

ORIGINAL



0000005494

57

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

JUN 14 P 3:28

ARIZ CORP COMMISSION  
DOCUMENT CONTROL

MARC SPITZER, Chairman  
WILLIAM A. MUNDELL, Commissioner  
JEFF HATCH-MILLER, Commissioner  
MIKE GLEASON, Commissioner  
KRISTIN K. MAYES, Commissioner

IN THE MATTER OF COMPETITION  
IN THE PROVISION OF ELECTRIC  
SERVICES THROUGHOUT THE  
STATE OF ARIZONA

DOCKET NO. RE-00000C-94-0165

IN THE MATTER OF THE STRANDED  
COST FILING AND REQUEST FOR A  
WAIVER OF CERTAIN PORTIONS OF  
THE RULES FILED BY TRICO  
ELECTRIC COOPERATIVE, INC.

DOCKET NO. E-01461A-98-0466

IN THE MATTER OF THE STRANDED  
COST FILING AND REQUEST FOR A  
WAIVER OF CERTAIN PORTIONS OF  
THE RULES FILED BY MOHAVE  
ELECTRIC COOPERATIVE, INC.

DOCKET NO. E-01750A-98-0467

IN THE MATTER OF THE STRANDED  
COST FILING AND REQUEST FOR A  
WAIVER OF CERTAIN PORTIONS OF  
THE RULES FILED BY GRAHAM  
COUNTY ELECTRIC COOPERATIVE,  
INC.

DOCKET NO. E-01749A-98-0468

IN THE MATTER OF THE STRANDED  
COST FILING AND REQUEST FOR A  
WAIVER OF CERTAIN PORTIONS OF  
THE RULES FILED BY DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.

DOCKET NO. E-01703A-98-0469

IN THE MATTER OF THE STRANDED  
COST FILING AND REQUEST FOR A  
WAIVER OF CERTAIN PORTIONS OF  
THE RULES FILED BY SULPHUR  
SPRINGS VALLEY ELECTRIC  
COOPERATIVE, INC.

DOCKET NO. E-01575A-98-0472

Arizona Corporation Commission

DOCKETED

JUN 14 2004

DOCKETED BY

CR

NOTICE OF FILING MEMORANDUM OF AMICI CURIAE AND  
SUPPORTING ADDENDUM

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

1 Please take notice that intervenors Constellation NewEnergy, Inc. and Strategic  
2 Energy, L.L.C. have filed in the docket in these cases a copy of the Memorandum of  
3 *Amici Curiae* Constellation New Energy, Inc. and Strategic Energy, L.L.C. In  
4 Opposition to Petition for Review filed in Matter No. CV-04-0148-PR in the Supreme  
5 Court of Arizona on June 4, 2004 and a copy of Appendix to the Memorandum filed  
6 with the Supreme Court in the same matter. These documents were referenced at the  
7 oral argument before Administrative Law Judge Rodda on June 11, 2004 and copies of  
8 the documents were given to Judge Rodda and Commissioner Gleason at that time.  
9 Copies were also made available to counsel who appeared at the hearing. In the  
10 Appendix, Tab 6 has been corrected to include page 76 of the Texas Report on the  
11 Scope of Competition in Electric Markets in Texas.

12 RESPECTFULLY SUBMITTED this 14<sup>th</sup> day of June, 2004.

13 SACKS TIERNEY P.A.

14  
15 By   
16 Marvin S. Cohen  
17 Charlene Gibson Robertson  
18 4250 North Drinkwater Boulevard, Fourth Floor  
19 Scottsdale, Arizona 85251-3647  
20 Attorneys for Constellation NewEnergy, Inc. and  
21 Strategic Energy, L.L.C.

22 ORIGINAL AND <sup>29</sup>23 COPIES OF THE  
23 FOREGOING HAND-DELIVERED  
24 this 14<sup>th</sup> day of June, 2004, to:

25 Arizona Corporation Commission  
26 Docket Control Division  
27 1200 W. Washington Street  
28 Phoenix, Arizona 85007

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

- 1 COPY OF THE FOREGOING  
2 MAILED this 14<sup>th</sup> day of  
3 June, 2004, to:  
4 MARC SPITZER, Chairman  
5 Arizona Corporation Commission  
6 1200 West Washington Street  
7 Phoenix, Arizona 85007  
8 WILLIAM A. MUNDELL, Commissioner  
9 Arizona Corporation Commission  
10 1200 West Washington Street  
11 Phoenix, Arizona 85007  
12 JEFF HATCH-MILLER, Commissioner  
13 Arizona Corporation Commission  
14 1200 West Washington Street  
15 Phoenix, Arizona 85007  
16 MIKE GLEASON, Commissioner  
17 Arizona Corporation Commission  
18 1200 West Washington Street  
19 Phoenix, Arizona 85007  
20 KRISTIN K. MAYES, Commissioner  
21 Arizona Corporation Commission  
22 1200 West Washington Street  
23 Phoenix, Arizona 85007  
24 Jane L. Rodda  
25 Administrative Law Judge  
26 Hearing Division  
27 Arizona Corporation Commission  
28 1200 West Washington Street  
Phoenix, Arizona 85007  
Ernest G. Johnson, Director of Utilities  
Utilities Division  
Arizona Corporation Commission  
1200 W. Washington Street  
Phoenix, Arizona 85007  
Janet Wagner, Attorney  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

1 **COPY OF THE FOREGOING**  
2 **MAILED** this 14<sup>th</sup> day of

3 June, 2004, to:

4 C. Webb Crockett, Esq.  
5 Fennemore Craig PC  
6 3003 N. Central Avenue, Suite 2600  
7 Phoenix, Arizona 85012-2913

8 **Attorneys for Phelps Dodge Mining**  
9 **Company, Successor in Interest to Cyprus**  
10 **Climax Metals Company; ASARCO**  
11 **Incorporated; Cyprus Climax Metals**  
12 **Company; and Arizonans for Electric**  
13 **Choice and Competition**

14 Russell E. Jones, Esq.  
15 Waterfall Economidis Caldwell  
16 Hanshaw & Villamana PC

17 Suite 800  
18 5210 East Williams Circle  
19 Tucson, Arizona 85711-7497

20 **Attorneys for Trico Electric Cooperative,**  
21 **Inc.**

22 Christopher Hitchcock, Esq.  
23 Law Offices of Christopher Hitchcock PLC  
24 Post Office Box 87  
25 Bisbee, Arizona 85603-0087

26 **Attorneys for Sulphur Springs Valley**  
27 **Electric Cooperative, Inc.**

28 Paul R. Michaud, Esq.  
29 Martinez & Curtis  
30 2712 North 7th Street  
31 Phoenix, Arizona 85006-1003

32 **Attorneys for Mohave Electric Cooperative,**  
33 **Inc.**

34 Michael M. Grant, Esq.  
35 Gallagher & Kennedy PA  
36 2575 East Camelback Road  
37 Phoenix, Arizona 85016-9225

38 **Attorneys for Arizona Electric Power**  
39 **Cooperative, Inc.; Duncan Valley Electric**  
40 **Cooperative, Inc.; and Graham County**  
41 **Electric Cooperative, Inc.**

42 Jeffery B. Guldner  
43 Snell & Wilmer  
44 One Arizona Center  
45 400 East Van Buren Street  
46 Phoenix, Arizona 85004-2202

47 **Attorneys for Arizona Public Service**  
48 **Company**

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

1 Brown & Bain PA  
2 2901 N. Central Avenue  
3 Phoenix, Arizona 85001-0400  
4 **Attorneys for Illinova**

5 Douglas C. Nelson  
6 Douglas C. Nelson PC  
7 7000 North 16th Street  
8 Phoenix, Arizona 85020-5547  
9 **Attorneys for Commonwealth**

10 ACAA  
11 2627 North 3rd Street  
12 Suite Two  
13 Phoenix, Arizona 85004

14  
15   
16 \_\_\_\_\_

17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Marvin S. Cohen (No. 000923)  
Charlene Gibson Robertson (No. 019580)  
SACKS TIERNEY P.A.  
4250 North Drinkwater Blvd., 4<sup>th</sup> Floor  
Scottsdale, Arizona 85251-3693  
Telephone: (480) 425-2600

Attorneys for Constellation NewEnergy, Inc. and Strategic Energy, L.L.C.

**IN THE SUPREME COURT  
STATE OF ARIZONA**

PHELPS DODGE CORPORATION,  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known  
as CYPRUS SIERRITA  
CORPORATION and formerly known  
as CYPRUS BAGDAD COPPER  
CORPORATION and formerly known  
as CYPRUS MINERAL PARK  
CORPORATION; AJO  
IMPROVEMENT COMPANY;  
MORENCI WATER & ELECTRIC  
COMPANY; ASARCO  
INCORPORATED; ARIZONA  
MINING ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES  
and ARIZONANS FOR ELECTRIC  
CHOICE AND COMPETITION  
(collectively AECC),

Intervenors-Appellants,  
Cross Appellees,

RESIDENTIAL UTILITY  
CONSUMER OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State  
of Arizona,

Defendant-Appellant,  
Cross Appellee,

Supreme Court  
No. CV-04-0148-PR

Court of Appeals  
No. 1 CA-CV 01-0068

MARICOPA COUNTY  
Superior Court  
No. CV 1997-003748

**CONSTELLATION  
NEWENERGY, INC. AND  
STRATEGIC ENERGY,  
L.L.C.'S NOTICE OF ERRATA**

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC  
COOPERATIVE, INC.; GRAHAM  
COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC  
COOPERATIVE, INC.; and TRICO  
ELECTRIC COOPERATIVE, INC.

Plaintiff-Appellees,  
Cross Appellants

ARIZONA CONSUMERS COUNCIL,

Plaintiff  
Cross Appellant

NOTICE IS HEREBY GIVEN that Constellation NewEnergy, Inc. and Strategic Energy, L.L.C. inadvertently omitted page 2 of Attachment 6 to the Appendix to Memorandum of Amici Curiae filed with the Court on June 4, 2004. A copy of page 2 is appended hereto for the convenience of the Court.

DATED this 11<sup>th</sup> day of June, 2004.

SACKS TIERNEY P.A.

By

  
Marvin S. Cohen  
Charlene Gibson Robertson  
Attorneys for Constellation  
NewEnergy, Inc. and Strategic  
Energy, L.L.C.

ORIGINAL and 6 COPIES  
filed with Supreme Court Clerk and COPIES  
mailed this 11 day of June, 2004, to:

Michael M. Grant, Esq.  
Todd C. Wiley, Esq.  
Gallagher & Kennedy, P.A.  
2575 East Camelback Road  
Phoenix, Arizona 85016-9225  
Attorneys for Arizona Electric Power Cooperative, Inc.,  
Duncan Valley Electric Cooperative, Inc. and  
Graham County Electric Cooperative, Inc.

Janet Wagner  
Janice Alward  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
Attorneys for the Arizona Corporation Commission

Webb Crockett, Esq.  
Jay Shapiro, Esq.  
Fennemore Craig, PC  
Suite 2600  
3003 North Central Avenue  
Phoenix, Arizona 85012-2913  
Attorneys for AECC

Christopher Hitchcock, Esq.  
Hitchcock & Hicks  
Post Office Box 87  
Bisbee, Arizona 85603  
Attorneys for Sulphur Springs Valley Electric Cooperative, Inc.

Russell E. Jones, Esq.  
Waterfall Economidis, et al.  
Suite 800  
5210 East Williams Circle  
Tucson, Arizona 85711  
Attorneys for Trico Electric

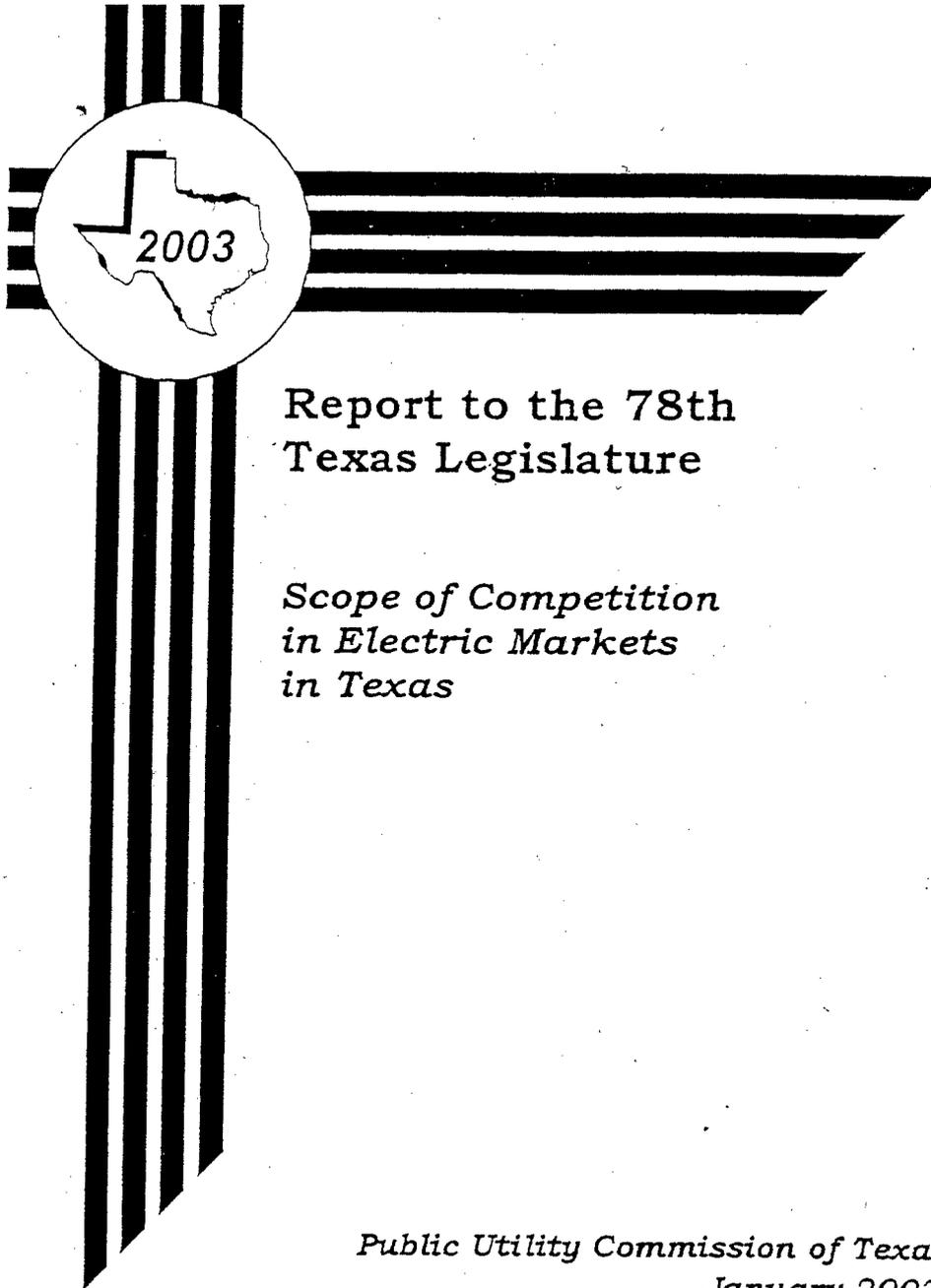
Scott Wakefield, Chief Counsel  
Residential Utility Consumer Office  
1110 West Washington Street  
Suite 220  
Phoenix, Arizona 85007  
Attorneys for RUCO

