

OPEN MEETING ITEM
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BEFORE THE ARIZONA CORPORATION COMMISSION
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AZ CORP COMMISSION
DOCUMENT CONTROL

IN THE MATTER OF SERVICE QUALITY
ISSUES, ANALYSIS OF TRANSMISSION
ALTERNATIVES AND PROPOSED PLAN
OF ACTION IN THE SANTA CRUZE
ELECTRIC DIVISION OF CITIZENS
UTILITIES COMPANY (NOW UNISOURCE
ENERGY SERVICES, INC.)

DOCKET NO. E-01032A-99-0401

NOTICE OF FILING
STAFF'S RECOMMENDED
OPINION AND ORDER

Staff of the Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files its Recommended Opinion and Order ("ROO") on the above-captioned matter. The attached ROO, if approved, would adopt the recommendations of Staff contained and described in its Report filed May 27, 2004. The Open Meeting on this item has been scheduled for July 28, 2004, to start at 10:00 a.m., in Tucson, Arizona.

RESPECTFULLY SUBMITTED this 14th day of June 2004.

Jason D. Gellman
Attorney, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
(602) 542-3402

The original and thirteen (13) copies of the foregoing were filed this 14th day of June, 2004 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

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Arizona Corporation Commission

DOCKETED

JUN 14 2004

DOCKETED BY

1 Raymond S. Heyman
2 Roshka, Heyman & Dewulf, PC
3 One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

4 Michael M. Grant
5 Gallagher & Kennedy, P.A.
6 2575 East Camelback Road
Phoenix, Arizona 85016-9225

7 Walter M. Meek
8 Arizona Utility Investors Association
2100 North Central Avenue, Suite 210
Phoenix, Arizona 85004

9 Hugh Holub
10 777 North Grand Avenue
Nogales, Arizona 85621

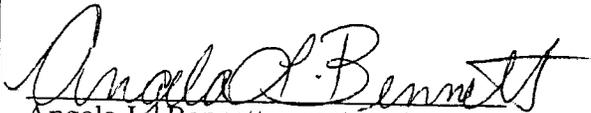
11 Lawrence Robertson
12 Munger Chadwick, PLC
333 North Wilmot Road, Suite 300
Tucson, Arizona 85711

13 Stephen Ahearn
14 Residential Utility Consumer Office
15 1110 West Washington Street, Suite 220
Phoenix, Arizona 85007

16 Christopher C. Kempley
17 Chief, Legal Division
18 Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

19 Ernest G. Johnson
20 Director, Utilities Division
21 Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

22 Lyn Farmer
23 Chief, Hearing Division
24 Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

25 
26 Angela L. Bennett secretary to
27 Jason D. Gellman
28

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 COMMISSIONERS

3 MARC SPITZER, Chairman
4 WILLIAM A. MUNDELL
5 JEFF HATCH-MILLER
6 MIKE GLEASON
7 KRISTIN K. MAYES

8 IN THE MATTER OF SERVICE QUALITY ISSUES,
9 ANALYSIS OF TRANSMISSION ALTERNATIVES
10 AND PROPOSED PLAN OF ACTION IN THE SANTA
11 CRUZ ELECTRIC DIVISION OF CITIZENS
12 UTILITIES COMPANY (NOW UNISOURCE
13 ENERGY SERVICES, INC.)

DOCKET NO. E-01032A-99-0401

DECISION NO.

OPINION AND ORDER

14 **BY THE COMMISSION:**

15 **FINDINGS OF FACT**

16 1. In Decision No. 62011 (November 2, 1999), the Arizona Corporation Commission
17 (“Commission”) approved a Settlement Agreement between Citizens Communications Company
18 (“Citizens”) and Staff of the Utilities Division (“Staff”) which mandated the construction of a second
19 transmission line to Nogales, Arizona by December 31, 2003. The purpose of the second transmission
20 line is to improve the reliability of service to Citizens’ customers in Santa Cruz County. The
21 Settlement Agreement states that Citizens would pay a penalty of \$30,000 per month for each full
22 month of delay in the construction after December 31, 2003. The Settlement Agreement also allows
23 for Citizens to file for a delay in the construction date and/or the waiver of the penalty no later than
24 December 31, 2003.

25 2. In Decision No. 64356 (January 15, 2002), the Commission granted Joint Applicants
26 Tucson Electric Power Company (“TEP”) and Citizens a Certificate of Environmental Compatibility
27 (“CEC”) to construct the proposed Gateway 345 kV and 115 kV Transmission Project (“Gateway
28 Project”) for the preferred western route, which had been granted by the Arizona Power Plant and
Transmission Line Siting Committee (“Committee”). The Gateway Project incorporated the second
transmission line required by the Commission in Decision 62011. Need for the Gateway Project was
established in that docket.

