Manning-Metcalf 500 kV Line Project
Project Sponsor Selection Report

May 20, 2026

California Independent System Operator Corporation

TABLE OF CONTENTS

List of Attachments

Attachment 1 – Competitive Solicitation Transmission Project Sponsor Application dated 06/25/24 Version 9.

1. INTRODUCTION

This report describes the competitive solicitation process conducted by the California Independent System Operator Corporation (ISO) for the Manning-Metcalf 500 kV Line Project. The ISO conducted this competitive solicitation because, in its 2024-2025 transmission planning process, the ISO identified a need for this reliability driven transmission project. As required by the ISO Tariff, the ISO undertook a comparative analysis to determine the degree to which each project sponsor and its proposal met the qualification criteria set forth in ISO Tariff Section 24.5.3.1 and the selection factors set forth in ISO Tariff Section 24.5.4 to determine the approved project sponsor to finance, construct, own, operate, and maintain this project. The three qualified proposals that the ISO reviewed from the three project sponsors for this project were detailed and well supported. The ISO emphasizes that it considers all project sponsors to be qualified to finance, construct, own, operate, and maintain this project. While conducting the comparative analysis, the ISO had to make detailed distinctions among the project sponsors' proposals in determining the approved project sponsor. The result of this competitive solicitation process is that the ISO has selected California Grid Holdings LLC, as the approved project sponsor to finance, construct, own, operate, and maintain the Manning-Metcalf 500 kV Line Project.

2 BACKGROUND

2.1 Manning-Metcalf 500 kV Transmission Line Project and Competitive Solicitation Process

The ISO Tariff specifies that the ISO's transmission planning process must include a competitive solicitation process for new, stand-alone regional transmission facilities needed for reliability, economic, and/or public policy driven reasons. The ISO's 2024-2025 transmission plan identified a reliability-driven need for the Manning-Metcalf 500 kV Line Project as part of the overall transmission plan. The ISO governing board approved this project on May 30, 2025.

Following approval of the transmission plan, the ISO opened a bid solicitation window on June 25, 2025, which provided project sponsors the opportunity to submit proposals to finance, construct, own, operate, and maintain the Manning-Metcalf 500 kV Line Project. Project sponsors had an opportunity to express interest in collaborating with another entity during the first ten business days after the bid window opened. No project sponsor requested collaboration. In accordance with ISO Tariff Section 24.5.1 and the posted 2024-2025 Transmission Planning Process Phase 3 Sequence Schedule, the bid solicitation window remained open through October 17, 2025.

The ISO Functional Specifications for this project are located in Appendix I of the 2024-2025 transmission plan, under the title *"Description and Functional Specifications of Proposed Reliability-Driven Manning – Metcalf 500 kV Line Project"*, dated May 20, 2025.[1] In the ISO Functional Specifications, this transmission project is described as follows:

- The project scope includes an approximately 100 mile 500 kV AC transmission line between Manning and Metcalf 500 kV substations with 70% series compensation.
- The project requires series capacitors and line reactors.

In the ISO Functional Specifications, the ISO provided estimates for costs for this entire project to be approximately $500 to $700MM. The ISO also specified that the project must be in service no later than June 1, 2034. Upon completion of this project, the approved project sponsor will own the Manning-Metcalf 500 kV Line Project, but it must turn the facilities over to ISO operational control.

The ISO posted on June 4, 2025, a list of key selection factors for the Manning-Metcalf 500 kV Line Project.[2] These are the tariff criteria the ISO determined are the most important for selecting a project sponsor for this reliability driven project. For the purposes of this report, the ISO identified the following subsections of ISO Tariff 24.5.4 as the key selection factors:

[1] ISO Functional Specifications
https://www.caiso.com/documents/appendix-i-board-approved-2024-2025-transmission-plan.pdf
[2] Key Selection Factors
https://stakeholdercenter.caiso.com/InitiativeDocuments/KeySelectionFactors-2024-2025TransmissionPlanningProcess.pdf

- Section 24.5.4 (b) – "the Project Sponsor's existing rights of way and substations that would contribute to the transmission solution in question;"
- 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;"
- Section 24.5.4 (e) – "the financial resources of the Project Sponsor and its team;"
- 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 agreements 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."

The ISO hosted an informational call for interested parties on June 25, 2025, and provided a presentation describing this project and the competitive solicitation process, including the key selection factors.[3]

The ISO evaluated three proposals from three project sponsors: (1) California Grid Holdings LLC (CalGrid), a wholly owned subsidiary of Viridon Holdings LLC, (2) Lotus Infrastructure Partners (Lotus) , and (3) WestWorks Grid, LLC (WestWorks), an entity wholly owned by LS Power Associates, L.P., in conjunction with Pacific Gas and Electric Company (PG&E). The ISO posted a list of validated project sponsor applications on November 7, 2025.[4] The ISO found that all three of the proposals provided sufficient information to meet the minimum validation criteria as set forth in Section 24.5.2.4 of the ISO Tariff. The ISO posted a list of qualified project sponsors and proposals on December 9, 2025.[5] The ISO found that all three project sponsors and their three validated proposals met the minimum qualification criteria as set forth in Section 24.5.3 of the ISO Tariff.

2.2 The ISO Transmission Planning Process and Competitive Solicitation Tariff Structure

In 2010, the Federal Energy Regulatory Commission (FERC) approved changes to the ISO's transmission planning process that included a competitive solicitation process for new, stand-alone transmission facilities needed for reliability, economic, and/or public policy driven reasons. Subsequently, in 2012 the ISO filed tariff amendments to comply with the requirements of FERC Order No. 1000 to further promote competition in the transmission planning process. The ISO conducted its first competitive solicitation process during the 2012-2013 transmission planning

[3] Key Selection Factors
https://stakeholdercenter.caiso.com/InitiativeDocuments/KeySelectionFactors-2024-2025TransmissionPlanningProcess.pdf
f[3] Phase 3 TPP Presentation
https://stakeholdercenter.caiso.com/InitiativeDocuments/Presentation-2024-2025-Transmission-Planning-Process-Phase-3-Competitive-Solicitation-Jun-25-2025.pdf
[4] Validated Project Sponsor Applications
https://stakeholdercenter.caiso.com/InitiativeDocuments/List-of-Validated-Project-Sponsor-Applications-Manning-Metcalf-500kV-Transmission-Line-Project.pdf
[5] Qualified Project Sponsor Applications
https://stakeholdercenter.caiso.com/InitiativeDocuments/List-of-Qualified-Applicants-Manning-Metcalf-500kV-Transmission-Line-Project.pdf

cycle. Based on the experience gained during the competitive selection process and discussions with stakeholders, the ISO identified improvements to clarify and provide more transparency to the process for participating transmission owners (PTOs) and other transmission developers. The ISO conducted a competitive transmission improvement initiative in late 2013, which concluded with ISO Tariff Section 24.5 and process changes.

The framework for the 2024-2025 transmission plan competitive solicitation process is set forth in ISO Tariff Section 24.5. In addition, the ISO posted the form of the project sponsor application (Attachment 1) on its website.[6] Also, while the bid solicitation window was open, the ISO maintained and posted on its website a question-and-answer matrix detailing questions from prospective project sponsors and the ISO's responses thereto so that all interested parties would have access to the same clarifying information.[7] In compliance with ISO Tariff Section 24.5.3.5, the ISO engaged two well-respected, international industry consulting firms to assist the ISO in its selection of the approved project sponsor. One firm primarily supports the ISO in the qualification and comparative analyses associated with the project schedule, rights-of-way (ROW) acquisition, environmental permitting, design, construction, maintenance, and operating capabilities of the project sponsors. The other firm provides economic, financial, and rate expertise and provides cost of service analyses. Both firms have committed to remain unbiased and not participate with any project sponsor in the competitive solicitation process.

Each project sponsor completed the project application form, which included a series of questions and requirements in the following areas:

- Project Sponsor, Name, Organizational Structure, and Proposal Summary
- Project Qualifications
- Prior Projects and Experience
- Project Management and Schedule
- Cost Containment
- Financial
- Environment Permitting and Public Process
- Transmission or Substation Land Acquisition
- Substation Design and Engineering
- Transmission Line Design and Engineering
- Construction
- Maintenance
- Operations
- Miscellaneous
- Officer Certification
- Application Deposit Payment Instructions

The ISO provided the project sponsors opportunities to correct deficiencies in their applications. Following a project sponsor's submission of supplemental information, the ISO validated the project sponsor's application to determine if it contained sufficient information for the ISO to determine whether the project sponsor and its proposal were qualified. Once the ISO validated the applications, the ISO posted the list of validated project sponsor applications to its website

[6] ISO Transmission Project Sponsor Proposal – Competitive Solicitation Application https://www.caiso.com/documents/competitive-solicitation-transmission-project-sponsor-application-rev9.docx

[7] Response to Comments Matrix https://stakeholdercenter.caiso.com/InitiativeDocuments/2024-2025-Competitive-Solicitation-Questions-Matrix-R0.pdf

on December 9, 2025, as described in Section 2.1 of this report. As also described in Section 2.1, the ISO validated all three of the applications.

Next, the ISO determined whether the project sponsors and their proposals were qualified pursuant to ISO Tariff Sections 24.5.3.1 and 24.5.3.2. The ISO evaluated the project sponsors based on the information submitted in response to the questions in the application corresponding to ISO Tariff Sections 24.5.2.1(a)-(i) to determine, in accordance with Section 24.5.3.1, whether the project sponsor had demonstrated that its team is physically, technically, and financially capable of:

(i) completing the needed transmission solution in a timely and competent manner; and
(ii) operating and maintaining the transmission solution in a manner that is consistent with good utility practice and applicable reliability criteria for the life of the project, based on the qualification criteria as set forth in ISO Tariff Section 24.5.3.1(a)-(f).

In accordance with Section 24.5.3.2, the ISO evaluated the project sponsors' proposals based on the following criteria to determine whether the transmission solution proposed by the project sponsors would be qualified for consideration:

(a) "Whether the proposed design of the transmission solution is consistent with needs identified in the comprehensive Transmission Plan;"
(b) "Whether the proposed design of the transmission solution satisfies Applicable Reliability Criteria and CAISO Planning Standards."

The ISO found that all three project sponsors and their three validated proposals met the minimum qualification criteria as set forth in ISO Tariff Sections 24.5.3.1 and 24.5.3.2 for the Manning-Metcalf 500 kV Line Project. Therefore, the ISO determined that no cure period was needed for the qualification phase. As described in Section 2.1 of this report, the ISO posted the list of qualified project sponsors and their proposals to its website on January 29, 2026. Section 3 of this report describes the ISO's selection process for this project.

3 SELECTION OF THE APPROVED PROJECT SPONSOR

3.1 Description of Project Sponsor Selection Process

Once the ISO has determined that two or more project sponsors are qualified, ISO Tariff Section 24.5.3.5 directs the ISO to select one approved project sponsor "based on a comparative analysis of the degree to which each project sponsor's proposal meets the qualification criteria set forth in section 24.5.3.1 and the selection factors set forth in 24.5.4." The selection factors specified in ISO Tariff Section 24.5.4 are:

(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;
(b) the Project Sponsor's existing rights of way and substations that would contribute to the transmission solution in question;
(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;
(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;
(e) the financial resources of the Project Sponsor and its team;
(f) The technical and engineering qualifications and experience of the Project Sponsor and its team;
(g) if applicable, the previous record regarding construction and maintenance of transmission facilities, including facilities outside the CAISO Controlled Grid of the Project Sponsor and its team;
(h) demonstrated capability to adhere to standardized construction, maintenance and operating practices of the Project Sponsor and its team;
(i) demonstrated ability to assume liability for major losses resulting from failure of facilities of the Project Sponsor;
(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; and
(k) any other strengths and advantages the Project Sponsor and its team may have to build and own the specific transmission solution, as well as any specific efficiencies or benefits demonstrated in their proposal.

In selecting the approved project sponsor, the ISO undertook a comparative analysis of the project sponsors' proposals regarding the qualification criteria described in ISO Tariff Section 24.5.3.1 and the selection factors in ISO Tariff Section 24.5.4. As part of the comparative analysis, the ISO has given particular consideration to the key selection factors for the Manning-Metcalf 500 kV Line Project as described in Section 2.1 of this report.

This report summarizes information provided by each project sponsor that was considered by the ISO to be important in analyzing their proposals regarding each of the qualification criteria

and selection factors. In the ISO's summaries in this report describing the information provided by each project sponsor, the ISO has provided a reference to the particular sections of the project sponsor's application that served as the source for that summary.

In undertaking its analysis of the merits of the information provided in a project sponsor's proposal, the ISO accounted for information provided regarding the experience of a project sponsor and its team as follows. In any case where a project sponsor provided a list of potential contractors to perform one of the activities that is the subject of a selection factor, the ISO used the experience of the contractor on the list with the least experience in evaluating the experience of the project sponsor and its team. This approach accounts for the possibility that the project sponsor might ultimately choose to use that contractor. Additionally, in any case where a project sponsor is a recently formed entity -- for purposes of this report, CalGrid, the ISO evaluated the project sponsor's prior experience based on the indicated experience of the members of its team.

Because this report is a summary, it does not repeat all of the information provided by the project sponsors. However, the ISO reviewed and considered all of the information provided by the project sponsors, and the ISO's failure to reference any specific information provided by a project sponsor does not indicate lack of consideration of such information.

3.2 Description of Project Sponsors for the Manning-Metcalf 500 kV Line Project

The ISO evaluated three validated and qualified project sponsor applications for the Manning-Metcalf 500 kV Line Project submitted by three project sponsors:

- CalGrid
- Lotus
- WestWorks

All three entities are qualified and submitted strong, competitive applications supporting their proposals. As a result, the ISO had to make detailed distinctions among the three project sponsors and their validated and qualified proposals in the comparative analysis process in selecting the approved project sponsor.

CalGrid

According to its proposal, CalGrid is an indirect wholly owned subsidiary of Viridon Holdings LLC, which, together with its subsidiaries and affiliates, is generally known as Viridon. CalGrid indicated that it is a Delaware limited liability company established as a holding company for greenfield transmission projects in California. CalGrid indicated Viridon is headquartered in Chicago, Illinois, and was formed in 2023 by a team of experienced transmission industry leaders with over five decades of combined experience in the competitive transmission business, to deliver and manage complex transmission facilities. CalGrid indicated Viridon is a portfolio company of Blackstone Inc. (Blackstone), which is a publicly traded company. CalGrid indicated that Blackstone's latest investment fund, Blackstone Energy Transition Partners IV (BETP IV), is the majority owner of Viridon's equity interest and that it is relying on BETP IV and its ultimate parent, Blackstone, to provide financial support and guarantees for this project. (A-5)

CalGrid indicated that it proposes to create a special purpose entity in the form of a limited liability company to finance, construct, own, operate and maintain the transmission asset if selected as the approved project sponsor for this project. (A-5)

CalGrid indicated that it would fund 100% of the project costs through construction and that CalGrid would lead the development and construction of the project and retain ownership of the project post commercial operation date. (A-5)

CalGrid indicated that it has entered into an agreement with Southern California Edison Company (SCE) pursuant to which SCE, upon commercial operation, would have the option to acquire from Viridon a twenty percent (20%) minority interest in the special purpose entity owning the project, and Viridon would retain the remaining eighty percent (80%) of the project. CalGrid indicated that the special purpose entity would be a subsidiary of CalGrid and an affiliate of SCE. CalGrid indicated that SCE has no obligation to provide financial support or guaranties for the project. (A-5)

CalGrid Access to Affiliate Financial Support

CalGrid indicated that Viridon, acting through CalGrid and with the support of majority owner BETP IV, would invest 100% of the equity required to finance the project and anticipates using debt and equity throughout the project's life. CalGrid indicated that CalGrid and the special purpose entity, as subsidiaries of Viridon and affiliates of Viridon's majority owner BETP IV, ultimate parent Blackstone, and other Blackstone entities, would benefit from all relevant capabilities and resources of combined Viridon and Blackstone organizations. (F-1, F-5)

CalGrid provided a letter of financial support for the project sponsor financial obligations signed by an officer of BETP IV indicating that the financial guarantee would be provided prior to the close of the project's financings and that an equity commitment letter would be provided as required by lenders pursuant to the financings of the project. (F-2)

CalGrid's proposal included a parent support letter from Blackstone indicating support for the project by Blackstone, the ultimate parent of the project's majority owner BETP IV, and that BETP IV would benefit from Blackstone's strong reputation in the financial community. (F-2)

Lotus

According to its proposal, Lotus is headquartered in Greenwich, Connecticut and specializes in deploying equity capital in energy infrastructure investment in North America, with a focus on the transmission, renewable power generation, energy storage, and natural gas sectors.

Lotus indicated that it would create a special purpose entity as an affiliate for purposes of developing the project. Lotus indicated that the special purpose entity would be managed by Lotus through Lotus Infrastructure Global Operations, LLC and affiliated investment vehicles specifically to finance, construct, own, maintain, and operate the project. (A-1, F-5)

Lotus Access to Affiliate Financial Support

Lotus indicated that it has sufficient capital through its parent company and investment affiliates to support the construction of the project and any potential liabilities. (F-1, F-2).

Lotus provided a written parent guarantee, providing financial assurance that its parent company, as the direct parent of the special purpose entity to be formed specifically for this

project, would provide customary credit support and has adequate financial resources to provide the financial support for the project repairs and permitting of the project. (F-2.1)

WestWorks

According to its proposal, WestWorks is a Delaware limited liability company. WestWorks indicated that, through intermediate holding companies (LSP Transmission Holdings II, LLC , and LSP Generation IV, LLC), it is a wholly-owned subsidiary of LS Power Associates, L.P., which, together with its subsidiaries and affiliates, is generally known as LS Power. WestWorks indicated that this ownership and organization structure has been used for LS Power's past transmission projects. (A-5, F-2)

WestWorks indicated that its proposal is in collaboration with PG&E and that, under the terms of the participation agreement between WestWorks and PG&E, at the commercial operation date PG&E would acquire 100% the project and subsequently leaseback a portion of the project entitlements to WestWorks. WestWorks indicated that under the terms of the leaseback structure PG&E would provide operations and maintenance (O&M) services upon commercial operations. In exchange, WestWorks indicated that it would receive a capacity entitlement lease to fund the O&M costs of the project and that PG&E would have the option to acquire a portion of the entitlements. WestWorks indicated that upon commercial operation PG&E would be responsible for owning, operating, and maintaining the transmission facilities and would fund all O&M costs associated with its entitlements and WestWorks would be solely responsible for funding all development and construction costs of the project and would fund all O&M costs associated with its capacity entitlement. WestWorks indicated that PG&E is a California corporation and is one of the nation's largest investor-owned utilities. (A-4, A-5, F-1)

WestWorks access to Affiliate Financial Support

WestWorks indicated that it would be solely responsible for financing the development and construction of the project. WestWorks indicated that upon commercial operation and throughout the life of the project PG&E proposes to own, operate, and maintain the project and finance it with both equity and debt in accordance with its authorized capital structure by arranging debt financing and receiving equity from PG&E Corporation. (A-5, F-1, F-2, F-5)

WestWorks indicated that it is relying on its parent LS Power to satisfy the financial criterion for this project. WestWorks provided evidence of LS Power's financial assurances to WestWorks in the form of a written guarantee. WestWorks provided a letter of financial assurance from PG&E's parent company PG&E Corporation stating that PG&E Corporation would provide equity funding and other financial support for PG&E as needed for the project. (F-2)

3.3 Selection Factor 24.5.4(a): Overall Capability to Finance, License, Construct, Operate, and Maintain the Facility

The ISO notes that the first selection factor is a broad factor that generally encompasses several subsequent narrower selection factors. The ISO will address satisfaction of this more general factor in its discussion of the applicable, more specific selection factors. The ISO will not duplicate here (1) the information provided by the project sponsors for purposes of demonstrating their capabilities and experience regarding each of the encompassed selection factors, or (2) the ISO's comparative analysis of the project sponsors' proposals in this regard, as set forth in the following sections of this report. The ISO will discuss the comparative

analysis for selection factor 24.5.4(a) in Section 3.14 of this report after the discussion of the other selection factors.

3.4 Selection Factor 24.5.4(b): Existing Rights-of-Way and Substations that Would Contribute to the Project

The second selection factor is "the Project Sponsor's existing rights of way and substations that would contribute to the transmission solution in question."

As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because the availability of existing ROW can contribute to lower project cost, reduced ROW acquisition efforts, and reduction in the overall time needed to complete the project.

This project also presents unique land rights acquisition challenges, including challenges due to the need for ROW in environmentally sensitive areas and significant land constraints around the Metcalf Substation. A proposal that best satisfies this factor will contribute significantly to ensuring that the project sponsor selected will develop the project in an efficient, cost-effective, and timely manner, which is particularly important for this project, because the timing of this project is critical to ensure reliable service of load in the San Jose area.

3.4.1 Information Provided by CalGrid

CalGrid indicated that it does not own existing ROW that can be utilized to construct any portion of the proposed project. CalGrid indicated that it has a critical affiliate relationship with a landowner of significant portion of the project and is in advanced discussions with the landowner for an option to secure a 10-acre parcel for its series compensation station that includes a shunt reactor. (L-4)

CalGrid indicated that its proposed route parallels the Los Banos-Gates #3 transmission line for 30 miles which Viridon owns an economic interest in and which it manages with the owner of the asset, and that this relationship with the asset owner and landowners would benefit any future ROW negotiations. (L-4)

CalGrid indicated that feedback from the policy director for San Jose District 2 which is adjacent to the Metcalf Substation and individuals from both Santa Clara Valley Open Space Authority and Santa Clara Valley Habitat Agency informed the route CalGrid is proposing. (L-4)

CalGrid indicated that its proposed route covers a total length of 86 miles and uses various easement widths. (L-1)

CalGrid indicated that approximately 27 miles of its proposed route is within the California Public Utilities Commission (CPUC) designated High Fire Threat District (HFTD) Tier 2. (L-1)

CalGrid indicated that its proposed route transects public land, including approximately one mile of Bureau of Land Management (BLM) and a short crossing of Bureau of Reclamation (BoR) administered land, Williamson Act parcels, lands preserved for agriculture, and conservation easements that were unavoidable when balanced against constraints more preclusive of transmission development. (L-1)

CalGrid indicated that its land team evaluated private parcels that intersect a series compensation facility evaluation area approximately centered on the midpoint of the proposed

route and identified suitable properties along the transmission line ROW. CalGrid indicated the prospective locations were then evaluated for suitability based on defined engineering, constructability, and environmental criteria. (L-1)

CalGrid provided a letter signed by a legal representative describing the progress on negotiations and the willingness of the landowner to collaborate with CalGrid for the series compensation site. (L-4)

CalGrid indicated that, in addition to requesting permanent ROW for the facilities, it would obtain ROW for temporary construction work areas, and rights to access the ROW. CalGrid indicated it would be seeking easements on agricultural lands, not acquisition of the entire parcel, and would work with the farmers to minimize impacts to their use of the land through design considerations and scheduling. (L-1)

CalGrid indicated that the selected route crosses a single conservation easement in Santa Clara County and that it has engaged with the Santa Clara Valley Open Space Authority on routing considerations. (L-1)

CalGrid indicated that it was discouraged from pursuing the western alternatives during a meeting with the Santa Clara Valley Habitat Agency, and noted that the western routes cross conservation areas, and that the proposed route crosses land that is owned, managed by, and/or part of the conceptual reserve design for multiple entities in the Santa Clara Valley amassing conservation lands (e.g., the Santa Clara Valley Habitat Agency, Santa Clara Open Space Authority, the County itself). (L-1)

CalGrid indicated that the Santa Clara Valley Habitat Agency explained that, even though there is an existing transmission line in the western route, the area provides quality habitat for special-status biological resources known to occur there. (L-1)

CalGrid indicated that approach to public open houses and outreach to individual landowners reflects the goal to come to agreements with landowners without use of eminent domain. (L-1)

CalGrid indicated that its proposed tower locations and access roads would permanently impact 244.7 acres and an additional 247.2 acres of temporary impacts such as laydown areas, landing zones, etc. (L-1)

CalGrid indicated that numerous 500 kV, 230 kV, and 115 kV transmission lines connect to Metcalf Substation from the west and that adding another 500 kV line in the western area would require significant crossings and added length, both of which would contribute to additional cost and risk. CalGrid indicated that the most practical solution for entering the Metcalf Substation is an overhead alignment approaching the substation by crossing U.S. 101 Highway from the east. (L-1)

3.4.2 Information Provided by Lotus

Lotus indicated that it does not own existing land rights to be used for this project. (L-4)

Lotus indicated that its proposed route is approximately 87.2 miles in length with an easement width of 200 feet. (L-1)

Lotus indicated that its proposed series compensation station would be located approximately 39 miles northwesterly of the Manning Substation and 48 miles southeasterly of Metcalf Substation. (L-1)

Lotus indicated that approximately 21.13 miles of its proposed route is within the CPUC designated HFTD Tier 2. (L-1)

Furthermore, Lotus indicated that its proposed route would require approximately 2,115 acres with 1,886 acres of privately held land and 149 acres of permanent access roads, 240 acres of temporary work areas, and 21 acres of landing zones and laydown areas. (L-1)

Lotus indicated that its proposed route has been selected to minimize impact to suburban areas and residential areas and to minimize temporary impacts on stakeholders during construction or during permanent operation. Lotus indicated that agricultural areas have been avoided when possible, due to greater costs to acquire land rights than undeveloped land. Lotus indicated that its proposed route is also the shortest route that avoids suburban areas, which would reduce overall costs. Lotus indicated that whenever possible, the proposed route follows existing transmission line projects to reduce new impacts or disturbance to the public but maintains safe physical separation to reduce the likelihood of common modes of failure. (L-1)

3.4.3 Information Provided by WestWorks

WestWorks indicated it does not have any existing land rights to contribute to the transmission line portion of the project. However, WestWorks indicated that its affiliate LSPGC does control property through other projects that it proposes to use for the Manning and Metcalf reactive compensation sites for series compensation and line reactors. (L-4)

WestWorks indicated that the siting criteria for the series compensation station included considerations regarding technical feasibility, land rights, environmental and permitting feasibility, constructability, and earth movement and seismic concerns. (S-2)

WestWorks indicated that its proposed route is approximately 93 miles in length and has an easement width of 150 feet to 200 feet beginning at the proposed Manning Substation. (L-1)

WestWorks indicated that it would install series compensation stations, including line reactors at the Manning and Metcalf Substations. (L-1)

WestWorks indicated that its proposed route would impact approximately 1761 acres of private land, 50 acres of Santa Clara County land, 12 acres of Santa Clara Valley Water District land, and ten acres of Santa Clara Valley Habitat Agency land. In addition, WestWorks indicated that the project would require 45.75 miles (including 11.14 miles of existing) of-ROW access roads and 247.7 miles (including 225.75 miles of existing) of off-ROW access roads. (L-1)

WestWorks indicated that approximately 18.25 miles of its proposed route is within the CPUC designated HFTD Tier 2 and 8.52 miles within the CPUC designated HFTD Tier 3. (L-1)

WestWorks indicated that approximately 96% of the land rights required for the project are located on private lands. WestWorks indicated that it would seek to acquire ROW easements across private lands through voluntary negotiations with the ability to use eminent domain. (L-1)

WestWorks indicated that it would work with city of San Jose and county public works department to obtain necessary encroachment permits for activities within the ROW.

WestWorks also indicated that it would work with California Department of Transportation (Caltrans) and Union Pacific Railroad to obtain crossing permits for Caltrans roads and railroads, respectively. (L-1)

WestWorks indicated that it would prepare and submit an encroachment permit application to Santa Clara Valley Open Space Authority requesting authorization for utility installation. (L-1)

WestWorks indicated that it would strive to obtain all land rights for the project voluntarily. However, WestWorks indicated that if the necessary land rights cannot be obtained voluntarily, the power of eminent domain granted to public utilities would be utilized. (L-1)

WestWorks indicated that its proposed route: maximizes use of existing transmission corridors, achieving more than 52% parallel alignment overall and 95% parallel alignment where the route crosses protected or public lands. (L-1)

WestWorks indicated that, while impacts to sensitive areas including parks, conserved lands, and natural resources cannot be completely avoided when routing a new transmission line into the Metcalf Substation, its proposed route would remain consistent with the California transmission line routing guidelines as memorialized within the Garamendi Principles. (L-1)

WestWorks indicated that it evaluated a total of eight unique route alternatives and provided a detailed routing study that included detailed maps of the Project Study Area (PSA), alternatives, and key constraints. (L-1)

WestWorks indicated that it considered two alternatives for routing around the Santa Clara Valley, one on the eastern side and another on the west. (L-1)

3.4.4 ISO Comparative Analysis

For purposes of the comparative analysis for this factor, the ISO has considered the representations by the project sponsors regarding the rights-of-way or other land rights they possess and are proposing to contribute to this project and acquisition of land rights needed for the project.

All three proposals indicated that the project sponsors did not have existing land rights to contribute to the project.

CalGrid indicated its affiliate owns an economic interest in the Los Banos-Gates 500 kV transmission line parallel to a portion of its proposed route. In addition, CalGrid indicated it is in advanced negotiations for an option on a parcel for its proposed series compensation site. The ISO does not consider these potential land rights to be definite enough to contribute land to CalGrid's proposed project within the scope of this factor or to give CalGrid a material advantage over the other project sponsors regarding its ability to obtain land rights.

WestWorks indicated its affiliate LSPGC controls property at the proposed Manning Substation and near Metcalf Substation that is proposed for the two series compensation stations. The ISO does not consider these potential land rights to be definite enough to contribute land to WestWorks' proposed project within the scope of this factor or to give Westworks a material advantage over the other project sponsors regarding its ability to obtain land rights.

In evaluating the foregoing considerations regarding the land rights acquisition plans of the project sponsors, the ISO has concluded that the challenges posed by the identified obstacles

should ultimately not prevent the project sponsors from acquiring the necessary land rights for the project, given the availability of alternate routes in the event some of the land rights cannot be obtained for the primary proposed route. The ISO considers the potential schedule and cost risks, and any potential schedule and cost benefits, of the proposed routes in Sections 3.6 and 3.12 respectively.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, based on the specific scope of this project, there is no material difference among the three proposals regarding this factor.

3.5 Selection Factor 24.5.4(c): Experience in Acquiring Rights-of-Way

The third selection factor is "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."

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) the experience of the project sponsor and its team in acquiring rights-of-way and (2) for 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 rights-of-way.

Experience in Acquiring Rights-of-Way

3.5.1 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with acquiring ROW for substation, transmission line, and reactive compensation projects. Regarding projects that are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 18 transmission line projects with one project in California, and nine reactive compensation and/or substation projects with one in California. (Prior Projects and Experience Workbook)

3.5.2 Information Provided by Lotus

Lotus provided a list of its experience and the experience of its contractors with acquiring ROW for transmission line and reactive compensation projects. Regarding projects that are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included seven transmission line projects with two projects in California, and five reactive compensation and/or substation projects with two in California. (Prior Projects and Experience Workbook)

3.5.3 Information Provided by WestWorks

WestWorks provided a list of its experience and the experience of its contractors with acquiring ROW for transmission line and reactive compensation projects. Regarding projects that are

ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 14 transmission line projects with seven projects in California, and 15 reactive compensation and/or substation projects with nine in California. (Prior Projects and Experience Workbook)

Incremental Costs Associated with Use of Existing Rights-of-Way

3.5.4 Information Provided by CalGrid

CalGrid indicated that it does not directly own existing ROW that can be utilized to construct any portion of the proposed project. However, CalGrid indicated that it maintains a key affiliate relationship with the owner of critical land rights covering a significant portion of the project. CalGrid further indicated that it does not anticipate any incremental costs or risks associated with using existing land rights. (L-4)

3.5.5 Information Provided by Lotus

Lotus indicated that it does not have any existing land rights to contribute to this project and does not anticipate any incremental costs or risks associated with using existing land rights. (L-4)

3.5.6 Information Provided by WestWorks

WestWorks indicated that it does not have any existing land rights to contribute to this project. However, WestWorks indicated that its affiliate, LSPGC, does control property that could be used for the Manning and Metcalf reactive sites. WestWorks further indicated that it does not anticipate any incremental costs or risks associated with using existing land rights. (L-4)

3.5.7 ISO Comparative Analysis

Comparative Analysis of Experience in Acquiring Rights-of-Way

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the experience of both the project sponsor and its team members in acquiring rights-of-way, in the U.S. and California.

The ISO considers experience in acquiring rights-of-way in California to be a slight advantage over experience in rights-of-way acquisition in other jurisdictions because the project will be located in California and such experience will facilitate the timely, efficient, and effective undertaking of the project.

All three project sponsors and their teams have experience in acquiring land rights and site control. Regarding land rights acquisition experience, the ISO has determined there is no material difference in the experience acquiring rights-of- way among the three project proposals since all sponsors have adequate experience in acquiring ROW.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO analysis for this component of the factor, the ISO has determined that, based on the

specific scope of this project, there is no material difference among the three proposals regarding this component of the factor.

Comparative Analysis Incremental Costs Associated with Use of Existing Rights-of Way

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding whether the project sponsor would incur incremental costs in connection with placing new or additional facilities associated with the project on existing rights-of-way.

None of the three proposals indicated that the project sponsor expects to incur any incremental costs because of any use of existing rights-of-way for this project.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, there is no material difference among the three proposals regarding this component of the factor.

Overall Comparative Analysis

Regarding the two components of this factor, as described above, the ISO has determined regarding the first component [experience in the acquisition of land rights] that there is no material difference among the three proposals, and regarding the second component [incremental cost] that there is no material difference among the three proposals. As a result, the ISO has determined that there is no material difference among the three proposals regarding this factor overall.

3.6 Selection Factor 24.5.4(d): Proposed Schedule and Demonstrated Ability to Meet Schedule

The fourth selection factor is “the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet the schedule of the Project Sponsor and its team.”

As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because of the need for this project by the latest in-service date specified in the ISO Functional Specifications, which is particularly important for this project because the timing of this project is essential for supporting the increased supply needs in the Bay Area. A proposal that best satisfies this factor will contribute significantly to ensuring that the project sponsor selected will develop the project in a prudent, efficient, cost-effective, and timely manner.

The ISO used the following considerations in its analysis for this component of the factor:

- Proposed schedules
- Scope of activities specified in the proposed schedules
- Amount of schedule float
- Experience of project sponsors
- Potential risks associated with project sponsor’s proposal

For the purpose of performing the comparative analysis for this factor, the ISO initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) the proposed schedule for development and completion of the project and (2) demonstrated ability of the project sponsor and its team to meet that schedule.

Proposed Schedule

3.6.1 Information Provided by CalGrid

CalGrid's proposed project schedule included an in-service date of June 1, 2034, the in-service date specified in the ISO Functional Specifications, which CalGrid indicated includes approximately 1.5 months of float. (P-3)

CalGrid provided measures that it could take if faced with unanticipated delays in its schedule for land acquisition, permitting, or construction of up to six months. (P-3)

Regarding land acquisition measures, CalGrid indicated that it would utilize a price escalation strategy and, if necessary, enter condemnation proceedings utilizing its right of eminent domain. (P-3)

Regarding permitting measures, CalGrid indicated that it would utilize California SB 149 which streamlines the process for California Environmental Quality Act (CEQA) review and, if applicable, utilize the Department of Energy's transmission siting and economic development grant program to accelerate and strengthen electric transmission siting and permitting processes. (P-3)

Regarding construction and procurement activities, CalGrid indicated that it would have the ability to compress engineering and design efforts, release the procurement of long-lead time materials at an earlier date, as well as increase work crews, and increase work hours, and work more segments in parallel. (P-3)

3.6.2 Information Provided by Lotus

Lotus's proposed project schedule included an in-service date of June 1, 2034, the in-service date specified in the ISO Functional Specifications, which Lotus indicated includes one year of schedule float occurring after the federal discretionary permits are issued. (P-3)

Lotus provided measures that it could take if faced with unanticipated delays in its schedule for land acquisition, permitting, or construction of up to six months. (P-3)

Regarding land acquisition measures, Lotus indicated that in the event of delays associated with securing land, it may offer potentially higher ROW/land lease cost with private landowners to secure land. (P-3)

Regarding permitting measures, Lotus indicated that it may employ aggressive incentives stance with the regulators on permitting. Lotus indicated that it would assume the presence of species, which would result in the reduction of time involved with field surveys. Lotus also indicated that it would engage early with local, state, and federal agencies to streamline approvals. (P-3)

Regarding construction measures, Lotus provided several measures to handle delays such as: (i) providing incentives to the construction contractors for early completion, (ii) early consultation with counties on construction sequencing and work hours near residential areas, and (iii) implementing a non-linear construction plan to support schedule adherence. (P-3)

3.6.3 Information Provided by WestWorks

WestWorks' proposed project schedule included an in-service date of June 1, 2034, the n-service date specified in the ISO Functional Specifications, which WestWorks indicated includes eight months of total float between expected completion and the required in-service date. (P-3)

WestWorks provided measures that it would take if faced with unanticipated delays in its schedule for land acquisition, permitting, or construction of up to six months. (P-3)

Regarding land acquisition measures, WestWorks indicated that it would accelerate land acquisition through additional survey crews and land acquisition agents. (P-3)

Regarding construction measures, WestWorks indicated that it would accelerate construction through additional crews and/or extended work hours. WestWorks also indicated that it would use other measures such as releasing engineering and procurement activities earlier than planned, and leveraging float built into the schedule to absorb short-term setbacks to get back on schedule. (P-3)

Ability to Meet Schedule

3.6.4 Information Provided by CalGrid

Past Performance
CalGrid provided schedule performance information for 11 200 kV or above substation, transmission line and reactive compensation projects that were completed in the past ten years in the U.S., along with their planned and actual in-service dates. The information provided by CalGrid indicated that 10 of the 11 projects were completed on or before schedule. The information provided by CalGrid also indicated that one project was delayed by nearly 32 months due to extended CPUC regulatory process. (Prior Projects and Experience Workbook)

Project Management and Team
CalGrid provided detailed information regarding its approach for project planning, project execution, and schedule. (P-1)

Regarding project planning, CalGrid provided detailed information on its project management planning steps which included project kickoff and scoping, project schedule development, risk identification and mitigation plans, and project cost estimation. (P-1)

Regarding project execution, CalGrid indicated that its approach encompasses the following key components, which support early identification and mitigation of risk while also achieving safety, quality and cost objectives during execution of the project: project controls, project communication, quality management, risk management, procurement coordination, safety management. CalGrid provided detailed information about each one of these processes. (P-1)

Regarding project controls, CalGrid provided details to the following components: path of construction development, workforce planning, engineering work package development,

procurement work package development, construction work package development, project reporting, risk management, cost control, schedule control and project closeout. (P-1)

Regarding project communication, CalGrid provided information on the meetings and reviews it plans to conduct and the communication management process that it plans to use in the project. (P-1)

Regarding risk management, CalGrid indicated that it would have full responsibility for oversight of the entire project's risk management efforts, and that it would utilize an approach that includes identifying critical issues, thoroughly analyzing risks, and mitigating exposure to identified risks through detailed planning. CalGrid also provided information on the development of its risk assessment matrix, which it indicated would be reviewed and updated monthly. (P-1)

Regarding procurement coordination, CalGrid indicated that it would lead and execute the project's material and equipment procurement plans in close partnership with its key project team members and provided information on the process that it would employ. (P-1)

Regarding safety management, CalGrid indicated that it had a comprehensive approach and indicated that each project team member would have a designated safety manager. (P-1)

CalGrid also provided information on its scheduling process and that the master schedule would be progressed weekly and updated monthly. (P-1)

CalGrid provided information on its project management team led by a dedicated project manager. CalGrid identified members of the project management team responsible for various functions and described their roles. CalGrid also identified personnel from its contractors responsible for various project functions and provided their resumes. (P-2)

CalGrid indicated that its project advisory team was available to provide additional support and guidance as necessary throughout the project development, permitting, financing and construction phases of execution. CalGrid also identified members of this team. (P-2)

CalGrid indicated that its executive management team would directly oversee the ISO project director and that the team would have monthly report-outs covering all aspects of project execution and management. (P-2)

Risk Management

CalGrid provided a risk log that included 71 risk items grouped into several risk categories (permitting, procurement, construction, ROW, operations etc.), the risk consequence (cost, schedule), and the likelihood of the risk (low, medium, high). The risk log also includes the owner of each risk (CalGrid, ISO), as well as the mitigation measure for each risk item. CalGrid indicated that this risk log captures the collective history of the project team and identifies both anticipated and unanticipated risks and the appropriate mitigation measures. (P-4)

CalGrid indicated that it would sponsor a proposal for the Northern Receiving Station–San Jose B 230 kV Line Project and that if one or more proposals are awarded by the ISO, it would take the following steps to ensure that projected in-service dates do not change due to the increased workloads: (i) utilize other key staff members with long histories of project management and development experience to take lead project director role, (ii) evaluate the resource availability of key contractors and bid project work out to other capable and qualified contractors. (P-4)

Financial Incentive
CalGrid indicated that it commits to a schedule incentive penalty if the project is not energized on or before June 1, 2034, unless such delay is attributable to matters beyond CalGrid's control. CalGrid indicated that this measure would have two effects: (1) pre-completion of the project, during the period of construction delay, the applicable allowance for funds used during construction (AFUDC) rate would be reduced to reflect a return on equity (ROE) of 5.0%; and (2) post-completion of the project, the cap on ROE would be reduced by five basis points for every full calendar month that the project's energization is delayed beyond June 1, 2034, up to a total of 60 basis points. (CC-1)