Timothy Hogan, Esq.  
Arizona Center for Law in the Public Interest  
Suite 153  
202 East McDowell Road  
Phoenix, Arizona 85004-4533



---

[537903/CO302-00002]



Report to the 78th  
Texas Legislature

*Scope of Competition  
in Electric Markets  
in Texas*

*Public Utility Commission of Texas  
January 2003*

#### IV. EFFECTS OF COMPETITION ON RATES AND SERVICE

At this early stage, competitive forces appear to be working to bring many competitors to the retail market, encourage thousands of customers to choose a new provider, and reduce the electricity rates paid by consumers in Texas. In total, there are over 25 active REPs operating in the Texas market, and all classes of customers have a number of REPs offering service.

Since the ERCOT market transitioned to a single control area on July 31, 2001, daily wholesale power prices in ERCOT have remained reasonable, in both the bilateral and ancillary services markets. Temporary price spikes in August 2001 appear to be related to transmission congestion that occurred on these days, as well as market participants learning the new procedures of the ERCOT market after the transition to a single control area.

Retail customers in Texas are paying significantly less for electricity in 2002 as compared to the regulated rates in effect in 2001. Residential customers saved approximately \$900 million in 2002 compared to regulated rates in 2001. Low-income residential customers have received an additional \$68 million in discounts, or an average reduction of \$136 per customer, through the end of October.

Residential customers have the opportunity to save even more by choosing another electric provider. As of December 2002, additional savings off the price to beat of up to 14% were available to residential customers.

Through August of 2002, commercial customers have saved, in total, approximately \$420 million compared to rates in effect in 2001. Industrial customers appear to have saved at least \$225 million compared to rates in effect in 2001.

Another way customers have been able to save money is by aggregating their energy load and negotiating with REPs as one buying unit. Eighteen different aggregation groups, including schools, and municipal and county electric customers, report estimated savings of approximately \$123 million compared to the price to beat and over \$134 million compared to rates the customers paid in 2001.

Customers in all customer classes have taken advantage of the opportunities available to them to switch providers. As of September 2002, over 400,000 retail customers were taking service from REPs not affiliated with their local transmission and distribution utility. Over 6% of residential customers were served by a non-affiliated REP, while 9% of small commercial, and over 16% of larger commercial and industrial customers receiving service from a non-affiliated REP in September 2002. For customers without a price to beat available from the affiliated REP, both the competitive REPs and the affiliated REPs can offer competitive rates. As of September 2002, over 85% of these customers have negotiated a competitive contract with either the affiliated REP, or another REP.

RECEIVED

JUN - 4 2004

CLERK SUPREME COURT

Marvin S. Cohen (No. 000923)  
Charlene Gibson Robertson (No. 019580)  
SACKS TIERNEY P.A.  
4250 North Drinkwater Blvd., 4<sup>th</sup> Floor  
Scottsdale, Arizona 85251-3693  
Telephone: (480) 425-2600

Attorneys for Constellation NewEnergy, Inc. and Strategic Energy, L.L.C.

IN THE SUPREME COURT  
STATE OF ARIZONA

PHELPS DODGE CORPORATION;  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known  
as CYPRUS SIERRITA  
CORPORATION and formerly known  
as CYPRUS BAGDAD COPPER  
CORPORATION and formerly known  
as CYPRUS MINERAL PARK  
CORPORATION; AJO  
IMPROVEMENT COMPANY;  
MORENCI WATER & ELECTRIC  
COMPANY; ASARCO  
INCORPORATED; ARIZONA  
MINING ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES  
and ARIZONANS FOR ELECTRIC  
CHOICE AND COMPETITION  
(collectively AECC),

Intervenors-Appellants,  
Cross Appellees,

RESIDENTIAL UTILITY  
CONSUMER OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State  
of Arizona,

Defendant-Appellant,  
Cross Appellee,

Supreme Court

No. ~~CV 01-0263-PR~~  
*CV04-0148PR*

Court of Appeals

No. 1 CA-CV 01-0068

MARICOPA COUNTY

Superior Court

No. CV 1997-003748

CONSTELLATION  
NEWENERGY, INC. AND  
STRATEGIC ENERGY,  
L.L.C.'S MOTION TO  
PARTICIPATE AS AMICI  
CURIAE IN OPPOSITION TO  
PETITION FOR REVIEW

DATED this 4<sup>th</sup> day of June, 2004.

SACKS TIERNEY P.A.

By   
Marvin S. Cohen  
Charlene Gibson Robertson  
Attorneys for Constellation  
NewEnergy, Inc. and Strategic  
Energy, L.L.C.

MEMORANDUM OF POINTS AND AUTHORITIES

Constellation and Strategic Energy are electric service providers (“ESPs”) selling retail electric service in Texas, California, Massachusetts, Pennsylvania, Ohio and other states. Constellation is the successor in interest to NEV Southwest, L.L.C., the holder of a certificate of convenience and necessity (“CCN”) granted by the Arizona Corporation Commission (“Commission”) on or about April 21, 1999. Constellation plans to offer competitive retail electric service in Arizona. Strategic Energy plans to offer competitive retail electric service in Arizona and to obtain a CCN for that purpose from the Commission. In furtherance of their intent to provide retail electric service in Arizona, Constellation and Strategic Energy have intervened and are participating in the current Arizona Public Service (“APS”) Rate Case before the Commission. (Docket No. E-01345A-03-0437).

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC  
COOPERATIVE, INC.; GRAHAM  
COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC  
COOPERATIVE, INC.; and TRICO  
ELECTRIC COOPERATIVE, INC.

Plaintiff-Appellees,  
Cross Appellants

ARIZONA CONSUMERS COUNCIL,

Plaintiff  
Cross Appellant

Pursuant to Rule 16 and Rule 23 (k) of the Arizona Rules of Civil Procedure, Constellation NewEnergy, Inc. (“Constellation”) and Strategic Energy, L.L.C. (“Strategic Energy”), through the undersigned counsel, respectfully request permission to participate in this matter as *amici curiae* and to file a memorandum in opposition to the Petition for Review filed May 4, 2004 by Plaintiff-Appellee, Cross Appellant Trico Electric Cooperative (“Trico”). Specifically, Constellation and Strategic request permission to file the “Memorandum of *Amici Curiae* Constellation NewEnergy and Strategic Energy In Opposition to Petitions For Review” in the form lodged simultaneously with this motion. This Motion is supported by the attached Memorandum of Points and Authorities, the attached affidavits of Mona Tierney and Jennifer Chamberlin, and the entire record before the Court in this case.

While the Court of Appeals decision below vacated certain rules and decisions of the Commission, it upheld the right of the Arizona Corporation Commission to allow ESPs to offer retail electric service within the territory of an electric utility holding a CCN. The decision also recognized that the Commission could determine a just and reasonable range of rates that can be charged by an ESP and is not limited to setting just one rate. The decision holds that any property rights that might be conferred under Article 15 Section 7 of the Arizona Constitution to Trico and other cooperatives by a CCN protect only their right to construct and operate lines to transmit and distribute electricity. In essence, the decision allows implementation of the retail competition for the provision of electricity called for in Arizona Revised Statutes §40-202.B. Trico is seeking to overturn the decision and prohibit such competition. If the decision is overturned on the grounds asserted by Trico, Constellation and Strategic will not be able to offer retail electric service in Arizona.

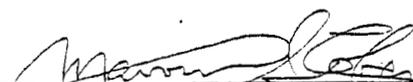
No ESPs are parties in this case. Constellation and Strategic seek the opportunity to file a Memorandum in Opposition to Trico's Petition for Review so that the Supreme Court will have the benefit of receiving for its consideration the perspective of electric service providers who are perhaps the entities most seriously affected by the outcome of the case, but who have not been before the Court as parties.

Constellation and Strategic have reviewed the Petition for Review filed by Trico. Constellation and Strategic submit that their unique perspective on the issues raised in the Petition for Review would benefit the Court in reaching its decision. The attached Memorandum, which Constellation and Strategic seek permission to file as *amici curiae*, offers additional insights on the issues presented. These issues are of significant concern to all potential providers of competitive electric services throughout the state.

Constellation and Strategic respectfully request that the Court grant their Motion to Participate as *Amici Curiae* and decline review of the issues set forth in the Petition for Review by Trico. Alternatively, if the Court chooses to accept review, Constellation and Strategic urge the Court to affirm the decision of the Court of Appeals.

RESPECTFULLY SUBMITTED this 4<sup>th</sup> day of June, 2004.

SACKS TIERNEY P.A.

By   
Marvin S. Cohen  
Charlene Gibson Robertson  
Attorneys for Constellation  
NewEnergy, Inc. and Strategic  
Energy, L.L.C.

ORIGINAL and 6 COPIES  
filed with Supreme Court Clerk and COPIES  
mailed this 4<sup>th</sup> day of June, 2004, to:

Michael M. Grant, Esq.  
Todd C. Wiley, Esq.  
Gallagher & Kennedy, P.A.  
2575 East Camelback Road  
Phoenix, Arizona 85016-9225  
Attorneys for Arizona Electric Power Cooperative, Inc.,  
Duncan Valley Electric Cooperative, Inc. and  
Graham County Electric Cooperative, Inc.

Janet Wagner  
Janice Alward  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
Attorneys for the Arizona Corporation Commission

Webb Crockett, Esq.  
Jay Shapiro, Esq.  
Fennemore Craig, PC  
Suite 2600  
3003 North Central Avenue  
Phoenix, Arizona 85012-2913  
Attorneys for AECC

Christopher Hitchcock, Esq.  
Hitchcock & Hicks  
Post Office Box 87  
Bisbee, Arizona 85603  
Attorneys for Sulphur Springs Valley Electric Cooperative, Inc.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

IN THE COURT OF APPEALS  
STATE OF ARIZONA  
DIVISION ONE

No. 1 CA-CV 01-0068

AFFIDAVIT OF JENNIFER  
CHAMBERLIN

PHELPS DODGE CORPORATION;  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION  
and formerly known as CYPRUS  
BAGDAD COPPER CORPORATION  
and formerly known as CYPRUS  
MINERAL PARK CORPORATION; AJO  
IMPROVEMENT COMPANY;  
MORENCI WATER & ELECTRIC  
COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively  
AECC),

Intervenors-Appellants,  
Cross-Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona,

Defendant-Appellant,  
Cross-Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC

SACKS TIERNEY P. A., LAWYERS  
4280 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85261-3893

Russell E. Jones, Esq.  
Waterfall Economidis, et al.  
Suite 800  
5210 East Williams Circle  
Tucson, Arizona 85711  
Attorneys for Trico Electric

Scott Wakefield, Chief Counsel  
Residential Utility Consumer Office  
1110 West Washington Street  
Suite 220  
Phoenix, Arizona 85007  
Attorneys for RUCO

Timothy Hogan, Esq.  
Arizona Center for Law in the Public Interest  
Suite 153  
202 East McDowell Road  
Phoenix, Arizona 85004-4533

Dally L. Lubina

[535112v3/CO302-00003]

1 COOPERATIVE, INC.; and TRICO  
2 ELECTRIC COOPERATIVE, INC.

3 Plaintiff-Appellees  
4 Cross-Appellants,

5 ARIZONA CONSUMERS COUNCIL,

6 Plaintiff  
7 Cross-Appellant.

8  
9 STATE OF California  
10 County of Contra Costa } ss:  
11

12 I, Jennifer Chamberlin, being been first duly sworn, upon my oath, hereby testify as  
13 follows under penalty of perjury:

14 1. I am the Manager of Regulatory Affairs for Strategic Energy, L.L.C.  
15 ("Strategic").

16 2. Strategic is an energy management company that provides electric load  
17 aggregation and power supply coordination services. Founded in 1986, Strategic has  
18 transformed itself from an energy-consulting firm into one of the largest competitive retail  
19 energy service providers in the United States. Strategic now has more than 42,000  
20 commercial and industrial customers in states that have enacted retail choice, including  
21 Pennsylvania, Ohio, New York, Massachusetts, Texas, and California—with many more  
22 states expected to come online in the next few years. More than 170 full-time energy  
23 professionals at its headquarters in Pittsburgh, Pennsylvania and in offices across the  
24 country are devoted to objective electricity and natural gas management and consulting.

