ORIGINAL

Gail Getzwiller
Rep. Save the Scenic Elgin/Sonoita Grasslands
PO Box 815
Sonoita, AZ 85637

RECEIVED

2008 DEC -8 P 2: 16

AZ CORP COMMISSION
DOCKET CONTROL

0000091608

Arizona Corporation Commission
DOCKETED
DEC -8 2008
DOCKETED BY

December 5, 2008

ACC Chairman Mike Gleason
1200 West Washington
Phoenix, AZ 85007

E-01575A-08-0328

RE: SSVEC 69kV Proposed Power line to Sonoita, Elgin, Patagonia – for Electrical Reliability

Dear Honorable Chairman Mike Gleason,

The beauty of the Sonoita-Elgin Valley, which contains some of our nations few remaining native grasslands and many pristine mountain views, may soon be compromised by Sulphur Springs Valley Electric Cooperative (SSVEC). As you may already know, SSVEC started bulldozing the Babacomari Ranch for a 69 kV transmission line. (so quick action is imperative) A line of 55-and-64-foot power poles crossing over 20 miles of native grasslands will disrupt wildlife corridors, native grassland research, mountain views, and ultimately people's health and lives.

When SSVEC held their community meeting in July they presented the Babacomari Ranch transmission line route as a done deal, not allowing any community discussion regarding this line. They only allowed discussion of options affecting the route through the Sonoita community to the new substation diverting attention from the real issue, construction of the transmission line on the Babacomari Ranch.

The Sonoita community believes SSVEC's easement with the Babacomari Ranch, which was quietly negotiated and purchased with no public input, is not the best route for this new transmission line. The more logical choice is the existing power line route along Arizona State Highway 82. Upgrading the existing lines, instead of defacing the largest Mexican Land Grant in the United States and negating some 30 years of valuable cross-fence research performed by the Audubon Society's Appleton-Whittell Research Ranch (see attached), is a much more desirable choice.

As SSVEC has broken off discussions with the Sonoita-Elgin community, we ask you to **please schedule a hearing** so we may have communication with SSVEC to resolve the community's dissatisfaction and look at alternatives routes. We have attached a **Constructive Point Paper** which contains Alternatives & Options we see as viable solutions to meet electricity needs, not previously presented to the community.

This Constructive Point Paper also concludes that additional "open" discussions accounting for our concerns are essential. The recommendations are sincere; if SSVEC cannot solve its Cooperative members concerns, then resolution by the Commission appears as our only remaining recourse.

Sincerely, Gail

Enc: 1) **SONOITA-ELGIN-PATAGONIA RELIABILITY ALTERNATIVES "A Constructive Point Paper"**
2) **Audubon Whittle Research Ranch Letter**
3) **Sonoita Community Committee Letter to SSVEC October 21, 2008 (no response)**

CC: ACC Commission Members
Santa Cruz County Supervisor John Maynard

SONOITA-ELGIN-PATAGONIA RELIABILITY ALTERNATIVES

To resolve Important
Electrical Reliability Issues
While meeting the
Public Interest of
SSVEC and its Cooperative Ratepayers

