The Early History of the SunZia Southwest Transmission Project
Norm "Mick" Meader of the Cascabel Working Group, September 2, 2010

Introduction

A review of the SunZia Project's history shows that for the first two years of the project (June 2006-July 2008) SunZia was configured with the Bowie power plant as a central element (Figure 1), with a 500-kV line (or lines) running from the plant west to the Winchester substation and down the San Pedro Valley to Phoenix. To the east, the line(s) terminated between Deming and El Paso. This original configuration did not include lines to the wind-generating area in New Mexico or a route over the Galiuro Mountains at Aravaipa.

In the project's original schedule, SunZia planned for this initial configuration to go to the BLM in January 2008 to undergo review through NEPA. This was delayed and halted, however, apparently because of a lack of participant support, and the project was reconfigured over a period of months to what we know it as today (see Figure 8 later in the discussion). For nearly two years this original configuration placed the project's transmission lines down the San Pedro Valley without any of the valley's residents knowing about it.

This original SunZia configuration was abbreviated and designed to serve conventional power generation facilities in southeastern Arizona and southwestern New Mexico. It ended 200+ miles from wind-generating areas in central New Mexico and left operators there to build their own long-distance connecting lines. The solar resources in SW New Mexico do not appear economic at this point in time and will not be for awhile. Developing them now would require enormous federal subsidies. Thus this left the only assured transmission buyers for SunZia transmission capacity to be the Bowie power plant and conventional plants in southwestern New Mexico tied into the Luna/Afton substations at SunZia's termination. While this initial design was a great advantage for SWPG because of its investment in the Bowie power plant, it was apparently insufficient to attract enough participants to keep the project on its original schedule.

In his November 5, 2009 testimony to the House Natural Resources Committee[1], Tom Wray states that it took 5 months to sign on participants. In fact, however, it took a year and 5 months, indicating that the Southwestern Power Group (SWPG) – the real mover behind the project – had difficulty getting other companies to sign on, and the project faltered. Tom appears to have abbreviated this time to make the project look better before the committee.

The First Two Years of the Sunzia Project and Participant Commitment

Figure 1 shows the original design of the SunZia Project as it was sold to prospective participants for the first two years of the project. Figures 2 and 3 show the project's initial extent, and Figure 4 gives the initial project schedule. Examination of the full history of the SunZia Project indicates that SunZia was still publicly presenting this initial Phoenix–Winchester–Bowie–El Paso configuration, with the Bowie power plant at its center, at the time five of the six participants (Southwest Power Group, Energy Capital Partners, Salt River Project, Tucson Electric Power, and Wind Shell Energy) committed to the SunZia Project in April or May, 2008.