25 3. Strategic procures and manages more than \$2 billion of electricity and natural  
26 gas per year and has never had a customer interrupted.

1 4. Strategic Energy is preparing and plans to file with the Arizona Corporation  
2 Commission ("Commission") an application for a CCN to supply competitive services as  
3 an ESP in Arizona.

4 5. Strategic has intervened in the current Arizona Public Service ("APS") rate  
5 case before the Commission (Docket No. E-01345A-03-0437) and is fully participating in  
6 the case because it wants to preserve retail competition in Arizona, enter the Arizona retail  
7 electric market and offer competitive retail electric service to customers now served by  
8 APS.

9  
10 FURTHER AFFIANT SAYETH NAUGHT.

11  
12   
13 Jennifer Chamberlin

14 SUBSCRIBED AND SWORN TO before me this 18<sup>th</sup> day of May, 2004, by  
15 Jennifer Chamberlin.

16  
17   
18 Notary Public

19 My Commission Expires:

20 03/02/08  
21



SACKS TIERNEY P.A., LAWYERS  
4260 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 86251-3693

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

IN THE COURT OF APPEALS  
STATE OF ARIZONA  
DIVISION ONE

No. 1 CA-CV 01-0068

AFFIDAVIT OF MONA TIERNEY

PHELPS DODGE CORPORATION;  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION  
and formerly known as CYPRUS  
BAGDAD COPPER CORPORATION  
and formerly known as CYPRUS  
MINERAL PARK CORPORATION; AJO  
IMPROVEMENT COMPANY;  
MORENCI WATER & ELECTRIC  
COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively  
AECC),

Intervenors-Appellants,  
Cross-Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona,

Defendant-Appellant,  
Cross-Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 86251-3693

1 COOPERATIVE, INC.; and TRICO  
2 ELECTRIC COOPERATIVE, INC.

3 Plaintiff-Appellees  
4 Cross-Appellants,

5 ARIZONA CONSUMERS COUNCIL,

6 Plaintiff  
7 Cross-Appellant.

8  
9 STATE OF California }  
10 County of Contra Costa } ss:

11  
12 I, Mona Tierney, being been first duly sworn, upon my oath, hereby testify as  
13 follows under penalty of perjury:

14 1. I am the Director of Government Affairs for Constellation NewEnergy, Inc.  
15 ("Constellation").

16 2. Constellation is the nation's leading competitive retail electric service provider  
17 ("ESP") serving commercial and industrial customers in California, Texas, Illinois, Ohio,  
18 Pennsylvania, Maryland, Delaware, New Jersey, New York, Massachusetts, Rhode Island,  
19 New Hampshire, and Maine.

20 3. Constellation is a wholly owned subsidiary of the Constellation Energy Group  
21 (NYSE: CEG), a leading global power company comprised of competitive generation,  
22 distribution, and retail businesses around the world. Constellation offers energy products  
23 and services including both electricity and natural gas. The company also provides  
24 customized solutions to achieve additional control and savings through energy efficiency,  
25 load management, and other specialized services. Constellation customers currently  
26 represent more than 8,000 megawatts of peak electric load and more than 250 billion cubic  
27 feet of annual natural gas consumption.

28

SACKS TIERNEY P.A., LAWYERS  
4260 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

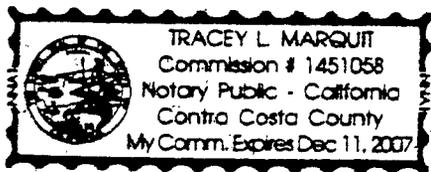
4. On or about April 21, 1999, the Arizona Corporation Commission ("Commission") granted NEV Southwest, L.L.C.'s application for a Certificate of Convenience and Necessity ("CCN") to supply competitive services as an ESP in Arizona. Constellation is a successor in interest to this CCN.

5. Constellation has intervened in the current Arizona Public Service ("APS") rate case before the Commission (Docket No. E-01345A-03-0437) and is fully participating in the case because it wants to preserve retail competition in Arizona, enter the Arizona retail electric market and offer competitive retail electric service to customers now served by APS.

FURTHER AFFLIANT SAYETH NAUGHT.

*Mona Tierney*  
Mona Tierney

SUBSCRIBED AND SWORN TO before me this 19 day of May, 2004, by Mona Tierney.



*Tracey L. Marquit*  
Notary Public

My Commission Expires:  
December 11, 2007

SUPREME COURT OF ARIZONA

PHELPS DODGE CORPORATION,  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION and  
formerly known as CYPRUS BAGDAD  
COPPER CORPORATION and formerly  
known as CYPRUS MINERAL PARK  
CORPORATION; AJO IMPROVEMENT  
COMPANY; MORENCI WATER &  
ELECTRIC COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively AECC),

Intervenors-Appellants,  
Cross Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona,

Defendant-Appellant,  
Cross Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC  
COOPERATIVE, INC.; and TRICO  
ELECTRIC COOPERATIVE, INC.

Plaintiff-Appellees,  
Cross Appellants,

ARIZONA CONSUMERS COUNCIL,

Plaintiff,  
Cross Appellant.

Supreme Court  
No. CV-01-0263-PR

Court of Appeals  
No. 1CA-CV 01-0068

MARICOPA COUNTY  
Superior Court  
No. CV 1997-003748

**MEMORANDUM OF *AMICI*  
*CURIAE* CONSTELLATION  
NEW ENERGY, INC. AND  
STRATEGIC ENERGY, L.L.C.,  
IN OPPOSITION TO PETITION  
FOR REVIEW**

Marvin S. Cohen (No. 000923)  
Charlene G. Robertson (No. 019580)  
SACKS TIERNEY P.A. (No. 0182000)  
4250 N. Drinkwater Blvd., 4th Floor  
Scottsdale, Arizona 85251  
Telephone: (480) 425-2633  
Facsimile (480) 425-4933  
Attorneys for Constellation NewEnergy  
and Strategic Energy

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF CITATIONS .....	ii
INTRODUCTION .....	1
CONSTELLATION AND STRATEGIC .....	1
THE RESTRUCTURING OF THE ELECTRIC INDUSTRY. ....	3
COMPETITION IN THE PROVISION OF ELECTRIC GENERATING SERVICES IS ARIZONA PUBLIC POLICY .....	5
TRICO HAS NO CREDIBLE BASIS FOR ITS PETITION-- THE COURT OF APPEALS DECISION WAS CORRECT.....	7
CONCLUSION.....	11
CERTIFICATE OF COMPLIANCE.....	iv
PROOF OF SERVICE.....	v

## TABLE OF CITATIONS

	<u>Page</u>
<b>Cases</b>	
<i>Gattis v. Gravett</i> , 806 F.2d 778, 781.....	8
<i>National R.R. Passenger Corp. v Atchison, Topeka &amp; Santa Fe Ry. Co.</i> , 470 U.S. 451, 465-66, 84 L. Ed. 2d 432, 105 S. Ct. 1441 (1985).....	8
<i>Proksa v. Arizona State School for the Deaf and the Blind</i> , 205 Ariz. 627, 74 P.3d 939 (2003).....	8
<i>US West Communications, Inc. v. Ariz. Corp. Commn.</i> , 197 Ariz. 16, 3 P.3d 936 (App. 1999).....	8, 11
<i>US West v. Arizona Corporation Commission</i> , 201 Ariz. 242, 34 P.3d 351 (2001).....	9, 10, 11
<b>Statutes</b>	
A.R.S. § 10-257.4 .....	6
A.R.S. § 15-1326 .....	8
A.R.S. § 30-801 et seq. ....	6
A.R.S. § 40-202.B.....	6
A.R.S. §§ 40-202—209 .....	6
<b>Other Authorities</b>	
December 31, 2001, FERC Form No. 1 Annual Report of Major Electric Utilities, Licensees and Others, Arizona Public Service Co., at 401 .....	4
Defense Energy Support Center Fact Book 2002, page 58, < <a href="http://www.desc.dla.mil/DCM/Files/fact02">http://www.desc.dla.mil/DCM/Files/fact02</a> > .....	6
Dr. Ronald J. Sutherland, <i>Estimating the Benefits of Restructuring Electricity Markets: An Application to the PJM Region</i> , Center for the Advancement of Energy Markets, (September 2003), and related press release < <a href="http://www.caem.org/website/pages/PJM.htm">http://www.caem.org/website/pages/PJM.htm</a> > .....	5
KEMA Press Release dated January 29, 2004, <i>Competitive Retail Power Markets Advance Rapidly in 2003, Surpass 50,000 Megawatt Mark</i> , < <a href="http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1_about?">http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1_about?</a> >.....	4
SALLY HUNT, <i>MAKING COMPETITION WORK IN ELECTRICITY</i> (John Wiley & Sons) (2002). .....	4

*Scope of Competition in Electric Markets in Texas, Report to the 78<sup>th</sup> Texas Legislature,*  
Public Utility Commission of Texas, January 2003 ..... 5

**Rules**

Arizona Administrative Code (“AAC”) R14-2-1601, *et seq* ..... 5

Rules 16 and 23(k) of the Arizona Rules of Civil Appellate Procedure ..... 1

**Constitutional Provisions**

Ariz. Const. Art. 15 §§ 2, 3, 13 ..... 9

Article 15, § 3 of the Arizona Constitution ..... 1, 10

## INTRODUCTION

Pursuant to Rules 16 and 23(k) of the Arizona Rules of Civil Appellate Procedure, Constellation NewEnergy, Inc. (“Constellation”) and Strategic Energy, L.L.C. (“Strategic”) submit this Memorandum as *amici curiae* in Opposition to the Petition for Review filed by Plaintiff-Appellee, Cross Appellant Trico Electric Cooperative, Inc. (“Trico”).

Constellation and Strategic ask that the Court deny review or, alternatively, affirm the decision of the Court of Appeals.

## CONSTELLATION AND STRATEGIC

Constellation is a large competitive retail electric service provider (“ESP”) serving commercial and industrial customers in California, Texas, Illinois, Ohio, Pennsylvania, Maryland, Michigan, New Jersey, New York, Massachusetts, Rhode Island, New Hampshire, and Maine. Constellation is a wholly owned subsidiary of the Constellation Energy Group (NYSE: CEG), a large global power company comprised of competitive generation, distribution, and retail businesses around the world. Constellation offers energy products and services including both electricity and natural gas. The company also provides customized solutions to achieve additional control and savings through energy efficiency, load management, and other specialized services. Constellation

customers currently represent more than 8,000 megawatts of peak electric load and more than 250 billion cubic feet of annual natural gas consumption.

On or about April 21, 1999, the Arizona Corporation Commission (“Commission”) granted NEV Southwest, L.L.C.’s application for a Certificate of Convenience and Necessity (“CCN”) to supply competitive services as an ESP in Arizona. Constellation is a successor in interest to this CCN. Constellation is planning to offer competitive retail electric service in Arizona.<sup>1</sup>

Strategic is an energy management company that provides electric load aggregation and power supply coordination services. Founded in 1986, Strategic is one of the largest competitive retail energy service providers in the United States. Strategic has more than 42,000 commercial and industrial customers in states that have enacted retail choice, including Pennsylvania, Ohio, New York, Massachusetts, Texas, and California—with more states expected to come online in the next few years. It employs more than 170 full-time energy professionals at its headquarters in Pittsburgh, Pennsylvania and in offices across the country. Strategic procures and manages more than \$2 billion of electricity and natural gas per year and has never had a customer interrupted.

---

<sup>1</sup> Affidavit of Mona Tierney, ¶¶ 2 through 4, copy submitted in Appendix as Attachment 1; original filed with Motion to Participate as *Amici Curiae* in Opposition to Petition for Review.

Strategic is preparing and plans to file with the Commission an application for a CCN to supply competitive services as an ESP in Arizona.<sup>2</sup>

Constellation and Strategic have intervened in the current Arizona Public Service ("APS") rate case before the Commission (Docket No. E-01345A-03-0437) and are fully participating in the case because they want to preserve retail competition in Arizona, enter the Arizona retail electric market and offer competitive retail electric service to customers in the state.<sup>3</sup>

#### THE RESTRUCTURING OF THE ELECTRIC INDUSTRY.

The electric industry generally consists of three functional elements: generating facilities that produce the electricity, transmission facilities that carry the power to communities, and distribution facilities that deliver the power to customers. The transmission and distribution facilities are generally considered to be natural monopolies, but the generating facilities can compete against one another if they have access to transmission facilities to deliver their products. Prior to 1992, the general pattern in the electric industry was for one company in an area to be vertically integrated, that is, to own the production, transmission and

---

<sup>2</sup> Affidavit of Jennifer Chamberlin, ¶¶ 2 through 4, copy submitted in Appendix as Attachment 2; original filed with Motion to Participate as *Amici Curiae* in Opposition to Petition for Review.

<sup>3</sup> Tierney and Chamberlin Affidavits, ¶ 5.

distribution facilities needed to serve its customers.<sup>4</sup> The provision of electricity by investor owned utilities was fully regulated as to both price and quality of service. In 1992, federal legislation required open access to transmission networks and allowed the independent owners of electric generating facilities to deliver their energy through these networks. Since 1994, states have been changing their laws to allow competition in the provision of generating services.<sup>5</sup> By the end of 2003, competitive retailers were serving over 52,000 MW in the United States.<sup>6</sup> For comparison, the Arizona Public Service load in 2001 was about 5,700 MW.<sup>7</sup> A January 2003 Report to the 78th Texas Legislature by the Public Utility Commission of Texas estimates that, compared to rates in effect in 2001, Texas residential, commercial and industrial electric customers saved close

---

<sup>4</sup> There were some exceptions with regard to municipalities and cooperatives which tended to own distribution, and possibly transmission, facilities and bought their power at wholesale from companies owning generating facilities.

