



California ISO

2022-2023 TPP: SWIP North

Stakeholder Meeting

November 07, 2023

Scope of Discussions

- The Transmission Planning Process and CPUC portfolio requirements for Idaho wind
- The SWIP North Transmission Project
- Joint regional project with Idaho Power and what it entails
- ISO's intent, recommendation and timelines
- Next steps

Out-of-state wind resources from Idaho in California's integrated resource planning portfolios

2022-2023 Plan

- 1,062 MW from Idaho/Wyoming in TPP base case and 1,000 MW from Idaho in TPP sensitivity case

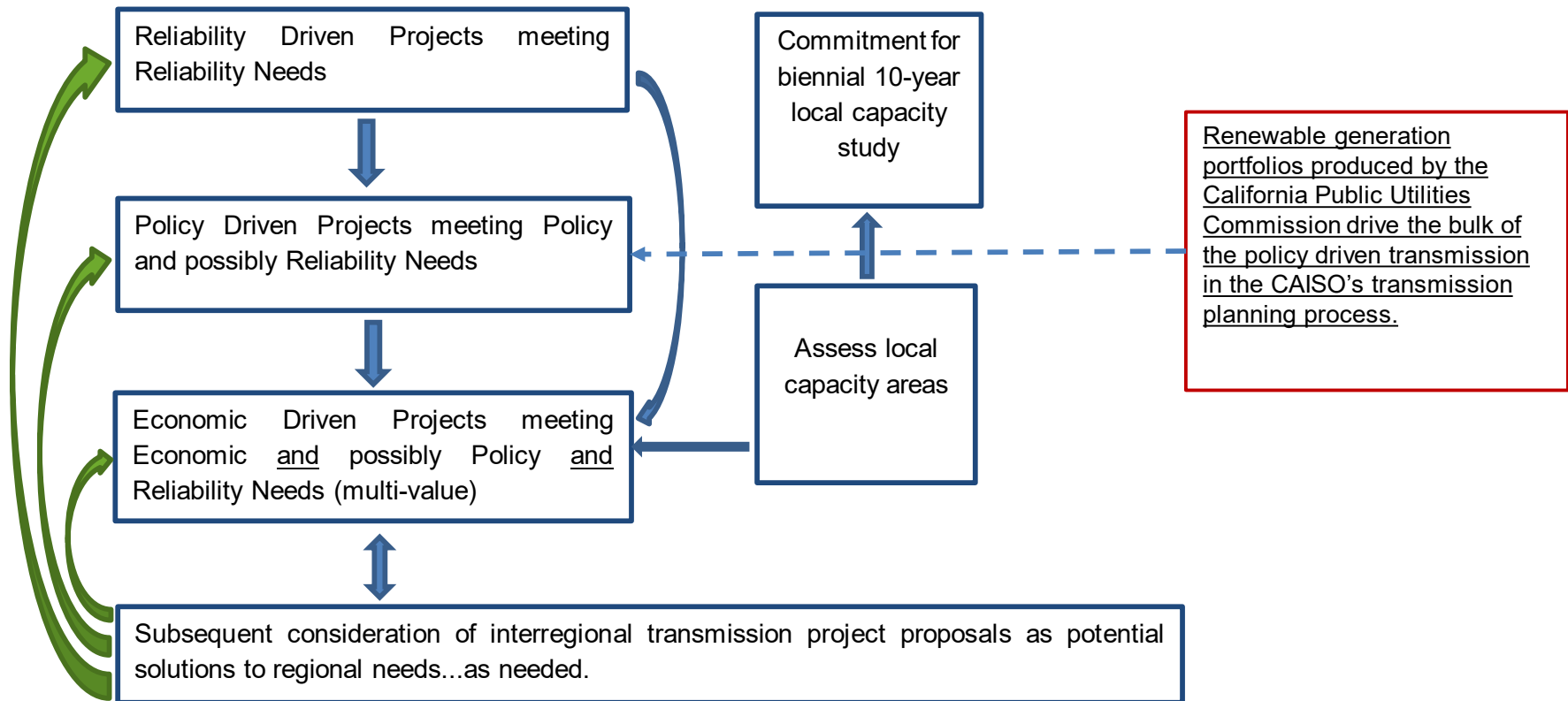
2023-2024 Plan

- 1,000 MW from Idaho in both the TPP base and sensitivity cases

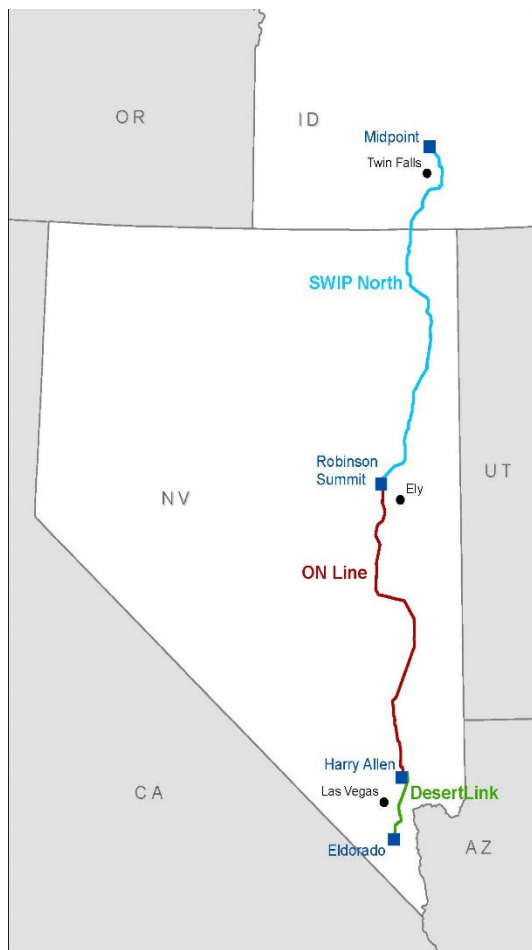
2024-2025 Proposed Plan

- 1,000 MW from Idaho in the 25 MMT Core Scenario to be studied as the TPP base case

The ISO has been examining accessing Idaho wind resources through its annual transmission planning process