3.6.5 Information Provided by Lotus

Past Performance
Lotus provided schedule performance information for two 200 kV or above substation, transmission line and reactive compensation projects that were completed in the past ten years in the U.S., along with their planned and actual in-service dates. The information provided by Lotus indicated that one of the two projects were completed on or before schedule. The information provided by Lotus also indicated that one project was delayed by nearly 47 months due to multiple reasons. (Prior Projects and Experience Workbook)

Project Management and Team
Lotus indicated that the project would use a phase-based project management approach that would include the following phases: (i) project initiation, (ii) permitting, (iii) engineering, (iv) procurement, (v) ROW, and (vi) construction. (P-1)

Lotus also provided high-level information on the various activities and plans in each phase of the project. (P-1)

Lotus indicated that the project initiation phase would define baseline schedules and cost estimates per the requirements of the Approved Project Sponsor Agreement (APSA) as well as develop a risk register which would be continuously updated throughout the duration of the project. (P-1)

Lotus indicated that during the pre-construction phase, the following plans would be developed: (i) quality assurance/quality control system, (ii) procurement plan, (iii) logistics plan (material & labor resources), (iv) health and safety plan, (v) project execution plan, including the work breakdown structure, (vi) engineering records system, (vii) environmental management plan, (viii) electrical studies, (ix) interconnection studies (application to PG&E and LSPGC). (P-1)

Lotus indicated that a project development team would be led by the project manager and supported by discipline leads for engineering, environmental and permitting, real estate and ROW, procurement, construction management, and public outreach. Lotus also indicated that the project manager would serve as the single point of accountability to ensure coordination across all disciplines and alignment with Lotus's objectives and project's regulatory requirements. (P-1)

Lotus indicated that the power development team would report to Lotus's executive management on a regular basis. (P-2)

Lotus provided the experience of the project development team members and included their resumes. (A-5)

Lotus indicated that all contractors would be directly engaged with the sponsoring entity through service and/or supply contracts for their relevant scopes. Lotus indicated that it has negotiated and signed term sheets with its contractors and that these term sheets would be converted into full contracts starting with project award. (P-2)

Risk Management
Lotus provided a list of key risks and mitigation measures that included the following: (i) siting and land acquisition, including agreement with land trusts and agencies for conservation easements, (ii) environmental permitting and mitigation, (iii) supply chain and tariffs, and (iv) wildfire insurance. Lotus indicated that if it is not able to procure insurance for the project, it expressly reserves the right to seek recovery of potential damages through a FERC 205 filing. (P-4)

Lotus indicated that it would mitigate the risk of wildfire by implementing a wildfire mitigation strategy consistent with good utility practice and demonstrate to insurers that its wildfire mitigation strategy is reliable and would reduce the risk of a wildfire. (P-4)

Lotus indicated that its proposed delivery schedule would not change if it were also selected as the approved sponsor for the Northern Receiving Station-San Jose B 230 kV transmission line project. (P-4)

3.6.6 Information Provided by WestWorks

Past Performance
WestWorks provided schedule performance information for 14 200 kV or above substation, transmission line and reactive compensation projects that were completed in the past ten years in the U.S., along with their planned and actual in-service dates. The information provided by WestWorks indicated that 11 of the 14 projects were completed on or before schedule. The information provided by WestWorks indicated that delay associated with the three projects that were completed late was five months on average. (Prior Projects and Experience Workbook)

Project Management and Team
WestWorks provided information on its project management approach which included risk management, schedule management, cost management, project communication, quality management, issue management, and safety management. (P-1)

Regarding risk management, WestWorks indicated that all risks are entered into a risk register, scored by likelihood and impact, and prioritized. WestWorks indicated that mitigation strategies are developed, implemented, and tracked until resolution. (P-1)

Regarding schedule management, WestWorks indicated that the project director would maintain the schedule and make any adjustments such as reallocation of personnel, equipment, or contractors to address schedule risks. (P-1)

Regarding cost management, WestWorks indicated that the project director would manage the budget and reforecast monthly. (P-1)

Regarding communication management, WestWorks indicated that communication is central to its management approach and that its project -specific communications plan establishes clear channels among the project team. (P-1)

Regarding quality management, WestWorks indicated that materials would undergo testing and inspection before acceptance and that its field managers would oversee construction and commissioning, verifying performance through inspections and acceptance testing. (P-1)

Regarding issue management, WestWorks provided information about the seven-step issue management process that it uses. (P-1)

WestWorks indicated that the project director would serve as the overall lead and primary point of contact for the ISO, guiding day-to-day activities and overseeing all deliverables from project award through the start of operations and would report directly to LS power executive management. (P-2)

WestWorks indicated that there would be dedicated managers and subject matter experts responsible for development, engineering and procurement, construction, and health and safety, reporting to the project director. (P-2)

WestWorks also provided the responsibilities of the project director, engineering and procurement director, construction director, and health & safety director. (P-2)

WestWorks provides resumes for its project director, project executives, project management team, and personnel from its project team. (A-5)

Risk Management

WestWorks provided a project risk register that included 68 risk items in six risk categories – cost containment, project management and schedule, environmental permitting and public process, land acquisition, engineering & design, and construction. Each risk item included a rating for risk likelihood, risk consequence, risk level to the ISO/ratepayers, and risk level to WestWorks and each risk item also included a mitigation measure. (P-4)

WestWorks also provided a list of major project risks and mitigation measures which included the following: (i) supply/demand imbalance for manufactured products, (ii) uncertainty in interest rates, (iii) increase in commodity costs, (iv) increase in labor costs, (v) import tariffs, and (vi) private ROW acquisition. (P-4)

WestWorks identified that a change in the wildfire risk areas or new regulatory requirements related to wildfire prevention as a risk and indicated that its partner, PG&E, applies industry best practices for O&M related to wildfire prevention. WestWorks identified the potential to ignite fires delaying construction, damaging property, and/or harming workers and the members of the public during construction as a risk and indicated that it would work with its O&M contractor to develop a fire prevention plan for construction activities that would generally include procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, use of spark arrestors, and hot work restriction. (P-4)

WestWorks indicated that in the event of multiple approved proposals, it has the resources to complete the project on schedule and within budget, without adversely impacting its ability to deliver other projects. (P-4)

Financial Incentive

WestWorks indicated that if the project is not energized on or before June 1, 2034, and such delay is not attributable to matters beyond the approved project sponsor's control, its project-

specific ROE would be reduced by 2.5 basis points for every full calendar month that the project energization is delayed beyond June 1, 2034, up to a total of 30 basis points. (CC-1)

3.6.7 ISO Comparative Analysis

Comparative Analysis of Proposed Schedule

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding their proposed schedules for development of the project, including but not limited to the scope of activities specified in their schedules and the reasonableness of the timelines they have specified.

All three project proposals included schedules that meet the required in-service date of June 1, 2034, specified in the ISO Functional Specifications.

All three project proposals indicated that they could complete their proposed project by the latest in-service date in the ISO Functional Specifications if the start of construction were to be delayed by six months.

The ISO considers that all three proposal schedules contain all the expected major activities for the project and contain potentially achievable associated timelines given the ISO's understanding of how long similar activities have taken on projects that have been completed in the recent past in California. In addition, the ISO considers the project sponsors' proposed schedule delay mitigation measures to be comparable. As a result, the ISO considers that all three proposed schedules meet the required in-service date specified in the ISO Functional Specifications and all project sponsors proposed reasonable measures to meet the required in-service date if the project start date were to be delayed by six months.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, there is no material difference among the three proposals regarding this component of the factor.

Comparative Analysis of Ability to Meet Schedule

The ISO's analysis for this component of the factor focused primarily on the ability of the project sponsors to complete the project by the latest in-service date specified in the ISO Functional Specifications and any potential risks associated with each project sponsor's proposal that might affect completion of the project in a timely manner. For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding their experience, including but not limited to the information in their proposed schedules and their past experience in constructing projects on schedule, accounting for risk management, and performing project management, as well as any other indicated factors that might impact the date of completion.

Previous Experience
The project sponsors and their team members have different levels of experience with previous substation and/or transmission line projects. CalGrid provided information on 11 projects, Lotus for two projects and WestWorks for 14 projects that were substation, transmission line or reactive compensation projects at voltage levels 200 kV or above and completed in the past ten years in the U.S.

Regarding completing projects on schedule, the ISO considers that CalGrid and WestWorks have demonstrated a reasonable degree of success in meeting previous project schedules. The schedule performance information provided by these two project sponsors showed that 91% of CalGrid's projects and 79% of WestWorks' projects were completed on or ahead of schedule. The information provided by Lotus showed that only one of its two projects was completed on or ahead of time.

The schedule performance information provided by WestWorks showed an average delay of five months for prior projects that were not completed on schedule. The schedule information provided by CalGrid indicated that one project was delayed by 32 months due to the extended CPUC regulatory process and the one provided by Lotus indicated that one project was delayed by 47 months due to multiple reasons listed as confidential.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this consideration, the ISO has determined that, based on the specific scope of this project, there is no material difference between the experience of CalGrid and WestWorks in completing previous projects on schedule and that their experience is better than that of Lotus.

Project Management and Team
All three project sponsors have described a reasonable approach to professional project management. All three project sponsors laid out detailed project management programs, as well as identified the teams that would be working on each task of the project.

CalGrid indicated that its project management steps include project kickoff and scoping, project schedule development, risk identification and mitigation plans, and project cost estimation, and provided detailed information for these steps. Lotus indicated that its project management approach would include project initiation, permitting, engineering, procurement, ROW, and construction. WestWorks provided information for its project management plan which included risk management, schedule management, cost management, project communication, quality management, issues management, and safety management.

The project managers/directors that were identified by each project sponsor have substantial years of experience, which the ISO considers sufficient.

Based on the foregoing analysis, the ISO determined that regarding project management and team there is no material difference among the three regarding their project management and team.

Project Risk and Management
All three project sponsors' proposals include a thorough approach to identify risks to the project schedule and possible mitigations for those risks. CalGrid, Lotus, and WestWorks confirmed their ability to work on multiple projects simultaneously, if selected as the approved project sponsor by the ISO for more than one. All three project sponsors indicate that they have taken steps to reduce schedule risk and that they can meet the in-service date in case of a six-month delay in land acquisition, permitting, and construction.

As detailed in Section 3.4.4, the project sponsors' proposals present certain challenges regarding the land rights acquisition needed for their proposed projects, presenting the potential for risks to the ability of the project sponsors to meet their proposed schedules for completion of the project.

Regarding acquiring land rights for the specific scope of this project, all three proposals identified similar paths for significant portions of the proposed routes. Where the routes differ, specifically with respect to the proposed routings through and around the Santa Clara Valley, all routes face similar land rights acquisition and permitting challenges. Therefore, the ISO considers these challenges to pose similar risks to each of the project sponsors' respective proposed schedules.

CalGrid indicated that its affiliate owns an economic interest in the Los Banos-Gates 500 kV transmission line parallel to a portion of its proposed route. In addition, CalGrid indicated it is in advanced negotiations for an option on a parcel for its proposed series compensation site. The ISO does not consider the value of this relationship and the ongoing negotiations to CalGrid's proposed project significant enough to give CalGrid a material advantage over the other project sponsors regarding its ability to complete the project on schedule.

WestWorks indicated that its affiliate LSPGC controls property at the proposed Manning Substation and near the Metcalf Substation that is proposed for the two series compensation stations. The ISO does not consider the value of this relationship to WestWorks' proposed project significant enough to give WestWorks a material advantage over the other project sponsors regarding its ability to complete the project on schedule.

Regarding potential permitting, engineering, and construction challenges for the project sponsors' proposals as identified in Sections 3.8 and 3.10 of this report, the ISO does not consider these challenges to pose any unique significant risks to the individual project sponsors' proposed schedules.

The ISO considers that there is no material difference among the three proposals regarding project risk and risk management since none of the foregoing risks to the proposed schedules of the project sponsors would be significant enough to pose a risk that the project could not be completed by the required in-service date in the ISO Functional Specifications.

Financial Incentive
The proposals of CalGrid and WestWorks included a financial incentive penalty if they failed to complete the project on schedule. The proposal from Lotus did not include an on-time completion financial incentive.

The ISO has determined that the proposals of CalGrid and WestWorks are better than the Lotus's proposal because their proposals included a schedule incentive penalty while Lotus's proposal did not. However, the details of the schedule incentive penalty are different for each project sponsor and are evaluated in Section 3.12.7.

Overall Component
The ISO considers that there is no material difference between the proposals of CalGrid and WestWorks and that they are better than Lotus's proposal regarding project experience.

The ISO considers that there is no material difference among the three proposals regarding project management and team, and project risk and management as they pertain to ability to complete the project on schedule.

The ISO considers that there is no material difference between the proposals of CalGrid and WestWorks and that they are better than Lotus's proposal regarding the financial incentive penalty to complete the project on schedule.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, there is no material difference between the proposals of CalGrid and WestWorks and that they are better than Lotus's proposal regarding this component of the factor.

Overall Comparative Analysis

The ISO considers the two components of this factor to be of roughly equal importance in the selection process for this project. As discussed above, the ISO has determined that there is no material difference among the three proposals regarding the first component of this factor (proposed schedule).

Regarding the second component (demonstrated ability to meet the proposed schedule), based on the foregoing analysis, the ISO has determined that, based on the specific scope of this project, there is no material difference between the proposals of CalGrid and WestWorks and that they are better than Lotus's proposal regarding this component of the factor.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, based on the specific scope of this project, there is no material difference between the proposals of CalGrid and WestWorks and that they are better than Lotus's proposal regarding this factor overall.

3.7 Selection Factor 24.5.4(e): The Financial Resources of the Project Sponsor and Its Team

The fifth selection factor is the "financial resources of the Project Sponsor and its team."

The ISO notes that the project sponsors provided substantial information regarding their finances in their applications; however, the ISO has only incorporated relatively limited and general financial information from the project sponsors' proposals in the summaries below due to the sensitive nature of some of the financial information provided.

As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because the Manning-Metcalf 500 kV Line Project will require significant financial resources because it is among the costliest projects the ISO has opened for competitive solicitation.

Project sponsors provided information regarding their experience in developing and financing similar projects, annual financial results including key financial metrics, credit ratings, proposed financing sources, and other financial-oriented information requested by the ISO. In performing the comparative analysis, the ISO has considered all of the financial information provided by the project sponsors. The ISO has also utilized two metrics - tangible net worth and Moody's Analytics Estimated Default Frequency (EDF)[8] - based on information provided in the project sponsors' annual reports. Moody's Analytics EDF has an associated equivalent rating, also provided by Moody's Analytics as part of its EDF calculation, which provides the ISO with another metric similar to the agency credit ratings.

[8] Estimated Default Frequency is a proprietary scoring model developed by Moody's Analytics, Inc., a subsidiary of Moody's Corporation (NYSE: MCO).

Although a company's net worth is sometimes used in financial analysis, it can be misleading because asset and liability values may change dramatically over time. For instance, derivative assets have the potential of changing daily. In addition, there is no prescribed way to value intangible assets. To compensate for these limitations, where possible, the ISO relies on tangible net worth[9], which removes certain assets and liabilities from the net worth calculation. For the purpose of evaluating the financial resources of the project sponsors and their teams for this project, the ISO considers tangible net worth to be more meaningful because it better represents assets that are more immediately available for project funding.

Likewise, the ISO considers that agency credit ratings can have important but limited usefulness in financial analysis because they are largely based on historical performance. In the general course of its business, the ISO has recognized the limitation of credit ratings and has begun to rely on EDF as a more forward-looking measure of a company's financial health. It produces a forward-looking default probability by combining financial statement and equity market information into a highly predictive measurement of stand-alone credit risk. EDF provides the ISO an additional metric in assessing a project sponsor's ability to see the project through to the end. In addition, the equivalent rating associated with the EDF provides another metric similar to the agency credit ratings. The ISO has utilized both of these additional measures of financial health in its comparative analysis of the financial resources of the project sponsors and their teams for this project.

For the purpose of performing the comparative analysis for this factor, the ISO has considered the following components of the factor:

- Project financing experience
- Project financing proposal
- Financial resources
- Credit ratings
- Financial ratio analysis

The ISO has initially considered these components separately and then developed an overall comparative analysis for financial resources and creditworthiness.

3.7.1 Information Provided by CalGrid

Project Financing Experience
CalGrid provided a list of several transmission and substation projects that its parent company and affiliated entities have financed in the past ten years. (Prior Projects and Experience Workbook)

Project Financing Proposal
CalGrid provided information regarding financing of representative projects through its parent and affiliated entities that were similar in type but primarily higher than the expected cost of this project. CalGrid indicated that the representative projects were financed using a project-level

[9] The ISO Tariff defines "Tangible Net Worth" as total assets minus assets (net of any matching liabilities, assuming the result is a positive value) the CAISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (examples include restricted assets and Affiliate as assets) minus intangible assets (*i.e.*, those assets not having a physical existence such as patents, trademarks, franchises, intellectual property, and goodwill) minus derivative assets (net of any matching liabilities, assuming the result is a positive value) minus total liabilities.

financing approach. CalGrid indicated that construction financing would be funded by financial institutions and converted to long-term debt after completion. (F-11, F-12)

CalGrid indicated the project would be financed using a combination of debt and equity. CalGrid indicated that Viridon, acting through CalGrid and with the support of the majority owner BETP IV, would invest 100% of the equity required to finance the project and anticipates using debt and equity throughout the project's life. (F-1, F-5)

CalGrid indicated that CalGrid and SCE have entered into an agreement pursuant to which SCE, upon commercial operation, would be able to acquire a twenty percent (20%) minority interest in the special purpose entity owning the project while CalGrid would retain the remaining eighty percent (80%) in accordance with the agreement. (A-5)

CalGrid indicated that it would act on behalf of Viridon and BETP IV to invest any required equity in the project, would be responsible for arranging the debt associated with the construction of the project, and would service the debt after placing the project in service. CalGrid indicated that it proposes to access the debt markets to lead placement of limited-recourse financing at the project level to support the construction and long-term operation of the project. (F-2, F-5)

CalGrid indicated that BETP IV intends to make a financial commitment to lenders upon financial closing to support the equity requirements of the project and would provide the appropriate assurances that capital would be sufficient to complete all phases of the construction program account upfront. (F-12)

CalGrid also indicated that it is investigating the possibility of securing project financing through Western Area Power Administration (WAPA) Transmission Infrastructure Program and as well as the California Transmission Accelerator Revolving Fund Program. (F-12)

To provide further evidence of financial support for the project, CalGrid provided letters of support from three commercial banks. The letters state that they are non-binding and should not be construed as a commitment to finance the project. (F-12)

Financial Resources

CalGrid provided a letter of financial support for the project sponsor financial obligations signed by an officer of BETP IV indicating that appropriate financial assurance instruments would be provided prior to the closing of the project's financing and as required by lenders pursuant to the financing of the project. (F-2)

CalGrid's proposal included a parent support letter signed by an officer from Blackstone indicating support for the project by Blackstone, the ultimate parent of the project's majority owner BETP IV, and that BETP IV would benefit from Blackstone's strong reputation in the financial community. (F-2)

CalGrid provided pro-forma financial assurance instruments to support the equity funding requirements of the project, which would be effective conditional upon selection of CalGrid as the approved project sponsor and closing of the financing. (F-2)

CalGrid indicated that CalGrid and the special purpose entity, as wholly owned subsidiaries of Viridon and affiliates of Viridon's majority owner BETP IV, ultimate parent Blackstone, and other Blackstone entities, would benefit from all relevant capabilities and resources of the combined Viridon and Blackstone organizations. (F-5)

CalGrid provided Blackstone's annual audited financial statements for 2020-2024 and quarterly unaudited financial statements for 2025. (F-3, F-4)

CalGrid provided the following information from Blackstone's latest audited financial statements:

Total assets
Total liabilities
Net worth

Credit Ratings
CalGrid indicated that Blackstone is a public company and has been rated investment grade by two of the three credit rating agencies. CalGrid provided the following credit ratings and associated credit rating reports for Blackstone: (F-6)

Moody's: NR
S&P: A+
Fitch: A+

Financial Ratio Analysis
CalGrid provided the following financial ratios based on Blackstone's audited financial statements: (F-9, F-10)

Funds from operations (FFO)/interest coverage
FFO/total debt
Total debt/total capital
Total assets/total projected capital costs

3.7.2 Information Provided by Lotus

Project Financing Experience
Lotus provided a list of transmission and substation projects that it has financed in the past ten years. Lotus provided information regarding Lotus's financing for representative projects that were similar in type and primarily larger in cost than the expected cost of this project. Lotus indicated that the representative projects were financed using project-specific non-recourse construction and permanent debt sourced from institutions. (Prior Projects and Experience Workbook, F-11)

Project Financing Proposal
Lotus indicated that the project would be funded using a combination of debt and equity and that different banks have expressed interest in providing debt financing for the project. Lotus indicated that it would create a special purpose entity as an affiliate for purposes of developing the project. Lotus indicated that the special purpose entity would be managed by Lotus through its parent company and affiliated investment vehicles specifically to finance, construct, own, maintain, and operate the project. (A-5, F-5)

Lotus indicated that the financial structure for construction and working capital would rely on its parent company. (F-1, F-12)

To provide further evidence of financial support for the project, Lotus provided a letter of support from a commercial bank. The letter is clear that it is non-binding and should not be construed as a commitment to finance the project. (F-1)

Lotus also provided a parent guarantee letter for financial backing of the project. (F-2)

Financial Resources
Lotus indicated it would rely on existing funds or affiliated investment vehicles for financial backing of the project. Lotus indicated that the funds of its parent company and other affiliated investment vehicles are available to support the construction of the project. (F-2)

Lotus provided a written parent guarantee from its parent company, signed by an officer, providing financial assurance that its parent company, as the direct parent of the special purpose entity that would be formed specifically for this project, would provide customary credit support and has adequate financial resources to provide financial support for the project repairs and permitting of the project. (F-2)

Lotus indicated that it would have non-recourse debt and plans to support the project once it goes into service. Although lenders would not have financial recourse to Lotus, Lotus indicated that its parent company has sufficient capital to support the construction of the project and any potential liabilities. (F-1, F-2)

Lotus provided summary information for its parent company based on quarterly unaudited financial information for 2025 within a letter in lieu of financial statements for 2025. (F-3)

Credit Ratings
Lotus indicated that neither Lotus nor its parent company has a credit rating. (F-6)

Financial Ratio Analysis
Lotus did not provide audited financial statements or financial ratios but instead provided a letter in lieu of financial statements, which Lotus asserted demonstrates that Lotus and its other affiliated investment vehicles could meet the financial requirements of the project. (F-3, F-9)

The ISO calculated the following financial ratio based on the letter in lieu of financial statements provided by Lotus:

Total assets/total projected capital costs

3.7.3 Information Provided by WestWorks

Project Financing Experience

WestWorks provided a list of several transmission and substation projects that its parent, LS Power, has financed in the past ten years. (Prior Projects and Experience Workbook, F-11)

WestWorks provided information regarding LS Power's financing of representative projects that were similar in type and in some cases higher in cost than the expected cost of this project. WestWorks indicated that the representative projects were financed with equity-to-debt contributions using a variety of debt sources, including project-specific financing through a number of commercial banks. (F-11)

WestWorks also provided information regarding LS Power's previous debt financings and a history of its ability and experience in utilizing the debt markets to consistently raise increasing amounts of capital for financing projects. (F-6)

WestWorks' proposal indicated that PG&E finances its capital expenditures (CapEx) as a portfolio by issuing debt and equity according to its regulatory capital structure. WestWorks provided historical data of PG&E's CapEx and indicated that PG&E is positioned to continue managing and raising external funding to finance its growing capital program and rate base. (F-2)

Project Financing Proposal

WestWorks indicated it is relying on its parent LS Power to satisfy the financial criterion for this project. WestWorks indicated that LS Power intends to access the debt markets to lead placement of limited-recourse financing at WestWorks to support the construction and long-term operation of the project. (F-2)

Based on the sales-leaseback structure between WestWorks and PG&E, upon commercial operations PG&E would acquire 100% of the project and provide O&M services. In exchange, WestWorks would receive a capacity entitlement lease and PG&E would have the option to purchase a portion of the entitlements and would fund the O&M costs of its entitlements. (A-5)

WestWorks indicated that it would be solely responsible for funding all development and construction costs, would service the debt after placing the project into service, and would fund all O&M costs associated with its capacity entitlement. WestWorks indicated that it would convert debt used during development and construction or issue new long-term financing to support operations. (F-1, F-5)

WestWorks indicated that financing for the development and construction costs would be structured as limited-recourse financing where lenders would have recourse only to the assets of WestWorks and committed equity, but not upstream affiliates. WestWorks indicated that LS Power intends to provide a financial commitment to the lenders upon financial closing in the form of a letter of credit or other credit support. WestWorks indicated that this equity commitment to lenders would be irrevocable, ensuring sufficient capital is secured for construction. (F-2)

Financial Resources

WestWorks provided a written financial guarantee from LS Power, signed by an officer of LS Power's general partner, indicating LS Power's financial assurance for the project. WestWorks provided a letter of financial assurance from PG&E's parent company PG&E Corporation stating support for the financial obligations of the project. (F-2)

WestWorks provided LS Power's annual audited financial statements for 2020-2024 and quarterly unaudited financial statements for 2025. (F-3, F-4)

WestWorks provided the following information from LS Power's latest audited financial statements:

Total assets
Total liabilities
Net worth

WestWorks provided PG&E Corporation's and PG&E's audited annual financial statements for 2021-2025. WestWorks also provided PG&E's annual FERC Form 1 financial statements for 2019-2024. (F-3)

WestWorks provided the following information from PG&Es latest financial statements.

Total assets
Total liabilities
Net Worth

Credit Ratings
WestWorks indicated that WestWorks and LS Power are privately held companies that are not rated by credit rating agencies. (F-6)

Financial Ratio Analysis
WestWorks provided the following financial ratios based on LS Power's audited financial statements: (F-9, F-10)

FFO/interest coverage
FFO/total debt
Total debt/total capital
Total assets/total projected capital costs

WestWorks provided the following financial ratios for PG&E Corporation and PG&E based on third party data: (F-9, F-10)

PG&E Corporation

FFO/interest coverage
FFO/total debt
Total debt/total capital

PG&E

FFO/interest coverage
FFO/total debt
Total debt/total capital
Total assets/total projected capital costs

3.7.4 ISO Comparative Analysis

For the purpose of performing the comparative analysis for this factor, the ISO has considered the following components of the factor:

- Project financing experience
- Project financing proposal
- Financial resources
- Credit ratings
- Financial ratio analysis

The ISO has initially considered these components separately and then developed an overall comparative analysis for financial resources.

The ISO's analysis of the financial resources of the project sponsor and its team has focused primarily on whether each project sponsor has adequate financial resources and

creditworthiness to finance the project and whether constructing, operating, and maintaining the facilities would significantly impair the project sponsor's creditworthiness or financial condition.

For purposes of the comparative analysis for this factor, the ISO has primarily considered the project sponsors' representations. In addition, the ISO considered each project sponsor's audited financial statements, credit ratings, and associated ratings reports from one or more of the credit rating agencies. In instances where a project sponsor is looking to an affiliated entity (e.g., a corporate parent) for financial support on the project, the ISO used financial statements and credit ratings of the affiliated entity if the affiliated entity provided a letter of assurance, signed by an officer of the company, stating that it would provide unconditional financial support to the project.

Although there are slight differences among project sponsors regarding some of the components considered, including the financial strength of the company ultimately backing the project and that company's credit ratings, the ISO does not consider these differences significant enough to materially affect any one project sponsor's ability to complete this project, considering the project cost estimates. Consequently, this comparative analysis relies in large part on minor degrees of difference.

Project Financing Experience

CalGrid, Lotus, and WestWorks all provided information showing financing of multiple projects of similar type and some were higher in cost than the expected cost of this project. WestWorks also provided information for its partner company (PG&E) generally indicating PG&E's history of project financing within its regulatory authorized capital structure. Consequently, the ISO considers the project financing experience of all three project sponsors, for their three proposals, to be sufficient such that there is no material difference among them regarding the extent to which their project financing experience has a bearing on their ability to finance this particular project.

Project Financing Proposal

Based on the financial proposals provided by each of the project sponsors, all project sponsors would finance the project using a combination of both equity and debt. Equity for the project would be provided by the parent or affiliate company of the project sponsor. Debt would be provided directly through the existing capital and/or credit facilities of the parent or through capital markets or financial institutions by either the project sponsor or the parent company. Debt provided during construction by the parent company may be converted into long-term debt once the project goes into operation. Some project sponsors intend to use limited-recourse debt financing with lenders. The project sponsors' capital structures are generally within a close range of each other regarding debt and equity.

Each of the project sponsors provided either a letter of financial assurance or guarantee from its parent company or affiliate for the financial obligations of the project.

As an alternative to sourcing financing from the capital markets, CalGrid indicated it is investigating the possibility of securing project financing through one or more of the Department of Energy's programs, or the California Transmission Accelerator Revolving Fund Program.

Based on all three project sponsors' reliance on parent funding and access to the capital markets, the ISO considers that there is no material difference in their funding proposals.

Financial Resources

Each project sponsor has access to a parent or an affiliate and the capital markets and financial institutions for financing this project. All of the parent or affiliate companies of the project sponsors would provide equity for the project based on equity to total capital ratios that are in accordance with industry practice. Some of the project sponsors have debt financing experience with the capital markets or financial institutions, and all of the project sponsors have access to parent or affiliate funding to fulfill the balance of debt required to cover the cost of the project. The parent or affiliate companies of the project sponsors also provided either a letter of guarantee or financial assurance to support the financial obligations of the project.

Based on the information provided by the project sponsors, the ISO considers CalGrid's parent company, Blackstone, strongest regarding its ability to provide financing for this project, followed by Westworks' parent company, LS Power, which is stronger than Lotus's parent company. Strength in this factor can help minimize the financial risk that a project may not be completed.

The ISO also calculated a tangible net worth for the parent companies of two of the three project sponsors both during the development and construction phase and the operations phase.

The ISO has concluded that for the development and construction phase of the project the tangible net worth of the parent company of CalGrid is stronger than the parent company of WestWorks over the past five years. Lotus did not provide sufficient information for the ISO to calculate a tangible net worth for Lotus over the past five years; thus, the ISO was unable to compare Lotus to the other project sponsors regarding this measure of financial strength for the project.

The ISO has determined that for the operations phase of the project, the tangible net worth of WestWorks' partner company (PG&E) is greater than the parent company of CalGrid. However, for purposes of evaluating financial resources under this specific selection factor, the ISO considers a project sponsor's tangible net worth during the operations phase of the project to be of less importance than tangible net worth for the construction and development phase of the project.

Having the financial capacity to continue to bid on, win, and finance projects, although dependent in part on the financial resources of a company, also depends on the breadth and strength of a company's partners and banking relationships. Based on the foregoing analysis of the financial resources of the project sponsors, including their tangible net worth and the assets of their parents or affiliates, the ISO considers that the proposal of CalGrid is the strongest in this regard, followed by WestWorks' proposal, and then Lotus's proposal.

The ISO considers Lotus and WestWorks and its partner company (PG&E) to have sufficient financial resources to complete this project, although CalGrid for its proposal, is stronger regarding this consideration. Considering the analysis discussed above and given the inability of the ISO to calculate a tangible net worth for Lotus over the past five years for the project, the ISO considers WestWorks and its partner company (PG&E) and its proposal to be stronger regarding this particular measure of financial strength than Lotus for its proposal.

Credit Ratings and Estimated Default Frequency

Public companies are typically rated by three major credit rating agencies, Moody's, S&P, and Fitch. Credit ratings are opinions about a company's relative creditworthiness. They provide a

common standard for lenders to determine whether or not a company would pay its debts on time and in full.

One of the three project sponsors, CalGrid, has a parent company that is public, and it had investment grade ratings from two of the three credit agencies for the past five years. Investment grade ratings are an indication that the company is at low risk of default for creditworthiness purposes.

Lotus's parent and WestWorks' parent, LS Power, are not independently rated by any of the three major credit rating agencies. The lack of a credit rating is not unusual, and the ISO has not considered it an adverse factor in this analysis.

In addition to available credit ratings, the ISO also used Moody's Analytics EDF report and equivalent credit ratings to assess whether a company is likely to default on its loan payments over a given period where the assets of a company go below its outstanding debt obligations that need to be paid. EDF reports and equivalent ratings were available for three of the five parent companies of the project sponsors, for each of the past five years.

The EDF scores and equivalent ratings of the parent company of CalGrid were better than WestWorks' parent company's and its partner company's (PG&E's) EDF scores and equivalent ratings for each of the past five years. Lotus did not provide sufficient information to generate the EDF report or equivalent ratings for Lotus's parent company; thus, the ISO was unable to compare Lotus to the other project sponsors regarding these two measures of financial strength for the development and construction phase of the project.

Additionally, each of the project sponsors declared that neither it nor its parent or affiliate company had a history of payment default or bankruptcy in the past five years.

Given the information provided and based on the Moody's Analytics EDF report and the resulting Moody's Analytics equivalent rating for the past five years, the ISO considers the proposal of CalGrid to be stronger than the proposal of WestWorks and its partner company (PG&E).

The ISO relies on the EDF report and equivalent ratings as an additional financial metric to assess the probability that a company would default on its payments within a specified period of time. None of the EDF scores and equivalent ratings were unacceptable. However, the EDF scores of CalGrid were stronger than those of WestWorks, as discussed above, which the ISO does not consider material with respect to the creditworthiness of CalGrid and WestWorks as project sponsors. As noted, the ISO was unable to compare Lotus to the other project sponsors regarding this consideration for the project.

Financial Ratio Analysis

CalGrid and WestWorks provided audited financial statements for the past five years for their parent companies. Based on this information, CalGrid and WestWorks provided interest and debt coverage, debt to capital, and total assets to projected capital costs of the project ratios in their proposals. These financial ratios provide insight into the operational trends of the parent companies of those three project sponsors over the past five years.

Financial ratios provide the ISO insight into a project sponsor's ability to pay interest and service debt out of funds from its operating activities as well as how leveraged a company is in terms of its total debt obligations. The interest and debt coverage ratios are an indicator of how many

times interest and debt are covered by the parent company's operating income in each of the past five years.

The coverage ratios vary depending on industry and the capital-intensity of a company's operations. Based on the prior project and financing experience and other information provided in the proposals of CalGrid and WestWorks, their parents are involved with large infrastructure projects, and the timing of cash flows of certain projects may be unpredictable and thus should not by itself affect their ability to finance the project.

The total debt to capital ratio of each of CalGrid's and WestWorks' parent companies for each of the past five years indicated no risk of extensive financial leverage because the company's debt obligations do not exceed its capital balance.

Based on a comparison of the project sponsors' financial ratios, the ISO considers the interest and debt coverage ratios and debt to capital ratios of CalGrid to be better than WestWorks' financial ratios for those measures.

Lotus did not provide sufficient information for Lotus on which the ISO could base a determination of all of the financial ratios that the ISO typically uses to evaluate the financial strength of a project sponsor and thus the ISO was unable to compare Lotus to the other project sponsors regarding this measure of financial strength for the development and construction phase of the project. WestWorks provided information for interest and debt coverage, debt to capital, and total assets to total projected capital costs ratios for its partner company (PG&E) in its proposal. However, the ISO considers the financial ratios of PG&E for the operations phase of the project of lesser importance than the financial ratios for WestWorks for the development and construction phase of the project.

As a result, the ISO considers the proposal of CalGrid to be stronger than WestWorks' proposal, and the ISO is unable to compare these proposals to the proposal of Lotus, regarding this consideration.

Overall Analysis

In performing the comparative analysis for this factor, the ISO considered all of the financial information provided by the project sponsors as well as the additional information developed by the ISO described above. The ISO's assessment of the financial resources of the project sponsors and their teams is necessary for the ISO to determine which of the project sponsors can bring the strongest financial resources to bear in order to fully finance the project over its life span at a competitive cost and to complete the project under a range of possible scenarios (*e.g.*, construction delays, cost escalation, regulatory interventions, etc.). This comparative analysis relies in large part on minor degrees of difference.

Based on the information provided by the project sponsors, the ISO has concluded that each project sponsor and its parent or affiliate company has sufficiently demonstrated the experience and financial resources to undertake a project of this scope and cost.

Also, as discussed above, the ISO considers there to be no material differences among the project sponsors and their proposals regarding project financing experience and project financing proposals, especially when compared to the other differences among the project sponsors and their proposals. As discussed in detail above, the ISO considers CalGrid to have an advantage over WestWorks but considers WestWorks to be stronger than Lotus in the area of financial resources, the area of credit ratings and EDF, and the area of financial ratio analysis.

Based on the foregoing and all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, based on the scope of this particular project, CalGrid and its proposal is better than WestWorks and its proposal, which is better than Lotus and its proposal, regarding this factor overall.

3.8 Selection Factor 24.5.4(f): Technical (Environmental Permitting) and Engineering Qualifications and Experience

The sixth selection factor is "the technical and engineering qualifications and experience of the Project Sponsor and its team."

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) the technical (environmental permitting) qualifications and experience of the project sponsor and its team and (2) the engineering qualifications and experience of the project sponsor and its team.