<sup>5</sup> SALLY HUNT, MAKING COMPETITION WORK IN ELECTRICITY (John Wiley & Sons) (2002), pages 1-5, submitted in Appendix as Attachment 3.

<sup>6</sup> KEMA Press Release dated January 29, 2004, *Competitive Retail Power Markets Advance Rapidly in 2003, Surpass 50,000 Megawatt Mark*, <[http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1\\_about?](http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1_about?)>, submitted in Appendix as Attachment 4.

<sup>7</sup> December 31, 2001, FERC Form No. 1 Annual Report of Major Electric Utilities, Licensees and Others, Arizona Public Service Co., at 401, submitted in Appendix as Attachment 5.

to \$1.7 billion in 2002 because of retail competition.<sup>8</sup> The Center for the Advancement of Energy Markets, a non-profit think tank, issued a study in September 2003 that estimated more than \$3 billion in savings for electric consumers in 2002 in the Mid-Atlantic region—Pennsylvania, Maryland, Delaware, New Jersey and the District of Columbia.<sup>9</sup> The Department of Defense estimates that between 1999 and 2002, it saved \$36 million in costs of electricity by buying in competitive markets<sup>10</sup>

**COMPETITION IN THE PROVISION OF ELECTRIC GENERATING  
SERVICES IS ARIZONA PUBLIC POLICY**

In December 1996, the Commission adopted rules establishing a framework for the introduction of retail electric competition in Arizona. Arizona Administrative Code (“A.A.C.”) R14-2-1601, *et seq.* Under these rules,

---

<sup>8</sup> *Scope of Competition in Electric Markets in Texas*, Report to the 78<sup>th</sup> Texas Legislature, Public Utility Commission of Texas, January 2003, page 76, submitted in Appendix as Attachment 6.

<sup>9</sup> Dr. Ronald J. Sutherland, *Estimating the Benefits of Restructuring Electricity Markets: An Application to the PJM Region*, Center for the Advancement of Energy Markets, (September 2003), and related press release <<http://www.caem.org/website/pages/PJM.htm>>, submitted in Appendix as Attachment 7.

electricity generation, metering and billing would become competitive; customers could choose to obtain these services from ESPs. Distribution and transmission remained noncompetitive.

In 1998, the Arizona Legislature enacted H.B. 2663, Laws 1998, Ch. 209 that established electric power competition as the public policy of the state. The Act amended Titles 10, 30 and 40 of the Arizona Revised Statutes to provide in Title 10 for electric cooperatives to participate in competition with other entities in the electric energy market (A.R.S. § 10-257.4), to provide in Title 30 the rules for electric competition involving public power entities (A.R.S. § 30-801 et seq.), and to provide in Title 40 for a transition by regulated electric public service corporations to competition for electric generation service (A.R.S. §§ 40-202—209.) A.R.S. § 40-202.B was amended to read, in pertinent part: “It is the public policy of this state that a competitive market shall exist in the sale of electric generation service....” In Section 35 of the 1998 Act, the legislative intent of the Act was stated, in pertinent part, as follows:

The legislature intends by this act to promote and protect the interests of retail electric power customers and the state as a whole by moving from the regulatory framework for delivery of electric generation to a

---

<sup>10</sup> Defense Energy Support Center Fact Book 2002, page 58, <<http://www.desc.dla.mil/DCM/Files/fact02>>, submitted in Appendix as Attachment 8.

framework under which competition is allowed in the sale of electricity to retail customers. Furthermore, it is in the public interest for the legislature to establish policies for the state to ensure an orderly transition to a competitive market in the retail sale of electricity that should allow citizens of this state and businesses operating in this state to achieve the economic benefits from industry restructuring....

Both the Arizona Corporation Commission and the Arizona Legislature, the two institutions with plenary power over the subject, have clearly and unequivocally established as public policy that consumers in Arizona should have the choice of alternative suppliers of electric generating services in a competitive system.

**TRICO HAS NO CREDIBLE BASIS FOR ITS PETITION--THE COURT OF APPEALS DECISION WAS CORRECT.**

Trico contends that, notwithstanding the actions of the Commission and the Legislature establishing competition in the provision of electric generating services as the public policy of Arizona, this Court should abolish competition and re-instate regulated monopolies for the provision of these services. In support of this contention, they claim to have an exclusive right to sell electricity in their certificated areas; they also claim that the Commission cannot authorize a range of rates but must establish the specific rates to be charged. These arguments have previously been presented to this Court and have been unequivocally rejected.

In *US West Communications, Inc. v. Ariz. Corp. Commn.*, 197 Ariz. 16, 3 P.3d 936 (App. 1999) ("*US West I*") the Court of Appeals ruled specifically that the nature of the relationship between a regulated public service corporation and the Commission is not contractual. This Court denied a petition for review from that decision. Last year this Court had occasion to directly review a claim, in another context, that a contract had been created by statute. *Proksa v. Arizona State School for the Deaf and the Blind*, 205 Ariz. 627, 74 P.3d 939 (2003). There former employees of the Arizona State Schools for the Deaf and Blind asserted that they had contract rights and property rights in their continued employment under A.R.S. § 15-1326 prior to its amendment in 1993 and that their termination in 2002 violated those rights. This Court rejected that argument relying, in part, on *US West I*, and citing with approval *National R.R. Passenger Corp. v Atchison, Topeka & Santa Fe Ry. Co.*, 470 U.S. 451, 465-66, 84 L. Ed. 2d 432, 105 S. Ct. 1441 (1985), the same case on which the Court of Appeals had relied in *US West I*. With regard to the claimed property right, this Court in *Proksa* quoted with approval from *Gattis v. Gravett*, 806 F.2d 778, 781: "The legislature which creates a property interest may rescind it...whether the interest is an entitlement to economic benefits, a statutory cause of action or civil service job protection." 74 P.2d at 944. In establishing competition in the provision of

electric generating service as the public policy of the state, the Arizona Legislature and the Commission clearly rescinded any entitlement to the economic benefits of monopoly that public service utilities may have previously held with regard to the sale of electric generating services. The law is settled in Arizona that Trico had no contractual relationship with the state resulting from its CCN and has no property right to exclusivity in its sales of electric generation. There is no reason to change this law.

With regard to the Commission's power to establish a range of rates, it was clearly established in *US West v. Arizona Corporation Commission*, 201 Ariz. 242, 34 P.3d 351 (2001) ("*US West II*"), that the Commission has such power. There it was asserted, as Trico here asserts, that the Commission is constitutionally obligated to set rates for public service corporations on the basis of a fair value rate base.<sup>11</sup> While this Court determined that, in the context of telecommunications, the Arizona Constitution requires a determination of the fair value of every competitive local exchange carrier ("*CLEC*")<sup>12</sup>, the Court went on to hold that the Commission has considerable latitude and discretion in its use of

---

<sup>11</sup> There the telecommunications industry was involved, but the provisions of the Arizona Constitution at issue apply equally to all public service corporations – those providing telecommunications service as well as those providing electric services. Ariz. Const. Art. 15 §§ 2, 3, 13.

the fair value determination for purposes of rate making. In so holding, the Court observed as follows:

But while the constitution clearly requires the Arizona Corporation Commission to perform a fair value determination, [\*246] [\*\*355] **only our jurisprudence dictates that this finding be plugged into a rigid formula as part of the rate-setting process. Neither section 3 nor section 14 of the constitution requires the corporation commission to use fair value as the exclusive "rate basis."....**

As we have seen, a line of cases nearly as old as the state itself has sustained the traditional formulaic approach. The commission and the CLECs correctly point out, however, that those decisions were rendered during a time of monopolistic utility markets. In such a setting, where rates were determined by giving the utility a reasonable return on its Arizona property, the fair value requirement was essential.

We still believe that when a monopoly exists, the rate-of-return method is proper. **Today, however, we must consider our case law interpreting the constitution against a backdrop of competition. In such a climate, there is no reason to rigidly link the fair value determination to the establishment of rates. We agree that our previous cases establishing fair value as the exclusive rate base are inappropriate for application in a competitive environment.**

34 P.3d at 355. (Emphasis supplied).

In its Petition, Section II D, Trico contends that Article 15, § 3 of the Arizona Constitution does not permit the Commission to set a range of rates. In making this assertion, Trico totally ignores the above-quoted holdings in *US West*

---

<sup>12</sup> A CLEC is the telephone industry equivalent of an ESP in the power

*II*; it makes no attempt to distinguish this case from *US West II* and offers no basis for this Court to overturn that decision.

### CONCLUSION

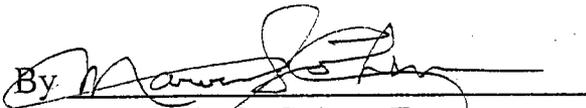
The Court of Appeals opinion is based on recent decisions of this Court. The Petition for Review offers no convincing basis for this Court to depart from those decisions. The Arizona Corporation Commission and the Arizona Legislature have recognized the potential benefits to Arizona consumers from allowing competition in the provision of electric generating services. Consumers in other states have realized significant benefits from such competition. The Arizona Courts have correctly decided that the Arizona Constitution does not prohibit competition in the sale of electricity. There is no reason for this Court to grant review. If review is granted, the Court of Appeals ruling should be affirmed.

---

industry.

RESPECTFULLY SUBMITTED this 4<sup>th</sup> day of June, 2004.

SACKS TIERNEY P.A.

By 

Marvin S. Cohen, Esq.

Charlene G. Robertson, Esq.

Attorneys for Constellation NewEnergy and  
Strategic Energy

[536925]

CERTIFICATE OF COMPLIANCE

Pursuant to Rule 14(b) of the Arizona Rules of Civil Appellate Procedure, the undersigned attorney for the Constellation NewEnergy and Strategic Energy hereby certifies that the foregoing Brief (i) is, with the exception of headings, footnotes and block quotes, double spaced, (ii) uses proportionately spaced Times New Roman (scalable) typeface, with a point size of 14, and (iii) contains 2,372 words, according to the word count of the processing system used to prepare the Brief.

  
Marvin S. Cohen

PROOF OF SERVICE

Pursuant to Rule 4(c) of the Arizona Rules of Court Appellate Procedure, the undersigned attorney for the Appellee hereby certifies that two copies of the foregoing Brief and its Appendix have been served this 4<sup>th</sup> day of June, 2004, by first class mail, postage prepaid, upon counsel for the parties at the following addresses:

Michael M. Grant, Esq.  
Todd C. Wiley, Esq.  
GALLAGHER & KENNEDY, P.A.  
2575 East Camelback Road  
Phoenix, Arizona 85016-9225  
Attorneys for Arizona Electric Power Cooperative, Inc.,  
Duncan Valley Electric Cooperative, Inc. and  
Graham County Electric Cooperative, Inc.

Janet Wagner, Esq.  
Janice Alward, Esq.  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
Attorneys for the Arizona Corporation Commission

Webb Crockett, Esq.  
Jay Shapiro, Esq.  
FENNEMORE CRAIG, PC  
3003 North Central Avenue, Suite 2600  
Phoenix, Arizona 85012-2913  
Attorneys for AECC

Christopher Hitchcock, Esq.  
HITCHCOCK & HICKS  
Post Office Box 87  
Bisbee, Arizona 85603  
Attorneys for Sulphur Springs Valley Electric Cooperative, Inc.

Russell E. Jones, Esq.  
WATERFALL ECONOMIDIS, ET AL.  
5210 East Williams Circle, Suite 800  
Tucson, Arizona 85711  
Attorneys for Trico Electric

Scott Wakefield, Chief Counsel  
Residential Utility Consumer Office  
1110 West Washington Street, Suite 220  
Phoenix, Arizona 85007  
Attorneys for RUCO

Timothy Hogan, Esq.  
Arizona Center for Law in the Public Interest  
202 East McDowell Road, Suite 153  
Phoenix, Arizona 85004-4533



---

Marvin S. Cohen

SUPREME COURT OF ARIZONA

PHELPS DODGE CORPORATION,  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION and  
formerly known as CYPRUS BAGDAD  
COPPER CORPORATION and formerly  
known as CYPRUS MINERAL PARK  
CORPORATION; AJO IMPROVEMENT  
COMPANY; MORENCI WATER &  
ELECTRIC COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively AECC),

Intervenors-Appellants,  
Cross Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona.

Defendant-Appellant,  
Cross Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC  
COOPERATIVE, INC.; and TRICO  
ELECTRIC COOPERATIVE, INC.

Plaintiff-Appellees,  
Cross Appellants,

ARIZONA CONSUMERS COUNCIL,

Plaintiff,  
Cross Appellant.

Supreme Court  
No. CV-01-0263-PR

Court of Appeals  
No. 1CA-CV 01-0068

MARICOPA COUNTY  
Superior Court  
No. CV 1997-003748

APPENDIX TO  
MEMORANDUM OF *AMICI*  
*CURIAE* CONSTELLATION  
NEW ENERGY, INC. AND  
STRATEGIC ENERGY, L.L.C.,

Marvin S. Cohen (No. 000923)  
Charlene G. Robertson (No. 019580)  
SACKS TIERNEY P.A. (No. 0182000)  
4250 N. Drinkwater Blvd., 4th Floor  
Scottsdale, Arizona 85251  
Telephone: (480) 425-2633  
Facsimile (480) 425-4933  
Attorneys for Constellation NewEnergy  
and Strategic Energy

## APPENDIX

- Attachment 1 Affidavit of Mona Tierney
- Attachment 2 Affidavit of Jennifer Chamberlin.
- Attachment 3 SALLY HUNT, MAKING COMPETITION WORK IN ELECTRICITY, (John Wiley & Sons) (2002)
- Attachment 4 KEMA Press Release dated January 29, 2004, *Competitive Retail Power Markets Advance Rapidly in 2003, Surpass 50,000 Megawatt Mark*,  
<[http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1\\_about?](http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1_about?)>
- Attachment 5 December 31, 2001, FERC Form No. 1 Annual Report of Major Electric Utilities, Licensees and Others, Arizona Public Service Co., at 401
- Attachment 6 *Scope of Competition in Electric Markets in Texas*, Report to the 78<sup>th</sup> Texas Legislature, Public Utility Commission of Texas, January 2003
- Attachment 7 Dr. Ronald J. Sutherland, *Estimating the Benefits of Restructuring Electricity Markets: An Application to the PJM Region*, Center for the Advancement of Energy Markets, (September 2003), and related press release, <<http://www.caem.org/website/pages/PJM.htm>>
- Attachment 8 Defense Energy Support Center Fact Book 2002, page 58, <<http://www.desc.dla.mil/DCM/Files/fact02>>

**1**

SUPREME COURT OF ARIZONA

PHELPS DODGE CORPORATION,  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION and  
formerly known as CYPRUS BAGDAD  
COPPER CORPORATION and formerly  
known as CYPRUS MINERAL PARK  
CORPORATION; AJO IMPROVEMENT  
COMPANY; MORENCI WATER &  
ELECTRIC COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively AECC),

Intervenors-Appellants,  
Cross Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona.

