SVP Public Engagement Meeting

NRS-KRS 115 kV Transmission Line Project

August 22, 2024
5:00 pm – 6:30 pm

Meeting Agenda

- Welcome and Introduction
- Purpose of this Meeting
- Description of Proposed Project and Need
- Route Options Considered
- CEQA Process
- Project Schedule
- Q&A
- Public Comments

Key Players and their Roles in the CEQA Process

- **Silicon Valley Power (SVP):** Lead Agency under California Environmental Quality Act (CEQA) and Project Proponent
  - **AECOM**: Program and Project Managers for SVP
  - **ECI**: Engineer of Record for SVP
  - **Aspen Environmental Group**: Environmental contractor for SVP
  - **Lighthouse Public Affairs**: Public affairs consultant for SVP

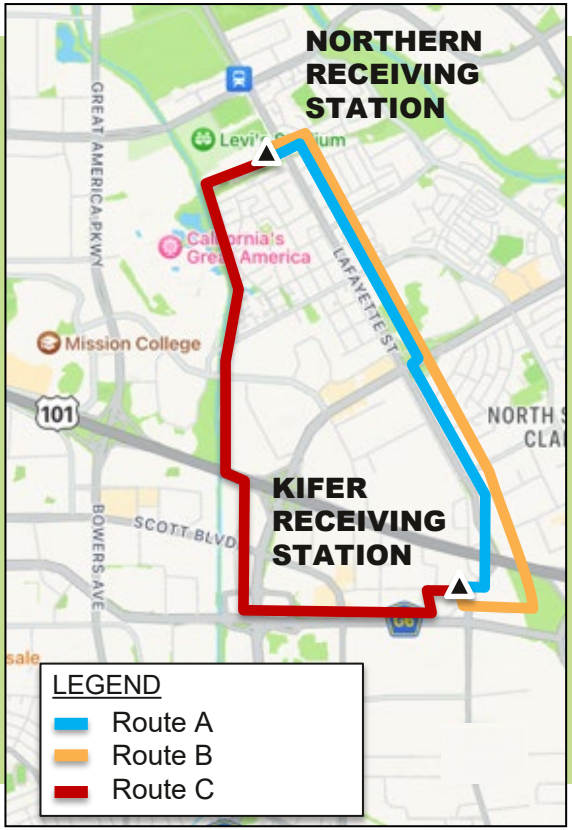
Purpose of This Meeting: Public Engagement

- To obtain agency and public input and comment on the adequacy of analysis in the Draft Initial Study (IS)/Mitigated Negative Declaration (MND) for the NRS-KRS 115 kV T-Line Project
- To inform the public about the environmental review process
- To solicit comments and answer questions on the issues presented and discussed in the Draft IS/MND
- To identify issues of concern and areas of potential controversy
- Please note that any comments received during this meeting will not be entered into the Project record. Please follow the directions at the end of this presentation to submit a formal comment on the Draft IS/MND.

Project Description and Overview

Project Overview:
115kV Transmission Line
Northern to Kifer Receiving Station

- Construct a new 115kV overhead transmission line of approximately 2.24 miles between Northern Receiving Station (NRS) and Kifer Receiving Station (KRS)
- The transmission line would be built to support a 230kV transmission line, but would be initially energized at 115kV, allowing for future capacity expansion.
- Construction is estimated to take approximately 14 months and be completed by early 2028.

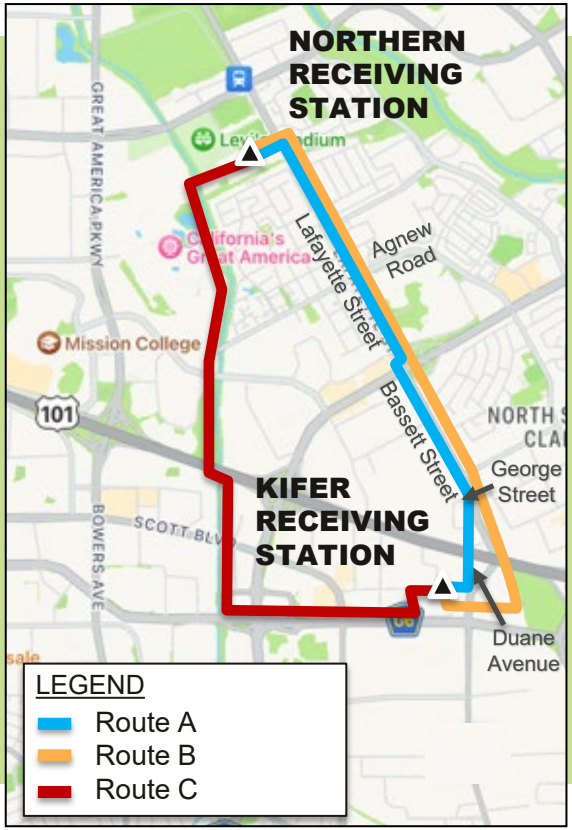


Project Need

- Needed to accommodate approved and under construction **load growth and reliability**
- Balance and redistribute loads throughout the City
- System Operating Limit will be limited to ~819MW if transmission line is not constructed
- **Key Items: feasibility,** constructability, existing utilities, power delivery, potential growth, aesthetics, tree removals, maintenance considerations, construction costs, and schedule

Three Routes Considered

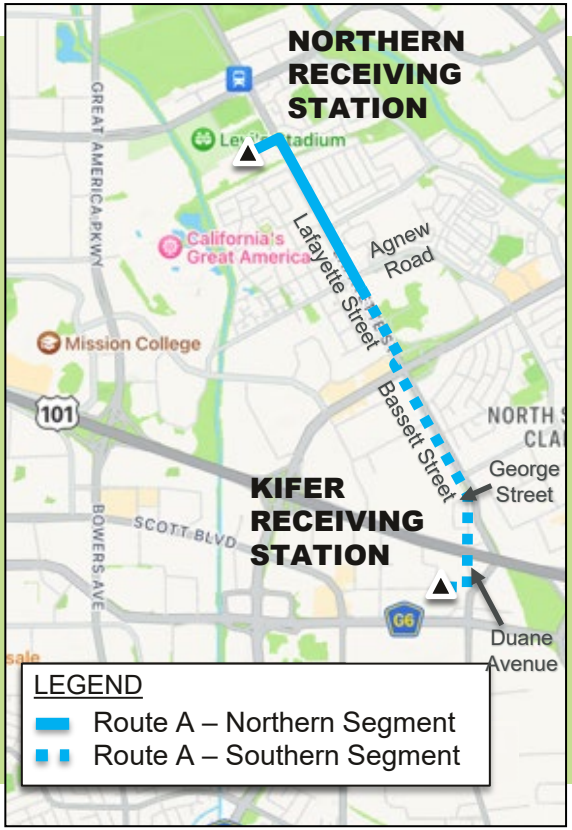
- An assessment was prepared to determine the preferred route for the Proposed Project.
- **Route A** (Proposed Project) – Analyzed in IS/MND
- **Route B** (considered and eliminated)
  - UPRR right of way is too narrow (concerns with inductive interference on the rail lines and additional permitting and design review)
  - Properties surrounding UPPR do not have sufficient space to place structures
  - Require extensive easement costs and coordination
  - UPRR permits
- **Route C** (considered and eliminated)
  - Majority within Creek boundaries
  - Replace existing 60kV line where available
  - Easements and permitting - unknown if permits would even be feasible and if feasible would not meet schedule due to extensive permitting schedules
  - Longest route



Proposed Project – Route A

Total Route Spans 2.24 miles

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



Route A, Option 1: Overhead Northern Segment (Preferred)

Northern Segment (0.74 Miles)

