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Comment Received From: Ellen Wolfe
Submitted On: 9/15/2020
Docket Number: 19-SB-100

GLW comments with supporting documents enhanced

Attached is an enhanced version of the GLW file that better supports document search. A Word version of the comments themselves will also be uploaded seperately.

Additional submitted attachment is included below.

GRIDLIANCE

A Blackstone Company

Michael Landgraf
President, GridLiance West
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972.754.5738

September 15, 2020

RE: SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future, Docket #: 19-SB-100. Results Workshop Comments from GridLiance West LLC

TO: California Energy Commission, Public Utilities Commission and Air Resources Board

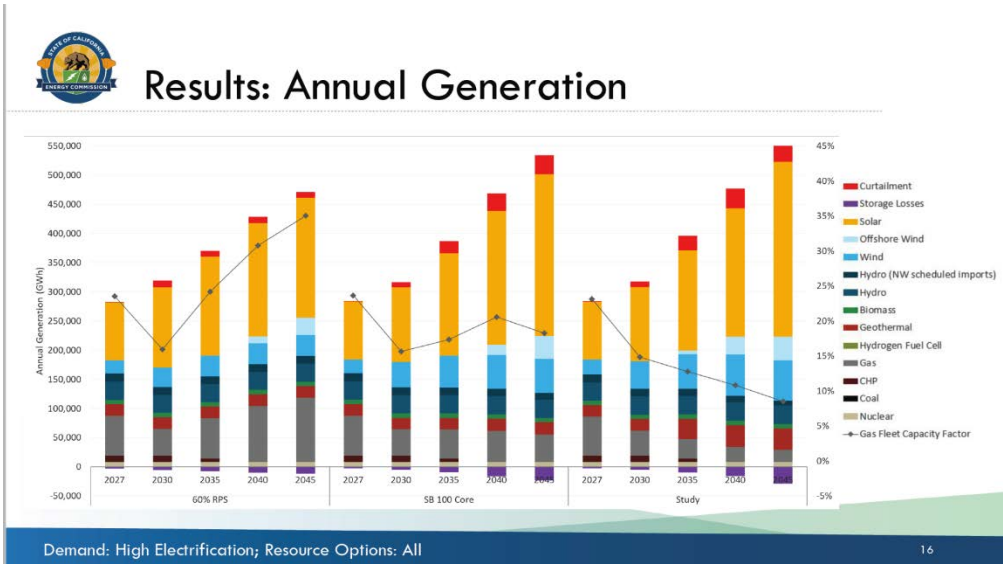
GridLiance West was formed to partner with electric cooperatives, municipal utilities, joint action agencies, irrigation districts, and renewable energy developers in the California Independent System Operator (CAISO) region in order to unlock the financial value of existing transmission assets as well as to invest in transmission projects with GridLiance West's partners. GridLiance West owns and operates approximately 165 miles of 230-kilovolt (kV) high-voltage transmission lines and related substation infrastructure within the CAISO footprint but located in rural Southern Nevada. GridLiance West is a non-load-serving Participating Transmission Owner (PTO) in the CAISO. The region that GridLiance West serves encompasses significant lands available for ready permitting of solar/storage hybrid, wind and geothermal energy. There are currently 3,097 MW of signed interconnection requests or Large Generator Interconnection Agreements in place of renewable energy waiting to interconnect to the CAISO on GridLiance West's system.

GridLiance West appreciates the significant effort that the California Energy Commission (CEC), Public Utilities Commission (CPUC) and Air Resources Board (CARB) have put into the SB100 study and the thorough and professional manner in which the work has been conducted and vetted.

We appreciate the opportunity to offer these comments in response to the preliminary results discussed at the September 2, 2020 workshop (September Workshop).