Defendant-Appellant,  
Cross Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC  
COOPERATIVE, INC.; and TRICO  
ELECTRIC COOPERATIVE, INC.

Plaintiff-Appellees,  
Cross Appellants,

ARIZONA CONSUMERS COUNCIL,

Plaintiff,  
Cross Appellant.

Supreme Court  
No. CV-01-0263-PR

Court of Appeals  
No. 1CA-CV 01-0068

MARICOPA COUNTY  
Superior Court  
No. CV 1997-003748

APPENDIX TO  
MEMORANDUM OF *AMICI*  
*CURIAE* CONSTELLATION  
NEW ENERGY, INC. AND  
STRATEGIC ENERGY, L.L.C.,

Marvin S. Cohen (No. 000923)  
Charlene G. Robertson (No. 019580)  
SACKS TIERNEY P.A. (No. 0182000)  
4250 N. Drinkwater Blvd., 4th Floor  
Scottsdale, Arizona 85251  
Telephone: (480) 425-2633  
Facsimile (480) 425-4933  
Attorneys for Constellation NewEnergy  
and Strategic Energy

## APPENDIX

- Attachment 1 Affidavit of Mona Tierney
- Attachment 2 Affidavit of Jennifer Chamberlin.
- Attachment 3 SALLY HUNT, MAKING COMPETITION WORK IN ELECTRICITY, (John Wiley & Sons) (2002)
- Attachment 4 KEMA Press Release dated January 29, 2004, *Competitive Retail Power Markets Advance Rapidly in 2003, Surpass 50,000 Megawatt Mark*,  
<[http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1\\_about?](http://ragtime.xenergy.com/xenhome.nsf/htmldocs/1_about?)>
- Attachment 5 December 31, 2001, FERC Form No. 1 Annual Report of Major Electric Utilities, Licensees and Others, Arizona Public Service Co., at 401
- Attachment 6 *Scope of Competition in Electric Markets in Texas*, Report to the 78<sup>th</sup> Texas Legislature, Public Utility Commission of Texas, January 2003
- Attachment 7 Dr. Ronald J. Sutherland, *Estimating the Benefits of Restructuring Electricity Markets: An Application to the PJM Region*, Center for the Advancement of Energy Markets, (September 2003), and related press release, <<http://www.caem.org/website/pages/PJM.htm>>
- Attachment 8 Defense Energy Support Center Fact Book 2002, page 58, <<http://www.desc.dla.mil/DCM/Files/fact02>>

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

IN THE COURT OF APPEALS  
STATE OF ARIZONA  
DIVISION ONE

No. 1 CA-CV 01-0068

AFFIDAVIT OF MONA TIERNEY

PHELPS DODGE CORPORATION;  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION  
and formerly known as CYPRUS  
BAGDAD COPPER CORPORATION  
and formerly known as CYPRUS  
MINERAL PARK CORPORATION; AJO  
IMPROVEMENT COMPANY;  
MORENCI WATER & ELECTRIC  
COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively  
AECC),

Intervenors-Appellants,  
Cross-Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona,

Defendant-Appellant,  
Cross-Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3693

1 COOPERATIVE, INC.; and TRICO  
2 ELECTRIC COOPERATIVE, INC.

3 Plaintiff-Appellees  
4 Cross-Appellants,

5 ARIZONA CONSUMERS COUNCIL,

6 Plaintiff  
7 Cross-Appellant.

8  
9 STATE OF California )  
10 County of Contra Costa ) ss:

11  
12 I, Mona Tierney, being first duly sworn, upon my oath, hereby testify as  
13 follows under penalty of perjury:

14 1. I am the Director of Government Affairs for Constellation NewEnergy, Inc.  
15 ("Constellation").

16 2. Constellation is the nation's leading competitive retail electric service provider  
17 ("ESP") serving commercial and industrial customers in California, Texas, Illinois, Ohio,  
18 Pennsylvania, Maryland, Delaware, New Jersey, New York, Massachusetts, Rhode Island,  
19 New Hampshire, and Maine.

20 3. Constellation is a wholly owned subsidiary of the Constellation Energy Group  
21 (NYSE: CEG), a leading global power company comprised of competitive generation,  
22 distribution, and retail businesses around the world. Constellation offers energy products  
23 and services including both electricity and natural gas. The company also provides  
24 customized solutions to achieve additional control and savings through energy efficiency,  
25 load management, and other specialized services. Constellation customers currently  
26 represent more than 8,000 megawatts of peak electric load and more than 250 billion cubic  
27 feet of annual natural gas consumption.

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85261-3693

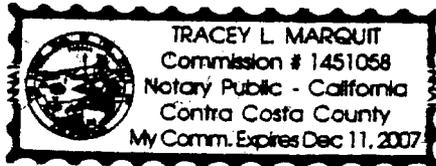
1 4. On or about April 21, 1999, the Arizona Corporation Commission ("Commission")  
2 granted NEV Southwest, L.L.C.'s application for a Certificate of Convenience and  
3 Necessity ("CCN") to supply competitive services as an ESP in Arizona. Constellation is a  
4 successor in interest to this CCN.

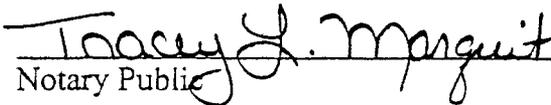
5 5. Constellation has intervened in the current Arizona Public Service ("APS") rate case  
6 before the Commission (Docket No. E-01345A-03-0437) and is fully participating in the  
7 case because it wants to preserve retail competition in Arizona, enter the Arizona retail  
8 electric market and offer competitive retail electric service to customers now served by  
9 APS.

10 FURTHER AFFIANT SAYETH NAUGHT.

11  
12   
13 Mona Tierney

14  
15 SUBSCRIBED AND SWORN TO before me this 19 day of May, 2004, by Mona  
16 Tierney.



20   
21 Tracey L. Marquit  
22 Notary Public

23  
24 My Commission Expires:

25  
26 December 11, 2007  
27  
28

2

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

IN THE COURT OF APPEALS  
STATE OF ARIZONA  
DIVISION ONE

No. 1 CA-CV 01-0068

**AFFIDAVIT OF JENNIFER  
CHAMBERLIN**

PHELPS DODGE CORPORATION;  
PHELPS DODGE MORENCI, INC.,  
PHELPS DODGE formerly known as  
CYPRUS CLIMAX METALS  
CORPORATION and formerly known as  
CYPRUS SIERRITA CORPORATION  
and formerly known as CYPRUS  
BAGDAD COPPER CORPORATION  
and formerly known as CYPRUS  
MINERAL PARK CORPORATION; AJO  
IMPROVEMENT COMPANY;  
MORENCI WATER & ELECTRIC  
COMPANY; ASARCO  
INCORPORATED; ARIZONA MINING  
ASSOCIATION; ARIZONA  
ASSOCIATION OF INDUSTRIES and  
ARIZONANS FOR ELECTRIC CHOICE  
AND COMPETITION (collectively  
AECC),

Intervenors-Appellants,  
Cross-Appellees,

RESIDENTIAL UTILITY CONSUMER  
OFFICE,

Intervenor-Appellant,

THE ARIZONA CORPORATION  
COMMISSION, an agency of the State of  
Arizona,

Defendant-Appellant,  
Cross-Appellee,

ARIZONA ELECTRIC POWER  
COOPERATIVE, INC.; DUNCAN  
VALLEY ELECTRIC COOPERATIVE,  
INC.; GRAHAM COUNTY ELECTRIC  
COOPERATIVE, INC.; SULPHUR  
SPRINGS VALLEY ELECTRIC

SACKS TIERNEY P.A., LAWYERS  
4260 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85261-3893

SACKS TIERNEY P.A. LAWYERS  
4260 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 86261-3893

1 COOPERATIVE, INC.; and TRICO  
2 ELECTRIC COOPERATIVE, INC.

3 Plaintiff-Appellees  
4 Cross-Appellants,

5 ARIZONA CONSUMERS COUNCIL,

6 Plaintiff  
7 Cross-Appellant.

8  
9 STATE OF California )  
10 County of Contra Costa ) ss:  
11

12 I, Jennifer Chamberlin, being been first duly sworn, upon my oath, hereby testify as  
13 follows under penalty of perjury:

14 1. I am the Manager of Regulatory Affairs for Strategic Energy, L.L.C.  
15 ("Strategic").

16 2. Strategic is an energy management company that provides electric load  
17 aggregation and power supply coordination services. Founded in 1986, Strategic has  
18 transformed itself from an energy-consulting firm into one of the largest competitive retail  
19 energy service providers in the United States. Strategic now has more than 42,000  
20 commercial and industrial customers in states that have enacted retail choice, including  
21 Pennsylvania, Ohio, New York, Massachusetts, Texas, and California—with many more  
22 states expected to come online in the next few years. More than 170 full-time energy  
23 professionals at its headquarters in Pittsburgh, Pennsylvania and in offices across the  
24 country are devoted to objective electricity and natural gas management and consulting.

25 3. Strategic procures and manages more than \$2 billion of electricity and natural  
26 gas per year and has never had a customer interrupted.

SACKS TIERNEY P.A., LAWYERS  
4250 NORTH DRINKWATER BOULEVARD  
FOURTH FLOOR  
SCOTTSDALE, ARIZONA 85251-3893

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

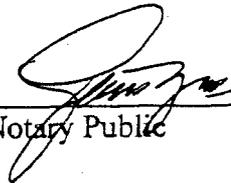
4. Strategic Energy is preparing and plans to file with the Arizona Corporation Commission ("Commission") an application for a CCN to supply competitive services as an ESP in Arizona.

5. Strategic has intervened in the current Arizona Public Service ("APS") rate case before the Commission (Docket No. E-01345A-03-0437) and is fully participating in the case because it wants to preserve retail competition in Arizona, enter the Arizona retail electric market and offer competitive retail electric service to customers now served by APS.

FURTHER AFFIANT SAYETH NAUGHT.

  
Jennifer Chamberlin

SUBSCRIBED AND SWORN TO before me this 18<sup>th</sup> day of May, 2004, by Jennifer Chamberlin.

  
Notary Public

My Commission Expires:  
03/02/08



3

# Making Competition Work in electricity

SALLY HUNT



John Wiley & Sons, Inc.

## CHAPTER 1

### Introduction

This was to have been a book about the electric industry in the United States. Ten years after federal legislation began the process in 1992, the United States is stuck in the middle, with some states regulated and some deregulated. There is still no clear policy at the national level for where we are trying to get to, and no road map for getting there. The aim of the book was to return to the fundamentals, to set out a consistent framework for national policy, and proposals for achieving it, so that any interested person could understand it.

But books have a way of going off in their own direction. It turned out that it was impossible to explain even where we are now, let alone what went wrong in California and where we should be headed, without extensive footnotes explaining the concepts, which then turned into text boxes, and eventually into whole chapters. Finally, a wise reviewer suggested dividing the book into two parts—the general story of how to make competition work in electricity, which can apply to any country, and a policy framework for the United States. And that is what we did. It is as simple as I could make it.

Although the book has a single author and reflects in the end a personal prescription, colleagues at NERA have contributed substantially to the drafting and have reviewed every chapter. We (the collegial "we" who pontificate throughout the book) have been involved in virtually every electricity restructuring around the globe and in the United States. By now there is little disagreement between us—we think we know what works and what does not, and which issues are not yet settled. There is even substantial agreement among the few consulting firms who have specialized in these matters. But to my knowledge, this is the first attempt at gathering it all together and applying it to U.S. policy issues.

The restructuring of the electric industry in the United States has had a short but bumpy history. The 1992 federal legislation required open access to the transmission network for some transactions, and removed some

roadblocks to independent generators. Since 1994, the states have been deregulating one by one. Most state plans were stalled by the debacle in California,<sup>1</sup> which cost the citizens of that state, as taxpayers and as consumers, billions of dollars out of pocket, 40 percent rate increases, and the first set of rolling blackouts in the memory of most citizens of the United States. Deregulation is widely viewed as a failed experiment, competition as a rip-off. Countries as far away as China and as close as Mexico put their plans on hold because of the risks exposed by California.

This does not have to be the case. The industry is technically complex and also institutionally complicated, but there is by now, after a decade of international experience, a "standard prescription" to deal with the complexities: a checklist of what is required for this industry to become competitive. The technical complexity can be solved; The institutional issues are at the root of the problem in the United States.

The basic problem is the split of regulation between the federal government and the states. It is a thoroughly interstate industry, but no one has overall authority to decide what needs to be done. This has resulted in a plethora of incompatible initiatives. What is required is to develop the conceptual framework, make a plan, and to implement the institutional changes necessary to make it happen.

