



2023–2024 Transmission Planning Process Phase 3 – Competitive Solicitation

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June 26, 2024

Housekeeping reminders

- Stakeholder calls and meetings related to Transmission Planning are not recorded.
 - Given the expectation that documentation from these calls will be referred to in subsequent regulatory proceedings, we address written questions through written comments, and enable more informal dialogue at the call itself.
 - Minutes are not generated from these calls, however, written responses are provided to all submitted comments.
- Meeting is structured to stimulate dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Please try and be brief and refrain from repeating what has already been said so that we can manage the time efficiently.

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 Kaitlin McGee 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

2023-2024 Transmission Planning Process

December 2022

April 2023

May 2024

Phase 1 – Develop detailed study plan

State and federal policy

CEC - Demand forecasts

CPUC - Resource forecasts and common assumptions with procurement processes

Other issues or concerns

Phase 2 - Sequential technical studies

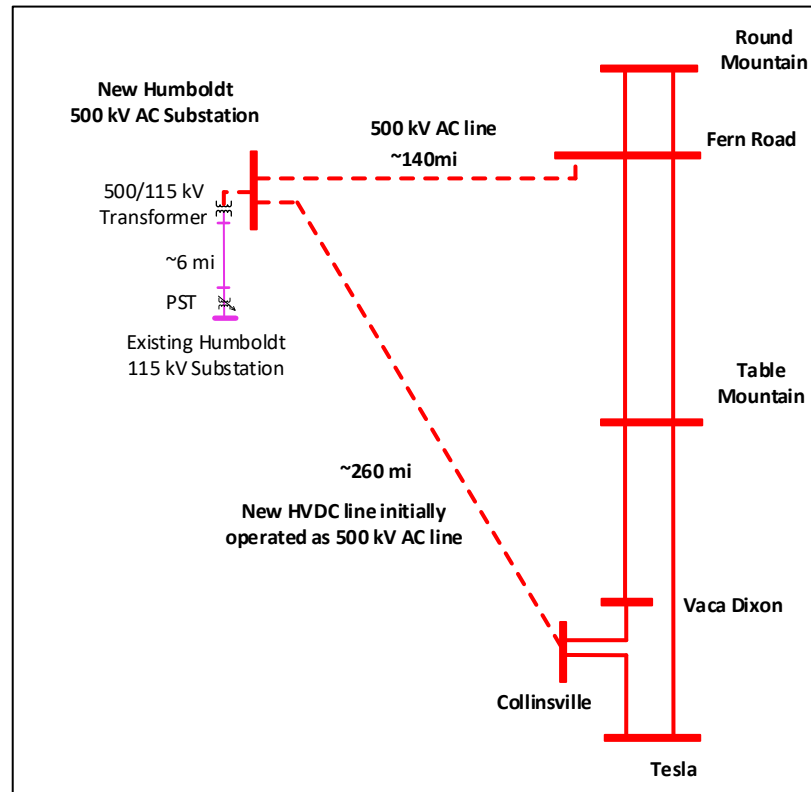
- Reliability analysis
 - Renewable (policy-driven) analysis
 - Economic analysis
- Publish comprehensive transmission plan with recommended projects

Phase 3 Procurement

CAISO Board for approval of transmission plan

Projects Eligible for Competitive Solicitation in 2023 – 2024 TPP

- Project 1: New Humboldt 500 kV Substation, with a 500/115 kV Transformer, and 500 kV Line to Collinsville [HVDC operated as AC] Project
- Project 2: Humboldt – Fern Road 500 kV Line Project
- Part of the overall transmission plan to integrate the offshore wind resources in the north coast to the rest of the CAISO system.



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

- June 26, 2024 – Bid Window Opens
- Opportunity to Collaborate – 10 Business Days (BD)
- New Humboldt 500 kV Substation, with a 500/115 kV transformer, and 500 kV line to Collinsville [HVDC operated as AC] – **Bid Window Closes October 7, 2024**
- New Humboldt to Fern Road 500 kV Line – **Bid Window Closes October 28, 2024**
- 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
- Approved Project Sponsor Selection Posted to the ISO Website
 - New Humboldt 500 kV Substation, with a 500/115 kV transformer, and 500 kV line to Collinsville [HVDC operated as AC] Project - April 15, 2025
 - New Humboldt to Fern Road 500 kV Line Project – May 7, 2025

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

Project Sponsor Application Changes for 2023-2024:

Application:

- Clarified differences between maintenance and operations data requests
- Add clarification concerning evaluation of identified contractors and experience considerations
- Added cost containment questions related to project delay or abandonment