GridLiance West Agrees That Quick Action Is In Order

From GridLiance West's perspective, a central theme emerged from the workshop: near-term buildout of no-regrets renewable sources to serve California will be incredibly beneficial. The study analysis shows that under either the Core Assumptions or the somewhat more aggressive "Study" scenario assumptions, a higher level of buildout in the early years dramatically reduces the need for fossil production.[1]



GridLiance West agrees with other workshop commenters that near-term action by the agencies is critical, and that action must be taken today. For example, Bernadette Del Chiaro from California Solar and Storage stated that "we need sustained buildout to meet the goals, but that we're not on [that path] today."[2] Additionally, Alex Morris indicated that getting started in pursing no-regrets actions is critical, and that the state risks analysis paralysis which will cause [meeting the state's goals] to be more

[1] SB100 Draft Results Presentation, September 2, 2020. TN-234549 (Results Presentation), p. 16.
[2] Workshop video transcription at 03:07:15.

challenging if we don't start now.[3] Shannon Eddy also commented that hesitation is one of the biggest barriers we face[4] and that the transmission system must be able to support the delivery of new renewable energy coming online.[5]

The reality is that, if action does not result from the agencies' activities this year to ensure that the build out of renewable energy happens and that the new energy can be delivered through the CAISO grid, then collectively we are losing ground on meeting the state's goals.

Transmission Is Critical to Meeting SB100 Goals

As mentioned above, Shannon Eddy from the Large-Scale Solar Association commented at the workshop regarding the need for upgrades to the transmission system to support the renewable development. Similarly, Danielle Mills from the American Association of Wind Energy commented that there are over 1400 MWs of transmission upgrades that would allow additional renewable energy to come online now.[6] GridLiance West supports these statements. The CAISO has studied renewable portfolios in several of its last Transmission Planning Process (TPP) cycles, yet policy projects are not getting approved and the solution to further concentration of renewables on the system seems to be to apply "remedial action schemes," effectively curtailing the generation. The current CAISO planning guidelines call for any such scheme to curtail no more than the largest single contingency, currently one Diablo Canyon unit at 1150 MW. Thus, these remedial schemes are not effective techniques for managing transmission contingencies in areas with significant renewable penetration.

The CAISO has many avenues to allow it to delay approving transmission upgrades, and delaying approval is a lower risk solution for the CAISO. Yet in policy processes, including this workshop and the CPUC's

[3] Workshop video transcription at 03:50:41 – 03:51:23.
[4] Workshop video transcription at 03:06:08.
[5] Workshop video transcription at 03:05:06 – 03:05:13.
[6] Workshop video transcription at 03:06:08.

Integrated Resource Planning (IRP), the CAISO has asked repeatedly for clear, actionable, guidance.[7] The CAISO seems to recognize that putting off transmission buildout decisions is becoming untenable. At the same time, the CAISO needs the support of the other agencies regarding CAISO approval for these near-term no-regrets choices.

GridLiance West has submitted transmission upgrade study requests to the CAISO in the past several cycles. While the CAISO has not found sufficient "need" for these projects, the CPUC's IRP process can only include a fraction of the available build out and available queue resources until the transmission is upgraded. All agencies involved need to coalesce and convey to the CAISO that it is acceptable for them to recommend transmission upgrades that will cost-effectively enhance the ability for loads to make use of the renewable and storage projects shown by the SB 100 and IRP studies to be needed to meet climate goals. **Transmission Enhancements Create High Quality Jobs and Provides Benefits to DACs**

GridLiance West appreciates the workshop presentation and statements of Shrayas Jatkar from California Workforce Development. GridLiance West notes that it is not only the renewable projects, but also the transmission needed to support energy delivery from the renewable projects, that creates impactful jobs and contributes to disadvantaged communities (DACs).

The first phase of GridLiance West's Silverado project – which includes a set of transmission upgrades submitted to the CAISO for study in the 2020-2021 TPP – will create 2,039 new jobs for California residents even though the phase I construction is in Nevada, according to a July 2020 economic impact study conducted by Blue Sky consulting group that is included with these comments. (As expected, the study also shows that additional jobs and economic benefit would also accrue to Nevada.) The International Brotherhood of Electric Workers (IBEW) CA Locals 47 and 1245, along with NV Locals 396, 357 and 401,

[7] Workshop video transcription at 04:04:10 – 04:05:02.

also support the GridLiance West transmission projects.[8] These projects will ensure that IBEW workers can keep career-track jobs in the midst of the COVID pandemic.

Further, the area where the transmission projects will be built (e.g., Pahrump, Amargosa and Nye County generally), and where additional renewable energy and storage projects would thereby be able to interconnect, are considered DACs by measure of median income and likely by other measures as well.[9]

GridLiance West appreciates the ability to submit these comments and would welcome the ability to discuss these issues with the Agency or otherwise participate in the SB100 study.

