ATTACHMENTS

Attachment 1.

Marshall Magruder, "Scoping Comments on the Southline Transmission Line Project (DOE/EIS-0474)" of 4 June 2012. [note: pagination herein may different from the original]

Attachment 2.

Bonneville Power Administration, "Living and Working Safely Around High-Voltage Power Lines", available at www.transmission.bpa.gov/LanCom/Real_Property.cfm

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ATTACHMENT (1)

Marshall Magruder
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4 June 2012

Southline Transmission Line Project
Bureau of Land Management
Las Cruces District Office
1800 Marquess Street
Las Cruces, NM 88005-3371
Attn: Frances Martinez, Realty Specialist

Subject: Scoping Comments on the Southline Transmission Line Project (DOE/EIS-0474)

Ref: *Federal Register*, Notice of Intent to Prepare and EIS for the Proposed Southline Transmission Line Project in New Mexico and Arizona (DOE/EIS-0474) and Possible Land Use Amendments, vol. 77, No. 65, pp. 20441-20443

Encl: (1) Retain Western as the Transmission Provider for Santa Cruz County
(2) Coordinate the Southline and SunZia Transmission Projects' Environmental Reviews
(3) Consideration of ACCR Conductor

1. Summary. There are three issues that should be considered in the Draft EIS. Each is discussed in the below Enclosures. The first issue is to retain Western Area Transmission Administration (Western) transmission services to Santa Cruz County as the transmission provider to avoid significant customer cost impacts and the environment. The second issue is supports the Southline project when compared to the SunZia project. The third issue is consideration of ACCR.

2. Personal Background. I served as the Energy Commissioner and Vice Chairman for the Joint Energy Commission for the City of Nogales and Santa Cruz County, Arizona, from 2001 through 2008. I am very familiar as to the transmission needs for my county. I have participated as an individual party in several transmission line siting cases before the Arizona Power Plant and Transmission Line Siting Committee and the Arizona Corporation Commission including several cases involving Santa Cruz and Pima Counties.

3. Scoping Comments. See Enclosure (1) for Issue 1, retain Western as the transmission provider for Santa Cruz County; Enclosure (2) for Issue 2, coordinate the Southline and SunZia Transmission Projects' environmental reviews; and Enclosure (3) for Issue 3, consideration of ACCR conductor.

4. Additional Comments. In general, the states do not understand that federal land managers have the authority to site facilities only on their land and not on private and state land; however, the NEPA process looks at the total and cumulative impacts of a federal action involving this decision.

The resultant environmental information from the NEPA process can greatly benefit the states and all other levels of government in their siting responsibilities on state and private land; however, the federal process specifically does not "site" facilities on state and private land as that responsibility is the sole authority of each individual state.

Arizona and New Mexico are involved in this project. Each state has its own siting criteria and processes that impact project siting. Each state must independently exercise their responsibilities.

Some involved with these projects believe the federal process dominates and directs the state's siting processes and authority; however, this is false. The NEPA process is designed to provide decision-makers, at any level of government, essential environmental impact information and a recommended or preferred Alternative. A preferred Alternative is only for the federal action and its decision makers and also is NOT a decision; but should be a serious consideration by all concerned. Federal land managers will make their final decisions based on this information.

It is not uncommon for Alternatives, other than the preferred, to ultimately be decided by a decision maker at any level. Further, some decision makers have selected part of one Alternative and part of another Alternative or just part of any one Alternative and not the whole project. Each decision maker usually includes a detailed set of conditions, such as a mitigation plan, with its decision to allow construction on federal, state or private land. The federal government has formalized this in a Record of Decision (ROD). Unless the project proponent agrees to the ROD and its conditions, then the project is not allowed to start. Federal land managers may also have to update their management plan if a ROD is contrary before allowing the project to use federal land.

The draft EIS needs to explain these relationships, especially since different states are involved.

5. Administrative Comments. It is requested that I be added to the Mailing List, to receive notification of EIS availability, and preferably, a hard copy by mail. I have no objection to release of any personal information within these comments. If there are any questions concerning these comments, please feel free to contact me at the above address or by phone or email as indicated below.

