Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation Project Sponsor Selection Report

May 9, 2024

California Independent System Operator Corporation

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Attachment 1 – Competitive Solicitation Transmission Project Sponsor Application dated 06/23/23 Version 8.

1. INTRODUCTION

This report describes the competitive solicitation process conducted by the California Independent System Operator Corporation (ISO) for the Imperial Valley-North of San Onofre Nuclear Generating Station (SONGS) 500 kV Line and 500/230 kV Substation project. The ISO conducted this competitive solicitation because, in its 2022-2023 transmission planning process, the ISO identified a policy-driven need for this 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 the new Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project. The four qualified proposals that the ISO reviewed from the four project sponsors for the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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 the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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 Horizon West Transmission, LLC, as the approved project sponsor to finance, construct, own, operate, and maintain the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project.

2 BACKGROUND

2.1 Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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 2022-2023 transmission plan identified a policy-driven need for the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project is are part of the Southern Area Reinforcement projects to address the Devers-Red Bluff 500 kV, East of Miguel, Bay Boulevard-Silvergate, Encina-San Luis Rey, Sycamore area, San Luis Rey-San Onofre, and Silvergate-Old Town constraints. The ISO governing board approved the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project on May 18, 2023.

Following approval of the transmission plan, the ISO opened a bid solicitation window on June 26, 2023, which provided project sponsors the opportunity to submit proposals to finance, construct, own, operate, and maintain the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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 2022-2023 Transmission Planning Process Phase 3 Sequence Schedule, the bid solicitation window remained open through September 29, 2023.

The ISO Functional Specifications for this project are located in Appendix I of the 2022-2023 transmission plan, under the title *Description and Functional Specifications of the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project*, as updated as of August 21, 2023 (ISO Functional Specifications).[1] In the ISO Functional Specifications, the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project is described as follows:

- A new 500/230 kV North of SONGS Substation with the 500 kV and 230 kV bus-work and termination equipment at North of SONGS Substation, and with the location of the North of SONGS 500/230 kV substation expected to be within a boundary that is approximately ten miles north of the existing SONGS 230 kV substation and approximately two miles away from the 230 kV line corridor;
- Three new 500/230 kV transformers at North of SONGS Substation;
- A new 145-mile 500 kV transmission line from Imperial Valley Substation to North of SONGS Substation;
- An interconnection of the existing San Onofre-Santiago 230 kV #1 and #2 lines and the San Onofre-Viejo 230 kV line into the North of SONGS Substation; and
- New 500 kV line compensation (series capacitors) of 40%, and a line reactor at North of SONGS Substation on the Imperial Valley-North of SONGS transmission line.

[1] ISO Functional Specifications
https://www.caiso.com/Documents/Appendix-I-Board-Approved-2022-2023-Transmission-Plan-AdditionalRevisions.pdf

In the ISO Functional Specifications, the ISO provided estimates of costs for the entire project. As stated in the ISO Functional Specifications, the ISO estimates the overall proposed project (both the part subject to competitive solicitation and the directly assigned components) will cost approximately $2,280 million. The ISO also specified that the project must be in service no later than June 1, 2034. Upon completion of the project, the approved project sponsor will own the new Imperial Valley-North of SONGS 500 kV Line and the new North of SONGS 500/230 kV Substation, but it must turn the facilities over to ISO operational control.

After the ISO opened the bid solicitation window for the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project, the ISO hosted an informational call for interested parties on June 26, 2023, and provided a presentation describing the project and the competitive solicitation process, including the key selection factors.[2] These are the tariff criteria the ISO determined are the most important for selecting a project sponsor for this policy driven project. On July 7, 2023, posted the final revised list of key selection factors for the project.[3] For purposes of this report, the ISO identified the following subsections of ISO Tariff 24.5.4 as the key selection factors:

- 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 (c) – "the experience of the Project Sponsor and its team in acquiring rights of way, if necessary, that would facilitate approval and construction, and in the case of a Project Sponsor with existing rights of way, whether the Project Sponsor would incur costs in connection with placing new or additional facilities associated with the transmission solution on such existing right of way;"

- Section 24.5.4 (d) – "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;"

- Section 24.5.4 (e) – "the financial resources of the Project Sponsor and its team;"

- Section 24.5.4 (f) – "the technical and engineering qualifications and experience 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

[2] Phase 3 TPP Presentation
http://www.caiso.com/InitiativeDocuments/Presentation-2022%E2%80%932023-Transmission-Planning-Process-Phase-3-Competitive-Solicitation-Jun262023.pdf
[3] Key Selection Factors
http://www.caiso.com/InitiativeDocuments/Key-Selection-Factors-2022-2023-Transmission-Planning-Process.pdf

impose binding cost caps or cost containment measures on the Project Sponsor, and its history of imposing such measures."

The ISO evaluated four proposals from four project sponsors – (1) California Grid Holdings LLC (CalGrid), a wholly owned subsidiary of Viridon Holdings LLC, (2) Horizon West Transmission, LLC (Horizon West), an affiliate of NextEra Energy Transmission, LLC (NEET), (3) Lotus Infrastructure Global Operations, LLC (Lotus), in association with Southern California Edison Company (SCE) (together, Lotus-SCE), and (4) San Diego Gas & Electric Company (SDG&E), an indirect subsidiary of Sempra and a direct subsidiary of Enova Corporation. The ISO posted a list of validated project sponsor applications on December 5, 2023.[4] The ISO found that all four 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 January 26, 2024.[5] The ISO found that all four project sponsors and their four 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 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 2022-2023 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. 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[6]. 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 analysis associated with the project schedule, rights-of-way acquisition,

[4] Validated Project Sponsor Applications
http://www.caiso.com/InitiativeDocuments/List-of-Validated-Project-Sponsor-Applications-North-of-SONGS-to-Imperial-Valley-500kV-Substation-and-Transmission-Line-Project.pdf
[5] Qualified Project Sponsor Applications
http://www.caiso.com/InitiativeDocuments/List-of-Qualified-Project-Sponsor-Applications-North-SONGS-to-Imperial-Valley-500kV-Substation-and-Transmission-Line-Project.pdf
[6] Response to Comments Matrix
http://www.caiso.com/InitiativeDocuments/ISO-Responses-to-Comments-Matrix-2022-2023-Transmission-Planning-Process-Competitive-Solicitation.pdf

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 on December 5, 2023, as described in Section 2.1 of this report. As also described in Section 2.1, the ISO validated all four 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 four project sponsors and their four 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 Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project. Therefore, the ISO determined that no cure period was needed for the qualification phase pursuant to ISO Tariff Section 24.5.3.3. 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 26, 2024. Section 3 of this report describes the ISO's selection process for this project.

On April 8, 2024, the ISO posted on the ISO website a revised schedule extending the date for the completion of the competitive solicitation process for the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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 Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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. At the beginning of each subsection of this Section 3, commencing with Section 3.4, of this report, the ISO has provided a listing of the sections of the project sponsor's application that the ISO particularly considered in undertaking its comparative analysis for that qualification criterion or selection factor. In addition, 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 Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation Project

The ISO evaluated four validated and qualified project sponsor applications for the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project submitted by four project sponsors:

- CalGrid
- Horizon West
- Lotus-SCE
- SDG&E

All four entities are qualified and submitted strong, competitive applications supporting their proposals. As a result, the ISO had to make detailed distinctions among the four 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 a 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 25 years of combined experience in the competitive transmission business, to expedite the clean energy transition by investing in and managing electric transmission facilities across North America. 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, and operate this transmission asset if selected as the approved project sponsor for the project. CalGrid indicated that the special purpose entity would be a wholly-owned subsidiary of CalGrid. CalGrid indicated it would utilize Viridon personnel to perform or manage all aspects of the project. CalGrid indicated that Viridon personnel are employed by Viridon Services LLC, a service company that, through intermediate holding companies, is a wholly-owned subsidiary of Viridon Holdings LLC. CalGrid indicated that although Viridon was formed in 2023, its management team has extensive experience and a deep understanding of how to, develop, engineer, construct, operate, and maintain complex transmission facilities. (A-5)

CalGrid Access to Affiliate Financial Support

CalGrid indicated the project would be financed using a combination of equity and debt. 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 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-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-2.1)

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-2.2)

CalGrid's proposal also included pro forma financial 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-2.3, F-2.4)

Horizon West

According to its proposal, Horizon West is a Delaware limited liability company formed in 2014 that is a wholly owned subsidiary of NEET and an indirect subsidiary of NextEra Energy, Inc. (NextEra). Horizon West indicated that Horizon West would own this project and other assets in the ISO region as a portfolio and is not intended to be a stand-alone project company for this project. (Executive Summary, A-5, F-1)

Horizon West indicated that NextEra, Horizon West's ultimate parent, and its wholly owned subsidiary NEET are headquartered in Juno Beach, Florida, and NextEra's principal subsidiaries are Florida Power & Light Company (FPL) and NextEra Energy Resources, LLC. Horizon West indicated that another key entity in the NextEra organization is NextEra Energy Capital Holdings, Inc. (NEECH), which is a wholly owned subsidiary of NextEra and owns and provides funding for NextEra's operating subsidiaries, other than FPL and its subsidiaries, including NEET and Horizon West. (A-5)

Horizon West indicated that its immediate parent, NEET, was formed by NextEra in 2007 to leverage NextEra's experience and resources in developing, designing, constructing, owning, and operating transmission facilities across the United States and Canada and that NEET's assets include operating transmission facilities in California (the Suncrest static VAR compensator (SVC) facility and Trans Bay Cable, LLC (Trans Bay Cable) high voltage direct current facility), Nevada, Texas, New Hampshire, Illinois and Kentucky, Kansas and Oklahoma, and Ontario (Canada). (Executive Summary, A-5)

Horizon West Access to Affiliate Financial Support

Horizon West indicated that during development, permitting, and construction of the project it would enter into debt financing arrangements and receive equity from NextEra's financing affiliate, NEECH. Upon commercial operations and throughout the life of the project, Horizon West indicated that it plans to finance the project with debt from NEECH. (F-1)

Horizon West provided a letter from NextEra indicating that NEECH would provide appropriate funding and needed guarantees to Horizon West and that those would in turn be guaranteed by NextEra as provided for through a blanket guarantee arrangement between NEECH and NextEra. (F-2, F-2e, F-2f)

Lotus-SCE

According to Lotus-SCE's proposal, Lotus is a Delaware corporation and private equity investment firm based in Greenwich, Connecticut that specializes in deploying equity capital in energy infrastructure investment in North America, with a focus on the transmission, renewable power generation, energy storage, biofuels, and natural gas sectors, and SCE is a California corporation and wholly owned subsidiary of Edison International, a public company, and SCE is one of the nation's largest investor-owned utilities. (A-1, A-5)

