Annual Progress Report for Planning Coordination

NV Energy 2024 Annual Progress Report

February 19, 2024

To: The WECC Studies Subcommittee

In accordance with WECC Progress Report Policies and Procedures, NV Energy is submitting 2024 Annual Progress Report, as presented below.

NV Energy North

Sierra Solar, Lantern 345 kV Substation and Lantern – Comstock Meadows 345 kV line

The new Lantern 345 kV substation will be a new generation collector substation and will interconnect NV Energy's Sierra Solar phase 1 and phase 2, which are 400 MW and 600 MW of solar and battery generation. The Lantern substation will be connected to the existing transmission system by folding the Valmy – East Tracy 345 kV line #3422. Later, for phase 2, a new Lantern to Comstock Meadows 345 kV line will be constructed, in service date (ISD) 2028. Lantern substation in service date (ISD) is 06/2025.

NV Energy requests waiver of "significant impact" status for this project.

Hilltop Phase Shifter Move

A new phase shifter will be installed at the Hilltop 345 kV substation to replace the phase shifter at the Bordertown 345 kV substation. The 300 MVA phase shifter at the Hilltop substation will mitigate the restricted import capacity at Hilltop substation when the Fish Spring Solar facility generation is at the maximum output of 100 MW. The projected ISD is 11/2026.

NV Energy requests waiver of "significant impact" status for this project.

Lazy 5 120kV Substation

This new 120 kV substation includes the installation of three 120/24 kV 60 MVA transformers, nine 1,200 A feeder breakers and getaways, and associated equipment. This is to improve reliable capacity and provide additional distribution service to expanding commercial and

residential loads in the Spanish Springs area. A line fold of the existing Redrock – Sugarloaf 120kV line is required. The projected ISD is 06/2027.

NV Energy requests waiver of "significant impact" status for this project.

Gerlach 15 MW, Ormat North Valley 2 15 MW, San Emedio 45 MW at Eagle 120 kV

This project is comprised of the interconnection of Co. KJ, Ormat – Gerlach Geo, 38.5 MW geothermal generation. It has proposed to interconnect a 15 MW geothermal generator to the Eagle 120 kV substation using a shared lead line with Co. KI, North Valley Geo 38.5 MW geothermal generations, and Co. HN, San Emidio 45 MW geothermal generation. The projected ISD is on Co. KJ 01/2028 and the ISD of Co. KI is 01/2026. The completion of KI is reliant on the completion of Co. HN, which has an ISD of 05/2024. The associated network upgrades to facilitate Co. HN have an ISD of 05/2024.

NV Energy requests waiver of "significant impact" status for this project.

TRIC – Newton 120 kV Switchyard and Associated Upgrades

This project is comprised of the Newton 120 kV switching station and upgrades at the existing Pah Rah and West Tracy substations. This project requires the rebuilding of portions of the existing Tracy to Patrick 120 kV line, Tracy to Newton 120 kV line, Tracy to Pah Rah 120 kV line, and Pah Rah to Newton 120 kV line. The ISD for these upgrades are 05/2024.

NV Energy requests waiver of "significant impact" status for this project.

Redwood Expansion (Project Sutro)

This project is comprised of a new 120 kV line out of Comstock Meadows Substation to serve Redwood Materials in the Tahoe Reno Industrial Complex. This includes new Redwood 120 kV substation, initial load addition of 82 MW and ultimate addition of 140 MW in 2024. This project is expected to be in service by the end of 11/2024.

NV Energy requests waiver of "significant impact" status for this project.

Bordertown to California Sub 120 kV Project

This project is comprised of a new 345/120 kV 280 MVA transformer at NV Energy's Bordertown Substation and a 120 kV, 12-mile line from Bordertown to California substation. This project is expected to be in service by end of 06/2025.

Multiple studies on the project have been performed by NV Energy indicating that no significant regional impact from these internal transmission facilities can be expected. NV Energy requests waiver of "significant impact" status for this project.

West Tracy – Comstock Meadows 345kV line

This project comprises of 345kV addition at Comstock Meadow substation with addition of two (2) 345/120kV transformers to accommodate rapid load growth in the Reno TRIC area. An additional 345kV line from East Tracy or Veterans is also proposed based on load growth requirements. Planned ISD for this project is 12/2025.

NV Energy requests waiver of "significant impact" status for this project.

