

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF SOUTHWESTERN
PUBLIC SERVICE COMPANY'S
APPLICATION FOR: (1) ISSUANCE OF A
CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY AUTHORIZING
CONSTRUCTION AND OPERATION OF
TWO 230 KV TRANSMISSION LINES AND
ASSOCIATED SUBSTATION FACILITIES IN
CURRY AND ROOSEVELT COUNTIES, NEW
MEXICO; (2) APPROVAL OF THE
LOCATION OF THE 230 KV TRANSMISSION
LINES AND ASSOCIATED FACILITIES;
AND (3) AUTHORIZING ACCRUAL OF AN
ALLOWANCE FOR FUNDS USED DURING
CONSTRUCTION FOR THE TRANSMISSION
LINES AND ASSOCIATED FACILITIES,**

**SOUTHWESTERN PUBLIC SERVICE
COMPANY,**

APPLICANT.

CASE NO. 12-____-UT

DIRECT TESTIMONY

of

HOWARD C. HIGGINS

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

February 7, 2012

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
CCN	Certificate of Public Convenience and Necessity
Commission	New Mexico Public Regulation Commission
Environmental Assessment	Environmental Assessment for the Proposed Project
FAA	Federal Aviation Administration
kV	Kilovolt
Proposed Project	230/115 kV Pleasant Hill Substation and two 230 kV transmission lines and associated substation facilities in Curry and Roosevelt Counties, New Mexico
PUCT	Public Utility Commission of Texas
SPS	Southwestern Public Service Company
TRC	TRC Environmental Corporation
Xcel Energy	Xcel Energy Inc.

LIST OF ATTACHMENTS

Attachment	Description
HCH-1	Environmental Assessment: SPS Roosevelt County Substation to Pleasant Hill Substation; and Pleasant Hill Substation to Oasis Connection Point, 230 kV Transmission Lines in Curry and Roosevelt Counties, New Mexico

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1 **I. WITNESS IDENTIFICATION AND QUALIFICATIONS**

2 **Q. Please state your name and business address.**

3 A. My name is Howard C. Higgins, and my business address is 4221-A Balloon Park
4 Road NE, Albuquerque, New Mexico.

5 **Q. On whose behalf are you testifying in this proceeding?**

6 A. I am filing testimony on behalf of Southwestern Public Service Company
7 ("SPS"), a wholly owned subsidiary of Xcel Energy Inc. ("Xcel Energy"). Xcel
8 Energy is a registered holding company and owns several electric and natural gas
9 utility operating companies.¹

10 **Q. By whom are you employed and in what position?**

11 A. I am employed by TRC Environmental Corporation ("TRC") as a Vice President
12 and Principal Consultant.

¹ Xcel Energy is the parent company of the following four wholly owned utility operating companies: Northern States Power Company, a Minnesota corporation; Northern States Power Company, a Wisconsin corporation; Public Service Company of Colorado, a Colorado corporation; and SPS, a New Mexico corporation.

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1 **Q. Please briefly outline your responsibilities as Vice President and Principal**
2 **Consultant.**

3 A. As Vice President and Principal Consultant for TRC, my responsibilities include
4 overseeing all work performed by a team of professionals in the completion of the
5 *Environmental Analysis for the SPS Roosevelt County Substation to Pleasant Hill*
6 *Substation and Pleasant Hill Substation to Oasis Connection Point, 230kV*
7 *Transmission Lines in Curry and Roosevelt Counties, New Mexico*
8 (“Environmental Assessment”) prepared by TRC at the request of SPS. This
9 includes the selection of the team of TRC professionals assigned to the project,
10 field review of proposed routes, oversight of data collection activities, and
11 assistance with the compilation and review of the Environmental Assessment.

12 **Q. Please describe your educational background.**

13 A. In 1972, I received my AB degree in Comparative Religion from Princeton
14 University. In 1975, I received my MA degree in Anthropology from the
15 University of New Mexico. I received my Ph.D. in Anthropology from the
16 University of New Mexico in 1982.

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1 **Q. Please describe your professional experience.**

2 A. Since 1974, I have conducted environmental technical studies, assisted with
3 environmental permitting, and conducted environmental projects for the United
4 States and Canadian governments, federal and state agencies, municipalities,
5 private companies, and utilities. Projects have included transmission lines,
6 substation and generation facilities, mines, pipelines, fiber optic lines, housing
7 developments, and a variety of other types of undertakings. I have been involved
8 in transmission line routing studies since 1995, and I have managed or provided
9 oversight on over 30 projects. The transmission line projects I have managed
10 ranged in size from 69 kilovolts (“kV”) to 345 kV, and have ranged in length
11 from one mile to 180 miles.