Lotus-SCE indicated that its project would be jointly sponsored by SCE and a special purpose limited liability entity managed by Lotus through Lotus Infrastructure Fund III U.S. AIV, LP. (LIF III) and affiliated investment vehicles specifically to finance, construct, own, maintain, and operate the project. (A-1)

Lotus-SCE indicated that Lotus and SCE are submitting a joint proposal whereby Lotus and SCE intend to execute transaction documents that would include certain agreements for jointly developing, financing, constructing, owning, operating, and maintaining the project. (Joint Bid Agreement)

Lotus-SCE indicated that Lotus would be funding 100% of the project costs through construction and that upon commissioning of the project SCE would purchase 100% of the project assets and own, maintain, and operate the project as a part of its existing transmission network and that Lotus would enter into a lease with SCE for 50% of the transfer capability in the project. (Joint Bid Agreement Annex B-4) Lotus-SCE indicated that Lotus' special purpose entity would contribute its leasehold interest in the project to the ISO and would earn a regulated rate of return through traditional ratemaking for its interest. (A-5)

Lotus-SCE indicated that SCE would provide O&M services for the project once it is placed in service. (Joint Bid Agreement Annex B-2)

Lotus-SCE Access to Affiliate Financial Support

Lotus-SCE indicated that during the development and the construction stage of the project Lotus will fund 100% of the development and construction costs. (Joint Bid Agreement Annex B-1)

Lotus-SCE indicated Lotus would fund the project with debt and equity for the construction and operating period and would rely on existing funds or affiliated investment vehicles for financial backing of the project. Lotus-SCE indicated that the funds of LIF III and other affiliated investment vehicles are available to support the construction of the project. (F-1)

Lotus-SCE indicated that SCE intends to finance 50% of the project by leveraging its own financial strength to finance, operate, and maintain the project. Lotus-SCE indicated that upon purchase and over the life of the project, SCE would finance the project consistent with SCE's authorized capital structure and various financing sources. (F-1, F-2, A-5)

Lotus-SCE provided a written parent guarantee, signed by an officer of Lotus providing financial assurance that LIF III, 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 the financial support for the project repairs and permitting of the project. (F-2.1) Lotus-SCE also indicated that LIF III would provide a guarantee to support the project's development, financing, and construction needs. (A-5)

SDG&E

According to its proposal, SDG&E is an investor-owned gas and electric utility and California corporation, an indirect subsidiary of Sempra, and a direct subsidiary of Enova Corporation, a holding company. SDG&E indicated it would directly own all the assets of the project during the construction period and operating period.

SDG&E indicated it intends to grant Citizens Energy Corporation (Citizens Energy), a non-profit energy company, an option to lease, for 30 years, 50% of the transfer capability on a segment of the proposed route of the project equivalent to the shared value of their investment. SDG&E indicated that title to the facilities of the Citizens Energy segment would remain with SDG&E, and the transfer capability would revert to SDG&E upon expiration of the lease term. SDG&E indicated that the lease term would commence at or around the in-service date for the project. (A-4, A-5, A-6)

SDG&E Access to Affiliate Financial Support

SDG&E indicated it would not be relying on a parent or another affiliated entity to satisfy the financial criterion of its proposal or for financial backing or for financial assurances for the project. SDG&E indicated its access to capital is secure. (F-2)

SDG&E asserted that its robust financial position and strong credit ratings have supported self-financing a multitude of projects comparable to the proposed project. SDG&E indicated that it would directly own the assets of the project and be directly accountable for project risks. (F-13)

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

(Executive Summary, L-1, L-4, E-1, E-2, E-3, E-4)

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 rights-of-way can contribute to lower project cost, reduced rights-of-way acquisition efforts, and reduction in the overall time needed to complete the project.

3.4.1 Information Provided by CalGrid

CalGrid indicated it does not have any existing land rights to contribute to the project. (L-4)

CalGrid indicated its proposed route is approximately 141 miles long and it would acquire land rights from the U.S. Bureau of Land Management (BLM), U.S. Forest

Service (USFS), U.S. Bureau of Indian Affairs (BIA) (for tribal lands), U.S. Department of Defense (DoD), California State Parks, California State Lands Commission, Orange County, and private landowners. (E-1, E-2, E-3, E-4, L-1)

CalGrid indicated that the proposed project route would maximize paralleling existing utility infrastructure within and outside of the federal utility planning corridor, which it indicated would minimize introduction of new visual impacts on land, including the portion of the route that enters Anza Borrego Desert State Park. (L-1)

CalGrid indicated that the proposed project route would cross federal land (BLM, USFS, DoD, etc.) and a National Environmental Policy Act (NEPA) review process would be required. (E-4)

CalGrid indicated its proposed route would cross approximately 3.3 miles of the La Jolla Band of Luiseño Indians Reservation, mostly along State Route 76, and would cross approximately one mile of the Pala Band of Mission Indians Reservation, for a total of 144.2 acres. CalGrid indicated that traversing these reservations would require rights-of-way from the BIA for the tribal lands held in trust, which would require a resolution from the Pala Band and La Jolla Band Tribes consenting to the rights-of-way grant from the BIA. CalGrid indicated it believes its proposed route would have the least possible impacts to tribal lands. (L-1)

CalGrid provided detailed maps of its transmission line route and provided the acreage of CPUC-designated High Fire Threat District land that its proposed transmission line route would pass through. GIS data indicated that CalGrid's proposed route included 43 miles of CPUC-designated Tier 2 areas and 35 miles of CPUC-designated Tier 3 areas. (L-1, request for clarification response)

CalGrid indicated its proposed North of SONGS Substation site is in Orange County just north of Camp Pendleton on 30 acres of private property that is approximately 0.8 miles from the 230 kV lines that would be looped into the new substation. CalGrid indicated it has contacted the landowner, who it believes would be willing to negotiate the acquisition of that property for the substation. (L-1)

3.4.2 Information Provided by Horizon West

Horizon West indicated it does not have any existing land rights to contribute to the project. (L-4)

Horizon West indicated its proposed route is approximately 135 miles along and it would acquire land rights from the BLM, DoD, California State Parks, and private landowners. (E-1, E-2, E-3, E-4, L-1)

Horizon West indicated that its proposed route would minimize impacts to the Anza Borrego Desert State Park by following a combination of existing transmission lines, existing roads, and other permanent impacts within the park for the majority of the crossing. (L-1)

Horizon West indicated that its proposed route would avoid tribal lands and lands managed by the USFS with federally designated wilderness or inventoried roadless areas and Williamson Act parcels, would follow existing overhead utility corridors and established public roads to the extent feasible, and would minimize impacts to the Anza

Borrego Desert State Park, U.S. Fish and Wildlife Service (USFWS)-designated critical habitat, and conserved lands to the greatest extent possible. (Attachment 8.L-1)(L-1)

Horizon West indicated that the proposed route would limit exposure to dense urban areas but would traverse an urban area for one portion of the proposed route. (L-1)

Horizon West provided analysis of its proposed route and numerous alternative route segments and indicated that its proposed route avoids five specific constraints that applied to the alternative routes only. (L-1, Attachment 8.L-1.a)

Horizon West indicated it is not possible to avoid the CPUC's designated High Fire Threat Districts in routing the project and that its proposed route seeks to minimize exposure to High Fire Threat Districts with 53 miles of its proposed transmission line route passing through CPUC designated Tier 2 areas and 21 miles of its proposed transmission line route passing through CPUC designated Tier 3 areas. (L-1)

Horizon West indicated its 25 to 40 acre proposed North of SONGS Substation site is in San Diego County on DoD Camp Pendleton property just south of the Orange County line. (L-1) Horizon West indicated that the selected site would be on a vacant parcel proximate to the Talega Substation and currently leased to the California State Parks for the San Onofre State Beach through 2024. Horizon West indicated that there is precedent for siting transmission infrastructure at the proposed site. (S-1, S-2)

Horizon West indicated that the proposed North of SONGS Substation site is adjacent to the San Onofre-Santiago No. 1 and No. 2 230 kV lines and San Onofre-Viejo 230 kV line. (L-1, S-1)

3.4.3 Information Provided by Lotus-SCE

Lotus-SCE indicated it does not have any existing land rights to contribute to the project. (L-4)

Lotus-SCE indicated its proposed route is approximately 144 miles along and it would acquire land rights from the BLM, USFS, BIA (for tribal lands), DoD, California State Parks, Orange County, and private landowners. (E-1, E-2, E-3, E-4, L-1)

Lotus-SCE indicated that the proposed route would minimize the length within the Anza Borrego Desert State Park and Anza Borrego Desert State Park General Plan designated wilderness areas. (E-3)

Lotus-SCE indicated that it assessed existing transmission line rights-of-way, and the preferred route of its transmission line would parallel several of these rights-of-way along the length of the line in order to minimize impacts to landowners. (T-1e)

Lotus-SCE indicated its proposed route would cross the La Jolla Band of Luiseño Indians Reservation and Pala Band of Mission Indians Reservation. Lotus-SCE indicated it has contacted both tribes and received a response from the Pala Band, which indicated its willingness to work with the successful project sponsor. (L-1)

Lotus-SCE indicated that its transmission line route would pass through CPUC-designated High Fire Threat Districts, including 45 miles of CPUC designated Tier 2

areas and 36 miles of CPUC-designated Tier 3 areas. (Request for clarification response)

Lotus-SCE indicated its proposed North of SONGS Substation site is on a parcel located in southern Orange County regarding which Lotus-SCE has received a favorable indication from the owner that it would feasibly host the substation. (L-1)

Lotus-SCE indicated that proposed substation location is within a mile of the existing San Onofre-Santiago #1 and #2 230 kV lines and the San Onofre-Viejo 230 kV line. (S-2)

3.4.4 Information Provided by SDG&E

SDG&E indicated it does not have any existing land rights to contribute to the project. SDG&E indicated it plans to parallel an existing SDG&E transmission line on a portion of the proposed route to assist in land acquisition.