Technical (Environmental Permitting) Qualifications and Experience

3.8.1 Information Provided by CalGrid

CalGrid indicated that it would submit permit applications to the following agencies:

Expected Federal Permits: (E-2)

- BoR ROW Grant
- BLM ROW Grant
- BLM National Environmental Policy Act (NEPA), Environmental Assessment and Finding of No Significant Impacts
- U.S. Army Corp of Engineers (USACE) Clean Water Act (CWA) Section 404, Nation Wide Permit (NWP) 57
- USACE Section 106 National Historic Preservation Act (NHPA)
- U.S. Fish and Wildlife Service (USFWS)- Federal Endangered Species Act (FESA) Section 7 Biological Opinion
- Federal Aviation Administration (FAA)- Notice of Proposed Construction or Alteration, Determination of No Hazard to Navigable Airspace

Expected California Permits: (E-3)

- CPUC Certification of Public Convenience and Necessity (CPCN) / CEQA review
- State Water Resources Control Board (SWRCB)- General Construction Permit, CWA Section 402, Storm Water Pollution Prevention Plan (SWPPP)
- SWRCB CWA Section 401 Water Quality Certification
- California Department of Fish and Wildlife (CDFW) Section 1600 Streambed Alteration Agreement
- CDFW California Endangered Species Act (CESA) Section 2081 Incidental Take Permit (ITP)
- Certificate of Inclusion (COI) as a Participating Special Entity under the Santa Clara Valley Habitat Conservation Plan

CalGrid provided a list of its experience and that of its contractors with obtaining permits for substation, transmission line and reactive compensation projects. Regarding projects that are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 16 transmission line projects with seven projects in California, and 17 substation and/or reactive compensation projects with six in California. (Prior Projects and Experience Workbook)

CalGrid indicated that its team has faced comparable environmental permitting risks similar to those foreseen for the project, such as: (i) obtaining 404 and Section 10 permits from the USACE for river crossings, (ii) permitting large-scale transmission infrastructure in areas including conservation lands that require unique mitigation, (iii) preparing both joint NEPA/CEQA documents, (iv) development of habitat conservation plans for Section 10 permitting under the FESA, and (v) managing mitigation monitoring, reporting, and compliance programs for large-scale utility infrastructure that traverses multiple permitting jurisdictions. (P-5)

CalGrid indicated that the Santa Clara Valley Habitat Agency, confirmed CalGrid's option to permit the project as a participating special entity, and that the habitat agency provided feedback regarding the environmental constraints in the region, conservation agencies and non-governmental organizations with other conservation lands in the region, and information on privately held lands adjacent to their land. CalGrid indicated that the Santa Clara Valley Habitat Agency indicated that CalGrid's proposed route on the east side of the Santa Clara Valley is preferable to an alternative route adjacent to an existing PG&E line on the west side of the valley, as the proposed route would avoid an area known to be occupied by special-status species. (L-1)

3.8.2 Information Provided by Lotus

Lotus indicated that it would submit permit applications to the following agencies:

Expected Federal Permits: (E-2)

- BLM ROW Grant
- USFWS NEPA
- USACE CWA Section 404, NWP 57
- USACE Section 106 NHPA
- USFWS FESA Section 10 Habitat Conservation Plan
- USFWS Bald and Golden Eagle Protection Act
- FAA Notice of Proposed Construction or Alteration, Determination of No Hazard to Navigable Airspace
- Certificate of Inclusion as a Participating Special Entity under the Santa Clara Valley Habitat Conservation Plan

Expected California Permits: (E-3)

- CPUC CPCN/CEQA review
- SWRCB General Construction Permit, CWA Section 402, SWPPP
- SWRCB CWA Section 401 Water Quality Certification
- CDFW Section 1600 Streambed Alteration Agreement
- CDFW CESA Section 2081 ITP
- Caltrans- Encroachment permit

- Certificate for Inclusion as a Participating Special Entity under SCVHP

Lotus provided a list of its experience and that of its contractors with obtaining permits for substation, transmission line, and reactive compensation projects. Regarding projects that are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included six transmission line projects with three projects in California, and six substation and/or reactive compensation projects with three in California. (Prior Projects and Experience Workbook)

Lotus indicated that its team has faced comparable environmental permitting risks similar to those foreseen for the project such as conducting environmental surveys for sensitive resources across diverse terrain, managing the federal, state and local permit acquisition and compensatory mitigation negotiations. Lotus provided several project examples where its permitting contractor had performed preconstruction surveys, biological and cultural surveys, resource management plans, obtaining coastal development permits, Section 404 and 401 permits under CWA and developing EIS. (P-5)

3.8.3 Information Provided by WestWorks

WestWorks indicated it would submit permit applications to the following agencies:

Expected Federal Permits: (E-2)

- BoR ROW Grant
- USACE CWA Section 404, NWP 57
- USACE Section 106 NHPA
- USFWS FESA Section 7 Biological Opinion
- FAA Notice of Proposed Construction or Alteration, Determination of No Hazard to Navigable Airspace

Expected California Permits: (E-3)

- CPUC CPCN/CEQA review
- SWRCB General Construction Permit CWA Section 402, SWPPP
- SWRCB CWA Section 401 Water Quality Certification
- CDFW Section 1600 Streambed Alteration Agreement
- CDFW CESA Section 2081 ITP
- Caltrans Encroachment permit
- Central Valley Flood Protection Board Encroachment permit

WestWorks provided a list of its experience and that of its contractors with obtaining permits for substation, transmission line and reactive compensation projects. Regarding projects that are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 29 transmission line projects with 13 projects in California, and 25 substation and/or reactive compensation projects with 19 in California. (Prior Projects and Experience Workbook)

WestWorks indicated that it anticipates the project will require FAA notification. (E-2)

WestWorks indicated that its team has faced comparable environmental permitting risks similar to those foreseen for the project such as managing complex permitting processes, including

USACE Nationwide Permit 57, a U.S. BOR ROW grant processed as a categorical exclusion, and coordination with the FAA. WestWorks also indicated that it has experience developing transmission and substation facilities at six projects, either in operation, current construction, or current active development across California. (P-5)

WestWorks indicated that it would determine ownership of roads reservoirs and flowlines, and sensitive habitats to obtain necessary permits and mitigation documentation for county owned land, Santa Clara Valley Water District and Santa Clara Valley Habitat Agency, respectively. (L-1)

Engineering Qualifications and Experience

3.8.4 Information Provided by CalGrid

CalGrid provided a list of its experience and that of its contractors with designing substation, transmission line, and reactive compensation projects. Regarding projects that are above 200 kV, ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 19 transmission line projects with two projects in California, and 12 substation and/or reactive compensation projects with three in California. (Prior Projects and Experience Workbook)

CalGrid indicated that its transmission line design meets the needs identified in the ISO transmission plan and is consistent with the ISO Functional Specifications and all other requirements provided by the ISO. (QP-1)

CalGrid indicated that the design satisfies applicable reliability criteria and ISO planning standards. CalGrid indicated that the project seeks to avoid siting transmission lines in configurations where the contingency of simultaneous outage of two 500 kV lines would be considered always credible in operational planning studies. (QP-2)

CalGrid provided a risk log that included 71 risk items grouped into several risk categories (permitting, procurement, construction, ROW, operations etc.), the risk consequence (cost, schedule), and the likelihood of the risk (low, medium, high). The risk log also includes the owner of each risk (CalGrid, ISO), as well as the mitigation measure for each risk item. The risks identified by CalGrid included potential engineering risks related to (i) actual geotechnical conditions resulting in more expensive foundation design, (ii) route or design changes due to final permits, and (iii) striking marked utilities. (P-4)

CalGrid indicated that its team has faced comparable engineering risks similar to those foreseen for the project, such as: (i) subsurface and foundation designs including seismic or unstable soil conditions, karst/aquifers, groundwater flow paths, and subsurface rock type requiring specialized foundation systems, (ii) structure design for long span construction through mountainous terrain and water body crossings, (iii) minimizing vegetation impacts in high wildfire zones, and (iv) optimizing tower design, spans, and conductor selection to meet design criteria while also integrating installed construction costs and minimizing construction and material procurement risks. (P-5)

CalGrid indicated that it evaluated a range of compensation scenarios by applying the minimum required shunt reactive compensation incrementally and assessing its placement along the line. CalGrid indicated that across all studied scenarios, the configuration with shunt compensation located near the electrical midpoint of the line provided effective voltage control. (S-1)

CalGrid indicated that the series compensation station would be located at the midpoint of the line, would include two banks of series capacitors with four equal blocks capable of being switched independently and one line shunt reactor consisting of three single phase reactors plus a spare, and provided a description of the reactor sites. (S-1)

CalGrid's indicated that its siting criteria for the series compensation station minimizes the area of disturbance, avoids environmental constraints and mudslide-prone areas, stays in line with the new line to avoid extreme deviation from the transmission line towers, and provides convenient access to roads. (S-2)

For the series compensation site, CalGrid indicated a continuous rating of 5,400 Amps for station bus, circuit breaker rating of 4000 Amps, capacitor rating of 800 MVAR and reactor rating of 50 MVAR per phase. CalGrid indicated that all values provided were preliminary and that actual values would be provided upon final design. (S-3)

CalGrid provided design criteria for the series compensation facility that included regulations and standards, environmental design requirements, electrical design, lightning protection, grounding, fire protection, SCADA, civil, structures, foundations and control building. (S-4)

CalGrid provided single line and general arrangement diagrams that included line terminations, capacitors, shunt reactors, and controls. (S-5)

CalGrid indicated that protective schemes were independent and redundant, and its SCADA integrates the appropriate levels of system protection, communications, control and monitoring communication to all adjacent substations. CalGrid indicated that it would use existing communication between Manning and Metcalf Substations and optical ground wire (OPGW) on the Manning-Metcalf transmission line. (S-6, S-7)

CalGrid indicated that the physical security would be reviewed in accordance with North American Electric Reliability Corporation (NERC) critical infrastructure protection (CIP) reliability standard CIP-014-1 requirements R5 and R6 and that the series compensation facility would have a chain link perimeter fence. CalGrid indicated that the facility will include security cameras and card readers for access to the facility enclosure. (S-8)

CalGrid indicated that the length of its proposed line is 86-linear miles with two bundle 2156 kcmil ACSS conductors, 1,183-foot ruling span, 200-foot ROW and a series compensation station at midpoint. CalGrid indicated that approximately 32.2 miles of the route is directly adjacent to existing PG&E and WAPA-controlled ROW, which minimizes environmental and aesthetic impacts to undisturbed land, and that the ROW for the project is intended to abut the existing transmission line ROW. (T-1)

CalGrid indicated that the siting criteria for the transmission line included minimizing topographical challenges, co-locating with existing transmission and other linear infrastructure, minimizing crossings and other conflicts with existing transmission lines, avoiding natural, cultural, and tribal resources, and avoiding risks from natural disasters. (T-2)

CalGrid indicated that its line would parallel the PG&E Moss Landing-Los Banos, Los Banos-Midway, and Los Banos-Gates 500 kV lines, and the WAPA Los Banos-Gates 500 kV line and indicated that its project included 250-foot centerline separation. (T-3)

CalGrid provided design criteria for the transmission line that included codes and standards, conductor, structures, foundations, insulators and hardware, weather and structure loading, FAA

marking, clearances, vegetation maintenance, and grounding to meet GO 95 requirements. The design criteria also included clearance to vegetation at the edge of the ROW, particularly in HFTDs per the CPUC Fire Threat Map. (T-4)

CalGrid provided an extensive list of standards, codes, and regulations, including FAA, CPUC Code 8386 and other California regulations that would be used in the design of the transmission line. (T-5)

CalGrid provided a list of parallel transmission lines, single line and general arrangement drawings, plan and profile drawings, and detailed information on line crossings. (T-6)

CalGrid indicated that the line would be designed for 525 kV, BIL of 1,800 kV, continuous rating of 5,684 Amps, a 4-hour emergency rating of 6,556 Amps, and a 30-minute emergency rating of 7,178 Amps. CalGrid indicated that the transmission structures would be lattice towers, guyed tubular V-poles. CalGrid indicated that structure foundations would be drilled piers, micropyles and pre-cast pedestals, that grounding meets GO 95 requirements, and that toughened glass insulators would be used for insulation. CalGrid indicated that an overhead ground wire and OPGW for lightning protection. CalGrid indicated a line designed for construction Grade B with Grade A where required and GO 95 light loading. (T-7, T-8)

CalGrid indicated that the line would terminate on dead end towers located 100 feet from Manning and Metcalf Substations and identified the agreements needed for the interconnection. (T-10)

3.8.5 Information Provided by Lotus

Lotus provided a list of its experience and that of its contractors with designing substation, transmission line, and reactive compensation projects. Regarding projects that are above 200 kV, ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 33 transmission line projects with ten projects in California, and three substation and/or reactive compensation projects, with two in California. (Prior Projects and Experience Workbook)

Lotus indicated that the transmission line design meets the line voltage, ampacity, line impedance, shield wire requirements, BIL rating, and design temperature requirements specified in the ISO Functional Specifications. (QP-1)

Lotus indicated that the ISO planning standards were considered in designing its project, that the line does not share its ROW with any existing or known planned 500 kV transmission line, and that its design incorporates appropriate physical separation and structural independence to reduce the likelihood of common mode failure. (QP-2)

Lotus indicated major risks associated with the project include risks due to siting and land acquisition, agreement with land trusts and agencies for conservation easement, environmental permitting and mitigation, supply chain and tariffs, and wildfire insurance. (P-4)

Lotus indicated that its team has faced comparable engineering risks similar to those foreseen for the project such as: (i) subsurface and foundation designs including seismic and scour impacts to foundation designs, (ii) coordinating height and structure placement limitations in the vicinity of airports, (iii) structure design for long span construction through mountainous terrain, (iv) minimizing vegetation impacts in wildfire zones, (v) utilization of micropile foundations for non-accessible structure locations, and (vi) utilization of advanced conductors for high ampacity

applications. Lotus also provided examples of two projects where its engineering contractor had faced similar challenges associated with projects in the mountainous terrain of Northern California. (P-5)

Lotus indicated that the line would be designed to accommodate two 50 MVAr line reactors per the ISO Functional Specifications. Lotus indicated that the series capacitors would be located near midpoint, include two banks of series capacitors with four equal blocks capable of being switched independently, and that one of the reactors would be located along with the series capacitors and the other would be located close to Metcalf and provided a description of the reactive compensation sites. Lotus indicated that the number, size, and location of the shunt reactors was validated by studying the line voltage profile for energization and under heavy load. (S-1)

Lotus siting criteria for the series compensation station included accessibility, availability of 3-phase station power, land availability, and avoidance of natural habitats and significant environmental and cultural resources, avoidance of high-density population centers, and avoidance of schools, nursing homes and hospitals. (S-2)

Lotus indicated a continuous summer and winter series compensation station rating of 3,800 Amps, 4-hour rating of 4,400 Amps, 30-minute rating of 5,130 Amps respectively and capacitor rating of 1,672 MVAR. (S-3)

Lotus provided the design criteria for the series compensation station that included electrical design, weather, clearances, strain bus, circuit breakers, shunt reactor, surge arrestors, capacitors, protection and relays, grounding, shielding, foundation and single line drawing. (S-4)

Lotus provided single line and general arrangement diagrams for the series compensation station that included line terminations, capacitors, shunt reactor and control. (S-5)

Lotus indicated that the protection and control system would be redundant with HMI each with all protection functions recommended by Institute of Electrical and Electronic Engineers (IEEE) standard 824. Lotus would coordinate with PG&E and LSPGC regarding the specifications and details of the associated 500 kV line protection and support two diverse telecommunication paths. Lotus indicated that the system design would support current and emerging industry standards for SCADA and communication protocols. Lotus indicated that it would use existing communication between substations and the OPGW on the new line. (S-6, S-7)

Lotus indicated requirements for physical security of the series compensation station including requirements R5 and R6 of NERC CIP-014-1 and indicated perimeter security for motion detection would be installed and that other site-specific security measures would be implemented. (S-8)

Lotus indicated that the length of its proposed line is 87-miles with two bundle Redcloud conductors, 1502 kcmil TS, 1,650 foot ruling span, 200 foot ROW, series compensation station with one reactor at midpoint and a second shunt reactor near Metcalf. Lotus indicated that it is proposing the use of TS Conductor technology due to its optimal performance and light weight allowing longer span lengths. (T-1)

Lotus indicated that the siting criteria for the transmission line included overall line cost, constructability, socioeconomic, environmental, and cultural considerations. (T-2)

Lotus indicated that the line would parallel existing 230 kV and 500 kV lines, the ROW width would be 200 feet and minimum separation would be 250 feet for existing 500 kV lines. Lotus identified the parallel 500 kV lines and provided the minimum centerline separation. (T-3)

Lotus provided design criteria for the transmission line that included codes and standards, conductor, structures, foundations, insulators and hardware, weather and structure loading, FAA marking, clearances, vegetation maintenance and grounding. The design criteria also included requirements for radial clearance from vegetation for 500 kV transmission line in CPUC designated HFTDs. (T-4)

Lotus provided a detailed list of standards, codes, and regulations, including California regulations, CPUC, and FAA requirements that would be used in the design of the transmission line. (T-5)

Lotus provided a single line diagram and transmission line crossing drawings and indicated that the line would cross existing 115 kV, 230 kV, and 500 kV lines and provided detailed information on line crossings. Lotus also provided plan and profile drawings for the proposed transmission line. (T-6)

Lotus indicated that the line would be designed for 525 kV, 1800 kV BIL minimum, actual continuous rating of 4,806 Amps, a 4-hour emergency rating of 5,122 Amps, and a 30-minute emergency rating of 5,237 Amps. Lotus indicated that it would utilize a combination of 235 lattice towers, 40 tubular guyed-V structures, and two 3-pole transposition structures, a combination of foundations including drilled piers, micropiles, and pre-cast pedestals, footing resistance of 20 Ohms, polymer insulators, lightning protection provided by OPGW and overhead ground wire, designed for construction of GO 95 Grade A and GO 95 light loading. (T-7)

Lotus indicated that the line would terminate on dead end towers located 100 feet from Manning and Metcalf Substations and identified the agreements needed for the interconnection. (T-10)

3.8.6 Information Provided by WestWorks

WestWorks provided a list of its experience and that of its contractors with designing substation, transmission line, and reactive compensation projects. Regarding projects that are above 200 kV, ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 13 transmission line projects with four projects in California, and 10 substation and/or reactive compensation projects with three in California. (Prior Projects and Experience Workbook)

WestWorks indicated that it has designed the project to be consistent with the needs identified in the ISO transmission plan, ISO planning standards and reliability criteria. WestWorks also indicated that its project incorporates proven design standards that ensure safety, reliability, and long-term performance, and that all transmission components meet or exceed the requirements of CPUC General Order No. 95, the National Electrical Safety Code, and the ISO Functional Specifications. (QP-1)

WestWorks indicated that the line would be designed to withstand extreme wind weather events for a 300-year mean return period, would experience no loss of conductor strength over the operating life, designed for GO 95 Grade A, include conductor and shield wire dampers and 250 foot separation from any transmission line of 230 kV or above. (QP-2)

WestWorks indicated that its team has faced comparable design/engineering risks similar to those foreseen for the project such as the design of lattice structures with tubular steel poles utilized for select applications such as arrester and crossing structures. (P-5)

WestWorks indicated that the project includes reactive equipment located at each end of the project to comply with the ISO Functional Specifications. WestWorks indicated that the series capacitors would be located near each end of the line, include two banks of series capacitors capable of being switched independently, and provided a description of the reactive sites and foundations. (S-1)

WestWorks indicated that the series compensations sites were designed with a primary voltage of 500 kV (525 kV normal), BIL of 1800, 500 kV, initial and final, continuous summer and winter capacitor rating of 3800 Amps, 4-hour rating of 4400 Amps, and 30-minute rating of 5130 Amps and shunt reactor of 50 MVAR minimum. (S-3)

WestWorks provided single line and general arrangement diagrams for Manning and Metcalf reactive compensation sites that included series capacitors with shunt reactors, bus work and connections. (S-5)

WestWorks indicated that the protection for the line would be provided at Metcalf and Manning Substations, the existing station service would be utilized, the series capacitor would have the ability to bypass each segment, and the shunt reactor would be switchable via a breaker. WestWorks indicated that it would identify the SCADA status points that can be provided to the ISO. WestWorks indicated that it would use PG&E's existing communication network for protection communication between Metcalf and Manning and the second path would be the OPGW on the transmission line. (S-6)

WestWorks indicated that physical security at the reactive sites would be designed in accordance with NERC CIP requirements with 24/7 monitoring. WestWorks indicated that response and control would be through the PG&E's control centers and that Manning site would be protected by expanding the perimeter protection at the Manning Substation and the Metcalf reactive site would include its own perimeter protection as a standalone site. WestWorks indicated that the perimeter wall gates will be equipped with integrated electronic access card readers, and access to the sites will be restricted by using electronic access cards. WestWorks indicated access to the control houses will be further restricted with monitored entry, an automatic electronic locking mechanism, and two factor authentication consisting of an electronic access card and a personal code entered on a keypad. (S-8)

WestWorks indicated that the length of its proposed line is 93-miles with three bundle 954 kcmil 54/7 ACSS conductors, typical span lengths of 1000 to 1600 with an average span length of 1182 feet, ROW width of 150 to 200 feet and design based on wind and ice studies, and parallel's 47 miles of existing transmission lines. (T-1, T-3)

WestWorks provided the separation criteria that included a minimum separation of 250 feet for existing 500 kV lines. (T-3)

WestWorks provided design criteria for transmission line design that included codes and standards, terrain and weather, electric design, shield wire, lightning, grounding, insulation, clearances, field effects, ROW, failure containment, structures, foundations, communications and structure ground of 25 Ohms. The design criteria also included requirements for ROW width and ROW clearing in PG&E identified high fire risk areas. (T-4)

WestWorks provided a single line diagram showing power line crossings, general arrangement, plan and profile drawings and a detailed list of transmission line crossings with information on the crossings. (T-6)

WestWorks indicated the proposed line will utilize a triple bundle, 954 kcmil ACSS conductor. WestWorks indicated a summer continuous, four-hour emergency and 30-minute emergency ratings of 4,956 Amps, 4,956 Amps, and 5,190 Amps respectively. (T-8)

WestWorks indicated that the line would terminate on dead end towers located 100 feet from Manning and Metcalf Substations and identified the agreements needed for the interconnection. (T-10)

3.8.7 ISO Comparative Analysis

Comparative Analysis of Technical (Environmental Permitting) Qualifications and Experience

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the qualifications and experience of both the project sponsor and its team members in obtaining and complying with environmental permits for a transmission project with a voltage greater than 200 kV. This includes, but is not limited to: (1) the permitting experience of the project sponsor and its team for projects it has developed, (2) the permitting experience for similar projects of the project sponsor's team member or members that have been designated as having responsibility for project permitting, and (3) how much of the experience of the project sponsor and its team is in the U.S. and California.

U.S. environmental permitting laws, rules, regulations, and processes are unique to the U.S., and California environmental permitting laws, rules, regulations, and processes are unique to the state of California. For example, compliance with CEQA is particularly unique to the state of California.

The ISO considers experience in California to be an advantage over experience in other jurisdictions because the project would be located in California and there are special aspects of environmental regulation and processes in California for which experience is an advantage.

All three project sponsors' teams have experience in permitting projects in the U.S. and in California, including experience with the environmental permitting process for transmission lines in California, although the amount of experience varied among the project sponsors and their proposed teams.

Regarding its analysis of this component of the factor, the ISO considers the environmental permitting teams identified by the project sponsors as part of their teams to be qualified and fully capable of handling the environmental permitting work associated with this project.

The ISO considers that regarding environmental permitting experience in the U.S. and California that there is no material difference among the three proposals because all proposals include ample experience in the U.S. and California.

The ISO has determined that the proposed environmental permitting plans for all three sponsors are complete and that where the routes differ, specifically with respect to the proposed routings

through and around the Santa Clara Valley, all routes face similar environmental permitting challenges.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, there is no material difference among the proposals of CalGrid, Lotus, and WestWorks regarding this component of the factor.

Comparative Analysis of Engineering Qualifications and Experience

For this component of the factor, the ISO has considered the representations by the project sponsors regarding the qualifications and experience of both the project sponsor and its team members in engineering and designing transmission line and reactive compensation projects in the U.S. and in California, including but not limited to (1) the engineering experience of the project sponsor for projects it has developed, (2) the engineering experience for similar projects of the project sponsor's team member or members who have been designated as having responsibility for project engineering, and (3) how much of the experience of the project sponsor and its team is in California.

The ISO considers experience in California to be an advantage over transmission line and substation engineering and design experience in other jurisdictions because the project will be located in California and there are special aspects of engineering and design codes and regulations in California for which this experience is an advantage.

U.S. engineering and design codes and regulations are unique to the U.S. and California engineering and design laws, rules, regulations, and processes are unique to the state of California. For example, projects developed in the United States must adhere to the National Electrical Safety Code (NESC) published by IEEE. In addition, the process that must be followed for engineering and design of transmission line, substations and reactive stations in California includes adherence to requirements of the California Building Standards Commission, the California Energy Commission, the California Environmental Protection Agency, California Occupational Safety and Health (OSHA), California High Voltage Electrical Safety Orders, California Building Code Title 24, and county and city planning and permitting requirements.

The ISO has considered the engineering and design qualifications and experience of the project sponsor and its team. The ISO considers the engineering team identified by all the sponsors to be highly qualified and have substantial experience with transmission line and reactive compensation projects in the U.S. and California.

The ISO does not consider the design and engineering of the project to present any unusual or unique challenges for the proposals of the project sponsors.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis of this component of the factor, the ISO determined that there is no material difference among the three proposals regarding this component of the factor.

Overall Comparative Analysis

The ISO considers the two components of this factor to be of roughly equal importance in the selection process for this project.

As discussed above, the ISO has determined that regarding the first component (environmental permitting experience) of this factor there is no material difference among the proposals of CalGrid, Lotus, and WestWorks.

As discussed above, the ISO determined that regarding the second component (engineering and design experience) of the factor there is no material difference among the proposals of CalGrid, Lotus, and WestWorks.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, based on the specific scope of this project, there is no material difference among the proposals of CalGrid, Lotus, and WestWorks regarding this factor overall.

3.9 Selection Factor 24.5.4(g): Previous Record Regarding Construction and Maintenance of Transmission Facilities

The seventh selection factor is "if applicable, the previous record regarding construction and maintenance of transmission facilities, including facilities outside the ISO Controlled Grid of the Project Sponsor and its team."

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) the previous record regarding construction including facilities outside the ISO controlled grid of the project sponsor and its team and (2) the previous record regarding maintenance including facilities outside the ISO controlled grid of the project sponsor and its team.

Construction Record

3.9.1 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with the construction of transmission line, substation and reactive compensation projects. Regarding projects that are above 200 kV, have been completed in the past ten years, and are located in the U.S., the information provided included 13 transmission line projects with nine in California, and 16 substation and/or reactive compensation projects with 10 in California. (Prior Projects and Experience Workbook)

CalGrid indicated that its team has faced comparable construction risks similar to those foreseen for the project, such as: (P-5)

- Utilization of lidar survey and field surveys to mitigate access related complications, particularly in mountainous areas
- Close coordination between engineering, permitting, landowners, and agencies to mitigate access related complications
- Fully characterize subsurface conditions prior to construction mobilization to avoid geotechnical and environmental issues
- Seismic considerations
- Conducting field surveys to monitor for the presence of protected wildlife species and creating mitigation strategies

- Construction activities regarding crossing bodies of water, critical (threatened or endangered) species habitats, railroads, major highways, and electrical infrastructure, and other utility infrastructure
- Construction consumable material availability
- Incorporate appropriate level of float in the construction schedule
- Stringing overhead conductors over existing infrastructure including transmission lines, highway, and railroads, including installing preventative measures such as guard structures
- Using engineering and GIS resources and dig safe procedures to avoid construction delays due to unmapped or abandoned underground infrastructure
- Coordinate with permitting personnel to fully characterize location and nature of culturally significant areas
- Early quantification of the presence of groundwater or artesian springs
- Mitigation wildfire risk while construction in high-wildfire risk areas
- Retaining craft workers to minimize potential for labor shortages
- Develop logistics plan that incorporates long-lead time materials and procurement strategies to mitigate delays in construction.

CalGrid indicated that it has not received any construction related NOVs, nor has any member of CalGrid's team received any such NOVs with would any function they would perform for CalGrid. (C-8)

CalGrid indicated that it and its project teams have not had any construction related fines levied. (C-8)

CalGrid indicated that its project teams are not under any current investigation or a defendant in any legal proceedings for any construction-related law violations. (C-8)

3.9.2 Information Provided by Lotus

Lotus provided a list of its experience and the experience of its contractors with the construction of transmission line and reactive compensation projects. Regarding projects that are above 200 kV, have been completed in the past ten years, and are located in the U.S., the information provided included eleven transmission line projects with one in California, and 12 substation and/or reactive compensation projects with one in California. (Prior Projects and Experience Workbook)

Lotus indicated that its team has faced comparable construction risks similar to those foreseen for the project such as poor or sandy soil conditions, rough inaccessible terrain in mountainous areas, long span construction, transmission line crossings and material lead times and provided an example project in California where it had faced some of these challenges. (P-5)

Lotus indicated that neither it nor its team have received any construction-related NOVs or construction-related fines. (C-8)

Lotus indicated that neither it nor its team is under investigation for any violation of any construction-related law nor are they defendants in any legal proceedings regarding the same. (C-8)

3.9.3 Information Provided by WestWorks

WestWorks provided a list of its experience and the experience of its contractors with the construction of transmission line and reactive compensation projects. Regarding projects that are above 200 kV, have been completed in the past ten years, and are located in the U.S., the information provided included five transmission line projects with four in California, and four substation and/or reactive compensation projects with two in California. (Prior Projects and Experience Workbook)

WestWorks indicated that its team has faced comparable construction risks similar to those foreseen for the project such as (i) constructing high-voltage transmission lines on rugged, difficult to access lands, (ii) under and over-crossings of existing energized and de-energized transmission lines, (iii) interstate highway crossings, and (iv) outage coordination with the interconnecting transmission owners. WestWorks also provided specific examples of projects where it faced similar challenges. (P-5)

WestWorks indicated that it has not been subject to any construction-related violations in the last ten years. WestWorks indicated that an affiliate, LSPGNY received NOVs from the New York Department of Public Service generally related to erosion control/matting, signage/flagging, and activities occurring outside of the ROW, and that the conditions giving rise to the NOVs were promptly addressed and remediated by LSPGNY. WestWorks indicated that neither WestWorks nor any LS Power affiliates have been assessed construction related fines in the last ten years. (C-8)

WestWorks indicated that neither it nor any LS Power affiliates have been subject to any construction-related law violations in the last ten years nor is it under investigation or is a defendant in any legal proceeding for violation of any construction-related law. (C-8)

Maintenance Record

3.9.4 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with the maintenance of transmission line and reactive compensation projects. Regarding projects that are above 200 kV, have been maintained in the past ten years, and are located in the U.S., the information provided included 4869 miles of transmission lines with most of it in California, and 13 reactive compensation projects with all projects in California. (Prior Projects and Experience Workbook)

CalGrid indicated that its team has faced comparable operation and maintenance risks similar to those foreseen for the project, such as: (i) a variety of weather conditions, including high winds, heavy rains, and thunderstorms, (ii) transmission lines in high wildfire risk areas, (iii) developing operating and maintenance procedures to proactively negate any impact on the environment, including endangered species, and (iv) use of helicopters and drones in areas that are difficult to access. (P-5)

CalGrid indicated that its O&M contractor has a leading wildfire mitigation program in place and has worked to mitigate this risk in the past by conducting regular inspections, including pre-wildfire season assessments. (P-5)

CalGrid indicated that its team has had direct O&M responsibility for 3,518 miles of transmission lines and 187 substations and a combined 59 years of experience. (M-1)

CalGrid indicated that its O&M contractor has extensive experience maintaining and operating lines outside the core service territory, including over 1,100 miles of transmission lines of voltages over 200 kV. CalGrid listed several lines maintained in desert and mountainous regions. (M-1)

CalGrid indicated that as part of its O&M contractor's organization, its O&M contractor maintains fourteen 500 kV series capacitor locations. CalGrid indicated that its O&M contractor performs a comprehensive series capacitor condition-based maintenance program in an effective way that improves maintenance efficiencies and quality while reducing maintenance costs and operational risks and seeks to extend the life of the equipment, when possible. (M-1)

CalGrid indicated that its O&M contractor has best-in-class wildfire O&M, supported through modeling capabilities utilizing its comprehensive proprietary model, which is broadly referenced across California for expected wildfire risk associated with different assets. CalGrid indicated that its O&M contractor utilizes a range of data including weather stations, fuel sampling, fire scientist assessments, and live field observations to monitor and minimize wildfire risks to the system. CalGrid indicated that the Manning-Metcalf transmission line has similar terrain and vegetation as projects within its O&M contractor's territory, and application of its O&M contractor's wildfire O&M program would lower the risk of wildfires. (M-1)

CalGrid indicated that since 1998, all its O&M contractor's facilities under the operational control of the ISO have been subject to all aspects of the Transmission Control Agreement (TCA) Appendix C. CalGrid indicated that its O&M contractor is compliant with the elements listed in the TCA Appendix C, Section 5.2.1. (Transmission Line Circuit Maintenance) and 5.2.2 (Station Maintenance. (M-4)

CalGrid indicated that its O&M contractor had extensive vegetation management experience and provided information on the contractor's existing hazard tree mitigation program in California which included the number of dead and dying trees that are scoped to be removed. CalGrid provided a copy of the O&M contractor's transmission vegetation management plan (TVMP) which described how vegetation management is performed on and adjacent to ROW maintained by its O&M contractor. CalGrid indicated that its O&M contractor's vegetation management operations prunes vegetation to meet the clearances documented in the TVMP for both high fire risk areas and non-high fire risk areas. (M-5)

CalGrid indicated that its O&M contractor already operates under the TCA and manages its transmission facilities to be compliant with its requirements, drawing on its vast experience in inspecting, maintaining, repairing, and replacing similar facilities. (M-6)

CalGrid indicated that some of the 500 kV lines its O&M contractor owns and operates are more than 100 miles long, are nearly 50 years old, include series compensation facilities, and traverse agricultural and mountainous types of terrain. CalGrid indicated that there are many other examples in its O&M contractor's transmission portfolio, which were more than 200 miles long with multiple midline series capacitors, traversing desert terrain in two different states. (M-6)

CalGrid provided the most recent draft ISO annual review of its O&M contractor, conducted April 2024 that showed the observations, findings and concerns related to the transmission and substation maintained by the contractor. (M-6)

CalGrid indicated that its O&M contractor is periodically audited by the CPUC, for compliance of its inspection and maintenance activities on transmission facilities, both those controlled by the

ISO and those under CPUC jurisdiction. CalGrid provided copies of the CPUC audit reports. (M-6)

CalGrid indicated that its O&M contractor has extensive experience with providing its availability measures in accordance with TCA Appendix C Section 4.3 (Availability Reporting). CalGrid indicated that its O&M contractor has also collaborated with the ISO in the development of many of the maintenance practices and measures required by the TCA. (M-7)

CalGrid provided a copy of the recent annual availability performance evaluation and indicated that its O&M contractor would continue this process and reporting with all new facilities. (M-7)

CalGrid indicated that it also has a history of working with the ISO in providing Availability Measures in accordance with TCA Appendix C, Section 4.3. CalGrid provided a publicly available Transmission Availability Reports for entities that were previously under the direction of one of its team members. (M-7)

3.9.5 Information Provided by Lotus

Lotus provided a list of its experience and the experience of its contractors with the maintenance of transmission line and reactive compensation projects. Regarding projects that are above 200 kV, have been maintained in the past ten years, and are located in the U.S., the information provided included 200 miles of transmission line with 150 miles in California and three reactive compensation projects with one in California. (Prior Projects and Experience Workbook)

Lotus indicated that its team has faced comparable maintenance risks similar to those foreseen for the project such as: (i) maintaining transmission lines in wildfire areas, (ii) maintaining transmission lines and facilities in areas of denser population, (iii) environmental impacts, including impacts to stormwater, air quality, noise, hazardous materials, and sensitive species, (iv) access challenges due to weather, and (v) remoteness challenges. (P-5)

Lotus indicated that it has mitigated project risks in fire-prone areas in the past by conducting regular inspections, performing pre-wildfire season assessments, and carrying out vegetation management in accordance with NERC facilities design, connections, and maintenance (FAC) reliability standard FAC-003-4 requirements. (P-5)

Lotus indicated that its O&M contractor has a formal maintenance program for transmission line projects that includes, but is not limited to, the following inspection and maintenance tasks: local switching, physical and aerial inspections and patrols, vegetation management, security patrols, oil testing, emergency response, relay testing, equipment diagnostics, and corrective and preventive maintenance. (M-4)

Lotus indicated that its O&M Contractor has a successful record of providing O&M services to 15 transmission line projects in 12 states in the U.S., totaling more than 200 miles of line, and tying in more than 10,000 MW of energy. Lotus indicated that its O&M contractor experience includes overhead and underground transmission lines, submarine cables, DC transmission cables, substations, and converter stations. Lotus indicated that its O&M contractor's experience in power transmission includes full O&M, Transmission Owner (TO) Transmission Operator (TOP), Balancing Authority (BA), asset management support, and engineering. (M-4)

Lotus indicated that in addition to this experience, its O&M contractor is the O&M provider for a 125-mile, 500 kV transmission line spanning from Arizona to California. (M-4)

Lotus indicated that its O&M contractor has a formal maintenance program for transmission line projects that includes, but is not limited to, the following inspection and maintenance tasks: local switching, physical and aerial inspections and patrols, vegetation management, security patrols, oil testing, emergency response, relay testing, equipment diagnostics, and corrective and preventive maintenance. (M-4)

Lotus indicated that eleven of its O&M contractor's projects have directly involved maintaining an above-ground transmission line, including vegetation management. (M-5)

Lotus provided its O&M contractor's standard quarterly report of the recently completed transmission line project which indicated that the project ended the quarter with zero reported injuries and no regulatory compliance violations. (M-6)

Lotus also provided a draft of the maintenance practices for the project dated 2025 approved by the ISO. (M-6)

Lotus indicated that its O&M contractor and its O&M contractor's subsidiary operations contractor regularly report on availability measures for their clients. (M-7)

Lotus indicated that the system used by its O&M contractor's subsidiary operations contractor is capable of capturing the necessary information to report on availability measures as described in TCA Appendix C Section 4.3 (Availability Reporting). Lotus indicated that its O&M contractor's subsidiary operations contractor uses an electronic logging application that collects status information and that these logs would be assessed in coordination with field personnel to assess the primary or secondary cause codes that apply to any specific outage and these logs would be available to support reporting requirements to the ISO and track availability. (M-7)

Lotus indicated that its O&M contractor has executed over 300 O&M agreements during its history. (M-7)

3.9.6 Information Provided by WestWorks

WestWorks provided a list of its experience and the experience of its contractors with the maintenance of transmission line and reactive compensation projects. Regarding projects that are above 200 kV, have been maintained in the past ten years, and are located in the U.S., the information provided included approximately 6960 miles of transmission lines in California, and 16 reactive compensation projects in California. (Prior Projects and Experience Workbook)

WestWorks indicated that PG&E would perform the maintenance functions for the project. (M-1)

WestWorks indicated that operating and maintaining extra high voltage (EHV) transmission lines across rugged, difficult to access lands may create risks and challenges once the project is energized. WestWorks indicated that its team has faced comparable transmission line maintenance risks similar to those foreseen for the project, such as wildfires, access in constrained areas, seasonal constraints, outage coordination, substation and reactive equipment maintenance, and heavy equipment replacement. (P-5)

WestWorks indicated that PG&E's O&M personnel and its contractors currently operate and maintain EHV transmission lines in the project area with high reliability. (P-5)

WestWorks indicated that PG&E's electric transmission line maintenance and construction organization includes over 900 internal employees supported by more than 300 contractors. WestWorks indicated that this team operates in compliance with NERC, Western Electricity Coordinating Council (WECC), ISO, and other standards and has a proven track record of reliability in the project area. (M-1)

WestWorks indicated that PG&E's substation maintenance organization is responsible for performing preventative, real-time, and emergency maintenance across PG&E's expansive network of 85 substations rated greater than 200kV. (M-1)

WestWorks indicated that through PG&E's vegetation management (VM) program, it has experience managing and inspecting approximately 100,000 miles of overhead powerlines annually, including approximately 18,000 miles of transmission lines and over 1,300 miles of 500 kV transmission lines. (M-5)

WestWorks indicated that PG&E has demonstrated extensive experience implementing wildfire mitigation strategies in CPUC designated HFTDs and PG&E identified high fire risk areas. WestWorks indicated that by adhering to strict regulatory requirements, leveraging advanced technologies such as lidar for close monitoring, and executing detailed systematic planning, PG&E's vegetation management teams effectively mitigate fire risks. (M-5)

WestWorks provided a copy of PG&E's wildfire mitigation plan. (M-5)

WestWorks indicated that PG&E's practices are subject to annual regulatory review by the ISO. WestWorks indicated that each year, PG&E submits data and documentation regarding its maintenance practices for facilities under ISO operational control. (M-6)

WestWorks provided PG&E's electric transmission preventive maintenance manual. WestWorks provided the 2024 ISO maintenance review report which confirmed that PG&E's filed maintenance practices were generally well-documented and organized, with positive results in both station and line maintenance records. (M-6)

The 2024 ISO maintenance report provided by WestWorks indicated that station maintenance had no findings, two concerns, and one observation and transmission line maintenance had no findings, one concern, and two observations. (M-6)

WestWorks indicated that PG&E's transmission outage database serves as the central repository for availability reporting. WestWorks indicated that this data is refined and analyzed in accordance with TCA Appendix C and ISO Transmission Maintenance Procedures No. 2 (Outage Data File Format) and No. 5 (Classifying Forced Outages), which govern the calculation and reporting of availability metrics. (M-7)

WestWorks indicated that in accordance with TCA Section 4.3 (Availability Reporting), PG&E provides annual reports to the ISO within 90 days of the end of each calendar year. (M-7)

WestWorks indicated that PG&E's performance is demonstrated in its annual electric transmission availability performance report for performance year 2024, copy provided. WestWorks indicated that this report confirms an improvement in overall transmission system availability in 2024, underscoring PG&E's capability to track, calculate, and report availability measures accurately and in compliance with ISO standards. (M-7)

3.9.7 ISO Comparative Analysis

Comparative Analysis of Construction Record

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the record and experience of both the project sponsor and its team members in constructing transmission line and reactive compensation projects, and how much of the experience of the project sponsor and its team is in the U.S. and in California. The ISO considers experience in the U.S. and California to be an advantage over transmission line construction experience in other jurisdictions because the project will be located in California and there are special aspects of construction codes and regulations in the U.S. and California for which this experience is an advantage.

U.S. construction laws, rules, regulations, and processes are unique to the U.S., and California construction laws, rules, regulations, and processes are unique to the state of California. For example, the process that must be followed in California includes adherence to requirements of California OSHA, the California Air Resources Board, the California Office of Historic Preservation, Title 22 regarding hazardous waste, and city and county codes. U.S. laws, rules, regulations, and processes applicable to construction include federal OSHA, NEPA, SWPPP, and USFSW requirements, Fair Labor Standards Act regulations, National Electric Safety Code and National Electric Code standards.

The ISO has considered the construction qualifications and experience of the project sponsors and their teams. Regarding its analysis of this component of the factor, the ISO considers the teams identified by CalGrid, Lotus, and WestWorks to be qualified, experienced, and capable of handling the construction work associated with their projects. Although the number of transmission facilities constructed varies among the project sponsors' proposed teams, all three project sponsors teams have relevant experience in the construction of transmission line and substation and/or reactive projects in the U.S. and California. All three sponsors have faced construction risks similar to those foreseen for the project. Each of the project sponsors conveyed that its proposed construction team has not had any safety, litigation, or environmental legal violations, fines, or other notices of violations that were systemic in nature in the past ten years.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO determined that, based on the specific scope of this project, there is no material difference among the proposals of CalGrid, Lotus, and WestWorks regarding this component of the factor.

Comparative Analysis of Maintenance Record

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the record and experience of both the project sponsor and its team members in maintaining transmission line and reactive compensation projects, including but not limited to experience with compliance with NERC standards.

Regarding its analysis of this component of the factor, the ISO considers the teams identified by CalGrid, Lotus, and WestWorks to be qualified, experienced, and capable of handling the maintenance of the project. Each of the three project sponsors provided examples of relevant

U.S. and California experience with the maintenance of transmission lines, including vegetation management, and have faced maintenance risks similar to those foreseen for the project.

All three project sponsor's teams have experience in maintaining transmission facilities as ISO PTOs in accordance with the TCA although the amount of experience varied among projects sponsors and their proposed teams. The teams of CalGrid and WestWorks have more experience maintaining transmission assets located in California, in CPUC designated HFTDs, and under ISO control than Lotus. WestWorks and its team have more experience maintaining assets in the project area than the teams of CalGrid and Lotus.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, the proposal of WestWorks is slightly better than CalGrid's proposal, which is better than the Lotus's proposal, regarding this component of the factor.

Overall Comparative Analysis

The ISO considers the two components of this factor to be of roughly equal importance in the selection process for this project.