1 3. A second transmission line to Citizens' electric service area is required and is the only
2 means to resolve the service reliability problem to Santa Cruz County.

3 4. Citizens' electric assets were acquired by UniSource Energy Corporation ("UNS").
4 The Commission approved the acquisition in Decision No. 66028 (July 3, 2003). UNS formed
5 UniSource Energy Services, Inc. ("UES") after the acquisition to provide electric service in the
6 former Citizens' territories, including Santa Cruz County. UNS is the parent holding company for
7 both TEP and UES. The CEC for Citizens granted in Decision No. 64356 has since been transferred
8 to UES.

9 5. In Decision No. 66615 (December 9, 2003), the Commission granted a waiver from
10 the penalty of \$30,000 per month established in Decision No. 62011, for a period of six months to
11 June 1, 2004. Decision No. 66615 ordered that the in-service/need date for the second transmission
12 line is to remain at December 31, 2003, due to the evidence of need established in Docket Nos. E-
13 01032A-99-0401 and L-00000C-01-0111/L-00000F-01-0111. TEP and UES were ordered to submit
14 an updated "Outage Response Plan" within sixty days of the effective date of Decision No. 66615
15 that addressed the following:

- 16 a. Can Citizens operating procedures be improved to shorten the restoration time
17 for transmission outage events utilizing TEP's operations center and field
18 personnel?
- 19 b. Are any of the following improvements cost effective as interim restoration of
20 service solutions prior to the construction of a second transmission line?
21 i. A limited number of automated or remote controlled distribution feeder
22 ties between substations.
23 ii. Improved remote electronic dispatch control capability of the Valencia
24 generator or improved generator controls.
- 25 c. What refinements are appropriate in Citizens' RAC-2 peak load forecast?
26 Please define the annual hours of exposure when load is forecast to exceed the
27 capacity of the existing transmission line.
- 28 d. Is the proposed interconnection with Mexico at the Gateway substation an
 interim service restoration solution for delay of the proposed South to Gateway
 transmission line through the Coronado National Forest?
- e. How much emergency service is available from TEP via a Kantor feeder tied
 to TEP's 46 kV line?

 6. On February 9, 2004, TEP and UNS Electric filed their "Response to Commission
Questions and Updated Outage Response Plan for Santa Cruz County" (hereinafter "Response"). The

1 report addresses all of the questions outlined in Decision No. 66615, and provides an updated
2 "Outage Response Plan" (hereinafter "Plan"), including a Reliability Must Run ("RMR") study. The
3 Plan and Response indicate that a TEP dispatcher is replacing a lineman as the responsive party in
4 various scenarios under the new Plan made possible through the installation of the Supervisory
5 Control and Data Acquisition ("SCADA") systems plus additional equipment. The Response further
6 indicates that an analysis was undertaken to study how to improve procedures to shorten the
7 restoration time for transmission outages, including interconnecting radio systems and cross-training
8 of activities regarding dispatching, field operations and field crews. Furthermore, the Response
9 comments on whether improvements were cost effective as interim restoration of service solutions,
10 including feeder ties between substations and improved remote dispatch control capability. TEP
11 indicates that it had refined Citizens' RAC-2 peak load forecasts, and portrayed its "high" forecast as
12 being lower than Citizens' RAC-2 forecast. TEP and UES conclude in the Response that an
13 interconnection with Mexico at the Gateway substation would not be a likely interim solution.
14 Finally, the Response discusses the feasibility of emergency service via a 46 kV feeder tie line into
15 TEP's 46 kV line between the Kantor and Canoa substations ("46 kV TEP emergency feeder tie")
16 with at least 20 megawatts ("MW") of capacity.