A Constructive Point Paper

By
Local concerned citizens, ratepayers,
and customers

5 December 2008

Table of Contents

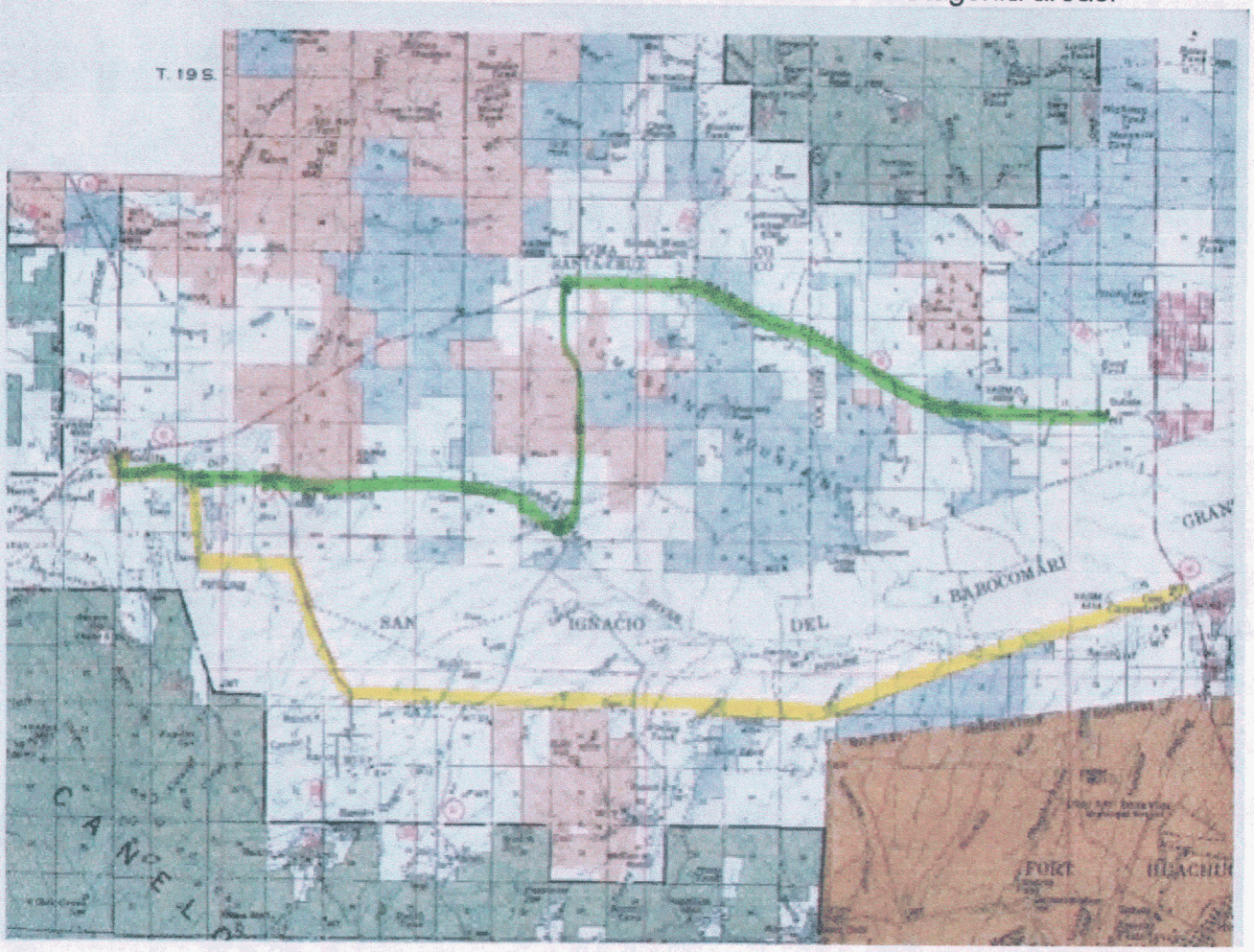
	Page
Cover page	1
Table of Contents	2
ISSUES	3
Discussion	3
Map 1. Existing 46 kV line in Green Serves Sonoita-Elgin and Patagonia.	3
Background	4
Map 2. The SSVEC Distribution System and other utilities in its service area	4
Constraints Considered.	5
Table 1. Peak Electrical Demands for SSVEC Customers and TEP at Ft Huachuca	5
Assumptions for Alternatives.	5
ALTERNATIVES	6
Alternatives for Primary Power for Sonoita-Elgin-Patagonia	6
Alternative 1 – Use Yellow Route.	6
Discussion	6
Alternative 2 – Use Green Route.	6
Discussion.	7
Alternative 3 – Use existing SWTC transmission lines as Source for Sonoita	7
Discussion.	7
Alternative 4 – Use TEP 46 kV (upgraded to 69 kV) as Source for Sonoita	7
Discussion.	7
BACKUP ALTERNATIVE POWER SOURCES	7
SECOND TRANSMISSION BACKUP ALTERNATIVES	8
Backup Alternative A – Emergency Backup from TEP's 46 kV.	8
Discussion.	8
Backup Alternative B – Emergency Backup from the UNS Electric Grid	8
Discussion.	8
CONCLUSIONS	8
RECOMMENDATIONS	8