Prior Projects Experience Workbook:

- Separated the notes from the respective sponsor and contractor tabs
- Added columns to separate maintenance and operations experience
- Added columns in the contractor tab for country and state
- Changed operations and maintenance experience requirements to include all facilities operated and maintained even if they were constructed over 10 years ago

Cost and Containment Workbook:

- The CAISO has determined that there is no benefit for an early in service date and set a standard in service date for the project evaluation.
- Revisions to the instruction tabs and clarifications of requirements

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 \$100,000 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.
- 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 Project 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 qualified expert consultants, 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 ISO 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 the Approved Project Sponsor 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:

[Key-Selection-Factors-2023-2024-Transmission-Planning-Process.pdf \(caiso.com\)](#)

To determine the key selection factors for each transmission solution subject to competitive solicitation, the ISO considers:

- (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.

Transmission Solutions for Competitive Solicitation

Humboldt 500 kV Substation, with a 500/115 kV Transformer, and 500 kV Line to Collinsville [HVDC operated as AC] Project:

Key Qualification and Selection Factors

- 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 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 (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 Solutions for Competitive Solicitation

New Humboldt to Fern Road 500 kV Line Project:

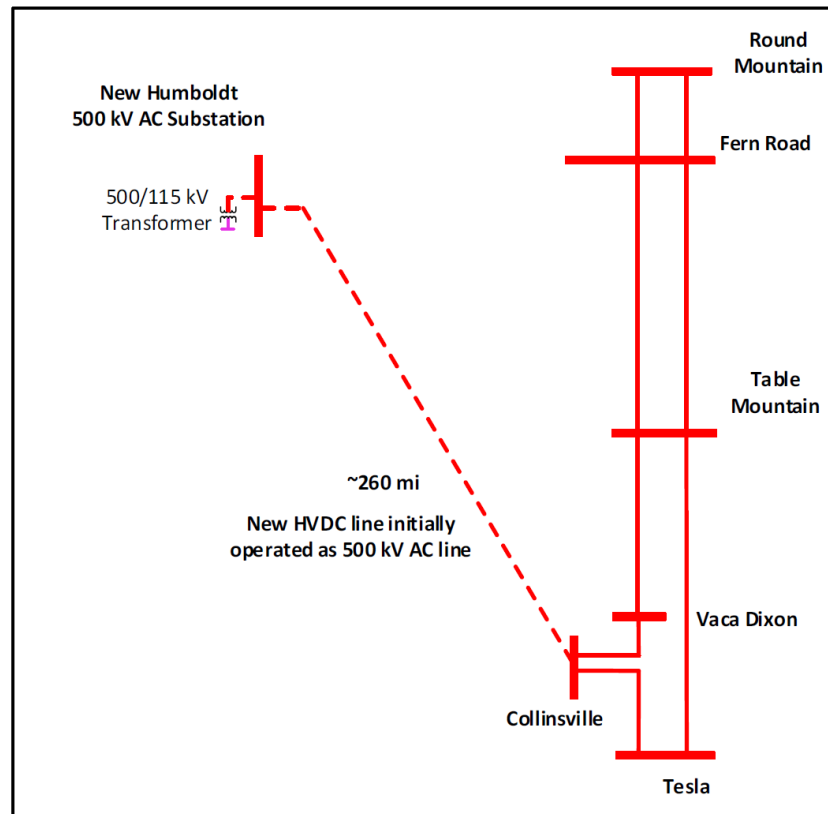
Key Qualification and Selection Factors

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Sequence 1 Transmission Solutions eligible for Competitive Solicitation

