December 8, 1998.
- October 21, 1998 amendment to its August 1998 stranded cost filing. This amendment requested issuance of an accounting order.
- August, 1998 filing on stranded cost recovery, as amended by March 19, 1999 testimony.

Q: PLEASE STATE YOUR CONCERNS ABOUT CUC-AED'S STRANDED COST RECOVERY PLANS.

A: I state each of my concerns about CUC-AED's stranded cost recovery plans below.

Concern 1: In the context of retail competition, CUC-AED's retention of Schedule A of its power purchase contract with APS could lead to significantly higher stranded costs.

It now appears that Citizens' retention of Schedule A of its power purchase contract could significantly increase stranded costs, based on a fact revealed by Mr. Breen on p. 20 of his March 19, 1999 testimony. Mr. Breen revealed that the power purchase contract with APS allows the purchase of power only for the needs of standard offer customers. In other words, Citizens cannot resell the power. Yet, Schedule A of the contract is take-or-pay, such that if Citizens does not use all of the Schedule A generation, it still has to pay a significant portion of the cost of the unused generation. The amount the Company would have to pay for unused generation would become part of stranded costs. RUCO, Staff, and I are in the process of checking with Citizens to determine the extent to which the loss of customers would reduce the use of Schedule A power.

If Schedule A of the contract were sold, the highest bidder would logically be some company that could use all of the generation, in which case Citizens would effectively be paid a market rate for all of the generation in the contract rather than having unused generation that would add to stranded costs.

For the amount of load Citizens projects will switch to competitive generation providers, Citizens estimates that the average increase in stranded costs per kWh lost will be between 1 and 2 cents per kWh. At this rate, not much load would have to be lost to competitive generation providers before the effect on

Citizens' stranded costs would exceed the transaction costs of selling the power purchase contract and replacing it with a new one.[1]

If it turns out that the loss of generation customers to competitive ESPs would reduce CUC's use of Schedule A power, then I expect to advocate the divestiture of this schedule as soon as possible, if retail competition is to be implemented in Arizona. The schedule is fully assignable to another party beginning January 1, 2001. If indeed Schedule A appears likely to increase CUC-AED's stranded costs, then another renegotiation with APS might be an alternative to divestiture, but Mr. Breen reports that APS "has no interest in" changing the contract to allow Citizens to resell power purchased under Schedule A. I would consider retention of the contract to be in the interest of ratepayers only if Citizens were allowed to resell Schedule A power, Schedule A were revised so it were no longer take-or-pay, or the loss of generation customers to competitive ESPs would not reduce CUC's use of Schedule A power.

[1] For example, if the transaction costs were $1 million and stranded costs increased by 1 cent for each kWh of load lost to competitive generation providers, then Citizens would have to lose just 100 million kWh of load to competitive providers before the effect on stranded costs would exceed the transaction costs. Over the 12 remaining years of the contract, this is less than 1% of expected load in Citizens' service territory.

Concern 2: Stranded costs should be calculated separately for each rate class.

Stranded costs should be calculated separately for each rate class. As discussed earlier, it may be that by the nature of Citizens' power purchase contract with APS, the more customers who switch to competitive generation suppliers within each class, the more costs that class will leave stranded. If Arizona is like Pennsylvania, the rates of participation in direct access will be much higher in the industrial and commercial classes than in the residential class. This is logical because lower-use customers stand to save a smaller absolute amount by switching to lower-cost power than higher-use customers, and marketers stand to earn a smaller absolute amount for each low-use customer they recruit than for each high-use customer. Residential customers should not pay for the higher direct access participation rates of other classes. Rather, each rate class should be charged for no more than the costs it leaves stranded based on current rate structures.

After divestiture, as well, stranded costs and the CTC should be calculated separately by rate class. The calculation for each rate class should use that class's retail market price of generation. If instead all customers are charged the same CTC per kWh or a CTC that varies slightly from class to class such as one that is proportional to each respective class's generation rate, residential customers will be significantly overcharged (or undercredited) for stranded costs.

Concern 3: Stranded cost recovery within each rate class should be proportional to future use of generation.

On page 19 of his March 19, 1999 testimony, Mr. Breen continues to advocate that Citizens base the stranded cost recovery charge for each customer on that customer's historical use, as Citizens did on pages 31-32 of its August 21 Stranded Cost Options and Implementation Plan. Mr. Breen explained to us in our May 11, 1999 phone conversation that the Company envisions basing the charge on use within "a recent 12-month period." There are two problems with such a proposal. First, charging customers an additional fee for past use would mean imposing a retroactive price change. Customers would have no opportunity to reduce consumption in response to the higher price, since they would already have used the electricity subject to the price change. Second, the 12-month period might not be representative of the customer's use over a longer period. Instead of a charge based on past use, Citizens should apply a charge (or credit) for each kWh (and possibly each kW, for demand-metered customers) of future use, as APS and TEP are proposing to do in their service territories. This is conceptually appropriate because Citizens negotiated its power-supply contract to serve customers for the life of the contract. The amount each customer pays should approximate his or her use of electricity over the life of the contract. Also, stranded cost recovery charges based on future use would encourage conservation by preventing a drop in the price of electricity that could still be conserved rather than by raising the price of electricity that had already been used.

