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BEFORE THE ARIZONA POWER PLANT AND SITING COMMITTEE

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IN THE MATTER OF THE APPLICATION OF UNS ELECTRIC, INC. FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY FOR THE VAIL TO VALENCIA 115 KV TO 138 KV TRANSMISSION LINE UPGRADE PROJECT, ORIGINATING AT THE EXISTING VAIL SUBSTATION IN SEC. 4, T.16S., R.15E., PIMA COUNTY, TO THE EXISTING VALENCIA SUBSTATION IN SEC. 5, T.24S., R.14E., IN THE CITY OF NOGALES, SANTA CRUZ COUNTY, ARIZONA.

Docket No. L-00000F-09-0190-00144

Case No. 144

8 July 2009

Notice of Filing of

Final Plea with Proposed Certificate of Environmental Compatibility of Marshall Magruder

8 July 2009

This filing consists of Final Plea with proposed Certificate of Environmental Compatibility in Case No. 144.

The Contents of this filing are as follows:

- Section 1. Background
- Section 2. Issues
- Section 3. Rationale for the Proposed CEC

Attachments

- A Final CEC (smooth)
- B Redlined CEC (changes from proposed Company's version)

Mailed to all parties and DATED this 8th day of July 2009.

Respectfully submitted,

Marshall Magruder

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Arizona Corporation Commission
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**Final Plea
by
Marshall Magruder**

Section 1. Background

This plea provides a summary of remaining issues in this transmission line siting Case No. 144, the rationale for changes from the company's version of their proposed Certificate of Environmental Compatibility (CEC), with both a smooth (final version) and a redlined version.

The purpose for my intervening in this case was to resolve questions concerning several issues involved with the proposed project, to ensure all local concerns were considered and to use my experiences to assist in making this project successful.

As a result, assuming changes recommended in the attached proposed CEC are incorporated, then my concerns will have been satisfied and the proposed Alignment for all Segments is recommended, except for a short section from the southern end of Segment Two to the northern end of Segment Three, both north and south of the Cañez substation in Rio Rico. I now feel Segment 4 should be developed as proposed.

Section 2. Issues

There are many diverse issues in this case. The most interesting is solving the challenge to stabilize the unique bosque area north and south of the Cañez substation. This and other issues below are reflected in the proposed CEC include:

- a. Monopole Finish (Condition No. 12)
 - b. Assignment of a qualified and independent archaeologist and biologist to the program (Conditions 3 and 5)
 - c. Content for a Restoration and Mitigation Plan (Condition 13)
 - d. Minor Wordsmith Changes (throughout the entire CEC) using two tables. Table 1 provides the rationale and actual change for Findings of Fact and Table 2 for changes to the CEC Conditions.
- All these issues are discussed in Section 3.

Attachment A contains the Smooth Version of the Magruder Proposed CEC

Attachment B contains the Redlined Version of the Magruder Proposed CEC

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Section 3. Rationale for the Proposed CEC

3.1 Line Routing in the Rio Rico area near the Cañez substation Issues.

During the hearings in Rio Rico, there was excellent public comment concerning environmental impacts that result from either the preferred Alignment (East of the Union Pacific Rail Road, UPRR) or the existing Right of Way. There are over 48 properties directly involved with either of these choices, with associated easement costs, and impacts. The environmental and landowners impacts are primary concern for the bosque area may impacted this project for about 1.3 miles between Josephina at the north and north of Placita Reposa. The area under discussion is only the southern end of the Segment 2, from Josephina Road south, past Canez Substation, of a very dense and diverse species bosque area, until the agriculture land northwest of the Placita Reposa and Pendleton Road intersection. The company's preferred Alignment remains recommends use a new 100-ft right of way east of the UPRR.

What are the options to be considered for this area?

- a. Existing Easement – company's Alternative 1
- b. East of the RR – company's preferred Alignment
- c. West of the RR – as discussed during the June hearings
- d. Along Pendleton Road (Road) – mentioned during the June hearings, to parallel and at the edge of the 120-foot Pendleton Road right of way, overlapping its ROW with the county's ROW and setback for residences. This would be to the southern end of the bosque, then go west to join the proposed Alignment East of the RR and east of the RR is the best route for the southern end of Segment 3.

3.1.1 Environmental Issues.

The resulting habitat division by this easement will lead to longer term environmental degradation in the longest bosque that exists in the United States. Several rare and endangered species are impacted by disturbances in this bosque. The recent company's vegetation management practices to clear cut 100-foot swaths of old-growth bosque trees to the ground are most evident in the Existing easement. Some large old-growth mesquite trees were over 3 feet in diameter, several hundred years old, were ground to pulp. The two company proposals have significantly higher environmental impacts than the Road or East of RR. The primary reason, in my opinion, for such emphasis on this area is continuity of the bosque area, that starts just north of the Nogales International Wastewater Treatment Plant in Rio Rico to Tubac, about 6 or 7 miles of continuous narrow strip of riparian habitat. The yellow-billed cuckoo was specifically mentioned as living in this part of the bosque area.

3.1.2 Landowner Issues.

The landowners will have visual impacts by any option with maintenance access also being necessary. Due to the heavy vegetation in the bosque area, most residents have worked the habitat into their lifestyle. The County Planning and Zoning Commission examines very closely any human encroachment upon this

1 particular habitat, probably more than any other area of the county. Frequently permits required homes to
2 not cut these old-growth trees. Flooding also occurs through this area, but most homes have raised their
3 residents above the 100-year floodplain while being constructed. The monopoles maybe most visible when
4 west of the RR, primarily due to less tree cover, which is moderate, just not as thick as east of the river. A
5 hundred-foot "clear cut" makes a dramatic impression on this environment and comparing this with the
6 "five-year trim" while on the tour, was dramatic. Obviously, there is a bit of additional cost for this trim but
7 with thousands of miles of lines, 1.3 miles of "five-year trim" should be close to insignificant.

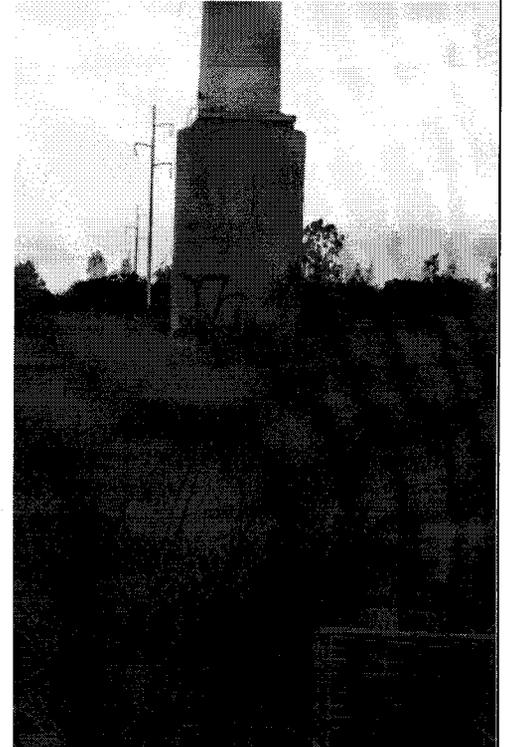
8 **3.1.3 Flooding Issues.**

9 This is a critical issue; however, the County Ordinance also states
10 that "flood proof" structures can be build. As shown in Exhibit
11 COMM-6?, there are many poles in the Santa Cruz River, in areas
12 with rapid flow due to both sides being constrained by cemented
13 walls. This is NOT the case here, the river is wide and meanders,
14 going in sinuous paths. The landfall gradient here is small, river
15 bottom elevation at north end of bosque is 3327-feet, and 3380-ft at
16 south end, a 53-foot fall in about 1,000 feet, or 0.53 percent.¹

17 There are at least two areas where the Santa Cruz River will
18 wash over (or wash out) the UPRR during a major flood event. Using
19 a "flood proof" foundation, there should be no impacts on these
20 poles.

21 The picture shows the size of a typical TEP pole inside the floodway.

22 It should be noted that there is no debris or scouring around the
23 base. About 10-13 poles would be necessary to go the length of
24 the bosque area. Mr Beck's Rebuttal goes into both types of Clean Water Act Section 404 permits. There
25 are access roads on each side of the UPRR, with one to the east for UPRR and the one on the west is a
26 ranch road used to bring hay to cattle. Mr Beck concern is if a new access road is required a more rigorous
27 Individual Permit might be required instead of a less rigorous Nationwide Permit 12 used for transmission
28 lines that might take over a year to obtain.² If is possible for four linear roads to run parallel to the railroad
in independent ROWs, from east to west, UNSE distribution, UPRR maintenance road, UNSE
transmission, and a rancher road. Obviously, this is wasted land and costs, while combining all these
roads into two, one on each side of the RR would benefit all parties. Unfortunately, we've seen no such
discussions from UNSE in this case. Mr Beck ends his Section 404 discussion with "he did not indicate that



Floodway Foundation (c) E. Webb, 6/20/09

¹ Using U.S. Geological Survey Topographic map, Tubac, NIMA 3747 II SE-series V898, updated 1996.
² Ed Beck, Rebuttal Testimony, 6 at 16 to 7 at 7.

1 any Section 404 permitting would be required for either of those proposed alignments [E of RR and W of
2 RR].”¹

3 Water pollution is a minor and manageable issue during construction, usually associated with spills;
4 and not an issue for concrete in the water table. Ms Webb has told me she’s discussed this with Arizona
5 Department of Environmental Quality (ADEQ) and was told there was no problem. I discussed this with Mr
6 John Hays, the Santa Cruz County Flood Coordinator who said this was not problem.

7 Mr Beck discussed with Mr Hays impacts of vegetation management for both East of RR and West of
8 RR options. Total tree removal would negatively impact West of RR due to higher water velocity and that
9 trees slowed water.² If a “five-year trim” was used, these trees would still provide protection that would be
10 lost if removed.

11 Mr Beck also discussed the Santa Cruz County “Floodplain and Erosion Hazard Management
12 Ordinance No. 2001-3” that governs these issues in our county. It specifically exempts CECs as a statutory
13 exemption in section 3.7A due to A.R.S. §48-3609H and further does not require any other permits for
14 utility poles in Section 3.7B due to A.R.S § 48-3613 as my experiences as an Energy Commissioner also
15 lead to the same conclusion that Santa Cruz County has NO jurisdiction over any form of power lines. In
16 my discussions with Mr Hays on 10 June 2009, the same day as Mr Beck, Mr Hays handed me the above
17 ordinance to show that he has no legal jurisdiction over this transmission line. Obviously, Mr Hays
18 comments need to be fully considered under any circumstance.