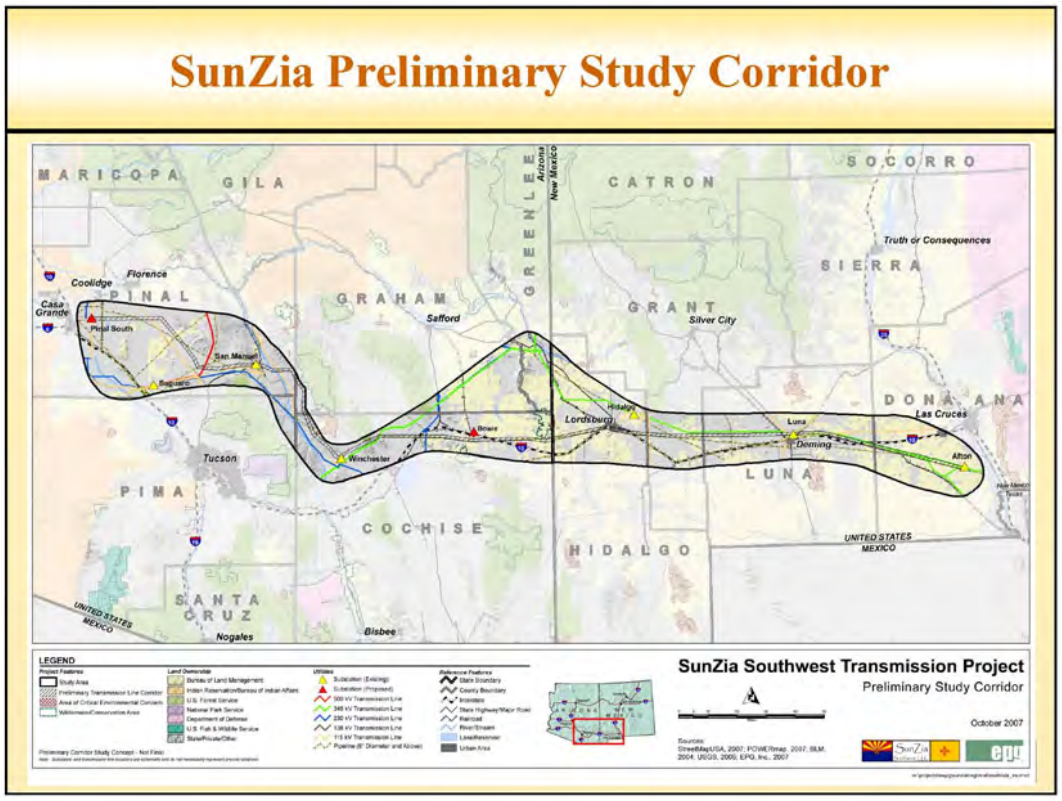

Figure 1. Configuration of the SunZia Southwest Transmission Project through at least May 23, 2008, presented at the 2008 Arizona Biennial Transmission Assessment meeting[2].

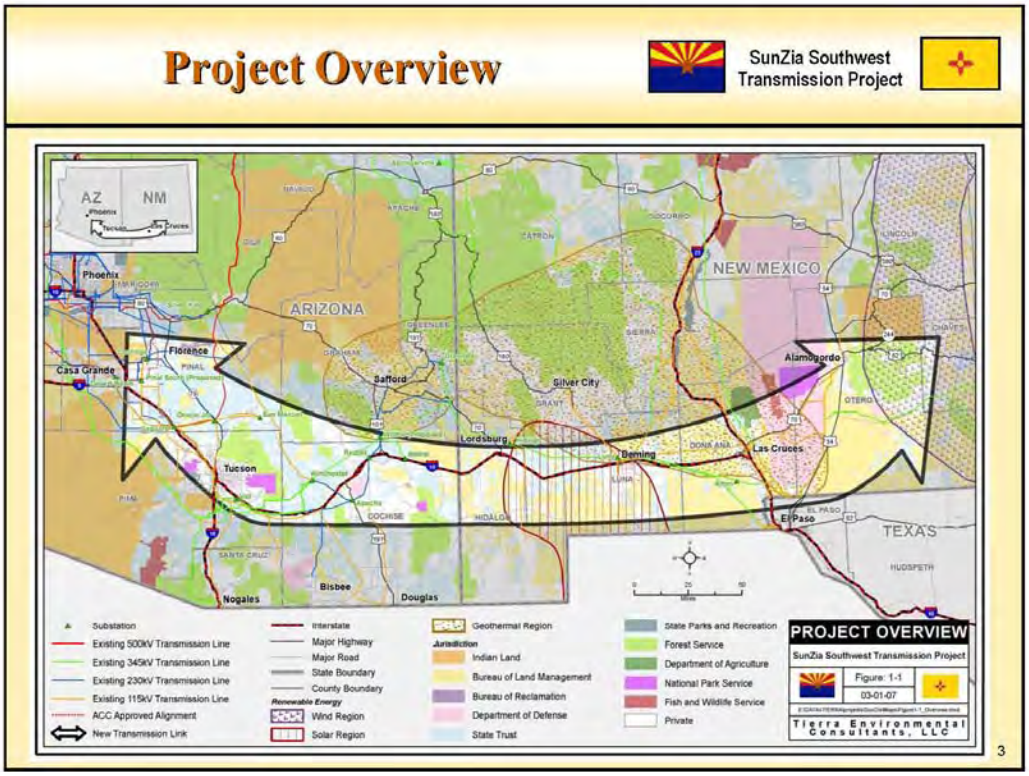

Figure 2. Original project overview, showing the area from which the project would potentially collect power. (From Mark Etherton's August 2007 presentation to the Southwest Renewable Energy Conference[3].)