The SWIP-North project is the only active proposal providing direct access to Idaho wind resources



Phase I - ON Line (Robinson to Harry Allen) – Operating

- 231-mile 500 kV t-line from Ely to Las Vegas (plus 8 miles of 345 kV)
- Placed into service in January 2014
- Built as joint development project by LS Power and NVE
- Cost allocation 100% to NVE
- Capacity allocation determined after Phase III is complete
 - 2335 MW transfer capacity Southbound (1217.5 MW reserved by NVE)
 - 2245 MW transfer capacity Northbound (1172.5 MW reserved by NVE)

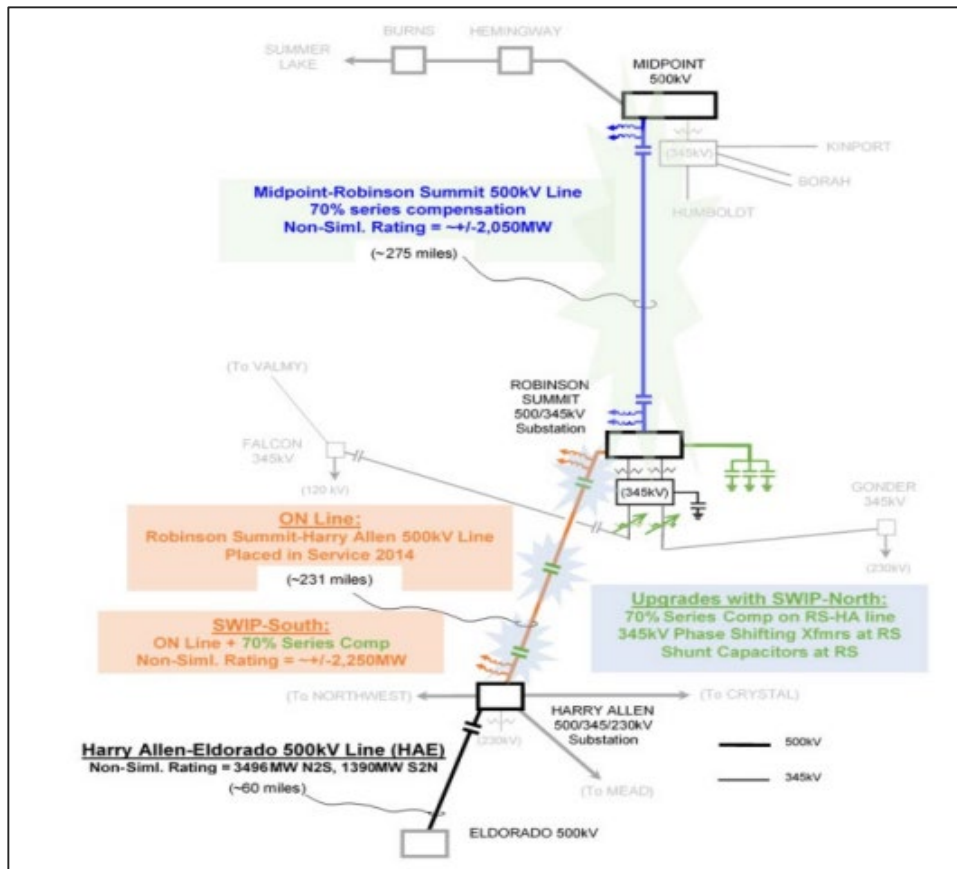
Phase II - DesertLink (Harry Allen to Eldorado) – Operating

- 60-mile 500 kV t-line in Clark County
- Placed into service in August 2020
- ~3500 MW transfer capability controlled by CAISO
- Extended the CAISO boundary from Eldorado to Harry Allen
- Increased capacity on NVE's Centennial Path

