



2021–2022 Transmission Planning Process Phase 3 – Competitive Solicitation


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Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located on the top right above the chat window. **Note:** #2 only works if you dialed into the meeting.
 - Please remember to state your name and affiliation before making your comment.
- If you need technical assistance during the meeting, please send a chat to the event producer.
- You may also send your question via chat to either Elizandra Casillas or to all panelists.

Transmission Planning Process Phase 3 - Overview of the Competitive Solicitation Informational Call

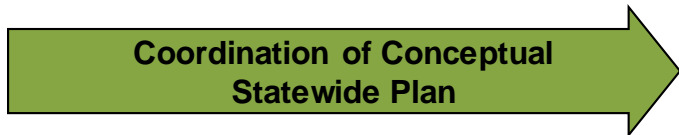
- Competitive solicitation process and schedule
- Submission of project sponsor applications
- Competitive solicitation evaluation approach
- Descriptions of projects eligible for competitive solicitation and key selection factors

COMPETITIVE SOLICITATION PROCESS AND SCHEDULE

2021-2022 Transmission Planning Cycle

April 2021

March 2022

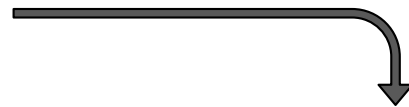


ISO Board Approval of Transmission Plan

Phase 1

Development of ISO unified planning assumptions and study plan

- Incorporates State and Federal policy requirements and directives
- Demand forecasts, energy efficiency, demand response
- Renewable and conventional generation additions and retirements
- Input from stakeholders
- Ongoing stakeholder meetings



Phase 2

Technical Studies and Board Approval

- Reliability analysis
- Renewable delivery analysis
- Economic analysis
- Publish comprehensive transmission plan
- ISO Board approval

Phase 3

Receive proposals to build identified reliability, policy and economic transmission projects.



Key Steps in the Solicitation and Selection Process

- 1 Post functional specifications and conduct informational conference call
- 2 Solicit Project Sponsor applications
- 3 Receive Project Sponsor applications
- 4 Assess whether Project Sponsors meet minimum qualifications
- 5 Post list of qualified Project Sponsors
- 6 Selection of Approved Project Sponsor
- 7 Post Approved Project Sponsor and Report

Functional Specifications, Informational Conference Call and Q&A Document

- The ISO prepares and posts functional specifications for each transmission solution prior to opening the bid window.
- The ISO will host an informational conference call to address questions on:
 - Schedules
 - Process
 - Application
 - Functional specifications
- Potential Project Sponsors can submit questions during the bid window and the ISO will post answers on the ISO website for all interested parties to view. The ISO refers to this document as the matrix log of questions and answers.

Transmission Planning Process Phase 3 Schedule

- April 18, 2022 – Bid Window Opens
- Opportunity to Collaborate – 10 Business Days (BD)
- Collinsville and Manning 500/230 kV Substation Projects – **Bid Window Closes July 15, 2022**
- Newark – Northern Receiving Station and Metcalf – San Jose B HVDC Projects **Bid Window Closes August 26, 2022**
- Validation – 15 BD
- Cure – 10 BD
- Final Validation – 10 BD
- Qualification – 15 BD
- Cure – 10 BD
- Final Qualification – 10 BD
- Comparative Analysis and select Approved Project Sponsor – 60 BD
- Collinsville and Manning 500/230 kV Substation Projects - Post approved project sponsor and associated report – **January 23, 2023**
- Newark – Northern Receiving Station and Metcalf – San Jose B HVDC Projects Post approved project sponsor and associated report – **March 7, 2023**

SUBMISSION OF PROJECT SPONSOR APPLICATIONS

Project Sponsor Application includes the following:

Introduction and General Instructions

1. Project Sponsor Name, Organizational Structure and Proposal Summary
2. Project Qualification
3. Prior Projects and Experience – now an Excel spreadsheet
4. Project Management and Schedule
5. Cost Containment
6. Financial
7. Environmental Permitting and Public Processes
8. Transmission and/or Substation Land Acquisition
9. Substation Design and Engineering
10. Transmission Line Design and Engineering
11. Construction
12. Maintenance
13. Operations
14. Miscellaneous
15. Officer Certification
16. Application Deposit Payment Instructions

Officer Certification

- Officer certifies that he/she has full authority to represent the project sponsor or affiliate of the project sponsor.
- Officer certifies that the information contained in the application is true, accurate and that there are no material omissions.