19 3.1.4 Cost Issues.

20 Mr Beck’s Rebuttal gives some cost estimates for three options. Some of these estimates maybe off.
21 Here are a few.

- 22 a. Right of Way Costs – Based on discussions others have had with Rio Rico Properties (RRP), the
23 one landowner to the West of the RR, it is possible that RRP will trade its existing ROW for one
24 West of the RR at no cost. Even if the \$735,000 for the Existing ROW costs were correct for
25 Segment 2, then West of RR would decreased by \$267,000. Further, in 1991, RRP properties
26 sold to Citizens the Existing ROW, quit claim deed, for a token sum, such as \$10.³ This would
27 reduce the West of the RR to \$10, or by over \$1,000,000 for Segment 2. The Segment 3 costs
28 would be reduced by \$168,000 if equal or by over \$688,000 using the same reasoning.
- 29 b. This would reduce the total cost as follows assuming ROW costs are exchanged as discussed:

Segment	Existing	East of RR	West of RR
2	\$8,948	\$10,329	\$10,924

¹ *Ibid*, 7 at 24-26.

² *Ibid*, 7 at 22 and 8 at 6.

³ Several power line easements were located in various Dock and pages at the Santa Cruz County Recorder’s office. All are for \$10. See Dock 555 from 38 to 21 of 22 Apr 1991; Dock 766 from 605 to 612 of 22 July 1998; Dock 539 from 587 to 589 of 4 Oct 1990; Dock 507 from 804 to 807 of 13 July 1989, etc.

3	\$4,590	\$4,327	\$4,842
Total	\$13,538	\$14,758	\$15,766

c. If the West of RR Right of Way was minimal, say \$100,000 for each segment, we'd see total cost:

Segment	Existing	East of RR	West of RR
2	\$8,948	\$10,329	\$10,289
3	\$4,590	\$4,327	\$4,421
Total	\$13,538	\$14,758	\$14,710

d. In "b" above, there is \$1.2 million difference between Existing and West of RR, and almost no cost difference between West and East of RR if minimal land costs are used for abandoning the Existing ROW.

3.1.5 Trade-off Analysis for Rio Rico Bosque Area.

As shown in the below table, four options are compared in a trade-study approach. The above issues or factors were weighed as follows:

Environment Impacts	35% = 35 points
Landowner Impacts	20% = 20 points
Flooding Impacts	30% = 30 points
Cost Impacts	15% = 15 points

Factors	Points	Rio Rico Segment 2/3 Options			
		Pendleton Road	Existing	East of RR	West of RR
Environmental Impacts	35	33	15	14	31
Landowner Impacts	20	15	8	5	19
Flooding Impacts	30	28	22	20	15
Cost Impacts	15	13	12	6	6
Total	100	89	57	45	71

Discussion of Factors for the Options.

1. Environmental Impact – The Road and West of the RR will have the least negative environmental impact, with the Road having less impact than West of the RR. The Existing and East of the RR will have significant environmental impacts, with East of RR having more.

2. Landowner Impacts – The large agricultural property owner for these unplatted lots greatly facilitates the ability of the company's work and makes the West of the RR nearly ideal for this factor compared with the others, while the Road will half-impact some setback for homeowners. The impact of the easement will be most significant initially for the East of the RR as it already impacts those platted lots on the Existing easement a bit less.

3. Flooding Impacts – The Road has the least impacts from floods, while the Existing has less but both the East and West of RR are in the floodway. The flood impacts can be overcome with "flood proof" pole structures, anti-scouring features, and debris cleanup after major floods for West of RR, with lesser but still important flood proofing for East of RR. Flooding will impact servicing lines; however, demand will be less than peak, thus local generation from Nogales can meet the load demands for the southern substations if

1 this line is out. The substations north of an outage retain continuity of service. Flooding of either the
2 Valencia or Cañez substations are not considered.

3 4. Cost Impacts – The overall cost should be less for the Existing and Road options when compared to
4 those along the RR.

5 Summary. This analysis shows that the option with the highest score is along Pendleton Road,
6 followed by West of the RR. Unfortunately, the Pendleton Road option was not considered by the company
7 and also is outside the 500-ft corridor and, without such notification, can not be considered. Neither of the
8 two options proposed by the company had attributes higher than these two.

9 **3.2 Monopole Finish Issues (Condition 12).**

10 This issue is important to both the company and homeowners. In Arizona, many consider the view
11 from a prospective home as one the most important attributes considered when making a purchase
12 decision. The impact of transmission lines on one's view is so important is that a major public objection
13 about transmission lines is how they look and because of their looks, especially in Arizona where one's
14 view determines where you live, doing something to reduce seeing them, just like how we have lights
15 under our fighter aircraft to use illuminate the aircraft to change their intensity to make the aircraft's
16 shadow match the background in real time combat maneuvering, using ways so that static poles can be
17 easy to blend into the background should be easy. One way is to paint a pole, with challenging repaint
18 efforts required for the next 50 years.

19 There are two general natural finishes found on steel utility poles, one is core-ten (dark brown) as a
20 result of self-weathering rust and another is a dulled-gray finish from galvanized steel coating both inside
21 and outside the pole to prevent rust that is fairly light. This is Denman Ross value scale, shown in
22 Condition 12. The self-weathering dark brown is between 8 and 9 while the dulled gray is about 2 or 3. If
23 the background is the same as the color of the pole, with a value difference near 1, then the background
24 and foreground object (pole) have the same intensity and thus is harder to see.

25 When one compares the value of the background, looking at where the pole will be sited, one can
26 see if the sky or light colored background dominates or does a dark brown dominate. In the Demman Ross
27 value scale, 5 is the mid-value. If background is above 5 then core-ten would be appropriate, and if less
28 than 5, dulled gray would be appropriate.

29 In areas of flat land, the poles will be mostly higher and thus having a sky background, especially in
30 rural areas, so more dulled-gray pole finish would be appropriate. In mountains, or near bases of
31 mountains, and other areas with dark backgrounds, then core-ten would be the best finish decision.

32 In the future, using this approach, a Pole Finish Plan could be included with route descriptions,
33 showing on maps, sections for each finish type, thus not having to require such a report at the last date in
34 this CEC. For this project, due the large areas of flat land, thus over 50% of the poles probably should be
35 dulled gray.

1 **3.3 Qualified Project and Independent Archaeologist and Biologist (Condition 3 and 4).**

2 The company has no qualified or independent archaeologists or biologist, nor is it expected to have
 3 that capability. The company testified that its present environmental consultant work is completed with the
 4 granting of this CEC. Besides, "independent" is a key part of these two conditions. Too often a company
 5 will hire an environmental consultant that will only report what the company wants to hear, contrary to what
 6 the Commission or public would expect. As worded, such a conflict of interest should not be possible, thus
 7 avoiding such speculation. As I testified, the Santa Cruz Valley is a total archaeological site, with hundreds
 8 of Hohokum through Native American sites here within the last 100 years. The ruins of the historic Otero
 9 Ranch were obvious on the tour but not mentioned in the Application. A pre-survey of the Alignment by
 10 both specialists should avoid the highest probably unintended consequences. The Restoration and
 11 Mitigation Plan will include the tasks for these professionals, submitted for review by the Commission,
 12 should be written so that a professional overview exists for this project and such professional services are
 13 called upon as needed. The cost should not be significant and are easily managed. Contingencies, which
 14 many not even occur, are one additional reason for having these professionals readily available. Further,
 15 their counsel should prevent destruction of human and natural resources by proper planning and
 16 implementation by the company.

17 **3.4 Restoration and Mitigation Plan (RAMP) Issues (Condition 13).**

18 First, the object of this condition is to avoid environmental impacts with focus on site preparation and
 19 restoration of the natural re-vegetation process that take many years in the Sonoran desert environment
 20 involved with this project. The word "Restoration" is what is expected and mitigation only when restoration
 21 has failed, therefore the title was changed to use Restoration first with mitigation second.

22 Second, as written, there are three action sentences, but stating "when applicable" which means not
 23 enforceable or even verifiable.

24 Third, in Case No. 111, a detailed Restoration Plan from which the proposed changes were
 25 developed. There are many additional factors totally omitted in the company's proposal however, all
 26 beneficial features from the company's proposal have been included in Condition 12.

27 **3.5 Minor Wordsmith Changes** (additions are underlined in the attachment) from the Company's
 28 proposed CEC in Table 1 below:

29 **Table 1 – Changes proposed to the Findings of Fact**

Magruder's CEC		Company's CEC		Proposed Changes to Findings of Fact
Page	Line (s)	Page	Line (s)	
1	11-12	1	14	Added "and" between "3" and "4" and added "and on July 8 and 9, 2009 in Chandler, Arizona," to cover the actual hearing days
1	14-15	1	16	Added, "incorporated herein," since it is only referenced later