SDG&E indicated that it intends to place required electric elements (i.e., series compensation station) in the existing footprint of the Imperial Valley Substation easement, which would reduce the area that would be required for the proposed new North of SONGS Substation. (L-4)

SDG&E indicated its proposed route is approximately 153 miles long and it would acquire land rights from BLM, USFS, DoD, California State Parks, Orange County, and private landowners. (E-1, E-2, E-3, E-4, L-1)

SDG&E indicated that one-third of the proposed transmission line runs adjacent to easements for its existing transmission infrastructure and access roads, and upon receiving final approval of the project, SDG&E would request amendments to widen these easements or execute new easements to include the new line. SDG&E indicated that the North of SONGS Substation would require new land rights. (C-5)

SDG&E indicated its proposed route would not cross any tribal lands and noted that, while developers can condemn private land for a transmission line, the same is not true for tribal lands. SDG&E indicated that to site energy infrastructure on reservation or trust lands, one would need formal support from the tribe (tribal government and tribal general membership, depending on the tribe), individual landowners on impacted allotment land (if any), and approval from the BIA. SDG&E indicated that this would be a lengthy process, involving multiple layers of agreement and approval, with no guarantee of success if agreement and formal approval were not reached. (L-1, E-1)

SDG&E indicated that while its preferred route is longer than its alternative route, it takes advantage of traversing the Anza Borrego Desert State Park in an area where there are existing transmission facilities and is located outside areas of critical environmental concern in the southeastern portion of the study area. SDG&E indicated that the preferred route best balances the ISO's selection criteria, particularly cost constraints and schedule limitations, with the most environmentally superior route that is realistically permittable within the in-service time frame. (Appendix P-4c)

SDG&E provided detailed maps of its transmission line route, including the CPUC-designated High Fire Threat District land that its proposed transmission line route would pass through. GIS data indicated that SDG&E's proposed route included 58 miles of

CPUC-designated Tier 2 areas and 19 miles of CPUC-designated Tier 3 areas. (L-1, request for clarification response).

SDG&E indicated its proposed site for the North of SONGS Substation is in Orange County on 50 acres of private property. SDG&E indicated it has secured an agreement to exclusively negotiate an option to acquire, lease, or otherwise use land for the development and construction of a new substation and related facilities with one of the last remaining large landowners with developable land in the vicinity of the ISO's preferred location for a new substation north of SONGS. (L-1, L-4, CC-1)

SDG&E indicated that its proposed substation site is located 0.9 miles from the existing SCE 230 kV corridor and 6.0 miles from the existing SONGS Substation in San Onofre. (S-1)

3.4.5 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 four project sponsors' proposals indicated that they did not have existing land rights along the route.

Subject to the following considerations, the ISO considers all four project sponsors to have sufficient plans for the acquisition of the necessary land rights for the project.

SDG&E indicated that it intends to place required electric elements (i.e., series compensation station) in the existing footprint of the Imperial Valley Substation easement, which reduces the area that would be required for the proposed new North of SONGS Substation. The ISO expects that the benefits of locating the series compensation within the existing footprint of the easement are reflected in SDG&E's proposed project costs.

Both CalGrid and Horizon West proposed locating the series compensation facilities within the new North of SONGS Substation. Lotus-SCE proposed to construct a separate series compensation station approximately half way between Imperial Valley Substation and North of SONGS Substation. Lotus-SCE indicated that this location would provide added benefits by reducing a number of the series compensation technical requirements. The ISO considers any potential benefits of locating the series compensation in the middle of Lotus-SCE's proposed route in Section 3.13 regarding potential additional advantages of the proposals.

CalGrid and Lotus-SCE proposed routes that cross Pala Band of Mission Indians and La Jolla Band of Luiseño Indians tribal lands. The Pala Band indicated a willingness to work with the successful project sponsor. There was no response from the La Jolla Band. Horizon West and SDG&E proposed routes that did not cross any tribal lands. The ISO understands there is a risk to budget and schedule in crossing tribal lands because permitting transmission lines across reservations is a complicated process with no guarantee of success. Both CalGrid and Lotus-SCE included the evaluation of alternative transmission line routes that would not cross tribal lands in their proposals.

The ISO considers that these routes could be used if proposed land rights across tribal lands could not be obtained.

Horizon West proposed a route that would traverse an urban area. The ISO understands that routing transmission facilities in urban areas poses a risk of public opposition, which can negatively impact budget and schedule risk.

CalGrid, Lotus-SCE, and SDG&E all proposed routes that necessitate obtaining federal special use permits to cross land managed by the U.S. Forest Service.

All routes include environmentally sensitive paths and must cross the Anza Borrego Desert State Park and numerous other environmentally sensitive areas, including but not limited to identified areas of critical environmental concern.

All four project sponsors proposed routes that parallel existing facilities for some portions of the route. The ISO understands that siting proposed transmission line facilities parallel to or near existing facilities has both benefits and risks. Benefits include limiting additional impacts and fewer acquisition negotiating parties, but risks include the potential for damage to multiple facilities in the event of natural or manmade disasters. Therefore, the ISO does not consider this aspect of the proposals to provide an advantage to any of the project sponsors regarding the proposed rights-of-way for their proposed routes.

All project sponsors indicated that they contacted landowners at their proposed substation sites who indicated a willingness to negotiate rights-of-way.

In evaluating all 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 and substation sites in the event some of the land rights cannot be obtained for the primary proposed route or site. The ISO considers the potential schedule and cost risks in 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 four proposals of the four project sponsors 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."

As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because experience in acquiring rights-of-way can contribute to lower project cost, reduced rights-of-way acquisition efforts, and reduction in the overall time needed to complete the project. In addition, the project includes a particularly long

transmission line requiring extensive rights-of-way acquisition across an area with many constraints, including but not limited to environmentally sensitive areas, DoD land, tribal land, and urban areas, making experience in acquiring rights-of-way even more important.

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

(Prior Projects and Experience Workbook)

3.5.1 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with acquiring rights-of-way for substation and transmission line projects. Regarding projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 45 substation and transmission line projects, with two in California. (Prior Projects and Experience Workbook)

3.5.2 Information Provided by Horizon West

Horizon West provided a list of its experience and the experience of its contractors with acquiring rights-of-way for substation and transmission line projects. Regarding projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 113 substation and transmission line projects, with five in California. (Prior Projects and Experience Workbook)

3.5.3 Information Provided by Lotus-SCE

Lotus-SCE provided a list of its experience and the experience of its contractors with acquiring rights-of-way for substation and transmission line projects. Regarding projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 24 substation and transmission line projects, 14 in California. (Prior Projects and Experience Workbook).

3.5.4 Information Provided by SDG&E

SDG&E provided a list of its experience and the experience of its contractors with acquiring rights-of-way for substation and transmission line projects. Regarding projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., the information provided included 20 substation and transmission line projects, with all 20 in California. (Prior Projects and Experience Workbook).

Incremental Costs Associated with Use of Existing Rights-of-Way
(L-4)

3.5.5 Information Provided by CalGrid

CalGrid indicated it does not have any existing land rights along its proposed project route. (L-4)

3.5.6 Information Provided by Horizon West

Horizon West indicated it does not have any existing land rights along its proposed project route. (L-4)

3.5.7 Information Provided by Lotus-SCE

Lotus-SCE indicated it does not have any existing land rights along its proposed project route. (L-4)

3.5.8 Information Provided by SDG&E

SDG&E indicated it does not have any existing land rights along its proposed project route. (L-4)

3.5.9 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, including but not limited to experience 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 is located in California and such experience would facilitate the timely, efficient, and effective undertaking of the project.

All four project sponsors and their teams have experience in acquiring land rights and site control. Regarding experience in the acquisition of land rights, the ISO has determined there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E because they all had substantial experience in the U.S., including experience in California.

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 four project sponsors indicated that the project sponsor expects to incur any incremental costs because of any use of existing rights-of-way for this project. As a result, the ISO has determined that there is no material difference among the four proposals regarding this component of the factor.

Overall Comparative Analysis

As discussed above, the ISO has determined that there is no material difference among the proposals of the project sponsors regarding either the first component (experience acquiring rights of way) or the second component (project sponsor's existing rights of way) of this 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 among the four 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 because the timing of this project is critical because it is one of the Southern Area Reinforcement projects identified in the ISO's 2022-2023 transmission plan as needed to ensure the constraints identified in the plan are addressed.

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

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.

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

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

(P-3)

3.6.1 Information Provided by CalGrid

CalGrid's proposed project schedule included an in-service date May 1, 2030, which is approximately 49 months earlier than the ISO's latest in-service date of June 1, 2034. CalGrid indicated that there are two months of float built into its schedule. (P-3)

CalGrid also indicated that the North of SONGS Substation could be permitted separately from and be brought into service on November 1, 2029, which is six months earlier than the anticipated project in-service date for the Imperial Valley-North of SONGS transmission line element. (P-3)

CalGrid provided measures that it could take if faced with unanticipated delays, such as utilizing, if necessary, price escalation strategies and eminent domain for rights-of-way acquisition, utilizing SB 149 and the Transmission Siting and Economic Development grant program, if applicable, to expedite permitting activities, as well as expediting construction and procurement activities. (P-3)

3.6.2 Information Provided by Horizon West

Horizon West's proposed project schedule included a planned an in-service date of December 15, 2031, which is 29.5 months earlier than the ISO's latest in-service date of June 1, 2034. (P-3)

Horizon West also provided measures it could take if faced with unanticipated delays such as accelerating its permitting schedule, explore offering higher values or eminent domain for land acquisition, using NextEra's buying power to expedite equipment orders, and expediting its construction process by increasing staffing. (P-3)

3.6.3 Information Provided by Lotus-SCE

Lotus-SCE's proposed project schedule included an expected in-service date of November 2030 for the 230 kV switchrack of the new North of SONGS Substation, which is nearly 42 months earlier than the ISO's latest in-service date of June 1, 2034 and an expected in-service date of January 2032 for 500 kV transformers and the Imperial Valley-North of SONGS transmission line, which is nearly 28 months earlier than the ISO's latest in-service date of June 1, 2034. (P-3)

Lotus-SCE indicated that its schedule contained six months of float, which could be applied to permitting or construction. (P-3)

Lotus-SCE provided a list of actions that it could take for avoiding permitting, land acquisition, and construction delays, such as engaging proactively with tribal entities, implementing non-linear construction plans, requesting reduced rights-of-way, finding alternative option to reduce outages, and leveraging the federal permitting process included under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) for accelerating the permitting process, among others.