Regarding the first component (previous record regarding construction of transmission facilities) of this factor, the ISO has determined that there is no material difference among the proposals of CalGrid, Lotus, and WestWorks.

Regarding the second component (previous record regarding maintenance) of the factor, the ISO has determined that the proposal of WestWorks is slightly better than CalGrid's proposal, and that their proposals are better than Lotus's proposal.

Based on the forgoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined, based on the specific scope of this project, the proposal of WestWorks is slightly better than CalGrid's proposal, which is better than the Lotus's proposal, regarding this factor overall.

3.10 Selection Factor 24.5.4(h): Adherence to Standardized Construction, Maintenance, and Operating Practices

The eighth selection factor is "demonstrated capability to adhere to standardized construction, maintenance and operating practices of the Project Sponsor and its team."

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the three components of this factor separately and then combined them into an overall comparative analysis for this factor. The three components are: (1) demonstrated capability to adhere to standardized construction practices, (2) demonstrated capability to adhere to standardized maintenance practices, and (3) demonstrated capability to adhere to standardized operating practices.

Construction Practices

3.10.1 Information Provided by CalGrid

CalGrid indicated that it has assembled a highly qualified team of internal members and their construction contractor who specializes in construction of high-voltage transmission lines and series compensation facilities. (C-1)

CalGrid indicated that its construction contractor has a record of demonstrated success managing complex construction projects within budget, schedule, and quality requirements. (C-1)

CalGrid provided a detailed list of construction activities and associated inspections for both the compensations station and the transmission line and the key personnel and their role in the required inspections. (C-1)

CalGrid indicated that it and its construction contractor would be responsible for establishing material yards, sequencing and receiving material to provide material to subcontractors, quality and expediting. (C-1)

CalGrid indicated that a total of five laydown yards and two fly yards have been identified throughout the 86-mile transmission line. CalGrid indicated that the main material staging yard would be located central to the line and would be near major highways and freeways to streamline truck deliveries. (C-2)

CalGrid provided detailed information on the process and procedures used by CalGrid's engineering and procurement teams and the construction contractor to finalize and purchase the materials, receive and stockpile it in the yards. (C-2)

CalGrid indicated that it, along with the representatives from the construction contractors, would perform factory and on-site visual inspections of the equipment and materials. (C-2)

CalGrid indicated in the event material expediting might be required, it and its construction contractors' procurement team would work with the specific vendor to find an acceptable solution to the encountered delay. (C-2)

CalGrid indicated that the construction contractor would be responsible for coordination of the duration and timing of any clearances of existing circuits necessary during construction. CalGrid provided details of the planning and coordinating activities for coordinating outages and clearances. (C-3)

CalGrid indicated that it would require the construction contractor to develop and maintain a listing of utility lines requiring clearance and the duration and timing of all necessary clearances. CalGrid indicated that it has identified two 500 kV, two 230 kV, and one 115 kV crossings. (C-3)

CalGrid indicated that it would complete constructability reviews of the project's engineering, materials, construction, quality, scheduling and estimating deliverables and that the construction team would complete constructability reviews including completeness of engineering drawings at 30%, 60%, 90% and once the job has been issued for construction. CalGrid indicated that it would provide expediting services to support the project if required for schedule adherence. (C-4)

CalGrid indicated that its teams would prepare construction bid specifications for the project consistent with the final engineering drawings, which would include any identified methods for construction, temporary land use required, material storage, material management, assembly locations and a proposed schedule of construction activities. (C-4)

CalGrid indicated that it has not begun to secure any new easements or permits. (C-5)

CalGrid indicated that the schedule would be managed using industry standard software, Primavera P6, and the schedule would include the timing of key activities, resources, environmental restrictions, clearance requirements and critical path. (C-6)

CalGrid indicated that its goal is to use conventional construction methods as much as possible. CalGrid indicated that helicopter support is not expected for tower installation, that light–duty helicopters would be used to support pulling conductors, and that it would utilize existing PG&E, WAPA, and public/private access roads to reduce the need for new access roads. (C-7)

CalGrid indicated that to reduce the risk and severity of wildfire during construction, each construction crew would be staffed with one team member who would be responsible for wildfire detection and mitigation, all vehicles would be equipped with fire mitigation tools, water buffalo and propulsion are part of each crew's equipment inventory, construction would stop when conditions are particularly hazardous from a fire perspective, such as during red flag days, signage would be posted at each job site to denote wildfire risk, mandatory wildfire would be part of the craft onboarding process and ongoing wildfire training would be required monthly, and equipment telematics would be programmed to report wildfire risks. (C-7)

CalGrid indicated that it would work with the construction contractor to develop a fire safety plan specific to the mountain segment and portions of the Santa Clara Valley segment that are in CPUC designated HFTDs. (C-7)

CalGrid identified non-environmental permits that may be needed to construct the project, including local grading/building permits and Caltrans permits. (C-7)

Regarding construction risks, CalGrid provided a risk log that identified low and medium likelihood construction risks and mitigations for the project. CalGrid indicated that medium likelihood risks include delayed utility interconnections, labor rate escalation, subsurface conditions, vegetative clearing, access, and availability of local craft labor. (P-4)

3.10.2 Information Provided by Lotus

Lotus indicated that it has consulted with highly reputable construction contractors for the project but has not entered into an exclusive agreement with any construction contractor. (A-5)

Lotus indicated that it would implement a comprehensive inspection and quality assurance program and provided a detailed list of inspection activities for overhead lines and interconnection. (C-1)

Lotus indicated that laydown yards would be identified and sized for material receiving, material staging and storage, temporary contractor and Lotus offices and employee parking. Lotus indicated that construction contractors would be responsible for receiving and storage of material at each site and that certain pieces of equipment would require special delivery, unloading and placement circumstances. (C-2)

Lotus indicated that it would coordinate all required clearances through a structured outage planning and communication process. Lotus indicated that it has four 500 kV crossings. (C-3)

Lotus indicated that constructability reviews would be completed at 30%, 60%, 90% and issue for construction milestones and would provide a thorough review of all engineering documents including construction and material specifications. (C-4)

Lotus indicated that it has not executed any easements, permits or agreements. (C-5)

Lotus indicated that a Primavera P6 schedule would be developed with relationships so that impacts to activities could be evaluated, and that the final sequencing would be developed throughout pre-construction. Lotus indicated that project sequencing would rely on build-up of project activities so that they would not need unique lags or constraints. (C-6)

Lotus indicated that its goal is to use conventional construction methods as much as possible. Lotus indicated that helicopters would be used for wire stringing and to install some structures. Lotus indicated that it would utilize existing access roads as much as possible. Lotus indicated that in areas of denser vegetation the construction contractor would cut down vegetation and would leave large trees downed within the ROW and would chip smaller vegetation and spread within the ROW. Lotus provided a wildfire mitigation plan that outlined measures intended to reduce wildfire risk through multiple strategies. (C-7)

Lotus provided a list of key risks and mitigation measures that included the following: (i) siting and land acquisition, including agreement with land trusts and agencies for conservation easements, (ii) environmental permitting and mitigation, (iii) supply chain and tariffs, and (iv) wildfire insurance. Lotus indicated that if it cannot procure insurance for the project, it expressly reserves the right to seek recovery of potential damages through a FERC 205 filing. (P-4)

3.10.3 Information Provided by WestWorks

WestWorks indicated that it has assembled a construction team that has recent and successful experience completing transmission line and substation projects in California. WestWorks indicated that oversight would be provided by WestWorks' construction director, who would supervise WestWorks' field managers and the activities of the construction contractors. WestWorks indicated that its engineering contractor and a geotechnical engineer would provide specialized inspection and oversight services. (C-1)

WestWorks indicated that each contractor would be required to submit a quality assurance and quality control (QA/QC) plan outlining responsibilities, processes, and resources to ensure compliance with WestWorks' specifications. WestWorks indicated that these plans would define inspection procedures, non-conformance management, document control, and overall quality assurance. WestWorks provided a detailed list of inspection activities for the transmission line that included ROW, excavation, foundation, structure assembly and erection, and conductor and OPGW installation and for the reactive site included site, foundation, ground grid, fence, surfacing, final site work, cable systems, control house, structures, switches, bus and equipment. (C-1)

WestWorks indicated that it would directly purchase the major material for the project including structures, conductor, OPGW, insulators and hardware. WestWorks indicated that its construction contractor would be responsible for procuring other materials necessary for construction of the project. (C-2)

WestWorks indicated that its construction contractor would establish two material yards along the alignment to support construction activities and that one would be located approximately 20-line miles from the Manning Substation and the other approximately 30-line miles from the Metcalf Substation. WestWorks also indicated that a helicopter landing site has been identified south of Gilroy to further support aerial construction activities. (C-2)

WestWorks indicated that it, its construction contractor, and its engineering contractor would oversee suppliers to ensure compliance with contract documents, project-specific inspection and test plans, and internal quality requirements. (C-2)

WestWorks indicated that key work completed includes transmission line routing study, consultation with regulatory and permitting agencies, identification of all ROW, detailed engineering, and a comprehensive schedule and that its engineer would develop construction specifications that would have several levels of review. (C-4)

WestWorks indicated that it would use existing, new, and overland access, that the line would be constructed using conventional rubber-tired and tracked excavation equipment, professional logging and/or clearing subcontractors and that helicopters would be used for wire stringing and may be used for tower installation in areas with limited access. WestWorks indicated that it would implement a project-specific wildfire mitigation plan and emergency response plan governing all aspects of construction that would include designating a fire risk manager, training, monitoring, fire prevention equipment, mobilization areas, construction vehicle capabilities for fire control and supplemental fire equipment. WestWorks provided description on hot watch fire watchmen for all hot work activities and outlined additional fire prevention protocols during red flag warnings. WestWorks indicated that it would implement a separate, CPUC-approved wildfire mitigation plan for the operation and maintenance of the project. (C-7)

Regarding construction related risks, WestWorks provided a list of key risks and mitigation measures that include: (i) access restrictions requiring helicopters for construction (ii) schedule risk due to outage scheduling associated with crossing transmission lines, (iii) contaminated water/soil during construction, and (iv) potential to ignite fires delaying construction. WestWorks also identified several risks associated with labor, contractor performance, safety and construction management. (P-4)

Maintenance Practices

3.10.4 Information Provided by CalGrid

CalGrid indicated that its O&M contractor intends to follow well-established maintenance practices and processes for the project, similar to practices used today to maintain its existing system. (M-1)

CalGrid provided its O&M contractors maintenance practices for transmission facilities under the operational control of ISO, and this document provided the methodology for routine patrol, emergency patrol, detailed inspection, and insulator wash for overhead lines and provided the frequency of these maintenance activities. (CC-3)

CalGrid indicated that its general manager for O&M and project director would work alongside the O&M contractor in supporting O&M activities. CalGrid indicated that its O&M contractor's T&D organization plans to utilize regional maintenance electrician crews, transmission personnel, and other technician crews to handle all maintenance, troubleshooting and repairs that arise along the transmission line and within the series compensation facilities. CalGrid

indicated that this crew would be based in the general vicinity of the project at a location to be determined to best manage the project's facilities. CalGrid indicated that this crew is expected to have four members that would consist of test specialist technicians and maintenance electricians along with a senior supervisor who is well versed on the equipment involved in the project but may be adjusted according to project needs. (CC-4)

CalGrid indicated that its O&M contractor has a leading wildfire mitigation program in place and is a leader in the field of risk identification and mitigation. (P-5)

CalGrid indicated that its O&M contractor plans to proactively develop a risk model to quantify CalGrid's enterprise-level risks and evaluate mitigation options of wildfire. (M-1)

Cal Grid indicated that its O&M contractor's transmission field crews include 17-line crews, approximately 400 transmission line workers and 600 substation personnel. CalGrid indicated that these crews allow its O&M contractor to reach locations within a short time after detecting a system disturbance, with reinforcements within a few hours. (M-1)

CalGrid indicated that the O&M contractor's maintenance crew would have a senior patrolman assigned to the transmission line who would bring additional linemen as needed. CalGrid indicated that its O&M contractor has the ability to call out additional crews and other specialists to support any major maintenance activities, as necessary. (M-1)

CalGrid indicated that its O&M contractor's substation construction and maintenance (SC&M) organization regularly maintains O&M contractor's substation and line compensation equipment. CalGrid indicated that O&M contractor implements predictive diagnostics which may indicate the imminent failure of equipment. (M-1)

CalGrid indicated that the addition of the project to its O&M contractor's overall operations would not require any structural changes to its organization and framework. CalGrid indicated that its O&M contractor does not currently contract maintenance and inspection services in their entirety, nor does it plan to for the project, but it does utilize contractors to augment its construction and repair workforce when workload requires it. (M-1)

CalGrid indicated that its O&M contractor's approach to training electrical workers aligns with NERC PER-005-2 and the Department of Energy guidelines specified in its training program handbook. CalGrid indicated that all its O&M contractor's employees maintaining assets would have experience similar to that included within the job descriptions provided. (M-2)

CalGrid indicated that once hired, employees pursue training through its O&M contractor's rigorous internal O&M training to become best in class in their roles. CalGrid indicated that its O&M contractor also has manufacturer-specific training for substation personnel. (M-2)

CalGrid indicated that its O&M contractor intends to maintain standards consistent with its current safety culture values and provided a list of these values. (M-2)

CalGrid indicated that its O&M contractor utilizes agile and informal training to assist employee development learning in addition to facilitating formal training programs. (M-3)

CalGrid indicated that the substation electrician program follows the same structure and qualification and is also a 3-year program, similar to the T&D lineman apprentice program. CalGrid indicated that this program would benefit those employees performing work on the series compensation facility related equipment. (M-3)

CalGrid indicated that its O&M contractor's facilities under the operational control of the ISO have been subject to all aspects of the TCA Appendix C. (M-4)

CalGrid indicated that its O&M contractor is committed to wildfire safety for projects under its O&M contractor's maintenance control. CalGrid indicated that this is evidenced by the commitment to plan, schedule, and execute maintenance work focused specifically on T&D wildfire preparedness. CalGrid indicated that this is demonstrated within PG&E identified high fire risk areas, in which its O&M contractor would perform over 6,000 transmission structure boots-on-the-ground inspections and over 2,500 transmission aerial structure inspections between 2025-2028. CalGrid provided a copy of its O&M contractor's wildfire mitigation plan. (M-4)

CalGrid indicated that it plans to utilize its O&M contractor's TVMP which describes how vegetation management is performed on and adjacent to ROW. (M-5)

CalGrid indicated that its O&M contractor's TVMP requires regular inspections and tree pruning to be performed in compliance with existing State and Federal laws, rules, and regulations. CalGrid indicated that its O&M contractor's vegetation management operations prunes vegetation to meet the clearances documented in the TVMP which incorporates conductor sag and sway for lines subject to NERC FAC-003-4. CalGrid provided information on its O&M contractor's vegetation management practices which included information on tree pruning and removal and minimum clearances for various transmission line voltage classes. CalGrid indicated that its O&M contractor also identifies hazard trees that extend out from the edge of the ROW. (M-5)

CalGrid indicated that vegetation activities scoped for 2025-2028 within its O&M contractors identified high fire resource risk areas for T&D include: hazard tree mitigation program scoped to remove over 59,000 trees; pole brushing of over 450,000 structures; removal of dead and dying trees from 66,000 structures; and expanded line clearing on over 660,000 structures. (M-5)

CalGrid indicated that the ISO has approved its O&M contractor's filed maintenance practices. (M-6)

CalGrid indicated that it does not anticipate that adding the project to the ISO controlled grid would require any changes or exceptions to the provisions of the TCA as they relate to maintenance. (M-8)

CalGrid indicated that it and its selected O&M contractor are experienced in coordinating outages for scheduled and unscheduled maintenance with the ISO. CalGrid indicated that all its O&M contractor's facilities, new and existing, under the operational control of the ISO are maintained in accordance with activities and requirements listed in the TCA Sections 6.1 (Physical Operation of Facilities), 6.3 (Other Responsibilities) and 7 (System Operating and Maintenance). (M-9)

CalGrid indicated that it and its O&M contractor would enter into an O&M services agreement which would include provisions for its O&M contractor to perform duties in accordance with Section 7.2 (Exercise of Contractual Rights) related to maintenance outages for non-participating generators as the ISO approves or requests and Section 7.3 (Unscheduled Maintenance) regarding notifications and a return to service of the facilities as soon as possible. (M-9)

CalGrid indicated that it would be a PTO prior to project energization, would be a signatory to the TCA and that its staff have been responsible for utilities that have complied with the TCA standards. (M-9)

CalGrid indicated that it has staff located within one hour of the project location and would be capable of supporting immediate response and coordination with its O&M contractor and other support contractors as appropriate. (M-10)

CalGrid indicated that as project sponsor for the New Humboldt–Collinsville project, it would be utilizing its O&M contractor to operate and maintain the facilities and therefore would have trained operational personnel within three hours of the project. (M-10, O-13)

CalGrid indicated that its O&M contractor's operational staff serving out of a nearby switching center would be called upon to respond to a problem on the project and can respond in a similar timeframe (2-3 hours) as is customary for its O&M contractor's existing operations. (M-10, O-13)

CalGrid indicated that its O&M contractor is a member of various mutual aid organizations and, if necessary, could seek assistance from other members of those organizations. (O-13)

CalGrid indicated that its O&M contractor has 21 transmission crews, wire stringing equipment, cranes, digger derricks, and bucket trucks and access to its helicopter fleet to support emergency transmission work. (O-15)

CalGrid indicated that its O&M contractor stocks the following structures that can facilitate various terrains, voltages, and other constraints on its system: Lindsey structures, emergency steel poles, and lattice structures and various types of conductors. CalGrid indicated that each of these items are stationed at various points within its O&M contractor's service territory. (O-15)

CalGrid indicated that its O&M contractor maintains its substation equipment, including series compensation equipment. CalGrid indicated that to avoid or mitigate potential reductions in reliability, its O&M contractor maintains a reserve inventory of major equipment, such as circuit breakers and disconnect switches which are not readily available in the marketplace. (O-15)

3.10.5 Information Provided by Lotus

Lotus indicated that it identified an O&M contractor that it would retain with a full contract to be executed upon project award. Lotus indicated that maintenance activities would be performed by its O&M contractor, with operations performed by a subsidiary of this O&M contractor. Lotus indicated that its O&M contractor would work with a subcontracted maintenance partner for field maintenance of the project. (M-1)

Lotus indicated that the contract for providing maintenance and operations would have a similar form and structure as the one that it has executed with its O&M contractor and its O&M contractor's subsidiary operations contractor to provide similar services for a 125-mile 500 kV transmission line placed in service June 2024 and related switchyard electrically interconnected in January 2025, (M-1)

Lotus indicated that its O&M contractor has a strong operational presence in California, with 22 facilities and a total of 166 employees across the state. Lotus indicated that the California-based workforce includes experienced operators, maintenance technicians, and support staff familiar with regional regulatory requirements and infrastructure. (M-1)

Lotus indicated that no changes to its current organization are anticipated to accommodate maintenance of the project. (M-1)

Lotus indicated that the project team would work together to execute the planned and unplanned maintenance plan for the project, in conjunction with specialty subcontractors, as necessary. (M-1)

Lotus provided a table of contents of its contractor's T&D O&M plan. Lotus indicated that the maintenance strategy for the project would focus on preventive measures, condition-based monitoring, and regularly scheduled periodic inspections of critical system components. Lotus indicated that the maintenance approach would also consider vegetation management, water management, corrosion protection and control, and thermal performance, given the project's urban/suburban infrastructure environment. Lotus indicated that an O&M plan specific to the project would be developed after the project officially kicks off and its O&M contractor receives formal notice to begin delivering services. (CC-3)

Lotus indicated that it does not intend to employ any full-time equivalent employees (FTE) for performing operation and maintenance activities. Lotus indicated that its O&M contractor would hire one full-time project manager for this project. (CC-4)

Lotus indicated that its O&M contractor would seek employees of the highest quality and to select the individuals on the basis of merit and competence. (M-2)

Lotus indicated that it and its O&M contractor would work with subcontractors to ensure that only appropriately skilled and credentialed individuals perform their respective tasks. (M-2)

Lotus indicated that its O&M contractor would administer training for maintenance personnel. Lotus indicated that the qualification process includes hands-on training as well as classroom and self-study training. (M-3)

Lotus indicated that for subcontracted maintenance work at the project, Its O&M contractor would first ensure and verify that the subcontractor maintenance company is properly qualified, and its employees are trained and certified to conduct transmission line, substation, or vegetation management maintenance. Lotus indicated that subcontractor personnel must be qualified to conduct high-voltage electrical maintenance and repair in accordance with applicable regulations and standards, including, but not limited to, OSHA, NESC, and NERC standards. (M-3)

Lotus indicated that for substation electricians, certification under California's electrician certification program would be required, including compliance with continuing education requirements (32 hours every 3 years). (M-3)

Lotus indicated that its O&M contractor's maintenance program for transmission line projects includes all of the elements listed in TCA Appendix C Sections 5.2.1 (Transmission Line Circuit Maintenance). Lotus indicated that all programs at each of its O&M contractor-operated facilities, including the maintenance program, undergo annual assessments to ensure programs have performed as expected and are compliant with both internal and external processes. (M-4)

Lotus indicated that its project maintenance program is designed to proactively manage a wide range of operational challenges, including wildfire risk, weather extremes, environmental

sensitivities, public safety in populated areas, and logistical constraints such as remoteness and limited access. (M-4)

Lotus indicated that wildfire risk is addressed through routine inspections, vegetation management in compliance with NERC FAC-003-4, and the implementation of a site-specific wildfire mitigation plan that includes coordination with emergency response agencies. (M-4)

Lotus indicated that the project team would implement its O&M contractor's comprehensive maintenance program, which contains the vegetation management plan for the project. Lotus indicated that in accordance with the NERC FAC-003-4 and the vegetation management procedure and instruction in its O&M contractor's maintenance program for the project, its O&M contractor, on behalf of the project team, would manage vegetation within the project ROW and in access and service roads. Lotus indicated that the actual performance of vegetation management would be subcontracted and its O&M contractor would manage the subcontractor's scheduling and performance of vegetation management activities. (M-5)

Lotus indicated that the prevention of wildland fires is an important aspect of vegetation management activities and that all vegetation management activities would be performed in accordance with applicable fire prevention regulations. Lotus outlined protocols for ongoing O&M activities designed to mitigate fire hazards associated with vegetation encroachment, including ROW vegetation management, danger tree monitoring and removal, vegetation clearing in very high fire zones, perimeter tree risk assessment, and vegetation inspection protocols. Lotus indicated that the vegetation management practices outlined are specific to wildfire mitigation and represent a subset of the broader vegetation management program. (M-5)

Lotus indicated that the wildfire mitigation plan it provided is a draft for illustrative purposes only. Lotus indicated that upon project award and formal notice to proceed its O&M contractor would develop and implement a comprehensive wildfire mitigation plan tailored to the specific operational characteristics and regulatory requirements of the project. Lotus indicated that the final plan would be similar in kind and scope, incorporating best practices and lessons learned from comparable assets. (P-5)

Lotus indicated that it does not anticipate any exceptions to the TCA to integrate the project into the ISO-controlled grid and that it reserves the right to raise items for discussion at the time of final contract execution. (M-8)

Lotus indicated that it and its O&M contractor are experienced in coordinating outages for scheduled and unscheduled maintenance with the ISO and non-participating generators. (M-9)

Lotus listed steps for scheduled maintenance, exercise of contractual rights, and unscheduled maintenance. (M-9)

Lotus indicated that as the O&M contractor's project manager for the project is yet to be hired, its O&M contractor plans to have the project manager be regionally located within one hour of the project. Lotus indicated that its O&M contractor plans to subcontract maintenance for the project with a qualified maintenance provider in the same locale as the project. Lotus indicated that this would allow for quick response to any issues that may arise. (M-10)

Lotus provided a table indicating that emergency on-call field maintenance personnel would be on-site within two hours to begin deployment of other maintenance resources. The table indicated crews and equipment would be on-site within 24 hours and that repairs for small-scale

events would be complete within 72 hours. The table indicated that response to large scale events would begin within 96 hours. (M-10)

Lotus indicated that as the project develops, the project team would continue seeking additional assurances, agreements, and resources for emergency response, including spare parts agreements, inventory storage and laydown agreements, and potential utilization of is O&M contractor-operated facilities in the area of the transmission project. (O-13)

Lotus indicated that an emergency response and spare equipment program is being evaluated and discussions are underway with its contractor. (O-15)

Lotus indicated that in general its O&M contractor's plans and provisions to replace major failed equipment for the transmission line project and its associated substation include identifying specific equipment that needs replacement, associated lead times, and finding suppliers that can provide equipment in a timely manner. (O-15)

Lotus indicated that for hardware and insulators, the EPC would procure and its O&M contractor would carry a small percentage of construction spares for loss and breakage during construction. Lotus indicated that during commercial operations, for the transmission line, its O&M contractor would plan to carry an inventory stock of 1-3% for hardware and insulators as O&M spares for use when damage or issues are noted during inspections. Lotus indicated that for the compensation station and its equipment, its O&M contractor would plan to carry an inventory stock of, at minimum, one replacement breaker for both SF6 and non-SF6 breakers. (O-15)

Lotus provided its O&M contractor's comprehensive transformer contingency plan and example of the systematic approach the project team would apply to replace other major failed equipment for the project. (O-15)

3.10.6 Information Provided by WestWorks

WestWorks indicated that PG&E would perform the maintenance functions for the project, leveraging its extensive local system knowledge and deep expertise maintaining transmission. (M-1)

WestWorks indicated that inspections and routine maintenance work for the project would be done by PG&E's transmission line maintenance organization which includes approximately 176 employees and 296 contractors distributed across 12 overhead headquarters locations and one underground headquarters. WestWorks indicated the Metcalf, Fresno, Fremont, Cupertino, and Moss Landing locations would provide primary support for the project. (M-1)

WestWorks indicated the PG&E's transmission tower construction organization performs major construction and maintenance work scoped by PG&E's transmission line maintenance organization, which includes climbing inspections of 500 kV assets, installation of steel poles and lattice towers, other complex construction activities, and responding to emergencies caused by outages, relays, storms, wildfires, third party damage, and failures. (M-1)

WestWorks indicated that PG&E's substation maintenance organization is responsible for performing preventative, real-time, and emergency maintenance across PG&E's expansive network of 85 substations rated greater than 200kV. (M-1)

WestWorks indicated that PG&E's vegetation management organization consists of 42 internal employees and over 447 contractors collectively supporting vegetation control for transmission assets exceeding 60 kV. WestWorks indicated that PG&E's vegetation management team currently maintains the Moss Landing - Metcalf and Los Banos-Midway 500kV transmission lines, which traverse the same terrain as the project. (M-1)

WestWorks indicated that PG&E's corporate security department and hazard awareness and warning center would support the project. (M-1)

WestWorks provided a list of transmission line and substation maintenance activities, as well as the maintenance interval for those activities which included weekly activities such as routine inspections, as well as equipment testing and servicing that occurred with multi-year time interval. (CC-3)

WestWorks indicated that the project would be integrated into PG&E's existing O&M program and, due to its small scale relative to PG&E's system-wide infrastructure, is expected to only receive an allocation of costs related to specific O&M activities to support the project. WestWorks indicated that it would provide administrative and general (A&G) services, including accounting, finance, tax, and regulatory support and estimated 5.2 FTEs would to be allocated to A&G for the project. (CC-4)

WestWorks indicated that PG&E requires all maintenance positions to meet defined minimum qualifications, including certifications, licenses, and experience. (M-2)

WestWorks indicated that PG&E ensures that contractors meet rigorous safety and compliance standards through a structured onboarding and oversight program designed to protect workers, the public, and critical infrastructure. (M-2)

WestWorks indicated that PG&E maintains a training program through the PG&E academy that combines state-sanctioned apprenticeships, ongoing professional development, and validated testing to meet or exceed regulatory requirements from NERC, WECC, CPUC, and California OSHA. (M-3)

WestWorks indicated that PG&E, as a PTO, has the workforce, programs, and procedures necessary to integrate the project and comply with the maintenance standards described in Appendix C of the TCA. WestWorks indicated that PG&E's maintenance standards include all elements required under Section 5.2.1 (Transmission Line Circuit Maintenance) and Section 5.2.2 (Station Maintenance), covering both inspection and preventative maintenance. WestWorks indicated that these practices, already approved by ISO, are subject to ISO availability performance monitoring and review. WestWorks provided copies of PG&E's maintenance practices. (M-4)

WestWorks indicated that PG&E performs additional inspections in CPUC designated HFTDs and PG&E identified high fire risk areas. WestWorks indicated that in these areas, PG&E utilizes its latest wildfire risk model to identify areas to inspect and identify trees that may need to be pruned or cut down. WestWorks indicated that PG&E's vegetation management efforts ensure that it meets or exceeds state vegetation and fire safety standards, as well as applicable state and federal regulations, including CPUC GO 95 Rule 35, Public Resource Codes 4292 and 4293, and NERC FAC-003-5. PG&E's vegetation management plan specifies minimum clearance distance requirements. (M-5)

WestWorks indicated that PG&E's substation vegetation management program includes the assessment of the areas around substations in CPUC designated HFTDs and PG&E identified high fire risk areas to identify flammable vegetation that needs to be removed, ensuring a safe distance between any vegetation and critical infrastructure. WestWorks indicated that PG&E conducts vegetation management inspections at all CPUC designated HFTD and PG&E identified high fire risk area substation locations annually and prioritizes these inspections prior to wildfire season. (M-5)

WestWorks indicated that PG&E has demonstrated extensive experience implementing wildfire mitigation strategies in PG&E identified high fire risk areas. WestWorks indicated that by adhering to strict regulatory requirements, leveraging advanced technologies such as lidar for close monitoring, and executing detailed systematic planning, PG&E's vegetation management teams effectively mitigate fire risks. (M-5)

WestWorks provided a copy of PG&E's wildfire mitigation plan. (M-5)

WestWorks indicated that the addition of the project to the ISO controlled grid may require an amendment to Appendix A of the TCA to identify the project as under ISO control. WestWorks indicated that no other changes or exceptions to the provisions of the TCA are required. (M-8)

WestWorks indicated that as an ISO PTO, PG&E has the systems, procedures, and workforce necessary to comply with all requirements of TCA Section 7 (Operations and Maintenance). WestWorks indicated that the project's facilities would be incorporated into PG&E's established O&M programs, which already meet ISO and TCA requirements. (M-9)

WestWorks indicated that PG&E's maintenance team maintains significant staff presence throughout the service territory, including in the project area. (M-10)

WestWorks indicated that the project area is directly supported by an active presence at the Metcalf Substation and at the Moss Landing Service Center, located approximately 14.5 miles from the project. WestWorks indicated that the project maintenance staff are located throughout Region 3 (Bay Area), Region 4 (South Bay and Central Coast), and Region 5 (Central Valley), ensuring comprehensive coverage by qualified PG&E personnel and contractors. (M-10)

WestWorks indicated that maintenance of the reactive facilities would be supported by existing PG&E substation maintenance crews based at the Cupertino and Fresno maintenance headquarters. WestWorks indicated that PG&E's current workforce of 27 experienced substation maintenance personnel at these two locations provides adequate capacity to maintain the new facilities without adding staff. (M-10)

WestWorks indicated that for transmission line maintenance, PG&E would leverage its extensive network of internal and contract personnel already supporting ISO-controlled transmission facilities in the project area. WestWorks indicated that approximately 86 transmission maintenance staff currently operate within the project region, based at multiple service centers along the proposed route. WestWorks indicated that these crews are familiar with the local terrain and have demonstrated rapid response capabilities through routine patrol, inspection, and emergency restoration assignments. (M-10)

WestWorks listed response times for PG&E technical staff from various locations ranging from less than ten minutes to a maximum of 60 minutes. (M-10)

WestWorks indicated that PG&E maintains extensive resources to respond to major emergencies, including: (O-13)

- Control centers (Vacaville, CA and Rocklin, CA): 24/7 operation with redundancy.
- Operations emergency centers: 19 division-level direct field response for damage assessment, hazard mitigation, and service restoration.
- Regional emergency centers and field sites: Coordinate local responses.
- Incident management teams & corporate incident management council: Provide leadership and coordination for large-scale events.

WestWorks indicated that PG&E is a member of multiple mutual assistance agreements at the individual, State, Regional and National levels. (O-13)

WestWorks indicated that PG&E's experienced substation and transmission crews maintain detailed emergency response procedures to guide fault isolation, equipment removal, and replacement activities. WestWorks indicated that the local workforce positioned along the proposed route ensures immediate mobilization, with ready access to critical spare components such as towers and breakers. (O-15)

WestWorks indicated that when substation equipment or a group of transmission towers, including dead-end structures, fail, an immediate and thorough assessment is conducted to determine the cause and extent of the damage. WestWorks indicated that diagnostic tools and remote sensing technologies (e.g., drones equipped with high-definition cameras) are employed to accurately assess the damage. WestWorks indicated that the EOC is activated to centralize decision-making and resource allocation. WestWorks indicated that communication is initiated with internal stakeholders, including engineering teams, field personnel, and management, as well as external stakeholders like regulatory bodies and key customers, to inform them about the planned replacement and anticipated timelines for restoration. (O-15)

WestWorks indicated that PG&E continuously monitors lead times and, in partnership with the CPUC-approved independent safety monitor (ISM), manages spare inventory to ensure appropriate availability of spare resources in the event of major outage events. (O-15)

WestWorks provide a list of spare parts to be procured for the project. (O-15)

Operating Practices

3.10.7 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with operation of transmission lines and reactive compensation projects. Regarding projects that are above 200 kV, have been operated in the past ten years, and are located in the U.S., the information provided included 4869 miles of transmission lines with most of it in California, and 13 reactive compensation projects with all projects in California. (Prior Projects and Experience Workbook)

CalGrid indicated that its team has faced comparable operation risks similar to those foreseen for the project, such as: (i) a variety of weather conditions, including high winds, heavy rains, and thunderstorms, (ii) transmission lines in high wildfire risk areas, (iii) developing operating and maintenance procedures to proactively negate any impact on the environment, including endangered species, and (iv) use of helicopters and drones in areas that are difficult to access (P-5)

CalGrid indicated that it's O&M contractor's operations centers include two grid control centers (GCC), 13 switching centers, over 700 operators (including over 300 system operators, substation operators and grid control dispatchers) and coordinates operations across 30 major interconnections with the ISO. (M-1, O-1)

CalGrid indicated that its O&M contractor expects to follow well-established operational practices and processes, similar to those practices used today to operate its existing T&D system. CalGrid indicated that this includes real-time control center operations in coordination with the ISO, such as preparing and executing switching orders, routine station equipment inspections, and performing emergency restoration. CalGrid indicated that in practice, the groups within its O&M contractor that manage substation related operations are the same groups that would have responsibility for the series compensation facilities associated with the project. (O-1)

CalGrid indicated that the O&M contractor's GCC would be the single point of contact for communication with the ISO. CalGrid indicated that the GCC has overall authority of its O&M contractor entire electric system via two Control Centers in California. CalGrid indicated that the GCC intends to assign operational jurisdiction to the switching center located in Visalia CA, which would have operational control of the transmission line and associated equipment. (O-1)

CalGrid indicated that no organizational changes are anticipated to be required for its O&M contractor to accommodate the project. CalGrid indicated that its O&M contractor does not have any contracts with third parties to provide operational services. (O-1)

CalGrid indicated that its general manager for O&M and project director would work alongside the O&M contractor in supporting O&M activities. CalGrid indicated that eleven of its employees would be partially allocated to the project's administrative support. CalGrid indicated that the O&M contractor's estimates that for typical transmission line O&M activities and other A&G needs for operation, it would utilize existing internal structures without a need for incremental FTEs for operations. (CC-4)

CalGrid indicated that its O&M contractor's GCC transmission dispatchers are NERC certified system operators at the reliability coordinator level and that they complete a system operator training program prior to taking a console evaluation at their respective switching center prior to being released for normal shift duties. (O-2)

CalGrid indicated that its O&M contractor's substation operators are required to complete and pass a six-month acting operating program that is a combination of classroom and field on the job-training. CalGrid indicated that all its O&M contractor substation field personnel are required to complete and pass this program prior to being allowed to perform switching operations at its O&M contractor's substations. CalGrid indicated that this includes maintenance electricians, test technicians and operators. (O-2)

CalGrid indicated that GCC transmissions dispatchers are required to maintain shift qualification status by working at least one twelve hour shift every 90 days, complete all required reading, obtain 67 continued education hours per year to maintain their NERC reliability coordinator certification, and participate in joint emergency training session, system operator training course and complete at least one load shed drill every year. CalGrid also provided detailed requirements regarding continuing education hours, refresher training, drills and annual readings for system operators. (O-3)

CalGrid indicated that its O&M team would work closely with its O&M contractor to ensure all training programs remain compliant with State and Federal requirements and keeping with applicable utility standards. (O-3)

CalGrid indicated that it does not anticipate that adding the project to the ISO controlled grid would require any changes or exceptions to the provisions of the TCA regarding operations. (O-4)

CalGrid indicated that it would be the project TO and Transmission Planner (TP), and its O&M contractor would be the project's TOP. (O-5)

CalGrid indicated that both parties intend to perform all required NERC functions and reporting requirements, as applicable to the entity registration. CalGrid indicated that its O&M contractor complies with applicable NERC reliability standards related to personnel performance, training, and qualifications. (O-6)

CalGrid provided detailed information covering the process that it would follow with its O&M contractor to ensure NERC compliance, as well as auditing and remediation activities in the event of a violation. (O-6)

CalGrid indicated it would work alongside its O&M services provider to ensure a strong multi-level compliance program is in place to manage compliance with all applicable reliability standards and provided the steps and measures that it would use to ensure compliance. (O-7)

CalGrid indicated that as the TOP, its O&M contractor has established an energy regulation compliance program which provides the framework and governance over how it maintains compliance with the applicable reliability standards. (O-7)

CalGrid indicated that temporary waivers of TCA Section 5.1.6 (Waivers) would not be necessary. (O-7)

CalGrid indicated that its O&M contractor has completed all compliance reporting on time, including, but not limited to, self-certifications, periodic data response submittals, relay mis-operations and vegetation outages. CalGrid indicated that all FERC-approved Standards have been implemented prior to their enforcement date. (O-8)

CalGrid provided tables indicating that its O&M contractor had 88 substations and 5706 miles of transmission lines that were subject to NERC compliance. (O-8)

CalGrid provided confidential and non-confidential portions of operations and planning NERC/WECC compliance reports for its O&M contractor for the years 2024, 2021, 2018 and 2015 indicating some instances of potential noncompliance and open enforcement items. (O-8)

CalGrid indicated that it would develop a reliability standards agreement with the ISO. CalGrid indicated that this agreement would contain the delegation of responsibilities between CalGrid and other entities in accordance with NERC Standards and would be similar to the one in place between the ISO and its O&M contractor. (O-9)

CalGrid indicated that its O&M contractor divides responsibility for the NERC reliability standards using a coordinated functional registration (CFR) agreement that divides the TOP responsibilities for operating the bulk electric system (BES) between the ISO and PTOs. (O-9)

CalGrid provided a list of agreements that define the responsibilities of the transmission operator including CFR Agreement, ISO TCA, Western Interconnection Data Sharing Agreement, Wholesale Distribution Access Tariff (WDAT), and Transmission Owner Tariff. (O-10)

CalGrid indicated that its O&M contractor has a primary and backup GCC in line with the robust emergency relocation plan that ensures its O&M contractor maintains adequate and reliable data to operate the BES. CalGrid indicated that the project, once completed, would have all the SCADA system data and that this information would be made available to its O&M contractor, ISO and any other requesting entity as needed. CalGrid provided a copy of its O&M contractor's GCC emergency relocation plan. (O-11)

CalGrid indicated that its O&M contractor, as a PTO, currently operates all of its high voltage electric facilities subject to TCA Sections 6.1 (Physical Operations of Facilities) and 6.3 (Other Responsibilities), and this project would be operated in the same manner. (O-12)

CalGrid provided the following documents as additional information on its O&M contractors existing operational capabilities in accordance with TCA participation: (O-12)

- WECC system roles
- GCC plans and procedures
- Electric system monitoring
- Communication protocols
- System disturbance and event reporting
- Energy management system
- Outage request procedures

CalGrid indicated that its O&M contractor's GCC provides direction on system restoration when responding to emergency situations. CalGrid indicated that its O&M contractor has mutual assistance agreements with its neighboring utilities and belongs to the Western Utilities Team for responding to emergent concerns when either needing or providing assistance. (O-13)

CalGrid indicated that in accordance with requirements of the CPUC, its O&M contractor has developed a corporate emergency response & recovery plan. (O-13)

The wildfire mitigation plan submitted by CalGrid indicated that its O&M contractor has an expansive network of approximately 1,780 weather stations and 200 high-definition (HD) cameras that provide heightened situational awareness of risks to its system. This plan indicated that its O&M contractor partners with University of California, San Diego (UCSD) to install HD cameras on infrastructure, such as a communications towers, in locations where its fire science team, fire management team, incident management team and/or fire agencies have previously identified gaps in the spatial data related to ignition confirmation. This plan indicated that satellite and other fire confirmation imaging would be used with the current fire confirmation capabilities provided by UCSD and that the satellite detection would provide full coverage of its O&M contractor's territory and work as tool to help confirm fires on the HD camera system. This plan also indicated that its O&M contractor uses new hourly weather forecast information from in-house model systems and public weather data from vendors. (O-13)