Table 1 – Changes proposed to the Findings of Fact

Magruder's CEC		Company's CEC		Proposed Changes to Findings of Fact
Page	Line (s)	Page	Line (s)	
2	5	2	8	Put <i>pro persona</i> in italics, foreign word
2	10	2	13	Add "to" before interconnect to retain preposition phase construct
2	13-14	2	17	Added "in Pima County" and "in the City of Nogales, Arizona" to indicate jurisdictions
2	15	2	17	Added [NOT FOUND] as no map has been provided and inclusion of a Project Map is reasonable
2	17	2	20	Added "change the interconnection" to clarify actual action
2	17-18	2	20-21	Changed to read, as shown, to clearly state the entities involved, e.g., TEP and WAPA
2	20	2	22	Added "single-circuit transmission" to indicate that double circuit capabilities are not included in this CEC
2	21	2	23	Replaced "aging" with "existing"
2	22	2	25	Deleted first six words as they are repeated later in same sentence
2	22	2	26	Changed "consisting" to "is a" to better define Alignment
2	24	2	27	Deleted "more further" as non-essential words
2	24	3	1	Deleted "Alignment" and changed "from" to "at" as the intention is to start describing a project that includes additional equipment at the Vail substation
2	24	3	1	Added "TEP" to show ownership
2	25	3	2	Deleted period and changed "The Alignment then" to read "from which the Alignment extends" to explain where the Alignment originated
2	25	3	2-3	Changed Tucson Electric Power Company ("TEP's") to "TEP's", TEP was defined earlier
2	27	3	7	Capitalized "alignment" to emphasis its definition, here an throughout the CEC
2-3	29-1	3	7	Added "Santa Cruz County" to show change from Pima County
3	2	3	7	Changed "utilizing" to "using" to properly express intention
3	2	3	8	Added "single circuit" to ensure no misunderstanding
3	2	3	8	Changed "Application" to read "CEC granted" as the Committee grants the CEC that approves an application
3	4	3	10	Changed to read "this existing single-circuit line" to reflect intent
3	6	3	12	Added "the existing 115 kV right of way in" to continue without change
3		3	17-	Changed "The Alignment continues to utilize the existing alignment across Pendleton Drive and south to the Cañez Substation (1.6 miles). The Alignment then leaves Cañez Substation and shifts west to the easterly edge of the UPRR right of way." To read: "The Alignment deviates from the existing 115 kV transmission line alignment at Pendleton Drive, and shifts 0.3 miles to the westerly edge of the Union Pacific Rail Road ("UPRR") right-of-way, with an interconnection with the Cañez Substation. " to reflect West of UPRR Alignment.
4	26-27	4	3-4	Changed to read "and expands to a 1250-foot-wide planning corridor to pass through the Preston Mobile Home Park (0.3 miles)"
4	28	4	5	Change "Project Alignment then turns" to read "Alignment then resumes a 500-foot planning corridor and turns" to resume the 500-foot planning corridor

Below are recommended changes to CEC CONDITIONS

Table 2 – Proposed Changes to CEC CONDITIONS

Magruder Conditions			Company Conditions			Proposed CEC Condition Change
page	Number	Ln	page	Number	Ln	
4	1	12	4	1	20	Put change BLM to read "BLM"
4	2A	19-20	9	22	24-25	Moved to more logically follow previous Conditions and reworded to read "The Applicant shall construct the Project transmission line only within the corridor described in Exhibit A, attached hereto." See Case No. 111, Condition No. 3
4	3	21-	5	3	1	Added "The Applicant shall retain an archaeologist prior to construction

Table 2 – Proposed Changes to CEC CONDITIONS

Magruder Conditions			Company Conditions			Proposed CEC Condition Change
page	Number	Ln	page	Number	Ln	
		26				satisfactory to the State Historical Preservation Office ("SHPO"). The archaeologist shall be on-site during activities where new routes are being developed to advise Applicant in connection with efforts for archaeological sites that may be required, to manage cultural and historical preservation efforts for sites that may be effected by the construction of new transmission lines, and shall confer with American Nations and historical societies to determine sensitive areas and if and how they can be avoided or mitigated." This is from Case No. 111, Condition No. 8. The company has no qualified, independent archaeological capability.
4	3	27-28	5	3	1-2	Deleted "that is at least fifty years old" as age of such a discovery is not easy to estimate even by a professional, which is why a project archaeologist needs to be available to make estimates.
4	3	28	5	3	2	Deleted "on state, county or municipal land" since all land is governed by various laws that an archaeologist would know; also federal and private land should have been included.
5	4	4	5	4	8-9	Deleted "on private land" and "the course of any" to cover the obvious options missed were omitted.
5	5	8-12	5	5	13	Added "The Applicant shall retain a biologist prior to construction satisfactory to the Arizona Game and Fish Department. The biologist is to be on-site during construction activities connected with any additional biological and related studies that may be required, and to advise the Applicant in connection with mitigation efforts for any endangered, threatened, sensitive, and listed species that maybe affected by construction activities." This is from Case No. 111, Condition 9 as company has no qualified, independent biologist.
5	5	13	5	5	14, 15	Added the word "applicable" before "notice" and deleted "(as applicable)" twice to simplify.
5	5	14	5	5	14	Put <i>et seq</i> in italics, foreign word
5	6	16	5	6	18	Changed "Certificate" to read "CEC" as defined earlier, here and throughout remaining conditions.
5	7	25-26	6	7	4	Prior to period added "for no more than two years." to prevent "forever" extensions. Note, can use Condition 8 to request a second extension, if necessary.
5	7	27	6	8	5-6	Change all before "Applicant" on line 6 to read "If the Applicant requires an extension of this CEC prior to completion of construction, the" to clarify that it is not the project that needs extension but the Applicant.
6	8	2	6	8	9	Change "corridor" to "Alignment" for consistency
6	10	13-14	6 7	10	24 3-4	After "signs" add ", at least 3-feet by 3-feet in size" to replace "Such signage shall be no smaller than a normal roadway sign" which is not defined.
6	10	2	6	10	24	Change "corridor" to "right-of-way" for since that is the purpose of these signs as also discussed later in this condition.
6	11	26	6	11 12	11 13	Deleted ", or its assignee(s)," as this is confusing in light of Condition 6 above.
6	11	27	6	12	13	Moved Condition 12, one sentence, to Condition 11 due to their similar nature.
6-7	12	28-24	9	20	17-23	Added Condition 12 to replace Company's Condition 20 to read: "Monopole finish shall be either dulled-gray galvanized steel or dark brown self-weathering finish. Finish selection criteria are based on minimizing the visual contrast between the background and pole based on where most observers will see the pole. From the below artist's standard Denman Ross Nine Step Value Scale for visual contrast, a brown self-weathering pole finish value is between 8 and 9 and a dulled-gray finish between 2 and 3. When the background view has a value of 5 or less, a dulled-gray finish should be used and when the background has a value above 5, a self-weathering finish should be used.

Table 2 – Proposed Changes to CEC CONDITIONS

Magruder Conditions			Company Conditions			Proposed CEC Condition Change																							
page	Number	Ln	page	Number	Ln																								
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value	sample	value name																											
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7-9		13-15	24-5	7	13	14-26	<p>Change to read "Before starting construction, the Applicant shall file a Restoration and Mitigation Plan with ACC Docket Control and parties with a goal to avoid environmental impacts, focus on site preparation, and facilitate natural re-vegetation processes. The Project Restoration and Mitigation Plan shall:</p> <ul style="list-style-type: none"> (a) Specify that construction access and methods shall minimize impacts to wildlife, (b) Specify the manner the Applicant will use existing roads for construction and access. (c) Specify the extent of minimal vegetation disturbance outside of the Project right-of-way particularly in drainage channels and along riparian banks and washes. (d) Specify, when line construction is being completed, to implement a plan to re-vegetate and rehabilitate to its preconstruction state (i) the disturbed area outside of the transmission line right-of-way including equipment staging areas, and (ii) to all areas disturbed by construction inside the transmission line right-of-way, except for planned road access to lines for long-term maintenance and repair, unless waived by the landowner. (e) Specify how and when all temporary access and roads will be extinguished. (f) Specify the coordination processes with the Arizona Game and Fish Department and State Historic Preservation Office and tasks for the Project's archaeologist and biologist. (g) Specify how final site preparation will encourage natural re-vegetation. (h) Specify avoidance measures (i.e., reserve), where practical, for mature native trees and plants. (i) Specify vegetation management practices to be implemented after construction with emphasis to minimize impacts on old-growth trees in bosque 																						

Table 2 – Proposed Changes to CEC CONDITIONS

Magruder Conditions			Company Conditions			Proposed CEC Condition Change
page	Number	Ln	page	Number	Ln	
						<p>and riparian areas where "clear cut" shall not be used unless necessary to comply with another entity's rules. Pre-notification of potential "clear cut" removal in these areas shall include ACC Docket Control, Committee Chairman, Arizona Fish and Game Committee member, President of the Friends of the Santa Cruz River, and Parties at least sixty (60) days prior to such action.</p> <p>(j) Specify prohibitions on use of non-native plants or seeds during re-vegetation.</p> <p>(k) Specify a plan to preserve topsoil and plant materials from the right-of-way before grading and re-spread over the right-of-way after construction.</p> <p>(l) Specify the plan to imprint the restored right-of-way and other areas to provide indentations to catch seed and water. Specify and apply adequate water to all restored areas until deemed not necessary for restoration.</p> <p>(m) Specify best management practices to be implemented to protect topsoil and unique plants and trees temporarily removed due to construction.</p> <p>(n) Specify and apply restoration methods that have been shown to work in the same desert, transitional, or riparian environments.</p> <p>(o) Specify a plan to prevent spread of noxious weeds or other undesirable species, to include spreading by machinery and vehicles during construction and operations.</p> <p>(p) Specify and apply best methods to discourage unauthorized off-highway-vehicles in the right-of-way for all segments."</p> <p>Modified from Case No. 111, Condition 13.</p>
9	14	6	7	14	27	Deleted "With respect to the Project," as superfluous words.
9	15	10	7	15	23	Changed "State Historic Preservation Office" to "SHPO" previously defined.
9	15	15	8	15	6	Before period add "and assist these agencies with appropriate mapping (database) information for the Project." As required by other statutes.
9	16	13-17	8	16	7-14	Reworded to read "Prior to starting Project construction, the Applicant shall provide to homebuilder, realtor and homeowner associations registered with the local governing jurisdiction, and developers of record, within one mile of the center line of the Alignment, the Project identity, Alignment with maps, a pictorial depiction. Further, the Applicant will encourage realtors, developers and homebuilders to include this information in their sales and disclosure statements." From Case No. 137.
9	17(a)	20-27	8	17(a)	18-24	Change subparagraph (a) to read as "(a) Perform appropriate grounding, soil conductivity/resistivity, and cathodic protection studies to show that the Project's conductors parallel to and within 100 feet of such pipeline results in no long-term material adverse electrical and electromagnetic field impacts to the pipeline or to public safety when both the pipeline and the Project are fully operational. If material adverse impacts are noted in the studies, Applicant shall take appropriate steps to ensure that such material adverse impacts are permanently mitigated that might require more than 100-foot separation between the transmission line conductor and the pipeline. Applicant shall provide a copy of all such studies to Commission Staff; and" to account for its evolution since Case No. 111 Condition No 18.
10	17(c)	5-6	9	17(c)	4	Add new subparagraph (c) to read: "All transmission structures shall be placed a minimum of 100 feet from the edge of existing gas or hazardous liquid pipeline, unless results from (a) above extend this minimum distance." Case No. 111 Condition 18.
10	19	11-17	9	19	10-16	Revise to read as "The Applicant shall submit an annual self-certification letter, identifying progress made with respect to each condition contained in the CEC, including those conditions have been partially or fully accomplished. Each letter shall be submitted to the ACC Docket Control, the Arizona Attorney General