Lotus-SCE also indicated that that it could take several steps to achieve an in-service date earlier than the proposed January 2032 date, which could result in some additional costs. (P-3)

3.6.4 Information Provided by SDG&E

SDG&E's proposed project schedule included a transmission line in-service date of January 24, 2031 and a project closeout date of September 22, 2031, which is approximately 32 months earlier than the ISO's latest in-service date of June 1, 2034. SDG&E indicated that there is eight months of float built into its schedule. (P-3)

SDG&E provided a list of measures that it could take if faced with unanticipated delays, such as re-sequencing construction plans, adding more workers and shifts, including financial disincentives in its construction contracts, and onboarding additional contractors for delays associated with construction. SDG&E indicated that it maintains strong relationships with local, state, and federal agencies due to its long history of electric infrastructure construction in the San Diego region and would leverage its experience to address any unanticipated delays in permitting. SDG&E also indicated that for delays associated with land acquisition, it would use its strong agency relationships, use its eminent domain authority, or pursue condemnation. (P-3)

Ability to Meet Schedule

(Prior Projects and Experience Workbook, A-5, P-1, P-2, P-3, P-4)

3.6.5 Information Provided by CalGrid

Past Performance

CalGrid provided schedule performance for 18 200 kV or above substation and transmission line projects that were completed in the past ten years in the U.S. and internationally, along with their planned and actual in-service dates. The information provided by CalGrid indicated that all 18 projects were completed on or before the planned in-service date. (Prior Projects and Experience Workbook)

Project Management and Team

CalGrid indicated that its project management steps include project kickoff and scoping, schedule development, risk identification and mitigation plans, and cost estimates and provided detailed information for these steps. (P-1)

Regarding project kickoff and scoping, CalGrid indicated that it would host a formal project kickoff meeting where it would confirm that each team member understands the project scope, goals, objectives, and priorities and would define individual priorities and responsibilities. (P-1)

Regarding schedule development, CalGrid indicated that it would utilize the Primavera Enterprise project portfolio management tools to develop a schedule that captures all key tasks and milestones. (P-1)

Regarding risk identification and mitigation plans, CalGrid indicated that its project planning team has developed a framework to provide each team member the means to populate a risk log covering functional areas of expertise and experience. (P-1)

CalGrid described its approach to project management execution, which includes project controls, project communication, quality management, risk management, procurement coordination, and safety management. (P-1)

CalGrid indicated that its construction contractor would use the InEight technology platform, which allows real-time decision-making during all phases of the project. (P-1)

CalGrid also described its approach for developing the project schedule. CalGrid indicated that the project director would have responsibility for maintaining the master schedule from award to COD. (P-1)

CalGrid further indicated that the master project schedule would be progressed weekly and updated monthly and would be developed to ensure delivery of its project within the required commitments made by CalGrid. (P-1)

CalGrid provided information on its project management leadership team that brings decades of experience in management of projects. (P-2)

CalGrid indicated that its leadership team is supported by world-class contractors responsible for project development, planning, permitting, construction, rights-of-way acquisition, public engagement, operations, and maintenance. (P-2)

CalGrid provided the resume of the individual who would be the ISO project director for this project. (A-5)

In addition, CalGrid indicated that it has formed a project advisory team that is available to provide additional support and guidance as necessary throughout the project development, permitting, financing, and construction phases of execution. (P-2)

CalGrid indicated that the project would be executed by the project management team with a single point of contact, its project director. CalGrid indicated that it has assembled a project team with relevant experience in all areas of project execution to provide certainty to the ISO that the project would be delivered on schedule and on budget. (P-1)

Risk Management

CalGrid provided a risk log that included 67 risk items grouped into several risk categories (permitting, procurement, construction, rights-of-way, operations etc.), the risk consequence (cost, schedule), and the likelihood of the risk (low, medium, high). The risk log also included the owner of each risk (CalGrid, ISO), as well as the mitigation measure for each risk item. (P-4)

CalGrid indicated that the proposed project route would cross federal land (BLM, USFS, DoD, etc.) and a NEPA review process would be required. (E-4)

CalGrid indicated its proposed route would cross approximately 3.3 miles of the La Jolla Band of Luiseño Indians Reservation, mostly along State Route 76, and would cross approximately one mile of the Pala Band of Mission Indians Reservation, for a total of 144.2 acres. CalGrid indicated that traversing these reservation lands would require rights-of-way from the BIA for the tribal lands held in trust, which would require a resolution from the Pala Band and La Jolla Band consenting to the rights-of-way grant from the BIA. CalGrid indicated that additional discussions with the Pala Band and La Jolla Band would be required to obtain rights-of-way along its proposed route and that

CalGrid has previously faced similar environmental permitting risks and challenges. (P-5, L-1)

CalGrid indicated its proposed North of SONGS Substation site is in Orange County just north of Camp Pendleton on 30 acres of private property that is approximately 0.8 miles from the 230 kV lines that would be looped into the new substation. CalGrid indicated it has contacted the landowner, who it believes would be willing to negotiate the acquisition of that property for the substation. (L-1)

CalGrid indicated that it would be sponsoring proposals for two other competitive solicitation projects: (1) North Gila-Imperial Valley #2 500 kV transmission line project; and (2) North of SONGS-Serrano 500 kV transmission line project. CalGrid further indicated that if selected as the approved project sponsor for two or more projects, it would utilize other key staff members with long histories of project management and development experience to take lead project director roles for either one or both of the additional project awards and add resources if gaps are identified. CalGrid also indicated that it would critically evaluate the resource availability of key contractors (environmental, engineering, design, and construction) and bid project work out to other capable and qualified contractors to ensure resource availability and timely project execution is not compromised for any additional awarded projects. (P-4)

Financial Incentive
CalGrid's proposal also includes a schedule completion incentive penalty that would lower the project's return on equity (ROE) by 2.5 basis points for every full calendar month that the project's energization is delayed beyond June 1, 2034, up to a total of 30 basis points. (P-3)

3.6.6 Information Provided by Horizon West

Past Performance
Horizon West provided schedule performance for 71 200 kV or above substation and transmission line projects that were completed in the past ten years in the U.S. and internationally, along with their planned and actual in-service dates. The information provided by Horizon West indicated that 66 of the 71 substation and transmission line projects were completed on or before schedule. The information provided by Horizon West also indicated that five of the 71 substation and transmission projects were delayed. Based on the schedule performance information provided by Horizon West, the average delay in schedule when a project was delayed was one month. The reasons for the delays provided by Horizon West included delays due to weather, permitting, delay in public service commission approval, and power purchase agreement execution. (Prior Projects and Experience Workbook)

Project Management and Team
Horizon West provided information regarding its five phases of project management, which includes project launch and initiation, project planning, project execution, project monitoring and controlling, and project closeout. (P-1)

Regarding project launch and initiation, Horizon West indicated that the project director would oversee the selection of consultants and contractors and allocation of internal resources, as well as identify the metrics to monitor the project during its lifecycle. (P-1)

Regarding project planning, Horizon West indicated that its team would develop a project execution plan, a master project schedule, a project budget, and a risk and issues log and provided additional information for these steps. (P-1)

Regarding project execution, Horizon West indicated that the project management team, led on a day-to-day basis by the project manager, would then begin working on the tasks and milestone deliverables identified within the project execution plan using technology platforms such as Microsoft SharePoint and Primavera Unifier to facilitate the exchange of project information, engineering plans, and drawings. (P-1)

Regarding monitoring and control, Horizon West indicated that the project schedule, budget, and risk logs for the project would be updated based on current information. (P-1)

Regarding project closeout, Horizon West indicated that the project team would complete documentation and closeout, including transferring supplier agreements and paying out final invoices upon project completion. (P-1)

Horizon West indicated that Horizon West's senior management team would oversee the project. (P-2)

Horizon West also indicated that a project director would lead a core team comprised of subject matter experts on regulatory, technical services, land, environmental, engineering, construction, procurement, finance, operations and maintenance (O&M), tribal relations, FERC, and legal. (P-2)

Horizon West indicated that its project director would provide a single point of accountability for day-to-day activities, oversee all workstream leads and resources, and be responsible for reporting progress to senior management. (P-2)

Horizon West indicated that in addition, its project director would also be responsible for tracking overall progress maintaining that resources are available to keep the project under budget and on schedule. (P-2)

Horizon West provided the resumes of the individuals who would be the early and late-stage project directors for this project. (A-5)

Risk Management

Horizon West provided a risk and issue log that identified 23 high-level sets of risks, category of risk, whether it affects cost or schedule, the probability of occurrence, the impact of the occurrence, whether it is a risk during development or construction, and both completed and potential mitigation. (P-4)

Horizon West indicated that the major risks to the project include routing and substation location risk, delay in the CPUC certificate of public convenience and necessity (CPCN) process, and construction cost risk and in each case identified mitigation measures. (P-4)

Horizon West indicated that its proposed route would minimize impacts to the Anza Borrego Desert State Park by following a combination of existing transmission lines, existing roads, and other permanent impacts within the park for the majority of the crossing. (L-1)

Horizon West indicated that its proposed route would avoid the National Forest, federal wilderness, and inventoried roadless areas and that any route that crosses the National Forest would require a master special use permit for construction. Horizon West indicated that constructing a transmission line in the federal wilderness might require an amendment of the Federal Wilderness Act by an act of Congress. (L-1).

Horizon West indicated that its proposed route would avoid tribal lands and lands managed by the USFS with federally designated wilderness or inventoried roadless areas and Williamson Act parcels, would follow existing overhead utility corridors and established public roads to the extent feasible, and would minimize impacts to the Anza Borrego Desert State Park, USFWS-designated critical habitat, and conserved lands to the greatest extent possible. (Attachment 8.L-1)(L-1)

Horizon West indicated that the proposed route would limit exposure to dense urban areas but would traverse an urban area for one portion of the proposed route. (L-1)

Horizon West indicated its 25 to 40 acre proposed North of SONGS Substation site is in San Diego County on DoD Camp Pendleton property just south of the Orange County line. (L-1) Horizon West indicated that the selected site would be on a vacant parcel proximate to the Talega Substation and currently leased to the California State Parks for the San Onofre State Beach through 2024. Horizon West indicated that there is precedent for siting transmission infrastructure at the proposed site. (S-1, S-2)

Horizon West indicated that it is sponsoring more than one project in the ISO's 2022-2023 competitive solicitation process and that its in-service date for each of the three projects would not be affected if selected as the approved project sponsor for two or more of the projects. (P-4)

3.6.7 Information Provided by Lotus-SCE

Past Performance
Lotus-SCE provided schedule performance for eight 200 kV or above substation and transmission line projects that were completed or in final development in the past ten years in the U.S. and internationally, along with their planned and actual in-service dates. Lotus-SCE indicated that of these eight projects, six were developed by SCE and two were developed by Lotus. The information provided by Lotus-SCE indicated that three of the six projects developed by SCE and one of the two projects developed by Lotus were completed or will be completed on or before the planned in-service date. The information provided by Lotus-SCE also indicated that three of the six projects developed by SCE were delayed by an average of two months, and that one of the two projects developed by Lotus was delayed by four years. The reasons for the delays provided by Lotus-SCE included delays due to delays in the vendor selection process, environmental permits, asbestos abatement and other reasons that have been explained to the ISO. (Prior Projects and Experience Workbook)