Respectfully submitted,

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Cc (email):
Santa Cruz County Board of Supervisors,
Chairman Rudy Molera, Supervisors John Maynard and Manny Ruiz
Santa Cruz County Complex

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Nogales, Arizona 85621

Enclosure (1)

Issue 1

Retain Western Transmission Services to Santa Cruz County

Background.
Santa Cruz County has a single-circuit 115 kV transmission line from the Western Area Power Administration (Western) "Nogales Tap" 115 kV substation in southern Tucson, an emergency backup 46 kV sub-transmission line, and 64 MW of local generation in the City of Nogales for peaking and emergency power. Peak summer demands are presently around 80-81 MWs.

Existing Situation.
Whenever our power demands exceed Western's constrained capacity of about 65 MW local generation is required in Nogales to make up the difference with natural gas or diesel turbines.

Planned Solution.
To alleviate the existing constraints on the present 115 kV Western transmission line, UNS Electric and Tucson Electric Power Company (TEP) plan to construct a new 138 kV transmission line from the TEP Vail substation to the vicinity of the Nogales Tap (bypassing this substation) and connect with the existing transmission line to Nogales. The Nogales line was designed for 115 kV or 138 kV in Pima County but in Santa Cruz County, UNS Electric will upgrade the 115 kV transmission line with a 138 kV line, generally in the same corridor. The Arizona Corporation Commission in a Certification of Environmental Compatibility (CEC) in Line Siting Case No. 144 approved this upgrade. Construction, however, has been delayed from summer of 2012 to 2015 or later.

Recommended Alternative.
If the 230 kV Southline upgrades to the existing 115 kV Western line at the Nogales Tap substation is constructed, then the existing Western constraints for Santa Cruz County will not exist. This will eliminate the requirement for a new 138 kV transmission line be build to connect the TEP Vail substation to the vicinity of the Nogales Tap. This will save UNS Electric ratepayers the cost of the 3.8 miles of new 138 kV transmission line and a 345:138 kV transformer at Vail for this extension.

Benefits of Retaining Western Transmission Services for Santa Cruz County.
First, obviously saving some $3 Million by not constructing a new 138 kV transmission line. Also, transformer costs are reduced for a smaller 230:138 kV transformer at the Nogales Tap substation instead of a more expensive 345:138 kV transformer at the TEP Vail Substation.

Second, the wheeling charges used by Western are less than TEP's wheeling charges, thus resulting in continuous savings for UNS Electric customers.

Third, environmental impacts (i.e., "externailities") are less because TEP uses coal for 89.4% of the power it sells compared to UNS Electric's use of coal for less than 60% of the power it sells. TEPs environmental impacts will not be in the vicinity of the Southline but in Northern Arizona. TEP

obtains much of its power from its coal-fueled Four Corners, Springerville and Navajo generation plants that is transmitted to TEP's service area and the Vail substation with greater energy line losses. Visual obscuration and health are the primary concerns near these generation plants.

Fourth, a reduction of coal-fueled power generation uses less groundwater to generate the electricity for Santa Cruz County, as power generation consumes more groundwater in Arizona than the agriculture, industrial, mining, or residential customer categories.

Fifth, not building a new 138 kV transmission line removes associated visual and construction impacts in a new corridor on the opposite side of a road already with transmission lines.

Sixth, the continuation of a half-century of transmission services from Western for the approximately 19,000 Santa Cruz County customers has proven satisfactory and this upgrade will not only improve the capacity but also reliability.

Seventh, the simultaneous expansion of the Western transmission capabilities and reduction of a major customer base is contrary to the goals of the Energy Policy Act of 2005 Section 1222 that directed Western to make transmission improvements. Western does not lose a customer.

Eight, the ending of local natural gas and diesel required generation in the City of Nogales, a Clean Air Act designated non-attainment area, greatly reduces local environmental impacts to overcome Western's transmission capacity constraint restrictions.

Ninth, local generation in Nogales becomes a backup power source as designed, not a primary power source.

Tenth, the Southline also has a "new" direct transmission line connection to the TEP Vail substation that appears to allow coordination of Western and TEP's transmission to improve reliability with benefits for all in southern Arizona.

