





City Council

**Item #6: Silicon Valley Power
Bi-Annual Update**

RTC 24-800

August 20, 2024

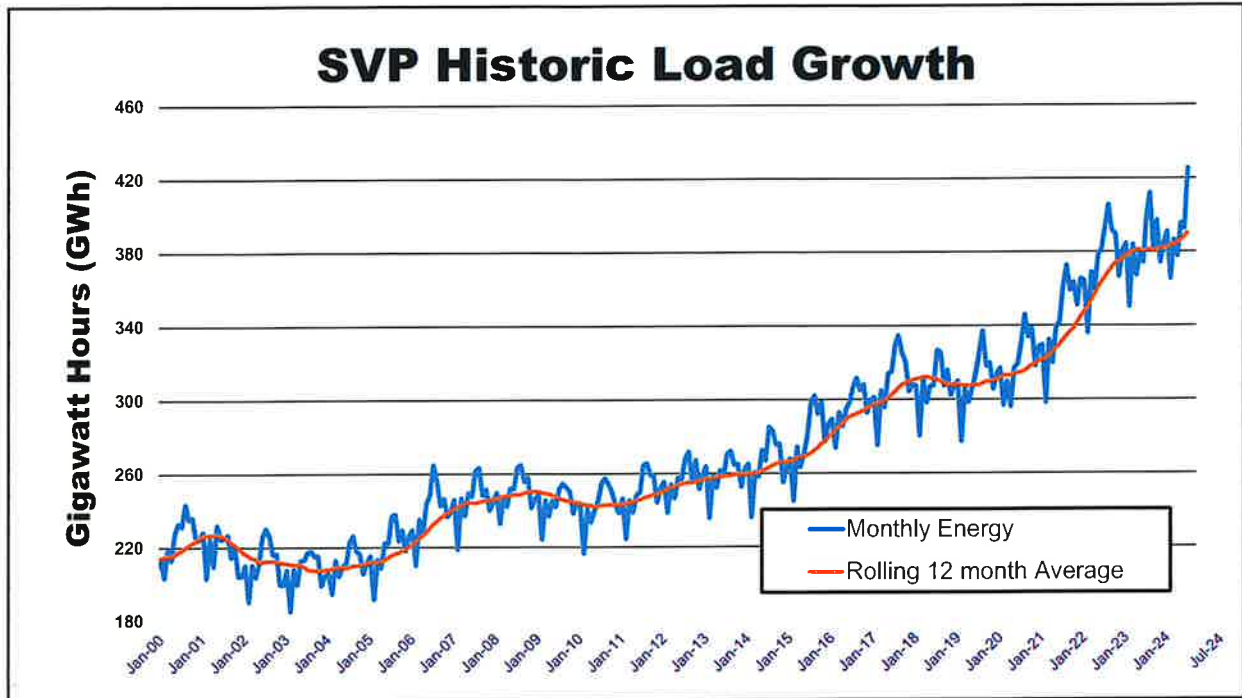
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Agenda

- Growth Plan Update and System Limitations
- Update on System Expansion Projects
- Update on the Outage Management System
- SVP Martin Avenue Leased Office Space relocation and expansion
- Six-month look-ahead including proposed rate increase

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System Growth and Limitations

- We have six (6) data center projects entitled or under construction
- Latest CAISO Analysis – CAISO ability to serve 1,296 MW to SVP
- Can't currently serve all large Data Centers who would like to be in Santa Clara
- Beyond the six data centers:
 - 10 additional projects are interested in completing System Impact Studies
 - 2 additional projects have inquired and are yet to be studied
- How much growth is feasible? 2025 discussion




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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 and expansion
- **90% design underway**
- Ordered Transformers on January 2024
- **Council action to purchase circuit breakers May 7, 2024**
- **Council Action to purchase disconnect switches, metering & relaying transformers, combination revenue metering on May 28, 2024**
- **SVP will seek Council action on additional procurements prior to the end of the year (Control Enclosure and Protection & Control Panels)**





Scott Receiving Station (SRS)




Kifer Receiving Station (KRS)