Project Management and Team
Lotus-SCE indicated that through its respective contractors, it would develop plans that include preconstruction, coordination with SCE and SDG&E, FERC filings, public outreach plan, and SCE and SDG&E interconnection applications. (P-1)

Lotus-SCE also indicated that during the preconstruction phase, it would develop plans for procurement, health and safety, project execution, environmental management, electrical studies, interconnection studies, and other activities. (P-1)

Lotus-SCE indicated that its project development team, led by Lotus-SCE and comprising specific members from both Lotus-SCE and SCE, would be responsible for developing, siting, permitting, licensing, financing, constructing, and commissioning. (P-2)

Lotus-SCE indicated that the project management team comprising representatives from both SCE and Lotus-SCE would be responsible for day-to-day and long-term planning and strategy, as well as overseeing the activities performed by the various contractors. (P-2)

Lotus-SCE provided the names of the key members of the project executive and project development teams. Lotus-SCE also provided the experience of individuals chosen for key positions, such as project manager, environmental and permitting lead, asset manager, land acquisition lead, engineering, procurement, and construction lead, finance lead, and project administrator. (P-2)

Lotus-SCE provided the resume of the individual who would be the project manager for this project. (A-5)

Risk Management

Lotus-SCE provided a list of major risks and obstacles that included lack of detailed system data for design, siting, and land acquisition, environmental permitting, cost containment, and its ability to develop multiple projects simultaneously. Lotus-SCE also provided mitigation measures for these risks and obstacles. (P-4)

Regarding siting and land acquisition, Lotus-SCE identified failing to garner the willingness of landowners to participate in negotiations as the highest risk and indicated its experience in anticipating and addressing landowner questions and concerns. Lotus-SCE also indicated that its affiliates have the tools and resources to investigate land ownership changes and locate contact information to establish contact with the new landowner. (P-4)

Lotus-SCE indicated that the proposed route would minimize the length within the Anza Borrego Desert State Park and Anza Borrego Desert State Park General Plan designated wilderness areas. (E-3)

Lotus-SCE indicated its proposed route would cross the La Jolla Band of Luiseño Indians Reservation and Pala Band of Mission Indians Reservation. Lotus-SCE indicated it has contacted both tribes and received a response from the Pala Band, which indicated its willingness to work with the successful project sponsor. (L-1)

Lotus-SCE indicated its proposed North of SONGS Substation site is on a parcel located in southern Orange County regarding which Lotus-SCE has received a favorable indication from the owner that it would feasibly host the substation. (L-1)

Regarding environmental permitting and mitigation, Lotus-SCE indicated that its experience with this process for a similar transmission project would mitigate the risk associated with this process, which could take several years. Lotus-SCE indicated that changes to the project description and scope during the permitting phase could cause

significant delays and that it is committed to minimizing these changes. Lotus-SCE also indicated that it would conduct micrositing as the results of biological, cultural, and other environmental fieldwork are noted and could shift the location of the structures away from sensitive resources. (P-4)

Lotus-SCE also indicated that if selected as the approved project sponsor for all three projects in the ISO's 2022-2023 competitive solicitation process, including this project, its team has the capability to effectively develop all three projects simultaneously. (P-4)

3.6.8 Information Provided by SDG&E

Past Performance
SDG&E provided schedule performance for eight 200 kV or above substation and transmission line projects that were completed in the past ten years in the U.S. and internationally, along with their planned and actual in-service dates. The information provided by SDG&E indicated that one of the eight projects was completed on or before the planned in-service date. The information provided by SDG&E also indicated that seven of the eight substation and transmission projects were delayed. Based on the schedule performance information provided by SDG&E, the average delay in schedule when a project was delayed was 5.7 months. The reasons for the delays provided by SDG&E included delays due to unexpected challenges during construction, delays due to nesting birds and weather, delays in approval from state agencies, procurement delays due to the pandemic, and changes to the design to name a few.

SDG&E indicated the Sunrise Powerlink project, which is a comparable project in length and complexity, was constructed by SDG&E on time and under budget and placed in service in 2012. (P-5)

Project Management and Team
SDG&E provided information on its project management process, as well as a comprehensive guide for project management process that included the process to follow for (i) cost management, (ii) schedule management, (iii) scope and change management, (iv) risk, issue, and opportunity management, (v) communications and reporting, (vi) document management, (vii) quality management, (viii) safety management, (ix) materials management, and (x) closeout. SDG&E also provided information on the project management tools such as Primerva P6 and others that it plans to leverage for this project.

SDG&E indicated that it would establish a director steering committee and executive steering committee to ensure that the project is constructed safely in a cost-effective and timely manner, all while minimizing risk to the ISO and ratepayers. (P-2)

SDG&E further indicated that the committees would extend across the many disciplines necessary to support a project of this size, including regulatory and legal, public affairs, tribal relations, marketing and communications, community relations, environmental services, engineering, construction, operations, maintenance, land and real estate, supply management, and financial planning. (P-2)

SDG&E provided an organizational chart that showed the key personnel from SDG&E who would be working on the project, including the members of the executive steering committee, director steering committee, the project manager, and members responsible for key tasks. SDG&E indicated that it would manage risks across the project by

adequately resourcing each stage of delivery with a dedicated and efficient team of localized, experienced members. Additionally, SDG&E indicated that it would utilize California-licensed professional engineers and an environmental lead, supported by an internal and contract team of experts in environmental specialties, for this phase of the project. (P-2)

SDG&E provided the resume of the individual who would be the project manager for this project. (A-5)

Risk Management
SDG&E provided a risk registry that included 38 risk items under five categories – agency permitting, land acquisition, environmental mitigation strategy, external stakeholder sentiment, and construction risks. Under each category, SDG&E identified several risks, the cause for the risk, and the phase of the project in which the risk would occur, such as design, preconstruction, and final construction. For each risk, SDG&E also provided the probability of the risk, its impact (moderate, major, extreme etc.), a score based on probability and impact, as well as mitigation measures. (P-4)

SDG&E indicated that it anticipates the following key risks and proposed mitigation measures for each.

- Agency permitting, including schedule delays or denial of use permit or rights-of-way approval from agencies, including but not limited to the BLM, CPUC, DoD, California State Parks, USFS, and USFWS
- Environmental mitigation requirements
- Land acquisition
- Stakeholder engagement
- Construction risks

(P-4)

SDG&E indicated its proposed route would not cross any tribal lands and noted that, while developers can condemn private land for a transmission line, the same is not true for tribal lands. SDG&E indicated that to site energy infrastructure on reservation or trust lands, one would need formal support from the tribe (tribal government and tribal general membership, depending on the tribe), individual landowners on impacted allotment land (if any), and approval from the BIA. (L-1, E-1)

SDG&E indicated that while its preferred route is longer than its alternative route, it takes advantage of traversing the Anza Borrego Desert State Park in an area where there are existing transmission facilities and is located outside areas of critical environmental concern in the southeastern portion of the study area. (Appendix P-4c)

SDG&E indicated its proposed route is approximately 153 miles long and it would acquire land rights from BLM, USFS, DoD, California State Parks, Orange County, and private landowners. (E-1, E-2, E-3, E-4, L-1)

SDG&E indicated its proposed site for the North of SONGS Substation is in Orange County on 50 acres of private property. SDG&E indicated it has secured an agreement to exclusively negotiate an option to acquire, lease, or otherwise use land for the development and construction of a new substation and related facilities with one of the last remaining large landowners with developable land in the vicinity of the ISO's preferred location for a new substation north of SONGS. (L-1, L-4, CC-1)

SDG&E indicated that it deliberately chose to bid only on this project to focus its efforts on one project. (P-4)

Financial Incentive
SDG&E indicated that it expects to include in its construction contracts for the project a requirement that contractors must pay SDG&E liquidated damages for project delays, which would serve as a financial disincentive against project delays caused by contractor mismanagement. (P-1)

3.6.9 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 four project proposals included schedules that meet the latest in-service date of June 1, 2034, as specified in the ISO Functional Specifications.

All four 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 was to be delayed by six months.

Several project sponsors proposed schedules with an expected in-service date earlier than the ISO's latest in-service date. However, for the purpose of the comparative analysis for this component of the factor, the ISO considers the potential benefits from an in-service date for this project before the latest in-service date specified in the ISO Functional Specifications to be uncertain based on the information currently available to the ISO. With this in mind, the ISO has chosen to evaluate the project proposals for this factor only based on the project's ability or likelihood of achieving the latest in-service date specified in the ISO Functional Specifications.

As a result, the ISO has determined that all four proposed schedules meet the latest in-service date specified in the ISO Functional Specifications and all sponsors proposed reasonable measures to meet the latest in-service date if the project start date was delayed by six months. On that basis, the ISO has determined that there is no material difference among the four 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 transmission line projects. CalGrid provided information on 21 projects, Horizon West provided information for 73 projects, Lotus-SCE for 11 projects, and SDG&E for eight projects that were substation or transmission line projects at voltage levels 200 kV or above and completed in the past ten years.

Regarding completing projects on schedule, the ISO considers that all project sponsors demonstrated a reasonable degree of success in meeting previous project schedules, although some project sponsors demonstrated more success than others. The schedule performance information provided by CalGrid and Horizon West showed that 100% and 92% of their respective projects were completed on or ahead of schedule. While the schedule performance information provided by SDG&E showed lower on-time completion percentages, the average delay was less than six months (for which SDG&E indicated several delays were for reasons beyond its control). The majority of the experience identified by Lotus-SCE was for SCE projects, and SCE would not be responsible for the construction and development of this project. The schedule performance information provided for the two projects developed by Lotus showed an average delay of two years.

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 among the experience of CalGrid, Horizon West, and SDG&E in completing previous projects on schedule and considers their experience to be better than the experience described by Lotus-SCE.

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

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

Horizon West indicated that its core team of professionals and subject matter experts would draw upon NextEra's matrixed organization of shared resources for the project execution. Horizon West also provided a copy of the corporate support services agreements used for procuring services from NextEra's matrixed organization.

Based on the foregoing analysis, the ISO determined that regarding project management and team there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE and SDG&E.