Phase III - SWIP North (Midpoint to Robinson) – Permitted

- 285-mile 500 kV t-line from Ely to Twin Falls under development
- Nearly construction ready and planned to be online by the end of 2027
- Cost allocation 100% to GBT
- 2070 MW transfer capacity Southbound (952.5 MW reserved by NVE)
- 1920 MW transfer capacity Northbound (847.5 MW reserved by NVE)
- When completed, LS Power entitled to ~1100 MW bi-directionally between Midpoint and Harry Allen

The SWIP North transmission project includes transmission line, series compensation, and phase shifting transformers



- The SWIP North transmission project consists of the 500 kV transmission line, 500/345 kV phase shifting transformers and shunt capacitors at Robinson Summit, and series compensation at Midpoint, Robinson Summit and on NV Energy's ON Line
- WECC approved SWIP North transmission line path rating of 2,070 MW (North to South) and 1,920 MW (South to North)

SWIP North, part of the Southwest Intertie Project, is governed by a Transmission Use and Capacity Exchange Agreement (TUA)

- The Southwest Intertie Project (SWIP North and ON Line) is governed by the TUA between NV Energy and Great Basin Transmission LLC, a subsidiary of LS Power (“GBT”)
- The SWIP North entitlement structure is as follows:

Entities	North-South Capacity (MW)	South-North Capacity (MW)
NV Energy	952.5	847.5
Great Basin Transmission (GBT)	1,117.5	1,072.5

The second amended and restated TUA is available in FERC Docket No. ER20-2295

The proposal enables access to Idaho wind resources through the only known transmission line in development, while offering a unique solution through collaborative partnership

- Transmission development is needed to access out-of-state wind resources and this project is the only known transmission project that can enable access to Idaho wind resources.
- The proposal enables the ISO to acquire Great Basin's entitlements on the SWIP North line as well as the existing ON line as compared to building an entirely new, roughly 500-mile transmission line from Harry Allen in Nevada to Midpoint in Idaho, in order to meet CPUC portfolio requirements.
- The proposal provides both the ISO and Idaho Power the opportunity to meet its resource portfolio and diversity requirements while sharing project costs, thereby reducing overall cost impact to California rate payers.

Idaho Power's 2023 Integrated Resource Planning identified SWIP North as a unique opportunity to meet its resource planning needs

- Idaho Power analyzed SWIP North in its 2023 IRP as primarily providing a 500 MW resource equivalent capacity in the winter months
- Assuming successful discussions with GBT, Idaho Power would:
 - Execute definitive agreements with GBT, with conditions which would include, but not be limited to:
 - CAISO approval of the Project, FERC approval of the GBT and Idaho Power agreement(s), sufficient Idaho Power benefits to justify the project cost, and necessary state regulatory approvals of the Project
 - File a SWIP-related case with the IPUC by year end
- The SWIP North transmission line enables Idaho Power to access the Desert Southwest wholesale power market hubs and help portfolio diversity

The sharing of capacity entitlements with Idaho Power reduces overall project costs to California ratepayers

- The joint proposal results in the shared assumption of GBT's capacity entitlements on SWIP North and ON Line
 - Idaho Power would assume 500 MW of entitlements in the South to North direction with the remaining entitlements in both directions to be assumed by the ISO
 - The ISO to fund 77.2% of the SWIP North project cost with Idaho Power funding the remaining 22.8%
 - Based on the TUA, the cost to the ISO for assuming GBT's entitlements on the existing ON Line is zero
- The existing ON Line with GBT and NV Energy, similar to SWIP North, provides a total of 1,117.5 MW from North to South and 1,072.5 MW from South to North

The ISO believes that the proposal is cost-effective and reduces cost impact to California ratepayers

- The current proposal is a joint regional policy-driven project enabling sharing of costs while meeting resource planning requirements
- The ISO is proposing to acquire GBT's entitlements on SWIP North and the existing ON Line as opposed to approving and procuring an entirely new 500+ mile transmission line between Idaho and California
 - Idaho Power, which is a joint capacity off-taker, does not have competitive procurement framework for building transmission
- Based on expected project cost estimate (\$1,090 Million, \$3.8 M/mile), including ON Line system upgrades, the \$/mile cost is comparable to competitively procured transmission such as Harry Allen-Eldorado (\$3.4 M/mile) and Delaney-Colorado River Transmission (\$4.3 M/mile)

The CAISO is recommending the assumption of Great Basin Transmission's entitlements on SWIP North, under its 2022-2023 TPP

- The ISO intends to recommend to the Board, under the 2022-2023 TPP, the assumption of GBT entitlements on the SWIP North transmission line as a joint regional policy-driven project, combined with the GBT entitlements on the ON Line
- Request timing aligns with Idaho Power's intention to file a SWIP-related case with the IPUC by end of 2023
- ISO request for approval is conditioned upon:
 - Idaho Power filing and receiving approval for its SWIP-related case from the IPUC by June 2024;
 - Great Basin Transmission, LLC, a subsidiary of LS Power, applying to become a Participating Transmission Owner by July 1, 2024, and
 - FERC acceptance of Great Basin's Transmission Owner Tariff and a transmission revenue requirement rate structure

Timelines and Next Steps