Impacts for Retaining Western Transmission Services for Santa Cruz County.
The primary impact, other than not constructing a transmission line, requires amending of the ACC Decision No. 71282 of 7 October 2009 in Corporation Commission Case No. 144 CEC (Docket No L-00000F-09-0190-00144). This administrative change, with reduced environmental and economic consequences, could be easily made by a request to modify this Decision. I was a party in these proceedings. If this alternative is acceptable by Western, I can initiate this process to start the process to have the Case No. 144 CEC modified as requested herein.

Conclusion.
There are many benefits for Western, UNS Electric customers in Santa Cruz County and the environment by continuing Western's services to Santa Cruz County at lower cost than planned.

Recommendation.

Retain and upgrade the Nogales Tap substation from 115 kV to 230 kV with a new 230:138 kV transformer to continue Western's services for Santa Cruz County to delete an unnecessary Vail-Nogales Tap 138 kV transmission line.

Enclosure (2)

Issue 2

Coordinate the Southline and SunZia Transmission Projects' Environmental Reviews

Background.
There are two competing transmission line projects in Arizona that provide nearly the same services. The Southline project mostly uses existing transmission line corridors while the SunZia project develops mostly new transmission line corridors. Each of these projects has ongoing, simultaneous NEPA environmental reviews managed by the Bureau of Land Management (BLM) in the same general area.

Existing Situation.
The present Western transmission lines in Southern Arizona are at capacity and urgently need to be upgraded as discussed in Section 1222 of the Energy Policy Act of 2005. New transmission capacity is being planned for New Mexico by both of these projects. Further, Lucky Corridor, LLC, plans a third transmission project of 93 miles of double-circuit 230 kV for Western and the a fourth project is the Centennial West Clean Line HVDC lines in northern New Mexico and Arizona. All these projects provide transmission capabilities for the same renewable energy sources.

The Southline and SunZia transmission projects in Southern Arizona provide duplicative services.

Only ONE of these two Southern Arizona projects can resolve the existing Western capacity and reliability issues and meet the needs of various transmission customers, whether existing customers or future "renewable energy" providers.

Since each project has a different proponent, BLM has to conduct two to four NEPA reviews with significant overlaps of environmental impacts to consider.

Recommended Alternative.
These reviews must be conducted in parallel, so that BLM and other federal land management decision makers will use the same NEPA environmental information to make their decision.

There are two ways to accomplish this, one would be to separate each project, in general, into each having a Southern Arizona and a New Mexican segments. The NEPA process may result in different project proponents determined as the preferred Alternatives for each segment.

Conclusion.
These NEPA processes must be synchronized and performed in parallel so federal land managers and the Arizona and New Mexican siting authorities consider the same environmental information for decision making.

Recommendation.
BLM should expedite the Southline project NEPA process and slowdown the SunZia process so that

decision makers can have the appropriate, and information necessary. Only one Southern Arizona project is necessary.

Enclosure (3)

Issue 3

Consider the ACCR Conductor

Background.
The 3M Company composite transmission line Aluminum Conductor Composite Reinforced (ACCR) conductors are lighter, stronger, carries more power, and requires smaller and lighter supporting structures.

Existing Situation.
Western has used ACCR for 230 kV transmission lines in Arizona. See Attachment 1.

Planned Solution.
Consider, as an Alternative, use of the ACCR conductors for this transmission line system and compare with others commonly used. Attachment 1 show that ACCR conductors compare favorably with expected results in the high temperatures in the Southwest.

Benefits.
The ACCR Conductor will allow more power, using lighter lines, smaller infrastructure, with longer spans between towers.

Recommended Alternative.
Based on the attached, tests and other data, the ACCR conductor will be satisfactory and appears to be better than other Alternative conductors. The Draft EIS should compare transmission line systems with and without the ACCR conductors, as the environmental impacts will be different if ACCR is chosen compared to the other conductors.

Issue 3 - Attachment 1
News Release: “3M’s New High-Capacity Overhead Conductor is Chosen by Western Area Power Administration to Boost Electricity Transmission on Key Line Along Colorado River in Arizona” of 15 June 2005.