Deposit Fee

- Project Sponsor must submit a deposit of \$75,000 with its application.
- Project Sponsor will be responsible for the actual costs that the ISO incurs in qualifying and selecting an approved project sponsor through the competitive solicitation process, including the cost of the retained expert consultants.
- Costs not to exceed \$150,000 per application
- Payment instructions are included in the Project Sponsor application.

COMPETITIVE SOLICITATION EVALUATION APPROACH

Project Sponsor Minimum Qualification Criteria

- The Project Sponsor has assembled (or plans to assemble) a sufficient sized team with the knowledge and skill to design, construct, operate and maintain the transmission solution.
- The Project Sponsor has sufficient financial resources, including the ability to assume liability from major losses resulting from failure of any part of the transmission solution.
- The Project Sponsor's schedule meets the ISO's requirements, and the sponsor has the ability to meet its proposed schedule.
- The Project Sponsor and its team (or planned team) have the necessary technical and engineering qualifications and experience to design, construct, operate and maintain the transmission solution.
- The Project Sponsor agrees to sign the TCA (Transmission Control Agreement), become a PTO (Participating Transmission Owner), comply with NERC and WECC requirements and standards, and will turn the regional transmission facility over to the ISO's operational control.

Project Proposal Minimum Qualification Criteria

- Whether the proposed design of the transmission solution is consistent with needs identified in the comprehensive Transmission Plan.
- Whether the proposed design of the transmission solution satisfies Applicable Reliability Criteria and ISO Planning Standards.

Project Sponsor Selection Among Qualified Sponsors and Proposals

- If only a single Project Sponsor is qualified that Project Sponsor is automatically selected
- If multiple Project Sponsors are qualified, the ISO, with assistance from a qualified expert consultant, will conduct a comparative analysis and select the approved project sponsor.

ISO will use Comparative Analysis to Determine the Approved Project Sponsor

- Selection based on a comparative analysis of the degree to which each Project Sponsor's proposal meets the qualification criteria and selection factors, as set forth in Tariff section 24.5.4
- Objective is to determine the qualified Project Sponsor which is best able to:
 - Design, finance, license, construct; maintain, and operate the transmission solution in a cost-effective, efficient, prudent, reliable, and capable manner over the lifetime of the transmission solution; while
 - Maximizing overall benefits and minimizing the risk of untimely project completion, project abandonment, future reliability issues, and operational or other relevant problems.

Posting Approved Project Sponsors and Report on Approved Project Sponsor Selection

- The ISO will post a list of the approved Project Sponsors for each regional transmission solution.
- The ISO will post a detailed report regarding the selection of the approved Project Sponsor including a summary of the comparative analysis undertaken.
- The selection report will contain the cost containment information of the approved project sponsor, but no other project sponsor.

PROJECT DESCRIPTIONS AND KEY SELECTION FACTORS

Key Selection Factors (Section 24.5.1)

- “existing qualification criteria and selection factors, in addition to any binding cost containment commitments, which the ISO believes are key for purposes of selecting an approved Project Sponsor for the particular transmission solution” (Section 24.5.1)
- Key selection factors for the transmission solutions eligible for competitive solicitation can be found at:

<http://www.caiso.com/InitiativeDocuments/Key-Selection-Factors-2021-2022-Transmission-Planning-Process.pdf>

To determine the key criteria for each transmission solution subject to competitive solicitation, the ISO will consider:

- (1) the nature, scope and urgency of the need for the transmission solution;
- (2) expected severity of siting or permitting challenges;
- (3) the size of the transmission solution, potential financial risk associated with the transmission solution, expected capital cost magnitude, cost overrun likelihood and the ability of the Project Sponsor to contain costs;
- (4) the degree of permitting, rights-of-way, construction, operation and maintenance difficulty;
- (5) risks associated with the construction, operation and maintenance of the transmission solution;
- (6) technical and engineering design difficulty or whether specific expertise in design or construction is required;
- (7) special circumstances or difficulty associated with topography, terrain or configuration;
- (8) specific facility technologies or materials associated with the transmission solution;
- (9) binding cost containment measures, including cost caps;
- (10) abandonment risk; and
- (11) whether the overall cost of the transmission solution impacts the ISO's prior determination of, and inclusion in, the comprehensive Transmission Plan of the more efficient or cost effective solution during Phase 2 of the transmission planning process.