CalGrid indicated that the project would not be subject to any encumbrance that limits ISO Operational Control in any way. (O-14)

CalGrid provided a summary of five NERC NOVs related to transmission O&M that its O&M contractor incurred from 2013-2023. (O-16)

CalGrid indicated that neither it, nor its O&M contractor, has received any operations related tariff violations or FERC rules violations in the past ten years. (O-17)

CalGrid indicated that neither it, its O&M contractor, nor any member of the proposed project team has had any violations of operations-related laws, statutes, rules or regulations related to their respective transmission O&M in the past ten years. (O-18)

3.10.8 Information Provided by Lotus

Lotus provided a list of its experience and the experience of its contractors with operation of transmission lines and reactive compensation projects. Regarding projects that are above 200 kV, have been operated in the past ten years, and are located in the U.S., the information provided included 223 miles of transmission lines with 165 miles in California and three reactive compensation projects with one in California. (Prior Projects and Experience Workbook)

Lotus indicated that its team has faced comparable operations risks similar to those foreseen for the project such as communications challenges and wildfire monitoring challenges. (P-5)

Lotus indicated that at existing facilities operated by its O&M contractor, it currently utilizes a multi-layered wildfire monitoring strategy that would be similarly applied to this project. Lotus indicated that this includes the use of fixed and mobile cameras for real-time surveillance, targeted vegetation management techniques to reduce fuel loads, and continuous weather monitoring to track fire-conducive conditions such as wind, temperature, and humidity. Lotus indicated that these tools work in concert to provide early detection, situational awareness, and rapid response capability, helping to protect infrastructure and maintain system reliability during wildfire events. (P-5)

Lotus indicated that it is in the process of executing a memorandum of understanding with its O&M contractor whereby its O&M contractor would support the project team through the bidding phase of the project. Lotus indicated that following the receipt of the award from the ISO, it and its O&M contractor would enter into definitive agreements for providing maintenance and operations services for the project. (O-1)

Lotus indicated that its O&M contractor's subsidiary operations contractor is a NERC-registered TOP in the WECC with 24 x 7, primary and backup control centers that are staffed with NERC-certified transmission system operators. Lotus indicated that its O&M contractor's subsidiary operations contractor owns and maintains the control center infrastructure and processes that are used to perform TOP functions, including a primary control center, backup control center, tertiary backup control center, primary data center, backup data center, and control center systems. Lotus indicated that its O&M contractor's subsidiary operations contractor's technology and employees that perform the TOP function are in Houston, Texas. (O-1)

Lotus indicated that its O&M contractor's subsidiary operations contractor does not anticipate that any staffing changes would be needed to incorporate the project. Lotus indicated that as its designated NERC TOP for the project, its O&M contractor's subsidiary operations contractor would be the ISO's single point of contact for project operations. (O-1)

Lotus provided an organization chart of the O&M team and described roles and responsibilities. (O-1)

Lotus indicated that it does not intend to employ any FTEs for performing operation and maintenance activities but would utilize its O&M contractor and its O&M contractor's subsidiary operations contractor to provide O&M services for the project under an O&M contract. (CC-4)

Lotus provided the minimum qualifications for its O&M contractor's subsidiary operations contractor's system operators. (O-2)

Lotus indicated that its O&M contractor's subsidiary operations contractor is a registered BA and TOP subject to NERC Reliability Standard PER-005 requirements to maintain a risk-based training program for the initial and ongoing training of its NERC system operators. (O-3)

Lotus indicated that its O&M contractor's subsidiary operations contractor's system operators complete at least 200 continuing education hours annually, including 30 hours dedicated to NERC standards. (O-3)

Lotus indicated that its O&M contractor's subsidiary operations contractor's training program utilizes classroom, learning management system content, self-study, and on-the-job training methods. Lotus indicated that training activity would be tracked for completion and include performance assessment tools to assess the trainee's knowledge. (O-3)

Lotus indicated that it does not anticipate any exceptions to the provisions of the TCA regarding operations to integrate the project into the ISO-controlled grid but reserves the right to raise items for discussion with the ISO regarding the TCA at the time of final contract execution. (O-4)

Lotus indicated that it would become the registered TO for the project. Lotus indicated that it would also register as the TP. (O-5)

Lotus indicated that it is in the process of executing a memorandum of understanding with its O&M contractor's subsidiary operations contractor for the TOP control center services and registration as its NERC-certified TOP. Lotus indicated that the transmission operator control center services agreement contains terms and conditions obligating its O&M contractor's subsidiary operations contractor to meet compliance obligations and be responsible to NERC for a failure to meet those obligations. (O-6)

Lotus indicated that its O&M contractor's subsidiary operations contractor is currently registered at NERC as a BA and TOP and is subject to audit by WECC and NERC every three years to verify that it is meeting its required obligations. (O-6)

Lotus indicated that it would retain ultimate responsibility for compliance with NERC requirements related to TO and TP functions. (O-7)

Lotus indicated that its O&M contractor would assist Lotus with maintaining compliance with the applicable NERC standards, including developing all necessary NERC procedures. Lotus indicated that other assistance may include tasks such as supporting documentation and reporting requirements and advising on compliance strategies. Lotus indicated that this approach ensures compliance with NERC requirements through leveraging its O&M contractor's expertise. (O-7)

Lotus indicated that its O&M contractor's NERC team would develop the appropriate policies and procedures, maintain the proper documentation, and submit reports as required by NERC and/or the regional entity to be compliant with applicable NERC Reliability Standards. (O-7)

Lotus indicated that temporary waivers of TCA Section 5.1.6 (Waivers) would not be necessary. (O-7)

Lotus indicated that its O&M contractor's subsidiary operations contractor has maintained and developed compliant facilities, programs, and procedures to support control center Services for over 22 years. (O-8)

Lotus provided a table indicating its O&M contractor and its O&M contractor's subsidiary operations contractor experience with 15 substations and 149 miles of transmission lines rated 230 kV and above. (O-8)

Lotus indicated that it and its O&M contractor's subsidiary operations contractor have reviewed and are familiar with the ISO's CFR agreement. Lotus indicated that the TOP control center services agreement that would be implemented between it and its O&M contractor's subsidiary operations contractor is aligned with the CFRs that are for similarly situated projects. (O-9)

Lotus indicated that its O&M contractor's subsidiary operations contractor would establish TOP-to-TOP procedures to address outage coordination, energization, data exchange, emergency procedures, restoration, etc. (O-10)

Lotus indicated that it would have an interconnection agreement with the interconnecting PTO at each end of the line. (O-10)

Lotus indicated that its O&M contractor's subsidiary operations contractor would conduct all aspects of 24x7 transmission operations that includes a primary control center (based in Texas) and backup control center facilities. Lotus indicated that its O&M contractor's subsidiary operations contractor has two remote data centers that are "hot-hot" to ensure no loss of data could occur. (O-11)

Lotus indicated that its O&M contractor's subsidiary operations contractor would establish a primary and backup communication path to its primary and backup data centers. Lotus indicated that its O&M contractor's subsidiary operations contractor would work with appropriate project contractors to develop the appropriate points list to meet operational data requirements, including the Reliability Coordinator West data specification and the neighboring TOP data specifications. Lotus indicated that its O&M contractor's subsidiary operations contractor would coordinate with Reliability Coordinator West, neighboring TOPs, and BAs to exchange real-time data via Inter-Control Center Communications protocol (ICCP). (O-11)

Lotus indicated that as the primary point of contact, its O&M contractor's subsidiary operations contractor would be obligated to maintain processes and procedures for requiring TOPs to implement operating instructions, coordinate outages prior to taking equipment out of services or returning equipment to service, communicate upon identification of an impending or actual emergency, and implement emergency plans developed and approved in coordination with the affected BAs, TOPs and approved by the reliability coordinators. (O-12)

Lotus indicated that its O&M contractor and its O&M contractor's subsidiary operations contractor would work with its designated representative on the ISO Transmission Maintenance Coordination Committee to ensure compliance with ISO transmission maintenance procedures and appropriate monitoring, tracking, and reporting of outages and project availability. (O-12)

Lotus indicated that the project team would utilize the ISO's outage request platform for the request of project outages. (O-12)

Lotus indicated that the project Team has an established, robust emergency management framework. (O-13)

Lotus indicated that its O&M contractor's subsidiary operations contractor's emergency procedures and protocols include (copies provided): (O-13)

- System restoration plan
- Loss of control center functionality plan
- NERC emergency preparedness and operations (EOP) reliability standard EOP-011 (Emergency Operations) standard operating procedure series provides structured guidance for activating emergency operating plans, managing energy emergency alerts, and coordinating with market participants and reliability coordinators
- NERC COM-002-4 (Operating Personnel Communications Protocols)

The draft wildfire mitigation plan provided by Lotus indicated that advanced technologies would be deployed to detect, monitor, and respond to wildfire risks in real time, such as: (P-5)

- Infrared and corona cameras: Install thermal and corona discharge sensors at critical points to detect hotspots and partial discharge activity.
- Real-time weather and fault monitoring: Integrate sensor networks to track wind speed, humidity, and fault currents, enabling dynamic risk assessment.
- Drone surveillance: Use drones for aerial inspections of remote segments, especially post-storm or during red flag warnings.
- AI-enhanced forecasting: Leverage predictive models to anticipate fire weather conditions and adjust operational protocols accordingly.

Lotus indicated that its O&M contractor's subsidiary operations contractor's event reporting procedure ensures compliance with TCA Section 9.3 (System Emergency Report: TO Obligations) and NERC EOP-004 (Event Reporting) standards. Lotus indicated that the procedure defines protocols for identifying reportable events, determining reporting responsibilities, and submitting timely notifications to NERC, ISO, and other relevant entities. (O-13)

Lotus indicated that in compliance with TCA Section 9.3.2 (Review), it would cooperate fully with ISO in the preparation of outage reviews. Lotus indicated that its O&M contractor's subsidiary operations contractor would provide operational data, event timelines, and restoration actions to support ISO's post-event analysis under the relevant sections of the ISO Tariff. (O-13)

Lotus indicated that its O&M contractor's subsidiary operations contractor's NERC CIP-008 (Incident Reporting and Response Planning) Incident response plan and NERC CIP-009 (Recovery plans for BES Cyber Systems) recovery plan provide detailed procedures for managing cyber security incidents and restoring BES cyber systems. (O-13)

Lotus indicated that the project would not be subject to any encumbrance. (O-14)

Lotus indicated that it has not had any violations of NERC reliability standards or other reliability standards in the past ten years. (O-16)

Lotus indicated that neither it, its O&M contractor or its O&M contractor's subsidiary operations contractor, as a registered TO or TOP, have had any violations of NERC reliability standards in the last ten years. (O-16)

Lotus provided six documents, three of which related to its O&M contractor's subsidiary operations contractor's TOP certification, one was its O&M contractor's subsidiary operations contractor's 2022 SERC audit report that indicated "no findings", one was a 2022 PJM audit report that concluded that its O&M contractor's subsidiary operations contractor was appropriately postured to perform system reliability tasks required by PJM, and one related to a 2022 audit Reliability First audit which included its O&M contractor's subsidiary operations contractor that concluded that no findings were noted for the reliability standards and applicable requirements. (O-8)

Lotus indicated that it has not had any tariff or FERC rules violations in the past ten years. (O-17)

Lotus indicated that neither it, its O&M contractor or its O&M contractor's subsidiary operations contractor, have incurred any violations of operations-related laws, statues, rules, or regulations in the past ten years. (O-18)

3.10.9 Information Provided by WestWorks

WestWorks provided a list of its experience and the experience of its contractors with operation of transmission lines and reactive compensation projects. Regarding projects that are above 200 kV, have been operated in the past ten years, and are located in the U.S., the information provided included approximately 6960 miles of transmission lines with most of it in California, and 16 reactive compensation projects in California. (Prior Projects and Experience Workbook)

WestWorks indicated that operating extra high voltage transmission lines across rugged, difficult to access lands may create risks and challenges once the project is energized. WestWorks indicated that PG&E's O&M personnel and its contractors currently operate and maintain EHV transmission lines in the project area with high reliability. (P-5)

WestWorks indicated that PG&E would perform the operations functions for the project, leveraging its extensive local system knowledge and deep expertise in operating transmission. (O-1)

WestWorks indicated that no changes to PG&E's organizational structure would be required to accommodate the project given the scale of its existing resources. (O-1)

WestWorks indicated that PG&E's electric system operations (ESO) operate two control centers which are staffed with more than 175 employees. WestWorks indicated that for this project, the Vacaville, CA control center would serve as the primary point of operational control, with the Rocklin, CA control center providing 24/7 redundant backup capability. (O-1)

WestWorks indicated that PG&E's transmission grid operations serves as the registered TOP under NERC. WestWorks indicated that PG&E's transmission grid operations would act as a single point of operational contact with the ISO and would be responsible for real-time operations. (O-1)

WestWorks indicated that the project would be integrated into PG&E's existing O&M program and, due to its small scale relative to PG&E's system-wide infrastructure, is expected to only receive an allocation of costs related to specific O&M activities to support the project. WestWorks indicated that it would provide A&G services, including accounting, finance, tax, and regulatory support and estimated 5.2 FTEs would be allocated to A&G for the project. (CC-4)

WestWorks indicated that operations personnel must meet role-specific qualifications, which typically include a high school diploma (or equivalent) and NERC reliability coordinator certification. WestWorks summarized additional position-specific requirements and provided additional details regarding the qualifications, certifications, and experience requirements for operations positions. (O-2)

WestWorks indicated that PG&E maintains a comprehensive training program for operations personnel through its ESO transmission training group. WestWorks indicated that this group develops, delivers, and tracks training to ensure that all operators are qualified and remain in compliance with applicable NERC, WECC, and ISO requirements. (O-3)

WestWorks provided information on PG&E's initial education program, which is a two-year instructor-led apprenticeship for apprentice transmission system operators and dispatchers. (O-3)

WestWorks provided information on PG&E's continuing education program, which provides required training for more than 80 real-time operations personnel to maintain their NERC certifications. (O-3)

WestWorks indicated that operators participate in internal and external system restoration drills, local and systemwide capacity drills, and corporate emergency preparedness and response (EP&R) readiness exercises. (O-3)

WestWorks indicated that the addition of the project to the ISO controlled grid may require an amendment to Appendix A of the TCA to identify the project as under ISO control. WestWorks indicated that no other changes or exceptions to the provisions of the TCA are required. (O-4)

WestWorks indicated that PG&E is currently registered with NERC as a TO, TP and TOP. WestWorks indicated that no additional NERC registrations would be required to operate the project. (O-5)

WestWorks indicated that PG&E does not intend to contract with any third party to perform NERC functions for this project. WestWorks indicated that PG&E is a registered NERC entity for all applicable functions and would continue to perform these responsibilities internally. (O-6)

WestWorks indicated that PG&E ensures compliance with all applicable reliability standards by integrating the project into its established electric ISO maintenance practice compliance program and provided a copy of the same. WestWorks indicated that this program provides the framework for monitoring, reporting, and demonstrating compliance with ISO, NERC, and WECC requirements and is structured to maintain accountability across all organizations responsible for maintaining ISO-controlled assets. (O-7)

WestWorks indicated that the compliance program is led by PG&E's compliance organization, under the oversight of the electric ISO compliance (ECC) and the Electric ISO oversight (ECO) team. WestWorks indicated that its role is to align accountability, drive compliance maturity,

and provide standardized oversight across multiple functional areas. WestWorks summarized key organizational responsibilities. (O-7)

WestWorks indicated that this project would not require any temporary waivers under TCA Section 5.1.6. (Waivers). (O-7)

WestWorks provided 2018, 2022 and 2023 WECC/NERC compliance audit reports that listed some instances of potential noncompliance, and one open enforcement action. (O-8)

WestWorks indicated that PG&E has over 18,000 miles of transmission circuit miles and almost 700 substations within its service territory that are subject to NERC compliance. (O-8)

WestWorks indicated that PG&E would integrate the project into its existing CFR agreement with the ISO (copy provided). WestWorks indicated that the CFR delineates responsibilities for compliance with each applicable NERC reliability standard, ensuring that both PG&E and the ISO have clearly defined accountability for each requirement under the TOP function. (O-9)

WestWorks indicated that because these agreements share a common template and approach, no material differences are expected between PG&E's CFR and those of other PTOs. (O-9)

WestWorks indicated that the responsibilities and authority regarding the transmission owner and adjacent transmission operator(s) would be defined in an interconnection agreement with each respective adjacent transmission operator. (O-10)

WestWorks indicated that PG&E's EMS provides comprehensive monitoring, control, and optimization of the transmission grid. WestWorks indicated that the system collects operational data from substations and critical assets using high-frequency data polling, secure telemetry, and redundant communication protocols. WestWorks indicated that these capabilities ensure the timely availability and accuracy of operating data, consistent with NERC TOP-005 requirements. (O-11)

WestWorks indicated that to ensure continuous operation and reliability, PG&E has established a primary and back-up control center strategy. WestWorks indicated that PG&E's primary control center in Vacaville, CA operates 24/7 and is fully equipped with EMS system, featuring redundancy in power and communication lines. WestWorks indicated that the back-up control center in Rocklin, CA is automatically activated in the event of a disruption at the primary control center. (O-11)

WestWorks indicated that in compliance with TCA Appendix C Section 4.3 (Availability Reporting), PG&E develops and utilizes performance indices to monitor availability performance for each voltage class. (O-11)

WestWorks indicated that PG&E ensures timely and accurate submission of availability data to the ISO through electronic data submissions and detailed compliance reports. WestWorks indicated that the guidelines set out in TCA Appendix C Section 4.3 are strictly adhered to. (O-11)

WestWorks indicated that PG&E, as a signatory to the TCA, has established and implemented policies and procedures to comply with Sections 6.1 (Physical Operation of Facilities) and 6.3 (Other Responsibilities). WestWorks indicated that these programs would be extended to ensure the project is operated and maintained in full compliance with the same requirements. (O-12)

WestWorks indicated that for planned outages, PG&E follows ISO transmission outage operating procedure 3210, which requires ISO approval before removing or returning facilities listed in the ISO register to service. (O-12)

WestWorks indicated that for forced outages, PG&E promptly notifies the ISO as detailed in operating procedures (copy provided). (O-12)

WestWorks indicated that PG&E's transmission outage restoration plans include contingency plans to mitigate the duration and scope of customer outages as well as emergency outage restoration plans for transmission clearances placing customers at risk of an outage lasting one hour or longer. (O-12)

WestWorks indicated that PG&E has the organizational structure, procedures, and resources necessary to comply with the activities required by TCA Section 9.2 (Management of Emergencies) and TCA Section 9.3 (System Emergency Reports). (O-13)

WestWorks indicated that in the event of a system emergency, PG&E adheres to ISO procedures and its own internal plans. (O-13)

WestWorks indicated that PG&E complies with system emergency report requirements through its outage reporting and event notification protocols for outage coordination and for event reporting procedures which describe planning, coordination, scheduling, and forced outage reporting. WestWorks indicated that PG&E records, investigates, and reports emergencies in compliance with ISO, WECC, NERC, and Department of Energy requirements. (O-13)

WestWorks indicated that PG&E maintains extensive resources to respond to major emergencies, including: (O-13)

- Control centers (Vacaville, CA and Rocklin, CA): 24/7 operation with redundancy.
- Operations emergency centers: 19 division-level direct field response for damage assessment, hazard mitigation, and service restoration.
- Regional emergency centers and field sites: Coordinate local responses.
- Incident management teams & corporate incident management council: Provide leadership and coordination for large-scale events.

WestWorks provided a copy of PG&E's wildfire mitigation plan which indicated that early fire detection systems, including satellite infrared imaging, high-definition video, and land based infrared cameras are located throughout the entire PG&E service territory including the CPUC designated HFTD areas. This plan indicated that fire detection systems currently deployed include satellite detection and alerts from six satellites with update cadence is every five minutes, and over 600 cameras covering over 90 percent of the CPUC designated HFTD Tier 2 and 3 areas. This plan indicated that although there are hundreds of remote automatic weather station and National Weather Service (NWS) weather stations in remote areas of California, there are many locations where microscale effects can occur that could lead to devastating consequences and that the PG&E weather station network provides additional coverage to verify weather conditions on the ground and build datasets to improve future models. This plan also indicated that PG&E's weather station coverage is primarily focused on the PG&E identified high fire risk areas of its service territory. The plan included a map that shows the location of 1,526 weather stations throughout the PG&E service territory with a large number in the vicinity of the proposed project. (O-13)

WestWorks indicated that the project is not anticipated to be subject to any encumbrance on the ISO's operational control. (O-14)

WestWorks provided a table summarizing PG&E's NERC reliability standard violations relevant to the project which listed five violations. WestWorks indicated that PG&E conducted root cause analyses and properly mitigated each of these compliance violations and has greatly reduced risk of further violations through an established enterprise internal NERC compliance program and corrective actions program. (O-16)

WestWorks provided a table summarizing PG&E's operations-related tariff violations or Federal Energy Regulatory Commission (FERC) rules violations relevant to the project which listed three violations. (O-17)

WestWorks indicated that over the past ten years, PG&E has identified and reported a range of operations-related compliance matters under CPUC General Orders, the California Public Utilities Code, FERC tariffs, and wildfire mitigation plan requirements. WestWorks indicated that these matters were generally related to equipment performance, inspection intervals, vegetation clearance, or field practices. WestWorks indicated that in certain cases, they resulted in service interruptions or heightened operational risk, such as outages linked to substation equipment issues or line clearance conditions. WestWorks indicated that in others, the findings were procedural in nature, reflecting the challenges of operating a large and complex transmission and distribution system across diverse geographies. (O-18)

WestWorks provided a list of compliance matters, including citations, dates, locations, and descriptions. WestWorks indicated that this list illustrates both the breadth of operational challenges encountered and the organization's commitment to self-reporting, transparency, and continuous improvement. WestWorks indicated that collectively, these efforts demonstrate a strong emphasis on learning from past issues and applying corrective measures to strengthen the reliability and safety of the electric system. The provided list included a few dozen GO 95 and other violations. (O-18)

3.10.10 ISO Comparative Analysis

Comparative Analysis of Construction Practices

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the construction practices they propose for this project, including but not limited to their proposed design criteria and constructability review process.

All three project sponsors provided detailed design criteria and constructability review processes that demonstrate that their respective projects would adhere to standardized construction standards. All three project sponsors provided detailed information on wildfire mitigation and control procedures that they would adopt during construction.

The ISO does not consider the construction of the project to present any unusual challenges for the proposals of the project sponsors.

Based on these considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that there is no material

difference among the proposals of CalGrid, Lotus, and WestWorks regarding this component of the factor.

Comparative Analysis of Maintenance Practices

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding adherence to applicable maintenance practices and the robustness of the maintenance practices they have proposed for this project, including but not limited to their proposed plans for compliance with NERC requirements for transmission owners and operators, the TCA, and the ISO's transmission maintenance standards.

The ISO considers all three project sponsors and their proposed teams to have the capability to adhere to standardized maintenance practices. The ISO considers it an advantage if the project sponsor has complied with the TCA as a PTO.

For this analysis, the ISO considers compliance with transmission-related tariff provisions to be more important than compliance with generation-related tariff provisions. All three project sponsors or their teams have existing maintenance practices complying with the ISO's transmission maintenance standards under the TCA that have been approved by the ISO. All three project sponsors' proposals described the project sponsor's and its team's adherence to NERC standards. All three project sponsors have proposed plans for updating their maintenance practices to include this project. The ISO considers there to be no material difference among the three project sponsors regarding their ability to adhere to applicable maintenance standards, including the ISO's transmission maintenance standards under the TCA.

The ISO has determined that the proposals of CalGrid and WestWorks are slightly better than that of Lotus regarding their proposed vegetation management programs because CalGrid and WestWorks provided more specific details regarding their vegetation management practices and procedures than Lotus.

All three project sponsors propose similar response and restoration times in case of an emergency. All three project sponsors indicate they would have local resources (crews, vehicles, cranes, helicopters, wire stringing equipment, etc.) available to respond to emergencies; however, WestWorks' proposal indicates it would have the most resources in the vicinity of its proposed project. CalGrid and WestWorks indicated that they can also lean on mutual assistance programs. Therefore, regarding emergency response, the ISO considers the proposal of WestWorks to be slightly better than CalGrid's proposal, which is slightly better than the Lotus proposal.

Regarding plans or provisions to be implemented by the project sponsor to replace major failed equipment, all three project sponsors' proposals describe detailed restoration procedures and list plans for spare equipment and its management, all of which the ISO considers to be reasonable. However, the proposals of CalGrid and WestWorks provided more detailed descriptions of proposed replacement equipment and indicated greater access to spare transmission line equipment and parts than Lotus's proposal. Lotus indicated that it was evaluating an emergency response and spare equipment program.

Regarding developing and implementing wildfire mitigation plans, the ISO has determined that plans of WestWorks and CalGrid are better than that of Lotus, which was an illustrative draft, and because WestWorks and CalGrid have prior experience implementing their plans.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal, regarding this component of the factor.

Comparative Analysis of Operating Practices

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the operating practices they propose for this project, including but not limited to their proposed emergency plans and other plans for compliance with NERC requirements for transmission owners and operators and the ISO's standards.

The ISO considers all three project sponsors and their proposed teams to have the capability to adhere to standardized operating practices and standards and applicable tariffs. All three project sponsors indicate they have faced challenges and risks similar to what they would face with this project.

The ISO considers it an advantage if the project sponsor has complied with the TCA as a PTO. For this analysis, the ISO considers compliance with transmission operations-related tariff provisions to be more important than compliance with generation-related tariff provisions.

All three project sponsors' proposals provide details on how they and/or their proposed teams each operate transmission facilities under the ISO's operational control and comply with the TCA and the ISO Tariff. The ISO considers there to be no material difference among the three project sponsors and their teams regarding their ability to adhere to the TCA and the ISO Tariff.

Regarding the approach the project sponsor would use to assure compliance with applicable reliability standards, all three proposals indicate oversight functions independent of operating functions, which would include subcontractors, for all applicable NERC functions. Regarding compliance with the applicable reliability standards for all transmission facilities that it owns, operates, or maintains, all project sponsors provided NERC audit reports indicating generally good compliance, some indicating findings of non-compliance, but none indicating systemic problems with compliance. The ISO considers there to be no material difference among the three project sponsors and their teams regarding their ability to comply with applicable reliability standards.

All three project sponsors indicate that they maintain active emergency response and fire prevention programs that they would update to include this project.

All three sponsors described established emergency management procedures and indicated that they would have resources to respond to emergencies within a few hours.

Regarding operations-related wildfire prevention programs, based on the three project sponsors' proposals, the ISO considers that WestWorks and CalGrid and their teams each have considerably more experience operating transmission facilities in CPUC designated HFTDs and would have more capability to monitor wildfire conditions than Lotus and its team. The teams of WestWorks and CalGrid have visual and electronic monitoring tools that continuously monitor weather conditions that could lead to wildfire and assist in making real-time operation decisions; however, the team of WestWorks has more extensive networks of weather stations and cameras in the project area than CalGrid. Regarding operations-related wildfire prevention, the

ISO considers WestWorks' proposal to be slightly better than CalGrid's proposal, which is better than Lotus's proposal.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that, based on the specific scope of this project, WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal, regarding this component of the factor.

Overall Comparative Analysis

The ISO considers the three components of this factor to be of roughly equal importance in the selection process for this project.

Regarding the first component (demonstrated capability to adhere to standardized construction practices) of this factor, the ISO has determined that there is no material difference among the three proposals.

Regarding the second component (demonstrated capability to adhere to standardized maintenance practices) of this factor, the ISO has determined that WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal.

Regarding the third component (demonstrated capability to adhere to standardized operating practices) of this factor, the ISO has determined that WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, based on the specific scope of this project, WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal, regarding this factor overall.

3.11 Selection Factor 24.5.4(i): Ability to Assume Liability for Major Losses

The ninth selection factor is "demonstrated ability to assume liability for major losses resulting from failure of facilities of the Project Sponsor."

3.11.1 Information Provided by CalGrid

CalGrid indicated that it would maintain insurance with insurance companies rated (A-) or better by A.M. Best or an equivalent rating. CalGrid indicated it would procure or cause its contractors to procure, prior to commencement of construction, a builders "all-risk" insurance policy, on a no co-insurance basis, in an amount that is not less than the full replacement cost of the project on a completed value form covering all construction, other property or equipment, off-site work, substation facilities and transmission lines necessary for the project operation and maintenance, including:

- coverage for mechanical and electrical breakdown, including all forms of testing and commissioning required to complete the project (running continuously for machinery

breakdown from beginning of testing, through phased handover operations, up until substantial completion).

- LEG 2 coverage, which provides industry standard coverage for property damage resulting from construction defects.

CalGrid indicated that the policy would cover perils of flood, earthquake, windstorm (named or unnamed), tornado, hail, lightning, freezing, strike, riot and civil commotion, vandalism, malicious mischief and sabotage (non-terrorism events); subject to sub-limits and terms that are consistent with current industry practice, insuring real and personal property of the project whether on or off each site (including an off-site storage, laydown yard, or warehouse location), and while in the course of inland transit, for an amount of not less than the full replacement cost value of the project or equipment. CalGrid indicated that with respect to natural catastrophe perils, limits and retentions would be subject to commercial reasonableness, availability, and would be in line with prudent industry practice. (F-14)

CalGrid indicated that upon completion of testing, commissioning, and achievement of substantial completion, the builder's risk coverage would expire, and the property would be covered under an operational property policy, which may be part of a broader corporate insurance program. CalGrid indicated that the operational property policy would provide coverage on a replacement cost basis in a broad form all-risk policy with limits that meet or exceed industry specific maximum foreseeable losses, with no co-insurance clause. CalGrid indicated that the operational property policy would include coverage for mechanical and electrical breakdown, plus resulting or ensuing damage arising out of defects (LEG 2 equivalent), the perils of flood, earthquake, windstorm (named or unnamed), hail, tornado, lightning, sabotage (excluding sabotage by the named insured), strike, riot and civil commotion, vandalism, and malicious mischief, subject to terms that are consistent with current industry practice insuring all real and personal property comprising the project whether at a fixed location (including any non-owned location for off-site repair or refurbishment), off-site storage, or a warehouse location, for an amount of not less than the full replacement cost value of the property and equipment at each location. CalGrid indicate that with respect to natural catastrophe perils, limits and retentions would be subject to commercial reasonableness, availability, and would be in line with prudent industry practice. (F-14)

CalGrid indicated that it would contractually require its EPC contractor to indemnify and hold harmless CalGrid for negligent acts of the EPC contractor during the course of construction. CalGrid indicated that it would require the EPC's corporate insurance program to include, but not be limited to, general liability (including coverage for premises and operations liability, products and completed operations liability, blanket contractual liability, personal and advertising injury liability, third party bodily injury and property damage coverage, completed operations, explosion and collapse hazard coverage, and wildfire with primary coverage limits of no less than $1MM per occurrence and $2MM annual aggregate), automobile liability ($1MM combined single limit), excess liability ($100MM, including California wildfire coverage), worker's compensation (statutory limits), professional liability ($10MM) and pollution liability coverage ($5MM). CalGrid indicated that it would contractually require the EPC to name CalGrid as an additional insured, waive the right of subrogation, require the EPC's policies to be primary and non-contributory, and give 30 days' notice of cancellation to CalGrid in the event of policy cancellation. (F-14)

CalGrid indicated that it would also procure an owner's interest policy with limits of $25MM during the course of construction to cover third party bodily injury and property damage. CalGrid indicated that the owner's interest limits would be excess and above the EPC's contractually required limits and cover the owner for third-party bodily injury and property

damage losses resulting from contractors and subcontractors, which are not otherwise insured under the contractors' insurance. With respect to wildfire coverage, CalGrid indicated that the limits would be subject to commercial reasonableness, availability, and in line with prudent industry practice. (F-14)

CalGrid indicated that over the operational life of the facilities, CalGrid would contractually require the O&M contractor to indemnify and hold harmless CalGrid for negligent acts of the O&M contractor for activities surrounding O&M of facilities. CalGrid indicated that it would require the O&M's corporate insurance program, or equivalent self-insurance program, to include, but not be limited to, general liability ($1MM per occurrence/$2MM aggregate, including wildfire), automobile liability ($1MM combined single limit), excess liability, worker's compensation (statutory limits). CalGrid indicated that it would contractually require the O&M contractor to name CalGrid as an additional insured, waive the right of subrogation, require the O&M contractor's policies to be primary and non-contributory, and give notice of 30 days of cancellation to CalGrid in the event of policy cancelation. (F-14)

CalGrid indicated that it would purchase general liability ($1MM per occurrence/$2MM aggregate, including wildfire) and excess liability ($100MM, including California wildfire coverage) over the operational phase of the facilities, which may be part of a broader corporate insurance program. CalGrid indicated that the policy's limits would be in excess of the O&M contractor's contractually required limits and covers the owner for third-party bodily injury and property damage losses resulting from contractors and subcontractors, which are not otherwise insured under the O&M contractor's insurance. With respect to wildfire coverage, CalGrid indicated that the limits would be subject to commercial reasonableness, availability, and in line with prudent industry practice. (F-14)

In the event of multiple project awards, CalGrid indicated that it would maintain the insurance coverage described above with coverage amounts for property all-risk insurance and builder's all-risk insurance being adjusted to accommodate each project award and may do so under a broader insurance program. (F-14)

CalGrid indicated major capital replacements and rebuilds necessary over the life of the project would be financed through retained earnings, owner cash reserves, revolving lines of credit, insurance proceeds, and additional parent support to the extent required. CalGrid indicated it would maintain cash operating reserves and a line of credit to cover unexpected capital replacements, as well as insurance coverage for catastrophic events. (F-15)

CalGrid indicated that in addition to its capability to finance unexpected repairs, the project has access to its O&M contractor's Emergency Equipment program. CalGrid indicated that access to that equipment and the responsiveness of the O&M contractor's fleet ensures that CalGrid would be capable of responding quickly and effectively to any unexpected repairs required. (F-15)

CalGrid indicated that its O&M contractor's transmission has 21-crews, wire stringing equipment, cranes, digger derricks, and bucket trucks and access to its helicopter fleet to support emergency transmission work. CalGrid indicated that its O&M contractor stocks Lindsey structures, emergency steel poles, and lattice structures and various types of conductors. CalGrid indicated that its O&M contractor has an emergency spare program which allows it to swap pieces of major electrical equipment and emergency equipment with other utilities. CalGrid indicated that its O&M contractor also keeps voltage regulators, CCVTs, MUs, bushings, disconnects and insulator pallets at all voltage level in its spare parts inventory, which can be utilized by the project for emergency repairs. (O-15)

CalGrid indicated neither it nor Viridon is relying on the State of California wildfire fund to support its proposal, and that its ability to support the project including any potential losses related to wildfire claims is not dependent on participation in the wildfire fund. (A-5)

3.11.2 Information Provided by Lotus

Lotus indicated that it plans to procure insurance on a best-efforts basis for the project that is typical of industry standards and required for debt financing. Lotus indicated that this would include coverage based on replacement value and general liability. However, Lotus indicated that due to the wildfire risk region the project is located in, and based on feedback from existing insurance brokers, the ability to procure insurance for the project is a material risk. Lotus indicated that if at any point in time it is not able to procure insurance for the project, it expressly reserves the right to seek recovery of potential damages through a FERC 205 filing. (F-14)

Lotus indicated that it expects to procure the following insurance coverage: (F-14)

- Property damage – Up to replacement cost (including wildfire coverage, subject to commercial reasonableness and the insurance market at that point in time)
- General liability – $1MM per occurrence/$2MM in the aggregate (including wildfire coverage, subject to commercial reasonableness and the insurance market at that point in time)
- Excess liability – Up to $100MM in the aggregate, (including wildfire coverage, subject to commercial reasonableness and the insurance market at that point in time)
- Automobile liability - $1MM

Lotus indicated that the limits provided above would be procured on a best-efforts basis. Lotus indicated that based on the current insurance market and initial indications from insurance brokers, it believes the above limits to be achievable.

Lotus indicated that it is not relying on the California wildfire fund to support its proposal, and as more fully set forth in the proposal. However, Lotus indicated that should it become possible for it to participate in or take advantage of the California wildfire fund for the benefit of California ratepayers in the future, it, with approval from the ISO, would evaluate that option and take advantage of it if appropriate. (F-14)

Lotus indicated that it would require its construction contractor to carry its own insurance during the construction phase of the project as required and approved by the ISO, project lenders, and Lotus. (F-14)

Lotus indicated that the O&M provider would provide its own insurance during the operational phase of the project. (F-14)

Lotus indicated that it would be able to finance unexpected repairs through a number of different financing sources, including but not limited to: (i) a revolving credit facility; (ii) equity contributions; (iii) long-term service agreements; and (iv) project or fund cash balances. (F-15)

Lotus indicated that an emergency response and spare equipment program is being evaluated and discussions are underway on how to maximize the ability to respond to such events, including the use of its O&M contractor and other providers to maximize its ability to respond, minimize costs, and provide these services in accordance with good utility practice. Lotus indicated that for hardware and insulators, the EPC would procure and its O&M contractor

would carry a small percentage of construction spares for loss and breakage during construction. Lotus indicated that during commercial operations, for the transmission line, Lotus's O&M contractor would plan to carry an inventory stock of 1-3% for hardware and insulators as O&M spares for use when damage or issues are noted during inspections. Lotus indicated that for the compensation station and its equipment, the O&M contractor would plan to carry an inventory stock of, at minimum, one replacement breaker for both SF6 and non-SF6 breakers. Lotus provided its O&M contractor's transformer contingency plan to display the depth and breadth of its O&M contractor's emergency response procedures as well as the systematic approach the project team would apply to replace other major failed equipment for the project. (O-15)

3.11.3 Information Provided by WestWorks

WestWorks indicated the project would be covered under its and LS Power's insurance policies during construction and by PG&E's insurance policies during operations.

WestWorks indicated that LS Power liability insurance includes: (F-14)

- General liability insurance with primary coverage limits of no less than $1MM for any one occurrence for injuries, including death, to one or more persons or damage to property and a $1MM annual aggregate limit.
- Automobile liability insurance with combined single limits of no less than $1MM per accident.
- Workers' compensation insurance providing statutory benefits and employer's liability insurance with a limit of not less than $1MM.
- Umbrella and/or excess liability insurance of not less than $25MM per occurrence and in the aggregate covering bodily injury and property damage to third parties during construction, $75MM during operations.
- Aircraft liability insurance to the extent of its exposure in an amount not less than $20MM.
- Pollution liability coverage with a limit of not less than $3MM per claim and in the annual aggregate.

WestWorks indicated that during the construction period, it would carry builder's risk insurance providing coverage for the project on an "all risk basis" (including as a result of negligence) on a completed value form inclusive of earthquake, flood, windstorm, collapse, sinkhole, subsidence, testing, commissioning, riot and civil commotion coverage, on a no coinsurance basis. WestWorks indicated that the limit of builder's risk insurance is expected to not be less than an acceptable loss limit for the project lenders or WestWorks. WestWorks indicated that coverage limits for the perils of earthquake, flood, and windstorms are expected to be set at an acceptable loss limit, likely $10MM for earthquake damage. WestWorks indicated that the construction contractor is expected to be responsible for deductibles.

WestWorks indicated that to the extent not covered elsewhere, transit coverage would either be included in a property policy or under a separate policy (including air, land, and ocean cargo, as applicable) on an "all-risk" basis with a per occurrence limit equal to not less than the full insurable value of any single shipment involving the project or any other assets to or from any storage site or the project site. WestWorks indicated that it plans for coverage to include loading and unloading and temporary storage (as applicable). (F14)

WestWorks indicated that it plans to require contractors and subcontractors to have an appropriate level of insurance for the scope of work to be performed. For example, WestWorks

indicated that the construction contractor is expected to have the following insurance coverage: (F-14)

- Statutory workers' compensation insurance and employer's liability insurance with a limit of liability of (a) the statutory limits required by the workers' compensation laws of the applicable jurisdiction in which work is being performed and (b) (i) $1MM each accident and (ii) $1MM each employee and in the aggregate.
- Comprehensive automobile liability insurance with a per occurrence limit of not less than $1MM combined single limit.
- Commercial general liability insurance covering third party personal injury, bodily injury, and property damage liability written on an occurrence form and including coverage for contractual liability, actions over claims, and wildfire (as commercially available). WestWorks indicated that deductible levels and/or self-insured retention levels would be set at levels acceptable to WestWorks depending upon risk, cost, and availability.
- Aircraft liability insurance with a combined single limit of not less than $10MM per occurrence.

WestWorks indicated PG&E maintains first-party property insurance to limit financial exposure for unforeseeable losses of its assets due to catastrophes such as fires, earthquakes, floods, or catastrophic operational losses. WestWorks indicated PG&E also maintains liability insurance to protect against third-party claims.

