

Data Preparation Manual Change Request System Review Subcommittee (SRS) Establishment of WECC Base Case Area 82

Change Summary

Establishment of WECC Base Case Area 82 for the SunZia transmission and generation project energizing in September 2025.

Schedule

Immediate inclusion in the DPM.

Detailed Description

SunZia Transmission, LLC (SZT) is a high voltage direct current (HVDC) transmission facility. SZT consists of two short (1 mile) 500 kV AC lines (5L18 & 5L19) that connect the Salt River Project Agricultural Improvement and Power District's (SRP) Pinal Central 500kV AC substation (PCL) to the SunZia Converter Station West (SZCW). An approximately 552-mile-long, 525kV bipole HVDC line (10L11 & 10L12) connects SZCW to SunZia Converter Station East (SZCE) in Corona New Mexico. The SZCE connects to the adjacent 345kV Pete Heinrich AC switchyard (SNZY). The 345kV SNZY is connected to two adjacent 1,500MVA, two-second-rated AC Choppers. From the perspective of the Bulk Electric System (BES), the SZT Transmission Facility is radial to SRP's PCL 500 kV AC substation. There are 10 generation facilities not considered a part of the SZT Transmission Facility that interconnect at the SZT 345kV Pete Heinrich AC switchyard:

- SunZia Wind North LLC (SZWN) consists of three wind generation Facilities and one generation interconnection line as follows:
 - One generation interconnection line (3L32) to the SZT's 345kV Pete Heinrich AC switchyard (SNZY)
 - SZWN1 360MVA (generation Facility)
 - SZWN2 405MVA (generation Facility)
 - SZWN3 324MVA (generation Facility)
- SunZia Wind South LLC consists of seven wind Generation facilities and has two generation interconnection lines as follows:
 - Generation interconnection line one (3L21) to the SZT's 345kV Pete Heinrich AC switchyard (SNZY)
 - SZWS1 380MVA (generation Facility)

- SZWS2 304MVA (generation Facility)
- SZWS3 285MVA (generation Facility)
- SZWS4 285MVA (generation Facility)
- Generation interconnection line two (3L12) to the SZT's 345kV Pete Heinrich AC switchyard (SNZY)
 - SZWS5 406.6MVA (generation Facility)
 - SZWS6 448.4MVA (generation Facility)
 - SZWS7 452.2MVA (generation Facility)

SZT is a California Independent System Operator (CAISO) Subscriber Participating Transmission Owner (SPTO). NERC Functional Entities for the SunZia project will be as follows:

- Reliability Coordinator: CAISO; NCR05048
- Balancing Authority: CAISO; NCR05048
- Planning Coordinator: CAISO; NCR05048
- Transmission Service Provider: CAISO; NCR05048
- Transmission Operator: Gridforce Energy Management, LLC; NCR11393 (GEM) & CAISO; NCR05048 through a Coordinated Functional Registration.
- Transmission Planner: SZT; NCR-TBD
- Transmission Owner: SZT; NCR-TBD
- Generator Owner/Operator: SZWN & SZWS or an upstream affiliate.

Proposed Edits

DPM Appendix 2:

- Area No.: 82
- Area Name: SunZia
- Owner Number: 820
- Zone Number Range: 820–829
- Bus Number Range: 82,000–82,999

Area Slack Control Proposal:

A swing machine is used for mathematical reasons and should not be based on fuel type. The SunZia project has no load and is grid forming at the SunZia Converter Station East (SZCE). The SunZia project consists of ten wind generation Facilities ranging from 285MVA to 452.2MVA in size. The largest generation Facility, SunZia Wind South LLC's SZWS7 (452.2MVA), will be used as the swing machine for Area slack control.



Examples