Characteristics of transmission facilities being competitively procured:

Collinsville and Manning 500/230 kV substation projects

- Policy driven projects, defined range of technical options, new transmission facilities to be interconnected to existing facilities.
- Cost containment capabilities, commitments, and ability to manage schedules.
- Additional emphasis on broad capabilities of team, accessing existing rights of way, and specific technical capabilities.

Newark – Northern Receiving Station and Metcalf – San Jose B HVDC projects

- Reliability driven projects, defined range of technical options and varying degrees of more unique power system equipment, new transmission facilities to be interconnected to existing facilities.
- Cost containment capabilities, commitments, and ability to manage schedules.
- Additional emphasis on broad capabilities of team, accessing existing and acquiring new rights of way, and specific technical capabilities.

Transmission Solutions for Competitive Solicitation

Collinsville and Manning 500/230 kV Substation Projects:

Key Qualification and Selection Factors

- Selection factor section 24.5.4 (a) - the current and expected capabilities of the Project Sponsor and its team to finance, license, and construct the facility and operate and maintain it for the life of the solution;
- Selection factor section 24.5.4 (b) - the Project Sponsor's existing rights of way and substations that would contribute to the transmission solution in question;
- Selection factor section 24.5.4 (d) - the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet that schedule of the Project Sponsor and its team;
- Selection factor section 24.5.4 (e) - the financial resources of the Project Sponsor and its team;
- Selection factor section 24.5.4 (j) - demonstrated cost containment capability of the Project Sponsor and its team, specifically, binding cost control measures the Project Sponsor agrees to accept, including any binding agreement by the Project Sponsor and its team to accept a cost cap that would preclude costs for the transmission solution above the cap from being recovered through the CAISO's Transmission Access Charge, and, if none of the competing Project Sponsors proposes a binding cost cap, the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor, and its history of imposing such measures.

Transmission Elements for Competitive Solicitation

Newark – Northern Receiving Station and Metcalf – San Jose B HVDC Projects:

Key Qualification and Selection Factors

- Selection factor section 24.5.4 (a) - the current and expected capabilities of the Project Sponsor and its team to finance, license, and construct the facility and operate and maintain it for the life of the solution;
- Selection factor section 24.5.4 (b) - the Project Sponsor's existing rights of way and substations that would contribute to the transmission solution in question;
- Selection factor section 24.5.4 (c) - the experience of the Project Sponsor and its team in acquiring rights of way, if necessary, that would facilitate approval and construction, and in the case of a Project Sponsor with existing rights of way, whether the Project Sponsor would incur incremental costs in connection with placing new or additional facilities associated with the transmission solution on such existing right of way;
- Selection factor section 24.5.4 (d) - the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet that schedule of the Project Sponsor and its team;
- Selection factor section 24.5.4 (e) - the financial resources of the Project Sponsor and its team;
- Selection factor section 25.4.4 (f) - the technical and engineering qualifications and experience of the Project Sponsor and its team;

Transmission Elements for Competitive Solicitation

Newark – Northern Receiving Station and Metcalf – San Jose B HVDC Projects:

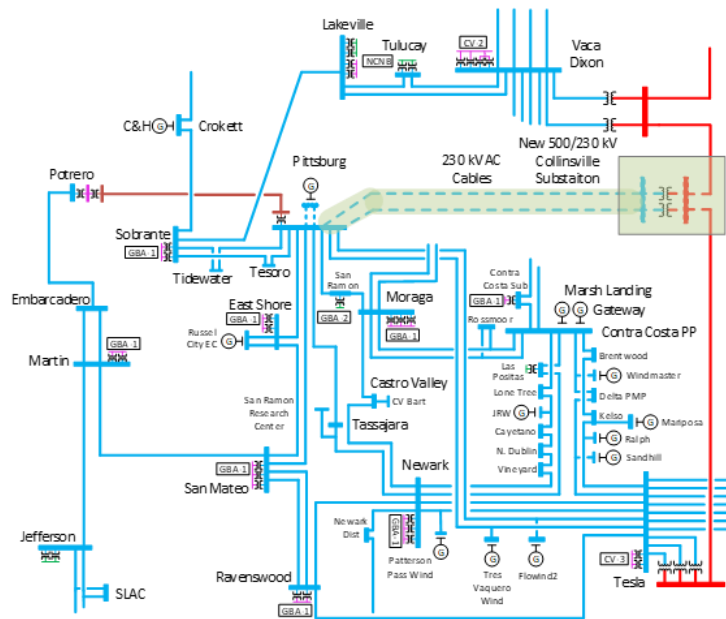
Key Qualification and Selection Factors (continued)