Shaffer Substation – LMUD Interconnection

Lassen Municipal Utilities District (LMUD) executed a Transmission Service Agreement and Network Integration Transmission Service Agreement to interconnect a 30MW of load at new NV Energy Point of Interconnection at 345kV 'Shaffer' substation. Shaffer substation will be connected to the existing transmission system by way of a fold of Hilltop – Ft Sage 345 kV line adjacent to LMUD's Skedaddle 345kV/60kV substation, with a new 345/60kV transformer and 60 kV phase shifter. The expected ISD is 09/2025.

NV Energy requests waiver of "Significant Impact" status for this project.

Greenlink Nevada North (GLN)

Greenlink North is a proposed 525kV series compensated line that would run east-to-west along a 235-mile path between Robinson Summit substation in Northeast Nevada and the Fort Churchill substation in western Nevada. The project also includes a 525/230 kV collector substations along the line for the interconnection of renewable resources.

Public Utility Commission of Nevada approved GLN in January 2022 with the planned in-service date of 12/2027. NVE is currently actively working on permitting, land acquisition for the project as well as on the design and specifications of all the equipment.

NVE has performed several transmission planning studies indicating that GLN would strengthen the connection between the North & South, improve reliability and increase the import transmission capacity of the integrated system. NVE has also perform typical design studies for 525 kV facilities (EMTP, SSR, SSCI, etc.). No regional effects or affected systems have been identified that are associated with this project. NV Energy requests a waiver of "significant Impact" status for this project.

Stockyard 120kV Substation

This project is a rebuild of existing and aging 120kV Buckeye substation with a planned ISD of May 2026. The Stockyard substation would improve reliability and will prevent NERC TPL standard violations.

NV Energy requests waiver of "significant impact" status for this project.

Peavine 120kV Substation

The new Peavine 120 kV substation project relieves load on the existing Silver Lake and Valley Road Substations. Peavine will increase capacity to serve expanding commercial and residential loads in the North Valleys area. The planned ISD is 05/2025.

NV Energy requests waiver of "significant impact" status for this project.

NV Energy South

Reid Gardner – Harry Allen Line #3

This project is a new 22-mile Harry Allen to Reid Gardner #3 230 kV transmission line. The new #3 line will double the transmission capacity between Reid Gardner to Harry Allen, so that new large generator interconnections at Reid Gardner Substation do not overload the Harry Allen - Reid Gardner #1 or #2 230 kV lines.

NV Energy requests waiver of "significant impact" status for this project.

Goforth 230/12kV Substation (aka Apex Central)

Goforth is comprised of a new 230/12kV substation, energized by the Prospector 230 kV line, is proposed to accommodate for increased load growth in the central Apex area. Goforth will connect up to six 35 MVA 230/12 kV transformers. The target ISD is 12/2025.

NV Energy requests waiver of "significant impact" status for this project.

El Capitan to Northwest 138 kV Reconductor

This project is comprised of the reconductor of the existing El Capitan to Northwest 138 kV line in pursuant to a Power Purchase Agreement with Chuckwalla Solar. This is also required for the designated network resource Amargosa 1,800 MW solar and battery project and the 1,000 MW White Pine pumped hydro that are both pursued by NV Energy. The expected ISD is 12/2024.

NV Energy requests waiver of "significant impact" status for this project.

LV Cogen to Highland 138kV Fold into Miller

This project is comprised of folding the LV Cogen to Highland 138 kV line into Miller 138 kV substation in pursuant to a Power Purchase Agreement with Chuckwalla Solar. This requires the expansion of the existing Miller substation with the addition of a new 138 kV ring bus. The expected ISD is 12/2024.

NV Energy requests waiver of "significant impact" status for this project.

Clark – Concourse 138kV Reconductor

This project reconductors the Clark to Concourse 138kV line to increase the line rating to 428 MVA. This will prevent overloads for normal and contingency conditions. This ensures that the heavily relied on, Clark 138 kV generation can support the Las Vegas load pocket during peak loads. The expected ISD is 04/2024.

NV Energy requests waiver of "significant impact" status for this project.

Winston 138kV Switchyard

The construction of a new Winston substation will contain new 138 kV power circuit breakers in a ring bus formation, a new transmission line, and associated facilities. This improves reliability of the Northwest to Mercury 138 kV line from Indian Springs to Creech Air Force Base, preventing outages and deficiencies. The expected ISD is 05/2026.

NV Energy requests waiver of "significant impact" status for this project.