SONOITA-ELGIN-PATAGONIA ALTERNATIVES

ISSUES

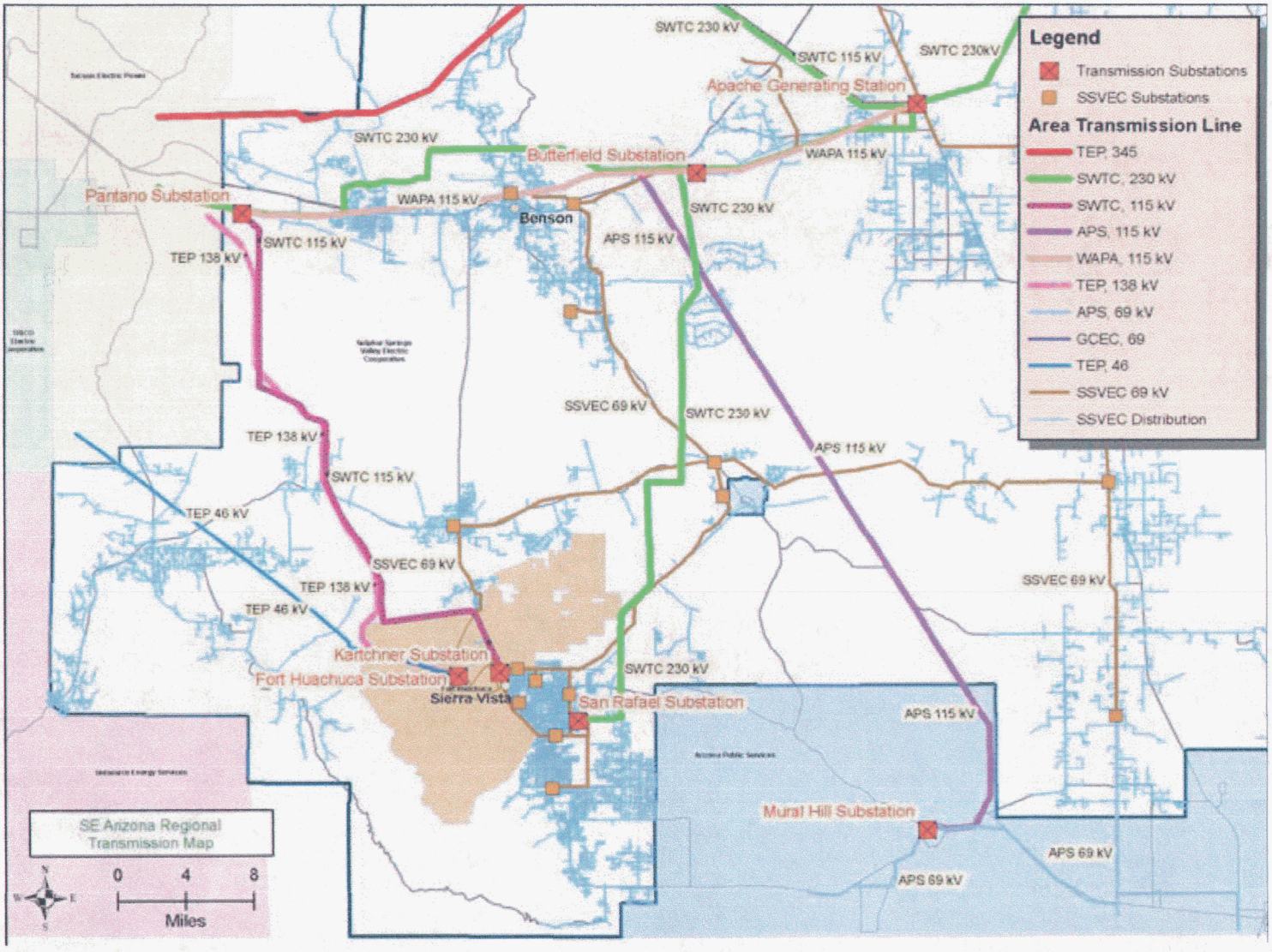
At present, there is one 23 kV distribution line serving SSVEC customers in Sonoita, Elgin, and Patagonia that is close to reaching its peak capacity. Another source of power is necessary to improve customer reliability on this 360-mile radial circuit. Without a substation in Sonoita, there are no distribution feeder lines to customer areas to provide local feeder loops and improve reliability. Backup emergency power is not available.

