



February 13, 2024

Mr. Tom Carr
Chair, WECC Studies Subcommittee (StS)
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Mr. Doug Tucker
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Re: **Great Basin Transmission 2024 Annual Progress Report**

Please find enclosed, the 2024 Annual Progress Report for Great Basin Transmission, LLC (GBT). This Annual Progress Report has been prepared in accordance with the WECC Progress Report Policies and Procedures.

GBT is reporting the current progress on two segments of the Southwest Intertie Project (SWIP): SWIP-North (a new Midpoint-Robinson Summit 500 kV Line and associated system upgrades) and SWIP-South (upgrade of ON Line, the existing Robinson Summit-Harry Allen 500 kV Line). GBT is not requesting “waiver of significant impact” status for either of these projects; both of these projects have undergone the WECC Path Rating Process and achieved Phase 3 status.

All facility additions listed herein will be planned and operated in conformance with NERC Planning Standards and WECC System Performance Criteria. If you have any comments or questions about any of these projects, please contact me.

Sincerely,

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Great Basin Transmission, LLC
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Project Name	Southwest Intertie Project – North (“SWIP-North”)
Project Sponsor:	Great Basin Transmission, LLC (GBT)
Planned in-service date:	2027
Voltage (base):	500 kV
Project Description:	<p>SWIP-North consists of a 500 kV AC transmission circuit, traversing approximately 285 miles from Idaho Power Company’s Midpoint 500 kV substation (near Twin Falls, Idaho) to the Robinson Summit 500 kV substation (near Ely, Nevada) operated by NV Energy. (See also, attached one-line diagram.)</p> <p>The Midpoint-Robinson Summit 500 kV line will feature 70% series compensation. Half of this compensation will be located near Midpoint Substation, while the other half will be located near Robinson Summit Substation.</p> <p>Each end of the line will include two shunt line reactors: 2 x 135 MVAR reactors at the Midpoint terminal, and 2 x 135 MVAR reactors at the Robinson Summit terminal (MVAR sizes expressed on a 525 kV base voltage). At each terminal, one shunt line reactor is assumed to be “fixed”, while the other is assumed to be “switchable” for voltage control.</p> <p>SWIP-North will also include other upgrades to existing infrastructure as described below. These upgrades will allow SWIP-North to achieve its desired rating and will also increase the transfer limit of the existing Robinson Summit-Harry Allen 500 kV line (“ON Line”). This increased transfer limit for ON Line is being studied in parallel through the SWIP-South path rating process.</p> <p>(1) ON Line upgrade</p> <ul style="list-style-type: none"> • Add 70% series compensation to the existing Robinson Summit-Harry Allen 500 kV line. This compensation will be distributed in 3 segments, with series capacitors placed at Robinson Summit, Harry Allen, and in the middle third of the circuit. <p>(2) Other System upgrades:</p> <ul style="list-style-type: none"> • Three (3) +149.7 MVAR switchable shunt capacitors (on a 525 kV base) located at the Robinson Summit 500 kV bus. • One (1) +157.5 MVAR shunt capacitor (on a 345 kV base) added to the Robinson Summit 345 kV bus. • Two (2) 345/345 kV phase-shifting transformers (+/-48°, each with a normal rating of 600 MVA) at Robinson Summit: one connected towards Falcon, and the other towards Gonder. <p>This circuit represents a new interconnection between the Idaho Power and the NV Energy Balancing Authorities; it also represents a new interconnection between the NorthernGrid and CAISO Regional Planning Areas. The WECC Path Rating Studies established the following protected ratings for SWIP-North (path metered at the Midpoint terminal):</p> <ul style="list-style-type: none"> • 2,070 MW north-to-south (N2S) • 1,920 MW south-to-north (S2N)

Project Purpose:	SWIP-North (in conjunction with SWIP-South) provides an additional path to move economic and renewable energy between the northern and southern areas of WECC, helping to provide regional energy savings, reduced congestion, geographic diversity, and increased transfer capability.
Status:	Federal permits secured (NEPA process complete, BLM Rights-of-Way secured); ready for commercialization. The CAISO conditionally approved SWIP-North project as part of 2022-2023 Transmission Plan. SWIP-North interconnection System Impact Studies (SIS) and Facilities studies for interconnections at Midpoint and at Robinson Summit have been performed. WECC Phase 2 Path Rating studies were completed in mid-2023 and SWIP-North was granted Phase 3 status on July 31, 2023.
Impact on other systems/paths:	WECC Path Rating Studies identified SWIP-North simultaneous interactions with WECC Paths 16, 32, Idaho-Northwest Upgrade w/B2H, Bridger/Anticline West, New Path C, Borah West Upgrade, and Midpoint West Upgrade.
Contact Person:	Denden Tekeste, P.E. Great Basin Transmission, LLC Phone: (619) 759-0140 dtekeste@lspower.com

Project Name	Southwest Intertie Project – South (“SWIP-South”)¹
Project Sponsor:	Great Basin Transmission, LLC (GBT) ²
Planned in-service date:	2027 ³
Voltage (base):	500 kV
Project Description:	<p>SWIP-South is an upgraded/series-compensated version of the existing Robinson Summit-Harry Allen 500 kV line (also known as “ON Line”). The existing (uncompensated) line was energized in 2014 and traverses 231 miles between the Robinson Summit 500 kV substation (near Ely, Nevada) and Harry Allen 500 kV substation (near Las Vegas, NV). The existing line includes 2 x -90.7 MVAR reactors at each line end (expressed on a 500 kV base voltage).</p> <p>The SWIP-South upgrade will add 70% series compensation to the existing Robinson Summit-Harry Allen 500 kV line. This compensation will be distributed in 3 segments, with series capacitors placed at Robinson Summit, Harry Allen, and in the middle third of the circuit.</p> <p>The WECC Path Rating Studies established the following protected ratings for SWIP- South (path metered at the Robinson Summit terminal):</p> <ul style="list-style-type: none"> • 2,335 MW north-to-south (N2S) • 2,245 MW south-to-north (S2N)
Project Purpose:	SWIP-South serves as a continuation of SWIP-North, supporting increased energy transfers between the northern and southern areas of WECC.
Status:	The Robinson Summit-Harry Allen 500 kV line is already in-service, known as ON Line; the majority of SWIP-South upgrades would be constructed within (or adjacent to) existing substations. System Impact Studies and regional planning analyses of SWIP-North typically also include/model SWIP-South facilities. WECC Phase 2 Path Rating studies were completed in mid-2023 and SWIP-South was granted Phase 3 status on July 31, 2023.
Impact on other systems/paths:	WECC Path Rating Studies identified SWIP-South simultaneous interactions with WECC Paths 32, 35, 78, 79, and TransWest Express TWE IPP-TWE Crystal(N) AC line.

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¹ SWIP-South in this report refers to an upgraded ON Line project (i.e. ON Line plus series capacitor upgrades to support SWIP-North).

² GBT is managing the Path Rating process for the upgraded ON Line Project in conjunction with SWIP-North on behalf of the ON Line owners, NV Energy and Great Basin Transmission South, LLC.

³ ON Line was placed into service in 2014. This in-service date is associated with upgrading ON Line with 70% series compensation in conjunction with placing SWIP-North in service.

Figure 1. Diagram of Southwest Intertie Project, North and South