Issue 3 - Attachment 1
FOR IMMEDIATE RELEASE

3M's New High-Capacity Overhead Conductor is Chosen by Western Area Power Administration to Boost Electricity Transmission on Key Line Along Colorado River in Arizona

- Twenty-Mile Installation is First Stage of Upgrade from Topock Substation to Lake Mead, Using Existing Towers; Western is Second Major Utility to Apply ACCR as Bottleneck Solution -

ST. PAUL, Minn. – June 15, 2005 – The Western Area Power Administration (Western), which delivers about 40 billion kilowatt-hours of hydroelectric power annually in 15 western and central states, has chosen 3M's new breakthrough metal matrix, high-capacity electricity conductor to replace a key conventional power line in western Arizona.

Western is one of four power marketing administrations within the U.S. Department of Energy, and serves nearly 700 wholesale power customers in a 1.3 million-square-mile area, including some 300 municipalities, as well as public utilities and utility districts, energy cooperatives, power marketers, irrigation districts, Native American tribal communities and government agencies.

Western becomes the second major utility to deploy 3M's Aluminum Conductor Composite Reinforced (ACCR) to boost transmission capacity to accommodate growing demand. The ACCR, which is heat-sag resistant, can carry more than twice the power of conventional lines of the same diameter, without requiring new or larger towers. In addition, this revolutionary metal composite material can help overcome aging concerns associated with organic-based polymer composites. The ACCR was developed as a solution to thermally constrained transmission bottlenecks that increasingly have plagued electricity grids in recent years, causing brownouts and blackouts across the country.

Xcel Energy, which serves 3.3 million electricity customers in 11 states, activated its first ACCR line in the Minneapolis-St. Paul metropolitan area in May, becoming the first commercial user of 3M's new composite conductor technology.

Both Western and Xcel were among several utilities that field-tested the ACCR in a broad range of rugged conditions over several years during the product's development stage. It was also tested extensively at the Department of Energy's Oak Ridge National Laboratories.

"It's extremely gratifying that two major utilities that tested the ACCR are putting it to use commercially," said Tracy Anderson, business development manager for 3M's composite conductor program. "Exhaustive test data have been compiled in the field, under actual local operating conditions, demonstrating that the ACCR does everything expected of it. We believe it will make an important contribution to strengthening the national grid."

A 230-kV ACCR will be installed initially on a 20-mile stretch of the Topock-Davis line, which parallels the Colorado River along Arizona's western border with California. Eventually, the new conductor will be extended northward an additional 60 miles to Lake Mead at Boulder Dam, in Nevada. The area of service includes fast-growing communities such as Lake Havasu City, Kingman and Bullhead City in Arizona; Laughlin, Nev.; and Needles, Calif.

Installation is expected to begin in January 2006 and be completed by April 2006. The line being replaced by

the ACCR was installed in the 1950s, when the region along the Colorado River was sparsely populated.

The ACCR, a new type of bare overhead conductor containing a multistrand core of heat-resistant aluminum matrix composite wires, retains its strength at high temperatures and is not adversely affected by environmental conditions, such as moisture or UV exposure. Its lightweight and reduced thermal expansion properties allow the conductor to be installed on existing towers, and requires no visual changes to a line or additional rights of way. The power line has been proven under a broad range of extreme conditions, such as saltwater corrosion, high winds, vibration, and extreme heat and cold.

3M teamed with various companies, whose expertise in certain components helped to make 3M's ACCR viable. Key contributors include Wire Rope Industries, Nexans Inc., Preformed Line Products Co. and Alcoa Conductor Accessories. Organizations playing key supporting roles in laboratory and field testing of the technology include: National Electric Energy Testing, Research and Applications Center (NEETRAC); Kinectrics; Oak Ridge National Laboratory; the U.S. Department of Energy; and Western Area Power Administration.

The technology has been recognized by R&D Magazine with an R&D 100 award as one of the most technologically significant products introduced into the marketplace and by the Minnesota High Tech Association with a Tekne Award for innovative development.