Discussion:
The present power demands for these customers is about 7 MW, this is met by a radial SSVEC 23 kV distribution line, shown in Map 1 in GREEN, from the SSVEC Mustang Corner Substation near the SR-82/90 intersection. There is no backup or second source for some 2,500 or so customers in Sonoita and another thousand in Patagonia areas.



Map 1. The Existing 23 kV line in Green Serves Sonoita, Elgin and Patagonia.
A SSVEC 23 kV distribution line presently serves Sonoita, shown in GREEN, goes from the Mustang Corner substation at SR 90 west via SR 82, then south on Elgin Road, continuing via SR 83 to Sonoita then to Patagonia via SR-82. A new substation in Sonoita for local feeder lines is proposed. The SSVEC plan (Alternative 2) installs a 69 kV line along a new route shown in YELLOW and the existing GREEN route used only for distribution. The ***Preferred Alternative 1*** *uses the existing GREEN route.*

Background.
SSVEC, an electrical distribution cooperative, provides electricity to service customers in Cochise, Santa Cruz and Pima Counties shown in Map 2. As a member of the Southwest Transmission Cooperative, SSVEC uses SWTC lines to its transmission substations. Also shown in this map are adjacent electrical utility companies service areas, including Tucson Electric Power Company (TEP) in yellow, UNS Electric (UNSE) in pink, TRICO in green, and Arizona Pubic Service (APS) in taupe. Since SSVEC is a distribution cooperative, it purchases power from other utilities for distribution to its customers, with SWTC for primary transmission of cooperative power generated at the Apache Power Plant.



Map 2. The SSVEC Distribution System and Other Utilities in its Service Area.
SSVEC operates all the light blue distribution lines shown and distribution substations (orange squares). The SWTC transmission lines from Pantano (115 kV in purple) and Butterfield (230 kV in green) substations bring in power so SSVEC can distribute to its customers. The SWTC Pantano-Huachuca transmission line crosses the existing 23 kV line from Mustang Corner substation (see Alternative 3). Fort Huachuca is served by TEP by a primary 115 kV line (in pink) and a 46 kV backup line (in blue). This 46 kV TEP line passes just north of Sonoita (see Alternative 4). Both TEP lines also cross the existing 23 kV line from Mustang Corner substation.

Constraints Considered.
There are some facts that bound this issue.

First. The electrical load demands that need to be satisfied are summarized in Table 1 for the Sonoita-Elgin-Patagonia service area plus others that impact solutions.

Table 1. Peak Electrical Demands for SSVEC Customers and TEP at Ft. Huachuca.

Area	Number of customers	Present Peak Demand in Megawatts (MW)	Serving Electricity Company
Sonoita-Elgin	2,500	3-7 MW	SSVEC
Patagonia	1,000	1-2 MW	SSVEC
Fort Huachuca	1 Fort	10-20 MW	TEP

Second. The Alternatives herein meet these and other residential and small business demands. In general, the peak capacities for electrical conducting wires are about 7 MW for a 23 kV line, 20 MW for a 46 kV line, over 60 MW for a 69 kV line, over 110 MW for a 115 kV, and over 120 MW for a 138 kV line. The SSVEC 23 kV line serving Sonoita-Elgin-Patagonia is close to capacity. The TEP backup 46 kV line for Ft. Huachuca could be near capacity but is rarely used, only if there is an outage on the TEP 138 kV line to the Fort.

Third. Due to IRS "two county" rules, TEP is constrained to serve only customers in Pima and Cochise Counties. TEP, however, can provide power to customers in other counties during an emergency and could provide backup emergency services to SSVEC customers when SSVEC services are interrupted by an unexpected outage.

Fourth. Without a distribution substation in this area, local feeder lines are not used, thus total reliance on the existing SSVEC 23 kV severely constrains actions during any single outage. A substation permits SSVEC to isolate a distribution outage to one feeder and while continuing services to customers on other feeder lines. Several locations for a Sonoita distribution substation have been discussed and, in general, the community agrees a new substation off SR 83 in "downtown" Sonoita is the best location.

Fifth. The proposed upgrades between Sonoita and Patagonia re-build the existing 23 kV line without any routing changes along SR 82.

Assumptions for Alternatives.
The process of creating various Alternatives, involved looking at the above maps, and seeing potential connections with existing systems as preferred to avoid new expenses and to avoid additional environmental impacts. Some assumptions are always necessary.