### THE ELECTRIC INDUSTRY

Electric systems around the world are physically and operationally very similar. The physical functions of the industry are generation (production), system operations, transmission, and distribution. The merchant functions are wholesaling and retailing. Transmission and distribution are transport functions—the transmission wires are networked and serve large areas; the distribution wires are local. The typical organization of the industry prior to deregulation was *vertically integrated companies*, incorporating all these functions.

These companies built their own generating plants and coordinated the planning of generation with the planning of transmission. In real time their system operators coordinated the generating plants, telling them when to run and when to back off so as not to overload the transmission network. The customers received a bill that had all these functions "bundled" into a single tariff—the vertically integrated company was the retailer as well as

<sup>1</sup>Appendix C reviews the California crisis of 2000–2001. Texas did go ahead with its long-planned deregulation on January 1, 2002.

the producer. The vertically integrated companies had monopolies in their own areas, and because of this, prices were regulated—in the United States mostly by regulators at the state level, in other countries by the central government. The integrated companies built to serve their own customers, and had to build enough to serve them all, at all times.

Competition in the electric industry generally means competition only in the production (generation) of electricity and in the commercial functions of wholesaling and retailing. These are the functions that would be deregulated—their prices would be set in competitive markets and not by regulators. The transportation functions (transmission and distribution) cannot be competitive—they are natural monopolies. It doesn't make economic (or environmental or esthetic) sense to build multiple sets of competing transmission systems; everyone has to use the same wires.<sup>2</sup> They have to serve everyone, and they have to be regulated. System operations also has to be a monopoly, since the system operator has to control all the plants in a control area, or the system will not function. The worry is that in restructuring, the competitive parts need to be separated from the regulated parts, and the coordination that was working well in the integrated companies under regulation may be lost. Institutions have to be designed to replace the previous internal coordination without losing its important efficiencies. This has been done successfully in parts of America, and also abroad, but it is still the major challenge.

### THE CASE FOR COMPETITION

The major theme of this book is simple: The need in the United States is to refocus on introducing competition into the production markets, because this is where most of the long-term benefits of restructuring will accrue. Competition in the retail markets will not produce low prices if the production markets are not competitive. It was in the production end that the problems of the old U.S. system were mainly observed<sup>3</sup>—a highly politicized process of investment, inefficiencies in choice of technology, construction, and maintenance, and difficulties in regulation and pricing, that led to a desire to reorganize the industry. Since these are the places that competition can help, introducing competition in production makes sense for the United States.

<sup>2</sup>This is in contrast to telephone, where competition in long distance provision did involve competing methods of transmission (such as microwave transmission and fiber-optic cables) owned by different providers.

<sup>3</sup>Paul Joskow, *Deregulation and Regulatory Reform in the U.S. Electric Power Sector*, MIT Department of Economics, Working Paper, February 17, 2000.

Competition is the basis upon which the U.S. economy was built. It is not an end in itself. It is generally supposed to bring a whole bundle of good things that we as a society value—efficiency and technical progress among them. The U.S. Supreme Court has called the Sherman Act of 1890:

... a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade, resting on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions.<sup>4</sup>

The Court was enunciating the economic case for competition—the best allocation of our economic resources, the lowest prices, the highest quality, and the greatest material progress.

In general, a monopoly held in check by regulation is considered a poor substitute for a competitive market and is only to be adopted where, for reasons of natural monopoly or some overriding public interest, competition is not feasible or performs poorly without government controls. We now know from experience elsewhere and in parts of the United States that competition in electricity production is feasible. We know that many of the reasons the industry was organized as regulated monopolies for so long no longer apply. So competition is the standard to beat. Competition is what benefits consumers. And in the final analysis, benefiting consumers should be what public policy is all about.

Consumers want, and should expect to have:

- Low prices (although they know they have to pay enough to keep suppliers in business);
- Reliable service;
- Fairly predictable bills; and
- The opportunity to benefit from value-added services that may come available.

So far, except in the notorious case of California, competition has managed to provide these things where it has been introduced in electric industries around the world. Many other countries, and some jurisdictions in the United States, have successfully introduced competition in production and open access to transmission. There is by now a decade of international

<sup>4</sup>U.S. Supreme Court: *Northern Pacific Railway Co. v. United States*, 356 U.S. 1, 4 (1958).

experience good and not so good, but not one of the countries that introduced competition has gone back to the old monopoly ways. This, in its own way, is a ringing testimonial to the benefits of competition.<sup>5</sup>

However, there are certain technical details that have to be attended to for competition to be able to produce these results. There are cogent reasons why electricity was a monopoly for so long—electricity is indeed different from other commodities. It cannot be stored; it is transported at the speed of light, following laws of physics unique to this commodity, over a fragile and interactive transmission network. The instant you flip the switch, something happens at a generating plant somewhere, and the electricity gets to you in a millisecond. The network requires the constant vigilant control of a system operator; the penalty for inattention is to black out the whole area, as has happened twice on the East Coast of the United States.

But the technical complexity exists everywhere there is electricity. We know what to do, and we know what we don't know. We also know that restructuring this industry is harder than most people think. Airlines, gas, banking, and telecommunications industries have been made competitive, with considerable success. They were a piece of cake in comparison to electricity. One thing has been made clear from experience both at home and abroad: You cannot simply cease to regulate the industry and walk away from it expecting a competitive market to rush in and work its magic. The introduction of competition poses some really difficult problems, and rational solutions depend upon understanding these complexities and designing ways to account for them.

Part One of this book is the "Standard Prescription"—the issues that need to be addressed, explanations of the controversial points, and proposals for the most resilient solutions, derived both from economic theory and from years of practical experience in the field. The institutional changes must, in the end, permit competitive markets in electricity to meet the ordinary requirements of commerce. Many buyers and many sellers must be able to access each other easily; they must be able to make contracts in advance and at spot prices; and they must be able to transport the electricity with a high degree of certainty as to the price and availability of the transmission network.

Efficiency is the goal; competition is the means; *open access, restructuring, and deregulation* are terms sometimes used to describe the reforms, but they are the tools to achieve it. We now turn to what these terms mean.

<sup>5</sup>The United Kingdom (actually England and Wales—Scotland and Northern Ireland work under different systems) was an early adopter of competition and has a decade of experience with it. It has made mistakes, but the overall result has been positive. Appendix A reviews the downward course of prices, the introduction of new technology, and the reduction in complaints in the United Kingdom.

4

## Competitive Retail Power Markets Advance Rapidly in 2003, Surpass 50,000 Megawatt Mark

BURLINGTON, Mass... (01/29/2004)... According to KEMA analysis published this month, US retail power competition experienced substantial progress in 2003. Over 52,000 MW of estimated peak electricity demand is now being competitively served, an increase of 12,000 MW over the past 12 months and 35,000 MW since the California energy crisis subsided in 2001. The 52,000 MW represents 7 percent of the approximately 720,000 MW of total US peak summer demand.

"Competition in power markets, primarily for large buyers, continues its rapid advance," asserts Taff Tschamler, Director of the KEMA's Retail Energy Markets advisory service. "Although the momentum to open up new markets has stopped since California, those that are already open have resulted in substantial and growing market activity. Reforms expected in several open markets over the coming year or two are likely to further accelerate competition across the US."

The Texas market leads the country in terms of customer load migration, new entrants and choice of competitive offers. Of the 52,000 MW switched in the competitive markets nationwide in 2003, Texas accounted for approximately 17,000 MW. By comparison, Illinois, California, New York, Pennsylvania and Ohio each accounted for over 3,000 MW.

The growth in customer participation is occurring in conjunction with an increase in the number and the market share of new entrants. Over the past year, more than 20 firms have entered competitive retail power markets while the top five competitive providers now serve between 2,500 to 10,000 MW of customer peak demand, equivalent to a mid to large sized regulated US utility.

"Although some individual firms continue to struggle, the overall financial health of competitive providers has unquestionably improved over the past two years as the scale and scope of these organizations increases and they gain experience and build infrastructure to profitably compete for customers," said Tschamler.

Mr. Tschamler will present findings of the US market analysis at the upcoming Retail Power Markets Summit held by the Center for Business Intelligence in Orlando, Florida February 25th and 26th. For more information on the Retail Power Markets Summit visit [www.cbinternet.com/events/PB432/index.html](http://www.cbinternet.com/events/PB432/index.html)

For more information about KEMA's Retail Energy Markets (REM) advisory service, please contact Taff Tschamler at 720-241-0168 or [tschamler@kema-xenergy.com](mailto:tschamler@kema-xenergy.com)

### About KEMA

KEMA's Retail Energy Markets (REM) program is the leading research and advisory service to competitive power markets. KEMA has been providing market intelligence and analysis on retail energy markets since 1996. Originally initiated by XENERGY Inc., which was acquired by KEMA in 2000, the REM service is designed specifically to assist clients that need reliable and detailed knowledge of competitive energy markets.

KEMA is an independent company with an international reputation for high-level technical and management consultancy, testing, inspections and certification for businesses in the energy industry, assisting more than 500 clients in more than 70 countries. Headquartered in Arnhem, the Netherlands with subsidiaries and offices worldwide, KEMA employs more than 1,500 full-time professionals and leading experts in many facets of the energy utility industry. Founded in 1927, KEMA serves the complete spectrum of participants in the energy marketplace and offers a full complement of services supporting generation through the consumer side of the meter. KEMA's North American business operations are headquartered in Burlington, Massachusetts. [KEMA Consulting](http://www.kemaconsulting.com)

Jennifer Krabbenhoft, Director, Strategic Marketing  
(303) 708-9355 or e-mail at [jkrabbenhoft@kemaconsulting.com](mailto:jkrabbenhoft@kemaconsulting.com)

Sten Kruger, Senior Consultant  
(781) 273-5700 Ext. 230 or e-mail at [kkruger@xenergy.com](mailto:kkruger@xenergy.com)

5

THIS FILING IS (CHECK ONE BOX FOR EACH ITEM)

Item 1:  An Initial (Original) Submission OR  Resubmission No. 1

Item 2:  An Original Signed Form OR  Conformed Copy

Form Approved  
OMB No. 1902-0021  
(Expires 3/31/2005)



# FERC Form No. 1: ANNUAL REPORT OF MAJOR ELECTRIC UTILITIES, LICENSEES AND OTHERS

This report is mandatory under the Federal Power Act, Sections 3, 4(a), 304 and 309, and 18 CFR 141.1. Failure to report may result in criminal fines, civil penalties and other sanctions as provided by law. The Federal Energy Regulatory Commission does not consider this report to be of a confidential nature.

RC00751

Exact Legal Name of Respondent (Company)

Arizona Public Service Company

Year of Report

Dec. 31. 2001

Name of Respondent Arizona Public Service Company	This Report is: (1) <input type="checkbox"/> An Original (2) <input checked="" type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr) 02/13/2003	Year of Dec. 31
--	---	--	--------------------

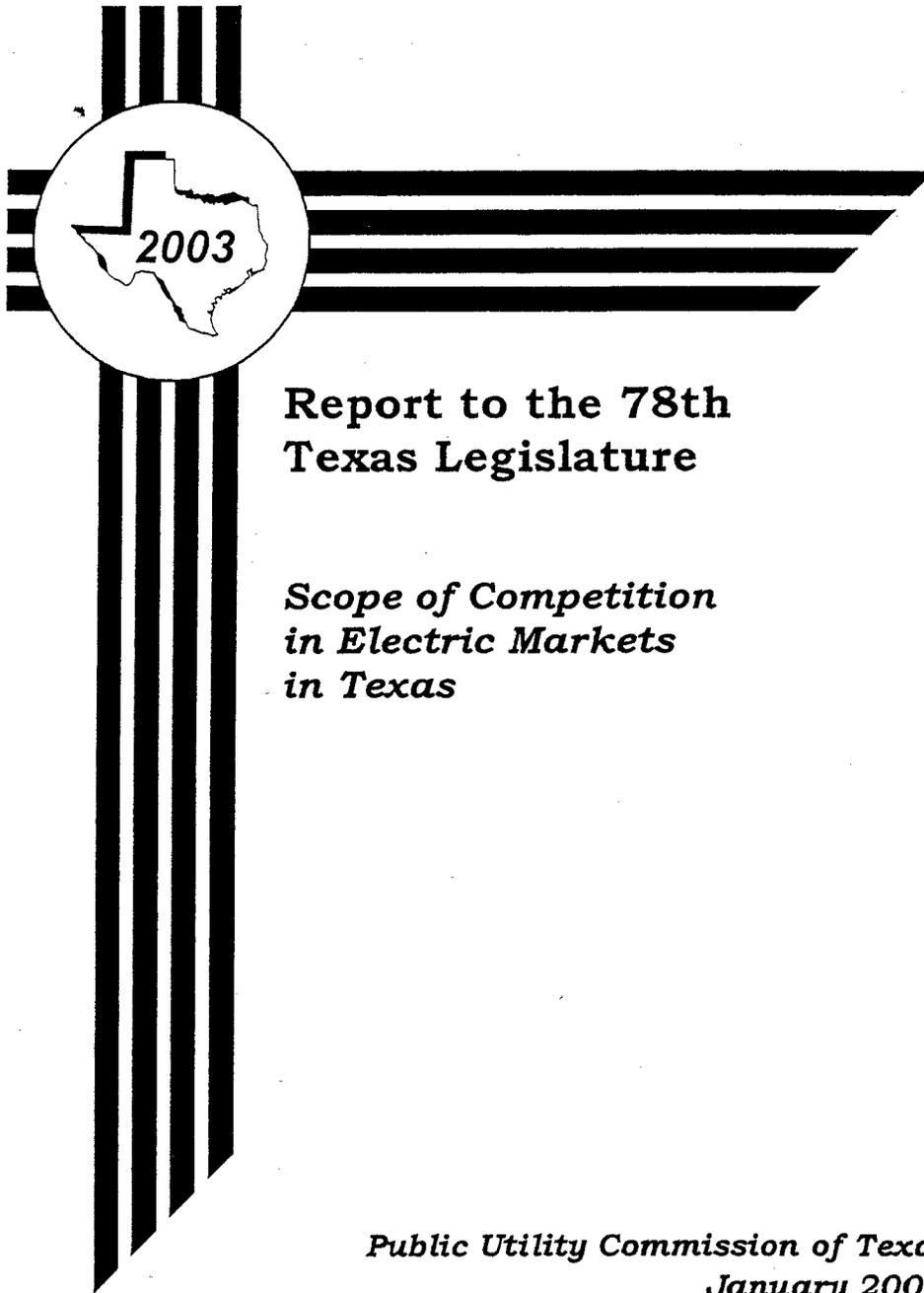
**MONTHLY PEAKS AND OUTPUT**

1. If the respondent has two or more power systems which are not physically integrated, furnish the required information for each no
2. Report in column (b) the system's energy output for each month such that the total on Line 41 matches the total on Line 20.
3. Report in column (c) a monthly breakdown of the Non-Requirements Sales For Resale reported on Line 24. include in the monthl energy losses associated with the sales so that the total on Line 41 exceeds the amount on Line 24 by the amount of losses incurred making the Non-Requirements Sales for Resale.
4. Report in column (d) the system's monthly maximum megawatt Load (60-minute integration) associated with the net energy for th the difference between columns (b) and (c)
5. Report in columns (e) and (f) the specified information for each monthly peak load reported in column (d).