- Nine new poles within center median of Lafayette Street
- No existing overhead transmission
- Residential development on both sides of Lafayette Street
- Poles spaced every 250-500 feet on average and ~85-135 feet in height
- Located within existing ROW or easements
- Minimal utility relocation
- Would minimize landscape/tree removal as part of design
- An overhead transmission line can deliver more power and accommodate future growth with the option for a future underbuilt 60kV or 115kV transmission line

Route A, Option 1:
Overhead Northern Segment (Preferred)

Looking South on Lafayette Street at
Hogan Drive

Proposed Project Rendering Looking North
on Lafayette Street just south of Hope Drive

Route A, Option 2: Underground Northern Segment (Not Preferred)

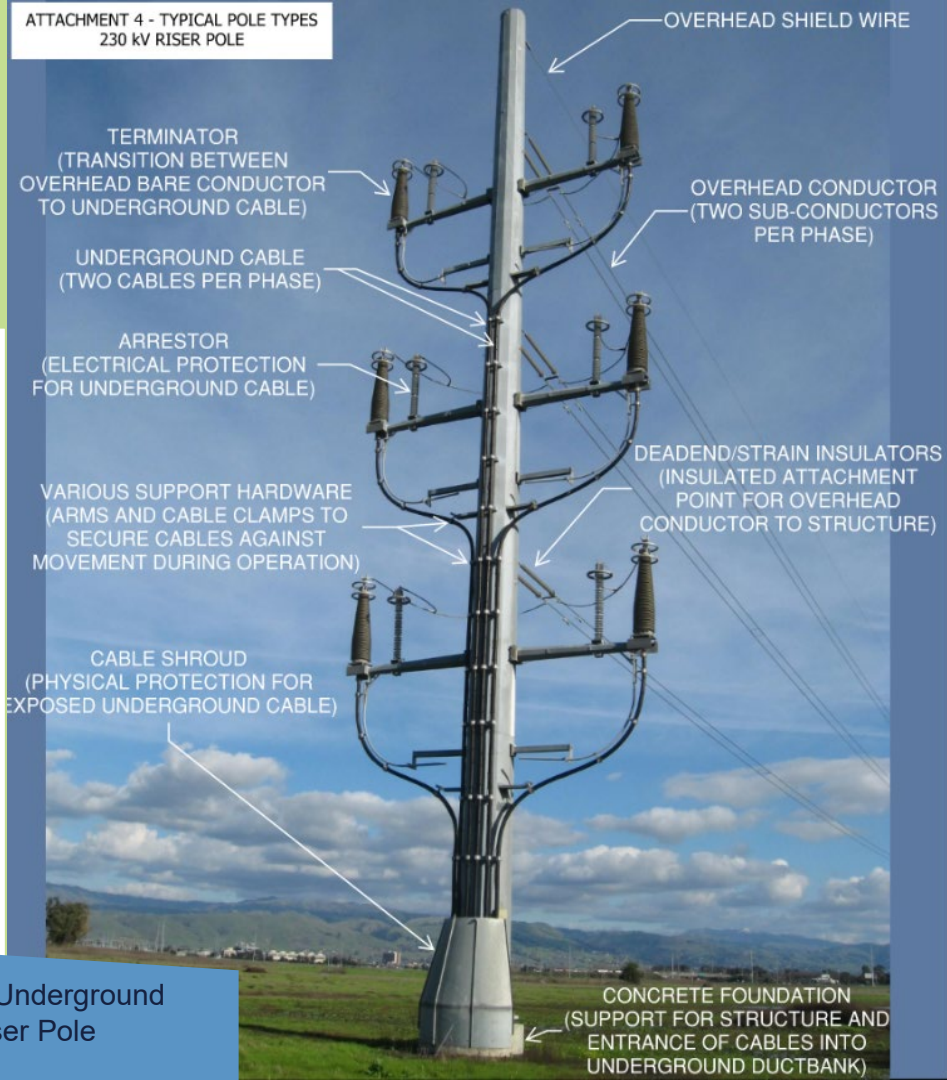
- Constraints with constructability, schedule, power deliverability, and aesthetics
- 25 existing utilities crossing or conflicts with underground alignment in Lafayette
- Requires relocation of 300 feet of two transmission gas mains for PG&E and DVR
  - The DVR shutdown can only occur twice a year
  - PG&E work would be on PG&E schedule – will not meet 2028 date
- Would also need to cross multiple utility lines
  - Could require not meeting minimum spacing requirements or significant excavation up to 20' deep

Utility Conflict #	Existing Utility	Quantity/Size	Approximate Location Along Lafayette ST.
1	Electric	Ductbank with five 5" conduits and one 4" conduit	South of Agnew Rd.
2	Communication	Unknown * typically one or more pipes, each ranging from 1" to 4"	South of Agnew Rd.
3	Communication	Unknown * typically one or more pipes, each ranging from 1" to 4"	South of Agnew Rd.
4	Natural Gas (PG&E)	12"	South of Agnew Rd.
5	Sanitary Sewer	30"	South of Agnew Rd.
6	Natural Gas (PG&E)	6"	South of Agnew Rd.
7	Water	12"	South of Agnew Rd.
8	Natural Gas (SVP)	12"	South of Agnew Rd.
9	Electric	Ductbank with five 5" conduits and one 4" conduit	South of Agnew Rd.
10	Electric	Ductbank with four 5" conduits and one 4" conduit	North of Agnew Rd.
11	Communication	4"	North of Agnew Rd.
12	Natural Gas (PG&E)	6"-24" *	Between Hope Dr. and Agnew Rd.
13	Sanitary Sewer	8"	Between Hope Dr. and Agnew Rd.
14	Storm Drain	15"	South of Hope Dr.
15	Water	12"	Intersection of Hope Dr.
16	Natural Gas (SVP)	12"	Between Eisenhower Dr. and Hope Dr.
17	Natural Gas - Transmission (PG&E)	6"-24" *	Between Eisenhower Dr. and Hope Dr.
18	Electric	1.5" Streetlight conduit *	South of Eisenhower Dr.
19	Electric	1.5" Streetlight conduit *	Intersection of Eisenhower Dr.
20	Sanitary Sewer	21"	North of Eisenhower Dr.
21	Electric	1.5" Streetlight conduit *	North of Hogan Dr.
22	Sanitary Sewer	15"	Between Fairway Glen Dr. and Hogan Dr.
23	Natural Gas (PG&E)	24" *	Between Fairway Glen Dr. and Hogan Dr.
24	Water	8"	Between Fairway Glen Dr. and Hogan Dr.
25	Natural Gas (SVP)	12"	South of Fairway Glen Dr.

* Utility size is estimated, accurate record information is unavailable.