Assumptions must consider ratepayer expenses as a key cost-driver but, "least expensive' solution may not meet customer expectations who feel a higher cost option is "worth" the expense.

In general, reusing existing easement is preferred when compared to creating a new one.

The Alternatives herein have high merit and should be considered to best serve the public's interest and concerns. Only the "YELLOW" Alternative 2 has been brought forth by SSVEC

for public review and consideration. It is assumed all Alternatives need consideration and public feedback before implementation. The preliminary "preferred" Alternative is number 1, the Green Line.

ALTERNATIVES

There are Alternatives and Options available not yet brought forth for public review and consideration. In our opinion, all are feasible, have merit, and should be considered to best serve the public's interest. The public prefers Alternative 1 as the best solution.

Alternatives for Primary Power for Sonoita-Elgin-Patagonia Options.
All these Alternatives propose radial lines. Alternative 1 is the easiest to implement and is preferred. Alternative 2 appears the most expensive, with ratepayer's costs decreasing for the other Alternatives. Alternative 3 gives greater future options for SSVEC, and Alternative 4 is simple and least expensive but requires an agreement between two companies to implement (more administrative issues than the others).

Alternative 1 – Use the GREEN Route. (preferred)
The existing GREEN route uses the location of the present 23 kV lines from the SSVEC 69 kV substation (near SR-82/SR-90 intersection), upgrades the 23 kV to 69 kV to the west, to the new Sonoita Substation, and continues along existing 23 kV route to Patagonia. Most of this route was installed prior to today's right of way requirements and is "grand-fathered" with upgrade rights that should facilitate the Alternative where permits do not exist. The Bureau of Land Management is expected to rule the upgrade as a NEPA Category Exception or require SSVEC to obtain a Land Use Permit.

Discussion. This is simply, a way to use the existing 23 kV line route as the basis for the upgrade to a new substation in Sonoita. It avoids the Alternative 2 (Yellow) issues including new power line service roads, new easements and rights of way through established subdivisions, and severe new environmental impacts. This is the preferred Alternative.

Alternative 2 – Use the YELLOW Route.
The YELLOW route goes from the SSVEC Huachuca City substation on 69 kV lines, via southern boundary of the Bacocomari Land Grant, up SR-83 to proposed SSVEC routes 1A or 3 to a new Sonoita Substation, and continues along existing SSVEC 23 kV route to Patagonia. There are two options:

Option 2A - Use SSVEC Route 1A (near Sonoita along SR-83)
Option 2B - Use SSVEC Route 3 (near Sonoita along North Boundary of Babocomari Land Grant and through Sonoita Hills Subdivision)

Discussion. This is the present SSVEC preferred Alternative that has resulted in local debates led by SSVEC for the community to chose between Route 1A and Route 3 in the Sonoita residential areas. Both these Options involve new lines and have caused unfortunate NIMBYisms throughout the community impacted by these lines.

The much larger issue, not discussed by SSVEC during these debates, is shown in YELLOW in Map 1. This involves cutting along the boundaries and through the Babocomari Land Grant that precedes both Options 2A and 2B. The YELLOW route has significant

environmental impacts including negating decades of grassland research with severe visual impacts in virgin grasslands and adds miles of new power line service roads. There is widespread opposition to the YELLOW route that is preferred by SSVEC.

Alternative 3 – Use existing SWTC transmission lines as Source for Sonoita.
The SWTC 115 kV transmission line between Kartchner and Pantano SSVEC substations crosses the existing SSVEC 23 kV line to Sonoita.

Near this location, a small substation with a 115 to 69 kV transformer connects to the new 69 kV line that continues along the existing 23 kV west route to a new Sonoita Substation, and then continues along existing SSVEC 23 kV to Patagonia

Discussion. Map 2 shows where the existing SWTC Pantano 115 kV line crosses SR 82 a few miles east of where the TEP 46 kV crosses. If a substation with a 115 to 69 kV transformer was installed near this junction, then upgrading the SSVEC 23 kV line to 69 kV to the Sonoita substation also reduces additional 69 kV lines by many miles.