- Selection factor section 24.5.4 (j) - demonstrated cost containment capability of the Project Sponsor and its team, specifically, binding cost control measures the Project Sponsor agrees to accept, including any binding agreement by the Project Sponsor and its team to accept a cost cap that would preclude costs for the transmission solution above the cap from being recovered through the CAISO's Transmission Access Charge, and, if none of the competing Project Sponsors proposes a binding cost cap, the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor, and its history of imposing such measures.

Sequence 1 Transmission Solutions eligible for Competitive Solicitation

- Collinsville 500/230 kV Substation and Tie Line
 - Planning Cost Estimate: \$475 to \$675 million
 - Configuration: 500 kV BAAH, 4 bay, 6 CB
 - 2 - 525/230 kV, 1500 MVA Transformer Banks
 - 230 kV BAAH, 4 bay, 6 CB
 - Includes the construction of two 230 kV transmission lines to Pittsburg Substation
 - Policy driven
 - Mitigates overloads under various conditions and provides an additional supply from the 500 kV system into the northern Greater San Francisco Bay Area to increase reliability to the area and advance additional renewable generation in the northern area
 - Requested in Service Date: June 2028

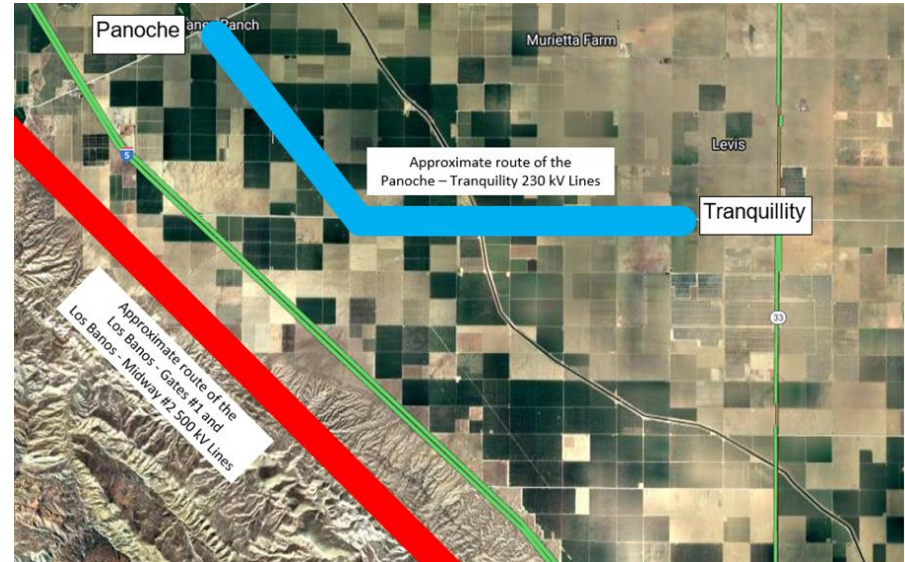
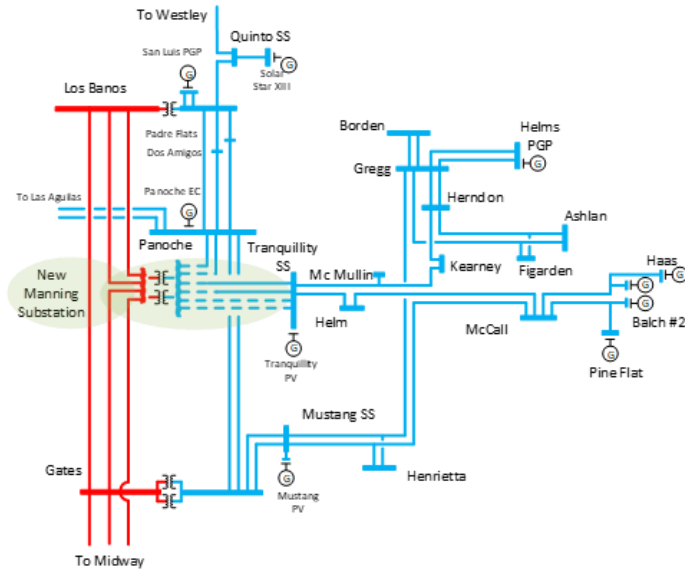
Location of Collinsville 500/230 kV Substation Project