17 7. On March 11, 2004, Staff filed its report replying to the TEP and UES Response. Staff
18 indicates in its report that the Response does not satisfactorily address the issues outlined in Decision
19 No. 66615. The Staff Report notes that several of the operational improvements are listed in the
20 Response as "under investigation" or "not yet completed." These items are necessary to shorten the
21 restoration time for transmission outage events. Staff points out that UES Switching Procedures in
22 the Plan reflect manual operation of circuit switchers, switches and circuit breakers when automated
23 procedures should be explored and implemented, as well as looking into the time savings achieved by
24 remotely dispatching and controlling generation units. Furthermore, the Staff Report indicated that
25 clarification of the updated load forecast by TEP is needed and whether a proposed interconnection
26 with Mexico at the Gateway Substation is a technically and legally permissible option. Finally, Staff
27 highlights in its report that information is needed from TEP and UES as to how much time could be
28 saved in restoring service via a 46 kV TEP emergency feeder tie into the Kantor substation. In its

1 report, Staff recommends that TEP and UES file supplemental information by April 30, 2004, that
2 satisfactorily resolves the deficiencies in the Response and the Plan, as noted by Staff in its report.
3 Staff further recommends that TEP and UES update the power plant operations procedure and the
4 transmission service restoration procedures previously approved as elements of Citizens' Outage
5 Response Plan. Staff also recommends that the UES Switching Procedures be modified by refining
6 the time required to restore service following a transmission outage with the proposed 46 kV TEP
7 emergency feeder tie into the Kantor substation and all proposed remote controlled transmission
8 and/or distribution feeder switching improvements.

9 8. On April 30, 2004, TEP and UES filed their "Supplemental Response to Commission
10 Questions and Updated Outage Response Plan for Santa Cruz County" (hereinafter "Supplemental
11 Response"). Staff has since had an opportunity to review the Supplemental Response filed by TEP
12 and UES. Staff believes that the Supplemental Response satisfactorily addresses issues raised in the
13 Staff Report on March 11, 2004. For instance, integrating operational control of UES' facilities via
14 TEP's operation centers and utilizing both TEP and UES field personnel can shorten the restoration
15 time. Integrating operational control of UES' facilities includes remote monitoring and control of
16 Santa Cruz County substations, remote startup, control and synchronization of Valencia generating
17 units, and GIS data conversion to Smallworld, STORMS and the Outage Management System
18 ("OMS") software. Furthermore, the remote control of distribution feeders and the Valencia units will
19 also significantly shorten the restoration time. In addition, TEP's proposition to construct the 46 kV
20 TEP emergency feeder tie should also shorten restoration times for those customers receiving power
21 from either the Kantor or Cañez substations. The 46 kV TEP emergency feeder tie with at least 20
22 MW of capacity will significantly shorten the outage time to customers in the long term even after the
23 Gateway Project is constructed and operational. But Staff is not recommending specific rate recovery
24 treatment at this time for the above-outlined measures as that shall be determined in a future rate case
25 for TEP and/or UES. Furthermore, TEP and UES clarified their updated load forecast to Citizens
26 RAC-2 forecast by indicating that this "high" forecast incorporates the most recent peak and
27 corresponding weather history and utilizes actual load and weather data for the years 1999 through
28 2003. UES and TEP indicated that a number of technical obstacles exist to establishing an

1 interconnection with Mexico solely for the purpose of restoring service to Santa Cruz County. Staff
2 agrees that simply constructing an interconnection with Mexico at the Gateway substation minus the
3 remainder of the Gateway Project is not economically justified without the commercial benefits of
4 mutual wholesale power exchanges and that this option is not a viable interim service restoration
5 solution for Santa Cruz County. Finally, Staff agrees that the requirement to operate the Valencia
6 generating units in standby during storm season should be rescinded once all of the 25 megavolt
7 amperes reactive ("MVAR") of shunt capacitors, remote monitoring and control of Santa Cruz
8 County substations, remote startup, control and synchronization of Valencia units, GIS data
9 conversion, and the 46 kV TEP emergency feeder tie are all constructed, installed and operational.
10 Staff believes that the Plan, as modified by the Supplemental Response, is now sufficient to improve
11 the restoration of service following a transmission line outage for Santa Cruz County customers of
12 UES.

13 9. Staff notes that none of the above operational improvements achieve the purpose of
14 assuring continuity of service for outage of a transmission line. Furthermore, none of the above
15 improvements negates the need for the Gateway Project and a second transmission line to serve Santa
16 Cruz County customers. In addition, even with a second transmission line, a RMR condition is
17 expected to exist in Santa Cruz County by the summer of 2008 per the forecast by TEP and UES.
18 Specifically, the RMR operation of the Valencia units will become required by the summer of 2008.
19 Furthermore, the RMR operation of the Valencia units becomes inadequate when the Santa Cruz
20 County load reaches approximately 75 MW. According to the updated forecast, the 75 MW load level
21 may be experienced by the summer of 2010.