12 **Q. Have you testified before any regulatory authorities?**

13 A. Yes, I have previously testified before the New Mexico Public Regulation
14 Commission (“Commission”) and the Public Utility Commission of Texas
15 (“PUCT”), where I have presented environmental assessments, biological
16 evaluations, and cultural resource surveys for transmission line projects that were
17 filed by SPS at the Commission and the PUCT.

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1 possibly affect previously unknown cultural resources in the study area.
2 However, any such effect would be mitigated by 100% pedestrian survey of the
3 approved rights-of-way by trained archaeologists prior to construction, and
4 “avoidance by design” of any cultural resources found (that is through design of
5 the pole placement so as to avoid any such resources). The effect upon sensitive
6 biological species and mineral resources, are expected to be minimal. As with the
7 cultural resources, a biological survey will be conducted prior to construction, and
8 any small biological locations of sensitive species found will be “avoided by
9 design”. No effects are expected on paleontology, climate, or wetlands. The
10 proposed and alternative rights-of-way and tower heights meet both FAA and
11 Cannon Air Force Base requirements.

12 Finally, a positive effect on socioeconomics for the local community is
13 expected as a result of the project.

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1 **Q. Based on the environmental and cultural resources studies conducted in the**
2 **assessment, have you formed a professional opinion regarding the effect of**
3 **the project on the human environment?**

4 A. Yes. The project would have short-term, low level impacts on air due to tailpipe
5 emissions from construction and maintenance vehicles, and particulate emissions
6 due to fugitive dust, during construction and line maintenance. There could be
7 moderate effects on land use due to permanent removal from production of a
8 minor amount of cropland in the footprint of the structures, compaction of soil
9 and short term limitation on aircraft operations during construction. The visual
10 character of the area will be altered by the addition of the additional transmission
11 lines in the viewscape. The project possibly could affect previously unknown
12 cultural resources in the study area. The effect upon sensitive biological species
13 and mineral resources, are expected to be minimal. No effects are expected on
14 paleontology, climate, or wetlands. A positive effect on socioeconomics is
15 expected as a result of the project.

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1 **Q. Do you have an opinion regarding the need for further environmental studies**
2 **and/or future mitigation measures following approval of right-of-way?**

3 A. Yes. Based upon the studies conducted and the results of consultation with the
4 agencies, once a right-of-way has been granted and survey permission on the
5 private land is obtained, we recommend a 100% pedestrian survey of the
6 right-of-way by professional archaeologists, biologists and wetland experts prior
7 to construction. These surveys will enable design of the project so effects of the
8 pole and access road placements on previously unknown sensitive archaeological
9 sites, habitat for sensitive species, and wetlands are mitigated.

10 **Q. Did you conduct a biological evaluation and cultural resource survey for the**
11 **Proposed Project?**

12 A. Yes, we did. Site file searches and a drive through of the project area were
13 conducted by both a qualified archaeologist and a trained biologist, and both
14 biological and cultural resource consultation and evaluations were completed.

15 The site file search and inspection of the proposed rights-of-way were
16 conducted to identify any known locations of threatened and endangered species
17 or archeological resources which could be affected by the construction, operation,

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1 and/or maintenance of the proposed project, and determine if any mitigation
2 measures would be necessary.

3 **Q. Please summarize the findings in the biological evaluation.**

4 A. TRC concludes that the proposed and alternatives routes appear to avoid the
5 biological resources. Small scale manifestations can be avoided by careful design
6 and pole placement. With such design and placement, the project would not have
7 any adverse affect on wildlife or vegetation.

8 **Q. What is your recommendations regarding the biological aspect of the
9 project?**

10 A. As stated earlier, we recommend that once there is an approved right-of-way and
11 survey permission for the private land is obtained, the proposed right-of-way be
12 100% pedestrian surveyed by a trained biologist, focusing especially upon
13 burrowing owl burrows, black tailed prairie dog colonies (if any), the potential
14 habitat for other sensitive species, and wetlands. Following this survey the pole
15 and access road placement can be designed to avoid any such sensitive habitat or
16 wetlands.

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1 **Q. Please summarize the findings in the cultural resource study.**

2 A. The site file search and drive through inspection by a trained archaeologist
3 indicated that the routes themselves appear to be acceptable from the standpoint
4 of avoiding cultural resources. There have been 27 prior cultural resource surveys
5 in the area. These have located three historic buildings, and 16 previously
6 recorded archaeological sites within one mile of the center line of the transmission
7 line alternatives. Of these, the proposed power line will be within the view shed
8 of the three historic buildings (all of which are in the community of Ranchevale);
9 and the 16 previously recorded archaeological sites might be effected by the
10 proposed lines depending upon which alternatives are selected, where the poles
11 will be placed, and where the access road will be located.

