



# System Expansion Plan Update

## Agenda

- Increasing system to almost double in size
- Scott and Kifer Receiving Stations
- Northern Receiving Station
- Material Procurement
- PG&E Coordination
- 115 kV Transmission Line
- CAISO Transmission Line
- Operational Improvements and Developer Options



# SVP Receiving Stations Projects to Increase Reliability and Capacity

Scott and Kifer Receiving Stations (SRS & KRS):

- Replaces end of life infrastructure and increases capacity
- SRS constructed 1968 and KRS in 1975
- Full Rebuild - New 60kV/115kV Switchgear, control rooms, larger transformers, circuit breakers, disconnect switches, cable sealing, relocation of 60kV and 115kV transmission lines associated with each substation.
- 60% Design under review
- Ordered Transformers on January 2024
- Recommendation to authorize purchase circuit breakers May 7, 2024
- Recommendation to purchase disconnect switches, SSVT's, VT's and CVT's, CT/VT Combo unit for metering end of May 2024



**Scott Receiving Station**



**Kifer Receiving Station**



# SRS and KRS Schedule

- 100% Design Package – 3<sup>rd</sup> quarter 2024
- Advertise Projects – 4<sup>th</sup> Quarter 2024
- Start Construction – 2<sup>nd</sup> Quarter 2025
- 115 kV Completion – 3<sup>rd</sup> Quarter 2027
- 60 kV Completion – 4<sup>th</sup> Quarter 2028
- Close out and demo existing – 1<sup>st</sup> quarter 2029
- Key Schedule Consideration
  - Material Procurement
  - PG&E Coordination



**Scott Receiving Station**



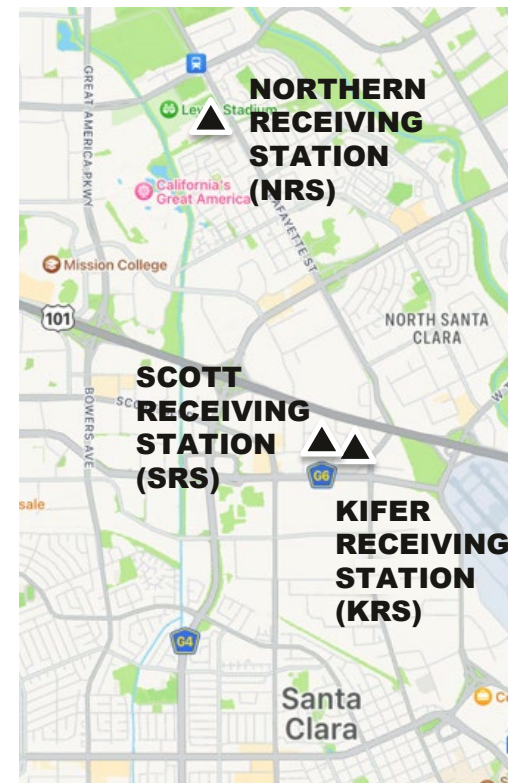
**Kifer Receiving Station**



# SVP Receiving Stations Projects to Increase Reliability and Capacity

## Northern Receiving Station (NRS):

- Relocation of two existing PG&E 115 kV overhead connections and CAISO meters, replacing with larger transformers, upgrade of existing main/transfer bus configurations, circuit breakers, disconnect switches and system protection improvements.
  - Replace two NRS 115/60kV Transformers (372 to 672 MVA)
  - NRS 115/60kV Transformer Spare (3<sup>rd</sup> Transformer)
  - Two new NRS 230KV Transformers (560 MVA), existing (420MVA) to remain in parallel.
- Developed value engineering cost estimates and sequencing plans
- Ordered Transformers on January 2024
- Recommendation to authorize purchase circuit breakers May 7, 2024
- Recommendation to purchase disconnect switches, VT's and CVT's, CT/VT Combo unit for metering end of May 2024