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Table 2 – Proposed Changes to CEC CONDITIONS

Magruder Conditions			Company Conditions			Proposed CEC Condition Change
page	Number	Ln	page	Number	Ln	
						(Committee Chairman), Arizona Department of Commerce Energy Office, and to Parties on August 1 beginning in 2010. Attached to each letter shall be documentation that shows how compliance with each condition was achieved. The self-certification requirement shall expire on the date the Project is placed into operation." To clarify
10	20	18-27	9	20-21	17-26	Combine Conditions 20 and 21, reworded to read: "Within sixty (60) days of the Commission decision granting this CEC, the Applicant shall make good faith efforts to commence discussions with private landowners, on whose property the Alignment is located, to identify the specific location for the Project's right-of-way and placement of poles and pole finish. Applicant shall make reasonable efforts to accommodate landowners' preferences regarding the placement of poles located on the landowners' property and to work with private landowners on whose property the right-of-way will be located, to mitigate the impacts of the location, construction, and operation of the Project. In Santa Cruz County, re-activation of the Citizens Advisory Council established by ACC Order No. 61793 (June 29, 1999) shall be led by UNS Electric and used as a Santa Cruz service area community public forum for group meetings, with project updates provided at least quarterly, until completion." To clarify public outreach after the CEC has been granted.
10	21	28-2	9	21	24	Add new Condition No. 21 to read: "If any part of this Project is constructed in the floodway or floodplain, recommendations from the Santa Cruz County Flood Control Director shall be considered along with industry standards for such construction even through this CEC is statutorily exempt from this jurisdiction."
4	2A	19-20	9-10	22	1-2	Moved to new Condition 2A above.
6-7	12	28-23	10	23	2-5	Moved to Condition 12 above.
			10	24	6-11	Incorporated into other conditions and findings of fact. Not granting capabilities that are not in the Application was deleted.

Attachments

- A Final CEC (smooth)
- B Redlined CEC (changes marked up from proposed Company's version)

**FINAL CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY
PROPOSED BY MARSHALL MAGRUDER**

**8 JULY 2009
(SMOOTH COPY)**

**BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

IN THE MATTER OF THE APPLICATION OF UNS ELECTRIC, INC. FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY FOR THE VAIL TO VALENCIA 115 KV TO 138 KV TRANSMISSION LINE UPGRADE PROJECT, ORIGINATING AT THE EXISTING VAIL SUBSTATION IN SEC. 4, T.16S., R.15E., PIMA COUNTY, TO THE EXISTING VALENCIA SUBSTATION IN SEC. 5, T.24S., R.14E., IN THE CITY OF NOGALES, SANTA CRUZ COUNTY, ARIZONA

Docket No.

Case No. 144

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission Line Siting Committee (the "Committee") held public hearings on June 2, 3, and 4, 2009 in Rio Rico and on July 8 and 9, 2009 in Chandler, Arizona, all in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") §40-360, *et seq.*, for the purpose of receiving evidence and deliberating on the Application of UNS Electric, Inc. ("Applicant") for a Certificate of Environmental Compatibility ("CEC"), incorporated herein, in the above-captioned case (the "Project").

The following members and designees of members of the Committee were present at one or more of the hearings for the evidentiary presentations and/or for the deliberations:

John Foreman	Chairman, Designee for Arizona Attorney General Terry Goddard
David L. Eberhart, P.E.	Designee for Chairman, Arizona Corporation Commission
Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
Jessica Youle	Designee for Director, Energy Department, Arizona Department of Commerce
Jeff Maguire	Appointed Member
Bill Mundell	Appointed Member
Patricia Noland	Appointed Member
Michael Palmer	Appointed Member
Michael Whalen	Appointed Member
Barry Wong	Appointed Member

The Applicant was represented by J. Matthew Derstine, Michael W. Patten, and Jason D. Gellman of Roshka, DeWulf & Patten, PLC, and Marcus G. Jerden of UniSource Energy Corporation. The following parties were granted intervention pursuant to A.R.S. §40-360.05: Marshall Magruder and Elizabeth Webb, both in pro persona.

At the conclusion of the hearings, the Committee, having received the Application, appearances of the parties, evidence, testimony and exhibits presented at the hearings, and being advised of the legal

requirements of A.R.S. §§40-360 to 40-360.13, upon motion duly made and seconded, voted X to X to grant the Applicant this CEC (Case No. 144) for the Project to rebuild the existing 115 kV transmission line as a 138 kV transmission line and to interconnect that transmission line to the Vail Substation as set forth in the Application.

The Project as approved consists of approximately 57.8 miles of 138 kV transmission line and ancillary facilities along the route as described below. The Project starts at the Vail Substation in Pima County and ends at the Valencia Substation in the City of Nogales, Arizona. A legal description and general location map [NOT found] of the Project is attached as Exhibit A.

As explained in the Application, the Project will:

- Change the Interconnection of the northern end of the UNS Electric, Inc. transmission line to the Tucson Electric Power Company's ("TEP") Vail Substation from the Western Area Power Administration's Nogales Tap substation.
- Upgrade the single-circuit transmission line voltage from 115 kV to 138 kV.
- Replace existing wooden H-frame structures with steel monopoles.

The Project Alignment (the route granted for the Project in this CEC) is a 500-foot-wide planning corridor, except where noted, and described in Exhibit A and Application, as follows:

The Project originates at the TEP Vail Substation in Section 4, Township 16 South, Range 15 East from which the Alignment extends westerly, parallel to TEP's Vail-Robert Bills (138 kV) and Vail-Irvington (138 kV) lines along an access road which is an east extension of the Old Vail Connection Road, to where Old Vail Connection Road intersects Wilmot Road (2.3 miles). At this intersection, the Alignment turns south extending to the Nogales Tap and interconnects to the existing line (1.5 miles). From that interconnection, the Alignment then continues south to the Kantor Substation (27.8 miles) in Santa Cruz County using the existing single circuit line that was previously rebuilt in accordance with the CEC granted Case No. 78 and approved in Decision No. 56097 (August 17, 1988). No improvements, pole replacements, or construction are necessary therein and this existing single-circuit line is designated for operation at 138 kV.

The Alignment leaves the Kantor Substation southerly along the existing 115 kV right of way in the foothills of the Santa Rita Mountains east of the Santa Cruz River and South of Josephine Canyon, the Alignment drops out of the foothills and into the Santa Cruz River Valley (11.8 miles). The Alignment continues to use the existing alignment across Pendleton Drive and south to the Cañez Substation (1.6 miles).

The Alignment then leaves Cañez Substation and goes west to eastern edge of the UPRR right of way.

The Alignment deviates from the existing 115 kV transmission line alignment at Pendleton Drive, and shifts 0.3 miles to the westerly edge of the Union Pacific Rail Road ("UPRR") right-of-way, with an interconnection with the Cañez Substation.

The Alignment then continues southerly adjacent to the UPRR in the Santa Cruz River Valley (3.4 miles). Near the intersection of Pendleton Drive and Avenida Coatimundi, the Alignment shifts from the UPRR right-of-way and parallels Avenida Coatimundi east to the Sonoita Substation (0.3 miles).

The Alignment extends southerly out of the Sonoita Substation along the existing line across Sonoita Creek and the Santa Cruz River to Old Tucson Road, and then parallels Old Tucson Road to a point near the intersection with Grand Avenue (5.9 miles).

At the intersection of Old Tucson Road and Grand Avenue, the line departs from the existing line to proceed east of and parallel to Grand Avenue on the east side of Nogales Wash through an industrial area (0.9 miles). The Alignment returns to the existing line alignment near where Frank Reed Road intersects Grand Avenue, and continues south, along the west side of the Santa Cruz County Complex (0.8 miles). The Alignment then shifts east and expands to a 1250-foot-wide planning corridor to pass through the Preston Mobile Home Park (0.3 miles).

The Alignment then resumes a 500-foot planning corridor turns south through the Mariposa Mall, across Mariposa Road, and through the Loma Linda Shopping Center (0.4 miles). The Alignment continues on the existing line's alignment and turns to the east, and ends at the Valencia Substation located in Section 5, Township 24 South, Range 13 East (0.4 miles).

The Project will replace the existing wooden H-frame structures with steel monopoles from the Kantor Substation to the Valencia Substation as described in the Application. Steel monopoles will be used between Vail Substation and the Nogales Tap. The existing single-circuit transmission line portion constructed pursuant to CEC from Case No. 78 is on steel monopoles.