WestWorks indicated that during operations, the following insurance would be in place: (F-14)

- PG&E's wildfire liability self-insurance program, which provides protection against third-party bodily injury and property damage liability claims that may arise from a wildfire linked to PG&E's business operations up to $1B per year.
- PG&E's access to the statewide wildfire fund established by Assembly Bill (AB) 1054 and, if needed, the recapitalized wildfire fund in Senate Bill (SB) 254. The wildfire fund would be available for eligible electric utility companies to pay eligible claims for liabilities arising from wildfires that are caused by the applicable electric utility company's equipment. If the eligible claims for liabilities arising from wildfires were to exceed $1B in any wildfire fund coverage year, PG&E may be eligible to make a claim against the wildfire fund for such excess amount. The wildfire fund is available to PG&E to pay eligible claims for liabilities arising from wildfires, provided that PG&E satisfies the conditions to its ongoing participation in the wildfire fund set forth in AB 1054 and SB 254 and that the wildfire fund has sufficient remaining funds.
- PG&E's non-wildfire liability insurance program, which provides protection against third-party bodily injury and property damage liability claims that may arise from PG&E's business operations, excluding wildfires.
- Aviation insurance (fixed-wing and rotary-wing), which provides coverage for third-party bodily injury and property damage liability claims arising out of the operation, maintenance, or use of PG&E owned, leased, or non-owned aircraft.
- Drone insurance (unmanned aircraft), which provides coverage for third-party bodily injury and property damage liability claims arising out of the operation, maintenance, or use of PG&E owned, leased, or non-owned drones.
- Cyber liability insurance, which provides protection against losses arising from the theft, dissemination, and/or use of confidential information ("data breach"), cyber extortion

demands made against PG&E, and network and security breaches involving PG&E's enterprise and operational computer systems.

- Excess workers compensation insurance, which provides coverage for PG&E employees who suffer an injury or illness resulting from job-related duties and the value of the loss exceeds amounts covered by the PG&E workers' compensation self-insurance program.
- Non-nuclear property insurance, which provides coverage for physical loss or damage to properties and assets owned or leased by PG&E (excluding the company's nuclear assets, which are insured under a separate program).

WestWorks indicated PG&E's standard operating practice is to finance unexpected repairs with short-term debt, assuming all capital spares have been exhausted. WestWorks indicated that PG&E has access to a large and diverse set of credit facilities to raise capital necessary to rapidly address any unexpected issues with its transmission infrastructure. WestWorks indicated that PG&E is well capitalized, has access to additional equity and long-term debt capital, and has a robust insurance program to finance, operate, and maintain the project over the long-term. (F-15)

WestWorks indicated PG&E's experienced substation and overhead transmission crews maintain detailed emergency response procedures to guide fault isolation, equipment removal, and replacement activities. WestWorks indicated that PG&E's inventory management system is utilized to locate and dispatch prefabricated sections of towers from the nearest storage facility, as well as spare substation equipment. WestWorks indicated PG&E Transmission & Substation Asset Management operates a capital emergency material program that maintains emergency and long lead time capital materials such as transformer banks, breakers, and switches for rapid deployment. WestWorks indicated this program prioritizes the safety and resiliency of the system through management of over 3400 tracked inventory items. WestWorks indicated PG&E continuously monitors lead times and, in partnership with the CPUC-approved independent safety monitor , manages spare inventory to ensure appropriate availability of spare resources in the event of major outage events. (O-15)

3.11.4 ISO Comparative Analysis

For purposes of the comparative analysis for this factor, the ISO has considered the representations by the project sponsors regarding their resources and plans for assuming responsibility for losses resulting from failure of project facilities, including, but not limited to, their financial resources, proposed insurance, and other plans for mitigation of equipment failures.

Failures of project facilities would likely represent only a portion of the investment in the project, e.g., a number of towers, a limited number of spans of wire, damaged insulators, etc. However, in the event where a project facility is found as the cause of a wildfire, the potential for losses, in part due to third party impacts from such a wildfire, could be extensive, even multiple times more than the replacement cost of the transmission facility.

The ISO has considered the ability of a project sponsor to withstand major losses such as those due to wildfires as part of the comparative analysis. This project will run through CPUC-designated HFTDs; therefore, the ISO considers the extent to which the project sponsors are financially prepared for such an event to be an advantage.

Financial Resources

As discussed in Section 3.7 of this report, the financial resources of the project sponsors vary. The comparative analysis in Section 3.7 considers the financial resources of the project sponsor both during the project development/construction phase and during the operations phase, but it places more focus on the ability of a project sponsor to finance the development and construction of the project. Under this Section 3.11, when comparing the ability of the project sponsors to assume liability for major losses for this project, the ISO also considers the financial resources available to cover major losses both during the development and construction phase as well as during the operational life of the project, but in its comparative analysis for this selection factor, the ISO places greater focus on the financial resources available during the operations phase of the project when the facilities are energized because the ISO considers the potential for major losses to be greater during that phase.

In the discussion of the financial resources of the project sponsors in Section 3.7 of this report, the ISO has concluded that CalGrid and its proposal is better than WestWorks' proposal, which is better than Lotus's proposal, regarding overall financial resources. This conclusion is primarily based on the financial resources and other measures of financial strength the project sponsors represented in their proposals that would be available during the development and construction phase of the project. This same conclusion applies to the financial strength of the project sponsors for their ability to cover major losses during the development and construction phase of the project.

However, more relevant to this selection factor, the circumstances of the project sponsors may differ for the operations phase of the project. WestWorks represented in its proposal that it would fund the O&M activities associated with its capacity entitlement for the project and that PG&E has the option to acquire a portion of the capacity entitlement and would be responsible for funding the corresponding O&M activities and CapEx. WestWorks further represented that to the extent losses are not covered by insurance, such costs would be addressed in a manner consistent with PG&E's treatment of similarly situated transmission assets, including recovery through applicable regulatory mechanisms where available.

As discussed in Section 3.7, the tangible net worth of WestWorks' partner company PG&E is greater than the parent company of CalGrid. However, the EDF scores and equivalent ratings of the parent of CalGrid are better than WestWorks' parent and partner company PG&E's EDF scores and equivalent ratings for the past five years. Additionally, the financial ratios of the parent of CalGrid are better than WestWorks' parent and partner company PG&E.

Based on the foregoing, although WestWorks' partner company PG&E has higher tangible net worth than CalGrid's parent company, CalGrid's parent company has better EDF and equivalent rating scores and better financial ratios than PG&E which indicates a potentially higher risk of PG&E's ability to cover major losses during the operations phase of the project.

Lotus did not provide sufficient information for the ISO to calculate tangible net worth or generate EDF reports or financial ratios over the past five years; thus, the ISO is unable to compare Lotus to the other project sponsors regarding these measures of financial strength during the operations phase for the project.

Based on the foregoing considerations, the ISO has determined that, for this aspect of the factor, the proposal of CalGrid is slightly better than WestWorks' proposal, which is better than Lotus's proposal, regarding the financial strength of the project sponsors to cover major losses both during the operations phase of the project, as well as during the development and construction phase of the project.

Insurance
For this component of this factor, the ISO considers the insurance coverage available to cover major losses both during development and construction as well as during the operational life of the project. The ISO also considers the insurance coverage available during the operational life of the project when the facilities are energized to be more important than during development and construction of the project.

During construction of the project, other than wildfire insurance coverage, the proposals of each of the project sponsors indicate that they or their teams would have in place similar all-risk insurance coverage to cover the project. Regarding wildfire coverage during construction, CalGrid's proposal indicates it would require its EPC's corporate insurance program to include excess liability insurance of $100MM, including California wildfire coverage, which is similar to the coverage Lotus is proposing, which is more than WestWorks' proposal that indicated that during construction it would have $25MM in liability coverage, but did not state whether this included California wildfire coverage. Therefore, regarding insurance coverage during construction, the ISO considers there is no material difference between the proposals of CalGrid and Lotus, which are slightly better than WestWorks' proposal, regarding this consideration.

During the operation life of the project, other than wildfire insurance coverage, the proposals of each of the three project sponsors indicate that they or their teams would have in place similar all-risk insurance coverages to cover the project. Regarding wildfire insurance coverage during the operational life of the project, WestWorks' proposal provides the most wildfire coverage, as WestWorks indicated PG&E's wildfire liability self-insurance program would provide protection up to $1B per year, and PG&E has access to the California wildfire fund established to pay eligible claims for liabilities arising from wildfires that were to exceed $1B in any California Wildfire Fund coverage year, assuming that the California Wildfire Fund has sufficient remaining funds. CalGrid's proposal indicates that it would purchase excess liability insurance of $100MM, including California wildfire coverage, which is similar to Lotus's proposal.

As noted earlier, this project will run through CPUC designated HFTDs. Of the three proposals, WestWorks has the most exposure to wildfire risk with 8.52 miles located in Tier 3 and 18.52 located in Tier 2 CPUC designated HFTDs, followed by CalGrid's proposal with 27 miles located in Tier 2 and then Lotus's proposal with 21.13 miles located in Tier 2. Therefore, regarding insurance coverage during operations, and taking into account the exposure to wildfire risk, the ISO considers the proposal of WestWorks to be slightly better than Lotus's proposal (due to WestWorks' proposal's greater wildfire insurance coverage, even though WestWorks has slightly higher exposure to igniting a wildfire than Lotus's proposal), which is slightly better than CalGrid's proposal (due to Lotus's proposal's slightly lower exposure to igniting a wildfire and similar proposed insurance coverage as compared to CalGrid), regarding this consideration.

Based on the foregoing considerations, the ISO has determined that the proposal of WestWorks is slightly better than Lotus's proposal, which is slightly better than CalGrid's proposal, regarding the insurance coverage of the project sponsors to cover major losses both during the operations phase of the project, as well as during the development and construction phase of the project.

Mitigation of Equipment Failure
CalGrid indicated that its O&M contractor has ready access to crews and equipment, and that its O&M contractor stocks various transmission structures, including Lindsey Structures, emergency steel poles and lattice structures. WestWorks indicated PG&E continuously monitors lead times to manage spare parts inventory and also provided PG&E's company emergency response plan. Lotus indicated that an emergency response and spare equipment

program is being evaluated and discussions are underway. Regarding the mitigation of equipment failure, the ISO has determined that there is no material difference between the proposals of CalGrid and WestWorks and that their proposals are both better than Lotus's proposal.

Overall Analysis
Given the specific scope of this project, in the comparative analysis of this factor, the ISO considers insurance coverage to be more important than financial resources and mitigation of equipment failures. The ISO also considers overall financial strength and insurance coverage during the operation phase of the project to be more important than during the construction phase of the project.

Based on the foregoing analysis, the ISO considers the slight advantage of WestWorks' proposal over CalGrid's proposal regarding the more important consideration of insurance coverage to outweigh CalGrid's advantage in overall financial strength, with there being no material advantage between their proposals regarding mitigation of equipment failure. The ISO considers the advantage of CalGrid's proposal over Lotus's proposal regarding both financial strength and mitigation of equipment failure to be enough to offset the slight advantage of Lotus's proposal regarding the more important consideration of insurance coverage.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, given the specific scope of this project, the proposal of WestWorks is slightly better than the proposals of CalGrid and Lotus, between which there is no material difference, regarding this factor overall.

3.12 Selection Factor 24.5.4(j): Cost Containment Capability, Binding Cost Cap and Siting Authority Cost Cap Authority

The tenth selection factor is "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 ISO'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."

As discussed in Section 2.1 of this report, the ISO identified this selection factor as a key selection factor for this project because under ISO Tariff Section 24.5.1, binding cost containment commitments are a key selection factor in every ISO competitive solicitation.

For the purpose of performing the comparative analysis for this factor, the ISO initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) demonstrated cost containment capability of the project sponsor and its team, including any binding agreement by the project sponsor and its team to accept a cost cap that would preclude project costs above the cap from being recovered through the ISO's transmission access charge, and (2) if none of the competing project sponsors propose 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.

All three project sponsors' proposals provide binding capital cost containment proposals. The three proposals have various provisions regarding cost escalation. The ISO retained a well-respected expert consulting firm to assist, *inter alia,* in evaluating the project sponsors' cost containment proposals and conducting cost of service and revenue requirement studies. The studies and analyses conducted by the consulting firm were extensive, including numerous sensitivity analyses. In addition to evaluating the proposals regarding their proposed binding cost containment measures, the ISO evaluated each project sponsor's proposal considering the following additional factors relating to cost containment:

- Cost containment performance for past projects
- Project management capabilities
- Project risks and mitigation of risks

Cost Containment Capability Including Binding Cost Cap

3.12.1 Information Provided by CalGrid

Cost Containment
CalGrid indicated that it is offering a full suite of cost containment measures that would substantially protect ratepayers throughout the development, construction, and operations phases of the project: (CC-1)

- Cap on revenue requirements – 50-year project revenue cap
- Cap on ROE – 9.8% maximum ROE for project costs including AFUDC
- Cap on capital costs – 5.0% maximum ROE applied to CapEx overruns
- Cap on structure change costs – limits ratepayer impacts of structure changes
- Cap on rerouting costs – limits ratepayer impacts of reroutings
- Cap on undergrounding costs – limits ratepayer impacts of undergrounding
- Exclusions deadband – up to $25MM for government-mandated costs
- No CWIP in rates – no customer payments for the project before the commercial operation date
- Schedule guarantee – delays incur substantial AFUDC and ROE reductions

CalGrid indicated that it proposes a 50-year annual revenue requirement (ARR) cap in nominal dollars for the project as detailed in the table below. CalGrid indicated that any project costs exceeding these maximum values would not be eligible for recovery through the ISO's transmission access charge, except as provided through the excluded impacts CalGrid proposes. (CC-1)

ARR Caps (Nominal $)

2034	$ 29,167,264	2051	$ 33,348,490	2068	$ 27,972,852
2035	$47,729,365	2052	$32,960,844	2069	$28,094,243
2036	$46,748,939	2053	$ 32,575,892	2070	$27,728,226
2037	$45,537,362	2054	$32,193,608	2071	$27,357,321
2038	$44,405,337	2055	$31,813,958	2072	$26,992,701
2039	$43,928,468	2056	$31,436,967	2073	$26,634,207
2040	$43,314,459	2057	$31,062,691	2074	$26,281,161

2041	$42,293,245		2058	$30,691,188		2075	$25,932,544
2042	$41,262,054		2059	$30,322,515		2076	$25,587,949
2043	$40,233,060		2060	$29,956,733		2077	$25,247,474
2044	$39,206,017		2061	$29,593,901		2078	$24,911,196
2045	$38,181,231		2062	$29,234,083		2079	$24,579,210
2046	$37,158,468		2063	$28,877,341		2080	$24,251,600
2047	$36,138,046		2064	$28,523,740		2081	$23,928,465
2048	$35,119,742		2065	$28,173,344		2082	$23,609,893
2049	$34,275,854		2066	$27,826,222		2083	$23,301,214
2050	$33,741,842		2067	$27,482,443		2084	$9,586,100

CalGrid indicated that the forecast project in-service date is June 1, 2034; accordingly in the table above, the 2034 value reflects the period June 1 to December 31, and the 2084 value reflects the period January 1 to May 31. CalGrid indicated that to the extent the actual in-service date was different, the annual caps would be amended on a pro rata basis such that the aggregate cap on revenue requirements over the entire 50-year period would be unchanged. For example, CalGrid indicated that if the project schedule shifted one month earlier, one month's worth of the 2035 revenue requirement would be shifted into 2034, and this change would be carried forward such that one month's worth of subsequent year caps would be shifted into each preceding year. Likewise, CalGrid indicated that if the project schedule shifted one month later, one month's worth of the 2034 revenue requirement would be shifted into 2035, and this change would be carried forward such that one month's worth of subsequent year caps would be shifted into each subsequent year. (CC-1)

CalGrid indicated that it does not propose to condition its cap on revenue requirements on any entitlement to a revenue banking mechanism. CalGrid indicated that If in any year the actual revenue requirement for the project exceeded the cap (i.e., there was an overage), it would only recover revenues for the project in that year up to the cap, and the unrecovered difference between the actual revenue requirement and the cap would not be tracked in a deferred recovery account for potential future recovery but rather would be forfeited. Alternatively, CalGrid indicated that if in another year the actual revenue requirement were less than the cap, (i.e., there was an underage), ratepayers would only pay the revenue requirement rather than a higher number. (CC-1)

CalGrid indicated that it proposes a cap on ROE of 9.8%, inclusive of any incentive adders, which would apply throughout development, construction, and the first 50 years of project operations, and would encompass the CapEx incurred to deliver this proposal, including any: planned project CapEx, both prior to and post-energization; construction-period CapEx that qualify as excluded impacts; and AFUDC associated with those items. (CC-1)

CalGrid indicated that it proposes a cap on capital costs of $336,892,099 in nominal dollars, excluding AFUDC. CalGrid indicated that this cap on capital costs applies to all expenditures incurred for the project prior to the commercial operation date. CalGrid indicated that capital costs above this cap, together with associated AFUDC, would be subject to a "soft cap" in the form of a reduced cap on ROE of 5.0%, which would apply throughout development, construction, and the first 50 years of project operations. (CC-1)

CalGrid indicated that it proposes to limit the potential ratepayer impact of any required changes to the guyed-V lattice towers as currently planned for the project. Specifically, CalGrid indicated that the cap on capital costs would be increased by $125,000 for each tubular steel (monopole) structure, and $0 for each self-supporting lattice structure, used in place of a guyed-V lattice tower, and the cap on revenue requirements would be increased to reflect this incremental allowance for capital costs subject to the cap on ROE. (CC-1)

CalGrid indicated that it proposes to limit the potential ratepayer impact of any required change to its proposed route for the project. Specifically, CalGrid indicated that the cap on capital costs would be increased by $2.73MM per mile of incremental overall route length beyond the 86.0 miles as proposed, and the cap on revenue requirements would be increased to reflect this incremental allowance for capital costs subject to the cap on ROE. (CC-1)

CalGrid indicated that it proposes to limit the potential ratepayer impact of any required undergrounding for the project. Specifically, the cap on capital costs would be increased by $50MM per mile of undergrounding, and the cap on revenue requirements would be increased to reflect this incremental allowance for capital costs subject to the cap on ROE. (CC-1)

CalGrid indicated that it proposes a $25MM exclusions deadband for government-mandated costs. Under this mechanism, CalGrid indicated that it would bear the risk of any government-mandated costs that qualify as excluded impacts as defined below, up to a maximum threshold of $25MM in total. CalGrid indicated that only costs above this threshold would qualify for relief as excluded impacts consistent with the provisions of the cap on revenue requirements, cap on capital costs, cap on rerouting costs, cap on undergrounding costs, and cap on structure change costs. (CC-1)

CalGrid indicated that it commits to neither seek nor accept customer payments for project costs while it is under construction. CalGrid indicated that this typically would take the form of a cash return on construction work in progress (CWIP), which is a FERC incentive rate treatment commonly sought by transmission developers. (CC-1)

CalGrid indicated that it commits to a schedule incentive penalty if the project is not energized on or before June 1, 2034, unless such delay is attributable to matters beyond CalGrid's control. CalGrid indicated that this measure would have two effects: (1) pre-completion of the project, during the period of construction delay, the applicable AFUDC rate would be reduced to reflect an ROE of 5.0%; and (2) post-completion of the project, the cap on ROE would be reduced by 5 basis points for every full calendar month that the project's energization is delayed beyond June 1, 2034, up to a total of 60 basis points. (CC-1)

CalGrid indicated that the exclusions to cost containment would be excluded impacts, which is defined as: (CC-7)

- ISO-required costs – costs due to any change in the ISO project requirements or the ISO Functional Specifications for the project facilities as set forth in the APSA.
- Interconnection costs – costs due to any incremental requirement to evaluate or effect any change attributable to PTO or generator interconnections, or any other required interconnection studies or impacts.
- Government-mandated costs – costs due to any additional impositions by a governmental authority, including:
    - changes to the proposed structures, equipment, or transmission lines for the project, with any such costs associated with structure changes not to exceed the cap on structure change costs described above.

  - relocation or rerouting of the project or any portion thereof, with any such costs not to exceed the cap on rerouting costs described above.
  - requirement to place any facilities underground, with any such costs not to exceed the cap on undergrounding costs described above.
  - increase in the amount of environmental mitigation.

  In addition to the cap on structure change costs, cap on rerouting costs, and cap on undergrounding costs, this exclusion is further limited by the $25MM exclusions deadband described above.
- Other excluded costs – costs attributable to or consisting of:
  - the issuance, enactment, or material change in the enforcement, interpretation, or application of any statute, rule, regulation, tariff or other applicable law that occur or become effective after the submission date of CalGrid's proposal.
  - delays not caused by CalGrid in the receipt of permits necessary to construct the project, or any other delay attributable to matters beyond CalGrid's control.
  - force majeure events or conditions, adopting the definition of Uncontrollable Force as set forth in the ISO Tariff.
  - uninsured losses not covered by insurance procured in accordance with good utility practice.
  - liability insurance premiums, or O&M expenditures incurred pursuant to a state-ratified wildfire mitigation plan, above what is assumed in the proposal.
- ROE floor – to the extent in any given year, after taking account of all CalGrid cost containment measures described above together with the preceding exclusions, CalGrid would earn an ROE below 7.8% (the "ROE floor"), CalGrid would be eligible to recover the minimum costs necessary to earn at the level of the ROE floor.
- Post-commercial operation date CapEx – CapEx incurred after the project is placed in service, above what is assumed in the proposal, are not subject to either the cost containment measures described above or the preceding exclusions.

CalGrid's indicated that its cost containment excludes force majeure events or conditions, adopting the definition of Uncontrollable Force as set forth in the ISO Tariff. (CC-8)

CalGrid indicated that additional impositions by a governmental authority, including relocation of the project sponsor's proposed site for the project, would be excluded impacts to the cost containment measures. CalGrid indicated that it believes this risk has been substantially mitigated by the extensive efforts in the proposal development phase to determine the most acceptable route, the exclusions deadband, and the cap on rerouting costs which applies equally to any relocations. (CC-9)

CalGrid indicated that additional impositions by a governmental authority, including changes to the proposed structures, equipment, or transmission lines for the project, would be excluded impacts to the cost containment measures. CalGrid indicated that it believes this risk has been substantially mitigated by the extensive efforts in the proposal development phase to determine the most acceptable route, the exclusions deadband, and the cap on structure change costs. (CC-10)

CalGrid indicated that an increase in the amount of environmental mitigation imposed by the siting authority beyond that assumed in CalGrid's binding cap proposal would be excluded impacts to the cost containment measures. CalGrid indicated that it believes this risk has been substantially mitigated by the extensive efforts in the proposal development phase to validate the required level of mitigation, as well as by the exclusions deadband. CalGrid indicated that only minor changes in environmental mitigation can reasonably be anticipated, and these would be well within the $25MM deadband. (CC-11)

CalGrid indicated that a requirement to place underground any transmission facility would be an excluded impact to the cost containment measures proposed by CalGrid above. CalGrid indicated that it believes this risk has been substantially mitigated by the extensive efforts in the proposal development phase to determine the most acceptable route, the exclusions deadband, and the cap on undergrounding costs. (CC-12)

CalGrid indicated that a delay in the receipt of siting or permitting authorization necessary to construct the project, if the delay is not caused by CalGrid, would be excluded impacts to the cost containment measures proposed by CalGrid above. (CC-13)

CalGrid indicated that a delay in schedule or change in the requirements or project design or location caused by the interconnection agreement or interconnecting PTO would be excluded impacts to the cost containment measures proposed by CalGrid above. (CC-14)

CalGrid indicated that failure by one of CalGrid's preferred vendors to meet CalGrid's requirements would not be a basis to claim relief from the cost containment measures. (CC-15)

Cost Containment Performance for Past Projects
CalGrid provided a list of project experience for its substation, transmission line, and reactive compensation projects that included actual cost versus budget performance. CalGrid provided budget and actual cost information on a project-by-project basis, and, if applicable, identified major issues or challenges faced on a particular project.

Regarding substation, transmission line, and reactive compensation projects operating at voltages above 200 kV that have been completed in the past ten years and are located in the U.S., the list included 11 projects. Of these 11 projects, nine were completed at or below budget, and budget information was not provided for two projects. The projects that were completed below budget were completed below budget by an average of 9% and the average budget of these projects was $146MM. (Prior Projects and Experience Workbook)

Project Management Capabilities
CalGrid provided detailed information regarding its approach for project planning, project execution, and schedule. (P-1)

Regarding project planning, CalGrid provided detailed information on its project management planning steps which included project kickoff and scoping, project schedule development, risk identification and mitigation plans, and project cost estimation (P-1)

Regarding project execution, CalGrid indicated that its approach encompasses key components that support early identification and mitigation of risk while also achieving safety, quality and cost objectives during execution of the project. CalGrid indicated that these key approaches to project management execution include project controls, project communication, quality management, risk management, procurement coordination, and safety management. CalGrid provided detailed information about each one of these processes. (P-1)

Regarding project controls, CalGrid indicated that it included the following components: path of construction development, workforce planning, engineering work package development, procurement work package development, construction work package development, installation work package development, project reporting, risk management, cost control, schedule control and project closeout. (P-1)

Project Risks and Mitigation of Risks
Regarding risk management, CalGrid indicated that it would have full responsibility for oversight of the entire project's risk management efforts, and that it would utilize an approach that includes identifying critical issues, thoroughly analyzing risks, and mitigating exposure to identified risks through detailed planning. CalGrid also provided information on the development of its risk assessment matrix, which it indicated would be reviewed and updated monthly. (P-1)

CalGrid provided a risk log that included 71 risk items grouped into several risk categories (permitting, procurement, construction, ROW, operations etc.), the risk consequence (cost, schedule), and the likelihood of the risk (low, medium, high). The risk log also includes the owner of each risk (CalGrid, ISO), as well as the mitigation measure for each risk item. CalGrid indicated that this risk log captures the collective history of the project team and identifies both anticipated and unanticipated risks and the appropriate mitigation measures. (P-4)

3.12.2 Information Provided by Lotus

Cost Containment
Lotus indicated that it proposes a cost cap up to a specified level assuming a specified in-service date and escalation rate. (CC-1)

Lotus indicated that it agrees to a cap on the project's ROE as follows: (CC-1)

- A cap on ROE for CapEx up to the cost cap.
- A different cap on ROE for the amount of CapEx that exceeds the cost cap.
- A specified debt-to-equity ratio for the purpose of calculating the AFUDC through the project's commercial operation date and during the operational phase of the project.

Lotus indicated that it proposes several exclusions to its cost cap and cost containment measures. (CC-7)

Cost Containment Performance for Past Projects
Lotus provided a list of project experience for its substation, transmission line, and reactive compensation projects that included actual cost versus budget performance. Lotus provided budget and actual cost information on a project-by-project basis, and, if applicable, identified major issues or challenges faced on a particular project.

Regarding substation, transmission line, and reactive compensation projects operating at voltages above 200 kV that have been completed in the past ten years and are located in the U.S., the list included two projects and budget information for these projects were not provided due to confidentiality reasons. (Prior Projects and Experience Workbook)

Project Management Capabilities
Lotus indicated that the project would use a phase-based project management approach that would include the following phases: (i) project initiation, (ii) permitting, (iii) engineering, (iv) procurement, (v) ROW, and (vi) construction. (P-1)

Lotus indicated that a project development team would be led by the project manager and supported by discipline leads for engineering, environmental and permitting, real estate and ROW, procurement, construction management, and public outreach. Lotus also indicated that

the project manager would serve as a single point of accountability to ensure coordination across all disciplines and alignment with its objectives and project's regulatory requirements. (P-1)

Project Risks and Mitigation of Risks
Lotus provided a list of key risks and mitigation measures that included the following: (i) siting and land acquisition, including agreement with land trusts and agencies for conservation easements, (ii) environmental permitting and mitigation, (iii) supply chain and tariffs, and (iv) wildfire insurance. Lotus indicated that if at any point in time it is not able to procure insurance for the project, it expressly reserves the right to seek recovery of potential damages through a FERC 205 filing. (P-4)

3.12.3 Information Provided by WestWorks

Cost Containment

WestWorks indicated that it is offering a full suite of cost containment measures: (CC-1)

- Cap on ARR.
- Cap on weighted average cost of capital (WACC).
- A different cap on WACC for the amount of CapEx that exceeds a specified capital cost cap.
- Schedule completion incentive penalty.

WestWorks indicated that it is proposing several exclusions to its cost containment measures, including an ARR exceedance cap and specific escalation adjustment provisions. (CC-7)

Cost Containment Performance for Past Projects
WestWorks provided a list of project experience for its substation, transmission line, and reactive compensation projects that included actual cost versus budget performance. WestWorks provided budget and actual cost information on a project-by-project basis, and, if applicable, identified major issues or challenges faced on a particular project.

Regarding substation, transmission line, and reactive compensation projects operating at voltages above 200 kV that have been completed in the past ten years and are located in the U.S., the list included 14 projects. The information provided by WestWorks indicated that all projects were completed on or ahead of time. The projects that were completed below budget were completed below budget by an average of 7% and the average budget of these projects was $112MM. (Prior Projects and Experience Workbook)

Project Management Capabilities
WestWorks provided information on its project management approach which included risk management, schedule management, cost management, project communication, quality management, issue management, and safety management. (P-1)

Regarding risk management, WestWorks indicated that all risks would be entered into a risk register, scored by likelihood and impact, and prioritized. WestWorks indicated that mitigation strategies would be developed, implemented, and tracked until resolution. (P-1)

Regarding cost management, WestWorks indicated that the project director would manage the budget and reforecast monthly. (P-1)

Project Risks and Mitigation of Risks
WestWorks provided a project risk register that included 68 risk items in six risk categories – cost containment, project management and schedule, environmental permitting and public process, land acquisition, engineering & design, and construction. Each risk item included a rating for risk likelihood, risk consequence, risk level to the ISO/ratepayers, and risk level to WestWorks and each risk item also included a mitigation measure. (P-4)

WestWorks also provided a list of major project risks and mitigation measures which included the following: (i) supply/demand imbalance for manufactured products, (ii) uncertainty in interest rates, (iii) increase in commodity costs, (iv) increase in labor costs, (v) import tariffs, and (vi) private ROW acquisition. (P-4)

Authority to Impose Binding Cost Caps

3.12.4 Information Provided by CalGrid

CalGrid indicated that the authority of any agency with jurisdiction over the project to impose binding cost control measures or cost caps on the project is not applicable because CalGrid is proposing binding cost containment measures. (CC-16)

3.12.5 Information Provided by Lotus

Lotus indicated that FERC has the authority to impose cost control measures in the context of rate setting. Lotus further indicated that the CPUC has a statutory mandate to establish maximum reasonable and prudent cost as part of any approvals it provides, but FERC ultimately determines whether transmission costs incurred are just and reasonable. (CC-16)

3.12.6 Information Provided by WestWorks

WestWorks indicated that the authority of any agency with jurisdiction over the project to impose binding cost control measures or cost caps on the project is not applicable because WestWorks is proposing binding cost containment measures. (CC-16)

3.12.7 ISO Comparative Analysis

Comparative Analysis of Cost Containment Capability Including Cost Cap Agreement

For purposes of the comparative analysis for this component of the factor, the ISO's analysis considered the expected effectiveness of the project sponsor's overall cost containment capabilities, including, but not limited to, cost containment performance on prior projects; transmission system interconnections, project management and scheduling organizations and capabilities; experience of key individuals; the project risk and mitigation that each project sponsor identified; factors affecting cost; and proposed cost containment plans and proposed binding cost caps.

For purposes of the comparative analysis for this component of the factor, the ISO's analysis considered the expected effectiveness of the project sponsor's overall cost containment capabilities, including, but not limited to, cost containment performance on prior projects; transmission system interconnections, project management and scheduling organizations and capabilities; experience of key individuals; the project risk and mitigation that each project

sponsor identified; factors affecting cost; and proposed cost containment plans and proposed binding cost caps.

Cost Estimates

The project sponsors provided a range of cost estimates for capital costs and O&M costs. The differences in cost estimates are reflected by the specific route and in the binding cost caps proposed by each project sponsor.

Binding Cost Containment Measures and Cost Containment Exclusions

All three project sponsors committed to some form of binding cost containment measures subject to certain specified exclusions and conditions for adjustment. However, the robustness of the cost containment measures varied greatly. The proposed cost containment measures were multi-faceted and layered, thus complicating the cost containment analysis. Consistent with the practice the ISO has implemented and to address confidentiality concerns, the ISO only specifies in this section the specific, detailed cost containment measures and conditions of the approved project sponsor. The cost containment measures and conditions proposed by the other project sponsors are described only in general terms.

CalGrid and WestWorks propose ARR caps. These ARR caps contain provisions that can dilute the effectiveness of the cost containment measures through the implementation of an ROE floor and ARR exceedance cap, respectively. The ARR caps proposed by the project sponsors are for shorter periods than the project's stated useful life. CalGrid's ARR cap lasts for a longer time than the ARR cap proposed by WestWorks. For the years they coincide, CalGrid's ARR cap is lower than the ARR cap from WestWorks.

The ARR cap proposed by WestWorks allows for a reduced percentage of ARR cap exceedances in one year to be recovered in future years, provided WestWorks cannot recover more than its revenue requirement in place for that year, with any uncollected amounts remaining at the end forfeited.

CalGrid and Lotus propose ROE caps, and WestWorks proposes a WACC cap. The ROE cap from CalGrid is better than the ROE cap proposed by Lotus. The ROE caps proposed by CalGrid and Lotus are for shorter periods than the project's useful life, but the ROE cap from Lotus is for a slightly longer period than CalGrid's. WestWorks proposes a WACC cap coinciding with the duration of its ARR cap that is for a period less than the identified useful life of the project. The WACC cap provided by WestWorks caps additional capital structure and other financial variables, making it more effective in containing certain project costs compared to the ROE caps of the other project sponsors. However, as discussed above, CalGrid's ARR cap, which accounts for debt, ROE, and capital structure-related costs, is lower than the ARR cap of WestWorks.

CalGrid, Lotus, and WestWorks all propose limited capital cost caps for initial construction of the project. The capital cost cap from CalGrid is the strongest because it is the lowest, followed by the proposal from WestWorks, and then Lotus's proposal. CalGrid and Lotus propose a ROE cap on capital costs above their capital cost caps. The proposed ROE cap from CalGrid is stronger than the ROE cap provided by Lotus. WestWorks proposes a lower WACC cap on capital costs above its capital cost cap. The reduced WACC cap provided by WestWorks for costs above the capital cost cap, which caps additional capital structure and other financial variables, makes it more effective in containing project costs than the reduced ROE caps for the capital cost caps of the other project sponsors. However, as discussed above, CalGrid's ARR

cap, which accounts for debt, ROE, and capital structure-related costs, is lower than the ARR cap of WestWorks.

CalGrid proposes a ROE floor. This floor guarantees a minimum ROE for project costs and limits the effectiveness of all other cost containment provisions within its proposal.

CalGrid and WestWorks both propose schedule completion incentive penalties. The schedule completion incentive penalty from CalGrid provides a greater potential reduction in ROE than the potential ROE reduction proposed by WestWorks. Lotus did not propose a financial incentive for completion of the project on schedule.

The proposals from CalGrid, Lotus, and WestWorks all identify similar cost exclusion provisions. However, WestWorks proposes an escalation adjustment to its proposed costs based on cost increases tied to a specified index exceeding a 2.1% inflation rate.

The ISO's analysis finds that under all financial sensitivities studied, CalGrid's proposal performs better in comparative cost analyses in large part because of the duration and low level of its ARR cap and the low level of its capital cost cap. The cost containment measures from Lotus have limited effectiveness when compared to those provided by CalGrid and WestWorks due to their higher cap levels and lack of an ARR cap.

Overall, under the circumstances of this project, the ISO considers CalGrid's overall cost containment measures to be preferable to the cost containment measures of WestWorks and Lotus. In addition, WestWorks' cost containment measures are stronger than the cost containment measures of Lotus. In all evaluated cases and sensitivities, the cost containment measures of CalGrid provide a lower net present value of ARR than that of WestWorks' and Lotus's proposed cost containment measures. In all evaluated cases and sensitivities, the cost containment measures of CalGrid provide a lower net present value of ARR than that of WestWorks' and Lotus's proposed cost containment measures.

Cost Containment Performance for Past Projects
Regarding completing past projects within the project budget, the information provided by CalGrid indicates that nine out of 11 projects were completed at or below budget by an average of 9% of the original budget. The information provided by WestWorks indicates that all 14 projects were completed at or below budget by an average of 7%. The budget information for two of the projects completed by Lotus was not provided due to confidential reasons.

The ISO considers that there is no material difference between the proposals of CalGrid and WestWorks regarding demonstrated ability to complete projects at or under budget, and they are better than the proposal of Lotus regarding this consideration.

Project Management Capabilities
All three project sponsors provide a reasonable approach to professional project management for their proposals and, as result, the ISO considers them to be comparable regarding project management capabilities.

Project Risks and Mitigation of Risks
All three project sponsors' proposals provide a description of a thorough and professional approach to identifying risks to the completion of the project within the project budget and possible mitigations for those risks. CalGrid, Lotus, and WestWorks confirmed their ability to work on multiple projects simultaneously, if selected as the approved project sponsor by the ISO

for more than one. All three project sponsors indicate that they have taken steps to reduce project risk.

As detailed in Section 3.4.4, the project sponsors' proposals present certain challenges regarding the land rights acquisition needed for their proposed projects, presenting the potential for risks to the ability of the project sponsors to complete their projects within budget. Regarding acquiring land rights for the specific scope of this project, all three proposals identified similar paths for significant portions of the proposed routes. Where the routes differ, specifically with respect to the proposed routings through and around the Santa Clara Valley, all routes face similar land rights acquisition and permitting challenges. Therefore, the ISO considers these challenges to pose similar risks to each of the project sponsors' respective proposed budgets. The ISO has concluded that the challenges posed by the identified obstacles ultimately should not prevent the project sponsors from acquiring the necessary land rights for the project and do not pose any significant differences regarding the risk of cost escalation for their projects, especially given the availability of alternate routes in the event some of the land rights cannot be obtained for the primary proposed route and because all three proposals' routes face similar land rights acquisition and permitting risks with respect to cost escalation.

CalGrid indicated that its affiliate owns an economic interest in the Los Banos-Gates 500 kV transmission line parallel to a portion of its proposed route. In addition, CalGrid indicated it is in advanced negotiations for an option on a parcel for its proposed series compensation site. The ISO does not consider the value of this relationship and the ongoing negotiations to CalGrid's proposed project significant enough to give CalGrid a material advantage over the other project sponsors regarding its ability to reduce the potential for escalation of project costs.

WestWorks indicated that its affiliate LSPGC controls property at the proposed Manning Substation and near the Metcalf Substation that is proposed for the two series compensation stations. The ISO does not consider the value of this relationship to its proposed project significant enough to give WestWorks a material advantage over the other project sponsors regarding its ability to reduce the potential for escalation of project costs.

Regarding potential permitting, engineering, and construction challenges for the project sponsors' proposals identified in Sections 3.8 and 3.10 of this report, the ISO does not consider these challenges to pose a significant risk of cost escalation for the project sponsors' proposals.

Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis of the potential for project risks to result in cost escalation, the ISO has determined that there is no material difference among the proposals of CalGrid, Lotus, and WestWorks regarding the potential impact of project risks on cost escalation.

Overall Assessment

For purposes of the comparative analysis for this component of the factor, the ISO's analysis considered the expected effectiveness of the project sponsor's overall cost containment capabilities, including but not limited to cost containment performance on prior projects, project management and scheduling organizations and capabilities, experience of key individuals, the project risk and mitigation that each project sponsor identified, factors affecting cost, and proposed cost containment plans and proposed binding cost caps.

As discussed above, the ISO has determined that the proposals of the three project sponsors are comparable regarding project management capabilities and that the proposals of CalGrid, and WestWorks are better than the proposal provided by Lotus regarding cost containment

performance on prior projects. The ISO addresses the comparison of project risks and mitigation in conjunction with the analysis of cost containment below.

Considering the project sponsors' proposed cost containment measures, cost cap exclusions (siting and non-siting related), and project-specific risks, the ISO has determined that CalGrid's proposal presents the most robust cost containment proposal followed by WestWorks' proposal, and then Lotus's proposal. CalGrid's 50-year ARR cap, ROE cap, capital cost cap, and exclusion deadband makes CalGrid's cost containment proposal slightly stronger than WestWorks' and Lotus's proposals.

Comparative Analysis of the Authority to Impose Binding Cost Caps

Because all three project sponsors propose binding cost cap measures for their proposals, in accordance with the provisions of this component of the factor, the ISO has not considered this component of the factor in the comparative analysis.

Overall Comparative Analysis

The ISO considers the first component of this factor (cost containment and cost caps) more important than the second component (siting authority imposing a cost cap). Given that all three project sponsors offered binding cost cap measures for each of their proposals, the first component is the only basis for the comparative analysis of this factor.

Based on the ISO's analysis for the first component of this factor discussed above, the ISO has determined that CalGrid's proposal is slightly better than the proposal from WestWorks, which is better than the proposal from Lotus, regarding this factor overall.

3.13 Selection Factor 24.5.4(k): Additional Strengths or Advantages

The eleventh selection factor is "any other strengths and advantages the Project Sponsor and its team may have to build and own the specific transmission solution, as well as any specific efficiencies or benefits demonstrated in their proposal."