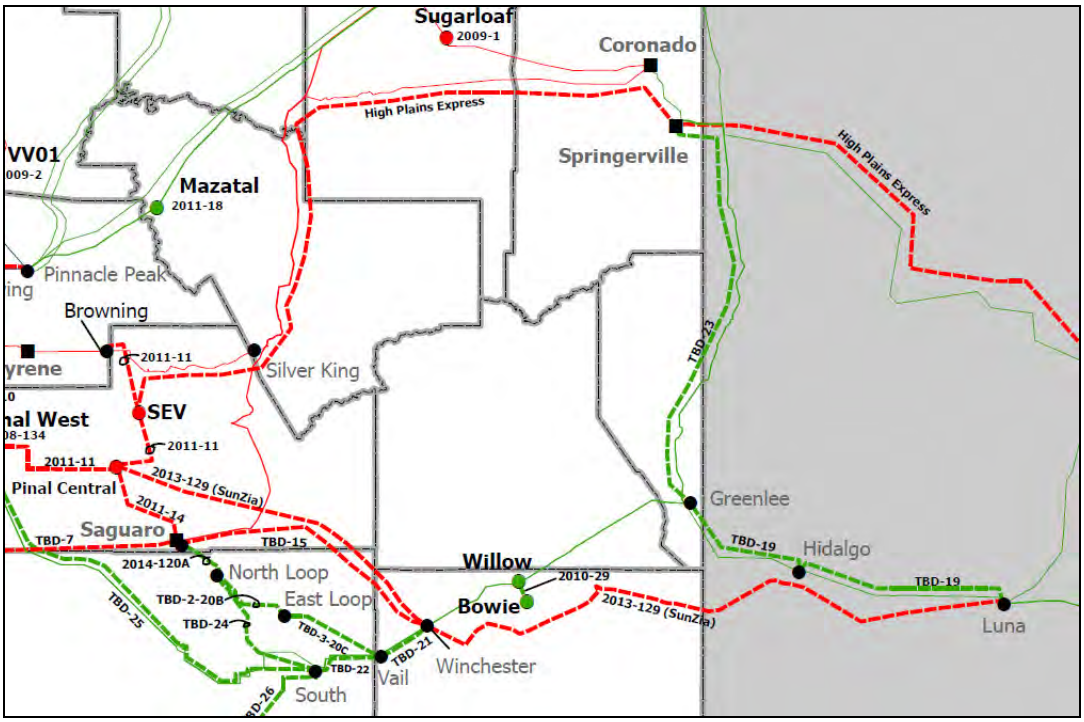

Figure 3. Map from the May 2008 Arizona Biennial Transmission Assessment meeting showing the then-current route for the SunZia Project[4]. Note also the route for the proposed 500-kV High Plains Express Project to the north from Corona, New Mexico (origination point for SunZia) to the Southeast Valley (SEV) substation.

Figure 4. Original project schedule. Note the project initiation date of June 2006. (From Mark Etherton's October 2007 presentation to the New Mexico Renewable Energy Transmission Authority (RETA)[5].)

In reconstructing this early history, I reviewed all SunZia presentations available online beginning in September 2006 through September 2008. Most of these are by Mark Etherton, Assistant Project Manager. The timeline and statements in Etherton's presentations conflict rather sharply with Tom Wray's testimony before subcommittees of the House Committee on Natural Resources on November 5, 2009. Etherton's October 2007 presentation[5] gives a project initiation date of June 2006 for the project (Figure 4), whereas Tom states that is was in late 2007 (see quote below).

Etherton's August 2007 presentation to the Southwest Renewable Energy Conference[3] states that the search for participants ("open season interest") began by using a database of 30 possible parties on December 15, 2006 (Figure 5). His October 2007 presentation[5] to the New Mexico Renewable Energy Transmission Authority gives a target date of January 2008 for completing the Memorandum of Agreement between the various participants (Figure 6), with the NEPA/scoping process beginning in January 2008 (Figure 7). This timeline was developed for the initial configuration of SunZia given above. (This same timeline and configuration are given in a SunZia presentation to the Arizona Biennial Transmission Assessment [BTA] meeting on May 2223, 2008[2].)