CONDITIONS

This Certificate of Environmental Compatibility is granted upon the following conditions:

1. The Applicant shall obtain all approvals and permits required by the United States, the State of Arizona, Pima County, Santa Cruz County, the City of Tucson, the City of Nogales, the Town of Sahuarita, U.S. Bureau of Land Management ("BLM"), and any other governmental entities having jurisdiction necessary to construct the Project.
2. The Applicant shall comply with all existing applicable statutes, ordinances, master plans, county comprehensive plans, city and town general plans, project area development and subdivision plans, and regulations of the United States, State of Arizona, Pima County, Santa Cruz County, City of Tucson, City of Nogales, Town of Sahuarita, and any other governmental entities having jurisdiction during the construction and operation of the project transmission line.
- 2A The Applicant shall construct the Project transmission line only within the corridor described in Exhibit A, attached hereto.
3. The Applicant shall retain an archaeologist prior to construction satisfactory to the State Historical Preservation Office ("SHPO"). The archaeologist shall be on-site during activities where new routes are being developed to advise Applicant in connection with efforts for archaeological sites that may be required, to manage cultural and historical preservation efforts for sites that may be effected by the construction of new transmission lines, and shall confer with American Nations and historical societies to determine sensitive areas and if and how they can be avoided or mitigated. If any archaeological, paleontological or historical site or object is discovered during the construction or operation of the transmission line, the Applicant or its representative in charge shall promptly report the discovery to the Director of the Arizona State Museum, and in consultation with the Director, shall immediately take all reasonable steps to secure and maintain the preservation of the discovery as required under A.R.S. §41-844.
4. If human remains and/or funerary objects are encountered during any ground-disturbing activities relating to the construction or operation of the transmission line, the Applicant shall cease work on the affected area of the Project and notify the Director of the Arizona State Museum as required under A.R.S. §41-865.
5. The Applicant shall retain a biologist prior to construction satisfactory to the Arizona Game and Fish Department. The biologist is to be on-site during construction activities connected with any additional biological and related studies that may be required, and to advise the Applicant in connection with mitigation efforts for any endangered, threatened, sensitive, and listed species that maybe affected by construction activities. The Applicant shall comply with the applicable notice and salvage requirements of the Arizona Native Plant Law (A.R.S. §§3-901 *et seq.*), county and municipal plant ordinances, and shall, to the extent feasible, minimize the destruction of native plants during the construction and operation of the transmission line.
6. The Applicant shall not assign this CEC or its interest in the Project authorized by this CEC unless both Applicant (as Transferor/Assignor) and Transferee/Assigned has signed a "Notice of Transfer of Certificate of Environmental Compatibility" ("Notice") as required under A.R.S. §40-360.08(A) and A.A.C. R14-3-213(F). That Notice must be filed in this Docket. Transferee/Assignee, as part of acquiring any interest in the Project, must agree to comply with all terms, limitations and conditions contained within this CEC originally granted to Applicant by the Committee and approved by the Commission.
7. This authorization to construct this Project shall expire five years from the date this CEC is approved by the Commission unless the transmission line is capable of operation. However, prior to expiration, the Applicant may request that the Commission extend this time limitation for no more than two years.
8. If the Applicant requires an extension of this CEC prior to completion of construction, the Applicant shall use reasonable means to notify by first class mail all landowners, neighborhood associations registered with the local governing jurisdiction, and residents within one mile of the Alignment, all persons who made public comment at this proceeding, and all parties to this proceeding of the request. Applicant will provide the date, time and place of the hearing in which the Commission will consider its request for extension.
9. The Applicant shall make every reasonable effort to identify and correct, on a case-specific basis, all complaints of interference with radio or television signals from operation of the transmission lines and

related facilities addressed in this CEC. The Applicant shall maintain written records for a period of five years of all complaints of radio or television interference attributable to operation, together with the corrective action taken in response to each complaint. All complaints shall be recorded to include notations on the corrective action taken. Complaints not leading to a specific action or for which there was no resolution shall be noted and explained. Upon request, a copy of these records will be provided to Commission Staff.

10. Within 120 days of the Commission decision approving this CEC, Applicant will post signs, at least 3-feet by 3-feet in size, in public rights-of-way giving notice of the Project right of way to the extent authorized by law. The Applicant shall place signs in prominent locations at reasonable intervals such that the public is notified along the full length of the transmission line until the transmission structures are constructed. To the extent practicable, within 45 days of securing easement or right-of-way for the Project, the Applicant shall erect and maintain signs providing public notice that the property is the site of a future transmission line. The signs shall advise:
 - (a) That the site has been approved for the construction of Project facilities;
 - (b) The expected date of completion of the Project facilities;
 - (c) A phone number for public information regarding the Project;
 - (d) The name of the Project;
 - (e) The name of the Applicant; and
 - (f) The website of the Project.
11. Applicant shall design the transmission lines to incorporate reasonable measures to minimize impacts to raptors. Non-specular conductors shall be used between all new monopoles.
12. Monopole finish shall be either dulled-gray galvanized steel or dark brown self-weathering finish. Finish selection criteria are based on minimizing the visual contrast between the background and pole based on where most observers will see the pole. From the below artist's standard Denman Ross Nine Step Value Scale for visual contrast, a brown self-weathering pole finish value is between 8 and 9 and a dulled-gray finish between 2 and 3. When the background view has a value of 5 or less, a dulled-gray finish should be used and when the background has a value above 5, a self-weathering finish should be used. Terrain and vegetation with angle of predominate viewers should be considered to determine background value.

Denman Ross nine step value scale

value	sample	value name
1		white
2		high light
3		light
4		low light
5		midvalue
6		high dark
7		dark
8		low dark
9		black

Ref: www.handprint.com/HP/WCL/color11.html
(verified 30 June 2009)

In general, in open terrain dulled-gray finish is appropriate from where most observers would view most of the pole against a sky background (low Denman Ross value), while a terrain background (higher Denman Ross value) behind a pole would be appropriate for a self-weathering finish. Not later than ten (10) days after approval of this CEC by the Committee, the Applicant shall file with ACC Docket Control and parties, a Pole Finish Plan ("PFP") that shows the proposed finish for each part of the Project. The PFP shall indicate where a dulled-gray finish will be used and where self-weathering steel will be used. It is expected between 50 and 60% of the poles in this Project will have dulled-gray finish.

13. Before starting construction, the Applicant shall file a Restoration and Mitigation Plan with ACC Docket Control and parties to avoid environmental impacts, focus on site preparation, and facilitate natural re-vegetation processes. The Restoration and Mitigation Plan shall:
 - (a) Specify that construction access and methods shall minimize impacts to wildlife,

- (b) Specify the manner the Applicant will use existing roads for construction and access.
 - (c) Specify the extent of minimal vegetation disturbance outside of the Project right-of-way particularly in drainage channels and along riparian banks and washes.
 - (d) Specify, when line construction is being completed, to implement plan to re-vegetate and rehabilitate to its preconstruction state (i) the disturbed area outside of the transmission line right-of-way including equipment staging areas, and (ii) to all areas disturbed by construction inside the transmission line right-of-way, except for planned road to access to lines for long-term maintenance and repair, unless waived by the landowner.
 - (e) Specify how and when all temporary access and roads will be extinguished.
 - (f) Specify the coordination processes with the Arizona Game and Fish Department and State Historic Preservation Office and tasks for the Project's archaeologist and biologist.
 - (g) Specify how final site preparation will encourage natural re-vegetation.
 - (h) Specify avoidance measures (i.e., reserve), where practical, for mature native trees and plants.
 - (i) Specify vegetation management practices to be implemented after construction with emphasis to minimize impacts on old-growth trees in bosque and riparian areas where "clear cut" shall not be used unless necessary to comply with another entity's rules. Pre-notification of potential "clear cut" removal in these areas shall include ACC Docket Control, Committee Chairman, Arizona Fish and Game Committee member, President of the Friends of the Santa Cruz River, and parties at least sixty (60) days prior to such action.
 - (j) Specify prohibitions on use of non-native plants or seeds during re-vegetation.
 - (k) Specify a plan to preserve topsoil and plant materials from the right-of-way before grading and re-spread over the right-of-way after construction.
 - (l) Specify the plan to imprint the restored right-of-way and other areas to provide indentations to catch seed and water. Specify and apply adequate water to all restored areas until deemed not necessary for restoration.
 - (m) Specify best management practices to be implemented to protect topsoil and unique plants and trees temporarily removed due to construction.
 - (n) Specify and apply restoration methods that have been shown to work in the same desert, transitional, or riparian environments.
 - (o) Specify a plan to prevent spread of noxious weeds or other undesirable species, to include spreading by machinery and vehicles during construction and operations.
 - (p) Specify and apply best methods to discourage unauthorized off-highway-vehicles in the right-of-way for all segments.
14. Applicant shall participate in good faith in state and regional transmission study forums to coordinate transmission expansion plans related to the Project and to resolve transmission constraints in a timely manner.
15. The Applicant shall provide copies of this CEC to the City of Tucson, the Town of Sahuarita, the City of Nogales, Pima County, Santa Cruz County, the Arizona State Land Department, SHPO, BLM, and the Arizona Game and Fish Department and assist these agencies with appropriate mapping (database) information for the Project.
16. Prior to starting Project construction, the Applicant shall provide to homebuilder, realtor and homeowner associations registered with the local governing jurisdiction, and developers of record, within one mile of the center line of the Alignment, the Project identity, Alignment with maps, a pictorial depiction. Further, the Applicant will encourage realtors, developers and homebuilders to include this information in their sales and disclosure statements.
17. Before commencing construction of Project facilities located parallel to and within 100 feet of any existing natural gas or hazardous liquid pipeline, the Applicant shall:
- (a) Perform the appropriate grounding, soil conductivity/resistivity, and cathodic protection studies to show that the Project's conductors parallel to and within 100 feet of such pipeline results in no long-term material adverse electrical and electromagnetic field impacts to the pipeline or to public safety when both the pipeline and the Project are fully operational. If material adverse impacts are noted in the studies, Applicant shall take appropriate steps to ensure that such material adverse impacts are permanently mitigated that might require more than 100-foot separation between the transmission line

- conductor and the pipeline. Applicant shall provide a copy of all such studies to Commission Staff; and
- (b) Perform a technical study simulating an outage of the Project that may be caused by the collocation of the Project parallel to and within 100 feet of the existing natural gas or hazardous liquid pipeline. This study should either: (i) show that such outage does not result in customer outages; or (ii) include operating plans to minimize any resulting customer outages. Applicant shall provide a copy of this study to Commission Staff.
 - (c) All transmission structures shall be placed a minimum of 100 feet from the edge of existing gas or hazardous liquid pipeline, unless results from (a) above extend this minimum distance.
18. Applicant will comply with the current Western Electricity Coordinating Council/North American Electric Reliability Corporation Planning standards as approved by the Federal Energy Regulatory Commission, and the National Electrical Safety Code standards.
 19. The Applicant shall submit an annual self-certification letter, identifying progress made with respect to each condition contained in the CEC, including those conditions have been partially or fully accomplished. Each letter shall be submitted to the ACC Docket Control, the Arizona Attorney General (Committee Chairman), Arizona Department of Commerce Energy Office, and to Parties on August 1 beginning in 2010. Attached to each letter shall be documentation that shows how compliance with each condition was achieved. The self-certification requirement shall expire on the date the Project is placed into operation.
 20. Within sixty (60) days of the Commission decision granting this CEC, the Applicant shall make good faith efforts to commence discussions with private landowners, on whose property the Alignment is located, to identify the specific location for the Project's right-of-way and placement of poles and pole finish. Applicant shall make reasonable efforts to accommodate landowners' preferences regarding the placement of poles located on the landowners' property and to work with private landowners on whose property the right-of-way will be located, to mitigate the impacts of the location, construction, and operation of the Project. In Santa Cruz County, re-activation of the Citizens Advisory Council established by ACC Order No. 61793 (June 29, 1999) shall be led by UNS Electric and used as a Santa Cruz service area community public forum for group meetings, with project updates provided at least quarterly, until completion.
 21. If any part of this Project is constructed in the floodway or floodplain, recommendations from the Santa Cruz County Flood Control Director shall be considered along with industry standards for such construction even through this CEC is statutorily exempt from this jurisdiction.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This Certificate incorporates the following findings of fact and conclusions of law.