22 10. Staff has met with representatives of TEP and UES, as well as representatives from the
23 United States Forest Service ("USFS"), the Bureau of Land Management ("BLM") and Department
24 of Energy ("DOE") (hereinafter the "Federal Agencies") to gain a better understanding of the federal
25 process and to explore and encourage ways to expedite the process while still ensuring a thorough
26 analysis. Staff now understands that a Final Environmental Impact Statement ("FEIS") is expected to
27 be issued in either July or August of 2004. USFS, BLM and DOE indicated that they intend to issue
28 their respective Records of Decision ("RODs") concurrently with the issuance of the FEIS. Staff

1 believes the concurrent actions is a positive response to concerns about the length of the federal
2 environmental and permitting processes and that Staff believes the Federal Agencies have been
3 receptive to Staff's comments. But each federal agency will independently choose which route or
4 route(s) it will support, independent of the decisions by the other federal agencies. No agency has
5 given an indication as to which route or routes it will support.

6 11. Staff believes that the Plan for Santa Cruz County, as modified by the Supplemental
7 Response, is sufficient in shortening the restoration times after outages for UES customers in Santa
8 Cruz County.

9 12. Staff recommends the continued waiver of penalties beyond June 1, 2004, and that this
10 waiver apply retroactively to June 1, 2004, conditioned upon achievement of the following
11 improvements, which are solely under control of the applicants:

- 12 a. UES document construction, completion and operation of 25 MVAR of new shunt
13 capacitors dispersed among feeders originating from each UES distribution
14 substation in Santa Cruz County by July 1, 2004.
- 15 b. TEP demonstrate remote control startup of Valencia generating units and
16 synchronization with the Western Interconnection transmission system by July 1,
17 2004.
- 18 c. TEP demonstrate remote emergency restorative switching capability to serve
19 Kantor and Cañez substations from Canoa and remote switching for service
20 restoration to Sonoita and Valencia substations via the Valencia generators by July
21 1, 2004.
- 22 d. TEP document construction completion of a 46 kV emergency tie line, of at least
23 20 MW capacity, between the TEP Canoa Substation and the UES Kantor
24 Substation by August 31, 2004.
- 25 e. TEP document completion of GIS data conversion to Smallworld software by July
26 1, 2004, STORMS software by October 1, 2004, and OMS software by December
27 1, 2004.

28 13. Staff also recommends that, for the waiver to apply beyond August 1, 2004, that UES
and TEP be required to do the following:

- a. The annual TEP and UES self-certification letter due to the Commission on
August 1 per Decision No. 64356, Condition 29, must include:

1 i. Documentation by TEP and UES of how they have expended every
2 reasonable effort to expedite the timely resolution of the federal FEIS and
3 permitting processes.

4 ii. Documentation by TEP and UES of how they have expended every
5 reasonable effort to expedite and timely obtain from all state, county and
6 local governmental agencies, especially the State Land Department, all
7 required approvals and permits necessary to construct the project as
8 defined in Condition 1 of their CEC.

9 b. Given that the second transmission line to Nogales will not be constructed by
10 January 15, 2005, TEP and UES seek an extension of time for their CEC before it
11 expires. According to Condition 17 of the CEC granted in Decision No. 64356,
12 TEP and UES authorization to construct the subject transmission facilities expires
13 three years from the date (January 15, 2002) the CEC was approved by the
14 Commission.

15 c. Any TEP and UES request for extension of time of their CEC must be
16 accompanied by:

17 i. Filing of a completed Federal FEIS and associated RODs from the various
18 Federal Agencies with the Commission in accordance with Condition 15 of
19 their CEC, and

20 ii. Revised project completion dates reflecting the outcome of the federal,
21 state and local permitting processes.

22 14. Staff further recommends waiver of the storm season spinning reserve requirement of
23 Valencia generating units approved by Decision No. 62011 once UES and TEP have complied with
24 items a through d under Finding of Fact 12.

25 15. Staff further recommends waiver of monthly black start testing of turbines for the
26 Valencia generating units once they are tested in accordance with Southwest Reserve Sharing Group
27 ("SRSG") requirements and are found to be in compliance as documented by correspondence from
28 SRSG and continue to be so tested. Since compliance with SRSG requirements assures application of
a consistent standard of performance for generation used in the reserve sharing pool, and because this
condition would align these turbines with the general provisions imposed on merchant power plants
approved by the Commission in recent plant siting cases, Staff believes a waiver is warranted.