# Material Procurement

- Transformers – Delivery 2026

	Circuit Breakers	Disconnect Switches	Station Service Voltage Transformers	CT / VT Combo Unit for Metering	VTs, CVTs	Control Enclosure & P&C Panels
Current Status	Direct Negotiations	Reviewing Bids	Direct Negotiations	Developing Tech Attachments	Vendors Preparing Bids	Developing Tech Attachments
Estimated Bid release date	--	--	--	April	--	June
Actual Bid Release Date	1/26/2024	3/13/2024	3/22/2024	--	4/2/2024	--
Estimated Bid Deadline	4/3/2024	4/24/2024	4/19/2024	May	4/30/2024	July
Target Council Meeting Date	May	May	May	May	May	August
Estimated PO Date	May	June	June	June	June	September
Estimated Lead Time from RPO (weeks)	104-156	60	74	58	58	52
Required on Site Date	Q1 2026 thru Q2 2027	Q3 2025	Q1 2026	Q3 2025	Q3 2025	Q3 2025
Projected on Site Date	Under Negotiation	TBD	TBD	TBD	TBD	TBD

- Disconnect Switches must be delivered mid 2025
- Breakers must be delivered between mid 2026-mid 2027



# Material Procurement

## Circuit Breakers

- Two bids received on 4/3/24
- Staff outreached to vendors in October 2023 and received different information on cost and delivery dates
- Breaker costs came in over 80% more than anticipated
- Neither bid could meet the required delivery schedule and were deemed non-responsive
- City began direct negotiations following non-responsive determination with bidders and additional vendors
- After initial discussions, it was confirmed that some vendors do not provide 80kA breakers or their 80kA breakers are too large for implementation
- Determined vendors may be able to provide 60/115/230kV, 63kA breakers in accordance with SVP's requested delivery schedule for 2/3 of the order
- Purchase of some 80kA breakers in accordance with SVP's requested delivery schedule may be accommodated



# Material Procurement

## Circuit Breakers

- Determined vendors may be able to provide 60/115/230kV, 63kA breakers in accordance with SVP's requested delivery schedule for 2/3 of the order.
- Purchase of some 80kA breakers in accordance with SVP's requested delivery schedule may be accommodated.
- Final quantities and costs still being confirmed.
- Note – Some 63kA breakers may need to be upgraded to 80kA at a near term future date.
- Need to confirm purchases and issue letters of commitment to vendors ASAP.
- Purchase Orders to be issued after targeted Council consideration on May 7, 2024.



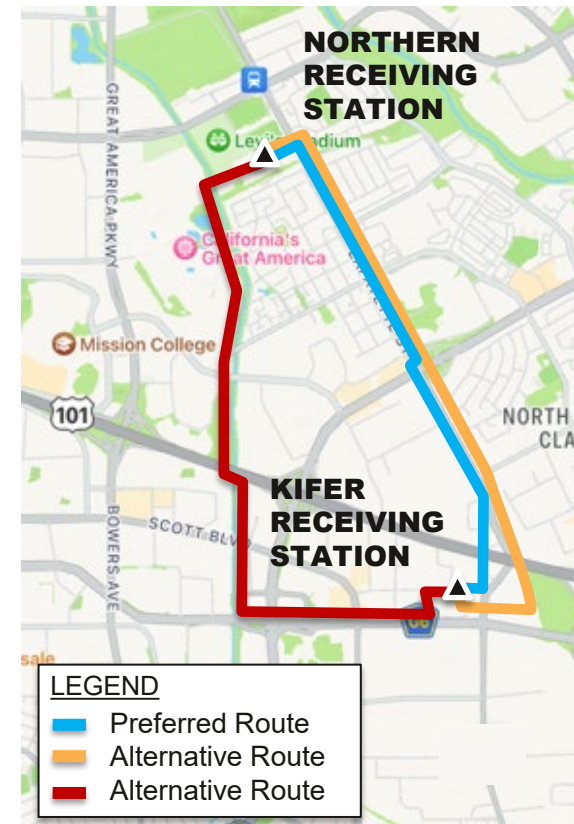
# PG&E Coordination

- Comprehensive data/information request sent to PG&E in January
- PG&E provided a limited response on April 10th with most of the information requested withheld stating that after careful consideration they will be providing some but not all of the information requested
- 60% design packages by Engineers of Record developed based on assumptions of what PG&E will require. Designs may need to be revised upon receipt of missing information from PG&E and or PG&E staff review of proposed designs which could impact project schedules
- System Expansion Plan (SEP) Team still trying to schedule SEP project coordination meetings with PG&E staff for interconnection to PG&E systems which may impact protection and control drawings and logic.