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SRS and KRS Schedule

- 100% Design Package – 3rd quarter 2024
- Advertise Projects – 4th Quarter 2024
- Start Construction – 2nd Quarter 2025
- 115 kV Completion – 3rd Quarter 2027
 - Beneficial use from the new 115 KV Transformers
- 60 kV Completion – 4th Quarter 2028
- Closeout and demo existing – 1st quarter 2029
- Key Schedule Consideration
 - Material Procurement
 - PG&E Coordination





Scott Receiving Station



Kifer Receiving Station


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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.
- **60% design underway**
- Ordered Transformers on January 2024
- **Council action to purchase circuit breakers May 7, 2024**
- **Council Action to purchase disconnect switches, SSVT's, VT's and CVT's, combination revenue metering on May 28, 2024**
- **SVP will seek Council action on additional procurements prior to the end of the year (Protection & Control Panels, Capacitor Banks, Neutral Grounding Reactors)**

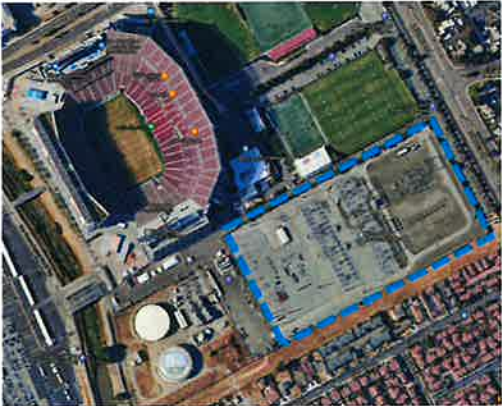


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NRS Schedule

- 100% Design Package – 4th quarter 2024
- Advertise Projects – 1st Quarter 2025
- Start Construction – 3rd Quarter 2025
- Work Completion – 3rd Quarter 2027
- Key Schedule Considerations
 - 2026 Superbowl
 - 2026 World Cup
 - Material Procurement
 - PG&E Coordination



Northern Receiving Station (NRS)

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Material Procurement

	Circuit Breakers	Disconnect Switches	Station Service Voltage Transformers	Combination Revenue Metering Transformer	Voltage and Capacitive Voltage Transformers	P&C Panels (NRS)	Control Enclosure & P&C Panels (SRS/KRS)	Capacitor Banks	Neutral Grounding Reactors
Current Status	Preparing PO	Preparing PO	Direct Negotiations	Reviewing Bids	Preparing NOIA	Developing Tech Attachments	Preparing to Issue RFB	Developing Tech Attachments	Developing RFB
Estimated Bid Release Date	-	-	-	-	-	September	August	September	August
Actual Bid Release Date	1/26/2024	3/13/2024	3/22/2024	5/9/2024	4/2/2024	-	-	-	-
Estimated Bid Deadline	4/3/2024	4/24/2024	4/19/2024	6/5/2024	4/30/2024	October	August	October	September
Target Council Meeting Date	May	May	May	May	May	October	August	August	October
Estimated PO Date	May	June	June	August	June	October	September	September	October
Estimated Lead Time from RPO (weeks)	104-156	60	90	62	58	52	52	52	TBD
Required on Site Date	Q1 2026 thru Q2 2027	Q3 2025	Q1 2026	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
Projected on Site Date	Under Negotiation	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD


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

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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
- Draft IS/MND published on July 31 with an in-person public meeting scheduled for August 22**
 - Public comment period closes on August 30
- Preferred Route and CEQA consideration scheduled for Council on October 8, 2024**



LEGEND

- Preferred Route
- Alternative Route
- Alternative Route



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

- LS Power will own and operate.
- Target in-service date by mid 2028
- Monthly Project Coordination Meetings
- Developing Interconnection Agreement between LS Power and SVP for Council Action.
- **The estimated project costs have increased from \$510 million (CAISO 2021-2022 Transmission Plan) to \$959 million.**
- **On 6/20, SVP became a party to this proceeding to participate in the decision-making process.**
- **Notice of Preparation and Scoping is currently underway for EIR (ends 8/30) with virtual public meetings held on 8/14.**




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Battery Energy Storage Project