16. Staff further recommends that TEP and UES shall commence data collection and
retention to document annual distribution system reliability indices (System Average Interruption

1 Index ("SAIFI"), System Average Duration Index ("SAIDI"), and Customer Average Interruption
2 Data Index ("CAIDI")), as defined by the Institute of Electrical and Electronic Engineers ("IEEE")
3 directive 1366, on an on-going basis for each distribution feeder and distribution substation. Such
4 data must also be aggregated to establish the distribution system reliability indices for each division
5 or geographical sub-region of their respective service areas. This annual reliability data is to be made
6 available upon request by Staff. Such data collection, and utilization of reliability indices will best
7 provide Staff with the opportunity and ability to monitor the level of service being provided by TEP
8 and UES on an on-going basis and allow Staff to ascertain whether TEP and UES distribution service
9 reliability is improving or deteriorating over time.

10 17. Staff further recommends TEP and UES shall document, upon request of Commission
11 Staff, enforcement of its customer power factor requirements and all system improvements made to
12 assure appropriate system voltage control within Western Electricity Coordinating Council
13 ("WECC") and National Electric Safety Code ("NESC") requirements. Since UES and TEP have
14 identified system voltage as an area of concern in ensuring quality of service for Santa Cruz County
15 customers, as demonstrated by the need for 25 MVAR shunt capacitors in 2004, the need for RMR
16 operation of the Valencia generating units beginning in 2008 and a voltage criteria violation that
17 commences when the Santa Cruz County load reaches approximately 75 MW, Staff believes that it
18 should be able to verify that system voltage control is being properly managed and that system
19 voltage is not contributing to any quality of service problems.

20 18. Staff further recommends that RMR Studies be performed and solutions necessary to
21 resolve system RMR deficiencies currently forecast for 2008 be determined and reported as part of
22 the TEP and UES ten year transmission plan by January 31, 2005.

23 19. Staff believes that the above recommendations presume an on-going process for
24 continued Commission oversight of TEP and UES compliance with its order to construction a second
25 transmission line to serve electric customers in Santa Cruz County and the City of Nogales. The
26 proposed process is founded on the principle that a waiver of penalty granted to TEP and UES in
27 Decision No. 66615 will continue in effect as long as TEP and UES comply with the conditions
28 recommended above in Findings of Fact Nos. 11 through 18 inclusive. Since compliance with some

1 conditions requires demonstration of construction and operation of new facilities, Staff recommends
2 such compliance be verified by Staff's Engineering Section. Furthermore, since compliance with
3 other conditions requires documentation by TEP and UES, Staff further recommends such
4 compliance be determined by Staff's Compliance Section. TEP or UES failure to satisfactorily
5 comply with any of the above recommended conditions warrants the Commission or Staff initiating
6 new proceedings to rescind the waiver of penalties.

7 **CONCLUSIONS OF LAW**

8 1. TEP and UNS Electric are public service corporations within the meaning of Article
9 XV, Section 2 of the Arizona Constitution.

10 2. The Commission has jurisdiction over TEP and UES and over the subject matter of
11 this docket.

12 3. Staff's recommendations in Findings of Fact Nos. 11 through 19 inclusive are
13 reasonable, in the public interest and should be adopted.

14 4. There is good cause justifying waiver of the \$30,000 per month penalty included in the
15 Settlement Agreement approved in Decision No. 62011 beyond June 1, 2004, so long as all of the
16 conditions included in Findings of Fact Nos. 11 through 19 inclusive are followed.

17 **ORDER**

18 IT IS THEREFORE ORDERED that the \$30,000 per month penalty in the Settlement
19 Agreement that was approved in Decision No. 62011 and waived through June 1, 2004, in Decision
20 No. 66615, be waived indefinitely subject to the conditions in Findings of Fact Nos. 11 through 19
21 inclusive.

22 IT IS FURTHER ORDERED that any cost recovery for any of the improvements in Findings
23 of Fact Nos. 11 through 19 inclusive is subject to a full review during a future rate case. This
24 Decision does not pre-approve any specific recovery in rates of TEP or UES.

25 IT IS FURTHER ORDERED that this Decision shall become effective immediately.
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1 **BY ORDER OF THE ARIZONA CORPORATION COMMISSION**

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4 CHAIRMAN

COMMISSIONER

COMMISSIONER

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7 COMMISSIONER

COMMISSIONER

8 IN WITNESS WHEREOF, I, BRIAN C. MCNEIL, Executive
9 Secretary of the Arizona Corporation Commission, have
10 hereunto, set my hand and caused the official seal of the
11 Commission to be affixed at the Capitol, in the City of Phoenix,
12 this _____ day of _____, 2004.

13 _____
14 BRIAN C. MCNEIL
15 Executive Secretary

16 DISSENT: _____
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