Alternative 4 – Use TEP 46 kV (upgraded to 69 kV) lines as Source for Sonoita.
Upgrade the present TEP 46 kV route to 69 kV from Greaterville to Ft Huachuca. Near to where this TEP line crosses SR-82 or SR-83, add a short 69 kV, using either Option, to the new Sonoita Substation and continue along existing SSVEC 23 kV to Patagonia

Option 4-82 - adds a new 69 kV line, from near where the TEP line crosses SR-82, to the new Sonoita Substation
Option 4-83 - adds a new 69 kV line, from near where the TEP line crosses SR-83, to the new Sonoita Substation

Discussion. The passing of the TEP 46 kV line near Sonoita appears to be a logical local source of power to meet the customer demands. Ongoing TEP plans to upgrade to 138 kV this line from TEP's South Substation in Sahuarita to Greaterville, could lead to upgrading this 46 kV to 69 kV or a higher voltage to meet the Ft. Huachuca backup peak demands, in Table 1. At 69 kV or higher, this line can adequately meet both Ft Huachuca and the SSVEC Sonoita-Elgin-Patagonia demands. Two options exist for tapping off an upgraded 69 kV line, where it crosses I-82 north of Sonoita or it crosses SR- 83 east of Sonoita in Map 2. A new 69 kV line from either location could continue to the new SSVEC 69 kV Sonoita substation. Either option would be the shortest "new" 69 kV route to Sonoita and the least expensive costs for the higher capacity necessary for this area if it is to be the primary source for SSVEC customers. It is assumed that TEP will need to solve the "two county" rule. A backup Alternative from this TEP 46 kV can avoid this issue.

BACKUP ALTERNATIVE POWER SOURCES

There is no second source of power for Sonoita or Patagonia. Without a "loop", continuity of service is not possible; however, Emergency Backup service, which means the switch is open unless there is an "emergency" (i.e. an outage), then a second source of power can easily be provided. This process is what TEP- and UNSE have accomplished with a TEP Conoa 46 kV substation in Pima County to serve UNSE customers via the Amado (Kantor) substation in Santa Cruz County. This satisfied IRS requirements for the "two county rule".

SECOND TRANSMISSION BACKUP ALTERNATIVES

These two Backup Alternatives provide second power sources for the SSVEC system supporting Sonoita, Elgin and Patagonia.

Backup Alternative A – Emergency Backup from TEP's 46 kV:
Add a transformer in a small substation on the present TEP 46 kV route (with or without an upgrade to 69 kV) between Greaterville and Ft Huachuca. This is near where the TEP line crosses SR-82 or SR-83, and a new 69 kV line continues to the new Sonoita Substation. This provides a second source for Sonoita and Patagonia.

Backup Option A-82 – Adds a new 69 kV line, from near where the TEP line crosses SR-82, to the new Sonoita Substation
Backup Option A-83 – Adds a new 69 kV line, from near where the TEP line crosses SR-83, to the new Sonoita Substation

Discussion. This Alternative provides a second power source and will improve reliability.

Backup Alternative B – Emergency Backup from the UNS Electric Grid:
UNS Electric has distribution lines within 1 mile of SSVEC lines in the southern part of the service area. Connections between these two systems can provide both higher reliable systems as continuity of service and be maintained since a loop will exist.

Discussion. This Alternative provides a second power source and will improve reliability for both SSVEC and UNSE customers.

CONCLUSION

The ongoing SSVEC "Yellow" approach needs higher level oversight or additional public reviews of all viable Alternatives.

RECOMMENDATIONS

A full and open discussion is necessary to review and evaluate options for the Sonoita-Elgin-Patagonia electrical situation. A higher capacity source, substation and preferably a second source is needed for this area. The "GREEN" solution is preferred. The proposed "YELLOW" solution, in many ways, is totally unacceptable but still needs to be included in this process.

SSVEC needs to reopen discussions, conduct an environmental assessment ASAP so that its present work on the Yellow route does not waste additional ratepayer's funds.

If SSVEC will not open up such a dialog with its cooperative ratepayers, then a formal request should be made to the Arizona Corporation Commission to appoint a Hearing Officer, preferably from the Siting Committee, to hear arguments leading to an environmental assessment and a recommendation for the best Alternative to resolve the issues herein.