Route A, Option 2: Underground Northern Segment (Not Preferred)

- Power Delivery:
  - Can deliver up to 83% of the power of overhead at 115kV due to heat dissipation requirements.
  - Further declines at the 230kV level to 79.9%.
  - **Underground option will limit future load growth and our ability to serve currently entitled customers.**
- Aesthetics:
  - Overhead alignment from NRS to riser pole in median of Lafayette
  - Additional riser pole just south of Agnew on east side of Lafayette



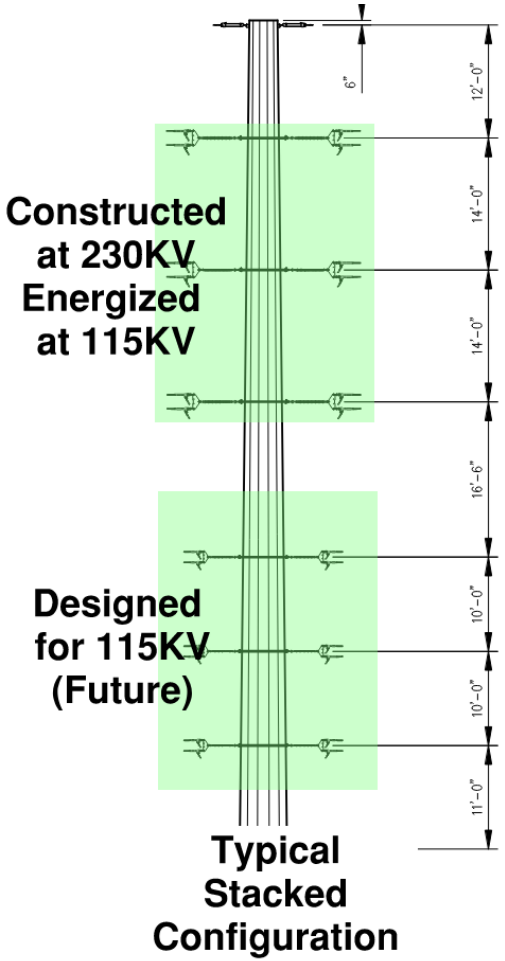
Typical Underground Riser Pole

Comparison of Options for Northern Segment

Route A, Option 1 – Overhead (Preferred)	Route A, Option 2 – Underground (Not Preferred)
Ability to meet 2028 schedule.	Can not meet 2028 schedule • Relying on PG&E for utility relocation • DVR shut-down
Maximum transmission capacity	Reduced transmission capacity
Ability to accommodate future growth	Lack of provisions for future growth
Minimize utility relocations and reduce construction disruption to the public	Extended construction timelines with extended lane closures and traffic control
Ease of maintaining the system	Longer restoration times in emergency situations
Northern Segment Costs: ~$9.5 Million Total Project Costs: ~$36 Million	Northern Segment Costs: ~$19 Million Total Project Costs: ~$45.5 Million

Why Option 1 is Preferred

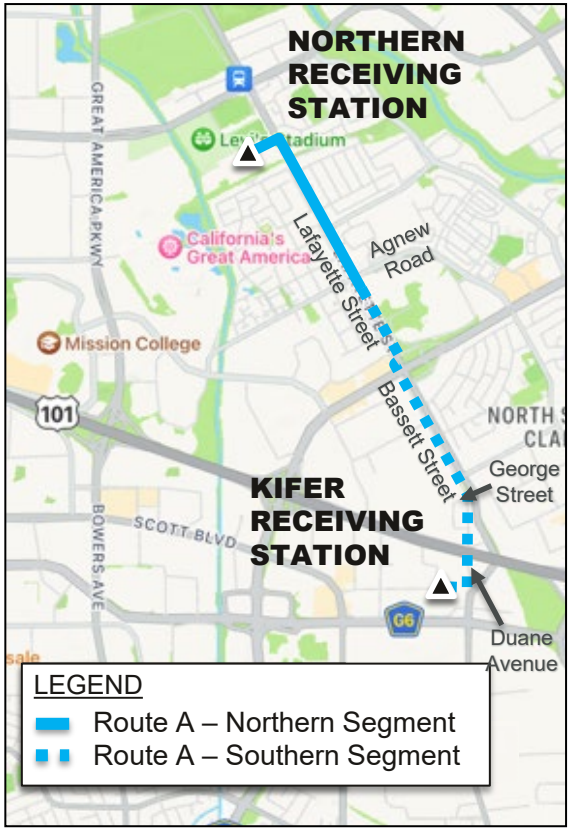
- Ability to meet the 2028 energization date
- Can accommodate future additional growth
- Maximum transmission capacity - Can accommodate ~20% more power than underground options for already approved projects
- Reduced construction disruption to the public in comparison to underground options
- Pole space provisions for future additional growth along new transmission segments
- Ease of maintaining the system/restoration in emergency conditions



Route A – Southern Segment

Southern Segment (1.5 Miles)

- Two existing 60kV overhead transmission lines. Between Agnew and Montague, existing 60kV at the following locations would be replaced
    1. East side of Lafayette Street
    2. West side of Bassett Street
- At Montague Expressway, continue on west side of Bassett Street and replace 1,120 feet of 60kV where existing and install 2,980 feet of new overhead
- Final 980 feet of transmission line from just north of Bayshore to KRS along Duane Avenue would replace an existing 60kV transmission line



Proposed Project

Southern Segment (1.5 Miles)

*Distribution and transmission

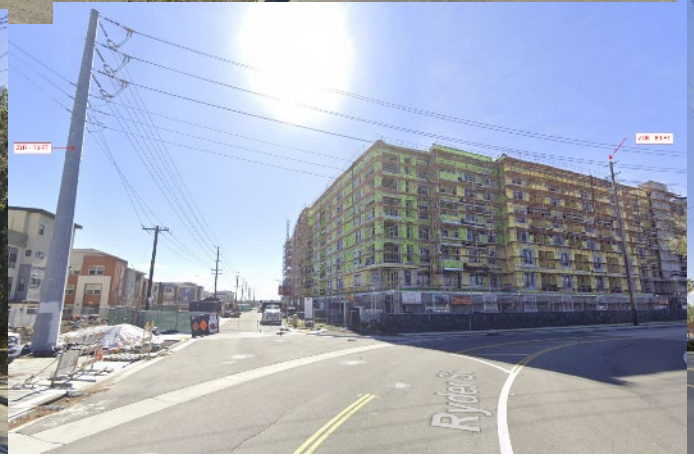
From	To	Alignment Consideration	Poles Installed	Poles Removed
Agnew Road	Montague Expressway	East side of Lafayette and west side of Bassett	7	9
Montague Expressway	Bassett and George Street	West side of Bassett	11	11*
Bassett and George Street	Kifer Receiving Station	East side of Bassett and Duane Street	7	3

Looking South on Lafayette Street just south of Agnew

Looking South on Bassett Street just south of Montague

Looking South on Duane Avenue just south of Bayshore

Existing Poles



Examples of varying existing poles ranging in heights from 65 to 90 feet in residential neighborhoods.

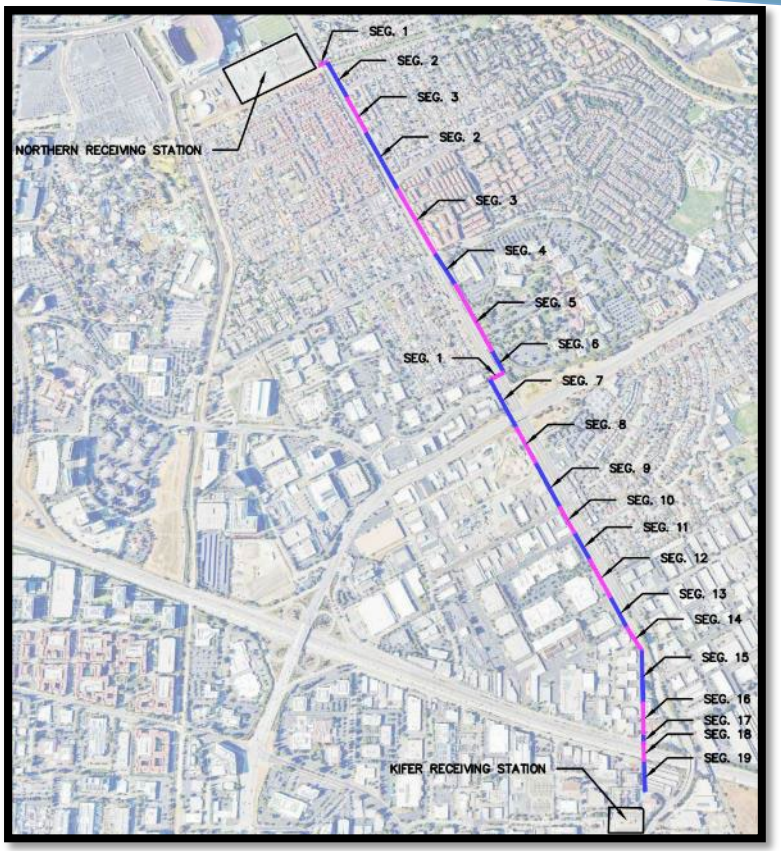
Scoping Comments Summary

#1 EMF & Health Concerns

- **See IS/MND Section 4.15 (Electric and Magnetic Fields Summary) and IS/MND Appendix G (EMF Report)**
- EMF impacts are not analyzed under CEQA, because there is no scientific consensus on the effects of EMF.
- SVP opted to prepare an EMF report in response to the public engagement during the scoping period
- IS/MND includes EMF Design Guidelines to be followed to reduce EMF to the extent possible.