Project Quasar – 138kV Switching Station

A customer entered into a High Voltage Distribution Agreement for 75 MW. The customer will be served from Pecos substation by building the Pecos to Quasar 138 kV line. The expected ISD is 02/2026.

NV Energy requests waiver of "significant impact" status for this project.

Audette 230kV Switchyard (Switch Phase 1&2)

Audette consists of the construction of a 230kV switchyard, 230kV double circuit line fold, and 230kV single circuit high voltage distribution feeder. The expected ISD is 05/2025.

NV Energy requests waiver of "significant impact" status for this project.

Reid Gardner BESS

This project procures and interconnects 220 MW of grid tied battery storage into the transmission grid at 230kV Reid Gardner Substation. This will be completed with two battery energy storage systems with (2) hour duration to Reid Gardner Substation. The project has been energized and is currently in service since December 2023.

NV Energy requests waiver of "significant impact" status for this project.

Reid Gardner – Tortoise 230kV line #2

To increase reliability for Lincoln County Power District No. 1 and Overton Power District No. 5, a second 230 kV line is required from Reid Gardner to Tortoise. This project will construct the second 230kV line from Reid Gardner to Tortoise. The planned ISD is 05/2024.

NV Energy requests waiver of "significant impact" status for this project.

Dry Lake Solar 150MW

This project is comprised of an interconnection of Dry Lake Solar 150MW photovoltaic generation to serve NV Energy loads and is proposed to interconnect at Harry Allen substation's 230 kV bus. The proposed in-service date is 03/2024.

NV Energy requests waiver of "significant impact" status for this project.

Gemini Solar 690MW Interconnection at Crystal 230kV (Co. 151 172)

Solar partners XI, LLC, Company 151 has proposed to interconnect a new 440MW solar PV plant to NV Energy's 230kV Crystal substation with the installation of a new 8.7 miles of 230kV transmission line between 230kV Crystal and 230kV Gemini substation. The expected ISD is 11/2023.

Second phase of Gemini Solar interconnection is at Crystal 230kV substation for a 250MW Solar PV plant. ISD 12/2023.

This is one of the major projects approved by PUCN from NV Energy's IRP, 2019.

No regional effects or affected systems have been identified that are associated with this project.

The project has been energized and is currently in service since December of 2023.

Boulder Solar III

This planned 128 MW Solar project which also includes a 58MW BESS will be in Clark County, NV in the Eldorado valley south of Boulder city and will be interconnected at 230kV Nevada Solar One. It is being developed by 174 Power Global and KOMIPO America Inc. This is one of the approved projects by PUCN in November 2020. Planned ISD is 05/2025.

NV Energy requests a waiver of "significant Impact" status for this project.

Greenlink Nevada West (GLW)

Greenlink West is a proposed 320-mile long 525kV series compensated line from Northwest Substation in northwest Las Vegas to Ft. Churchill Substation in Yerington Nevada, approximately in parallel to the western border of Nevada. The line will also include two 525/230 kV collector substations along the line for the interconnection of renewable resources. This project will provide a second interconnection between NV Energy's northern and southern systems. The project also includes a 45-mile 345 kV line from Ft. Churchill Substation to Mira Loma Substation and a 40-mile 345 kV line from Ft. Churchill Substation to Comstock Meadows Substation.

Fort Churchill substation upgrades: New 500 kV, 345 kV and 230 kV switchyards will be built, including new transformers: 2x500/345kV (600MVA), 2x345/230kV (300MVA), and 2x345/120kV (280MVA).

The project has been approved by the PUCN in 2021 and NVE is currently actively working on permitting of the project as well as on the design and specifications of all the equipment with the proposed in-service date of 05/2027.

As necessary part of GLW but approved by the PUCN as part of GLN is a 30-mile line in Southern Nevada from Harry Allen substation in North Las Vegas to Northwest Substation in northwest Las Vegas strengthening the system to accommodate flows on both - GLW and GLN projects. Public Utility Commission of Nevada approved GLN in January 2022.

NVE has performed several transmission planning studies indicating that GLW would strengthen the connection between the North & South, improve reliability and increase the import transmission capacity of the integrated system. NVE is also in process of performing typical design studies for 525 kV facilities (EMTP, SSR, SSCI, etc.). No regional effects or affected systems have been identified that are associated with this project.

NV Energy requests a waiver of "significant Impact" status for this project.