More information about the 3M Composite Conductor is available at www.3M.com/accr. About 3M -- A Global, Diversified Technology Company

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ATTACHMENT (2)

Bonneville Power Administration
"Living and Working Safely Around High-Voltage Power Lines"

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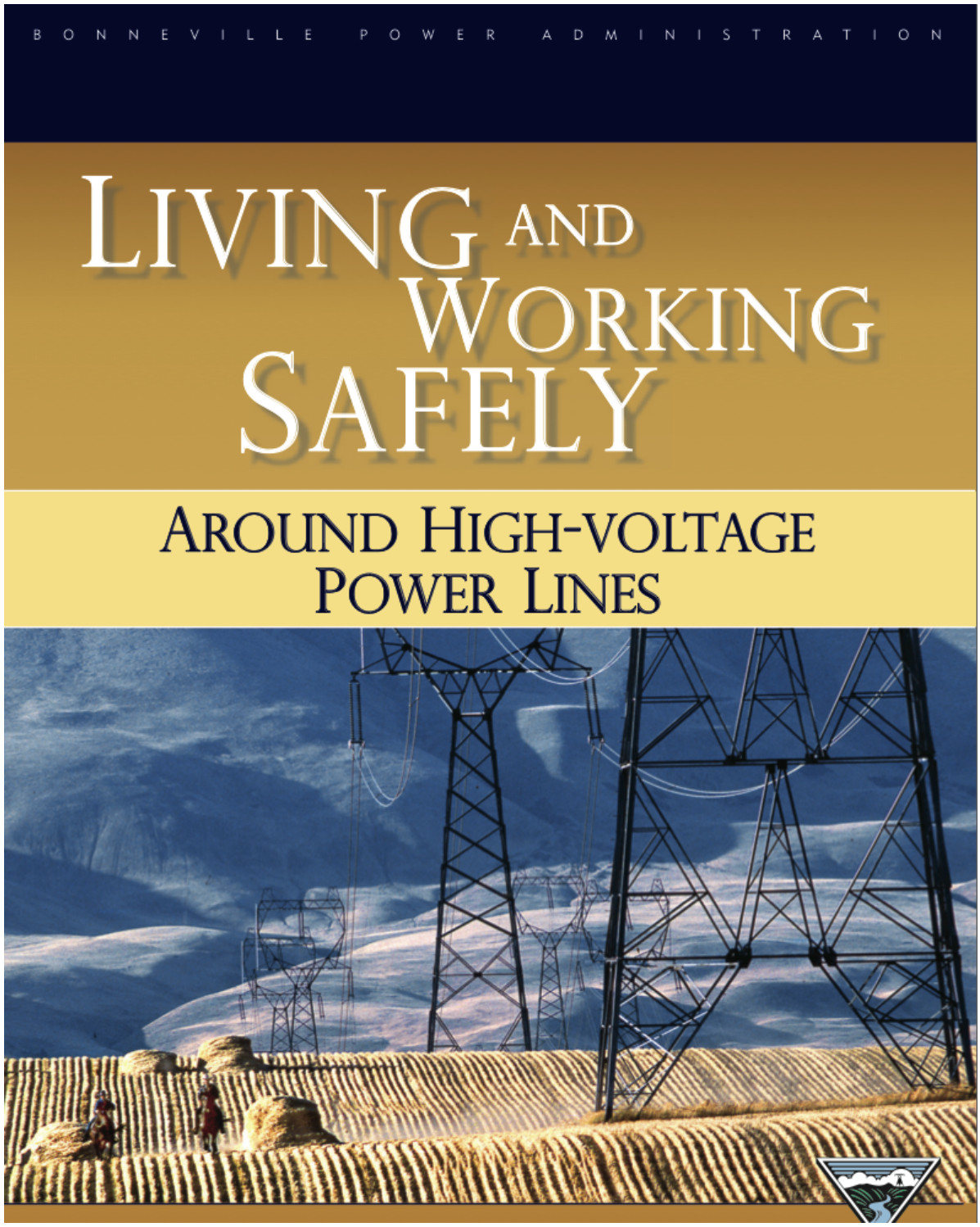

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