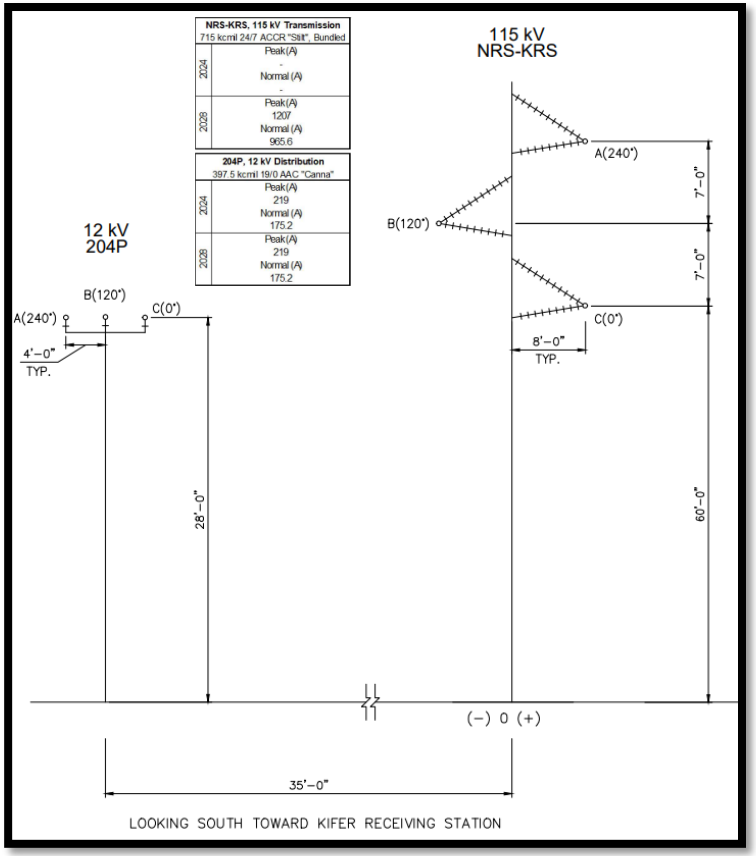
EMF Study - Overview

- The EMF Report estimated magnetic field strengths relative to the proposed transmission line
- Calculated field strengths considered existing power facilities
- Divided the route into unique segments to represent the local conditions along the line
- The strength of the magnetic fields were calculated based on the distance from the centerline of the proposed transmission line.



EMF Study - Methods

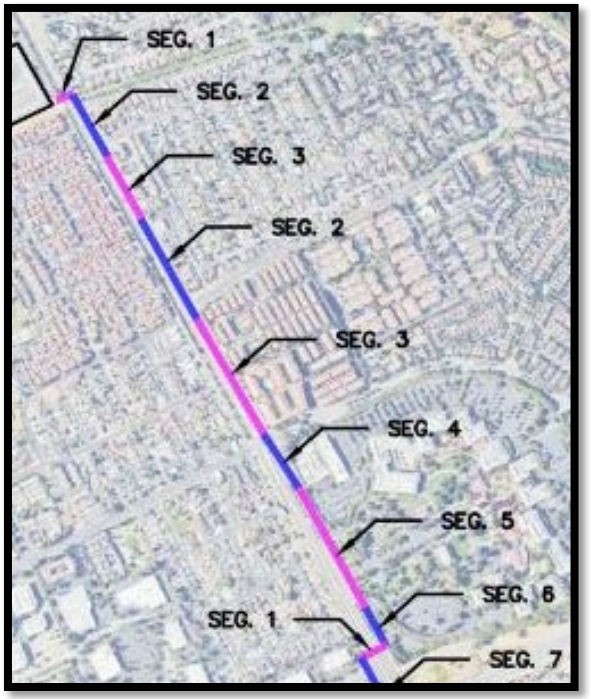
- The variables for each calculation were chosen to represent the typical value for each segment
- The peak load and normal load were provided by SVP
  - Peak load is based on the peak loading of the facility during normal operations
- Magnetic field strength was calculated using design software per the EPRI Red Book



EMF Study – Results & Comparison

- Segments 1 – 6 are located near residential land uses. Measurements presented below represent the magnetic field levels at 60 feet east of the transmission line.

Segment	Future 2028 (at 60 ft east of centerline)	
	Normal Load (mG)	Peak Load (mG)
1	16.0	20.0
2	14.3	17.9
3	14.2	17.7
4	13.5	16.8
5	11.9	14.8
6	11.9	14.9



EMF Study – Results & Comparison

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4	13.5	16.8
5	11.9	14.8
6	11.9	14.9

Source: Appendix G, EMF Report

Item	Magnetic Field Measurements* at 1 foot distance (mG)
Ceiling Fans	3 to 30
Electric Ovens	4 to 5
Electric Ranges	8 to 30
Electric Can Opener	40 to 300
Microwave Ovens	4 to 200
Washing Machines	7 to 30
Portable Heaters	20 to 40
Vacuum Cleaners	60 to 200

Source: NIEHS, 2002.

*Values represent a range of EMF values from Median to Highest

#2 Risk of Catastrophic Events & Fire Hazards

- **See IS/MND Sections 5.9 (Hazards), 5.17 (Traffic and Transportation), and 5.20 (Wildfire)**
- Commentors expressed concerns about placing the transmission line in congested utility zone, causing heightened risk of accidents
- An objective of the Project is to increase SVP's system capacity and reliability, which should result in less power outages and service interruptions after construction is completed (See Section 4.10).
- Additionally, the Project would be constructed to strict safety standards

#3 – Home Insurance Costs and Property Value

- Commentors expressed concern that their home insurance costs may increase, and their property values decrease, due to the proximity of the Project to residents.
- Home insurance costs and property values are not considered impacts under CEQA, because CEQA focuses on the potential PHYSICAL impacts of a Project.
- These would only be considered if those effects themselves would cause significant physical impacts on the environment. Such effects are difficult to predict and an IS/MND is not required to speculate about such effects.
- If home insurance costs increased, or property values decreased, neither would cause a significant physical impact on the environment, and therefore they are not considered significant.

#4 – Aesthetic Impact

- **See IS/MND Section 5.1 (Aesthetics)**
- Commentors expressed concern about the impact on the visual appeal of the neighborhood.
- The Project would be in a highly urbanized area, and would parallel a busy road and a railroad line,
- The nearest residential areas are already geographically separated by Lafayette Street and the railroad line
- Impacts in CEQA are analyzed by the change to the baseline scenario. Since the existing setting is highly urbanized, already contains several transmission facilities and utility right of ways, and is partially screened from adjacent neighborhoods, the extent of visual change is considered less than significant.