Sequence 1 Transmission Solutions eligible for Competitive Solicitation

- Manning 500/230 kV Substation and Tie Line
 - Planning Cost Estimate: \$325 to \$485 million
 - Configuration: 500 kV BAAH, 6 bay, 10 CB
 - 2 - 525/230 kV, 1300 MVA Transformer Banks
 - 230 kV BAAH, 8 bay, 13 CB
 - Includes the construction of two 230 kV transmission lines to Tranquility Substation
 - Policy driven
 - Mitigates overloads under various conditions and provides benefit in allowing for the advancement of renewable generation within the Westlands / San Joaquin area.
 - Requested in Service Date: June 2028

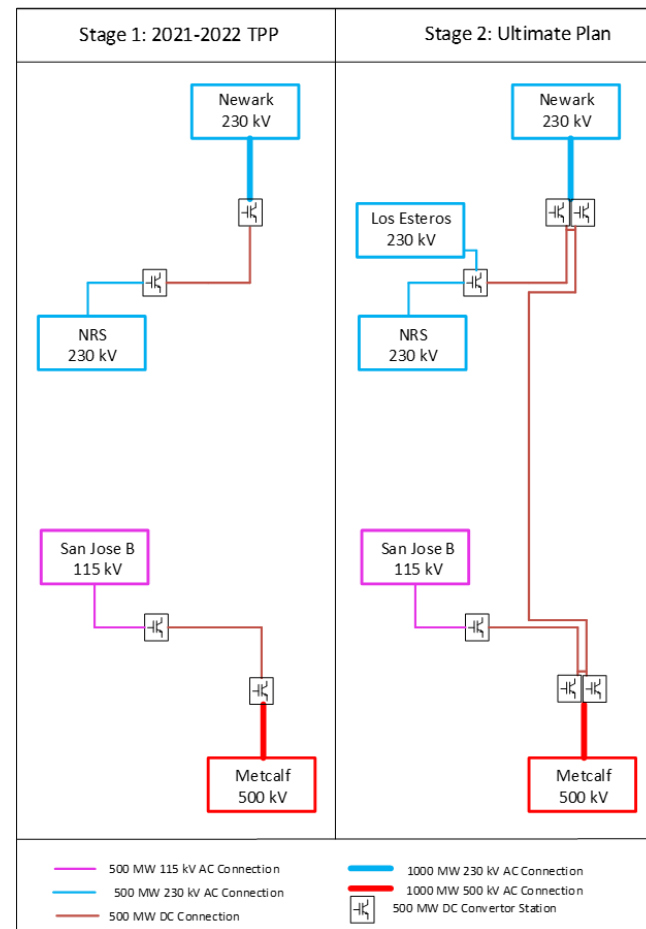
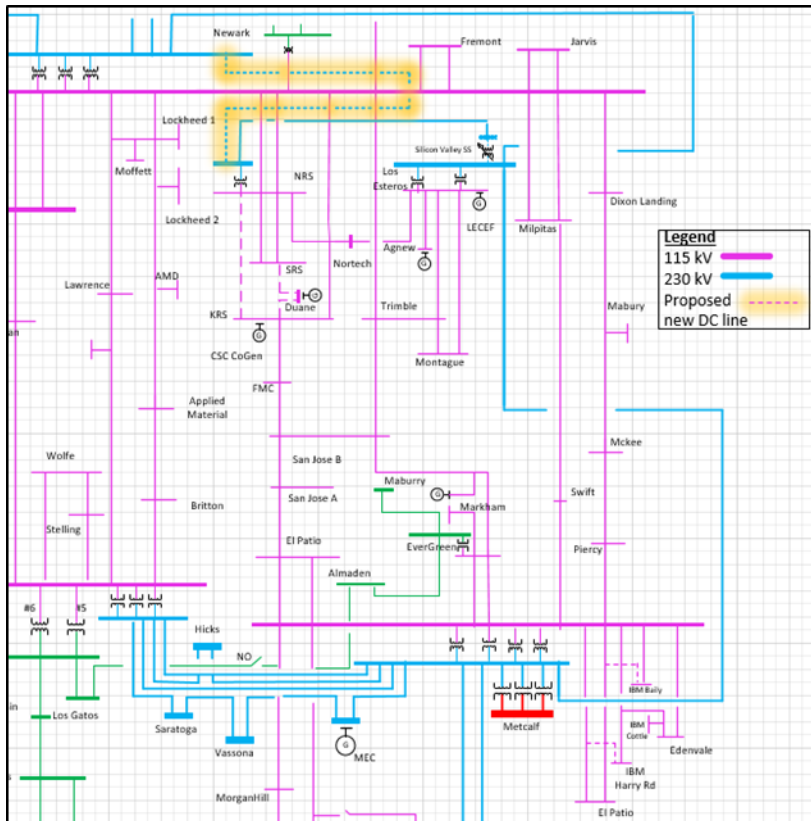
Location of Manning 500/230 kV Substation Project