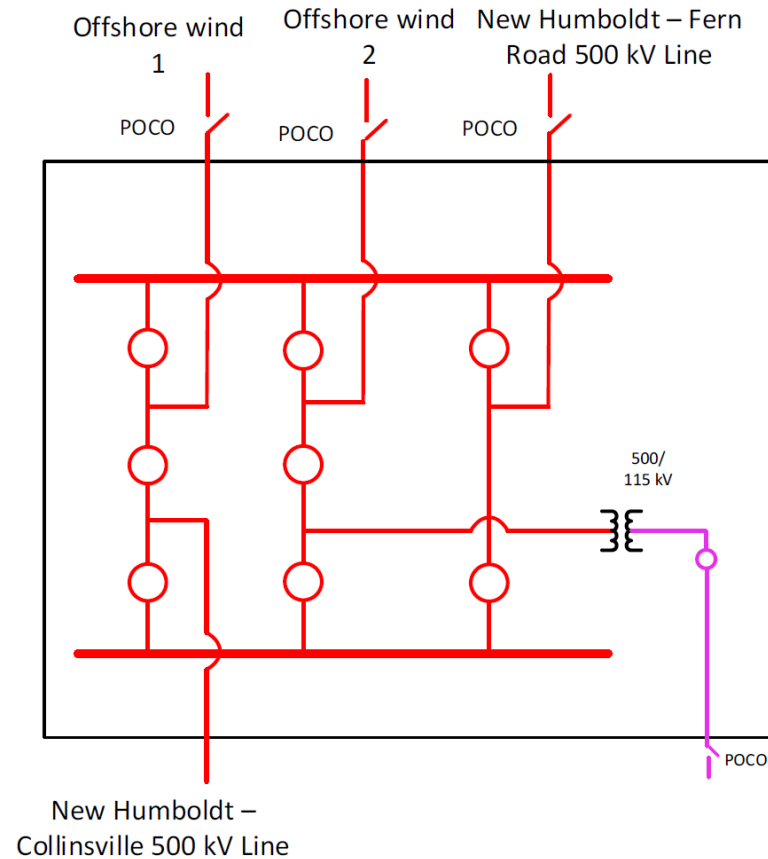
- New Humboldt 500 kV Substation, with a 500/115 kV Transformer, and 500 kV Line to Collinsville [HVDC operated as AC] Project
 - Policy driven
 - Part of the overall transmission plan to integrate the offshore wind resources in the north coast to the rest of the CAISO system.
 - Includes the construction of a new estimated 260 mile 500 kV line from New Humboldt Substation to Collinsville
 - Requested in Service Date: June 1st, 2034
 - Planning Cost Estimate: Approx. \$1,913 - \$2,740 million

Location of New Humboldt 500 kV Substation, with a 500/115 kV Transformer, and 500 kV Line to Collinsville Project