#5 – Complexity and Inconvenience

- **See IS/MND Sections 5.9 (Noise), and 5.17 (Traffic and Transportation)**
- Commentors expressed concerns about the disruption to their daily lives, citing noise pollution, road closures, and restricted access to homes as potential disruptions.
- While construction may cause temporary disturbances, overhead construction in any one location would occur for an average of 5 days within a 30-day period and is considered less than significant because of its temporary and intermittent nature.
- While power outages and service interruptions may occur during construction to safely connect or disconnect elements from the electric system, these would be temporary and rare, and would cease after construction.

#5 – Complexity and Inconvenience Cont.

- **See IS/MND Section 4.10 (Project Description, Purpose and Need)**
- Commentors expressed concerns about the possibility of power outages and service interruptions from ongoing maintenance activities.
- Maintenance activities from the transmission line would not typically result in service disruptions to the distribution service that serves residences.
- As stated in Section 4.10, an objective of the Project is to increase SVP's system capacity and reliability, which should result in less power outages and service interruptions after construction is completed.

What would the Project look like for Santa Clara Residents?

- **See IS/MND Section 5.17 (Traffic and Transportation)**
- Construction at UG vault locations could take approximately 14 days at each location on Lafayette Street.
  - Underground construction may cause short term intermittent road closures of up to 1,500 feet to allow for trenching.
- Construction at each OH location could take approximately 5 days at each location on Lafayette Street.
  - Overhead construction may cause short term intermittent road closures, resulting in one-way traffic controls on Lafayette Street.
- Mitigation Measure T-1 (Construction Traffic Control Plan), which requires coordination in advance with property owners, if any lane closures would limit access. Provisions for ensuring secondary access will be provided.

What would the Project look like for Santa Clara Residents?

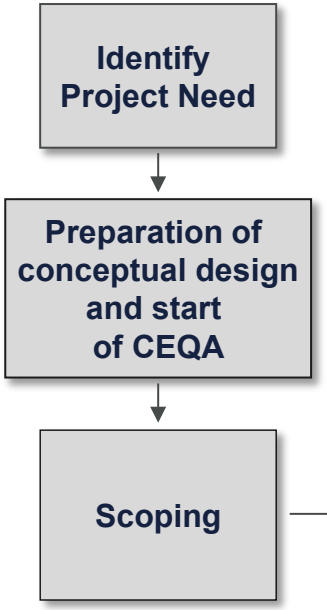
- Underground construction and maintenance activities would take longer and cause more intense impacts to residents and businesses when compared to the overhead line.
  - The underground **construction** efforts would cause more ground disturbance and would take longer due to the depth at which the line would need to be buried to, and the amount of utility relocations for underground utilities.
  - The scheduled or emergency **maintenance** activities would take longer and may result in temporary and intermittent construction-like impacts because it is more difficult to reach buried utilities.

#6 – Exploring Alternatives

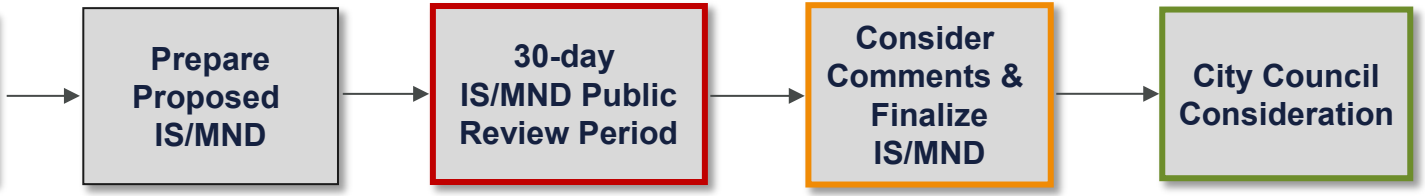
- **See IS/MND Section 4.16 (Project Description, Alternatives)**
- Commentors suggested exploring alternatives such as upgrading existing power lines, advanced technology, alternative routing options, or implementing underground power lines, citing safety, reliability and aesthetic effects.
- Prior to preparation of the IS/MND, SVP conducted an Alternatives Analysis, to determine the route with the fewest impacts, fewest engineering design challenges and fewest permitting challenges.
- SVP considered several routes and narrowed it down to the 3 options in the Alternatives Analysis. These three options were discussed earlier in the presentation

CEQA Process & How to Participate

CEQA Process & Next Steps



- **Publication of Final CEQA IS/MND ~ September 2024***
  - After the public comment period, revisions to the body of IS/MND will be made, and Section 7 will summarize the public participation process
- **City Council Consideration: ~ October 8, 2024***
  - After the Final IS/MND is published, the City Council will consider the adoption of the IS/MND and approve or deny the Project



*dates subject to change, assumes no identification of significant impacts

Schedule

Task	Timeframe
Design	Feb. 2023 – May 2026
CEQA Process	
Identify Project Need	Jan. 2024
Preparation of conceptual design and start of CEQA	Jan. 2024 – Mar. 2024
CEQA Community Outreach (Scoping)	April 8 – May 29, 2024
Publication of Draft IS/MND and 30-day Public Review Period	July 31, 2024 – August 30, 2024
Consider Comments and Finalize IS/MND	Sep. 2024 – Oct. 2024
City Council Consideration	October 8, 2024
Anticipated Construction	Nov. 2026 – Mar. 2028

Purpose of Draft IS/MND

- The IS/MND:
  - Describes the environmental setting of the Project area
  - Discloses the potential environmental impacts of the Project
  - Proposes mitigation measures to reduce impacts to a less than significant level

Initial Study Analysis

Environmental Issue Areas

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology & Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use & Planning
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities & Service Systems
- Wildfire
- **+ Electric and Magnetic Fields**

Contents of Draft IS/MND

- Sections 1 – 4: Mitigated Negative Declaration Form, Environmental Determination, Introduction, and Description of Project.
  - Section 4, Project Description, includes discussion of EMFs
- Section 5: Includes all the environmental issue areas presented in last slide, following the CEQA Appendix G checklist
- Section 6: Mitigation Monitoring and Reporting Plan (MMRP)

Contents of Draft IS/MND Cont.

- Appendices: Includes preparers, references, Air Quality calculations, Biological Resources, and Draft Arborist Report
  - Appendix F: Scoping Report
    - Created due to extensive public interest in the project. The scoping report describes the comments received, provides a summary, and identifies where the response is located in the Draft IS/MND
  - Appendix G: EMF Report
    - Created due to public concern about EMF, and provides technical details which support the analysis in the Draft IS/MND

Contents of Final IS/MND

- **Revisions** to the body of IS/MND will be made only when substantive comments bring to light new information not covered, or when it is necessary to correct the text.
- **Section 7 – Response to Comments**
  - This section will present the comments received and identify where they are addressed in the Final IS/MND.
- Appendix D – Draft Arborist Report
  - Will be updated to Final Arborist Report upon publication of Final IS/MND

Public Comments

- Please note that verbal comments received at this meeting will not be recorded and therefore will not be entered into the official record.
- If you wish to submit a formal comment on the extent of environmental analysis in the IS/MND, please submit a written comment via mail or email.