Project Risk and Management
All four project sponsors included a thorough approach to identifying risks to the project schedule and possible mitigations for those risks. All project sponsors except SDG&E confirmed their ability to work on multiple projects simultaneously, if awarded more than

one. SDG&E indicated that it is submitting a proposal for only this project. All project sponsors indicate that they have taken steps to reduce schedule risk.

CalGrid and Lotus-SCE have both proposed routes that require the acquisition of rights-of-way across tribal lands. The proposals from both CalGrid and Lotus-SCE identified alternative routes that were evaluated in developing their proposals. The ISO has determined that both proposals have substantial float that would be available in case of any delays associated with securing rights across tribal lands, which not only would provide additional time to secure land rights but also would provide sufficient time to procure land rights for an alternative route if necessary.

Horizon West proposed a route that would traverse an urban area. This portion of Horizon West's proposed route poses a risk of public opposition that can affect project schedule risk. The proposal from Horizon West identified specific design features and mitigation to address this risk. The ISO has determined that the proposal from Horizon West has substantial float that would be available in the case of any delays to secure the necessary land rights through the this urban area.

CalGrid, Lotus-SCE, and SDG&E all proposed routes that necessitate obtaining federal special use permits to cross land managed by the U.S. Forest Service, which would require special use permits and pose additional permitting challenges. The ISO has determined that the proposals from CalGrid, Lotus-SCE, and SDG&E all have substantial float that would be available in case of any delay in receiving the required authorizations.

All proposals have proposed routes through the Anza Borrego Desert State Park and numerous environmentally sensitive areas and have provided schedules that support the acquisition of the required permits as well as alternative routes.

Based on the foregoing analysis, the ISO determined that regarding project risk and management, due to the significant amount float identified in all of the proposals, none of the foregoing risks to the proposed schedules of the project sponsors is significant enough to pose a risk that the project could not be completed by the latest in-service date in the ISO Functional Specifications, and therefore there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E regarding this consideration.

Financial Incentive
CalGrid's proposal included an incentive that would reduce the project ROE by 2.5 basis points for each full calendar month that the project is delayed beyond June 1, 2034, up to a total of 30 basis points. The proposals of Horizon West, Lotus-SCE, and SDG&E did not include any specific incentives for on-time completion of the project.

The ISO has determined that CalGrid's proposal is better than the proposals of Horizon West, Lotus-SCE, and SDG&E because it included an on-time completion financial incentive while others did not.

Overall Component
The ISO has determined that there is no material difference among the four proposals regarding project management and team and project risk and management approaches.

The ISO has determined that there is no material difference among the proposals of CalGrid, Horizon West, and SDG&E and that they are better than the proposal of Lotus-

SCE regarding the amount of experience constructing substation and transmission line projects over the past ten years and the timely completion of projects over that same time period.

The ISO has determined that, regarding offering a schedule incentive, CalGrid's proposal is better than the proposals of Horizon West, Lotus-SCE, and SDG&E because it included an on-time completion financial incentive while others did not.

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, CalGrid's proposal is better than the proposals of Horizon West and SDG&E, between which there is no material difference, and which are better than the proposal of Lotus-SCE, 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 proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E 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, CalGrid's proposal is better than the proposals of Horizon West and SDG&E, between which there is no material difference, and which are better than the proposal of Lotus-SCE, 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, CalGrid's proposal is better than the proposals of Horizon West and SDG&E, between which there is no material difference, and which are better than the proposal of Lotus-SCE, regarding this factor overall.

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

(Prior Projects and Experience Workbook, F-1 through F-13)

The fifth selection factor is the "financial resources 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 the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project will cost in excess of one billion dollars and require significant financial resources.

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

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")[7] – 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 another metric similar to the agency credit ratings.

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[8], 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:

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

[8] 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 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.

- 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) CalGrid provided information regarding financing of representative projects through its parent and affiliated entities that were similar in type but primarily lower in cost than the expected cost of this project. CalGrid indicated that the representative projects were financed using a project-level financing approach. CalGrid indicated that construction financing would be funded by financial institutions and converted to long-term debt after completion. (F-1, F-11)

Project Financing Proposal

CalGrid indicated that it proposes to create a special purpose entity that would own the assets and facilitate project-level financing to support the construction and operations of the project. CalGrid indicated that it would rely on BETP IV and its ultimate parent Blackstone to provide financial support and guarantees for this project. (A-5, F-5)

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)

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. CalGrid indicated that the equity commitment would be irrevocable, thereby providing 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's (WAPA) Transmission Infrastructure Program and various Department of Energy (DOE) programs. (F-12)

To provide further evidence of financial support for the project, CalGrid provided letters of support from two commercial banks. The letters state that they are non-binding and should not be construed as a commitment to finance the project. (F-12.1, F-12.2)

Financial Resources

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-2.2)

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 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-2.1)

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-2.3, F-2.4)

CalGrid provided Blackstone, Inc.'s annual audited financial statements for 2018-2022 and quarterly unaudited financial statements for 2023. (F-3, F-4) CalGrid provided the following information from Blackstone, Inc.'s latest audited financial statements:

Total assets
Total liabilities
Net worth

Credit Ratings

CalGrid indicated that Blackstone, Inc. 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, Inc.: (F-6)

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

CalGrid provided financial strength comparison graphs showing CalGrid's financial strength versus select peers and debt issuers. (F-6)

Financial Ratio Analysis

CalGrid provided the following financial ratios based on Blackstone, Inc.'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 Horizon West

Project Financing Experience

Horizon West provided a list of several transmission and substation projects that its parent company, NextEra, financed in the past ten years. (Prior Projects and Experience Workbook) Horizon West provided information regarding NextEra's financing of representative projects that were similar in type but lower in cost than the expected cost of this project. (F-11A) Horizon West indicated that the representative projects were financed using limited-recourse term and senior secured variable rate term loans. Horizon West indicated that debt sources included commercial banks. (F-11)

Project Financing Proposal

Horizon West indicated that during the development and construction of the project it would enter into debt financing arrangements and receive equity from NEECH. Upon commercial operations and throughout the life of the project, Horizon West indicated that it plans to finance the project with debt from NEECH and may consider sourcing project financing from the capital markets. Horizon West indicated that it may consider third-party project financing and is exploring debt financing from the DOE. (F-1)

Horizon West provided a letter from NextEra indicating that NEECH would provide appropriate funding and needed guarantees to Horizon West and that those would, in turn, be guaranteed by NextEra as provided for through a blanket guarantee arrangement between NEECH and NextEra. Horizon West indicated that execution of a guaranty would be dependent on the ISO selecting Horizon West as the approved project sponsor and the execution of a mutually agreeable Approved Project Sponsor Agreement with the ISO. (F-2, F-2a, F-2c)

Horizon West indicated that the project would be supported 100% through corporate parent debt and equity funding. Horizon West also indicated that it plans to pursue a variety of DOE programs as a source of debt funding as this type of funding could reduce rates significantly when compared with commercial rates. (F-13)

Financial Resources

Horizon West provided a letter from NextEra, signed by an officer of NextEra, indicating NextEra's financial assurance by guaranteeing the financial obligations of the project. (F-2a)

Horizon West provided NextEra's annual audited financial statements for 2018-2022 and quarterly unaudited financial statements for 2023. Horizon West also provided Horizon West's annual audited FERC Form 1 financial statements for 2022 and FERC Form 3-Q quarterly audited financial statements for 2023. (F-3, F-3a, F-4) Horizon West provided the following information from NextEra's latest audited financial statements:

Total assets
Total liabilities
Net worth

Credit Ratings

Horizon West indicated that NextEra is a public company and has been rated investment grade by all three credit rating agencies for the past five years. Horizon West provided the following credit ratings and associated credit rating reports for NextEra: (F-6)

Moody's: Baa1
S&P: A-
Fitch: A-

Financial Ratio Analysis

Horizon West provided the following financial ratios based on NextEra's audited financial statements: (F-9, F-10)

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

3.7.3 Information Provided by Lotus-SCE

Project Financing Experience

Lotus-SCE provided a list of transmission and substation projects that Lotus has financed in the past ten years. (Prior Projects and Experience Workbook) Lotus-SCE provided information regarding financing by Lotus for representative projects that were similar in type to this project. Lotus-SCE provided information showing financing for three projects that were lower in cost than the expected cost of this project. Lotus-SCE indicated that the representative projects were financed using project-specific non-recourse construction and permanent debt sourced from institutions. Lotus-SCE indicated that Lotus has raised billions of dollars of equity capital related to the development and construction of renewable assets, such as wind farms, solar farms, renewable natural gas projects, energy storage, and biomass power plants. (A-5)

Lotus-SCE also provided information showing financing of SCE projects that were primarily lower in cost than the expected cost of this project. Lotus-SCE indicated that the representative projects were financed through the capital markets based on the needs of SCE's overall capital investment program. (F-11, Prior Projects and Experience Workbook)

Project Financing Proposal

Lotus-SCE indicated that Lotus and SCE are submitting a joint proposal whereby Lotus and SCE intend to execute transaction documents that would include certain agreements for jointly developing, financing, constructing, owning, operating, and maintaining, the project.(Joint Bid Agreement)

Lotus-SCE indicated and that a special purpose entity would be created as an affiliate of Lotus for the project. Lotus-SCE indicated that if selected as the approved project sponsor, the special purpose entity would be established to develop, permit, finance,

construct, and commission the project, which would be managed by Lotus through LIF III and affiliated investment vehicles. (F-1, F-2, A-5)

Lotus-SCE indicated that during the development and the construction stage of the project Lotus would fund 100% of the development and construction costs. (Joint Bid Agreement Annex B-1)

Lotus-SCE indicated it would negotiate a transaction document that would include a term that if at any time during development or construction of the project Lotus determines that the project is unlikely to proceed due to a material adverse event then SCE, in response to a notice sent by Lotus, would provide its pro rata share of the percentage interest of capital funding. (Joint Bid Agreement Annex B-1)

Lotus-SCE indicated that upon commissioning of the project, SCE would purchase 100% of the project assets and that concurrently Lotus would enter into a lease with SCE for 50% of the transfer capability in the project. (Joint Bid Agreement Annex B-4)

Lotus-SCE 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-SCE indicated that Lotus-SCE would service the debt associated with the design, procurement, construction, and operations of the project. (A-5, F-5)

Lotus-SCE indicated that the financial structure for construction and working capital would rely on LIF III and that it intends to utilize the WAPA Transmission Infrastructure Program for debt financing of the construction and operating phases of the project. (F-1, F-12)

Lotus-SCE indicated that it has received a letter of interest and support confirming WAPA's intent to collaborate with the project proponent on the project, but the letter of interest and support is clear that it is not a commitment to fund the project. (F-13)

Financial Resources

Lotus-SCE indicated Lotus will fund the project with debt and equity for the construction and proceeding operating period and would rely on existing funds or affiliated investment vehicles for financial backing of the project. Lotus-SCE indicated that the funds of LIF III and other affiliated investment vehicles are available to support the construction of the project.