Sincerely,

Michael Landgraf
President
GridLiance West

[8] IBEW letters of support are also included with these comments.

[9] It is not entirely clear whether impacts of SB 100 for DACs outside of California are being considered. It would, however, seem counter to the underlying goals of DAC treatment to fully disregard the welfare of DACs within the CAISO footprint, directly neighboring California, but not in California.

MEMORANDUM

To: Interested Parties

From: James Paci and Matthew Newman

Date: July 28, 2020

Re: Silverado Renewables Connection: Economic Impact of Transmission Upgrades in the Southern Nevada Renewable Area

Executive Summary

Blue Sky Consulting Group was hired to review and study the economic impact of GridLiance West LLC's Silverado Renewables Connection, which consists of a proposed build-out of more than 630 miles of upgraded transmission lines and six new substations in southern Nevada and California. We estimate that the Silverado Renewables Connection will result in the following economic benefits to the state:

- Phase 1: Budgeted at $294 million, would deliver $347 million of economic activity, and create 2,039 new jobs for California residents.
- Phase 2: Budgeted at $315 million, would deliver $375 million of economic activity, and create 2,189 new jobs for California residents.
- Phase 3: Budgeted at $960 million, would deliver $1.75 billion of economic activity, and create 10,260 new jobs for California residents.

Silverado Renewable Connection, estimated to cost $1.57 billion over three phases, would create 14,488 new jobs and drive $2.47 billion of economic activity. Additionally, by connecting California energy consumers to new sources of renewable energy supply identified by the California Public Utility Commission (CPUC) and California Energy Commission (CEC), GridLiance West's phased development would help the state meet its renewable energy portfolio standard and contribute to reduced electricity costs for California ratepayers.

Project Overview

GridLiance West's transmission upgrades would provide Californians with access to over 3,000 MW of renewable energy by building out transmission capacity connecting to a resource area of over 450,000 acres in southern Nevada that includes solar, wind, and geothermal renewable potential. According to the CPUC and CEC, the southern Nevada renewable area is suitable for the renewable generation needed to help meet California's mandated reductions in greenhouse gas (GHG) emissions to 40% below

the state's 1990 level by 2030.[1] The CPUC's annual Integrated Resource Planning (IRP) recommendations indicate the need to construct renewable energy generation facilities—*e.g.*, solar and wind installations. These, in turn, will create the need for investments in the state's electric grid to resolve transmission constraints and deliver energy where it is needed.

Silverado Renewables Connection would be completed in phases. Completing Phase 1 upgrades is necessary to realize the potential benefits of the Phase 2 upgrades and the Phase 3 California transmission expansion. Phase 1, estimated at $294 million, calls for the upgrade of 226 miles of transmission lines in Nevada. Phase 2 upgrades, estimated at $315 million, would extend the lines built in Phase 1 an additional 206 miles into Bishop, California, to access additional renewable resources, and include the construction of four new substations. Phase 3 would connect this upgraded transmission network to locations in southern California, following one of three possible paths: from Bishop (near the north end of the CPUC-designated renewable areas) to Antelope Valley, California; from Mead, Nevada (at the area's southern end) to Adelanto, California; or from El Dorado, Nevada (near Mead) to Lugo, California. All three paths would cost roughly the same amount. For purposes of this memorandum, we have analyzed the first path, from Bishop to Antelope Valley, that GridLiance West estimates would cost $960 million.

Economic Impact Overview

Each of the three phases requires hiring construction workers, engineers, and other workers, and purchasing the materials and equipment needed to build the proposed substations and transmission lines. Our analysis of each phase's economic impact assesses both (1) the total dollar value of any economic activity in California as the result of this construction; and (2) the total number of jobs (for California residents) likely created by this activity.

While all of Phase 1 and part of Phase 2 construction takes place within Nevada, these activities would mainly provide economic benefits to California. The southern Nevada renewable area is located within the jurisdiction of the International Brotherhood of Electrical Workers (IBEW) Local 47, headquartered in southern California. Based on past projects in the area, most workers on Phases 1 and 2 would be residents of California. Similarly, most materials and equipment suppliers for these projects would likely be based in the state.

