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BEFORE THE ARIZONA CORPORAT

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

Case No. 144

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

MOTION TO IMMEDIATELY STAY CONSTRUCTION OF SEGMENT 1 OF LINE SITING CASE NO. 144

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This Motion is to STAY construction of Segment 1, a new 138 kV transmission line between the TEP Vail and the UNSE Nogales Tap Substations. This stay does not impact the other three Vail-Valencia 138 kV transmission line Segments. This "stay" is to be lifted IF the Southline Transmission Project does NOT upgrade to a 230 kV the line between the Nogales Tap and the Vail Substations. The CEC need not change if Segment 1 is not constructed.

**BACKGROUND AND DISCUSSION**

The CEC in this case, granted by the Line Siting Committee and approved by Commission Decision No. 70469 of 2 Aug 2008, authorized construction of a 138 kV "upgrade" project for UNS Electric in 4 Segments.

Segment 1. Segment 1 is a new 27,093.58 foot long (~5.15 miles) 138 kV transmission line with a new right-of-way (ROW) between the TEP Vail Substation and the vicinity of the UNSE Nogales Tap (switching) Substation. Segment 1 continues to the existing Segment 2 of the present 115/138 kV transmission line to Santa Cruz County.

Nogales Tap Substation. This is a "tap" on a Western Area Power Administration (WAPA) 115 kV transmission line that provides UNSE power for Santa Cruz County with a \$2.3M three-ring bus reliability switch.

Existing WAPA 115 kV Line. This line is load constrained. WAPA allocates about 65 MW (maximum) to UNSE at this "tap". Santa Cruz County customers present summer peak demand is about 80 MW. UNSE must run generators in Nogales to overcome this transmission line constraint on the WAPA 115 kV line.

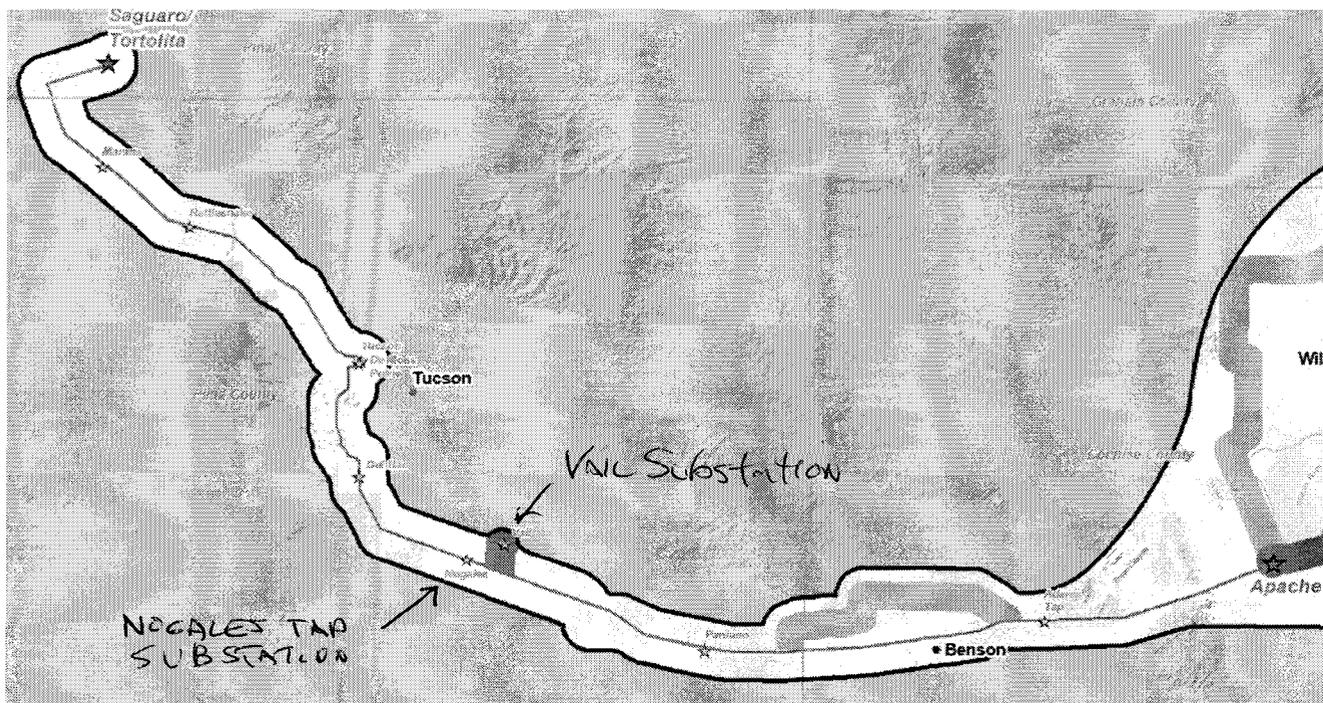
Purpose of Segment 1. This new 138 kV line is to provide power to Santa Cruz County from TEP resources and eliminate the local Nogales electricity generation. It saves about \$500,000 annually. Segment 1 will abandon the UNSE Nogales Tap Substation since there will be no connection to the WAPA line and completion now planned for May 2014.