# 115kV Transmission Line Northern to Kifer Receiving Station

- Project Scope: Construct a new 115kV overhead transmission line of approximately 2.24 miles between Northern Receiving Station and Kifer Receiving Station
- Key Items: constructability, existing utilities, power delivery, potential growth, aesthetics, tree removals, maintenance considerations, construction costs, and schedule
- Refining preferred route alignment along Lafayette Street, Bassett Street, and Duane Avenue
- Council informational report March 19<sup>th</sup>
- CEQA public scoping meeting April 25<sup>th</sup> , May 23<sup>rd</sup>
- Preferred Route and CEQA consideration expected November 2024

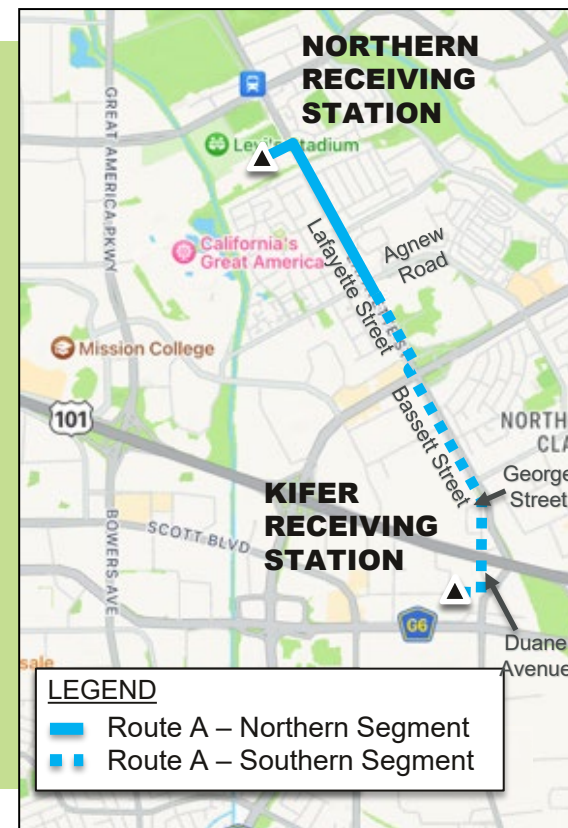




# Preferred Route

## Total Route Spans 2.24 miles

- NRS to Agnew (Northern Segment)
  - 0.74 miles
  - Overhead and underground options
  - Lafayette Street
- Agnew to KRS (Southern Segment)
  - 1.5 miles
  - Replaces existing transmission lines where available
  - Lafayette Street, Bassett Street, Duane Avenue