1. The Project is in the public interest because it aids the state in meeting the need for an adequate, economical and reliable supply of electric power.
2. In balancing the need for the Project with its effect on the environment and ecology of the state, the conditions placed on the CEC by the Committee effectively minimize its impact on the environment and ecology of the state.
3. The conditions placed on the CEC by the Committee resolve matters concerning the need for the Project and its impact on the environment and ecology of the state raised during the course of proceedings, and as such, serves as the findings on the matters raised.
4. In light of these conditions, the balancing in the broad public interest results in favor of granting the CEC.

DATED this ___ day of _____ 2009.

**THE ARIZONA POWER PLANT AND TRANSMISSION
LINE SITING COMMITTEE**

Hon. John Foreman, Chairman

Exhibit A
(Seg. 2, Alt 1)

A transmission line corridor of 500' width except where noted, with the centerline, as determined from Arizona State Plane Coordinate mapping, more particularly described as follows:

Beginning at **Vail Substation**, at grid coordinate (X) 1041085.39, (Y) 391274.36, of Central Zone of Arizona State Plane Coordinate System 1983, and to which National Geodetic Survey point PUMP (PID - CZ0252) bears South 42 degrees 20 minutes 38 seconds West, 4,870.50 feet;
thence North 88 degrees 44 minutes 54 seconds West, 307.61 feet;
thence North 60 degrees 17 minutes 58 seconds West, 1,037.36 feet;
thence North 00 degrees 07 minutes 58 seconds West, 1,017.67 feet;
thence South 89 degrees 32 minutes 32 seconds West, 11,891.07 feet;
thence South 05 degrees 40 minutes 55 seconds West, 1,744.96 feet;
thence South 00 degrees 34 minutes 52 seconds East, 6,224.41 feet to a point in **Nogales Tap Substation**;
thence South 00 degrees 34 minutes 52 seconds East, 50,753.00 feet;
thence South 34 degrees 21 minutes 34 seconds West, 95,891.68 feet;
thence South 88 degrees 34 minutes 55 seconds West, 121.34 feet to a point in **Kantor Substation**;
thence South 03 degrees 13 minutes 57 seconds East, 158.25 feet;
thence South 21 degrees 14 minutes 55 seconds East, 22,453.78 feet;
thence South 00 degrees 29 minutes 36 seconds East, 9,011.69 feet;
thence South 19 degrees 02 minutes 10 seconds West, 1,725.59 feet;
thence South 00 degrees 29 minutes 28 seconds East, 12,408.16 feet;
thence South 12 degrees 35 minutes 44 seconds East, 2,722.98 feet;
thence South 00 degrees 28 minutes 50 seconds East, 13,826.04 feet;
thence South 00 degrees 28 minutes 50 seconds East, 816.00;
thence South 19 degrees 03 minutes 31 seconds East, 7,674.00 feet along the said existing alignment to the terminus of said centerline, 26 feet easterly of the east side of said **Cañez Substation**;
thence South 18 degrees 52 minutes 02 seconds East, 12,393.42 feet to the beginning of a curve concave to the northeast and having a radius of 5,553.78 feet;
thence southeasterly 3,974.97 feet through a central angle of 41 degrees 00 minutes 28 seconds;
thence South 59 degrees 52 minutes 30 seconds East, 1,369.94 feet;
thence North 64 degrees 22 minutes 52 seconds East, 1,337.41 feet to a point 63 feet southerly of the south side of **Sonoita Substation**;
thence South 25 degrees 54 minutes 45 seconds East, 2,434.49 feet;
thence South 18 degrees 53 minutes 51 seconds East, 6,598.53 feet;
thence South 37 degrees 22 minutes 02 seconds East, 6,610.08 feet;
thence South 00 degrees 35 minutes 23 seconds East, 7,555.17 feet;
thence South 30 degrees 26 minutes 05 seconds West, 1,143.95 feet;
thence South 03 degrees 55 minutes 22 seconds East, 3,724.62 feet;
thence South 17 degrees 58 minutes 34 seconds East, 3,169.01 feet;
thence South 79 degrees 39 minutes 56 seconds East, 1,303.27 feet;
thence South 43 degrees 47 minutes 11 seconds East, 1,683.12 feet;
thence South 04 degrees 49 minutes 19 seconds West, 1,849.85 feet;
thence South 00 degrees 35 minutes 14 seconds East, 3,980.53 feet;
thence North 74 degrees 35 minutes 02 seconds East, 1,332.75 feet;
thence South 01 degrees 13 minutes 18 seconds East, 1,873.85 feet;
thence North 88 degrees 43 minutes 12 seconds East, 2,191.97 feet to the terminus of said centerline at **Valencia Substation**, at grid coordinate (X) 1007459.01, (Y) 133493.23, of said Central Zone, and to which National Geodetic Survey point M423 (PID - CG0883) bears South 23 degrees 09 minutes 01 seconds East, 34,502.53 feet.

Said centerline is 57.625 miles in length, more or less.

Attachment B

**FINAL CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY
PROPOSED BY MARSHALL MAGRUDER**

**8 JULY 2009
(WITH REDLINES)**

Note:

Double underlines used for new or added changes

Deleted changes are hidden, see

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**BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

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IN THE MATTER OF THE APPLICATION OF UNS
ELECTRIC, INC. FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY FOR THE VAIL TO
VALENCIA 115 KV TO 138 KV TRANSMISSION LINE
UPGRADE PROJECT, ORIGINATING AT THE
EXISTING VAIL SUBSTATION IN SEC. 4, T.16S.,
R.15E., PIMA COUNTY, TO THE EXISTING VALENCIA
SUBSTATION IN SEC. 5, T.24S., R.14E., IN THE CITY
OF NOGALES, SANTA CRUZ COUNTY, ARIZONA

Docket No. L-00000F-09-0190-00144

Case No. 144

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CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission Line Siting Committee (the "Committee") held public hearings on June 2, 3, and 4, 2009 in Rio Rico and on July 8 and 9, 2009 in Chandler, Arizona, all in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") §40-360, *et seq.*, for the purpose of receiving evidence and deliberating on the Application of UNS Electric, Inc. ("Applicant") for a Certificate of Environmental Compatibility ("CEC"), incorporated herein, in the above-captioned case (the "Project").

The following members and designees of members of the Committee were present at one or more of the hearings for the evidentiary presentations and/or for the deliberations:

John Foreman	Chairman, Designee for Arizona Attorney General Terry Goddard
David L. Eberhart, P.E.	Designee for Chairman, Arizona Corporation Commission
Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
Jessica Youle	Designee for Director, Energy Department, Arizona Department of Commerce
Jeff Maguire	Appointed Member
Bill Mundell	Appointed Member
Patricia Noland	Appointed Member
Michael Palmer	Appointed Member
Michael Whalen	Appointed Member
Barry Wong	Appointed Member

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2 The Applicant was represented by J. Matthew Derstine, Michael W. Patten, and Jason D. Gellman
3 of Roshka, DeWulf & Patten, PLC, and Marcus G. Jerden of UniSource Energy Corporation. The
4 following parties were granted intervention pursuant to A.R.S. §40-360.05: Marshall Magruder and
5 Elizabeth Webb, both in pro persona.

6 At the conclusion of the hearings, the Committee, having received the Application, appearances of
7 the parties, evidence, testimony and exhibits presented at the hearings, and being advised of the legal
8 requirements of A.R.S. §§40-360 to 40-360.13, upon motion duly made and seconded, voted X to X to
9 grant the Applicant this CEC (Case No. 144) for the Project to rebuild the existing 115 kV transmission line
10 as a 138 kV transmission line and to interconnect that transmission line to the Vail Substation as set forth
11 in the Application.

12 The Project as approved consists of approximately 57.8 miles of 138 kV transmission line and
13 ancillary facilities along the route as described below. The Project starts at the Vail Substation in Pima
14 County and ends at the Valencia Substation in the City of Nogales, Arizona. A legal description and
15 general location map [NOT found] of the Project is attached as Exhibit A.

16 As explained in the Application, the Project will:

- 17 • Change the Interconnection of the northern end of the UNS Electric, Inc. transmission line to
18 the Tucson Electric Power Company's ("TEP") Vail Substation from the Western Area Power
19 Administration's Nogales Tap substation.
- 20 • Upgrade the single-circuit transmission line voltage from 115 kV to 138 kV.
- 21 • Replace existing wooden H-frame structures with steel monopoles.

22 The Project Alignment (the route granted for the Project in this CEC) is a 500-foot-wide planning
23 corridor, except where noted, and described in Exhibit A and Application, as follows:

24 The Project originates at the TEP Vail Substation in Section 4, Township 16 South, Range 15 East
25 from which the Alignment extends westerly, parallel to TEP's Vail-Robert Bills (138 kV) and Vail-Irvington
26 (138 kV) lines along an access road which is an east extension of the Old Vail Connection Road, to where
27 Old Vail Connection Road intersects Wilmot Road (2.3 miles). At this intersection, the Alignment turns
28 south extending to the Nogales Tap and interconnects to the existing line (1.5 miles). From that
29 interconnection, the Alignment then continues south to the Kantor Substation (27.8 miles) in Santa Cruz

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2 County using the existing single circuit line that was previously rebuilt in accordance with the CEC granted
3 Case No. 78 and approved in Decision No. 56097 (August 17, 1988). No improvements, pole
4 replacements, or construction are necessary therein and this existing single-circuit line is designated for
5 operation at 138 kV.

6 The Alignment leaves the Kantor Substation southerly along the existing 115 kV right of way in the
7 foothills of the Santa Rita Mountains east of the Santa Cruz River and South of Josephine Canyon, the
8 Alignment drops out of the foothills and into the Santa Cruz River Valley (11.8 miles). The Alignment
9 continues to use the existing alignment across Pendleton Drive and south to the Cañez Substation (1.6
10 miles).