In contrast, Tom Wray's November 2009 House committee testimony[1] states the following: "We conceived the need for SunZia in late 2007 and conducted an open season for ownership participation during the following year [2008]. The project formally came together in May 2008 when five organizations joined to sponsor and fund the licensing and permitting activity necessary to bring SunZia to its current level of development."

Figure 5. Part of the initial timeline for the SunZia Project showing that recruitment of participants began in December 2006. (From Etherton's August 2007 Southwest Renewable Energy Conference presentation[3].)

Figure 6. Target date for initial Memorandum of Agreement. (From Etherton's October 2007 RETA presentation[5].)

Figure 7. Initial target date for beginning of NEPA review and the scoping process. (From Etherton's October 2007 RETA presentation[5].)

SunZia presentations show the initial Phoenix–Winchester–Bowie–El Paso configuration for the SunZia Project (Figures 1 and 3) through at least May 23, 2008 (Biennial Transmission Assessment meeting), shortly after the first five participants signed onto the project. On July 17, 2008, SunZia presented the new, expanded SunZia configuration to the Southeast Arizona Transmission Study (SATS) meeting (Figure 8)[6], although SunZia's current website (as of August 30, 2010) states that the current SunZia route was "identified in September 2008." The new project schedule (Figure 9) was also given at this time.

This new configuration extended the project to the wind-power generating area near Corona, New Mexico, and rerouted the project across the Galiuro Mountains at Aravaipa. Two or three presentations between April and July 2008 are no longer available, and one cannot determine exactly when SunZia ceased presenting the original project configuration.

Tom Wray's testimony hides and obscures the earlier history of the SunZia Project. His repeated assertions that the Bowie power plant is unrelated to the SunZia Project ignore the first two years of the project's history and the Bowie power plant's integration into the SunZia Project as initially conceived and structured.