**NAME OF SYSTEM:**

Line No.	Month (a)	Total Monthly Energy (b)	Monthly Non-Requirements Sales for Resale & Associated Losses (c)	MONTHLY PEAK	
				Megawatts (See Instr. 4) (d)	Day of Month (e)
29	January	2,506,956	489,205	3,697	19
30	February	2,411,455	439,272	3,475	1
31	March	2,524,000	563,580	3,151	1
32	April	2,450,258	611,704	3,724	26
33	May	2,836,583	720,587	4,840	31
34	June	3,147,331	686,223	5,292	29
35	July	3,338,909	655,926	5,687	2
36	August	3,299,695	727,350	5,528	6
37	September	3,534,347	930,688	4,946	4
38	October	2,515,840	339,917	3,680	5
39	November	2,268,360	471,204	3,111	4
40	December	2,136,879	329,353	3,539	14
41	TOTAL	32,970,613	6,965,009		

6



**Report to the 78th  
Texas Legislature**

***Scope of Competition  
in Electric Markets  
in Texas***

***Public Utility Commission of Texas  
January 2003***



**Report to the 78th  
Texas Legislature**

***Scope of Competition  
in Electric Markets  
in Texas***

***Public Utility Commission of Texas  
January 2003***

7

## Benefits of Competition in the Mid-Atlantic: \$3 Billion Saved in 2002, \$28.5 Billion Future

[Click Here to Download the Benefits of Competition Report](#)

The Center for the Advancement of Energy Markets, a non-profit think tank focused on the energy sector, is pleased to distribute a major study today on the benefits of electric utility restructuring in the Mid-Atlantic (the PJM region).

The study estimates that all consumer classes have benefited enormously with billions of dollars saved (and more projected in the future) due to restructuring efforts, particularly at the wholesale level, in addition to non-price benefits and increased reliability. It is the first study of its kind, providing a quantitative and qualitative analysis of the impact of restructuring efforts on different consumer classes for each state in the Mid-Atlantic. The study is authored by Dr. Ron Sutherland with the active assistance of a working group representing more than 20 organizations and top energy economists in the country.

“This study proves that competition clearly benefits consumers – all consumers, large and small – in the Mid-Atlantic region,” stated Jamie Wimberly, CAEM President. “PJM provides a model for the country to follow and refutes some arguments now heard in Washington, DC, against competition in electricity markets. This study shows instead that regional approaches like PJM are in the best interest of consumers.”

Highlights of the study include:

- More than \$3 billion in total savings in 2002 in the Mid-Atlantic (PJM) region, with individual states and jurisdictions saving in 2002: New Jersey, \$1.46 billion; Pennsylvania, \$993 million; Maryland, \$662 million; Delaware, \$97 million; and the District of Columbia, \$74 million.
- Approximately \$ 28.5 billion in expected future savings, with individual states and jurisdictions expected to save: New Jersey, \$6.4 billion; Pennsylvania, \$10.4 billion; Maryland, \$3.8 billion; Delaware, \$665 million; and DC, \$504 million.
- Households in PA save \$117, on average, on their electricity bill due to electric restructuring. Future lifetime savings in PA from current restructuring efforts (summed and discounted) are \$1,263 per household. Households in other states annually save: NJ per household, \$222; MD, \$165; DE, \$173, and DC, \$15. Future lifetime savings for other states are: NJ, \$1,512 per household; MD, \$1,126; DE, \$1,182; and DC, \$105.
- Using the standard income multiplier in economic analysis, additional macroeconomic benefits should double the direct

customer benefits presented above.

- Lower and middle income households are estimated to be the biggest winners. Lower and middle income households spend on average a much larger share of their income on electricity than high income households. Hence, low and middle income households received proportionately the largest benefit.
- The Mid-Atlantic (PJM) region is gaining a competitive advantage in the form of lower electricity costs compared with other regions, and this advantage will become more significant over time.
- Under PJM's auction system, reliability has improved in the PJM region. Since 1997, the availability factor of generating capacity has increased continuously.
- Finally, while difficult to measure, restructuring efforts in the PJM region and within the states themselves are expected to result in a range of non-price benefits. In fact, as with competition in telecommunications services, there is a reasonable expectation that the largest benefit to consumers from greater competition could be these set of non-price benefits over time rather than simply lower costs.

"There are few economic policy actions that the government could undertake that provide such significant benefits to customers, relative to economic cost. Indeed, the main cost is one of political will." added Dr. Sutherland, the study's principal author and a CAEM Associate Scholar.

"To put these numbers in perspective, many lower income people in the Mid-Atlantic saved more from electric utility restructuring than the Bush Administration's tax cuts. In Pennsylvania, residential consumers saved over \$550 million in 2002, almost 10 times more than what was spent on child care services (\$57.9 million) in Pennsylvania in 2002. In New Jersey in 2002, all consumer classes (residential, commercial and industrial) saved \$1.4 billion in reduced electric bills, 17 times more than what was spent on school construction aid (\$82 million) that year. Maryland, New Jersey, Delaware, Pennsylvania and the District of Columbia – every single state and jurisdiction benefited enormously."

"The study is more than just an ingenious first estimate of the benefits of competitive power markets," stated Robert Michaels, Professor of Economic at Cal State Fullerton and a member of the working group. "It also provides a well-done, concise summary of the major policy issues that is accessible to non-specialists."

For more information on the report or the working group, contact Jamie Wimberly at [jwimberly@caem.org](mailto:jwimberly@caem.org).



# Center for the Advancement of Energy Markets

## Estimating the Benefits of Restructuring Electricity Markets: *An Application to the PJM Region*

**Dr. Ronald J. Sutherland**  
Senior Scholar, CAEM

<http://www.caem.org>  
© 2003 Center for the Advancement of Energy Markets

September 2003



Version 1.1, October 2003

## Participants in the CAEM Benefits of Competition Study September 2003

**Allegheny Power**  
Mr. George Blankenship

**CAEM**  
Mr. Jamie Wimberly

**CAEM**  
Mr. Ken Malloy

**CAEM**  
Mr. Ron Sutherland

**Citizens for Pennsylvania's  
Future**  
Mr. John Hanger

**Citizens for Pennsylvania's  
Future**  
Mr. Peter Adels

**Constellation NewEnergy**  
Ms. Carrie Cullen-Hitt

**ELCON**  
Mr. John Anderson

**ELCON**  
Mr. John Hughes

**Electric America**  
Mr. Roy Reeves

**George Mason University**  
Mr. Jerry Ellig  
(Formerly at the FTC)

**Haddington Ventures**  
Mr. Bob Hanes

**NRRI**  
Mr. Ken Costello

**PSE&G**  
Mr. Terry Moran

**Reason Institute**  
Ms. Lynne Kiesling

**T-M Solutions**  
Mr. David South

**Tabors Caramanis and  
Associates**  
Mr. Rick Homby

**Trans-Elect**  
Mr. Paul McCoy

**University of California**  
Mr. Robert Michaels

**U.S. Department of  
Energy**  
Mr. Jimmy Glotfelty

**U.S. Department of  
Energy**  
Mr. David Meyer

<b>International Observers</b>
------------------------------------

**Curtin Business School  
Institute For Research  
Into International  
Competitiveness  
(Australia)**  
Mr. Nick Wills-Johnson

**Alberta Department of  
Energy**  
Ms. Anne Denman

**Alberta Department of  
Energy**  
Mr. Andy Nikiforuk

**Ontario Energy  
Association**  
Mr. Adam White

## Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>4</b>
<b>BIOGRAPHY OF DR. RONALD SUTHERLAND .....</b>	<b>8</b>
<b>1. INTRODUCTION.....</b>	<b>10</b>
<b>2. ELECTRIC UTILITIES AND TRADITIONAL UTILITY REGULATION.....</b>	<b>12</b>
2.1 NATURAL MONOPOLY AND UTILITY REGULATION.....	12
2.2 THE CASE FOR NATURAL MONOPOLY UNRAVELS.....	13
2.4 SUMMARY .....	16
<b>3. RESTRUCTURING AN ELECTRICITY MARKET: THE PJM REGION .....</b>	<b>17</b>
3.1 THE PJM REGIONAL POWER POOL.....	17
3.2 THE PJM ENERGY AND CAPACITY MARKETS.....	18
3.3 THE ISSUE OF MARKET POWER IN THE PJM REGION.....	23
3.4 THE SIGNIFICANCE AND REMEDY FOR MARKET POWER.....	26
<b>4. EXPECTED BENEFITS OF RESTRUCTURING .....</b>	<b>28</b>
4.1 MARKET BASED INVESTMENT DECISIONS: THE WHOLESALE MARKET .....	30
4.2 PRICE-DEMAND RESPONSE AND EFFICIENT RETAIL PRICING.....	31
4.3 RETAIL COMPETITION WITH PRODUCT DIFFERENTIATION.....	35
4.4 RETAIL COMPETITION: LET'S MAKE A DEAL.....	37
<b>5. A MODELING ANALYSIS OF RESTRUCTURING BENEFITS .....</b>	<b>40</b>
5.1 ECONOMIC BENEFITS: CONSUMER SURPLUS AND INDUSTRY EFFICIENCY.....	40
5.2 BENEFITS OF RESTRUCTURING: THE COMMON VIEW.....	43
5.3 CALCULATING THE BENEFITS OF RESTRUCTURING THE PJM MARKET .....	46
5.4 MACROECONOMIC BENEFITS FROM RESTRUCTURING .....	53
APPENDIX: ESTIMATING THE BENEFITS FROM RESTRUCTURING.....	54
<b>6. TOTAL CAPACITY AND OPTIMUM RESERVE MARGINS .....</b>	<b>61</b>
6.1 RESERVE MARGINS WITH REGULATION.....	62
6.2 PRIORITY SERVICE – THE ENERGY JOURNAL SPECIAL ISSUE.....	63
6.3 EXCESSIVE RESERVE MARGINS AND THE PRINCIPAL AGENT PROBLEM.....	64
6.4 THE ECONOMICS OF OPTIMUM RESERVE MARGINS.....	65
6.5 THE BENEFITS OF OPTIMUM RESERVE MARGIN .....	67
6.6 PJM'S DEMAND SIDE MANAGEMENT PROGRAM.....	67
<b>7. CONCLUDING COMMENTS.....</b>	<b>71</b>
<b>REFERENCES CITED.....</b>	<b>73</b>

## Estimating the Benefits From Restructuring Electricity Markets: *An Application to the PJM Region*

### Executive Summary

This study estimates the benefits from restructuring the electricity market in the PJM<sup>1</sup> region. Benefits are estimated to reflect current restructuring efforts, not future efforts. Current restructuring efforts have reduced the price of electricity to ultimate customers. This price decline produces current benefits to customers plus an additional benefit that will accrue in the indefinite future. These future benefits are summed and discounted to produce a present value estimate of the benefit of current restructuring efforts. Hence, the benefit estimated in this study is the direct increase in economic value to ultimate customers resulting primarily from the decline in electricity prices from 1997 through 2002. Additional macroeconomic benefits are likely to double the direct customer benefits.

The table on the following page depicts the PJM states and the three sectors of ultimate customers: residential, commercial and industrial. The second column shows electricity costs by state and sector in year 2002 measured in constant dollars. As depicted in the next column, ultimate customers in the PJM region saved about \$3.2 billion in 2002 from current restructuring efforts. This saving is about 15 percent of their 2002 electricity bill. For instance, residential households in Pennsylvania saved, on average, about \$117 on their electric bill in year 2002.<sup>2</sup> Additional saving will occur in the indefinite future. The value of future saving is summed and discounted to the present and is estimated to be \$28.5 billion. These future savings exceed total electricity costs for the year 2002 (\$22 billion).<sup>3</sup> Each household in PA will save, on average, about \$1,262, measured as present value of the sum of future saving.<sup>4</sup>

The last column shows the present value of this future saving relative to 2002 electricity expenses. On average, ultimate customers in the PJM region may obtain total lifetime dollar savings from current restructuring efforts that exceed their electricity bill for a single year. For some lower income households, the saving in their annual electric bill will exceed the saving resulting from the

---

<sup>1</sup> The PJM region considered here includes: PA, NJ, MD, DE and DC. The PJM region was expanded in 2002 to include parts of OH, WV and VA that are served by Allegheny Power Co.

<sup>2</sup> The table shows savings in the PA residential sector to be \$558.22 million in year 2002, and there were 4.777 million households in PA in year 2000, for an average saving of \$117 per household in 2002. Household data are obtained from the U.S. Bureau of Census, *Statistical Abstract in the United States, 2002*, Washington DC, Table No. 53, p. 50.