Public Comments

- Substantive Comments:
  - Comments that raise specific issues or concerns regarding the Project or the study process, or question new impacts not previously addressed
- The most useful comments:
  - Identify the location and extent of environmental impacts of the proposed project
  - Are as specific as possible

Comments

- **Mailing address:**

Allie Jackman
Principal Electric Utility Engineer
Silicon Valley Power
c/o Aspen Environmental Group
235 Montgomery Street, Suite 967
San Francisco, CA 94104-3002

Comment Period Closes on Aug. 30, 2024, at 5:00 pm

- **Email:**

NRS-KRS@aspeneg.com

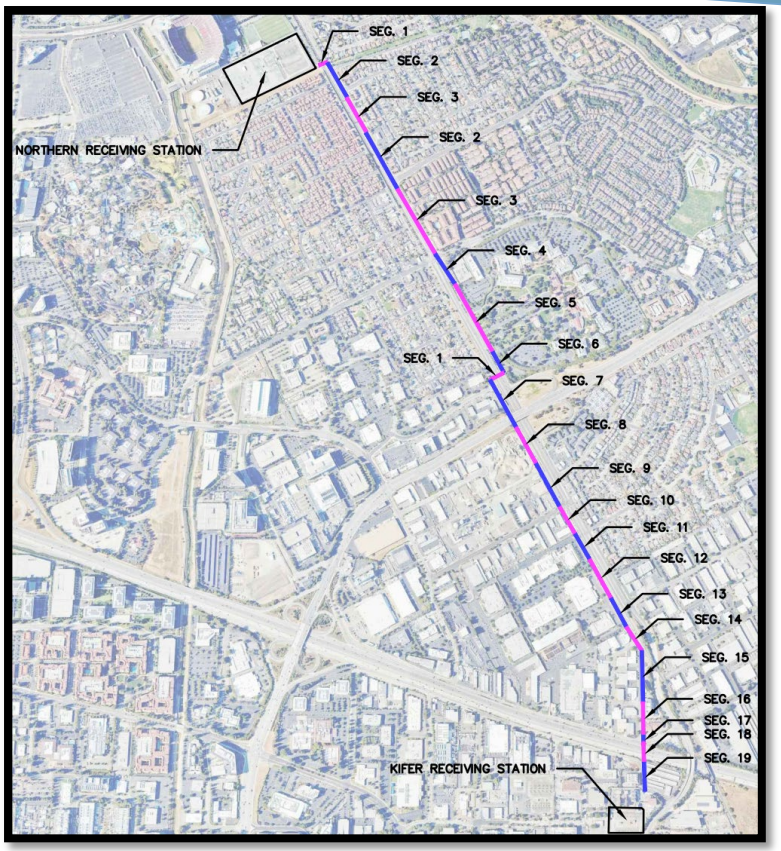
Please be sure to include your name, address, and email or phone number on all comments.

Questions?

Thank You for Your Input!

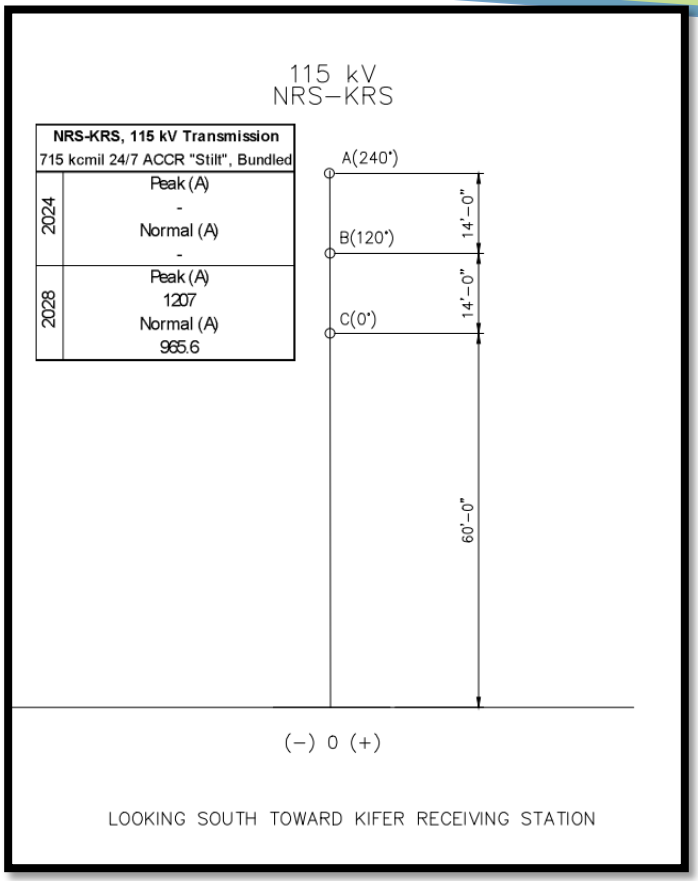
EMF Study - Overview

- Estimated magnetic field strengths relative to the proposed transmission line
- Calculated field strengths considered existing power facilities
- Divided the route into unique segments to represent the local conditions along the line



EMF Study - Methods

- The variables for each calculation were chosen to represent the typical value for each segment
- The peak load and normal load were provided by SVP
  - Peak load is based on the peak loading of the facility during normal operations
- The model was entered into PLS-CADD where the resulting magnetic fields were calculated



EMF Study - Results

- The strength of the magnetic fields were calculated based on the distance from the centerline of the proposed transmission line
  - 60 feet in each direction in increments of 10 feet

	Existing 2024		Future 2028	
	Normal Load (A)	Peak Load (A)	Normal Load (A)	Peak Load (A)
Current (A)	See Figure-1	See Figure-1	See Figure-1	See Figure-1
Distance from Centerline (ft)	Magnetic Field (mG)	Magnetic Field (mG)	Magnetic Field (mG)	Magnetic Field (mG)
-60	0.0	0.0	16.0	20.0
-50	0.0	0.0	19.4	24.3
-40	0.0	0.0	23.3	29.2
-30	0.0	0.0	27.4	34.2
-20	0.0	0.0	31.1	38.8
-10	0.0	0.0	33.7	42.2
0	0.0	0.0	34.7	43.4
10	0.0	0.0	33.7	42.2
20	0.0	0.0	31.1	38.8
30	0.0	0.0	27.4	34.2
40	0.0	0.0	23.3	29.2
50	0.0	0.0	19.4	24.3
60	0.0	0.0	16.0	20.0

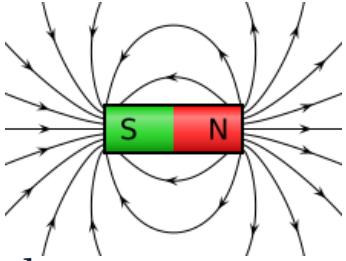
EMF - Definitions

- EMF – Electric and Magnetic Fields
- Electric Field – A field created by a charged object which exerts force on electrically charged particles within the field.
- Magnetic Field – A field created by a permanent magnet or electromagnet which exerts force on ferromagnetic materials or other magnets.
- Direct Current – In electrical circuits, describes the flow of electric charge when it occurs in only one direction.
- Alternating Current – In electrical circuits, describes the flow of electric charge when it reverses direction at regular intervals.

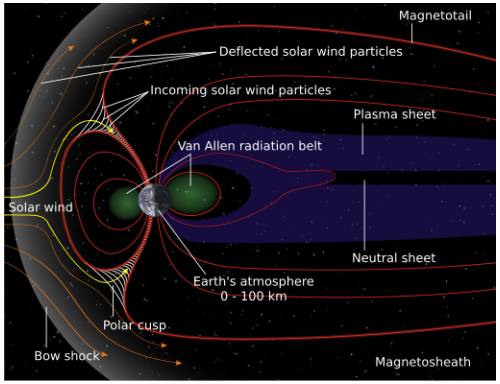
EMF – Commonly Used Units

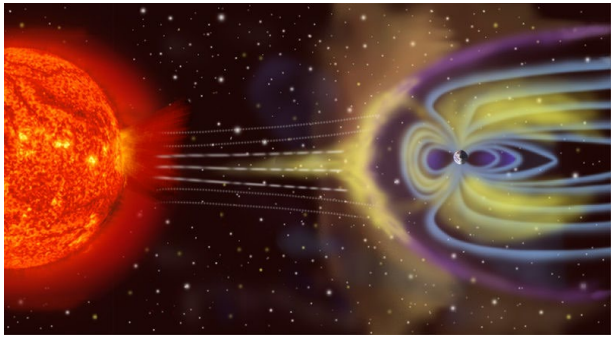
- Voltage (V) – Describes the potential energy to move a charged particle.
  - 120 V – Typical household voltage
  - 12 kV or 12,000 V – Typical distribution power line operating voltage
- Ampere (A) – Describes the amount of charge moving in an electric current.
  - 15 A – Typical residential lighting circuit breaker rating
- Tesla (T) – Describes the amount of force applied to a charged particle moving through a magnetic field.
- Gauss (G) – Alternate unit to the Tesla (1 G = 0.0001 T or 1 T = 10,000 G)
  - ~470 mG or 0.470 G – Earth's magnetic field in Santa Clara, CA
  - ~1 kG or 1,000 G – Small neodymium magnets
  - Between 15 kG to 70 kG – Medical MRI systems