3.13.1 Information Provided by CalGrid

Design and Construction
CalGrid indicated that its proposed 500 kV transmission line has been designed with actual continuous normal summer and winter rating of 5,684 Amps, approximately 49.58% higher than the minimum required by the ISO Functional Specifications; a 4-hour emergency summer and winter rating of 6,566 Amps, approximately 49.23% higher than the minimum requirements set forth in the ISO Functional Specifications; and a 30-minute emergency summer and winter rating of 7,178 Amps, which is 39.92% higher than the minimum requirement specified in the ISO Functional Specifications. (QP-1)

CalGrid also indicated that should the ISO require additional capacity post-award, CalGrid's proposal provides the flexibility to switch to a higher-capacity fixed series capacitor with minimal impact to project design. (Z-1)

Other Advantages
CalGrid asserted that its experience and ability to collaborate with renewable generation developers and to efficiently integrate new generation from the ISO interconnection request

queues for its proposed project is critical, even more so with extensive interconnection work delays experienced by the local incumbent utility. CalGrid indicated that its team has a strong track record of completing interconnection work in a timely and cost-effective manner via its previous management of the GridLiance West system in the ISO area and the Lone Star Transmission system in the ERCOT area. (Z-1)

CalGrid indicated its team has identified opportunities to accelerate the schedule, resulting in an aggregate potential schedule savings of two years and eight months. CalGrid indicated that it stands ready to engage with the ISO to determine the most advantageous schedule to best support transmission system needs. (Z-1)

CalGrid indicated the proposed Manning-Metcalf 500 kV line and previous projects awarded to CalGrid share key component similarities with the awarded projects, including: tower materials and high-level tower designs, use of 2156 Bluebird conductor, and use of breakers, capacitor banks, insulators, and line reactors. CalGrid indicated that the opportunity to leverage procurement relationships common to all projects further de-risks each individual project's cost and schedule, as CalGrid has increased purchasing power with suppliers and the ability to optimize production slots and timing across the projects. (Z-1)

CalGrid indicated its team prioritized up front stakeholder engagement for this project. CalGrid indicated the team engaged a veteran community affairs consultant and former San Jose city planner to facilitate conversations with key stakeholders in San Jose to gather input to inform key routing and design decisions. CalGrid indicated the team utilized existing relationships with the Santa Clara Valley Open Space Authority and the Santa Clara Valley Habitat Agency to schedule individual meetings to review key routing and process input. (Z-1)

3.13.2 Information Provided by Lotus

Design and Construction
Lotus indicated it has designed its proposed 500 kV transmission line with the actual continuous rating of 4,806 Amps, approximately 26.5% higher ampacity than the minimum required by the ISO, a 4-hour emergency rating of 5,122 Amps, approximately 16.4% higher ampacity than the minimum requirements set forth in the ISO Functional Specifications, and a 30-minute emergency rating of 5,237 Amps, which is approximately 2.1% higher than the minimum requirements specified in the RFP, while adhering to the ISO impedance requirements. (QP-1)

Lotus indicated that it proposed the use of TS Conductor technology for its superior performance and lightweight design, which Lotus indicated reduces line sag and enables longer spans compared to conventional conductors. Lotus indicated this results in fewer structures, reduced steel usage, a smaller project footprint, and lower environmental impacts and costs. Lotus indicated the TS Conductor's low-sag and high-ampacity characteristics allow for reduced structure height and loading while maintaining high efficiency. Additionally, Lotus indicated it minimizes line losses without requiring specialized equipment or materials. Lotus indicated that during wildfire events, the TS Conductor would exhibit minimal thermal sag and no loss of tensile strength, ensuring reliable performance even under extreme heat conditions—offering a significant advantage over traditional ACSR or ACSS conductors. Lotus indicated minimizing wildfire risk was a key factor in route selection and design. (Z-1)

Other Advantages
Lotus indicated the proposed alignment avoids CPUC designated HFTD Tier 3 areas where feasible but complete avoidance was not possible due to the prevalence of fire-prone conditions across the region and the need to maintain cost-effectiveness and project viability. (Z-1)

Lotus indicated it would develop guidance for managing nesting birds as potential wildfire ignition sources on transmission and distribution facilities, with a goal of reducing nesting activity on energized structures while maintaining regulatory compliance and ecological balance. (Z-1)

Lotus indicated that where feasible, it would pursue landowner agreements that would enable clearing beyond the ROW for the removal of additional danger trees that could fall into the energized zone. (Z-1)

Lotus indicated it would monitor weather and work with the ISO to create an operating procedure to implement project-specific public safety power shutoff programs as part of its wildfire mitigation strategies. Lotus indicated the it is proposing to work with the ISO to seek a set of pre-approved environmental conditions under which Lotus's project operator would contact the ISO to seek its approval for de-energizing the project till the time when the environmental and/or transmission system conditions are feasible for the project to be re-energized. (Z-1)

3.13.3 Information Provided by WestWorks

Design and Construction
WestWorks indicated all transmission components meet or exceed the requirements of CPUC General Order No. 95, the National Electrical Safety Code, and the ISO Functional Specifications, as follows: minimum summer continuous HVAC ampacity of 4,956 Amps, minimum summer four-hour emergency HVAC ampacity of 4,956 Amps, and minimum summer thirty-minute emergency ampacity of 5,262 Amps, which WestWorks indicated exceed the requirements set forth in the ISO Functional Specifications by 30.4%, 12.6%, and 2.6%, respectively. (QP-1)

WestWorks indicated that the line would be designed to withstand extreme wind weather events for a 300-year mean return period, would experience no loss of conductor strength over the operating life, would be designed for GO 95 Grade A, and would include conductor and shield wire dampers and 250-foot separation from any transmission line of 230 kV or above. (QP-2)

3.13.4 ISO Comparative Analysis

For the purposes of the comparative analysis for this factor, the ISO has reviewed the three proposals submitted to determine if there are advantages the project sponsor or its team have for building and owning the project that were not addressed in other parts of the selection process. This comparative analysis considers two areas (1) the proposed project design and construction and (2) other possible advantages.

Design and Construction
All project sponsors submitted a design for a transmission line whose ampacity exceeds the requirement identified in the ISO Functional Specifications. The ISO considered the fact that all three project sponsors proposed projects with designs that resulted in ampacity ratings that exceeded the ISO Functional Specifications and determined that there is no material difference among the three proposals regarding the additional ampacity provided because the value of the additional ampacity is uncertain at this time, based on the information available to the ISO.

All three sponsors propose similar designs for the transmission line, using a combination of tubular and lattice structures with overhead conductor. Lotus proposes to use TS Conductor technology, which Lotus indicated reduces line sag and enables longer spans as compared to

conventional conductors and results in fewer structures, reduced steel usage, a smaller project footprint, and lower costs. The ISO assumes any cost savings would have been reflected in Lotus's cost proposal and as such are considered in the comparative analysis of selection factors discussed earlier in this report. The ISO also does not consider the design benefits claimed by WestWorks to provide significant additional benefits beyond those associated with the project designs proposed by the other project sponsors.

Based on this and other information discussed and considered earlier in this section, the ISO has determined that there is no material difference among the three proposals regarding the design and construction area of this factor and any information related to design and construction reviewed in this section has already been considered in the comparative analysis of other selection factors.

Other Advantages

CalGrid indicated that its proposed design uses transmission line components that would be used in another project that it was previously awarded and that it may be able to increase its purchasing leverage should it be awarded this project as well. The ISO assumes that any cost efficiencies due to these synergies are already reflected in CalGrid's cost proposal and as such are considered in the comparative analysis of selection factors discussed earlier in this report.

CalGrid indicated that it would have opportunities to accelerate the schedule for its project and complete it before the date specified in the ISO Functional Specifications. The ISO has determined that the value of completing the project ahead of schedule is unknown based upon the information available to the ISO at this time.

CalGrid indicated that, if it were to be selected to build, own, and operate this project, there would be synergies with other projects that it or its affiliates are developing. The ISO assumes that any cost efficiencies due to these synergies are already reflected in CalGrid's cost proposal and as such are considered in the comparative analysis of selection factors discussed earlier in this report.

CalGrid indicated that it has already initiated steps to engage stakeholders. The ISO assumes the impact of these actions would be reflected in CalGrid's proposal regarding project costs, and project risks and schedule, all of which would be considered in the comparative analysis of selection factors discussed earlier in this report.

CalGrid asserted that its experience processing interconnection requests would be an additional benefit to its proposal. The ISO does not consider any greater experience by CalGrid in that regard to be significant enough to provide its proposal a material advantage over the proposals of the other project sponsors.

Lotus indicated that its proposed alignment avoids CPUC designated HFTD Tier 3 areas where feasible. The ISO has considered Lotus's proposal's reduced fire threat exposure as compared to the other project sponsor's proposals in the comparative analysis of selection factors discussed earlier in this report.

Lotus also proposed developing guidance for minimizing nesting birds, potential agreements to allow clearing of danger trees, and potential procedures with the ISO for de-energizing the transmission line as potential additional measures to reduce wildfire risk. The ISO does not consider these measures to offer significant additional benefits beyond the measures proposed by the other project sponsors.

The ISO has determined that, based upon the review of the information discussed above regarding this area, there are no advantages that were not already considered in the comparative analysis of other selection factors. Consequently, the ISO has determined that there is no material difference among the three proposals regarding this area of this factor.

Overall Comparative Analysis
Based on the foregoing considerations, in conjunction with all the other considerations included in the ISO's analysis for this factor, the ISO has determined that, based on the specific scope of this project, there is no material difference among the three proposals regarding this factor overall.

3.14 Selection Factor 24.5.4(a): Capability to Finance, License, Construct, Operate, and Maintain the Facility

In this section, the ISO provides the comparative analysis of this selection factor, as discussed in Section 3.3 of this report. This selection factor is a comparative analysis of "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." As noted in Section 3.3, this factor encompasses several more specific selection factors, which are discussed in Sections 3.7, 3.8, 3.9, and 3.10 of this report.

What follows is an overall comparative analysis for this factor based upon the discussion of the other factors or factor components encompassed by this factor. As stated in Section 3.3, the ISO will not repeat all of the information provided by the project sponsors for these more specific selection factors and the comparative analysis for each.

In addition to the general project information provided in the project sponsors' proposals, the other selection factors (or components of a factor) considered in the comparative analysis for this factor are as follows:

> 24.5.4(e): the financial resources of the project sponsor and its team.
>
> 24.5.4(f): the technical [environmental permitting] qualifications and experience of the project sponsor and its team (component of 24.5.4(f)).
>
> 24.5.4(g): the previous record regarding construction and maintenance of transmission facilities, including facilities outside the ISO controlled grid, of the project sponsor and its team; and
>
> 24.5.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices of the project sponsor and its team.

3.14.1 ISO Comparative Analysis

The ISO's comparative analysis has considered the results of the analyses of the four selection factors or factor components listed above. As an initial matter, the ISO notes that all of the project sponsors and their teams are capable of satisfying these selection factors regarding the project.

The ISO has determined that there is no material difference between the proposals of CalGrid and WestWorks regarding this factor because, as discussed regarding each of the relevant

individual selection factors or factor components, CalGrid's proposal is better than WestWorks' proposal regarding the first selection factor (financial resources), which is also a key selection factor, there is no material difference between CalGrid's and WestWorks' proposals regarding the second selection factor component (technical [environmental permitting] qualifications and experience), and WestWorks' proposal is slightly better than CalGrid's proposal regarding the third selection factor (previous record regarding construction and maintenance of transmission facilities) and the fourth selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices), which the ISO considers to result in no material advantage between CalGrid's and WestWorks' proposals overall because of their offsetting advantages.

The ISO has also determined that the proposals of CalGrid and WestWorks are better than Lotus's proposal, as their proposals are better than Lotus's proposal regarding the first selection factor (financial resources), the third selection factor (previous record regarding construction and maintenance of transmission facilities), and the fourth selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices), and there is no material difference between their proposals and Lotus's proposal regarding the second selection factor component (technical [environmental permitting] qualifications and experience).

In summary, based on a detailed review of the proposals of the project sponsors regarding these individual selection factors and factor components, the ISO has determined that there is no material difference between the proposals of CalGrid and WestWorks, which are better than Lotus's proposal, regarding this factor overall.

3.15 Qualification Criterion 24.5.3.1(a): Manpower, Equipment, and Knowledge to Design, Construct, Operate, and Maintain the Project

The first qualification criterion is "whether the Project Sponsor has demonstrated that it has assembled, or has a plan to assemble, a sufficiently sized team with the manpower, equipment, knowledge and skill required to undertake the design, construction, operation and maintenance of the transmission solution."

The first qualification criterion is a broad criterion that encompasses three specific selection factors that are discussed in Sections 3.8, 3.9, and 3.10 of this report. The ISO will not repeat here the information provided by the project sponsors for these more specific selection factors or the comparative analysis for each. What follows is an overall comparative analysis for this criterion based upon the comparative analyses for the selection factors encompassed by this criterion.

3.15.1 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all three proposals submitted by the three sponsors meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals regarding the project sponsor qualification criteria in its comparative analysis for purposes of selecting the approved project sponsor.

This qualification criterion considers several factors addressed by the selection factors previously discussed. For this reason, the ISO bases its comparative analysis for this criterion

on the results of the comparative analyses for the selection factors addressed above. The selection factors or factor components considered in the comparative analysis for this criterion are as follows:

> 24.5.4(f): the engineering qualifications and experience of the project sponsor and its team (a component of 24.5.4(f)).
>
> 24.5.4(g): the previous record regarding construction and maintenance of transmission facilities, including facilities outside the ISO controlled grid, of the project sponsor and its team; and
>
> 24.5.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices, of the project sponsor and its team.

The ISO's comparative analysis has considered the results of the analyses of the three selection factors or factor components listed above. As an initial matter, the ISO notes that all of the project sponsors and their teams are capable of satisfying these factors regarding this project.

The ISO has determined that WestWorks' proposal is slightly better than CalGrid's proposal regarding this criterion because, as discussed regarding each of the relevant individual selection factors or factor components, there is no material difference between WestWorks' and CalGrid's proposals regarding the first selection factor component (engineering qualifications and experience), and WestWorks' proposal is slightly better than CalGrid's proposal regarding the second selection factor (previous record regarding construction and maintenance of transmission facilities) and the third selection factor (demonstrated capability to adhere to standardized construction, maintenance and operating practices).

The ISO has also determined that the proposal of CalGrid is better than Lotus's proposal regarding this criterion because there is no material difference between CalGrid's and Lotus's proposals regarding the first selection factor component (engineering qualifications and experience), and CalGrid's proposal is better than Lotus's proposal regarding the second selection factor (previous record regarding construction and maintenance of transmission facilities) and the third selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices).

In summary, based on a detailed review of the proposals of the project sponsors regarding these individual selection factors or factor components, the ISO has determined that WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal, regarding this criterion overall.

3.16 Qualification Criterion 24.5.3.1(b): Financial Resources

The second qualification criterion is "whether the Project Sponsor and its team have demonstrated that they have sufficient financial resources, by providing information including, but not limited to, satisfactory credit ratings, audited financial statements, or other financial indicators."

3.16.1 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all three proposals submitted by the three project sponsors meet the minimum requirements to qualify for

evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals regarding the project sponsor qualification criteria in its comparative analysis for purposes of selecting the approved project sponsor.

This qualification criterion essentially duplicates the factors addressed by selection factor 24.5.4(e) (the financial resources of the project sponsor and its team) discussed in Section 3.7 above. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analysis for the selection factor above. As discussed above regarding selection factor 24.5.4(e), the ISO has determined CalGrid and its proposal is better than WestWorks and its proposal, which is better than Lotus and its proposal, regarding this criterion.

3.17 Qualification Criterion 24.5.3.1(c): Ability to Assume Liability for Losses

The third qualification criterion is "whether the Project Sponsor and its team have demonstrated the ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution by providing information such as letters of credit, letters of interest from financial institutions regarding financial commitment to support the Project Sponsor, insurance policies or the ability to obtain insurance to cover such losses, the use of account set asides or accumulated funds, the revenues earned from the transmission solution, sufficient credit ratings, contingency financing, or other evidence showing sufficient financial ability to cover these losses in the normal course of business."

3.17.1 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all three proposals submitted by the three project sponsors meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals regarding the project sponsor qualification criteria in its comparative analysis for purposes of selecting the approved project sponsor.

This qualification criterion essentially duplicates the factors addressed by selection factor 24.5.4(i) (demonstrated ability to assume liability for major losses resulting from failure of facilities of the project sponsor) discussed in Section 3.11 above. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analysis for the selection factor above. As discussed above regarding selection factor 24.5.4(i), the ISO has determined that the proposal of WestWorks is slightly better than CalGrid's proposal, which is slightly better than Lotus's proposal, regarding this criterion.

3.18 Qualification Criterion 24.5.3.1(d): Proposed Schedule and Ability to Meet Schedule

The fourth qualification criterion is "whether the Project Sponsor has (1) proposed a schedule for development and completion of the transmission solution consistent with need date identified by the ISO; and (2) has the ability to meet that schedule."

3.18.1 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all three proposals submitted by the three project sponsors meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further

reviewed the proposals regarding the project sponsor qualification criteria in its comparative analysis for purposes of selecting the approved project sponsor.

This qualification criterion essentially duplicates the factors addressed by selection factor 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) discussed in Section 3.6 above. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analysis for the selection factor above. As discussed above regarding selection factor 24.5.4(d), the ISO has determined that there is no material difference between the proposals of CalGrid and WestWorks, and that their proposals are better than Lotus's proposal, regarding this criterion.

3.19 Qualification Criterion 24.5.3.1(e): Technical and Engineering Qualifications and Experience

The fifth qualification criterion is "whether the Project Sponsor and its team have the necessary technical and engineering qualifications and experience to undertake the design, construction, operation and maintenance of the transmission solution."

3.19.1 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all three project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals regarding the project sponsor qualification criteria in its comparative analysis for purposes of selecting the approved project sponsor.

This qualification criterion considers several factors addressed by the selection factors previously discussed in Sections 3.8, 3.9, and 3.10 above. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analyses for the selection factors addressed above. The selection factors considered in the comparative analysis for this criterion are as follows:

> 24.5.4(f): the technical [environmental permitting] and engineering qualifications and experience of the project sponsor and its team.
>
> 24.5.4(g): the previous record regarding construction and maintenance of transmission facilities, including facilities outside the ISO controlled grid, of the project sponsor and its team; and
>
> 24.5.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices of the project sponsor and its team.

The ISO's comparative analysis has considered the results of the analyses of the three selection factors listed above. As an initial matter, the ISO notes that all of the three project sponsors and their teams are capable of satisfying these selection factors regarding this project.

The ISO has determined that WestWorks' proposal is slightly better than CalGrid's proposal regarding this criterion because, as discussed regarding each of the relevant individual selection factors, there is no material difference between WestWorks' and CalGrid's proposals regarding the first selection factor (technical [environmental permitting] and engineering qualifications and

experience) and WestWorks' proposal is slightly better than CalGrid's proposal regarding the second selection factor (previous record regarding construction and maintenance of transmission facilities) and the third selection factor (demonstrated capability to adhere to standardized construction, maintenance and operating practices).

The ISO has also determined that the proposal of CalGrid is better than Lotus's proposal regarding this criterion because there is no material difference between CalGrid's and Lotus's proposals regarding the first selection factor (technical [environmental permitting] and engineering qualifications and experience), and CalGrid's proposal is better than Lotus's proposal regarding the second selection factor (previous record regarding construction and maintenance of transmission facilities) and the third selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices).

In summary, based on a detailed review of the proposals of the project sponsors regarding these individual selection factors, the ISO has determined that WestWorks' proposal is slightly better than CalGrid's proposal, which is better than Lotus's proposal, regarding this criterion overall.

3.20 Qualification Criterion 24.5.3.1(f): Commitment to Enter Into TCA and Adhere to Applicable Reliability Criteria

The sixth qualification criterion is "whether the Project Sponsor makes a commitment to become a Participating TO for the purpose of turning the Regional Transmission Facility that the Project Sponsor is selected to construct and own as a result of the competitive solicitation process over to the ISO's Operational Control, to enter into the Transmission Control Agreement with respect to the transmission solution, to adhere to all Applicable Reliability Criteria and to comply with NERC registration requirements and NERC and WECC standards, where applicable."

3.20.1 Information Provided by CalGrid

CalGrid indicated that it commits to become a PTO for the purpose of turning the transmission elements included in the project over to the ISO's operational control. CalGrid further committed to enter into the TCA for the project transmission elements, to adhere to all applicable reliability criteria, and to comply with NERC registration requirements and WECC standards, where applicable. CalGrid noted that its maintenance and operations partner is an existing PTO and all its transmission facilities are under ISO operational control. (A-6)

3.20.2 Information Provided by Lotus

Lotus indicated that it would commit as follows: (A-6)

- That it would become a PTO with the ISO for the purpose of turning the project over to the ISO's operational control.
- That it would negotiate, execute, and abide by the APSA with the ISO and would support its filing of this document with FERC, to the extent FERC approval is necessary.
- That it would negotiate, execute, and abide by the TCA applicable for the project as well as any provisions of the ISO's tariffs that pertain to a PTO.
- That it would adhere to all applicable reliability criteria (including applicable NERC CIP standards) and would comply with NERC registration requirements and NERC and WECC standards, where applicable; and

- That it would comply with the applicable requirements, including but not limited to technical, construction, protection, and communication, of the two interconnecting PTOs (i.e., PG&E and LSPGC) associated with this project.

3.20.3 Information Provided by WestWorks

WestWorks indicated that it would apply to become a PTO and that PG&E is already an ISO PTO. WestWorks indicated that if selected as the approved project sponsor, WestWorks – in collaboration with PG&E – commits to transferring the project to ISO's operational control and to execute any necessary amendments to the TCA for the project. WestWorks indicated that it and PG&E further commit to adhering to all applicable reliability criteria and to complying with all applicable NERC registration requirements as well as all NERC and WECC standards. (A-6)

3.20.4 ISO Comparative Analysis

All three project sponsors have committed to becoming a PTO, turning over operational control of the project to the ISO, abiding by the terms of the TCA, and adhering to all applicable reliability criteria for their proposals. Consequently, the ISO has determined that there is no material difference among the proposals of the three project sponsors regarding this criterion.

3.21 ISO Overall Comparative Analysis for Approved Project Sponsor Selection

Under ISO Tariff Section 24.5.4, the ISO conducts a comparative analysis to select an approved project sponsor. In accordance with Section 24.5.4, the purpose of the comparative analysis is to take into account all transmission proposals of the competing project sponsors and to select a qualified project sponsor that is best able to design, finance, license, construct, maintain, and operate the particular transmission facility in a cost-effective, efficient, prudent, reliable, and capable manner over the lifetime of the facility, while maximizing the overall benefits and minimizing the risk of untimely project completion, project abandonment, and future reliability, operational, and other relevant problems, consistent with good utility practice, applicable reliability criteria, and ISO documents. In conducting the comparative analysis, the ISO applies the qualification criteria described in ISO Tariff Section 24.5.3.1 and the selection factors specified in Section 24.5.4.

As discussed above, the ISO has conducted this competitive solicitation because, in the 2024-2025 transmission planning process, the ISO identified a reliability need for this project. As required by the ISO Tariff, the ISO undertook a comparative analysis to determine the degree to which each project sponsor and its proposal met the applicable tariff selection factors and qualification criteria to determine the approved project sponsor to finance, construct, own, operate, and maintain this project.

The ISO's analysis determined that there are either no material differences or only slight differences among the project sponsors and their proposals regarding many of the selection factors and qualification criteria. The ISO identified four key selection factors for this project. CalGrid's proposal is stronger than the proposals of the other two project sponsors for two of these key selection factors and at least as strong as them regarding the other two key selection factors.

One of the key selection factors for which the ISO identified material differences among the project sponsors' proposals is the cost containment factor, specifically the project sponsors'

commitment to binding cost containment measures. As discussed above, this factor is one of the four key selection factors the ISO identified at the start of the competitive solicitation process. The ISO has concluded that CalGrid has the strongest cost containment proposal because it better limits cost risk to ratepayers, which is an important consideration given the scope and characteristics of the project, the transmission solutions proposed, and other uncertainties surrounding the project. In all evaluated cases and sensitivities, the cost containment measures of CalGrid provide a lower net present value of ARR than that of WestWorks' and Lotus's proposed cost containment measures.

The second key selection factor is the project sponsors' existing rights-of-way and substations that would contribute to the project. This is a key selection factor because the availability of existing ROW can contribute to lower project cost, reduced ROW acquisition efforts, and reduction in the overall time needed to complete the project, because the timing of this project is critical to ensure reliable service of load in the San Jose area, and because this project also presents unique land rights acquisition challenges, including challenges due to the need for ROW in environmentally sensitive areas and significant land constraints around the Metcalf Substation. The ISO has found that none of the project sponsors has land rights or potential land rights definite enough to contribute land to the project within the scope of this factor, and thus there are no material differences among the proposals of the project sponsors regarding this selection factor.

The third key selection factor is the proposed schedule and demonstrated ability to meet that schedule. The ISO has identified this selection factor as a key selection factor because of the need for this project by the in-service date specified in the ISO Functional Specifications, which is particularly important because the timing of this project is essential for supporting the increased supply needs in the Bay Area. The ISO has determined that, based on the specific scope of this project, there is no material difference between the proposals of CalGrid and WestWorks and that they are better than Lotus's proposal. This is due to CalGrid's and Westworks' better experience in completing previous projects on schedule and the inclusion of schedule incentive penalties in their respective proposals.

The fourth key selection factor is the financial resources of the project sponsor and its team. This is important given the significant cost of the project. The ISO has concluded that each project sponsor has sufficiently demonstrated the experience and financial resources to undertake a project of this scope and cost. The ISO considers there to be no material differences among the project sponsors and their proposals regarding project financing experience and project financing proposals, especially when compared to the other differences among the project sponsors and their proposals. As discussed in detail above, the ISO considers the proposal of CalGrid to be stronger than the proposals of WestWorks and Lotus because of its strong financial resources, credit ratings, EDF, and financial ratio analysis.

Regarding the selection factors the ISO did not identify as key selection factors, CalGrid's proposal is stronger or as strong as the proposals of the other project sponsors for four of the seven other selection factors and is the second strongest for the three other factors, but only by a slight margin. CalGrid's proposal also is stronger or as strong for three of the six qualification criteria and is the second strongest for the three other criteria, but also only by a slight margin. The selection factors or qualification criterion where CalGrid's proposal is not the strongest or as strong as the proposal of WestWorks concerns its operations and maintenance capabilities and ability to withstand losses. However, that does not detract from the fact that CalGrid is well-qualified to construct, own, operate, and maintain this project, and it proposed the strongest cost containment measures. Also, CalGrid's team demonstrated significant experience maintaining and operating extensive transmission facilities in high fire risk areas.

For the foregoing reasons, the ISO has determined that CalGrid and its team are qualified, experienced, and have the financial resources to capably, cost-effectively, and reliably license, finance, construct, operate, and maintain this particular project by the specified in-service date, while limiting the potential downside risk to ratepayers and the potential risk of inability to complete the project by the ISO's specified in-service date. Based on the ISO's review of the proposals and a comparative analysis regarding all selection factors and qualification criteria, the ISO has determined that CalGrid's proposal is better than the proposals of the other project sponsors. The result of this competitive solicitation is that the ISO has selected CalGrid as the approved project sponsor to finance, construct, own, operate, and maintain the Metcalf-Manning 500 kV Line Project.[10]

Finally, as a condition of its selection of an approved project sponsor, the ISO will require that any executed APSA include a provision that the approved project sponsor may not incur any major costs in connection with the project without the express written approval of the ISO.

[10] Selection of CalGrid as the approved project sponsor does not preclude the ISO from taking positions on specific rate proposals contained in CalGrid's rate filing at FERC regarding its proposal.

Attachment 1

Competitive Solicitation Transmission Project Sponsor Application

Transmission Project Sponsor Proposal –Competitive Solicitation Application

Contents

Introduction and General Instructions

In accordance with ISO Tariff Section 24.5 (Transmission Planning Process Phase 3), the ISO will initiate a period of at least ten (10) weeks that will provide an opportunity for project sponsors to submit specific transmission project proposals to finance, construct, own, operate, and maintain certain transmission elements identified in the ISO's comprehensive transmission plan, or those approved by ISO management in advance of the issuance of the transmission plan if the capital cost of the project is less than or equal to $50 million. Such project proposals must include plan of service details and supporting information as set forth in the Business Practice Manual for the Transmission Planning Process (BPM-TPP) sufficient to enable the ISO to determine whether the proposal meets the criteria specified in ISO Tariff Sections 24.5.3 and 24.5.4. This competitive solicitation application form describes the details that must be provided regarding project sponsor proposals.

Projects included in this process will become part of the ISO controlled grid, and approved project sponsors will become participating transmission owners (PTOs) and will sign the Transmission Control Agreement (TCA) and enter into a Coordinated Functional Registration (CFR) agreement with the ISO. The ISO also anticipates that the project sponsor or its contracted representative(s) will be registered with the North American Electric Reliability Corporation (NERC) in the NERC categories of Transmission Owner and other functions as applicable.

This section sets forth requirements for the formatting and general contents of the project sponsor's application. The application submitted to the ISO shall not include any substantive information in response to this section. In particular, in Section 1 of the application, the project sponsor shall provide a summary of the most significant aspects of the project as proposed by the project sponsor. The ISO will refer to the information provided in Section 1, rather than any information provided in a transmittal letter for an introduction to and overview of the project. The information to be included in the application will be used by the ISO to determine whether the proposal meets the qualification criteria set forth in ISO Tariff section 24.5.3 and, if so, to compare each project sponsor and its proposal with other qualified project sponsors and proposals for the same approved transmission element pursuant to ISO Tariff section 24.5.4. To facilitate this assessment and comparison, project sponsors must provide information that reflects a thorough understanding of the requirements, processes, and activities needed to accomplish project completion and continuing operation and maintenance.

The project sponsor must submit three documents in connection with its proposal:

1. this Competitive Solicitation Application form;
2. the Cost and Cost Containment Workbook;
3. the Prior Projects and Experience Workbook.

The first document, Competitive Solicitation Application, is a completed form of this Microsoft Word document. The second document, Cost and Cost Containment Workbook, is in the form of an Excel spreadsheet. The spreadsheet documents the project sponsor's proposed capital and operations and maintenance (O&M) expenses, and also any proposed cost containment measures. The third document, Prior Projects and Experience Workbook, is in the form of a separate Excel spreadsheet. The spreadsheet documents the project sponsor's listing of prior projects and experience relevant to its capability to develop the current project. Please note that only applicant and contractor experience

identified in the Prior Projects and Experience Workbook will used to evaluate past project performance and experience. Experience identified within other areas of sponsor proposals must be included within the Prior Projects and Experience Workbook to be evaluated.

This application form is separated into specific sections. Each section specifies information to be provided and is assigned a unique identifier for each item of information required, for example, QP–1 for Project Qualification, E-1 for Environmental Permitting and Public Processes items, S-1 for items related to Substation Design and Engineering, and so on. Project sponsors must provide responses to each of the items in the space provided after the specification of the information required and clearly note in the response the unique item identifier in each part of the response.

If the project sponsor believes that any item of the application is not applicable to its project proposal, it may indicate "N/A" but must provide a brief reason why it believes it is not applicable.

If supporting documentation is provided to supplement specific responses to application items, the project sponsor must include a specific reference to the item number and to the page numbers and paragraphs of the supporting documentation that are responsive to the application item, along with a brief explanation of how the referenced material is responsive. Information that responds directly to the information requests in the application shall be incorporated directly into the application and not be submitted as separate attachments merely referenced in the application response.

If a project sponsor provides attachments as part of the response, the project sponsor shall specify the file name of the attachment in the space provided for the response. In addition, the project sponsor shall name the attached files using the following naming convention – the file name shall include the unique identifier for the application item to which the information responds (e.g., A-5) and a description of the contents (e.g., A-5 Resumes of Key Individuals). All responses must be in readable electronic format and include the name of the project sponsor and description of the project. When submitting attachments, do **NOT** create any subdirectories. The ISO's filing system cannot process subdirectories and their use may cause important information to be lost. Also, do not use any of the following (special) characters when naming attachment files: [(~ # % & * { } \ / : < > ?)]. Use of any of these special characters is not compatible with the ISO's filing system and will cause important information to be lost. In addition, the project sponsor shall include in its cover letter a table or index in Microsoft Word format that contains a list of documents and attachments provided. The table or index must include the file name, contents, and a description of the application section(s) and items to which it corresponds. The project sponsor must provide a copy of the application in Microsoft Word format. The project sponsor must provide all responses and attached material in English or the ISO will disregard the information submitted.

The following instructions in italics pertain to the submission of geographic information:

When submitting geographic information, e.g., the proposed route for a transmission line or the location of a proposed new substation, or reactive support or series compensation station, the project sponsor shall provide the information both in a PDF file or files, and also in shapefiles. In order to provide for the greatest support and exchangeability, shapefiles are chosen as the GIS format for submittal. There shall be one shapefile for each proposed transmission project, and no

*shapefile submitted shall contain more than one proposed transmission project. The proposed transmission projects are to be defined as **line** shapes. The attribute table of the shapefile shall include a **"NAME" text field** that contains the name of the transmission project. This submittal shall include, at a minimum, the following four files: **name.shp**, **name.shx**, **name.dbf** and **name.prj**. The file name shall be the name of the transmission project with any spaces and special characters replaced by underscores or other regular characters. Abbreviating and shortening of the names are acceptable and encouraged. All of the files that make up the shapefile shall be zipped together in a single "zip" file with the same name as the shapefile.*

If the project sponsor proposes to contract with others to perform duties related to the proposed project, the project sponsor's responses to the items in the application must reflect the roles, responsibilities, processes, and procedures to be used by the organization that will perform those duties, and the management controls that will be used by the project sponsor to assure that the work is done in accordance with applicable agreements, contracts, and regulatory and reliability requirements. In addition, the project sponsor shall complete the Excel spreadsheet entitled Prior Projects and Experience Workbook by which the project sponsor is to provide information regarding relevant prior projects and experience of the project sponsor and its contractors.

For each item in the application, if the project sponsor is proposing to finance, construct, own, operate, and maintain multiple transmission elements, the project sponsor shall also indicate how its response would change depending on how many of its proposals are approved by the ISO. For example, in P-4 of Section 4 (Project Management and Schedule) the project sponsor shall describe how the projected in-service date of a project would be affected if two or more of the project sponsor's proposals are approved.

Please note that the ISO will consider only ONE proposal per application submitted. The project sponsor may identify alternate proposals that it has considered, but shall clearly identify the single proposal that it wishes the ISO to evaluate.

This application form includes an officer certification form (Section 15) that must be signed by an officer of the authorized representative of the applicant project sponsor. The ISO will not consider any application that does not include a completed officer certification form.

To the extent a project sponsor considers any of the information submitted with its application to be confidential or proprietary, the project sponsor must clearly identify the confidential or proprietary information and must include an explanation as to why the information should be treated by the ISO as confidential. The ISO will not treat the identity of a project sponsor and basic information about the project sponsor's proposed project as confidential information. A project sponsor must separately request confidential treatment for each response to an individual application information request and explain the need for confidential treatment. Project sponsors shall not make general designations of large sections of the application as confidential or proprietary.

Project sponsors should note that the maximum size of an e-mail submitted to the ISO must not exceed 20 MB or the ISO's e-mail system may not be able to process it. An application that includes files or attachments larger than 20 MB must be compressed to files of a size less than 20 MB. Project sponsors

shall submit their information via CD or DVD medium. Please provide 3 complete sets of CDs or DVDs and clearly label each with project name and sponsor name. The ISO prefers that project sponsors submit the initial application (consisting of the Microsoft Word document and associated attachments, and the Excel spreadsheets) on CDs or DVDs. Upon request, the CAISO can also supply access to a secure site for downloading applications and information in lieu of providing CD's or DVD's.

If a project sponsor wishes to apply for more than one project eligible for the ISO's transmission procurement process, the project sponsor must submit a separate application for each project. Again, the ISO will consider only one proposal per application.

Please note that there are several tables in this application form for use in providing responses. Project sponsors may add rows to the tables if the number of entries exceeds the number of rows initially provided in the tables.

The ISO requires a deposit of $100,000 for each submitted application. The ISO will not consider applications if the project sponsor fails to include the deposit on or before the date the bid window closes. Payment instructions and a project sponsor deposit form can be found in Section 16 of this application form.

While the competitive bid window is open, a project sponsor may submit questions to the ISO for clarification. Questions must be submitted via e-mail to the following address: transmissioncompetitivesolicitation@caiso.com. The ISO will attempt to answer these questions in a timely manner. The answers will be made available in a table that the ISO will post to its website on the "Transmission Planning" page. Note that the ISO will not include the identity of the project sponsor in the table. In general, the ISO will update this table on a weekly basis or as needed.

1. Project Sponsor Name, Organizational Structure, and Proposal Summary

A-1 Project Sponsor Name:

Response: (Enter Project Sponsor Company Name)

A-2 Proposal Name:

Response: (Enter Proposal Name)

A-3 Submittal Date:

Response: (Enter Submittal Date)

A-4 Provide a brief summary of the project sponsor's proposal:

*Re*sponse:

A-5 Provide an organizational chart depicting the entire project team and areas of responsibility, including the responsibilities of all contractors. The project organizational chart and associated information should identify which team member or entity (project sponsor parent, project sponsor affiliate, project sponsor, or contractor or affiliate) is responsible for each area of the project functions including Permitting, Land Rights Acquisition, Engineering, Construction, Operation and Maintenance. If the responsibility for an area is being broken into sub-areas, for example, Engineering is broken into Substation Engineering and Transmission Engineering, both responsible entities should be shown on the organization chart with their responsibility clearly noted on the chart. For each responsible entity shown on the org chart include at least the name of each the lead individual for that entity and a resume. For all resumes provided, clarify how they relate to the organization chart. For past projects and experience that the project sponsor wishes to be considered in the comparative analysis, the PPEW included with application should include experience information for each entity designated as responsible for performing a function or part of a function.

If a responsible entity has not yet been selected as responsible for a project function, the above information (listed on organization chart, noted area of responsibility on the chart, name of lead individual, resume of lead individual, how position relates to the organization chart and entries as appropriate in the PPEW) should be provided for each entity being considered for that function. The project sponsor should be aware that if it is selected as the approved project

sponsor, the ISO will require that any change in the personnel and contractors proposed to be used for the project must be approved by the ISO.

In addition, provide a corporate organizational chart of the project sponsor and any parent companies and affiliates. Describe the legal and financial structure of the project sponsor and its team, including type of corporation if a corporation, or type of entity if it is a special purpose entity (e.g. project financed LLC) created explicitly for the proposed project. Describe the legal and financial relationship of the entity listed as the project sponsor to all other entities that are referred to in the application to include but not limited to all parent or holding company organizational entities, equity investors and any entity that will finance or otherwise financially support or provide guarantees for part or all of the project if different from the project sponsor. This description shall include the entity or entities that will own the assets of the project (whether through a special purpose entity or as part of a portfolio of assets or other mechanism) during the construction period and during the operating period.

Response:

A-6 State that the project sponsor is making a commitment to become a participating transmission owner for the purpose of turning the transmission element that the project sponsor is selected to construct and own as a result of the competitive solicitation process over to the ISO's operational control, to enter into the Transmission Control Agreement with respect to the transmission element, to adhere to all applicable reliability criteria, and to comply with NERC registration requirements and NERC and Western Electricity Coordinating Council (WECC) standards, where applicable.

Response:

Project Sponsor and Project Qualifications:

The ISO will review each project sponsor's proposal to assess the qualifications of the project sponsor and its project proposal based on the qualification criteria set forth in ISO Tariff section 24.5.3. The ISO will evaluate the information submitted by each project sponsor in response to the application items pertaining to sections 24.5.3.1(a)-(e) to determine whether the project sponsor has demonstrated that its team is physically, technically, and financially capable of (i) completing the needed transmission solution in a timely and competent manner and (ii) operating and maintaining the transmission solution in a manner that is consistent with good utility practice and applicable reliability criteria for the life of the project.

In addition, the ISO will determine whether the transmission solution proposed by a project sponsor is qualified for consideration, based on the qualification criteria contained in ISO Tariff sections 24.5.3.2(a) and (b). Please demonstrate that the proposed project meets the proposal qualification criteria for the needed transmission element by providing responses to the following two items (QP-1, QP-2) that relate to the qualification of the proposed project. When providing these responses, the project sponsor shall refer to information that has been provided in other sections of its application for additional information and support. The following two responses shall provide a complete demonstration or qualification – through the two responses directly and by including references in the two responses to material provided in responses to other items in the application.

Describe and demonstrate how:

QP-1. The proposed design of the transmission solution is consistent with needs identified in the comprehensive ISO transmission plan.

Response:

QP-2. The proposed design of the transmission solution satisfies applicable reliability criteria and ISO planning standards.

Response:

3. Prior Projects and Experience

In the accompanying Excel spreadsheet entitled Prior Projects and Experience Workbook, the project sponsor shall provide a description of all relevant prior projects and experience of the project sponsor and affiliate(s) on the Project Sponsor experience tab and its proposed contractors on the Contractor experience tab as it relates to this project. The lists of projects should include those with voltages greater than 200 kV completed in the past ten years. If the project sponsor or its proposed contractors do not have experience permitting, or acquiring land associated with facilities with voltages greater than 200 kV, but do have experience with lower voltage facilities, this experience may be included. . For maintenance and operations experience, include projects for voltages greater than 200 kV that the project sponsor or contractor has had maintenance or operations responsibility over the past 10 years even if they were constructed more than 10 years ago. Detailed explanations of schedule and budget variances may be supplied in a separate document if necessary as noted in the spreadsheet and shall include a description of major issues confronted and resolved during the project.