Following the construction periods, these transmission upgrades also will create new, permanent California jobs, since California workers and firms will operate and maintain two of the new substations and transmission lines. (Such permanent impacts are especially likely if Phases 2 and 3 are completed since these phases involve the construction of substations and transmission lines in California.) In addition, the system upgrades will help in lowering energy costs for Californians, which can further stimulate economic activity. This analysis, however, focuses on the immediate benefits of the economic activity resulting from the construction planned for each phase.

Overview of Economic Analysis Approach

Economic effects were calculated using the IMPLAN model. Planners and regional economists use input-output models such as IMPLAN to measure and project the impacts of local economic changes, including the construction of transmission upgrades. IMPLAN allows researchers to estimate not only the "direct" effects of an economic change on a region—*i.e.*, the extent of local spending on wages and supplies by

[1] The findings are captured in the California Energy Commission, "Energy Commission Staff's Proof-of-Concept to Allocate Renewable Resource Portfolios Selected by RESOLVE to Specific Locations on the Electric Transmission Grid," February 2018.

firms building new transmission capacity—but also the "multiplier" effects of an economic change (the resulting local increase in economic activity as these workers and suppliers spend money in the local region).

Input-output models such as IMPLAN estimate the effects of changes in one industry on other, related industries based on purchases made in these related industries. For example, constructing new substations and transmission lines requires inputs from firms in other industries such as those that provide steel and cement, and from associated services, such as engineering, design, and consulting. The economic activity resulting from the linked suppliers of goods and services are classified as indirect impacts. The workers employed through direct and indirect activities also spend part of their incomes in the local region, which creates additional demand for goods and services from local firms. For example, construction workers and workers employed in supplier firms spend part of their paychecks on groceries and clothing. These employee consumption activities are known as induced impacts. The IMPLAN model provides the detailed data necessary to estimate the indirect and induced impacts (collectively, the multiplier effects) within a defined study area. The multipliers describe the incremental increase in economic activity created in all included industries caused by a change in final demand from any specific industry.

We relied on the IMPLAN model to estimate the number of new private-sector jobs created in California by transmission construction activity and the new spending by the employees and contractors working on the project, as well as those of the project's suppliers. To capture the entire range of economic effects, we calculated the direct effects as well as indirect and induced effects.

Adjusting IMPLAN to Estimate Economic Impact

By default, the total *direct* economic effect, within a defined study area, of any proposed project is equal to the project's total budget; indirect and induced effects are essentially proportional to this initial direct effect. Because Phases 1 and 2 are sited in Nevada, however, with labor and materials sourced, in part, from Nevada or other states, our analysis makes two key adjustments.

First, isolating the total direct economic impact on California requires adjusting the total budget for these phases by the amount that would be paid directly to non-California workers or firms. To make this adjustment, we rely on GridLiance West's estimates of the share of each expenditure category that would be allocated to non-California workers or suppliers. For Phase 1, $200 million of the total $294 million budget would be directed to California workers or firms. In Phase 2, the California share amounts to $216 million of the $315 million budget. For Phase 3, no adjustment is required because the construction takes place entirely within California.

Second, most California workers for Phases 1 and 2 would commute to Nevada (at least for part of each week or month) for the duration of their work. Because IMPLAN, by default, assumes that in-state workers spend nearly all of their wages in-state, we reduced the induced effects estimated by IMPLAN for these phases to reflect the "leakage" of these California wages to Nevada sources, such as grocery stores, gas stations, and lodging.[2] In aggregate, this adjustment led to a reduction of $16 million of induced effects for Phase 1 and $18 million of induced effects for Phase 2.

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[2] Federal government employee per diem schedules were used to estimate the percentage of wages that would spend in Nevada. For trips to Nevada, employees are provided $55 per day to cover meals and incidentals. *See* US General Services Administration, "FY2020 Per Diem Rates for Nevada," available at: https://www.gsa.gov/travel/plan-book/per-diem-rates/per-diem-rates-lookup/?action=perdiems_report&state=NV&fiscal_year=2020&zip=&city=.

Economic Impact for California

Phase 1 construction entails upgrading 226 miles of 230 kV transmission lines near the western border of Nevada. These upgraded lines would span from Sloan Canyon, in the southern corner of the state, northwest to Mercury, Nevada. While this phase would take place entirely within Nevada, it falls within the jurisdiction of the IBEW Local 47. The vast majority of members of this Local are California residents. As a result, we estimate that 75% of workers for Phase 1 would reside in California.