Lotus-SCE indicated that SCE intends to finance 50% of the project by leveraging its own financial strength to finance, operate, and maintain the project. Lotus-SCE indicated that upon purchase and over the life of the project, SCE would finance the project consistent with SCE's authorized capital structure and various financing sources. (F-1, F-2, A-5)

Lotus-SCE provided a written parent guarantee, signed by an officer of Lotus, providing financial assurance that LIF III, 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 the financial support for the project repairs and permitting of the project. (F-2.1) Lotus-SCE also indicated that LIF III would provide a guarantee to support the project's development, financing, and construction needs. (A-5)

Lotus-SCE indicated that financial recourse during the construction of the project would be limited to LIF III, but that Lotus-SCE would have sufficient capital through LIF III and investment affiliates to support the construction of the project and any potential liabilities. (F-2)

Lotus-SCE provided the following information for LIF III based on quarterly unaudited financial information for 2023 within a letter in lieu of financial statements for 2023: (F-3.2)

Total assets
Total liabilities
Net worth

Lotus-SCE provided SCE's annual audited financial statements for 2018-2022 and quarterly unaudited financial statements for 2023. (F-3, F-4) Lotus-SCE provided the following information from SCE's latest audited financial statements:

Total assets
Total liabilities
Net worth

Credit Ratings

Lotus-SCE indicated that LIF III does not have a credit rating. (F-6)

Lotus-SCE indicated that SCE has been rated investment grade by all three credit rating agencies. Lotus-SCE provided the following credit ratings and associated credit rating reports for SCE:

Moody's A2
S&P A-
Fitch A-

Financial Ratio Analysis

Lotus-SCE did not provide audited financial statements or financial ratios for LIF III. Lotus-SCE provided a letter in lieu of financial statements for LIF III, which Lotus-SCE asserted demonstrates that LIF III could meet the financial requirements of the project. (F-3.2)

The ISO calculated the following financial ratio based on the letter in lieu of financial statements for LIF III provided by Lotus-SCE:

Total assets/total projected capital costs

Lotus-SCE provided the following financial ratios based on SCE's audited financial statements: (F-9, F-10)

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

3.7.4 Information Provided by SDG&E

Project Financing Experience

SDG&E provided a list of transmission and substation projects that it has financed in the past ten years. (Prior Projects and Experience Workbook) SDG&E provided information regarding its financing for two representative projects that were similar in type but lower in cost than the expected cost of this project. SDG&E indicated that it typically finances projects with mortgage bonds and that the representative projects were financed using a combination of debt, equity, and stock in accordance with an authorized capital structure. (F-11, Prior Projects and Experience Workbook)

Project Financing Proposal

SDG&E indicated it has the stable access to capital necessary to construct the project and indicated it will not be relying on a parent or another affiliated entity to satisfy the financial criterion of its proposal or for financial backing or for financial assurances for the project. (F-1, F-2)

SDG&E indicated the project would be financed using a combination of debt and equity and that it will access the capital markets to raise debt financing.

SDG&E asserted that its robust financial position and strong credit ratings have supported self-financing a multitude of projects comparable to the proposed project. SDG&E indicated that the full faith and credit of SDG&E would likewise support the financing of the project. SDG&E indicated that it would directly own the assets of the project and be directly accountable for project risks. (F-14)

SDG&E indicated that SDG&E and Citizens Energy have signed a non-binding letter of intent for the proposed project under which Citizens Energy or its subsidiary would have the option to lease 50% of the transfer capability on a segment of the project equivalent to the shared value of its investment.

SDG&E indicated that it does not plan to use financing sources outside of capital markets. However, SDG&E indicated that it continuously monitors for and pursues available opportunities to lower financings costs, including federal funding and loan guarantees, green bond financing, and tax incentives that might reduce costs to ratepayers. (F-13)

Financial Resources

SDG&E provided access to SDG&E's annual audited financial statements for 2018-2022 and quarterly unaudited financial statements for 2023. (F-3, F-4) SDG&E provided the following information from SDG&E's latest audited financial statements:

Total assets
Total liabilities
Net worth

Credit Ratings

SDG&E provided the following credit ratings and associated credit rating reports: (F-6)

Moody's: A3
S&P: BBB+
Fitch: BBB+

Financial Ratio Analysis

SDG&E provided the following financial ratios based on SDG&E's audited financial statements: (Appendix F-9, F-10)

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

3.7.5 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 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 has 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 has 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 provided information showing financing of multiple projects of similar type but primarily lower in cost than the expected cost of this project. Horizon West provided information showing financing of transmission projects of similar type but lower in cost than the expected cost of this project. Lotus-SCE provided information for Lotus showing the financing of transmission projects that were of similar type but lower in cost than the expected cost of this project, and Lotus-SCE provided information for SCE showing the financing of transmission projects that were similar in type but primarily lower in cost than the expected cost of this project. SDG&E provided information showing financing of some similar types of transmission projects that were lower in cost than the expected cost of this project. Based on the information provided and representations by the project sponsors, the ISO has determined that over the past ten years, Horizon West identified considerably more transmission project financing experience than CalGrid, Lotus-SCE, and SDG&E. Although CalGrid and SDG&E identified less transmission project financing experience than Horizon West, their financing experience exceeded the experience identified by Lotus-SCE for Lotus, which is responsible for financing of the construction of its project, during the past ten years.

Although Horizon West demonstrated more transmission project financing experience than CalGrid, Lotus-SCE, and SDG&E in the past ten years, and CalGrid and SDG&E demonstrated more transmission project financing experience than Lotus-SCE identified for Lotus in the past ten years, the ISO has concluded that CalGrid, Lotus-SCE, and SDG&E sufficiently demonstrated their ability to secure project financing for this project. Consequently, the ISO considers the project financing experience of all four project sponsors for their four 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 intend to finance the project using a combination of both equity and debt. Equity for the project will be provided by the parent or an affiliate company of the project sponsor or an individually backed project sponsor company. Debt will be provided directly through the existing capital or credit facilities of the parent or an individually backed project sponsor company 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.

Some 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, Horizon West, and Lotus-SCE indicated they are investigating the possibility of securing project financing through WAPA's Transmission Infrastructure Program or one or more of the DOE's programs. Lotus-SCE received a letter of interest and support confirming WAPA's interest in leading a financing to support a bid by the project proponent for the project, but the letter of interest and support is clear that it is not a commitment to fund the project. SDG&E indicated it had no plans to source financing outside of the capital

markets but that it monitors and will pursue financing opportunities through various government programs and tax incentives to lower costs to ratepayers.

Based on all four project sponsors' reliance on either parent or project sponsor funding and access to the capital markets, the ISO finds no material difference in their funding proposals.

Financial Resources

Each project sponsor has access to a parent or an affiliate or to the financial strength of an individually backed project sponsor company and the capital markets and financial institutions for financing this project. All of the parent or affiliate companies of the project sponsors and the individually backed project sponsor company will provide equity for the project based on equity to total capital ratios that are in accordance with industry practice. All 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 or to the individually backed project sponsor company funding to fulfill the balance of debt required to cover the cost of the project. The parent or affiliate companies of the project sponsors that are providing the financial support for the project also provided either a letter of guarantee or financial assurance to support the financial obligations of the project. Strength in this factor can help minimize the financial risk that a project may not be completed.

Based on the information provided by the project sponsors, the ISO has determined that CalGrid's parent company, Blackstone, and Horizon West's parent company, NextEra, are strongest regarding this particular measure, followed by SDG&E, which is stronger than Lotus-SCE's identified affiliate company, LIF III. Lotus-SCE indicated that if at any time during development or construction of the project Lotus determines that the project is unlikely to proceed due to a material adverse event, then Lotus would request that SCE provide a true-up capital funding for the project. However, based on the limited information provided, the ISO does not consider Lotus' request for SCE's true-up capital funding for the project by SCE to be a binding commitment by SCE to fund the project. Consequently, the ISO focused its analysis of the financial strength of Lotus-SCE on the strength of LIF III as the source of the financial resources for the construction phase of the project.

The ISO also calculated a tangible net worth for the parent companies of two of the project sponsors and for the individually backed project sponsor company and has concluded that the parent of HWT showed a higher tangible net worth than the parent of CalGrid or SDG&E as an individual project sponsor company have shown over the past five years. SDG&E showed higher tangible net worth than the parent of CalGrid. Lotus-SCE did not provide sufficient information for the ISO to calculate a tangible net worth for Lotus; thus, the ISO was unable to compare Lotus-SCE to the other project sponsors regarding this measure of financial strength for the development and construction phase of the project. The ISO determined that for the operations phase the tangible net worth of SCE is comparable to that of the other project sponsors, although the ISO considers that of lesser importance than the financial resources of Lotus for the development and construction 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 has concluded that the proposals of CalGrid, Horizon West, and SDG&E are comparable and the strongest in this regard, followed by Lotus-SCE's proposal. Lotus-SCE indicated that Lotus-SCE has developed banking relationships by indicating that several banks have expressed an interest in working with Lotus-SCE to determine the level of and form of debt that can be provided for the project. Consequently, the ISO considers Lotus-SCE to have sufficient financial resources to complete this project. Given the cost estimates for this project, considering the analysis discussed above, and given the inability of the ISO to calculate a tangible net worth for Lotus-SCE for the development and construction phase of the project, the ISO considers CalGrid, Horizon West, and SDG&E, for their proposals, to be comparable and stronger regarding this particular measure of financial strength than Lotus-SCE, 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 will pay its debts on time and in full.

Of the four project sponsors, two have parent or affiliate companies that are public, the individually backed project sponsor company is public, and one company is private. All three of the public companies had investment grade ratings from each of the 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.

CalGrid and Horizon West are backed by independently rated, investment grade companies, and SDG&E is rated an investment grade company. Although their individual ratings vary somewhat, the ISO does not consider these differences to be material for purposes of assessing the ability of these companies to obtain sufficient funding to construct this project. The affiliate companies of Lotus identified by Lotus-SCE 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. SCE is rated an investment grade company, to the extent Lotus-SCE needs credit to obtain funding for the operations phase of the project.

In addition to available credit ratings, the ISO also used Moody's Analytics Estimated Default Frequency (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 two of the three parent or affiliate companies of the project sponsors and for the individually backed project sponsor company, for each of the past five years.