Southline Transmission Line Project.<sup>1</sup> This proposed WAPA-sponsored project upgraded the existing 115 kV to a double-circuit 230 kV lines in the same ROW to be operational by 2015. This upgrades the WAPA line at the Nogales Tap and also is planned to connect with the TEP Vail Substation. Congress, in Section 1222 of the Energy Policy Act of 2005, annually allocated WAPA \$100 M to improve transmission reliability. This is the primary purpose of the Southline Project between the Saguaro and Apache Substations. This eliminates the Southern Arizona WAPS transmission constrictions.

Segment 1 is Not Necessary. If the planned Southline 230 kV line continues to connect at Nogales Tap Substation, then Segment 1 is NOT necessary. If Southline connects with the TEP Vail Substation additional benefits occur. The map below, from the Southline Transmission Line website, shows the Saguaro-Apache 230 kV rebuild segment of the project.

<sup>1</sup> Southline Transmission Project information is at [http://www.blm.gov/nm/st/en/prog/more/lands\\_realty/southline\\_transmission.html](http://www.blm.gov/nm/st/en/prog/more/lands_realty/southline_transmission.html)

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This May 2012 map is from the Southline Project website at <http://southlinetransmissionproject.com/index.html>

#### BENEFITS OF THIS STAY TO DELAY CONSTRUCTION OF SEGMENT 1

The proposed WAPA-sponsored Southline Project relieves these transmission constraints without cost to UNSE customers. The Segment 1 total cost is estimated at \$5,163,055 with \$3,156,045 for the new 138 kV transmission line and ROW. An additional \$2,007,010 is allocated by TEP for UNSE's portation of a new 345kV to 138 kV transformer at the Vail Substation.<sup>2</sup> The costs for a less expensive 230kV to 138 kV transformer will be necessary at the Nogales Tap Substation up to \$1.5 M. **Southline can save UNSE customers least a \$3.5 M to \$4 M without the present Segment 1.**

**Additional benefits** for UNSE and its customers by remaining with this upgraded WAPA 230 kV line include:

- a. **Increased reliability with multiple generation sources.** UNSE will be able to use power providers on the WAPA transmission lines and also from TEP generation via Vail. Power can still be available for purchase from WAPA line system generators. With Segment 1, UNSE will be limited to purchase ALL power only from TEP system generators.
- b. **Increased reliability with two transmission systems.** UNSE will be able to use either the TEP transmission line systems or the WAPA transmission line systems. Upgrading the existing 3-ring bus further improves reliability.
- c. **Lower purchase power costs.** UNSE will be able to purchase power from both providers using the WAPA transmission lines and also from generation from TEP via Vail. Presently, power must be purchased for the WAPA lines. Based on the CEC for Case 144, UNSE will restrict all power purchase only from TEP's system via Vail.
- d. **Reduced Transmission Wheeling Costs.** UNSE will have two, instead of one, option to obtain the lowest cost transmission system for its customers.

<sup>2</sup> UNSE brief by Ron Belval to the 7<sup>th</sup> BTA Workshop "Santa Cruz Continuity of Service", 10 July 2012, slide 3.

- 1 e. **Reduced CO2.** Most power purchased by UNSE from the WAPA system is natural gas generated power. Over 90% of  
2 TEP's annual power sales reported by UNS Energy in their SEC 10K/Q filings are from coal-generated power.  
3 Retaining an option for UNSE to purchase from non-coal fueled generation sources on the WAPA lines gives UNSE an  
4 option to use less CO2 and also these non-coal fueled generators consume less groundwater.
- 5 f. **Reduces Purchase Power Costs.** UNSE will have more options to purchase the lowest cost power for its customers.  
6 As the cost of natural gas-generated power appears to continue to be reduced, prudent long-term power purchases  
7 will probably remain be from generation sources on the WAPA transmission system.
- 8 g. **Reduced Transformer Costs.** Segment 1 includes a 345 kV to 138 kV transformer if on the TEP system. UNSE will  
9 need a less expensive 230 kV to 138 kV transformer on the Southline. This less expensive transformer will be the  
10 major "equipment" cost necessary in Segment 1 to connect to the Southline.
- 11 h. **Additional Interconnections for Potential Renewable Energy Sources.** The Nogales Tap is near where several multi-  
12 MW solar renewable energy projects have been proposed. Why should UNSE abandon this substation?
- 13 i. **Minor Schedule Impacts.** The Southline Project has completed its NEPA Scoping Phase with a Draft EIS planned for  
14 January 2013 and project completion by 2015. Segment 1, already delayed from summer of 2011 is planned to be  
15 completed in May 2014. Further, all of the 138 kV equipment planned for Segment 1 can be used on many of the  
16 other TEP projects, thus equipment ordered or cost impacts should be minimal.

#### 17 CONCLUSIONS

- 18 1. Segment 1 is duplicative and not cost-effective if the planned Southline Transmission Project is construction.
- 19 2. Segment 1 should be delayed until, as a minimum, the proposed WAPA Southline 230 kV line project has been  
20 approved or rejected.
- 21 3. If the Southline Project does not provide 230 kV to the Nogales Tap, then Segment 1 should continue as planned. 4.  
22 Thus, delaying (staying) Segment 1 construction is deemed prudent at this time.

#### 23 RECOMMENDED COMMISSION EXPEDITE ACTION

24 It is requested that the Commission expeditiously issue an order to "stay construction of only Segment 1" of this project  
25 and lift this stay if the Southline Project fails to include a 230 kV interconnection to the Nogales Tap Substation.

26 Mailed to all parties and dated this 19<sup>th</sup> day of November 2012.

27 Respectfully submitted,

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**Service List**

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