- Capacity up to 50MW/200MWh (4 hours daily)
- Completed:
 - 30% Site Design (Electrical) & Transmission Line Design
 - 60% SVP Control Enclosure Design
 - 90% Civil Site Design
- Next Steps:
 - Complete Design Packages
 - Site Demolition
 - Long Lead Equipment Procurement
- Expected Completion Date:
 - 1st Quarter 2026



Example of a Tesla Megapack

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Interim Operational Improvements and Developer Options

Near Term Operational Improvements



- Exploring operational enhancements
 - SRS and KRS Transformer Ratings
 - Hiring specialized firm to perform analysis
 - Purchase of emergency standby transformers
- Existing 60kV Loop System
 - Exploring operational enhancements
 - Modeling underway

Developer Options for Additional Capacity

- Self-Generation (insert date of City Council approval)



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Outage Management System

What is it?

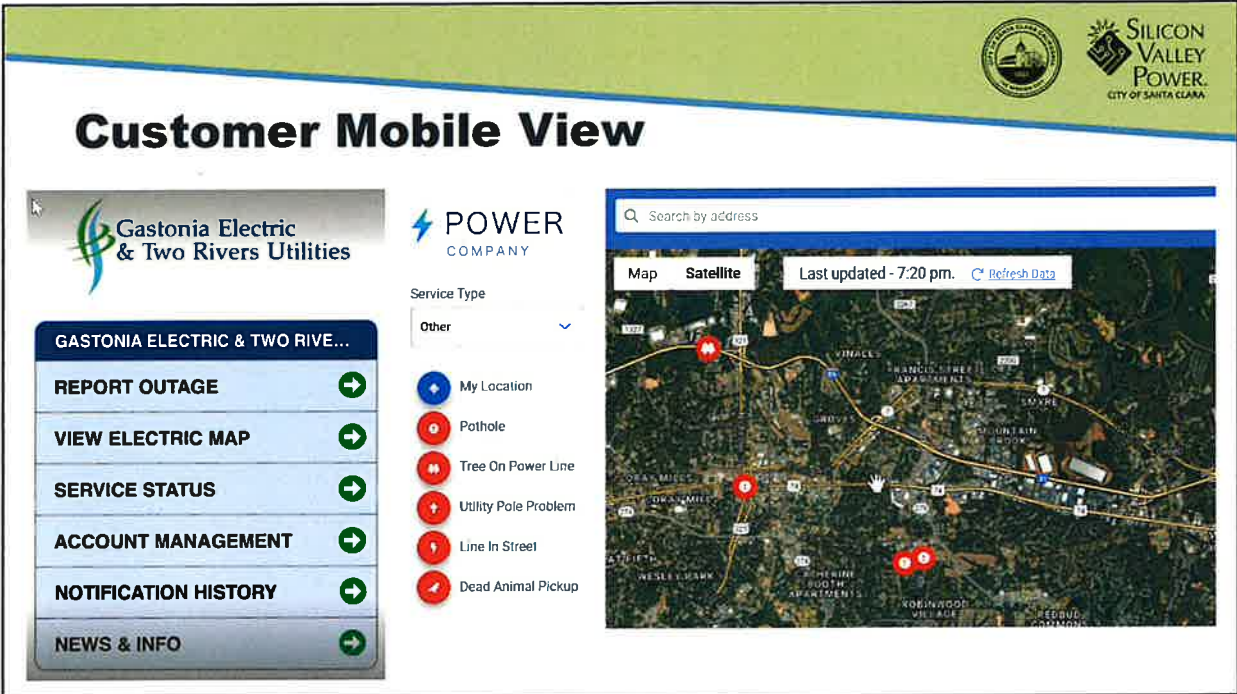
- An online control center that can quickly find out when and where power outages happen
- A smart tool that not only helps the utility fix problems quickly but also keeps customers better informed