12 **Q. What is your conclusion regarding the need for further cultural resource
13 studies and/or further mitigation measures?**

14 A. Once a right-of-way has been approved and survey permission is obtained for the
15 private land, a 100% pedestrian archaeological survey will be done by trained
16 archaeologists before any ground disturbance associated with the project. Based
17 upon that survey, the locations of all cultural resources that could be affected will
18 be known (whether previously recorded or not). This information will guide the

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1 locations of the poles and the access road to avoid or mitigate the effects on these
2 resources.

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1 **IV. PUBLIC AND AGENCY PARTICIPATION**

2 **Q. Please describe the agency and public involvement process conducted in**
3 **association with the studies.**

4 **A.** Efforts were made to include the public and local agencies in the study process.
5 Local agency personnel were contacted in conjunction with inventory efforts
6 associated with the project, and a public open house meeting was held by SPS in
7 Clovis at the Clovis-Carver Public Library on April 26, 2011, from 5:00 p.m. to
8 7:00 p.m. A newsletter describing the project was also sent to landowners with
9 property within 300 feet of the approximated centerline of the alternatives, as well
10 as to federal and state agencies, local government, and other key stakeholders in
11 the area. This newsletter invited individuals to attend and provide comments on
12 the proposed project at the open house and provided a website address
13 (www.powerfortheplains.com) for access to project information available on Xcel
14 Energy's *Power for the Plains* website. A copy of this newsletter is provided in
15 the Environmental Assessment report.

16 Meeting attendees were provided comment forms and allowed to browse
17 informational boards and maps of the proposed project. Representatives from
18 SPS were available to answer questions. Detailed aerial photographs illustrating

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1 the location of alternatives were available for the landowners to review and to
2 identify their properties. Comment forms provided the opportunity for attendees
3 to identify themselves and provide information regarding key potential factors to
4 be considered in the environmental studies. These forms were completed onsite
5 and submitted at the open house or sent to SPS by mail.

6 Representatives from Cannon Air Force Base and Clovis Municipal
7 Airport were also consulted during the planning process. It was determined that
8 the proposed alternatives fall outside the Runway Protection Zones and the towers
9 will meet Federal Aviation Administration (“FAA”) height requirements for their
10 locations. A final evaluation by Cannon Air Force Base will occur after SPS files
11 the proposed pole locations with the FAA. While no conflicts are anticipated,
12 H-frame structures, in lieu of single poles, could be used as mitigation should it be
13 determined that shorter structures are needed to meet FAA maximum height
14 requirements. In addition, representatives from AeroTech, a small private air
15 facility in the study corridor, were contacted; they concluded that the final
16 alternatives being considered for the transmission line in this area would be
17 compatible with their flight operations.

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1 **Q. What were the principal concerns expressed by the public?**

2 A. The majority of the concerns expressed in the public comments centered on
3 avoidance of residences, followed by effects to agricultural operations.
4 Additional concerns were expressed with regards to aesthetics, potential conflicts
5 with airstrips, damage to property values, stray voltage and effects to phone
6 service, potential conflicts with pipelines and fiber optics, and rehabilitation.
7 These concerns were considered in the evaluation process by SPS, including the
8 ability of SPS to mitigate impacts associated with these concerns and the
9 constraints associated with the study corridor.

10 **Q. Did you consult with federal and New Mexico state agencies regarding this**
11 **project?**

12 A. Yes, the responses were favorable, but the agencies requested that biological and
13 archaeological surveys be done prior to ground disturbance. As discussed earlier,
14 I have recommended that these surveys be done and SPS agrees that biological
15 and archaeological surveys will be done before ground disturbance. Copies of the
16 replies from the agencies are appended to the Environmental Assessment.

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V. CONCLUSION

2 **Q. Was Attachment HCH-1 prepared by you or under your direct supervision**
3 **and control?**

4 A. Yes.

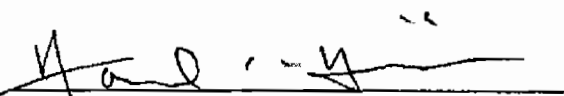
5 **Q. Does this conclude your pre-filed direct testimony?**

6 A. Yes it does.


VERIFICATION

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

Howard C. Higgins, being first duly sworn on oath, deposes and states that he is the witness identified in the foregoing prepared testimony, that he has read the testimony and is familiar with its contents, and that the facts set forth are true to the best of his knowledge, information, and belief.


Howard C. Higgins

SUBSCRIBED AND SWORN TO before me this 30 day of January, 2012.


Notary Public, State of New Mexico
My Commission Expires: 7-22-2012