<sup>3</sup> The present value of electricity price declines in the PJM region in constant dollars is \$38.7 billion (Tables 4 and A1); however, about \$10.2 billion of cost reduction value would have occurred without restructuring.

<sup>4</sup> Lifetime saving per household is estimated as present value of savings in PA in 2002 (\$6,027 million) divided by number of households (4.777 million).

2003 federal income tax legislation.<sup>5</sup> The benefits to consumers from restructuring efforts, particularly in the wholesale electricity market, in the PJM region are substantial. By most measures, the PJM model is successful and would be appropriate for other regions in the United States.

**Savings By State and Sector in PJM Region  
(in millions of constant dollars)**

	Electricity 2002 Costs	Cost Saving In 2002	Present Value Future Savings	Percent Saving
	\$ mil. Real	\$ mil. Real	2002, Real	Col. 2/Col. 3
<b>New Jersey</b>				
Residential	\$2,464.10	\$680.14	\$4,633.74	188.05%
Commercial	\$2,817.29	\$738.89	\$5,034.04	178.68%
Industrial	\$991.86	\$139.02	\$947.17	95.49%
Total	\$6,359.25	\$1,468.34	\$10,003.76	157.31%
<b>Pennsylvania</b>				
Residential	\$4,394.75	\$558.22	\$6,027.11	137.14%
Commercial	\$3,345.24	\$359.04	\$4,403.75	131.64%
Industrial	\$2,512.59	\$261.50	\$3,874.61	154.21%
Total	\$10,398.06	\$993.97	\$13,108.83	126.07%
<b>Maryland</b>				
Residential	\$1,828.17	\$327.49	\$2,231.18	122.04%
Commercial	\$1,360.61	\$143.91	\$980.48	72.06%
Industrial	\$558.15	\$95.37	\$649.74	116.41%
Total	\$3,826.53	\$622.39	\$4,240.35	110.81%
<b>Washington DC</b>				
Residential	\$138.17	\$3.81	\$25.93	18.77%
Commercial	\$574.62	\$67.25	\$458.20	79.74%
Industrial	\$12.81	-\$0.28	-\$1.93	-15.07%
Total	\$748.47	\$74.05	\$504.52	67.41%
<b>Delaware</b>				
Residential	\$274.50	\$51.86	\$353.30	128.71%
Commercial	\$202.22	\$17.65	\$120.24	59.46%
Industrial	\$164.70	\$38.23	\$260.43	158.12%
Total	\$647.82	\$97.62	\$665.10	102.67%
<b>Total PJM</b>	<b>\$21,980.13</b>	<b>\$3,256.38</b>	<b>\$28,524.34</b>	<b>129.77%</b>

Source: Derived from Tables A1 and A2

<sup>5</sup>Alan Friedlander, "How New Federal Tax law Will Affect Brackets, Bill" *Your Local News, Newspapers Online*, September 17, 2003. Friedlander notes that the lowest income households may save only \$100 in taxes from the Jobs and Growth Tax Relief Reconciliation Act of 2003.

As shown in the table, the present value of the reduction in electricity costs in the PJM region differs between states and sectors, but the largest benefit appears in the residential sector. Lower and middle income households spend on average a much larger share of their income on electricity than high income households. Therefore, lower and middle income households are probably the greatest beneficiaries of the PJM restructuring effort.

The total United States and three nearby states to the PJM region are also experiencing declining electricity prices in constant dollars. However, the present value of these cost decreases is much less than in the PJM region. The estimates presented in the above table are "relative" cost reductions, because they are over and above the cost reductions that characterize neighboring states and the entire United States. Hence, restructuring efforts in the PJM region are a main contributor to the large declines in electricity prices. The PJM region is thereby gaining an economic advantage relative to states that are not restructuring. As further restructuring is implemented – and payments for stranded costs reduced – the PJM region will realize very large economic benefits, especially relative to other regions which have not restructured their markets.

The estimated present value benefits are the dollar value to ultimate customers from electricity price decreases from 1997 through 2002, and assume that such price decreases remain constant in the future. This assumption is admittedly precarious because there are indications that future cost savings will be larger than estimated here, but other indications of smaller benefits. The trends in the PJM wholesale market are in the direction of increasing efficiencies, which should produce larger future cost saving. The completion of stranded cost recovery will increase benefits to customers over time. The expiration of negotiated retail price decreases will encourage the development of retail competition. Hence, benefits estimated here are likely to be understated.

The estimated cost saving in Maryland typifies the region. Cost saving in the electricity bill in year 2002 is more than 10 percent of the 2002 electricity bill. The largest saving is in the residential sector. Future electricity cost savings from current efforts exceed the year 2002 electricity bill. The electricity cost saving in PA is, in percentage terms a little larger than in MD. Pennsylvania customers are currently receiving a cost reduction benefit from restructuring; even though a substantial share of the benefit is deferred until stranded costs are repaid.

The estimated cost saving to New Jersey customers in year 2002, of about \$1.4 billion has been realized, but future benefits are less certain. The decreases in retail prices in New Jersey resulted from a bargain that included initial price declines of 15%. That bargain expired in August 2003, and rates in nominal terms returned to their initial levels. However, the inflation rate from 1997 through 2003 was about 2 percent per year (10% for 5 years), which means that New Jersey customers still have a 10 price decline in electricity rates since 1997 in constant dollars. In addition, with efficiencies achieved in the wholesale PJM market passed forward to customers, some nominal price declines are plausible. The retail price increase in New Jersey in 2003 will provide a much needed incentive towards retail competition, which may ultimately make customers better off than commission mandated price declines. Overall, it appears that with the

expiration of the negotiated price declines, New Jersey customers will still see future benefit in constant dollars, but perhaps not as large as in the above table.

The above table presents benefit estimates of restructuring efforts currently in place. On balance, it is likely that the benefits estimates for New Jersey are optimistic. However, the benefit estimates of the other states are probably conservative, and larger benefits are plausible.

The table presents estimates of the benefit of existing restructuring efforts, which are significant; however, even larger benefits will result from future efforts.

This study considers four main sources of benefits: the wholesale market, the retail market, the capacity market, and price-demand response mechanisms. At this point, PJM has successfully restructured much of the wholesale market, which is the main source of the benefit produced so far. The real time and day ahead auction markets implemented by PJM produce significant efficiencies and cost reductions relative to markets subject to traditional utility regulation. The PJM region has been in restructuring mode for about five years and has been highly successful in the wholesale market, with some success in retail markets. With transition costs repaid, price-demand mechanisms implemented, and a robust competitive retail market with product differentiation, the benefits from restructuring should be much larger than obtained from current price declines. Such benefits, when fully realized, should be sufficient to produce some competitive advantage over states that do not successfully restructure.

The market for total capacity does not yet include significant price-demand response, and only small benefits are accruing from this market. The PJM Interchange recognizes the need for efficient pricing. The benefits from efficient pricing are likely to be large, but are still in the future. Retail restructuring is described as a deal that includes stranded cost recovery, negotiated price declines and other factors. Retail competition currently provides some cost reduction benefits to customers, but the main benefit from retail competition will occur when the transition deal is complete and a price-demand mechanism is implemented. The suggested conclusion is that the largest benefit from retail competition, as well as restructuring overall, is in the future.

Under PJM's auction system, reliability has improved in the PJM region. From 1994 through 1997 the forced outage rate averaged about 10 percent, but decreased to about 4.5 percent during 2001 and 2002. The incentives inherent in the PJM wholesale market encourage reliability in capacity and penalize unreliability. The reduced forced outage rate and increased availability are expected efficiency improvements resulting from the design features of the restructured PJM market.

Finally, while difficult to measure, restructuring efforts in the PJM region and within the states themselves are expected to result in a range of non-price benefits. Expected consumer benefits could range from enhanced customer service, more product offerings, new technologies, more billing options and more product and services tailored to individual consumer needs. Due to increased numbers of marketers in the PJM region, consumers are already beginning to see some of the non-price benefits associated with restructuring. For example, consumers are now being

offered more “green options” and more billing options than before. However, the expectation is that once retail competition in the Mid-Atlantic states develops fully, these benefits will grow. In fact, as with competition in telecommunications services, there is a reasonable expectation that the largest benefit to consumers from retail competition could be these set of non-price benefits over time rather than simply lower costs.

The PJM region is highly touted for its successful restructuring. This analysis of the PJM wholesale market concurs that such acclaim is warranted. Several factors that explain this success are as follows: (1) the PJM power pool has over 70 years experience that provides a basis for developing a more competitive market, (2) the region applies a well-specified auction market model based on real time and day ahead prices, (3) the PJM region is large enough so that the auction market model is well-functioning, (4) spot prices from the auction market model provide an incentive to attract sufficient investment in generating capacity, (5) authority over wholesale restructuring is with the PJM Interchange and with the FERC, who are strongly committed to developing competitive markets.

The benefits from restructuring in the PJM region result from improving market efficiency and removing some of the inefficiencies associated with the traditional regulation of electric utilities. The benefit estimates are not associated with the level of electricity prices. Hence, the benefits estimated here should apply to other states regardless of electricity prices. Major benefits derive from the PJM power pool because of its real time and day ahead prices for energy, capacity and related markets. The incentives inherent in the auction market encourage cost reduction relative to the incentives inherent in traditional utility regulation. Although restructuring in other states in a more competitive direction would enhance the interest of electricity customers, it may not enhance the self-interest of commissioners and legislators. Restructuring is an economic investment; it requires an upfront commitment of mostly political capital to produce a long term economic payoff. In those states averse to restructuring, the best chance for improved efficiency is probably in the wholesale market. The development of retail competition may require prior demonstrated successes from regions such as PJM.

### **Biography of Dr. Ronald Sutherland**

Ron Sutherland is a Ph. D economist with more than 20 years experience analyzing energy issues, including electricity and natural gas markets. Ron began his professional career as an economics professor with the University of Illinois, Springfield, teaching graduate level courses in microeconomics and econometrics. Much of Ron’s experience is with two DOE national laboratories: Los Alamos National Laboratory and Argonne National Laboratory, where he assessed several regulatory, environmental and energy policy issues. Ron wrote several articles for Energy Policy and The Energy Journal on utility deregulation, energy conservation (DSM) programs and long-term contracts. Ron was also a senior economist for the American Petroleum Institute (API). While with API, Ron produced reports and articles on the economics of climate change and energy subsidies.

At present, Ron is an independent consulting economist, as well as a Senior Center Scholar at the Center for the Advancement of Energy Markets and Adjunct Professor of Law at the George Mason University,

School of Law. Ron provides economic expertise on a variety of energy related issues, but focuses mostly on electricity and natural gas regulatory and restructuring issues. As a Center Scholar for the Center for the Advancement for Energy Markets, Ron wrote a paper “The Role of Default Provider in Restructuring Energy Markets” and has just completed “Estimating the Benefits from Restructuring Electricity Markets: An Application of the PJM Region” Ron can be reached at [rsutherland@caem.org](mailto:rsutherland@caem.org) and at [sutherlandron@hotmail.com](mailto:sutherlandron@hotmail.com).

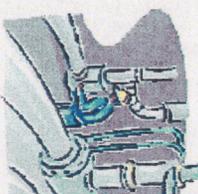
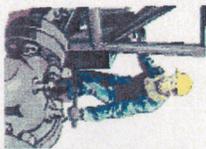
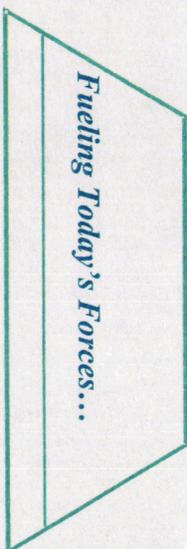
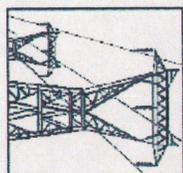
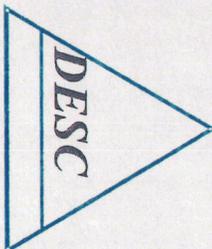
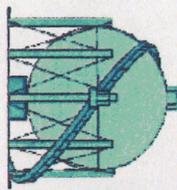
8



DEFENSE ENERGY SUPPORT CENTER

# Defense Energy Support Center

## Total Energy Solutions



*Fact Book 2002*  
*Twenty-Fifth Edition*

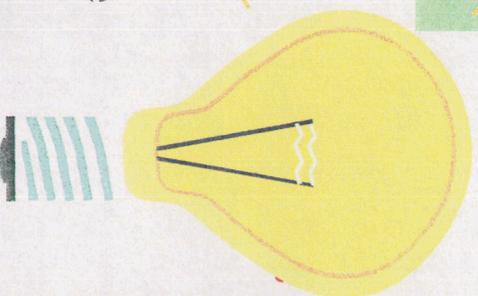
# DESC's Competitive Electricity Program

## Cost Avoidance

	FY99	FY00	FY01	FY02	TOTAL
CA	\$722K	\$1,346K	\$2,566K		\$4,634K
PJM*	\$165K	\$1,066K	\$2,935K		\$4,166K
ME		\$6K	\$229K		\$235K
TX				\$27,000K	\$27,000K
TOTAL	\$887K	\$2,418K	\$5,730K	\$27,000K	\$36,035K

\*PJM – Represents awards in PA, NJ, MD, DE, DC

In addition to the above awards, RFP's have been issued in NY, DE, IL, RI, CT, OH and MI. Under these procurements, the incumbent utility was determined to be the "best value."



## Customers

Army	27
Navy/ Marine Corp	121
Air Force	12
Army Res.	261
ANG	3
Other DoD	5
Fed Civ.	25
Coast Guard	7
<b>TOTAL</b>	<b>461</b>

Experience in all states in which deregulation/restructuring has occurred and in which requirements have been received.