Features

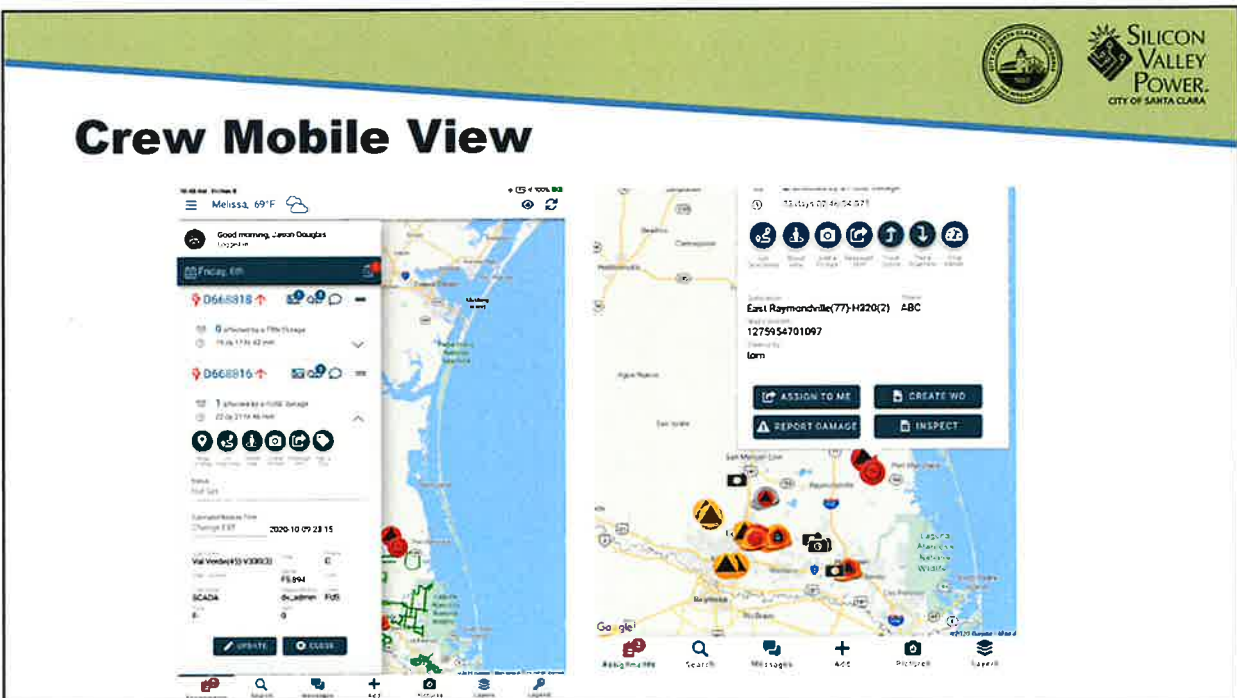
- Customer communications (Callouts, emails, mail as text, text messages, push notifications)
- Customer reporting solutions
- Expedited systems notifications
- Mobile ready
- Internal communications management
- Interactive Voice Response (IVR)

Timeline to implement – 9 to 12 months


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SVP Leased Office Space

- Currently have approximately 30,000 SF
- Lease expires October 2025
- Have determined SVP needs larger space
 - All SVP city hall staff relocated to Martin Avenue
 - Struggling to accommodate staff
 - All cubicles utilized even with 18% vacancy rate
- Negotiating 50,000 SF building space at same complex
 - Five-year term with future options
 - CBRE providing negotiating support

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Upcoming Items

- Next 6 months highlights
 - Outage Management System Contract (August)
 - Contracts for Control Enclosures and P&C Panels at SRS/KRS
 - Contracts for P&C Panels, Capacitor Banks, Neutral Grounding Reactors at NRS
 - Bond Financing of 3 CIP System Expansion Projects (September)
 - 115kV Transmission Alignment Consideration of CEQA Mitigated Negative Declaration (October)
 - Rate Increase (November/December)

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City Council

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The image shows a graphic for a City Council meeting. On the left is the official seal of the City of Santa Clara, California, which features a mission building, the year 1852, and the text 'CITY OF SANTA CLARA CALIFORNIA' and 'THE MISSION CITY'. The seal is set against a dark blue background with a red diagonal stripe. To the right of the seal, the text 'City Council' is written in a large, bold, black font. Below that, 'Item #6: Silicon Valley Power Bi-Annual Update' is written in a slightly smaller bold black font. Underneath is 'RTC 24-800' and at the bottom is 'August 20, 2024', both in bold black font.