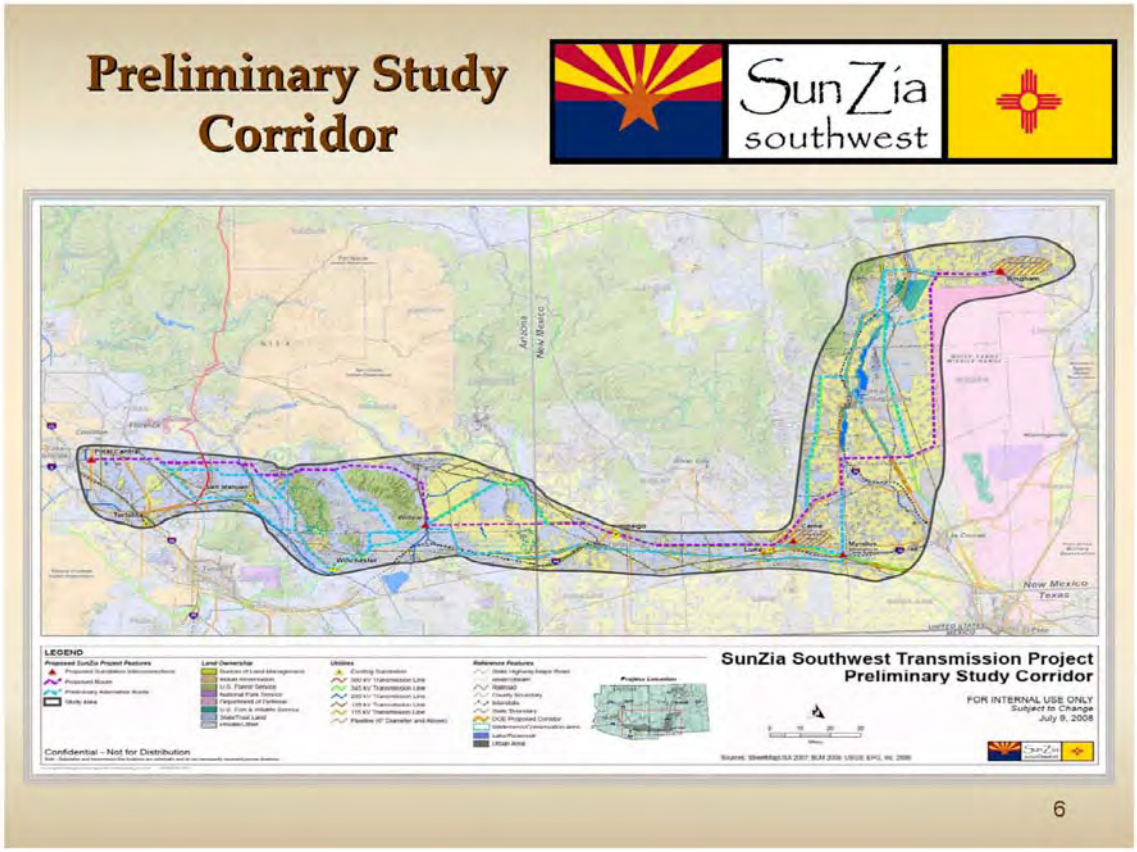

Figure 8. New SunZia Project map presented to the July 17, 2008 Southeast Arizona Transmission Study (SATS) meeting[6].

Figure 9. Revised project schedule for the SunZia Project presented at the July 17, 2008 Southern Arizona Transmission System (SATS) meeting[6].

Tom indicates in his November 5, 2009 testimony[1] that a sixth partner to the project joined after the May 2008 agreement was reached with the first five partners. That partner was the Tri-State Generation and Transmission Association, which apparently joined after the project was extended the full distance to the Corona, New Mexico, wind generating area. It seems plausible that SunZia used the Bowie plant's interconnection with SunZia as a major selling point with the participants early on because it assured them of a ready buyer for a significant amount of SunZia transmission capacity. The Arizona Corporation Commission approved the Bowie project in 2002, with construction projected to be well on its way to beginning at the time SunZia was proposed.

The conflict between Mark Etherton's presentations and Tom Wray's November 5, 2009 testimony is very striking and substantial.

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[1] Tom Wray, Project Manager, SunZia Southwest Transmission Project, "Getting Past Gridlock: Models for Renewable Energy Siting and Transmission," Testimony Before a Joint Oversight Hearing of the Subcommittee on Energy and Mineral Resources and the Subcommittee on Water and Power of the Committee on Natural Resources, United States House of Representatives, November 5, 2009. Accessed from www.sunzia.net/documents_pdfs/07_wray_testimony_11_5_09.pdf, August 30, 2010.

[2] SunZia Southwest Transmission Project, Arizona Corporation Commission Biennial Transmission Assessment Workshop Phoenix, AZ May 22 & 23, 2008. Accessed from http://www.azcc.gov/Divisions/Utilities/Electric/Biennial/2008%20BTA/SunZia%20BTA%202008.ppt, September 1, 2010.

[3] Mark Etherton, Presentation to Southwest Renewable Energy Conference for the Proposed SunZia Southwest Transmission Project, August 1, 2007. Accessed from http://www.swrec.org/2009/conf2007/docs/presentations/PP%20Etherton%20Mark.pdf, August 30, 2010.

[4] Table of Exhibits, Fifth Biennial Transmission Assessment 2008-2017, Decision No. 70635, December 3, 2008. Accessed from http://www.azcc.gov/Divisions/Utilities/Electric/Biennial/2008%20BTA/Table%20of%20Exhibits_FINAL.pdf, September 2, 2010.

[5] Mark Etherton, Presentation to the New Mexico Renewable Energy Transmission Authority (RETA) for the Proposed SunZia Southwest Transmission Project, October 10, 2007. Accessed from http://www.emnrd.state.nm.us/main/documents/5.SunZiaPresentationforRETA-10-8-07.ppt, August 30, 2010.

[6] SunZia, SATS Update, July 17, 2008. Originally available from http://www.sunzia.net/pdf/SunZia_SATS_071708_VIEW_ONLY.pdf. Now available only through Google's "Quick View" pdf option (Google's cache). Accessed September 2, 2010.