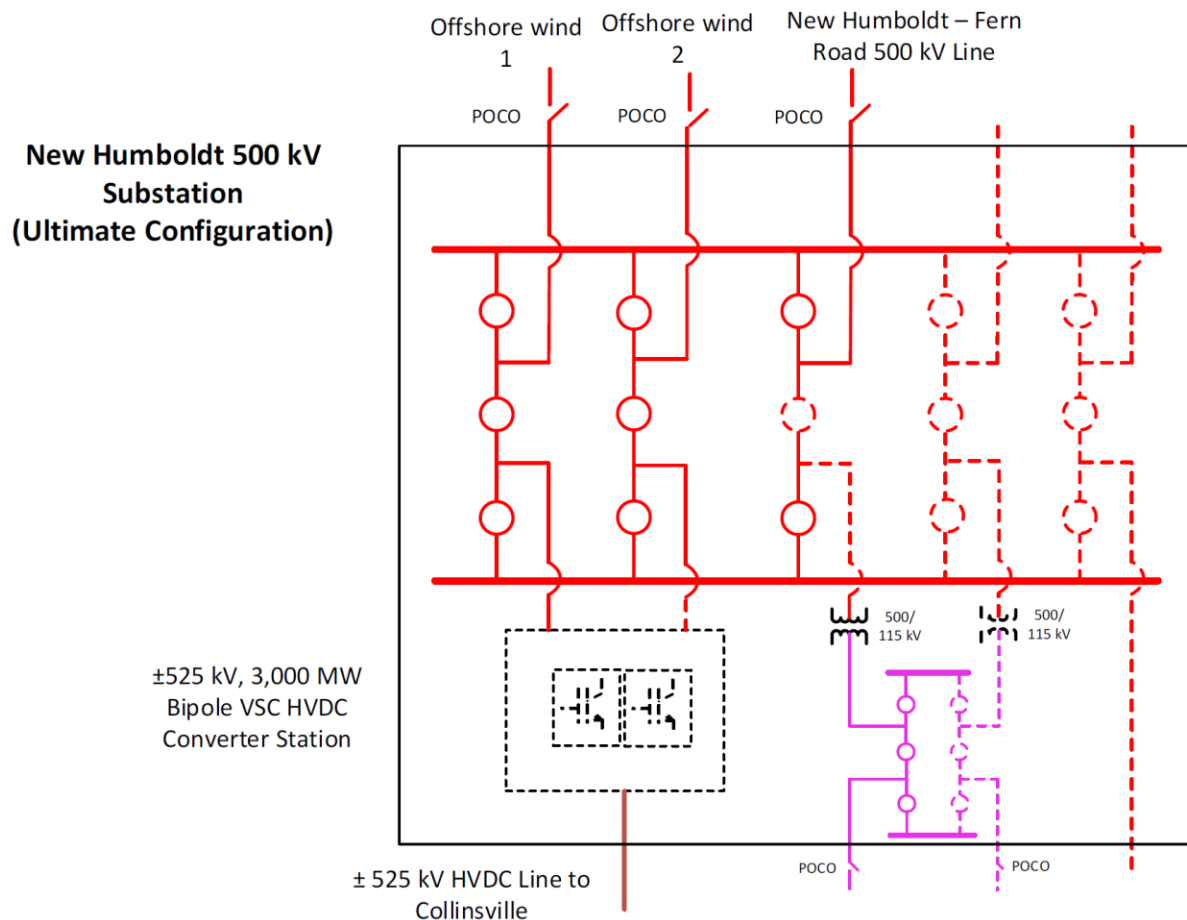
Initial Configuration

**New Humboldt 500 kV Substation
(Initial Configuration)**



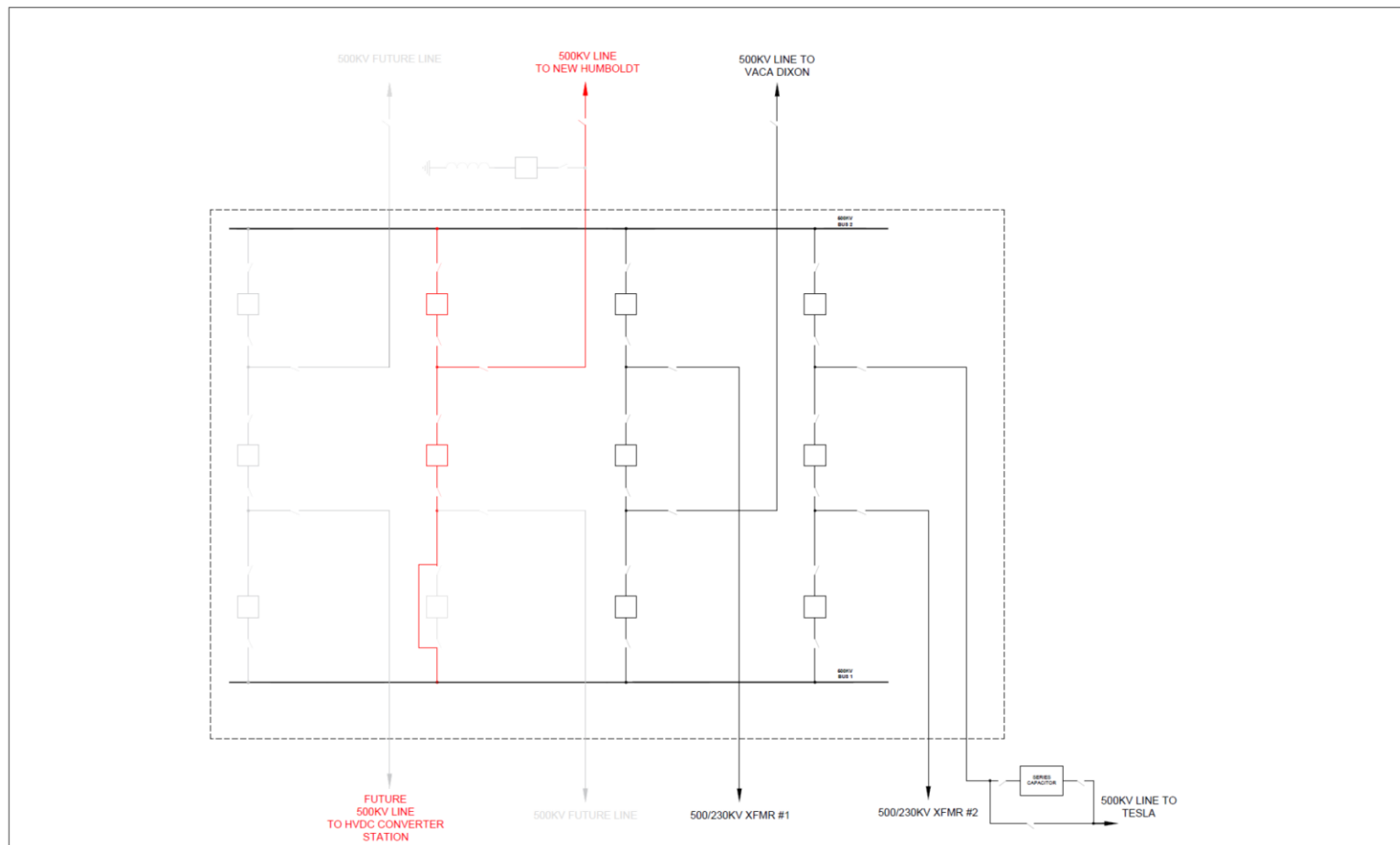
- Detail arrangement of the interconnections will be finalized following the completion of the interconnection studies