Stranded costs' charges or credits should not be flat monthly fees, as Mr. Breen continues to advocate on page 19 of his March 19, 1999 testimony. Rather, they should be proportional to energy use and perhaps to capacity use for some customer classes. Charges or credits not proportional to usage would lead to a disproportional sharing of stranded costs or benefits. Assuming Citizens' customers would incur a charge rather than a credit, the lowest-use customers would be among those paying a higher charge in proportion to their use. For example, if all customers using 0-500 kWh per month were charged $5 per month for stranded costs, then customers using 50 kWh per month would effectively be paying a stranded cost charge equal to ten cents per kWh, while customers using 500 kWh per month would pay just a penny per kWh.

Concern 4: Prior DSM costs should not be recovered in rates at this time.

The ACC has agreed to consider deferral of these costs in a future rate case. The ACC also has approved carrying charges for these costs, so deferral of them will not result in a loss to CUC-AED. Therefore, it seems inappropriate to include the purported DSM cost amounts at this time.

Concern 5: Citizens should structure competition for billing and metering in such a way that it does not lead to additional stranded costs. If the Company continues to claim stranded billing and metering costs, this claim will have to be substantiated in the annual CTC true-up cases.

Among the stranded costs projected by CUC are some associated with billing and metering. These are not justified by the meager savings possible through billing and metering competition. Such competition should be structured in a way that avoids stranded costs. If Citizens loses customers whom it can no longer bill directly for T&D services, it is capable of offering its billing services to ESPs.

Concern 6: "Transition costs" and "new functions" costs should be recovered only as determined appropriate in a normal rate case and/or in "true-up" cases.

I agree with the argument on page 6 of the November 13, 1998 ACC Staff Report on the stranded cost plans of CUC-AED and other utilities that the Company should collect additional revenues only for "new functions" to the extent that it has demonstrated "that such costs have been prudently incurred and that they cannot be recovered through existing rates."

CUC-AED suggests that the new functions should be added to stranded costs. However, they are not appropriately classified as generation-related, so they are not stranded costs. Once incurred, these costs should be recovered as determined appropriate in a normal rate case.

Concern 7: The calculation of CUC's current estimate of stranded costs seems to have involved two flaws, both of which increased the estimate.

Citizens' current estimate of stranded costs in the case of divestiture, $18.4 million (Breen, March 19, 1999, p. 17), though revised from an earlier estimate in light of CUC's renegotiation of its power purchase contract, is still based on the calculations by Stone & Webster of regional wholesale electric prices summarized in the appendices to Citizens' Stranded Cost Options and Implementation Plan. The appendices were filed with the ACC on August 24, 1998. We have found two flaws in Stone & Webster's calculations. First, later and more careful work by Stone & Webster for the WSCC region has derived higher projected market prices for Arizona, which mean lower stranded costs for Citizens. Second, the calculation of stranded costs omitted the last year of the APS-CUC contract, which is the year with the largest negative stranded costs.

There are three reasons it is important to correct the estimate of CUC-AED's stranded costs. First, it will be used to set the interim CTC. Second, to the extent CUC-AED does not divest all of its generation assets, it will be used to set the "permanent" CTC. Third, it may affect the bids proffered by potential contract purchasers, in which case a corrected bid price could increase the sale price, thereby decreasing costs for ratepayers. The correction would cost very little in comparison to its potential impact on the sale price of the contract. I advocate a corrected estimate on these grounds.

Concern 8: The shopping credit for residential customers should be based on the expected retail market price of generation.

It was not entirely clear how Citizens planned to calculate the CTC, the generation rate, and the shopping credit. I strongly recommended to CUC-AED a generation rate based on the expected retail market generation price and a CTC that is the same for both standard offer and direct access customers. Under the structure I recommend, the waiving of the standard offer generation rate for direct access customers would effectively be the "shopping credit" or "market generation charge." Each customer class would have its own generation rate and CTC.

Naturally, if the shopping credit (or waivable generation rate) that Citizens offers is lower than the retail market price of generation, then competition will be stifled. If the shopping credit is higher than the retail market price of generation by an amount larger than is justified to encourage switching, then standard offer customers will be charged too much.

Q: DOES THIS CONCLUDE YOUR TESTIMONY?
A: Yes, it does.