EMF - Magnetism



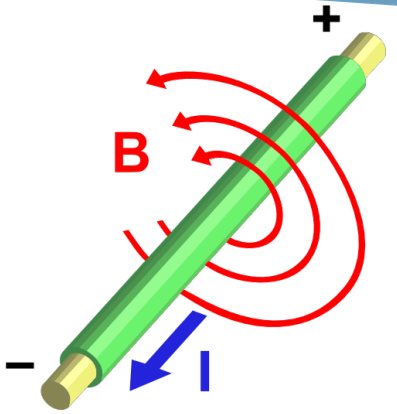
- Magnets
  - Defined as having north and south poles
  - Specific materials can be natural magnets, called permanent magnets
  - Other materials can be attracted to magnets even if they aren't magnets themselves, called ferromagnetic materials
- The ability of a magnet to create forces on other magnets or charged particles is described by its magnetic field
  - Earth is surrounded by a magnetic field that imparts forces on charged particles from the sun, protecting earth
  - This magnetic field also makes compasses work

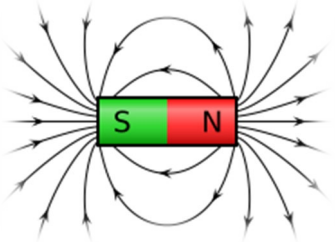


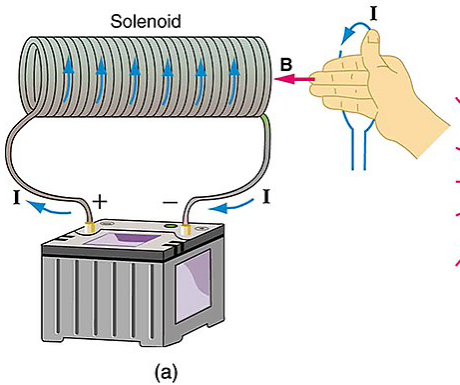


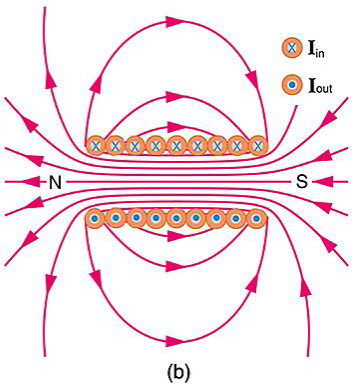
EMF - Electromagnetism

- Oersted's Law – An electric current creates a magnetic field
- Electromagnet vs permanent magnet
  - An electric current in a wire creates a magnetic field that surrounds the wire, like circles with the wire at the center
- If you take the wire and coil it, you create a shape called a solenoid
  - Solenoids with an electric current running through it create a magnetic field similar to a permanent magnet



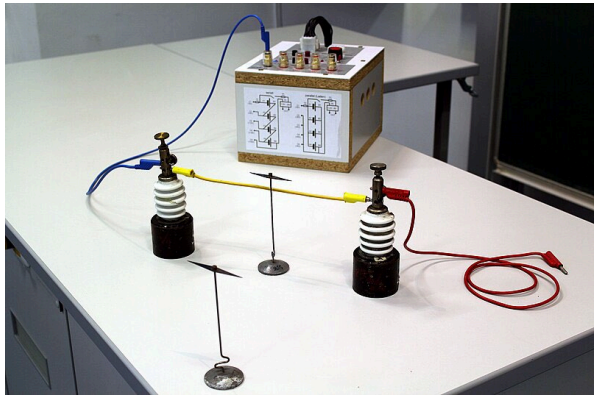


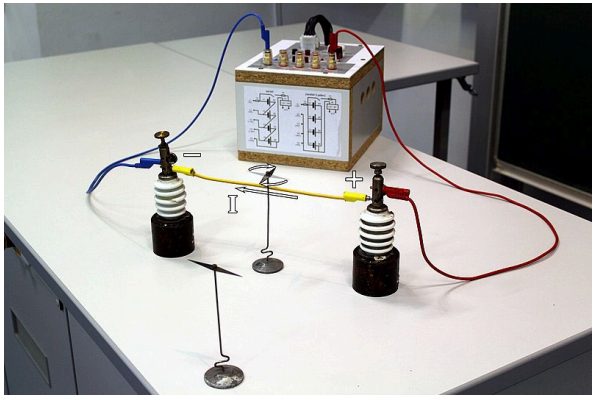


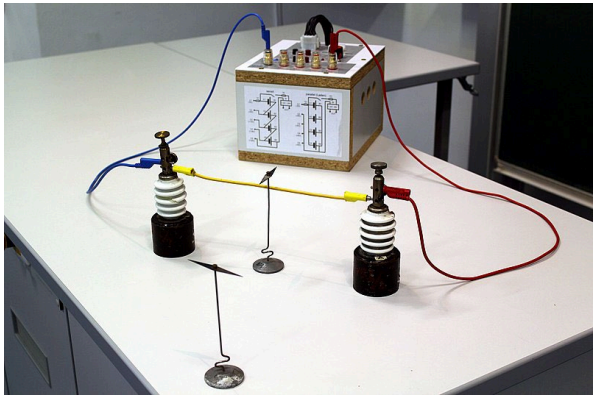


EMF - Electromagnetism

- Magnetic fields impart a force on other magnets
- In the experiment below an electromagnet is used instead of a permanent magnet for the same effect
- Electric motors take advantage of this effect to convert electrical energy into mechanical energy

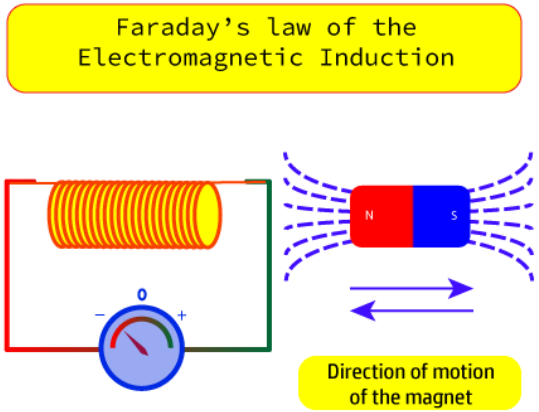






EMF - Induction

- While an electric current produces a magnetic field, a *changing* magnetic field produces an electric current
  - This is called an induced current
- Induced currents have many applications
  - Wireless charging
  - Smart pens for touchscreen devices
  - Induction cooktops
  - Power generation
  - Power transformers



EMF – AC Power Generation

- If an electric motor transforms electrical energy into mechanical, an electric generator can transform mechanical energy into electrical energy
- 3-Phase power
- Transformers

EMF – Examples of Magnets (Magnetic Fields)

- Speakers
- Wireless charging
- Appliances such as refrigerator and washer
- Power converters