Ultimate Configuration



- Detail arrangement of the interconnections will be finalized following the completion of the interconnection studies

Interconnection to Collinsville Substation

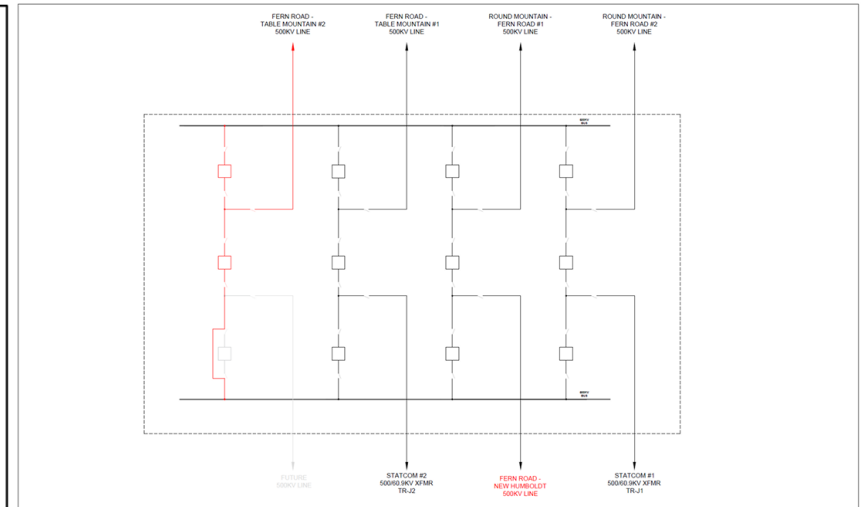
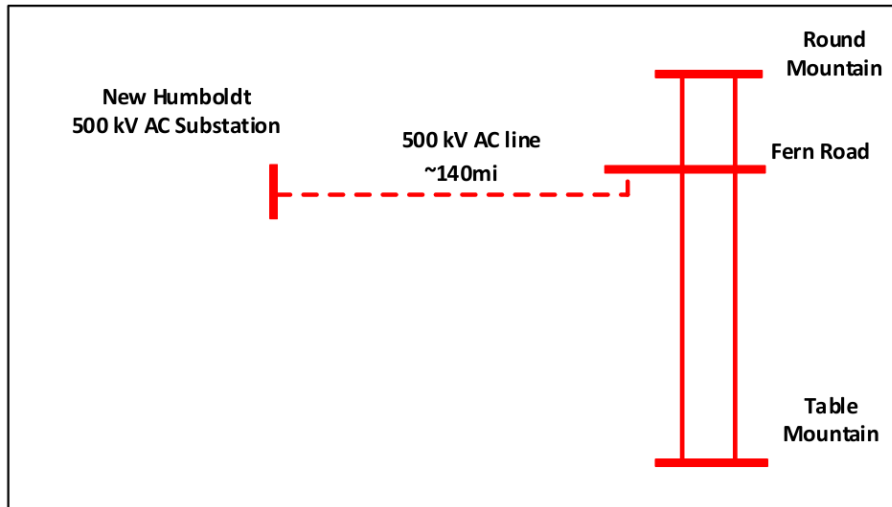


- Detail arrangement of the interconnections will be finalized following the completion of the interconnection studies

Sequence 2 Transmission Solutions eligible for Competitive Solicitation

- Humboldt – Fern Road 500 kV Line Project
 - Policy driven
 - Part of the overall transmission plan to integrate the offshore wind resources in the north coast to the rest of the CAISO system.
 - Includes the construction of a new estimated 140 mile series compensated 500 kV line from New Humboldt Substation to Fern Road
 - Requested in Service Date: June 1st, 2034
 - Planning Cost Estimate: Approx. \$980 - \$1,400 million

Location/Design of Humboldt – Fern Road 500 kV Line Project



- Detail arrangement of the interconnections will be finalized following the completion of the interconnection studies

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 2023-2024 Transmission Planning Process webpage at: [2010-12 Long-term LCR Report \(caiso.com\)](#)
- 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 2023-2024 Transmission Planning Process webpage
- Completed applications (including deposit fee and officer certification signature) are due on or before October 7, 2024 (Sequence 1) and October 28, 2024 (Sequence 2)