11 The Alignment then leaves Cañez Substation and shifts west to the easterly edge of the UPRR
12 right of way.

13 The Alignment deviates from the existing 115 kV transmission line alignment at Pendleton Drive,
14 and shifts 0.3 miles to the westerly edge of the Union Pacific Rail Road ("UPRR") right-of-way, with an
15 interconnection with the Cañez Substation.

16 The Alignment then continues southerly adjacent to the UPRR in the Santa Cruz River Valley (3.4
17 miles). Near the intersection of Pendleton Drive and Avenida Coatimundi, the Alignment shifts from the
18 UPRR right-of-way and parallels Avenida Coatimundi east to the Sonoita Substation (0.3 miles).

19 The Alignment extends southerly out of the Sonoita Substation along the existing line across
20 Sonoita Creek and the Santa Cruz River to Old Tucson Road, and then parallels Old Tucson Road to a
21 point near the intersection with Grand Avenue (5.9 miles).

22 At the intersection of Old Tucson Road and Grand Avenue, the line departs from the existing line to
23 proceed east of and parallel to Grand Avenue on the east side of Nogales Wash through an industrial area
24 (0.9 miles). The Alignment returns to the existing line alignment near where Frank Reed Road intersects
25 Grand Avenue, and continues south, along the west side of the Santa Cruz County Complex (0.8 miles).
26 The Alignment then shifts east and expands to a 1250-foot-wide planning corridor to pass through the
27 Preston Mobile Home Park (0.3 miles).

28 The Alignment then resumes a 500-foot planning corridor turns south through the Mariposa Mall,
29 across Mariposa Road, and through the Loma Linda Shopping Center (0.4 miles). The Alignment

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2 continues on the existing line's alignment and turns to the east, and ends at the Valencia Substation
3 located in Section 5, Township 24 South, Range 13 East (0.4 miles).

4 The Project will replace the existing wooden H-frame structures with steel monopoles from the
5 Kantor Substation to the Valencia Substation as described in the Application. Steel monopoles will be
6 used between Vail Substation and the Nogales Tap. The existing single-circuit transmission line portion
7 constructed pursuant to CEC from Case No. 78 is on steel monopoles.

8 CONDITIONS

9 This Certificate of Environmental Compatibility is granted upon the following conditions:

- 10 1 The Applicant shall obtain all approvals and permits required by the United States, the State of
11 Arizona, Pima County, Santa Cruz County, the City of Tucson, the City of Nogales, the Town of
12 Sahuarita, U.S. Bureau of Land Management ("BLM"), and any other governmental entities having
13 jurisdiction necessary to construct the Project.
- 14 2 The Applicant shall comply with all existing applicable statutes, ordinances, master plans, county
15 comprehensive plans, city and town general plans, project area development and subdivision
16 plans, and regulations of the United States, State of Arizona, Pima County, Santa Cruz County,
17 City of Tucson, City of Nogales, Town of Sahuarita, and any other governmental entities having
18 jurisdiction during the construction and operation of the project transmission line.
- 19 2A The Applicant shall construct the Project transmission line only within the corridor described in
20 Exhibit A, attached hereto.
- 21 3. The Applicant shall retain an archaeologist prior to construction satisfactory to the State Historical
22 Preservation Office ("SHPO"). The archaeologist shall be on-site during activities where new routes
23 are being developed to advise Applicant in connection with efforts for archaeological sites that may
24 be required, to manage cultural and historical preservation efforts for sites that may be effected by
25 the construction of new transmission lines, and shall confer with American Nations and historical
26 societies to determine sensitive areas and if and how they can be avoided or mitigated. If any
27 archaeological, paleontological or historical site or object is discovered during the construction
28 or operation of the transmission line, the Applicant or its representative in charge shall
29 promptly report the discovery to the Director of the Arizona State Museum, and in consultation with

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2 the Director, shall immediately take all reasonable steps to secure and maintain the preservation of
3 the discovery as required under A.R.S. §41-844.

- 4 4. If human remains and/or funerary objects are encountered during any ground-disturbing
5 activities relating to the construction or operation of the transmission line, the Applicant shall
6 cease work on the affected area of the Project and notify the Director of the Arizona State
7 Museum as required under A.R.S. §41-865.
- 8 5. The Applicant shall retain a biologist prior to construction satisfactory to the Arizona Game and
9 Fish Department. The biologist is to be on-site during construction activities connected with any
10 additional biological and related studies that may be required, and to advise the Applicant in
11 connection with mitigation efforts for any endangered, threatened, sensitive, and listed species
12 that maybe affected by construction activities. The Applicant shall comply with the
13 applicable notice and salvage requirements of the Arizona Native Plant Law (A.R.S. §§3-
14 901 et seq.), county and municipal plant ordinances, and shall, to the extent feasible, minimize the
15 destruction of native plants during the construction and operation of the transmission line.
- 16 6. The Applicant shall not assign this CEC or its interest in the Project authorized by this CEC
17 unless both Applicant (as Transferor/Assignor) and Transferee/Assigned has signed a "Notice
18 of Transfer of Certificate of Environmental Compatibility" ("Notice") as required under A.R.S.
19 §40-360.08(A) and A.A.C. R14-3-213(F). That Notice must be filed in this Docket.
20 Transferee/Assignee, as part of acquiring any interest in the Project, must agree to comply with
21 all terms, limitations and conditions contained within this CEC originally granted to Applicant by
22 the Committee and approved by the Commission.
- 23 7. This authorization to construct this Project shall expire five years from the date this CEC is
24 approved by the Commission unless the transmission line is capable of operation. However, prior
25 to expiration, the Applicant may request that the Commission extend this time limitation for no
26 more than two years.
- 27 8. If the Applicant requires an extension of this CEC prior to completion of construction, the Applicant
28 shall use reasonable means to notify by first class mail all landowners, neighborhood
29 associations registered with the local governing jurisdiction, and residents within one mile of

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2 the Alignment, all persons who made public comment at this proceeding, and all parties to this
3 proceeding of the request. Applicant will provide the date, time and place of the hearing in which
4 the Commission will consider its request for extension.

5 9. The Applicant shall make every reasonable effort to identify and correct, on a case-specific basis,
6 all complaints of interference with radio or television signals from operation of the transmission
7 lines and related facilities addressed in this CEC. The Applicant shall maintain written records for a
8 period of five years of all complaints of radio or television interference attributable to operation,
9 together with the corrective action taken in response to each complaint. All complaints shall be
10 recorded to include notations on the corrective action taken. Complaints not leading to a specific
11 action or for which there was no resolution shall be noted and explained. Upon request, a copy of
12 these records will be provided to Commission Staff.

13 10. Within 120 days of the Commission decision approving this CEC, Applicant will post signs at least
14 3-feet by 3-feet in size, in public rights-of-way giving notice of the Project right of way to the extent
15 authorized by law. The Applicant shall place signs in prominent locations at reasonable intervals
16 such that the public is notified along the full length of the transmission line until the transmission
17 structures are constructed. To the extent practicable, within 45 days of securing easement or right-
18 of-way for the Project, the Applicant shall erect and maintain signs providing public notice that the
19 property is the site of a future transmission line. The signs shall advise:

- 20 (a) That the site has been approved for the construction of Project facilities;
21 (b) The expected date of completion of the Project facilities;
22 (c) A phone number for public information regarding the Project;
23 (d) The name of the Project;
24 (e) The name of the Applicant; and
25 (f) The website of the Project.

26 11. Applicant shall design the transmission lines to incorporate reasonable measures to minimize
27 impacts to raptors. Non-specular conductors shall be used between all new monopoles.

28 12. Monopole finish shall be either dulled-gray galvanized steel or dark brown self-weathering finish.
29 Finish selection criteria are based on minimizing the visual contrast between the background and

pole based on where most observers will see the pole. From the below artist's standard Denman Ross Nine Step Value Scale for visual contrast, a brown self-weathering pole finish value is between 8 and 9 and a dulled-gray finish between 2 and 3. When the background view has a value of 5 or less, a dulled-gray finish should be used and when the background has a value above 5, a self-weathering finish should be used. Terrain and vegetation with angle of predominate viewers should be considered to determine background value.

Denman Ross nine step value scale

value	sample	value name
1		white
2		high light
3		light
4		low light
5		midvalue
6		high dark
7		dark
8		low dark
9		black

Ref: www.handprint.com/HP/WCL/color11.html
(verified 30 June 2009)

In general, in open terrain dulled-gray finish is appropriate from where most observers would view most of the pole against a sky background (low Denman Ross value), while a terrain background (higher Denman Ross value) behind a pole would be appropriate for a self-weathering finish. Not later than ten (10) days after approval of this CEC by the Committee, the Applicant shall file with ACC Docket Control and parties, a Pole Finish Plan ("PFP") that shows the proposed finish for each part of the Project. The PFP shall indicate where a dulled-gray finish will be used and where self-weathering steel will be used. It is expected between 50 and 60% of the poles in this Project will have dulled-gray finish.

13. Before starting construction, the Applicant shall file a Restoration and Mitigation Plan with ACC Docket Control and parties to avoid environmental impacts, focus on site preparation, and facilitate natural re-vegetation processes. The Restoration and Mitigation Plan shall:
- (a) Specify that construction access and methods shall minimize impacts to wildlife.
 - (b) Specify the manner the Applicant will use existing roads for construction and access.
 - (c) Specify the extent of minimal vegetation disturbance outside of the Project right-of-way

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2 particularly in drainage channels and along riparian banks and washes.