In total, for Phase 1, we estimate that GridLiance West's proposed $294 million expenditure would create 2,039 new jobs for California residents and result in $347 million of total economic benefits to California.

Phase 2 construction entails connecting the transmission lines upgraded in Phase 1 to a substation in Bishop, California. This phase requires upgrading 206 miles of transmission line and building four new substations—two in California. As in the analysis for Phase 1, we estimate that 75% of the workers hired for Phase 2 would reside in California.

For Phase 2, an estimated $315 million project budget results in the creation of 2,189 jobs for California residents and $375 million of economic benefits.

Phase 3 (as analyzed in this memorandum) entails the upgrade of an additional 201 miles of transmission lines between Bishop Control (the terminus substation of Phase 2), and a new substation in Antelope Valley, California. Because all of Phase 3 would take place within California, we estimate that 100% of the phase's direct economic impact would be in California. The nearly $1 billion of estimated spending on this final phase would result in $1.75 billion of economic benefits and the creation of 10,260 jobs. The two other alternative routes for Phase 3 would likely have similar economic impacts.

The estimated cost to complete all three phases is $1.57 billion, which would create 14,488 jobs in California and generate economic benefits worth $2.47 billion.

Table 1 below and Table 2 on the following page summarize these findings and allocate the total impact for each phase among direct, indirect, and induced effects. Table 3 lists the total number of California resident jobs that would be created in each industry as a result of each phase of construction.

Table 1 - Economic Impact of Phases 1 - 3 (amounts in millions)

Phase	**Location**	**Total Budget**	**Economic Impacts (CA Only)**			**Total Econ. Impact**
			Direct	Indirect	Induced	
Phase 1	NV only	$294	$200	$60	$87	**$347**
Phase 2	NV and CA	$315	$216	$65	$94	**$375**
Phase 3	CA only	$960	$960	$288	$497	**$1,745**
All Phases		$1,569	$1,376	$412	$678	**$2,467**

Table 2 – Jobs Impact of Phases 1 - 3

Phase	Location	Jobs Created (CA Only)			Total Jobs
		Direct	Indirect	Induced	
Phase 1	NV only	1,267	269	503	**2,039**
Phase 2	NV and CA	1,354	291	544	**2,189**
Phase 3	CA only	6,090	1,293	2,877	**10,260**
All Phases		8,711	1,852	3,924	**14,488**

Table 3 – Jobs Created by Industry

Industry	Total Jobs
Construction of new power and communication structures	8,711
Wholesale trade	350
Full-service restaurants	244
Architectural, engineering, and related services	225
Real estate	225
Limited-service restaurants	222
Individual and family services	140
Employment services	138
Hospitals	137
All other food and drinking places	121

Related Benefits

This memorandum focuses exclusively on the project's construction-related economic benefits. In addition to this impact, however, the project would likely result in at least three other significant benefits to Californians:

- The project would likely result in reduced energy prices for California ratepayers, even after accounting for the costs of the new transmission lines and substations, because it is generally more cost-effective to build out and operate renewable energy sources in southern Nevada than at other potential sites in California. The CPUC, in conjunction with the CEC, identified the southern Nevada renewable area as one of several areas where development of renewable generating facilities would help the state to meet its renewable energy portfolio targets.[1] Up to 3,000 MWs can be sited in southern Nevada, with additional renewable generation possible with additional transmission investment.

[1] California Energy Commission, "Energy Commission Staff's Proof-of-Concept to Allocate Renewable Resource Portfolios Selected by RESOLVE to Specific Locations on the Electric Transmission Grid," February 2018.

- The project would create new permanent jobs maintaining and operating transmission lines and substations, in addition to the construction-related jobs created for the duration of the three phases. The upgrades in California would also generate additional property taxes for schools and local governments on an ongoing basis.
- These investments would help the state to meet its 100% renewable and GHG reduction goals. While quantification of the net economic or social benefits of the GHG reduction is uncertain, the social cost (per ton of carbon dioxide) is estimated to be $50 or more.[3]

Conclusion

By connecting California energy consumers to new sources of renewable energy supply identified by the CPUC and CEC, the Silverado Renewables Connection project would help the state meet its GHG reduction targets. This will create significant economic benefits for state residents and help in lowering their cost of electricity. Construction of upgraded lines and substations under Phase 1 would provide over 2,000 new jobs for California residents and result in $347 million of economic activity over the next several years. If all three phases are completed, 14,488 jobs will be created, with an estimated $2.47 billion of economic benefits.

