February 22, 2016

To: Planning Coordination Committee ("PCC")
Technical Studies Subcommittee ("TSS")

Subject: SunZia Southwest Transmission Project WECC 2016 Annual Progress Report

Dear Members of the PCC and TSS:


Please contact me should you have any questions.

Sincerely,

[Signature]

Tom Wray
Project Manager

Enclosure
SunZia Southwest Transmission Project

WECC 2016 Annual Progress Report

Submitted by Southwestern Power Group

ISSUED: FEBRUARY 22, 2016
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SunZia Southwest Transmission Project
WECC 2016 Annual Progress Report

I. Introduction

The SunZia Southwest Transmission Project (SunZia or the Project) is a major new 500 kilovolt (kV) transmission project that is envisioned to provide additional transmission interconnections and transmission capacity between central New Mexico and central Arizona. SunZia would enable the development of renewable energy resources by creating access to the interstate power grid across the Desert Southwest. The existing Accepted Rating of SunZia is 3,000 MW and the expected operation date is 2021. The Project Manager of SunZia, Southwestern Power Group II, LLC (SWPG) is a Class 3 member of the Western Electricity Coordination Council (WECC).

The concept for SunZia originated from the transmission planning efforts of the Southwest Area Transmission (SWAT) subregional planning group. SWAT has reviewed the potential for adding additional transfer capability between New Mexico and Arizona, to provide increased reliability, and to facilitate the development and delivery of power from renewable sources such as wind, geothermal and solar. In the summer of 2006, SWAT hosted a workshop (also known as “Project Zia”) to review possible long-term resource locations and potential delivery paths for the load serving entities in Arizona and New Mexico. From this effort, SunZia was proposed as a new regional electric transmission project between New Mexico and Arizona.

The Project, once completed, will provide the following benefits:
1) Provides additional access to renewable energy zones in New Mexico and Arizona where limited transmission access currently exists
2) Increases diversity of the regional energy resource zones
3) Increases the transfer capability and reliability across the SWAT region
4) Increases the import capability to the Central Arizona Transmission system
5) Creates an additional source of EHV service to the Tucson load pocket
6) Makes efficient use of existing available transmission corridors

On December 15, 2006, SWPG submitted a notification letter to the WECC Planning Coordination Committee (PCC) and Technical Studies Subcommittee (TSS) formally initiating the regional planning project review process for SunZia. To achieve Phase 1 status in accordance with the WECC Three Phase Path Rating Process, a Regional Planning Compliance Report was submitted to PCC and TSS on May 17, 2007. On July 12, 2007, PCC accepted the SunZia regional planning compliance report as complete.

In compliance with the WECC Procedure for Project Rating, a Comprehensive Progress Report (CPR) was submitted to WECC on April 22, 2009 and Phase 2 status was subsequently granted by PCC and TSS on July 27, 2009.

On August 27, 2009, SWPG formed a WECC Project Review Group (PRG) to proceed and review the Phase 2 Path Rating Study. The study included validation of the Plan of Service (POS) for non-simultaneous transfer conditions and evaluation of the possible interactions with other WECC major paths. In addition, the assessment of SunZia transmission alternatives and various system variables have been included. The PRG prepared the final SunZia Accepted Path
Rating Phase 2 Study Report (Report) and submitted it on February 22, 2011 to WECC PCC, TSS and OC for a 30-day review. On March 25, 2011, SunZia was granted Phase 3 status and an Accepted Rating of 3,000 MW by the PCC Chair.

The BLM Final Environmental Impact Statement (FEIS) and Preferred Alternative Route (PAR) for the Project were issued in June, 2013 and necessitated a reexamination of the technical impacts due to the interconnection opportunities in New Mexico. The original POS included an interconnection at the Luna Substation. However, due to changes to the location of the BLM PAR that made an interconnection to the Luna Substation difficult and concerns expressed in September 2013 by El Paso Electric (EPE) regarding direct connections to WECC Path 47, the POS was revised. The Modified POS does not include any intermediate interconnections in New Mexico at this time, and will continue to include the proposed SunZia South as a reactive compensation station to provide for future opportunities for interconnections.

SunZia reconvened the SunZia PRG to review revised studies on the Modified POS to determine if removal of an interconnection to WECC Path 47 results in different simultaneous impacts on Path 47 than the original POS included in the WECC Accepted Rating Report from February 2011. It was necessary to re-confirm that the Project can still achieve a rating of 3,000 MW on the SunZia Path simultaneously with WECC Path 47 at its maximum rating of 1,048 MW. Broader participation across WECC was achieved during the Modified POS study process.

The PRG prepared and reviewed technical studies required by the WECC Three Phase Rating Process and completed of a final SunZia Path Rating Re-Study Report dated September 25, 2014 (Re-Study Report). A formal approval process on the Re-Study report was conducted between October 16, 2014 and November 14, 2014. Based on the finding in the Re-Study Report, the Modified POS does not materially alter the basis on which the original Accepted Rating was granted, thereby confirming SunZia’s Three Phase Accepted Rating of 3,000 MW.