- 3 (d) Specify, when line construction is being completed, to implement plan to re-vegetate and
4 rehabilitate to its preconstruction state (i) the disturbed area outside of the transmission line
5 right-of-way including equipment staging areas, and (ii) to all areas disturbed by construction
6 inside the transmission line right-of-way, except for planned road to access to lines for long-
7 term maintenance and repair, unless waived by the landowner.
- 8 (e) Specify how and when all temporary access and roads will be extinguished.
- 9 (f) Specify the coordination processes with the Arizona Game and Fish Department and State
10 Historic Preservation Office and tasks for the Project's archaeologist and biologist.
- 11 (g) Specify how final site preparation will encourage natural re-vegetation.
- 12 (h) Specify avoidance measures (i.e., reserve), where practical, for mature native trees and
13 plants.
- 14 (i) Specify vegetation management practices to be implemented after construction with
15 emphasis to minimize impacts on old-growth trees in bosque and riparian areas where "clear
16 cut" shall not be used unless necessary to comply with another entity's rules. Pre-notification
17 of potential "clear cut" removal in these areas shall include ACC Docket Control, Committee
18 Chairman, Arizona Fish and Game Committee member, President of the Friends of the Santa
19 Cruz River, and parties at least sixty (60) days prior to such action.
- 20 (j) Specify prohibitions on use of non-native plants or seeds during re-vegetation.
- 21 (k) Specify a plan to preserve topsoil and plant materials from the right-of-way before grading
22 and re-spread over the right-of-way after construction.
- 23 (l) Specify the plan to imprint the restored right-of-way and other areas to provide indentations to
24 catch seed and water. Specify and apply adequate water to all restored areas until deemed
25 not necessary for restoration.
- 26 (m) Specify best management practices to be implemented to protect topsoil and unique plants
27 and trees temporarily removed due to construction.
- 28 (n) Specify and apply restoration methods that have been shown to work in the same desert,
29 transitional, or riparian environments.

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- 2 (o) Specify a plan to prevent spread of noxious weeds or other undesirable species, to include
- 3 spreading by machinery and vehicles during construction and operations.
- 4 (p) Specify and apply best methods to discourage unauthorized off-highway-vehicles in the right-
- 5 of-way for all segments.

6 14. Applicant shall participate in good faith in state and regional transmission study forums to

7 coordinate transmission expansion plans related to the Project and to resolve transmission

8 constraints in a timely manner.

9 15. The Applicant shall provide copies of this CEC to the City of Tucson, the Town of Sahuarita, the

10 City of Nogales, Pima County, Santa Cruz County, the Arizona State Land Department, SHPO,

11 BLM, and the Arizona Game and Fish Department and assist these agencies with appropriate

12 mapping (database) information for the Project.

13 16. Prior to starting Project construction, the Applicant shall provide to homebuilder, realtor and

14 homeowner associations registered with the local governing jurisdiction, and developers of record,

15 within one mile of the center line of the Alignment, the Project identity, Alignment with maps,

16 a pictorial depiction. Further, the Applicant will encourage realtors, developers and homebuilders to

17 include this information in their sales and disclosure statements.

18 17. Before commencing construction of Project facilities located parallel to and within 100 feet of any

19 existing natural gas or hazardous liquid pipeline, the Applicant shall:

20 (a) Perform the appropriate grounding, soil conductivity/resistivity, and cathodic protection

21 studies to show that the Project's conductors parallel to and within 100 feet of such pipeline

22 results in no long-term material adverse electrical and electromagnetic field impacts to the

23 pipeline or to public safety when both the pipeline and the Project are fully operational. If

24 material adverse impacts are noted in the studies, Applicant shall take appropriate steps to

25 ensure that such material adverse impacts are permanently mitigated that might require more

26 than 100-foot separation between the transmission line conductor and the pipeline. Applicant

27 shall provide a copy of all such studies to Commission Staff; and

28 (b) Perform a technical study simulating an outage of the Project that may be caused by the

29 collocation of the Project parallel to and within 100 feet of the existing natural gas or

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2 hazardous liquid pipeline. This study should either: (i) show that such outage does not result
3 in customer outages; or (ii) include operating plans to minimize any resulting customer
4 outages. Applicant shall provide a copy of this study to Commission Staff.

5 (c) All transmission structures shall be placed a minimum of 100 feet from the edge of existing
6 gas or hazardous liquid pipeline, unless results from (a) above extend this minimum distance.

7 18. Applicant will comply with the current Western Electricity Coordinating Council/North American
8 Electric Reliability Corporation Planning standards as approved by the Federal Energy Regulatory
9 Commission, and the National Electrical Safety Code standards.

10 19. The Applicant shall submit an annual self-certification letter, identifying progress made with respect
11 to each condition contained in the CEC, including those conditions have been partially or fully
12 accomplished. Each letter shall be submitted to the ACC Docket Control, the Arizona Attorney
13 General (Committee Chairman), Arizona Department of Commerce Energy Office, and to Parties
14 on August 1 beginning in 2010. Attached to each letter shall be documentation that shows how
15 compliance with each condition was achieved. The self-certification requirement shall expire on the
16 date the Project is placed into operation.

17 20. Within sixty (60) days of the Commission decision granting this CEC, the Applicant shall make
18 good faith efforts to commence discussions with private landowners, on whose property the
19 Alignment is located, to identify the specific location for the Project's right-of-way and placement
20 of poles and pole finish. Applicant shall make reasonable efforts to accommodate landowners'
21 preferences regarding the placement of poles located on the landowners' property and to work
22 with private landowners on whose property the right-of-way will be located, to mitigate the
23 impacts of the location, construction, and operation of the Project. In Santa Cruz County, re-
24 activation of the Citizens Advisory Council established by ACC Order No. 61793 (June 29,
25 1999) shall be led by UNS Electric and used as a Santa Cruz service area community public
26 forum for group meetings, with project updates provided at least quarterly, until completion.

27 21. If any part of this Project is constructed in the floodway or floodplain, recommendations from the
28 Santa Cruz County Flood Control Director shall be considered along with industry standards for
29 such construction even through this CEC is statutorily exempt from this jurisdiction.

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2 **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

3 This Certificate incorporates the following findings of fact and conclusions of law:

- 4 1. The Project is in the public interest because it aids the state in meeting the need for an adequate,
5 economical and reliable supply of electric power.
- 6 2. In balancing the need for the Project with its effect on the environment and ecology of the state, the
7 conditions placed on the CEC by the Committee effectively minimize its impact on the environment
8 and ecology of the state.
- 9 3. The conditions placed on the CEC by the Committee resolve matters concerning the need for the
10 Project and its impact on the environment and ecology of the state raised during the course of
11 proceedings, and as such, serves as the findings on the matters raised.
- 12 4. In light of these conditions, the balancing in the broad public interest results in favor of granting
13 the CEC.

14 DATED this ___ day of _____ 2009.

15 **THE ARIZONA POWER PLANT AND TRANSMISSION**
16 **LINE SITING COMMITTEE**

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18 _____
19 Hon. John Foreman, Chairman
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Exhibit A
(Seg. 2, Alt 1 – need modification for West of UPRR)

A transmission line corridor of 500' width except where noted, with the centerline, as determined from Arizona State Plane Coordinate mapping, more particularly described as follows:

Beginning at **Vail Substation**, at grid coordinate (X) 1041085.39, (Y) 391274.36, of Central Zone of Arizona State Plane Coordinate System 1983, and to which National Geodetic Survey point PUMP (PID - CZ0252) bears South 42 degrees 20 minutes 38 seconds West, 4,870.50 feet;

thence North 88 degrees 44 minutes 54 seconds West, 307.61 feet;

thence North 60 degrees 17 minutes 58 seconds West, 1,037.36 feet;

thence North 00 degrees 07 minutes 58 seconds West, 1,017.67 feet;

thence South 89 degrees 32 minutes 32 seconds West, 11,891.07 feet;

thence South 05 degrees 40 minutes 55 seconds West, 1,744.96 feet;

thence South 00 degrees 34 minutes 52 seconds East, 6,224.41 feet to a point in **Nogales Tap Substation**;

thence South 00 degrees 34 minutes 52 seconds East, 50,753.00 feet;

thence South 34 degrees 21 minutes 34 seconds West, 95,891.68 feet;

thence South 88 degrees 34 minutes 55 seconds West, 121.34 feet to a point in **Kantor Substation**;

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thence South 21 degrees 14 minutes 55 seconds East, 22,453.78 feet;

thence South 00 degrees 29 minutes 36 seconds East, 9,011.69 feet;

thence South 19 degrees 02 minutes 10 seconds West, 1,725.59 feet;

thence South 00 degrees 29 minutes 28 seconds East, 12,408.16 feet;

thence South 12 degrees 35 minutes 44 seconds East, 2,722.98 feet;

thence South 00 degrees 28 minutes 50 seconds East, 13,826.04 feet;

thence South 00 degrees 28 minutes 50 seconds East, 816.00;

thence South 19 degrees 03 minutes 31 seconds East, 7,674.00 feet along the said existing alignment to the terminus of said centerline, 26 feet easterly of the east side of said **Cañez Substation**;

thence South 18 degrees 52 minutes 02 seconds East, 12,393.42 feet to the beginning of a curve concave to the northeast and having a radius of 5,553.78 feet;

thence southeasterly 3,974.97 feet through a central angle of 41 degrees 00 minutes 28 seconds;

thence South 59 degrees 52 minutes 30 seconds East, 1,369.94 feet;

thence North 64 degrees 22 minutes 52 seconds East, 1,337.41 feet to a point 63 feet southerly of the south side of **Sonoita Substation**;

thence South 25 degrees 54 minutes 45 seconds East, 2,434.49 feet;

thence South 18 degrees 53 minutes 51 seconds East, 6,598.53 feet;

thence South 37 degrees 22 minutes 02 seconds East, 6,610.08 feet;

thence South 00 degrees 35 minutes 23 seconds East, 7,555.17 feet;

thence South 30 degrees 26 minutes 05 seconds West, 1,143.95 feet;

thence South 03 degrees 55 minutes 22 seconds East, 3,724.62 feet;

thence South 17 degrees 58 minutes 34 seconds East, 3,169.01 feet;

thence South 79 degrees 39 minutes 56 seconds East, 1,303.27 feet;

thence South 43 degrees 47 minutes 11 seconds East, 1,683.12 feet;

thence South 04 degrees 49 minutes 19 seconds West, 1,849.85 feet;

thence South 00 degrees 35 minutes 14 seconds East, 3,980.53 feet;

thence North 74 degrees 35 minutes 02 seconds East, 1,332.75 feet;

thence South 01 degrees 13 minutes 18 seconds East, 1,873.85 feet;

thence North 88 degrees 43 minutes 12 seconds East, 2,191.97 feet to the terminus of said centerline at **Valencia Substation**, at grid coordinate (X) 1007459.01, (Y) 133493.23, of said Central Zone, and to which National Geodetic Survey point M423 (PID – CG0883) bears South 23 degrees 09 minutes 01 seconds East, 34,502.53 feet.

Said centerline is 57.625 miles in length, more or less.