[3] International Monetary Fund, "Carbon Calculus," December 2019, available at: https://www.imf.org/external/pubs/ft/fandd/2019/12/pdf/the-true-cost-of-reducing-greenhouse-gas-emissions-gillingham.pdf

Coalition of California Utility Employees

1231 I Street, Suite 206
Sacramento, CA 95814
(916) 446-3413

July 16, 2020

The Honorable Gavin Newsom
Governor, State of California
State Capitol
Sacramento, CA 95814

Dear Governor Newsom:

We write to express our strong support for accelerating approval of proposed electric transmission upgrades to the portion of the California Independent System Operator (CAISO) grid operated by GridLiance West. This area is key to greenhouse gas (GHG) reductions, and it is critical that these upgrades be approved soon. Further delay will simply delay progress on the state's environmental objectives and delay putting Californians to work.

There is a series of electric grid enhancements necessary to unlock significant renewable resources favorably positioned to support California's aggressive yet achievable GHG emission reduction goals. These upgrades are part of a broader effort called the Silverado Renewables Connection. This first step will create millions of IBEW-labor hours of new, good union construction jobs and hundreds of millions in direct, multi-year stimulus wages in distressed, rural counties in California. It will also generate millions in added property tax revenue along the project route to help stabilize county government budgets decimated by COVID-19. Given the current employment crisis due to COVID-19, California IBEW Local 47 and 1245 strongly support this project for its access to important renewable generation, job creation, and economic recovery benefits.

Silverado Renewables Connection would provide Californians with access to over 3,000 MW of renewable energy by building out transmission capacity that interconnects a renewable-rich California-Nevada desert area to California load centers. This proposal follows the finding of the California Public Utilities Commission (CPUC) and the California Energy Commission, in 2018, that this southern Nevada renewable energy zone could be used to help the state meet its renewable energy portfolio standard,[1] which calls for a reduction in GHG emissions to 40% below the state's 1990 level by 2030. This effort is reflected by the CPUC annual Integrated Resource Planning recommendations. It requires both the construction of renewable energy generation facilities—*e.g.*, solar and wind installations—as well as investment in the CAISO's electric grid to deliver renewable energy supplies to electricity demand locations. Due in part to transmission capacity constraints, the state is currently unable to use all the renewable power produced each day. While more than two-thirds of the power needed to meet California's goals will come from renewable generation within California's borders, areas like this neighboring southern Nevada renewable zone are critically important to meeting the goals cost effectively.

This project begins with the CPUC siting within the GridLiance West service area 2,170 MWs of the 3,006 MWs already designated by the CPUC for southern Nevada. This has already occurred and was transmitted in a renewable policy

[1] See culminating finding from the California Energy Commission, "Energy Commission Staff's Proof-of-Concept to Allocate Renewable Resource Portfolios Selected by RESOLVE to Specific Locations on the Electric Transmission Grid," February 2018.

portfolio the CPUC provided in March to the CAISO. In the GridLiance West area, there is significant pent up demand to develop renewable energy generating projects as demonstrated by the 2,500 MW of active generator requests to connect thereinto the CAISO.

For the next step, the CAISO would perform an economic assessment and approve the portion of the Silverado Renewables Connection transmission upgrades found to be cost effective based on the 2,170 MWs of renewable generation added by the CPUC. Importantly, no federal or state tax revenue will be required to fund this project.

During this pandemic, IBEW Locals 47 and 1245 have focused on keeping our members safe while we work on the infrastructure that supports California's clean energy future and economic recovery. We have a long history of supporting California's shift to renewable energy, and we stood proudly with the state in support of the Renewable Portfolio Standard when it was first passed into law. In short, the work performed by the members of Local 47 and 1245 has been essential to California's ability to achieve its renewable energy growth.

This project has strong support from the IBEW in both California and Nevada and would result in a win-win for the creation of union jobs; reliable, cost-effective renewable energy and meeting climate goals; and critically important, badly needed economic stimulus.