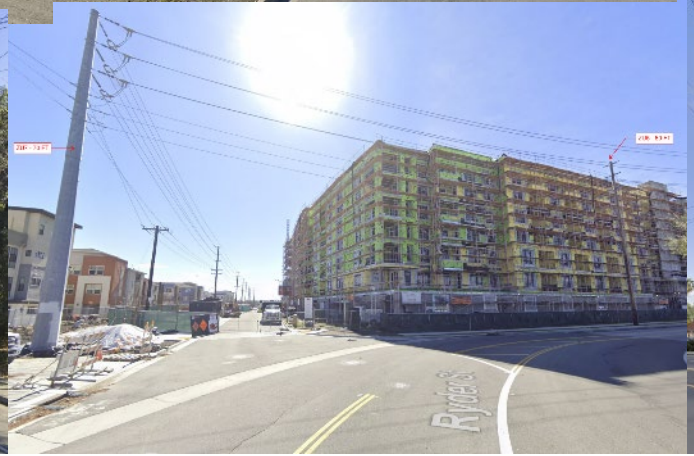
Questions Received During Scoping (May)

- How will landscaping be impacted in the median of Lafayette Street?
  - Landscaping will be maintained to the extent possible. The Project has been designed to minimize tree removals. See Arborist Report, Appendix D, for more information on trees along the route.
- How would underbuilds work, where existing circuits exist? Do all the poles need to be 125 ft. if there are no existing circuits?
  - The poles are constructed to be able to hold a 230 kV circuit, so poles would not need to be replaced if the circuit was upgraded in the future. The taller poles are also helpful to reduce visual impacts at eye level, and EMF levels.

Questions Received During Scoping (May)

- Have there been other projects as part of the transmission line expansions that will require similar capacity, height, and proximity to residential neighborhoods?
  - Yes, the next slide was added to the presentation as a response to this question.

Existing Poles



Examples of varying existing poles ranging in heights from 65 to 90 feet in residential neighborhoods.

Questions Received During Scoping (April)

- What will be the height of each pole? How many wires will run on each pole at 115 kV and at 230 kV? Would there ever be expansion past 230kV?
  - The height of each pole varies, typical heights range between 85 and 135 feet, subject to final design.
  - At installation, new structures (that are not replacing existing structures) would have 1 shield wire and 6 conductor wires for a single 115 kV circuit. Where existing structures are being replaced, all existing wires would be transferred to the new structure in addition to the new wires described above. At the initial installation all new structures would only have a single 115 kV circuit installed. These new structures would be designed so that the proposed 115 kV circuit could be energized at 230 kV at some point in the future and so that each new structure could support one additional circuit below the proposed 115 kV circuit. Each new structure could then support up to 13 wires including 1 shield wire, 6 conductor wires for the upper circuit, and 6 conductor wires for the lower circuit.
  - There are no provisions included in the proposed design to add a third circuit or increase the operating voltage beyond 230 kV.
- What is the weight of each pole?
  - The weight depends on the loads applied to structures, so will vary between 10,000 lbs and 30,000 lbs.

Questions Received During Scoping (April)

- How do you weigh schedule vs. resident concerns with the Overhead line?
  - CEQA analyzes the physical impacts of the Project, but it also requires public involvement, which includes residential concerns.
  - CEQA requires that we analyze how well the Proposed Project would meet the objectives of the Project. For this Project, one of the objectives is to increase SVP's system capacity to serve new load growth projected based on the forecasted growth within the City of Santa Clara over the next several years (IS/MND Section 4.10, Project Objectives)

Questions Received During Scoping (April)

- Does the environmental report include EMF levels on Lafayette Street and the residential neighborhoods? What consideration was given to impact on residents who live within 50-75 feet of the Project? Can you share the data?
  - Yes. The EMF report (Appendix G of the IS/MND), provides estimated EMF levels along the entire Project route, for 60 feet in either direction of the line.
  - The EMF report was created to disclose the EMF levels within this range. There is no scientific consensus on EMF.

Questions Received During Scoping (April)

- Was there an underground feasibility report study done for Route C?
  - Feasibility of the Project was analyzed through a technical perspective and a permitting perspective. Route C was determined to be infeasible during the preliminary stage.
  - Due to proximity to San Tomas Aquino Creek, there were concerns related to physical space available for the line due to: presence of other existing lines that could preclude underbuilds; significant permitting challenges with Valley Water; proximity to residents; and significantly greater length of line and time to construct, all of which contributed to prohibitive costs and infeasibility.

Questions Received During Scoping (April)

- It seems like timing has been a major consideration in rejecting route C option which is not in a residential area. What are the limitations of time in this case? Can you expedite permitting with Valley Water?
  - Timing was not the only consideration in rejecting Route C. Limitations include difficulties in building on the levy/edges of a creek, the significant increase in length of this Route, and the proximity to residential areas.
  - Permitting cannot be expedited with Valley Water.

Questions Received During Scoping (April)

- Is the presence of the railway track adjacent to these lines posing a possible additional accident threat taken into consideration?
  - When citing a transmission line directly adjacent and parallel to a railway track, the effects of inductive interference on the rail system must be evaluated to ensure that the railroad signaling system is not degraded by the new transmission line. This effect is largely limited to close ranges when the railroad and transmission line share the same right of way
  - However, it is considered good practice, and generally results in fewer impacts to consolidate utilities along other rights-of-ways. Section 5.9 Hazards and Hazardous Materials, and 5.17 Traffic and Transportation include discussions of safety regarding hazards and traffic.

Questions Received During Scoping (April)

- Is there a reason why power lines cannot be placed on the side of Lafayette closer to the rail lines, rather than in the median which is much closer to residents?
  - The rail lines are within a right of way owned by Union Pacific Railroad, which excludes development from other entities except for the owner. Preliminary project engineering and design has determined that placing the line directly adjacent to the UPRR right of way is not feasible, due to lack of space.

Questions Received During Scoping (April)

- In case of severe weather with a chance of power lines down, what are the emergency safety plans to protect residents so close to the lines?
  - Section 5.9, Hazards, explains the Emergency Operations Plan (EOP) adopted by the City of Santa Clara, which establishes responsibilities and procedures for addressing potential emergencies, which conforms to Federal requirements mandated by the U.S. Department of Homeland Security, the California State Emergency Plan, and coordinates with the State's Standardized Emergency Management System (SEMS).
  - The proposed Project would adhere to National Electrical Safety Code (NESC) and California Public Utilities Commission (CPUC) General Order 95, which define separation of structures from adjacent buildings or other utility facilities.

Questions Received During Scoping (April)

- What would the construction schedule impacting Lafayette Street look like? Would there be any closures?
  - For overhead construction, there would be construction occurring at each location for a period of approximately 5 days, over a 30-day period. For underground construction, this construction could take approximately 14 days or more over the same period.
  - Both overhead and underground construction may cause short-term intermittent road closures, however, the underground construction activities would be longer in duration, and may result in more road closures due to more intensive construction activities and ground disturbance.

Three Route Options Considered

- An assessment was prepared to determine the preferred route for the Proposed Project.
- **Key consideration** – feasibility and schedule (2028 completion date)
  - Route A (Proposed Project)– Being analyzed as the Proposed Project in CEQA document
    - Along Lafayette Street to Bassett Street and Duane Avenue
  - Route B (considered and eliminated)
    - Follows Route A on Lafayette Street until diverging at Bassett and George Street to the UPRR ROW and then crosses several private parcels to KRS.
  - Route C (considered and eliminated)
    - West side of San Tomas Aquino Creek

Purpose of Draft IS/MND

- An Initial Study formalizes the Lead Agency's analysis to determine what level of CEQA document should be prepared, and identify potentially significant impacts
- A Mitigated Negative Declaration may be used when:
  - Revisions in the project design, or mitigation measures are agreed to, by the Lead Agency, would avoid or mitigate the effects to a point where no significant effect on the environment would occur (§21064.5).