In compliance with Project Rating Review Process, the Re-Study Report was submitted to WECC on January 14, 2015. Subsequently on January 27, 2015 the PCC confirmed SunZia Project’s Accepted Rating of 3,000 MW with the Modified POS.

II. Project Description

The original SunZia Project was envisioned to be comprised of three segments of two 500 kV (AC) lines each from the renewable resource energy zone(s) in central New Mexico (referred to in this report as SunZia East substation) to the existing Pinal Central 500 kV substation in central Arizona. SunZia examined two intermediate electrical interconnections: one at a new SunZia South 500 kV substation near the existing Luna 345 kV substation in southwestern New Mexico, and another at the proposed Willow 500 kV Substation in southeastern Arizona. Taken together with these two intermediate substations, the three project segments are as follows: (1) SunZia East to SunZia South; (2) SunZia South to Willow 500 kV; and, (3) Willow 500 kV to Pinal Central.

The Modified POS excludes a 500/345kV transformer at Luna and includes only one intermediate electrical interconnection at the Willow 500 kV Substation. The SunZia South Substation will initially only include a series capacitor bank (70% series compensation).
III. Plan of Service

The Modified POS is described below:

Modified Plan:

- Construct two new SunZia East-SunZia South 500kV lines (230 miles with 70% series compensation) and loop into a new SunZia South series capacitor bank location (7 miles east to Luna substation), no transformation initially but future 500/345kV transformer to interconnect to the existing 345kV system will be considered.
- Construct two SunZia South-Willow 500kV lines (124 miles with 50% series compensation) and one 500/345kV transformer (725MVA) to interconnect to the existing 345kV system (Springerville – Vail 345kV system).
- Construct two new 500 kV lines from the new Willow substation to the proposed Pinal Central substation (161 miles with 50% series compensation).
- Shunt Compensation as required.

IV. Project’s Current Status

On March 25, 2011 the SunZia Project achieved WECC Phase 3 status with an Accepted Rating of 3,000 MW.

The Project completed the Re-Study with the Modified POS and the Re-Study Report was submitted to WECC on January 14, 2015. Subsequently on January 27, 2015 the PCC confirmed SunZia Project’s Accepted Rating of 3,000 MW with the Modified POS.

The BLM issued a Record of Decision on January 23, 2015 approving SunZia’s request for right-of-way on federal lands managed by the BLM.

The Arizona Corporation Commission approved a Certificate of Environmental Compatibility for SunZia on February 3, 2016. SunZia will apply for a location control permit from the New Mexico Public Regulation Commission at the appropriate time.

V. Planned Project In-Service Date

The SunZia Project is anticipated to be in service in 2021.
VI. **SunZia Southwest Transmission Configuration**

   Figure 1: Conceptual SunZia Southwest Transmission Project

![Conceptual SunZia Southwest Transmission Project](image)

VII. **Arizona and New Mexico EHV System**

   Figure 2 provides a geographical and electrical overview of the EHV transmission system for Arizona and New Mexico. The SunZia Project’s route is shown as the dashed red line.

   Figure 2: Arizona-New Mexico Regional EHV Transmission Map

![Arizona-New Mexico Regional EHV Transmission Map](image)
VIII. Project’s Environmental Impact Statement (EIS) Process

During September 2013, the Project’s POS was modified to accommodate a request made by the operator of WECC Path 47, El Paso Electric Company; to remove the Project’s 500 kV/345 kV planned interconnection to Path 47. Additionally, the BLM, while leading the Project’s EIS process, made the decision to locate the PAR such that ingress/egress into the existing Luna Substation became virtually impossible. SunZia identified an alternate substation a few miles east of Luna called SunZia South Substation, where such interconnection with Path 47 would be possible. These two developments resulted in elimination of interconnection with Path 47 at the SunZia South Substation by avoiding a 500/345 kV transformation into the Luna substation.

Figure 3, below, provides a geographical map of SunZia’s selected alternative included in BLM’s Record of Decision.

Figure 3: Bureau of Land Management SunZia Project Map from the BLM Record of Decision dated January 23, 2015
**IX. Project Milestone Schedules (15 Year Plan)**

Exhibit 1, below, provides a list of project milestone schedules from conception to operation.

**Exhibit 1: Project Milestone Schedules**  
15 Year Plan Project Conception to Operation

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<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Concept Emerges in Regional Planning</td>
<td>Starting 2006</td>
<td>Pre-Permitting 2 years</td>
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<tr>
<td>Sponsors Sign MOA</td>
<td>April 2008</td>
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<tr>
<td>Submit BLM SF-299 ROW Application</td>
<td>September 2008</td>
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<td>Initial Scoping</td>
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<td>Draft EIS</td>
<td>May 2012</td>
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<td>Final EIS</td>
<td>June 2013</td>
<td>Federal Permitting 6 Years</td>
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<td>EA and FONNSI</td>
<td>Dec 2014</td>
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<td>Record of Decision</td>
<td>Jan 2015</td>
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<td>Q2 2016</td>
<td>State Permitting 1 Year (Estimate)</td>
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<td>New Mexico Permit</td>
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<td>Procurement &amp; Construction 4 Years</td>
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<td>Final Design, ROW Acquisition, Procurement, Construction</td>
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<tr>
<td>COD</td>
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