We urge you to support projects like GridLiance West's Silverado Renewables Connection that will continue to help drive California's economy in the future.

Sincerely,

Patrick Lavin
Business Manager/Financial Secretary
IBEW Local 47

Tom Dalzell
Business Manager
IBEW Local 1245

CC: Ana Matosantos, Energy Czar, Governor Newsom
Alice Reynolds, Senior Advisor for Energy and Environment, Governor Newsom

International Brotherhood of Electrical Workers
Local Union 396

Jesse Newman
Business Manager/Financial Sec.

Shannon Skinner
President

VIA ELECTRONIC DELIVERY

The Honorable Steve Sisolak
Capitol Building
Carson City, NV. 89701

Dear Governor Sisolak:

During this pandemic, the IBEW has remained focused on keeping our members safe while working on the infrastructure that supports Nevada's clean energy future and economic recovery. We have a long history of supporting Nevada's shift to clean energy. We stood proudly with the state in support of Question 6 and the bill to make it happen, SB 358, which will Nevada's RPS to 50% by 2030. In short, the work performed by the members of the Nevada IBEW has been essential to Nevada's ability to achieve its renewable energy growth.

We ask for your support for approval of proposed electric transmission upgrades to a portion of the California Independent System Operator (CAISO) grid operated in Southern Nevada by GridLiance West. These upgrades are part of a broader effort called the Silverado Renewables Connection. This project will create thousands of IBEW-labor hours of new, good union construction jobs and hundreds of millions in direct, multi-year stimulus wages in distressed, rural counties in southern Nevada.

While the Silverado Renewables Connection would provide California with access to over 2,600 MW of renewable energy, both the transmission upgrades and the construction of solar and storage projects will be built in Nevada. It also will help California access more than 2,600 MW of renewable energy, creating a win-win opportunity for Nevada and California as the states work together to battle climate change.

Nevada can power its economy with renewable energy development and transmission upgrades which will afford the state access to much more clean energy.

Furthermore, we ask you to reach out to California Governor Gavin Newsom with your support for Silverado Renewables Connection and request his support in fast-tracking approval of these important transmission upgrades on the GridLiance West system. This project will benefit both states and we know your support will make the difference with Governor Newsom.

We would appreciate the opportunity to discuss this with you at your earliest convenience and look forward to hearing from you and coordinating our efforts to get these projects approved.

Regards,

Jesse Newman
Business Manager/Financial Sec.
IBEW Local 396
Jesse@IBEW396.org

GRIDLIANCE

Silverado Renewables Connection

Transmission Upgrade ($ in millions)	Cost
1. Innovation to Northwest Rebuild	$50
2. Desert View to Innovation Reconductor	50
3. Pahrump to Innovation Rebuild	40
4. Desert View to Northwest Reconductor	2
5. Pahrump to Sloan Canyon Rebuild	90
6. Desert View to Innovation #2	20
7. Desert View to Northwest #2	2
8. Pahrump to Sloan #2	40
Total	$294

These lines can be upgraded to enable 2,600 MWs of renewable generation.

Doing so will create over 5 million hours of work over 4 years.

Upper Gorge
Fish Lake Valley
Deep Springs
Bishop Creek 5
Bishop Creek 3
Inyo
Bishop Creek 4
Mammoth
Big Creek 1
Eastwood
Division Creek
Tolicha Peak
Nevada
California
Beatty
Jackass Flats (DOE)
Lathrop Switch
Mercury
Innovation
Valley
Valley Switch
Vista
Desert View
Northwest
Charleston
Pahrump
Gamebird
Thousandaire
Trout Canyon
Sandy
Amargosa
Mead
Sloan Canyon
Marketplace
McCullough
Eldorado
Bighorn
Ivanpah
Navy 1
Argus
Midway
Randsburg
Tiefort
Cima
Winderness
Windhub
Pastoria
Kramer
Rocket Test
South Base
Whirlwind
Cool Water
Pisgah
Warne
Antelope
Soport
Castaic
Adelanto
Victorville
Goleta
Vincent
Pardee
Lugo
Cottonwood
Santa Clara
Moorpark
Sylmar
Mandalay
Gould
Ormond Beach
Padua
San Bernardino
Rancho Vista
Mesa
Chino
Mira Loma
Vista
El Segundo
Nido
Devers
Serrano
Mirage
Valley
Julian Hinds
Red Bluff
Colorado River
Huntington Beach
Pacific Ocean
San Onofre
Black Mea