Sequence 2 Transmission Solutions eligible for Competitive Solicitation

- Newark – Northern Receiving Station HVDC
 - Planning Cost Estimate: \$325 to \$510 million
 - Capability: 500 MW, +/- 150 MVAR
 - Newark converter station to accommodate future 1000 MW capacity
 - NRS converter station AC switchyard to accommodate future interconnection to Los Esteros
 - AC terminal voltage: 230 kV
 - DC converter station voltage: +/- 320 kV
 - Reliability driven
 - Mitigates thermal and voltage violations under various system conditions
 - Requested in Service Date: June 2028

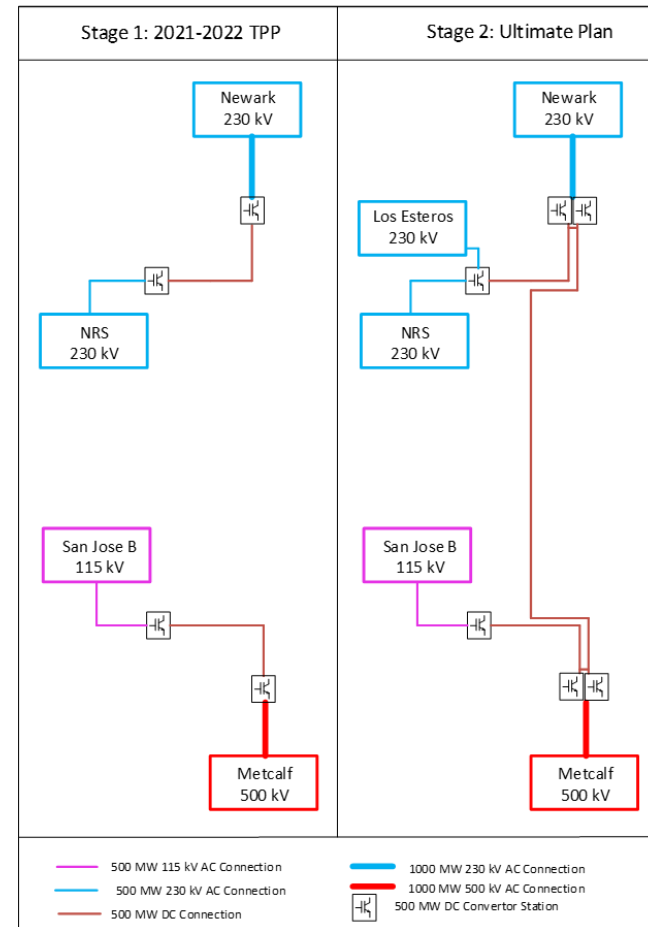
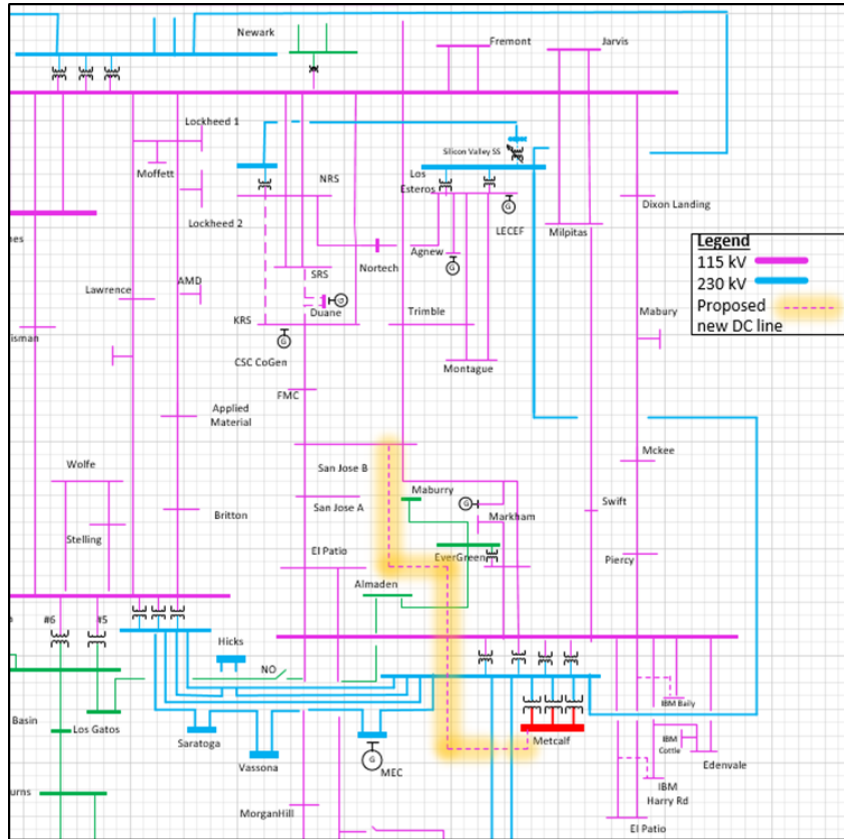
Location of Newark – Northern Receiving Station HVDC Project



Sequence 2 Transmission Solutions eligible for Competitive Solicitation

- Metcalf – San Jose B HVDC
 - Planning Cost Estimate: \$525 to \$615 million
 - Capability: 500 MW, +/- 150 MVAR
 - Metcalf converter station to accommodate future 1000 MW capacity
 - Metcalf AC terminal voltage: 500 kV
 - San Jose B AC terminal voltage: 115 kV
 - DC converter station voltage: +/- 320 kV
 - Reliability driven
 - Mitigates thermal and voltage violations under various system conditions
 - Requested in Service Date: June 2028

Location of Newark – Northern Receiving Station HVDC Project



Summary and Next Steps

- Project Sponsor application is posted to the Transmission Planning webpage at:
<http://www.caiso.com/planning/Pages/TransmissionPlanning/Default.aspx>
- Project Functional Specifications are posted to the 2021-2022 Transmission Planning Process webpage at:
<http://www.caiso.com/InitiativeDocuments/AppendixG-BoardApproved-2021-2022TransmissionPlan.pdf>
- Submit completed applications (also questions about the application or specifications) to this email address:
transmissioncompetitivesolicitation@caiso.com
- Questions and associated answers tables (i.e. matrix log of questions and answers) will be posted to the 2021-2022 Transmission Planning Process webpage
- Completed applications (including deposit fee and officer certification signature) are due on or before July 15, 2022 (Sequence 1) and Aug 26, 2022 (Sequence 2).



- The ISO is pleased to be hosting the Stakeholder Symposium in-person at the Safe Credit Union Convention Center in downtown Sacramento on Nov. 9 – 10, 2022
- Registration will be open in May
 - Public notice will be issued once the site is available
- Additional information is available on the Stakeholder Symposium page on ISO's website at:
<http://www.caiso.com/informed/Pages/MeetingsEvents/StakeholderSymposium/Default.aspx>
- Please direct questions to symposiumreg@caiso.com