



SunZia Southwest Transmission Project

Annual Progress Report: 2024

Submitted by:

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SunZia Transmission Project 2024 Annual Progress Report

I. Introduction and WECC History

The SunZia Transmission Project (SunZia or the Project) is a major new 500 kilovolt (kV) transmission project that will provide additional transmission interconnections and transmission capacity between central New Mexico and central Arizona. SunZia will enable the development of renewable energy resources, notably wind energy resources, by creating access to the interstate power grid across the Desert Southwest.

On January 27, 2015, SunZia Transmission, LLC, the Project Owner of the SunZia Southwest Transmission Project (“Project”), was granted an Accepted Rating of 3,000 MW (east-to-west) for two, single-circuit 500kV AC transmission lines from central New Mexico to south-central Arizona. The Project Owner has been actively updating the timeframe for the projected in-service date with its Annual Progress Reports and is currently projecting a December 2025 in-service date.

The Project Owner has recently modified the Plan of Service (“POS”) for the Project to be a HVDC bipole transmission project utilizing Voltage Source Converter (“VSC”) technology rated at 3,000 MW from East-to-West.

By a letter dated July 1, 2022, the Project Owner provided notice to WECC members of the revised POS and provided a revised Comprehensive Progress Report for review demonstrating compliance with applicable WECC and NERC reliability standards. In accordance with the procedures outlined in the Project Coordination, Path Rating and Progress Report Processes, the Project Owner with an existing Accepted Rating of 3,000 MW, requested to be reverted back to Phase 2 of the WECC Path Rating Process to accomplish the modified POS.

In September 2022 the PRG was re-engaged and during September through December 2022 the study plan and foundational base case for use in the Phase 2 analyses were updated. The Phase 2 simultaneous analyses began in December 2022. On April 12, 2023, the PRG approved the SunZia Phase 2 Rating Re-study Report and was provided to other WECC members for 30-day review as proof of conformance to the Path Rating Process on April 17, 2023. The 30-day review period for the SunZia Rating Re-study Report was completed on May 17, 2023. On May 22, 2023, SunZia was granted Phase 3 status. Construction of the Project is underway and is expected to be completed in 2026.

II. Project Description

SunZia will consist of a 345kVac switching station (i.e., the Pete Heinrich 345kV Switching Station), two (2) AC choppers (a/k/a dynamic braking resistors), a ± 525 kV bipole voltage source converter (VSC) high voltage direct current (HVDC) transmission line (approximately 552 miles in length), and two ~0.75mi 500kVac tie lines to integrate these facilities into the Pinal Central Substation. SunZia achieved a Western Electricity Coordination Council (WECC) Accepted Rating of 3,000 MW in May 2023. The planned in-service date for SunZia is December 2025.

III. Project's Plan of Service

The SunZia ± 525 kV HVDC line is expected to provide interconnection and delivery of 3,000 MW of wind resource energy in an islanded “grid forming” mode, from a 345 kV wind energy collection system through interconnection at the Pete Heinrich Switching Station and then onward to the adjacent SunZia East DC converter station to be located near Corona, NM. SunZia will utilize VSC technology to emulate the required 60 Hz frequency and steady state voltage to terminate and regulate as needed for the DC transmission towards the western terminus in Arizona.

The POS for SunZia as depicted in the figure includes:

- Construction of an approximately 552-mile, ± 525 kV HVDC transmission line (3 x 2156 kcmil ACSR) from SunZia East Converter Station near Corona, New Mexico to SunZia West Converter Station, about 0.75-mile from Salt River Project's Pinal Central 500 kV substation in Arizona.
- Installation of two (2) HVDC Voltage Source Converter (VSC) Stations
- Construction of two (2) new 0.75-mile 500 kV lines from SunZia West Converter Station to Pinal Central 500kV substation
- Installation of two, 1500MW thyristor-controlled breaking resistors (“AC choppers”) integrated with the SunZia East Converter Station in New Mexico

A conceptual one-line diagram for the Project is depicted in the Figure below.

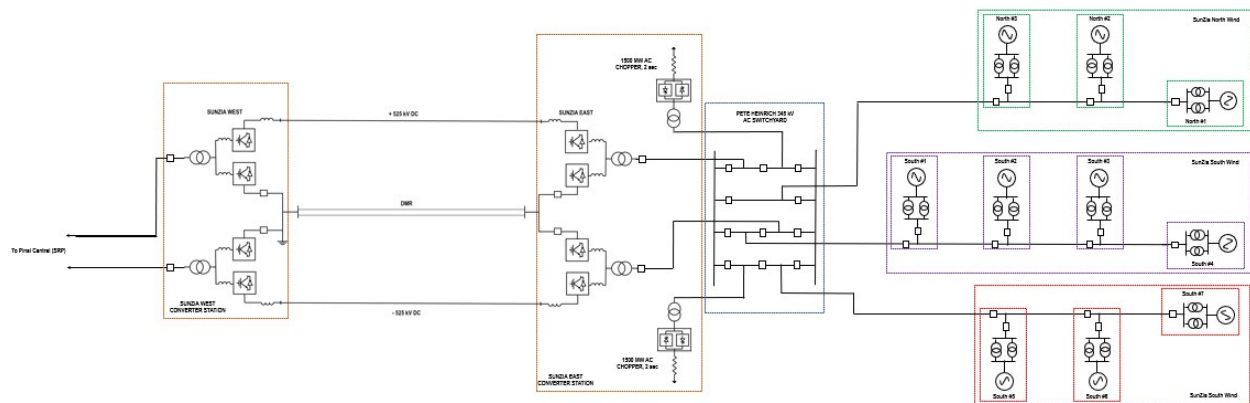


Figure: SunZia Conceptual One-Line Diagram

IV. Project's Current Status

On May 22, 2023 the SunZia Project achieved WECC Phase 3 status with an Accepted Rating of 3,000 MW.

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. SunZia executed a fifty-year Right-of-Way Grant Agreement with the BLM on September 1, 2016. SunZia initiated construction in 2023.

V.Planned Project In-Service Date

The SunZia Project is anticipated to be energized in 2025 with full commercial operation occurring in the first half of 2026 (including the interconnected wind facilities).