The Contractor experience tab of the Prior Projects and Experience Workbook shall be used to list the prior project experience of all contractors that the project sponsor proposes to use for this project, including but not limited to land acquisition, environmental permitting, design and engineering, construction, maintenance, and operations contractors. If the project sponsor proposes to but has not retained a contractor for any of the foregoing functions, the project sponsor shall provide the experience of the contractors shortlisted for each function as requested in Question A-5. Only the experience of the contractor(s) that has/have been designated for a function in the response to Question A-5 will be counted for that function. In case the project sponsor provides a list of more than one shortlisted contractor for a function, the experience of the contractor with the least experience will be counted for that function.. Any change to these contractors will require approval by the ISO. The evaluation will consider the qualifications of each submitted contractor. The experience list shall include any work performed by the contractor for the project sponsor. For environmental permitting contractors, the project sponsor must indicate in the spreadsheet, for each prior project listed for that contractor, the federal and state permits acquired as well as associated environmental processes, including federal NEPA or state environmental review determinations.
Note: Experience entries in the PPEW for functions that an entity is not designated as responsible for performing or being considered for performing will not be considered in the ISO's comparative analysis for that function.

4. Project Management and Schedule

P - 1. Provide a general description of the proposed approach to project management and scheduling for the transmission element.

Response:

P - 2. Provide the proposed management structure, organization, authority levels, and resources committed to project management and scheduling for the full scope of the project, including relevant experience and capability for the proposed project manager and other relevant decision-makers for the project. If the sponsor does not have a team in place, provide your plan to meet these requirements.

Response:

P - 3. Provide a proposed schedule for project development through release for operation that includes, at a minimum, key critical path items such as:

- Develop contracts for project work;
- Regulatory approval; permitting; rights of way and land acquisition;
- Engineering and design;
- Material and equipment procurement;
- Facility construction;
- Agreements (interconnection, operating, scheduling, etc.) with other entities;
- Pre-operations testing;
– Any amount of "float" incorporated into the schedule and how it was determined;
- Project in-service date;
- Other items identified by the project sponsor.

Provide a list of measures that the project sponsor would take to meet its schedule if the project sponsor encounters unanticipated delays in its schedule for land acquisition, permitting, or construction of up to 6 months. If the project sponsor proposes any financial or other incentives to ensure completion of the project on schedule, provide a description of those financial or other incentives.

Beginning with the 2023-2024 Transmission Planning Process, CAISO is now requiring all project sponsors to propose an In Service Date that matches the CAISO requested In Service Date provided in Appendix I. CAISO will not attribute any value to an In Service Date earlier than the Requested In Service Date.

Response:

P - 4. For the proposed project, identify the major risks and obstacles to successful project completion within cost budget while meeting schedule and identify proposed mitigations to minimize the risks. Describe all actions that the project sponsor will take to keep the project within budget while meeting schedule in light of the major risks identified.

If the project sponsor is sponsoring more than one project, the project sponsor shall also describe how the projected in-service date of this project (as reflected in the proposed schedule) would be affected if two or more of the project sponsor's proposals are selected.

Response:

P - 5. For the transmission line and substation projects included in the Prior Projects and Experience Workbook, provide the following:

(a) Any environmental permitting risks and challenges that the project sponsor and its team have previously faced that are comparable to the risks and challenges it will face in connection with this project.

(b) Any transmission line or substation design or engineering risks and challenges that the project sponsor and its team have previously faced that are comparable to the risks and challenges it will face in connection with this project.

(c) Any transmission line or substation construction risks and challenges that the project sponsor and its team have previously faced that are comparable to the risks and challenges it will face in connection with this project.

(d) Any maintenance risks and challenges that the project sponsor and its team have previously faced that are comparable to the risks and challenges it will face in connection with this project.

(e) Any operations risks and challenges that the project sponsor and its team have previously faced that are comparable to the risks and challenges it will face in connection with this project.

(f) Other specific materials that reflect project management skills for an actual project.

Response:

5. Cost Assumptions and Containment

Provide all the information regarding cost containment for the proposed project in the Cost and Cost Containment Workbook. In addition, provide the information regarding the cost containment proposal in response to the following requests. Ensure the information provided in this application is consistent with the information provided in the Cost and Cost Containment Workbook.

CC-1 Fully describe in detail all of your proposed cost containment measures.

Response:

CC-2 Explain in detail and provide all bases, assumptions, reasons, support, and documentation as to why your estimated cost of debt constitutes a reasonable representation and expectation of the debt cost you expect to incur in connection with the project.

Response:

CC-3 Describe each proposed maintenance activity and its frequency planned over the life of the project facilities. Explain in detail and provide all bases, assumptions, reasons, and support as to why your estimated O&M costs (and Administrative and General (A&G) costs) constitutes a reasonable representation and expectation of the O&M costs you expect to incur in connection with the project. To the maximum extent practicable, provide this analysis for each individual component of total O&M costs as reflected in the Cost and Cost Containment Workbook.

Response:

CC-4 Identify by job category the number of full-time equivalent employees (FTE) the project sponsor intends to employ from its company to perform operations activities and the number of FTEs the project sponsor intends to employ from its company to perform maintenance activities. Also provide the number of FTEs that will be allocated to Administrative and General activities. Describe the specific role and functions each FTE will serve. Describe in detail the basis for and assumptions underlying these FTE estimates and the cost associated with the FTEs.

Response:

CC-5 Indicate whether the project sponsor intends to contract for O&M services.

a. If so, provide the name of the counterparty and attach any agreements that provide the terms of the relationship.
b. If the project sponsor intends to rely on O&M services from a regulated utility, identify the utility and describe in detail how the utility intends to support the project. Attach any agreements that provide the terms of the relationship.
c. Provide the specific roles and functions the contractors will provide for the project.
d. Provide in detail the justification for cost estimates associated with contracted O&M services.

e. For contracted O&M services, provide: (1) the number of FTEs- (on an annual basis) that would be conducting maintenance activities; (2) the number of FTEs- that would be providing operations services; and (3) the number of FTEs- that would be allocated to Administrative and General activities.

Response:

CC-6 Provide all details, assumptions, reasons, and supporting documentation (including manufacturers' guidelines) underlying the project sponsor's useful life projections for the project.

Response:

CC-7 Describe in detail all exclusions to any cost cap and cost containment measures the project sponsor proposes.

Response:

CC-8 If the project sponsor is proposing an exclusion for *force majeure* events, how exactly does the project sponsor propose to define *force majeure* for purposes of limiting exclusions from or increases to any cost cap and other cost containment measures?

Response:

CC-9 If a siting or permitting authority were to require relocation of the project sponsor's proposed site for the project, how exactly would that affect the project sponsor's proposed cost cap and other cost containment measures?

Response:

CC-10 If a siting or permitting authority were to require changes to the proposed structures, equipment, or transmission lines associated with the project sponsor's project, how would that affect the proposed cost cap and other cost containment measures?

Response:

CC-11 If a siting or permitting authority were to require an increase in the amount of environmental mitigation beyond that assumed in the project sponsor's proposal, how would that affect the proposed cost cap and other cost containment measures?

Response:

CC-12 If a siting or permitting authority were to require undergrounding of the project sponsor's proposed transmission facilities, or require overhead construction if the project sponsor has proposed undergrounding, how would that affect the proposed cost cap and other cost containment measures?

Response:

CC-13 If there were to be a delay in the receipt of any of the project sponsor's siting or permit authorizations, how exactly would that affect the proposed cost cap and other cost containment measures?

Response:

CC-14 If there were to be a delay in the schedule of the participating transmission owner for constructing its interconnection facility for the project, or if changes in project scope or location were to be required or caused by the interconnecting PTO, how would that affect the proposed cost cap and other cost containment measures?

Response:

CC-15 If one of the project sponsor's approved contractors was not able to meet its requirements, and the project sponsor were to propose and the ISO approve an alternate contractor, what impact would this have on the proposed cost cap and other cost containment measures?

Response:

CC-16 Indicate the authority of any agency with jurisdiction over the project to impose binding cost control measures or cost caps on the project, if the project sponsor is not proposing a cost cap.

Response:

CC-17 If the project were cancelled due to factors outside the project sponsor's control, would the project sponsor file for an abandoned plant incentive?

Response:

CC-18 If the project were cancelled due to factors outside the project sponsor's control, and the project sponsor would file for an abandoned plant incentive, what cost containment measures, if any, would the sponsor propose to mitigate the impact of abandonment on ratepayers?

Response:

CC-19 If the project was ready to be placed in service, but factors beyond the project sponsor's control caused a delay to the In Service Date, would the project sponsor suspend the project or continue to accrue either AFUDC or claim a return on CWIP?

Response:

6. Financial

The project sponsor (or the project sponsor's parent or other affiliated entity in the event the project sponsor must rely on either to meet this financial criteria) must demonstrate it has sufficient financial resources, including, but not limited to, satisfactory credit ratings and other financial indicators as well as the demonstrated ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution. The ISO will consider the parent's or affiliated entity's financial statements, credit ratings, and other statements in this section if the parent or affiliated entity provides financial assurances acceptable to the ISO as described in F-2 below.

General

F - 1. Provide a list of equity holders, equity contribution by each investor, and the amount of debt over the entire life of the project.

Response:

F - 2. If the project sponsor is relying on a parent or another affiliated entity to satisfy the financial criterion of its application, (1) describe the entity's relationship to the project sponsor in the form of a corporate hierarchy and (2) provide a letter signed by an officer of the parent or affiliated entity indicating that the parent or affiliated entity provides financial assurances for the project. In addition, provide details of the parent's or affiliated entity's plan for providing for credit, investment, or financing arrangements for financial backing of the project. If financial recourse is limited, describe under what conditions recourse is available to the parent or affiliated entity's financial resources. Describe how these arrangements comply with all legal and regulatory requirements related to affiliate transactions.

Response:

Financial Strength and Creditworthiness

For the entity that has the financial resources to meet the financial strength and creditworthiness criteria and is required to provide financial assurances for the project, provide the information requested in F-3 through F-10.

F - 3. Provide annual, audited financial statements or equivalent (e.g., FERC Form 1) that at a minimum, includes an Auditors Statement, Management Statement, Balance Sheet, Income Statement, Statement of Cash Flows and Notes to the Financial Statements, for the most recent year and previous four years (five years total). If audited financial statements are not available, the project sponsor may provide other documentation demonstrating financial capability. In either case, the documentation **must be accompanied by a letter signed and attested to by an officer of the company** providing financial assurances that the documents are a fair representation of the financial condition of the company in accordance with generally accepted accounting practices. If this information is available electronically, it is acceptable for the

project sponsor to provide links to the appropriate documents. NOTE: All financial statements must be provided in English.

Response:

F - 4. Provide quarterly, unaudited financial statements or equivalent (e.g. FERC Form 3-Q) published since the last annual, audited financial statement. If not available, the project sponsor may provide other documentation demonstrating financial capability. In either case, such documentation **must be accompanied by a letter signed and attested to by an officer of the company** providing financial assurances that the documents are a fair representation of the financial condition of the company in accordance with generally accepted accounting practices. If this information is available electronically, it is acceptable for the project sponsor to provide links to the appropriate documents. NOTE: All financial statements must be provided in English.

Response:

F - 5. If the creation of a special purpose entity (SPE) is being proposed for this project, describe the funding source(s) for the SPE for the duration of the project's useful life and how it fits into the corporate hierarchy. Explain how the capabilities and resources of the parent organization(s) of the SPE can be attributed to and will serve the SPE.

Response:

F - 6. Provide current credit ratings and rating agency reports from Moody's Investor Services, Standard & Poor's Ratings Services and/or Fitch Ratings, or another rating agency designated by the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization. If credit ratings are unavailable, the project sponsor may provide other supporting information.

Response:

F - 7. Provide a report of any failure to make debt service payments on time during the previous five years. If the project sponsor is an SPE, report any such failures by its parent or other affiliated entities, including any predecessor SPEs.

Response:

F - 8. Provide a summary of any history of bankruptcy, dissolution, merger, or acquisition for the current calendar year and the five prior calendar years. If the project sponsor is an SPE, report any such events by its parent or other affiliated entities, including any predecessor SPEs.

Response:

F - 9. Based upon the most recent audited financial statements, provide a ratio of total assets to the total projected capital costs of the project, and show the calculation including any encumbrances.

Response:

F - 10. For each of the five years for which audited financial statements were provided according to F – 3 above, provide the following financial ratios, and show the calculation for each:

a. Funds from operations to interest coverage
b. Funds from operations to total debt
c. Total debt to total capital

Response:

Project Financing

F - 11. Describe the financing used on up to five projects listed in the Prior Projects and Experience Workbook that are similar in type and size to (or larger than) the transmission element and/or substation proposed in the application. Include the following in your response and use the table provided below:

1) Project description,
2) Financing structure (e.g., LLC vs. corporate),
3) Equity and debt contribution,
4) Debt sources,
5) Bank(s) involved,
6) Other important information.

F-11 (1)Project Description	(2)Financing Structure	(3)Equity and Debt Contribution	(4)Debt Sources	(5)Banks Involved	(6)Other Important Information

F - 12. Describe the proposed financing sources of funds and instruments for construction and working capital for this project by completing the following table:

Entity Providing Debt Financing	Loan Amount	Interest Rate	Repayment Period	Grace Period During Construction	Equity Provided by Project Sponsor

F - 13. For financing sources other than the capital markets, describe the benefits to ratepayers and others of your proposed financing source(s). This shall include the projected cost of the financing sources.

Response:

Project Liability Protection and Project Replacement and Repairs

F - 14. Provide the project sponsor's planned insurance coverage, including types of coverage and insured values during the construction period and over the operational life of the project facilities, including but not limited to covering negligent performance. Also include the types of losses to be covered during the construction and operation of the project, including specifying the extent of failure of project facilities to be covered by the planned insurance during the operation of the project.

Response:

F - 15. Describe your ability to finance unexpected repairs (*e.g.*, replacement of a series of towers) or replacement construction during the estimated useful life, *i.e.*, the operating period for the transmission element(s). For example, capabilities can include, but are not limited to, the following: use of account set-asides or accumulated funds, parent organization guarantees, letters of credit, letters of intent from financial institutions to support the project sponsor, insurance, or other means of ensuring that these increased costs can be covered in a timely manner and thus not delay the return of the project to normal operation.

Describe any actual events where the project sponsor had to cover increased costs due to equipment failures, including the nature of the event, costs incurred, and how these costs were funded by the project sponsor.

Response:

7. Environmental Permitting and Public Processes

E - 1. Provide an overview of the various project activities that the project sponsor believes are needed to achieve siting approval, obtain all necessary permits, and any other necessary public processes required to construct the project. Provide a list of steps or flow chart for these project activities and processes. If the project is located within more than one state, provide a response for each state as applicable.

Response:

E - 2. Using your best estimate, indicate whether any federal discretionary permit(s) will be required. For each discretionary permit anticipated, identify the agency and applicable governing rule or statute. Describe these in detail, e.g., Clean Water Act Section 401- 404, U.S. Fish and Wildlife Service biological opinion.

Response:

E - 3. Using your best estimate, indicate whether any state discretionary permit(s) will be required and the type of permit to be filed (e.g., endangered species incidental take permit, water quality Section 401).

Response:

E - 4. Indicate if any federal land (for example, Forest Service, BLM) is proposed to be crossed, and if a NEPA (National Environmental Policy Act) environmental process is required.

Response:

E - 5. For projects within the State of California:

a. Indicate which agency is the expected California Environmental Quality Act (CEQA) lead agency. Explain why that agency was chosen and indicate whether that agency has agreed to be the lead agency for this project.

Response:

b. Provide a list of Best Management Practices[11] and project sponsor standing policies, related to siting and permit processes, that all employees are required to observe,

[11] BMPs, which are environmental industry standard terminology, are the project sponsor's standards that would be common to all projects, i.e., not specific to any particular project. For example, this could consist of company training policies that relate to required safety training, environmental sensitivity training, accident and injury reporting, or community involvement programs involving both the local elected officials and the immediate community that will be impacted by the proposed project.

including how are they implemented and how are they reported, that would be applicable for the proposed project.

Response:

c. Provide a list of Applicant Proposed Measures that would be applicable for the proposed project. These are project sponsor mitigation measures that would be applied to reduce the potential environmental impact for a particular construction activity to ensure the impact is reduced below the level of a significant unavoidable impact. These are normally related to the CEQA checklist.

Response:

d. Indicate if you expect to perform any public outreach (e.g., open houses, project hotline number, project update mailings) and describe the planned outreach program.

Response:

E - 6. Provide information related only to transmission line, reactive support, series compensation, and substation siting and permits for projects developed by the project sponsor or its team in the past ten years. If the project sponsor is an SPE, provide information on the parent organization(s) for similar projects. Provide:

a. A description of any project siting or permitting notice of violation (NOV).

Response:

b. Siting or permitting fines levied by the project approval authority or any other agency with discretionary or ministerial authority over the project.

Response:

c. Remediation actions taken to avoid future violations.

Response:

d. A summary of siting or permitting law violations by the project sponsor or its team found by federal or state courts, federal regulatory agencies, state public utility commissions, other regulatory agencies, or in any other legal proceeding.

Response:

e. Any notice of violations that were remediated to the satisfaction of the issuing agency or authority.

Response:

f. A summary of any instances in which the project sponsor or its team is currently under investigation or is a defendant in any legal proceeding for violation of any siting or permitting law.

Response:

8. Transmission or Substation Land Acquisition

L - 1. Provide a general description of the land siting and acquisition needed for the proposed project and a map of the proposed project alignment and/or substation site on a suitable map base and scale - USGS quadrangle 1:24000 at a minimum. The map should show the study area for routing the project as well as any alternate routes, existing transmission lines, California Natural Diversity Data Base (CNDDB) information within the project area, and avoidance areas (such as parks, airports, military installations, and areas of local, state or national interest and any other major exclusion areas). Provide estimated acreages required. Include construction access, permanent access roads, laydown yards, and landing zones, if required. Show alternatives evaluated, those dismissed, and the justification for the preferred site.

Response:

L - 2. Provide a copy of the standard grant of easement anticipated and any temporary construction easement documents necessary for the project construction and a description of your proposed strategy for crop loss and or business loss compensation.

Response:

L - 3. Provide an indication of whether the project sponsor has eminent domain authority. If the project sponsor does not have eminent domain authority and does not plan to obtain eminent domain authority, describe the strategy for acquisition of necessary land rights.

Response:

L - 4. Indicate whether the project sponsor has any existing ROW or substations on which all or a portion of the transmission element can be built. For any such ROW describe how it would be used as part of the proposed project. Also, for any such ROW describe any incremental costs and risks associated with using the existing ROW (for example, negotiating additional land rights or the potential of "overburdening" existing easements). Does the project sponsor make a binding commitment to seek to use such existing ROW or substations for the project, and to use such existing ROW or substations unless the applicable siting authority or other regulatory agency determines otherwise, approves a different route, or the project sponsor is prevented from doing so by *force majeure* type events?

Response:

9. Substation Design and Engineering

The items listed below should only be completed if the proposed transmission solution contains a substation or facilities similar to a substation (e.g., synchronous condenser, STATCOM).

S - 1. For each substation or reactive control element that is included as part of your proposed project, provide the location, GPS information, interconnection with new or existing transmission facilities, bus and breaker arrangement, typical structure types and materials that will be used, and any other unique aspects of the substation that the project sponsor proposes.

Response:

S –2. For each proposed substation, reactive support, or series compensation installation, provide the substation siting criteria that will be used on the project (e.g., future area plans, constructability, earthquake activity, flood plain and mudslide considerations).

Response:

S – 3. For each proposed substation, reactive support, or series compensation installation, provide the basic parameters for the installation - primary and secondary voltage, BIL[12], initial design power capacity, and final design power capacity (if developed in stages).

Response:

S – 4. For each proposed substation, reactive support, or series compensation installation, provide a preliminary design criteria document that specifies the criteria that will be used in the design of the facility. Also provide a list of standards and requirements that will be used in its design - e.g., IEEE 142. Provide a complete list of state specific requirements for each U.S. state in which the project will be located (e.g., California and other state specific requirements if part of the project or the entire project is located outside California).

Response:

S – 5. For each proposed substation, reactive support, or series compensation installation, provide a single line diagram and general arrangement plan, which includes:

i. bus and breaker arrangement,
ii. transformer arrangement,
iii. automatic tap changer, if any,
iv. power factor correction equipment if any,
v. voltage regulator, if any,
vi. ground fault limiting resistor or reactor, if any,

[12] A design voltage level for electrical apparatus that refers to a short duration (1.2 x 50 microsecond) crest voltage and is used to measure the ability of an insulation system to withstand high surge voltage.

vii. line terminations for existing or proposed transmission lines,
viii. bus type and rating,
ix. high voltage switch types and ratings,
x. switchgear type and ratings,
xi. battery system arrangements,
xii. substation, reactive support, or series compensation facility layout with equipment location, fencing, grounding, control/relay building, etc.

Response:

S – 6. For each proposed substation, reactive support, or series compensation installation, describe the protection system criteria and specific components included in the design for primary and back-up protection. Identify any special protection considerations for the substation.

Response:

S – 7. For each proposed substation, reactive support, or series compensation installation, describe the SCADA incorporated in the design. Include the project sponsor's commitment to meet operational data requirements and a specific description of the communications strategy.

*Res*ponse:

S – 8. For each proposed substation, reactive support, or series compensation installation, describe the physical security criteria and specific security measures that will be incorporated in the final facility design.

Response:

10. Transmission Line Design and Engineering

The items listed below should only be completed if there is a transmission line included in the proposed transmission solution.

T - 1. Provide a general overview and description of the transmission line that the project sponsor proposes, including the following items. Use the table provided below for your responses:

a. The starting and ending points including length of preferred route. If the route is in more than one state, provide the information for each state. This shall include GPS coordinates.
b. proposed conductor size, bundling and type,
c. intervening substations, switching stations, or series compensation facilities,
d. typical span lengths,
e. any other unique aspects of the line that the project sponsor proposes that has not previously been provided for the overhead portions of the line.

If any underground transmission is proposed, include a general description of the following items:

f. the underground conductor size and type and length of segment(s),
g. the proposed termination facilities, and
h. any other unique aspects of the underground portion of the line not previously provided.

T-1 Item	Response
a	
b	
c	
d	
e	
f	
g	
h	

T - 2. Provide the transmission line siting criteria that will be used for any overhead section of the proposed transmission line and any underground sections of the proposed transmission line.

Response:

T - 3. Provide a listing of all existing or permitted transmission lines, including voltage, structure type, and separation, located adjacent to or in the same corridor as the proposed project. Provide the criteria used to establish the separation between the proposed transmission line and existing transmission and distribution facilities.

Response:

T - 4. Provide the preliminary design criteria document for any overhead section of the proposed transmission line and any underground section of the proposed transmission line.

Response:

T - 5. Provide a list of standards and requirements that will be used in the transmission line design for both overhead and underground, e.g., IEEE 951, ASCE Manual No. 72, GO 95, with an emphasis on providing a complete list of state specific requirements and the requirements of other states where the proposed project will be located. Also provide any interconnection standards for interconnection of the project to existing utility system(s).

Response:

T - 6. Provide a single line diagram and a general arrangement plan of the entire proposed transmission line, including transmission line crossings by the new project line. For crossings, provide a list by voltage and type of construction of lines crossed (either over or under) by the proposed project. Include isolation devices to be installed for operations and maintenance purposes.

Response:

T - 7. For any proposed overhead transmission line, provide the following additional information not included in response to T-1 in the table provided below:

a. Basic parameters of the transmission line(s) - Design voltage, BIL (design or adjacent substation criteria), initial design power capacity and final design power capacity (if developed in stages).

Support Structures

For any support structures including wood poles, tubular poles, and lattice steel structures, provide:

b. a description of the proposed support structures and conductor geometry,
c. structure foundations as appropriate and grounding criteria and implementation,
d. insulation level, insulator types,
e. lightning protection,
f. estimated right of way widths for each different segment of the project with drawings for each and the basis of determining each right of way width.

Line Ratings and Impedance

g. Provide the estimated per mile line impedances for each different line section proposed in the project, suitable for use in power flow, system stability, and system protection studies. Also provide an estimate of the completed line overall impedance in per unit on a 100 MVA base.
h. Provide NESC and/or GO 95 Grade of Construction.
i. Provide NESC and/or GO 95 Loading Corridor Separation.

T-7 Item	Response
a	
b	
c	
d	
e	
f	
g	
h	
i	

T - 8. For any proposed overhead section and any underground section of the transmission line, provide the ampacity rating methodology including maximum conductor temperature that will be used to determine the normal and emergency ratings of the overhead line for summer and winter. Provide the actual ampacity for the line under normal conditions and emergency operations (specify time limit for emergency operations) for summer and winter operating conditions.

Response:

T - 9. For any proposed underground transmission sections, provide the following additional information not included in response to T-1 in the table provided below:

a. Type of transmission cable, including splicing and cable grounding,
b. Substructures, conduits and duct banks, and splicing enclosures,
c. Termination facilities and structures,
d. Description of the type of transmission cable, including splicing and cable grounding,
e. Provide the estimated per mile line impedances for each different line section proposed in the project. All line impedances shall be provided on a per unit 100 MVA base. Also provide an estimate of the completed line overall impedance.
f. lightning protection,
g. estimated right of way widths for each different segment of the project with drawings for each and the basis of determining each right of way width.

T-9 Item	Response
a	
b	
c	
d	
e	
f	
g	

T - 10. For each substation that the proposed transmission line would terminate in that will not be the responsibility of the project sponsor to modify in order to interconnect the line, provide the following information in the table below:

a. Name of the substation where the interconnection will take place.
b. A description of the demarcation point that identifies the point in the interconnection where responsibility for implementation (e.g., design, construction, testing) changes from the project sponsor to the substation owner.
c. List of agreements that must be reached with the substation owner or others to interconnect and operate the proposed line to the substation (e.g., interconnection agreement, schedule agreement).
d. A description of the project sponsor's approach to determining if any environmental permitting will be required to terminate the proposed line at the substation
e. A description of the approach the project sponsor's will use to determine the cost to implement changes at the substation or other locations that are associated with the interconnection of the proposed project at the substation and of those costs which will paid for by the project sponsor.

T-10 Item	Response
a	
b	
c	
d	
e	

11. Construction

Provide an overview and description of the construction plan and management practices that the project sponsor proposes to follow in response to the questions below:

C-1 Description of inspection of construction activities, including substations, reactive support, series compensation installations, overhead transmission lines, and underground transmission lines if part of the project.

Response:

C-2 Description of the method of establishing material yards, sequencing and receiving material, providing material to contractors, material quality control methods, and material expediting processes.

Response:

C-3 Description of the method of coordination of the duration and timing of any clearances of existing circuits necessary during construction.

Response:

C-4 Description of the plans for a constructability review including completeness of engineering drawings, construction specifications, material orders, and tracking and providing changes.

Response:

C-5 Description of the status of easements orders of possession, permits, and compliance with pre-construction permit conditions and mitigation measures.

Response:

C-6 Description of the method for detail scheduling showing sequence of work, environmental restrictions, clearances requirements, progress reports, and actions taken to maintain schedule.

Response:

C-7 Description of any unique or special construction techniques proposed for any aspect of the proposed project, including ROW clearing, construction and permanent access road construction, and expected helicopter work. If applicable, include information related to wildfire mitigation plans during construction.

Response:

C-8 Provide information related only to transmission line, reactive support, series compensation, and substation construction for projects developed by the project sponsor or its team for projects completed during the past ten years. If the project sponsor is an SPE, provide the information for the parent organization(s). Provide

a. A description of any project construction-related notice of violation (NOV).

Response:

b. Construction-related fines levied by the project approval authority or any other agency with discretionary or ministerial authority over the project.

Response:

c. Remediation actions taken to avoid future violations.

Response:

d. A summary of construction-related law violations by the project sponsor or its team found by federal or state courts, federal regulatory agencies, state public utility commissions, other regulatory agencies, or in any other legal proceeding.

Response:

e. Any notice of violations that were remediated to the satisfaction of the issuing agency or authority.

Response:

f. A summary of any instances in which the project sponsor or its team is currently under investigation or is a defendant in any legal proceeding for violation of any construction-related law.

Response:

12. Maintenance

M-1 Describe the roles and responsibilities of the project sponsor's maintenance organizations (organizations that perform ongoing facility maintenance and repairs). Describe any organizational changes to the project sponsor's current organization that are planned to accommodate maintenance of the proposed project. Provide any contract you have with a third party to provide maintenance services for the project. Describe what specific maintenance activities will be handled by project sponsor staff and which activities will be handled by contractors or vendors. Note: In the Prior Projects and Experience Workbook, please provide information on the transmission/substation facilities for which the sponsor's or contractor's maintenance organizations have been responsible for during the past ten years regardless of when the facility was constructed. Please include voltage rating, length of transmission lines and number and type of substations as per the note in the Prior Projects and Experience Workbook.

Response:

M-2 Describe the project sponsor's policies, processes, and procedures for assuring that only persons who are appropriately qualified, skilled, and experienced in their respective maintenance trades or occupations are employed. Include qualifications, certifications, and experience requirements for maintenance personnel.

Response:

M-3 Describe the project sponsor's training program for maintenance personnel. Include initial and continuing education requirements for maintaining qualifications for classifications with maintenance responsibilities (e.g., what are the training and certification requirements for linemen and substation electricians?). Identify training resources used.

Response:

M-4 Describe the project sponsor's capabilities that will enable it to comply with the maintenance standards described in Appendix C of the TCA. Indicate whether or not the project sponsor's standards include the elements listed in TCA Appendix C Sections 5.2.1 (Transmission Line Circuit Maintenance) and 5.2.2 (Station Maintenance). (Note: Each PTO will prepare its own maintenance practices that shall be consistent with the requirements of the ISO Transmission Maintenance Standards. The effectiveness of each PTO's maintenance practices will be gauged through the ISO's availability performance monitoring system. Each PTO's adherence to its maintenance practices will be assessed through an ISO review pursuant to TCA Appendix C Maintenance Procedure 4).

Response:

M-5 Describe the project sponsor's vegetation management plan as it applies to the proposed project. Provide the project sponsor's preexisting procedures and historical practices for managing ROW

for transmission facilities. If applicable, describe the project sponsor's wildfire mitigation plans and its team's experience with implementing wildfire mitigation plans in High Fire Risk Areas.

Response:

M-6 Provide information, notices, or reports regarding the project sponsor's compliance with its standards for inspection, maintenance, repair, and replacement of similar facilities. Include audit reports or regulatory filings.

Response:

M-7 Describe the project sponsor's capabilities that will enable it to provide its Availability Measures in accordance with TCA Appendix C Section 4.3 as applicable. Provide sample availability measures, or similar measures, for other facilities owned by the project sponsor to demonstrate the project sponsor's capability.

Response:

M-8 Would adding the project to the ISO controlled grid require any changes or exceptions to the provisions of the TCA? If "yes", describe.

Response:

M-9 Describe the project sponsor's (its team or planned team) capabilities that will enable it to comply with the activities required by TCA Section 7 (Operations and Maintenance [including Scheduled Maintenance, Exercise of Contractual Rights, and Unscheduled Maintenance]).

Response:

M-10 Specify where the project's maintenance team (including any project sponsor staff and contractors) will be located. Specify the estimated response time of any assigned project sponsor staff, maintenance contractor, or emergency response provider.

Response:

13. Operations

O-1 Describe the roles and responsibilities of the operations organizations, including operating jurisdictions as they relate to the proposed project. Identify the planned location of those responsible for operation of the project, including the location of the control center that will serve as the single point of contact for the ISO. Describe any organizational changes to the project sponsor's current operations organization that are planned to accommodate the proposed project. Provide any contract you have with a third party to provide operation services for the project. In the Prior Projects and Experience Workbook, please provide information on the transmission/substation facilities for which the sponsor's or contractor's operations organizations have been responsible during the past ten years regardless of when the facility was constructed. Please include voltage rating, length of transmission lines and number and type of substations as per the note in the Prior Projects and Experience Workbook .

Response:

O-2 Describe the project sponsor's policies, processes, and procedures for assuring that only persons who are appropriately qualified, skilled, and experienced in their respective operations trades or occupations are employed. Include qualifications, certifications, and experience requirements for operators and operations' field personnel (i.e. field switching personnel).

Response:

O-3 Describe the project sponsor's training program for operations personnel. Include initial and continuing education requirements for maintaining qualifications for classifications with operation responsibilities (e.g., what are the training and certification requirements for operators). Identify training resources used.

Response:

O-4 Would adding the project to the ISO controlled grid require any changes or exceptions to the provisions of the TCA regarding operations? If "yes", describe.

Response:

O-5 Identify the NERC functions for which the project sponsor has registered or intends to become registered related to the proposed project.

Response:

O-6 If the project sponsor plans to contract for services to perform the NERC functions, identify the contractor and the NERC functions for which it is registered or intends to become registered. If you plan to use a contractor and have not selected one yet, provide the requested information

for the contractors you are considering. Describe how the project sponsor will ensure compliance with the reliability standards or requirements associated with these functions. Provide any contract you have with a third-party to perform NERC functions.

Response:

O-7 Describe the approach the project sponsor will use to assure compliance with Applicable Reliability Standards. Include descriptions of organizational responsibility, processes, and procedures for assuring compliance. Identify any Applicable Reliability Criteria for which transmission owners are responsible that require temporary waivers under TCA Section 5.1.6. Explain any.

Response:

O-8 Provide information demonstrating that the project sponsor, or its intended contractor or contractors as identified in O-1, has been in compliance with the Applicable Reliability Standards for all transmission facilities that it owns, operates, or maintains. This could include information for facilities outside the ISO controlled grid and shall include available NERC compliance audit results. Provide information describing the amount of transmission facilities subject to NERC compliance by listing the number of miles of transmission lines by voltage class and the number of substations by voltage class. If the project sponsor does not have experience with transmission facilities subject to NERC reliability standards, provide information demonstrating compliance with standards that do apply to those facilities and the amount of facilities subject to such compliance.

Response:

O-9 Describe in general how the project sponsor proposes to divide responsibility for NERC reliability standards between the project sponsor and the ISO in the Coordinated Functional Registration agreement. Compare your response with existing agreements between the ISO and other PTOs, and describe expected differences, if any. Existing agreements are available on the ISO website.

Response:

O-10 Describe the applicable agreements that will define the responsibilities of the Transmission Operator as defined in NERC reliability standards and authority with respect to NERC reliability standards categories of Generator Owner(s), Generator Operator(s), Planning Authority(ies), Distribution Provider(s), Transmission Owner(s), Transmission Service Provider(s), Balancing Authority(ies), Transmission Planner(s), and adjacent Transmission Operator(s).

Response:

O-11 Describe how the project sponsor will meet the NERC reliability standards requirement that a Transmission Operator have adequate and reliable data acquisition facilities for its Transmission

Operator Area and with others for operating information necessary to maintain reliability. Include back-up control center plans if any. Also include provisions for providing the availability data required by TCA Appendix C Section 4.3.

Response:

O-12 Describe the project sponsor's (its team or planned team) capability that will enable it to comply with the activities required by TCA Section 6.1 (Physical Operation of Facilities [including Operation, ISO Operating Orders, Duty of Care, Outages, Return to Service, and Written Report]) and TCA Section 6.3 (Other Responsibilities).

Response:

O-13 Describe the project sponsor's capability (for its team or its planned team) that will enable it to comply with the activities required by TCA Section 9.2 (Management of Emergencies by Participating TOs) and TCA Section 9.3 (System Emergency Reports: TO Obligations). Identify resources available to respond to major problems on the proposed project. Include resources available through mutual assistance agreements and describe expected response times. Provide samples of emergency operating plans.

Response:

O-14 Will the project be subject to any encumbrance? If so, provide a statement of any Encumbrances to which any of the transmission lines and associated facilities to be placed under ISO Operational Control are subject, together with any documents creating such Encumbrances and any instructions on how to implement Encumbrances and Entitlements in accordance with TCA Section 6.4.2.

Response:

O-15 Identify the plans or provisions to be implemented by the project sponsor to replace major failed equipment, e.g., a substation transformer, circuit breaker, or a group of towers (including dead end structures).

Response:

O-16 Identify and describe any violations of NERC reliability standards or other reliability standards the project sponsor or its team has incurred in the past ten years.

Response:

O-17 Identify and describe any operations-related tariff violations or FERC rules violations the project sponsor or its team has incurred in the past ten years.

Response:

O-18 Identify and describe any violations of operations-related laws, statutes, rules, or regulations the project sponsor or its team has incurred in the past ten years that are not discussed elsewhere in the application.

Response:

14.Miscellaneous:

Z-1: Provide any additional evidence or support that the project sponsor believes supports its selection as an approved project sponsor. This can include, but is not limited to, other benefits the project sponsor's proposal provides, specific advantages that the project sponsor or its team have, or any efficiencies to be gained by selecting the project sponsor's proposal or additional information that was not requested in the other sections that supports the selection of the sponsor's proposal. Do not include information that is already included in other sections of the application.

Response:

15. Officer Certification

OFFICER CERTIFICATION FORM

Project Sponsor Name:

I, _____, an officer of the entity identified above as the Project Sponsor or affiliate of the Project Sponsor, understanding that the ISO is relying on the information set forth in the foregoing application, including associated worksheets, to select an Approved Project Sponsor for the transmission element that is the subject of the application, hereby certify that I have full authority to represent the Project Sponsor or affiliate of the Project Sponsor, as described below. I further certify that:

1. I am the _____(title) of _____(Project Sponsor).

2. I have prepared, or have reviewed, all of the information contained in the foregoing application, including associated worksheets, which is being submitted into the ISO's competitive selection process for the:

   _____(name of transmission element).

3. On behalf of the Project Sponsor, I agree that any dispute between the ISO and the Project Sponsor regarding any aspect of the competitive selection process, including the ISO's selection report, will be resolved in accordance with ISO Tariff Section 13 ("Dispute Resolution").

I acknowledge that I understand the relevant provisions of Section 24.5 of the ISO Tariff and the Business Practice Manual for Transmission Planning applicable to the Project Sponsor's application, including, but not limited to, those provisions describing the information that will be used by the ISO to determine the Project Sponsor's qualifications to participate in the competitive selection process and the criteria that the ISO will apply in the comparative evaluation for purposes of Selecting an Approved Project Sponsor. I certify, after due investigation, that the information provided in the application, including associated worksheets, is true and accurate to the best of my belief and knowledge and there are no material omissions. In addition, by signing this certification, I acknowledge the potential consequences of making incomplete or false statements in this certification, which may include exclusion from the current and subsequent competitive selection processes.

_____
(Signature)

Print Name: _____

Title: _____

Date: _____

16. **Application Deposit** Payment Instructions

Please complete this entire form.

Project Sponsor Deposit Information

1. **Name of Phase 3 Project: _____**

2. **Name, address, telephone number, and e-mail address of the Customer's contact person (primary person who will be contacted):**

   Name: _____
   Title: _____
   Company Name: _____
   Street Address: _____
   City, State: _____
   Zip Code: _____
   Phone Number: _____
   Fax Number: _____
   Email Address: _____

3. **Alternate contact:**

   Name: _____
   Title: _____
   Company Name: _____
   Street Address: _____
   City, State: _____
   Zip Code: _____
   Phone Number: _____
   Fax Number: _____
   Email Address: _____

4. **Any deposit paid by check shall be submitted to the CAISO representative indicated below: Note – the check may be included with applications submitted on CDs or DVDs. Checks shall be made payable to the CAISO.**

California ISO
Attn: Julie Balch
Grid Assets
P.O. Box 639014
Folsom, CA 95763-9014

Overnight Address

California ISO
Attn: Julie Balch
Grid Assets
250 Outcropping Way
Folsom, CA 95630

5. Project Sponsor Deposit is submitted by:

Legal name of the Customer: _____
By (signature): _____
Name (type or print): _____
Title: _____
Date: _____

**Required Deposit: $100,000 USD (note: Wires originating from outside the U.S. are subject to currency conversion rates and/or additional bank fees).

**Your application will not be considered received if the deposit is not received prior to the bid window close date.

Wire Information

California ISO - Remit to Addresses
Beneficiary Bank Name
Beneficiary Bank Address
Wells Fargo Bank, NA
420 Montgomery St.
San Francisco, CA 94104

LGIP/SGIP
Wells Fargo Bank, NA
ABA # 121000248
Account # 4122041825
Account name: CAISO LGIP

California ISO

Approval History

Approval Date: June 25, 2024

Effective Date: June 25, 2024

Application Owner: Scott Vaughan

Application Owner's Title: Senior Manager, Transmission Assets

Revision History

Version	Date	Description
9	6/25/2024	Added text for CAISO consideration of early in service dates, clarified experience condsideration requirements, added CC-17, CC-18 and CC-19: questions concerning project delay or cancelation, requested construction related wildfire mitigation, clarified specific M-3 and O-3 group training requirements.
8	6/23/2023	Added clarification for including experience, added reference to GPS coordinate idenitification of subs and transmission lines, eliminated original question L1 , added request for more detail on schedule float in P3
7	3/22/2021	Revised Version Released - General update and simplification
6	4/17/2019	General update
5	5/10/2016	General update and revised to address stakeholder comments.
4	4/7/2014	Revised to align with updated tariff.
3	4/4/2013	Revised Version Released – Add Version Control, Approval History, and Revision History Sections
2	4/1/2013	Revised Version Released - General clarification modifications and clean-up for 2012-2013 TPP Phase 3 Bid Window Opening
1	12/19/2012	Initial Version Released