No Response

October 21, 2008

Ms. Deborah White
Right of Way Services Manager
Sulphur Springs Valley
Electric Cooperative, Inc.
PO Box 820
Wilcox, AZ 85644-0820

Dear Deborah,

On behalf of the Sonoita-Elgin community liaison committee, we want to thank you for the comprehensive information packet SSVEC sent to co-op members regarding the Sonoita Reliability Project. The community appreciates what SSVEC has done, and acknowledges their efforts to work with the community.

As a result of SSVEC distributing the information, the committee met and prepared a presentation for the Sonoita Crossroads Community Forum meeting held on October 11. This meeting was a plenary meeting open to the general public. Approximately sixty (60) people turned out for this meeting. The SSVEC project was one of several issues on the agenda. A committee member made the presentation and led the discussion on the current status of the project. A poll of those present voted overwhelmingly in favor of the Route 1a option. However, **the overall feeling of those present was dissatisfaction with the routing options. All options deface the verdant viewscapes of the Sonoita area. These viewsheds are an integral part of our heritage and tourist industry and any route can create a negative economic impact on the community.**

Attached is the list of arguments SSVEC made in the letter regarding the proposed Routes 1a and 3 and counter arguments raised by the committee. This is the basis of the presentation made to the public at the Forum meeting.

Again, as we communicated before and as the community reinforced at the Forum meeting, Route 1a is the preferred route. Especially, since the difference between the cost estimates is negligible. We ask SSVEC to please take the community's preference as the major deciding factor in determining which route option to implement.

We look forward to hearing your response. Please contact me, Sheila Dagucon, at 520-455-5493 or at rockind@sunncast.net if you wish to set up a discussion time with this committee.

Sincerely,

on behalf of the committee
Sheila L. Dagucon,

Cc: Ron Orozco
Joe Furno
Anselmo Torres
Creden Huber

Average cost estimated for Option 3	$ 1.575 million
Average cost estimated for Option 1A	$ 1.701 million
Cost difference between options	$ 126 thousand, less than 10%

SSVEC	REBUTAL
1A - Cons (page 9)	
No existing overhead power-line on north/south alignment of Hwy 83	Power lines exist along Hwy 83 north of Rancho Vista. Only about 6/10 mile of new poles would have to be installed for Option 1A vs 2 miles of new poles on Option 3
Alignment on ridge of hill - high visibility to community/visitors	Power lines would drop down into a valley north of Rancho Vista and not be visible to the community.
As a majority of these properties are lots of 3 acres or less and oddly shaped, limiting their development capability, the additional easement on each lot creates less usable area on the lot for development.	If the power line runs down the east side of Hwy 83 the new easements are through 2 large lots, then connect to the existing power line easements.
Additional impact to the LCNCA...to upgrade this distribution line to a 69kV sub-transmission line will require re-application to the federal management of the LCNCA.	Cut the corner along Lower Elgin Road and not go into the LCNCA.
The Sonoita Estates neighborhood has a higher density of existing build-out....this entire neighborhood will be impacted, along with the Rancho Vista area, and a portion of the Sonoita Hills Subdivision.	There are more individual lots along option 3 than 1A and the potential build-out is greater, more homes could be impacted in the future.
3 - Pros (page 10)	
Designated easements for utilities within the Sonoita Hills Subdivision have been established since the late 1960s.	Extended easement is required. Many home/property owners have stated that they won't give SSVEC the additional easement.
Use of existing corridor where impact of power lines is already established	Option 1A: Only 6/10 mile along Hwy 83 has no power lines vs Option 3: 2 miles along the north boundary of the Babocomari has no power lines.
The 69kV line would be installed parallel to existing parcel lines, therefore minimizing the impact on full usage of property.	Option 1A runs parallel to exiting property lines.

Access for that portion of Option 3 along the SIDB will be obtained through the Sonoita Hills easements, as well as by existing roads on the Babocomari Ranch.

Access for Option 1A can be off Hwy 83 or along easements obtained for the power line. More properties will be impacted with Option 3.

the 69kV sub-transmission line will run perpendicular to the ridge lines along the southern boundary of the Sonoita community. This perpendicular alignment will shield the entire power line from full view of the community by allowing it to drop from view into valleys along the corridor.

To go from one valley to another along the Option 3 route, the power line must go over the intervening hills, thus planting a power pole on each ridge line, all of which can be seen from the entire Sonoita community and Hwy 83.