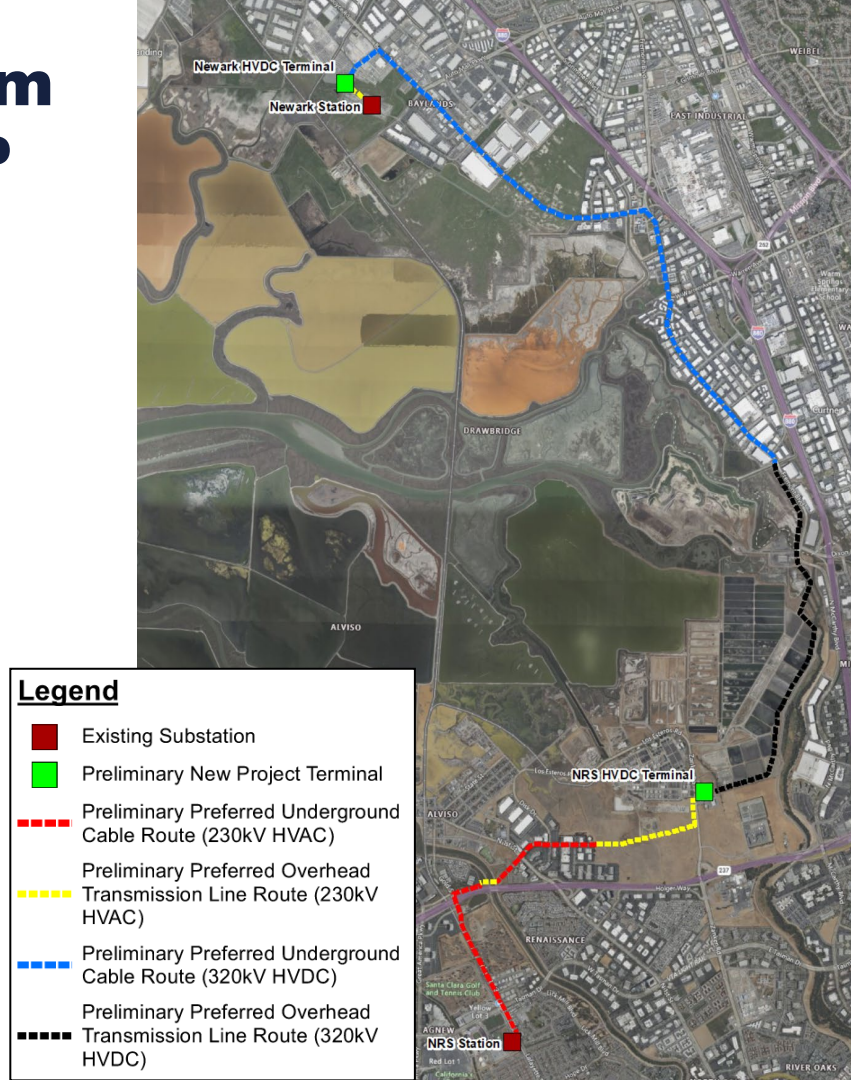


# 115kV Transmission Schedule Assuming Overhead Option

Task	Timeframe
Planning	Jul. 2021 – Jul. 2022
Call for Proposals	Jul. 2022 – Jan. 2023
Design	Oct. 2022 – Nov. 2026
Easement Acquisition	Jan. 2024 – May 2026
CEQA	Jan. 2024 – Nov. 2024
Community Outreach	Apr. 2024 – Jun. 2024
Permits	Feb. 2024 – Nov. 2025
Material Procurements	Oct. 2024 – Nov. 2026
Construction Advertising & Awards	May 2026 – Nov. 2026
Construction/Close Out	Nov. 2026 – Mar. 2028

# CAISO Transmission Line from PG&E Newark Station to SVP Northern Receiving Station

- LS Power Project scope:
  - Two High Voltage Direct Current (HVDC) Terminals,
  - $\pm 320$  kV HVDC underground and overhead transmission line between the terminals (preliminary preferred route is ~8 miles)
  - 230 kV interconnection at each station
- Target in-service date by mid 2028
- Monthly Project Coordination Meetings
- Developing Interconnection Agreement between LS Power and SVP for Council Action.





# Interim Operational Improvements and Developer Options

## Interim Operational Improvements

- Operations of Current Transformers and SRS and KRS
  - Can existing transformers operations be enhanced
  - Hiring specialized firm to perform analysis
- Existing 60kV Loop System
  - Can Loops be operated differently
  - Modeling underway

## Developer Options for Additional Capacity

- Continue to be open to options
- Scheduled for Council in June 2024



## Next Steps

- Meeting every two months on the last Tuesday on the month
  - Highlight changes/updates from previous meeting
- SVP webpages with this presentation and project updates
  - Provide email to receive updates to website
- Council Actions per this presentation
- 115 kV public scoping meeting