Legend

- Area worked by IBEW
- Qualifying Resource Area
- Electric Substations

GLW/VEA Transmission Lines
- GLW 230 kV
- VEA 138 kV
- VEA 55 kV

Electric Transmission Lines
- LADWP +/-500 kV DC
- LADWP 500 kV
- LADWP 230 kV
- SCE 500 kV
- SCE 220 kV
- SCE 115 kV
- SCE 55 kV
- IPP +/- 500 kV DC

GRIDLIANCE POWER ENGINEERS

IBEW LOCAL 357

SERVING SOUTHERN NEVADA SINCE 1931

James Halsey
Business Manager / Financial Secretary

Charles T. Stetson
President

August 25th 2020

Governor Steve Sisolak
State Capitol Building
101 N. Carson Street
Carson City, NV 89701

Dear Governor Sisolak:

During this pandemic, the IBEW 357 has remained focused on keeping our members safe while working on the infrastructure that supports Nevada's clean energy future and economic recovery. We have a long history of supporting Nevada's shift to renewable energy, and we stood proudly with the state in support of SB 358, increasing Nevada's RPS to 50% by 2030. In short, the work performed by the members of Local 357 has been essential to Nevada's ability to achieve its renewable energy growth.

We are writing to ask for your urgent support for approval of proposed electric transmission upgrades to a portion of the California Independent System Operator (CAISO) grid operated in Southern Nevada by GridLiance West. These upgrades are part of a broader effort called the Silverado Renewables Connection. This project will create millions of IBEW-labor hours of new, good union construction jobs and hundreds of millions in direct, multi-year stimulus wages in distressed, rural counties in southern Nevada.

While the Silverado Renewables Connection would provide California with access to over 2,600 MW of renewable energy, both the transmission upgrades and the construction of solar and storage projects will be built in Nevada. It also will help California access more than 2,600 MW of renewable energy, creating a win-win opportunity for Nevada and California as the states work together to battle climate change.

We need to power the economy with renewable energy development. We urge you to reach out to California Governor Gavin Newsom with your support for Silverado Renewables Connection and request his support in fast-tracking approval of these important transmission upgrades on the GridLiance West system.

We would appreciate the opportunity to discuss this with you at your earliest convenience and look forward to hearing from you and coordinating our efforts to get these projects approved.

Thank you in advance.

Sincerely,

James Halsey

James Halsey
Business Manager/Financial Secretary
IBEW Local 357

808 N. Lamb Blvd. · Las Vegas, Nevada 89110 · 702-452-9357 · Fax (702)-452-7191

August 27, 2020

Governor Steve Sisolak
State Capitol Building
101 N. Carson Street
Carson City, NV 89701

Dear Governor, Sisolak:

During this pandemic, the IBEW 401 has remained focused on keeping our members safe while working on the infrastructure that supports Nevada's clean energy future and economic recovery. We have a long history of supporting Nevada's shift to renewable energy, and we stood proudly with the state in support of SB 358, increasing Nevada's RPS to 50% by 2030. In short, the work performed by the members of Local 401 has been essential to Nevada's ability to achieve its renewable energy growth.

We are writing to ask for your urgent support for approval of proposed electric transmission upgrades to a portion of the California Independent Systems Operator (CAISO) grid operated in Southern Nevada by GridLiance West. These upgrades are part of a broader effort called the Silverado Renewables Connection. This project will create millions of IBEW-labor hours of new, good union construction jobs and hundreds of millions in direct, multi-year stimulus wages in distressed, rural counties in southern Nevada.

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We need to power the economy with renewable energy development. We ask you to reach out to California Governor Gavin Newsom with your support for Silverado Renewable Connection and request his full support in fast-tracking approval of these important transmission upgrades on the GridLiance West system.

We would appreciate the opportunity to discuss this with you at your earliest convenience and look forward to hearing from you and coordinating our efforts to get these projects approved.

Regards,

Jacob Haas
Business Manager /Financial Sec.
IBEW Local 401
Jhaas@IBEWLocal401.org