The EDF scores of the parent company of Horizon West and SDG&E as an individually backed project sponsor company were lower than CalGrid's parent company's EDF scores for the past five years.

Lotus-SCE did not provide sufficient information to generate the EDF report or equivalent ratings for Lotus' affiliate companies; thus, the ISO was unable to compare Lotus-SCE to the other project sponsors regarding these two measures of financial strength. The information provided by Lotus-SCE regarding SCE's EDF scores and

equivalent ratings indicated that SCE has sufficient credit to ensure the ability of Lotus-SCE to meet its obligations during the operations 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 proposals of CalGrid, Horizon West, and SDG&E to be comparable. The ISO relies on the EDF report and equivalent ratings as an additional financial metric to assess the probability that a company will default on its payments within a specified period of time. None of the EDF scores and equivalent ratings were unacceptable, but there were slight differences in the EDF scores of Horizon West and SDG&E compared to CalGrid, as discussed above, which the ISO does not consider material to this comparison of the creditworthiness of these project sponsors. As noted, the ISO was unable to compare Lotus-SCE to the other project sponsors regarding this consideration for the development and construction phase of the project.

Financial Ratio Analysis

CalGrid and Horizon West provided audited financial statements for the past five years for their parent companies, and as an individually backed project sponsor company, SDG&E provided audited financial statements for the past five years. Based on this information, CalGrid, Horizon West, and SDG&E provided interest and debt coverage, debt to capital, and total assets to total projected capital costs 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, or individually backed project sponsor 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, Horizon West, and their parent companies, and SDG&E as an individually backed project sponsor company, they 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 Horizon West's parent companies and SDG&E as an individual project sponsor company 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, debt to capital ratios, and total assets to total projected capital costs ratios of CalGrid, Horizon West, and SDG&E to be comparable for those measures. Lotus-SCE did not provide 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. The ISO was unable to calculate

financial ratios other than total assets to total projected capital costs for Lotus-SCE for the development and construction phase of the project, and thus the ISO was unable to compare Lotus-SCE and to the other project sponsors regarding this measure of financial strength for the development and construction phase of the project. Lotus-SCE did provide information for interest and debt coverage, debt to capital, and total assets to total projected capital costs ratios for SCE in its proposal that showed that Lotus-SCE would have no risk of extensive financial leverage during the operations phase of the project because SCE's debt obligations do not exceed its capital balance. However, the ISO considers the financial ratios of SCE for the operations phase of the project of lesser importance than the lack of financial ratios for Lotus for the construction phase of the project.

As discussed above, CalGrid's, Horizon West's, and SDG&E's financial ratios are comparable, and the ISO was unable to calculate financial ratios for Lotus-SCE for the development and construction phase of the project. As a result, the ISO considers the proposals of CalGrid, Horizon West, and SDG&E to be comparable, and the ISO is unable to compare these proposals to Lotus-SCE's proposal 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 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, Horizon West, and SDG&E to be comparable and to have an advantage over Lotus-SCE in the area of financial resources. The ISO also considers CalGrid, Horizon West, and SDG&E to be comparable in the area of credit ratings and EDF and in the area of financial ratio analysis. The ISO is unable to compare Lotus-SCE to the other project sponsors regarding credit ratings and EDF and regarding financial ratio analysis for the development and construction phase of the project.

Based on the foregoing, in conjunction with 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, there is no material difference among CalGrid and its proposal, Horizon West and its proposal, and SDG&E and its proposal, which are better than Lotus-SCE and its proposal, regarding this factor.

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."

As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because experience with environmental permitting and transmission project engineering can contribute to lower project cost, reduced permit acquisition efforts, and reduction in the overall time needed to complete the project. In addition, the project includes a particularly long transmission line requiring extensive environmental permitting and engineering for an area with many constraints, including but not limited to challenging terrain, environmentally sensitive areas, DoD land, tribal land, and urban areas, making experience with environmental permitting even more important.

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

(Prior Projects and Experience Workbook, E-1, E-2, E-3, E-4, E-5a)

3.8.1 Information Provided by CalGrid

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

Expected federal permits:

- BLM rights-of-way permanent and temporary.
- U.S. Army Corps of Engineers Clean Water Act, Section 404.
- USFWS Endangered Species Act, Section 7.
- USFS rights-of-way and use authorization.
- DoD, Department of the Navy Marine Corp Base Camp Pendleton rights-of-way and use authority.
- Federal Aviation Administration (FAA) consultation for flight paths near civilian airports and helicopter use.
- BIA rights-of-way grant
- Advisory Council on Historic Preservation Section 106 consultation.
- Department of Homeland Security and Border Patrol consultation
- Bureau of Alcohol, Tobacco, and Firearms explosive user permit
- Federal Highway Administration encroachment permits
- Environmental Protection Agency (EPA) comprehensive environmental response, compensation, and liability act phase 1 review.

Expected California permits:

- CPUC CPCN/California Environmental Quality Act (CEQA) review. AB 52 Tribal consultation.
- Regional Water Quality Control Board water discharge permit.
- California Department of Fish and Wildlife Section 2081 incidental take permit and 2081.1 consistency with federal species. Mitigation plan for rare plants. Lake and streambed alteration permit.
- California State Historic Preservation Office (SHPO) Section 106 consultation.
- California State Lands Commission lease
- California Department of Parks and Recreation rights-of-way easement
- Caltrans - Encroachment permits
- California Department of Toxic Substance Control hazardous material plan. (E-1, E-2, E-3, E-4)

CalGrid provided a list of its experience and the experience of its contractors with obtaining permits for substation and transmission line projects. This list included 43 substation and transmission line projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., with 27 in California. (Prior Projects and Experience Workbook).

3.8.2 Information Provided by Horizon West

Horizon West indicated it would submit permit applications to the following agencies:

Expected federal permits:

- BLM rights-of-way permanent and temporary.
- DoD, U.S. Marine Base Camp Pendleton rights-of-way and use authorization.
- U.S. Army Corps of Engineers Clean Water Act Section 404, NWP 57.
- USFWS Endangered Species Act Section 7.
- Advisory Council on Historic Preservation Section 106 consultation.
- FAA Determination of No Hazard to Air Navigation

Expected California permits:

- CPUC CPCN/CEQA review.
- Regional Water Quality Control Board Section 401 Water Quality Certification (WQC). Storm Water Pollution Protection Plan (SWPPP).
- California Department of Fish and Wildlife Section 2081 incidental take permit and 2081.1 consistency with federal species. Mitigation plan for rare plants. Section 1600 lake and streambed alteration permit.
- Department of Parks and Recreation rights-of-way authorization. (E-1, E-2, E-3, E-4)

Horizon West provided a list of its experience and the experience of its contractors with obtaining permits for substation and transmission line projects. This list included 385 substation and transmission line projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., with 55 in California. (Prior Projects and Experience Workbook)

3.8.3 Information Provided by Lotus-SCE

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

Expected federal permits:

- BLM rights-of-way permanent and temporary.
- USFS special use permit and rights-of-way and use authorization.
- U.S. Army Corps of Engineers Clean Water Act, Section 404, NWP 57.
- USFWS Endangered Species Act, Section 7.
- BIA rights-of-way grant
- Advisory Council on Historic Preservation Section 106 consultation.

Expected California permits:

- CPUC CPCN/CEQA review.
- Regional Water Quality Control Board Section 401 WQC, SWPPP
- California Department of Fish and Wildlife Section 1602 lake and streambed alteration permit.
- California Department of Parks and Recreation right of entry and encroachment permit
- Caltrans encroachment permit

Lotus-SCE indicated it would seek for this project's federal permitting process to be included under the FAST-41 process. As a FAST-41 covered project, Lotus-SCE indicated that the Federal Permitting Improvement Steering Council would coordinate all federal environmental reviews and authorizations for this project. (E-1, E-2, E-3, E-4)

Lotus-SCE provided a list of its experience and the experience of its contractors with obtaining permits for substation and transmission line projects. This list included 26 substation and transmission line projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., with 19 in California. (Prior Projects and Experience Workbook)

3.8.4 Information Provided by SDG&E

SDG&E indicated it would submit permit applications to the following agencies:

Expected federal permits:

- BLM rights-of-way permanent and temporary.
- DoD, U.S. Marine Base Camp Pendleton, rights-of-way and use authorization.
- U.S. Army Corps of Engineers Clean Water Act, Section 404.
- USFWS Endangered Species Act Section 7, incidental take permit.
- USFS special use permit and powerline facility easement. lease
- Federal Highway Administration encroachment permit

Expected California permits:

- CPUC Permit to Construct or CPCN and CEQA review.
- Regional Water Quality Control Board Section 401 WQC, SWPPP
- California Department of Fish and Wildlife Section 1602 lake and streambed alteration permit.
- Department of Toxic Substances Control hazardous material business plan
- Caltrans encroachment permit (E-1, E-2, E-3, E-4)

SDG&E indicated that it had already secured and successfully implemented a state and federal conservation plan, known as the Natural Community Conservation Plan and Habitat Conservation Plan. (A-4)

SDG&E provided a list of its experience and the experience of its contractors with obtaining permits for substation and transmission line projects. This list included 24 substation and transmission line projects that operate at voltages above 200 kV, are ongoing or have been completed in the past ten years, and are located in the U.S., with 24 in California. (Prior Projects and Experience Workbook)

Engineering Qualifications and Experience

(Prior Projects and Experience Workbook, A-5, QP-1, QP-2, P-4, P-5, S-1 through S-8, T-1 through T-8)

3.8.5 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with designing substations and transmission line projects. The list included 57 substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years and are located in the U.S., with 12 in California. (Prior Projects and Experience Workbook)

CalGrid's proposal indicated that the proposed substation and transmission line design is consistent with the ISO's contemplated design and meet the voltage, ampere ratings, impedance, and other specifications for the project listed in the ISO Functional Specifications, and that its electrical characteristics are consistent with the upgrades that were modeled and studied in detail and meet the identified system needs and provide the economic benefits as designed by the ISO. (QP-1)

CalGrid's proposal indicated that that the proposed design satisfies applicable reliability criteria and ISO planning standards. (QP-2)

CalGrid developed a list of potential project engineering risks that included increased geotechnical related expenses, striking unmarked utilities, and that final permits may modify design. (P-4)

CalGrid's proposal identified common design risks its contractor encountered, including permitting, access work complications, landowner relations, federal and indigenous engagement, geotechnical and environmental issues, and designing for crossing bodies of water, critical (threatened or endangered) species habitats, or railroads. (P-5)

CalGrid provided detailed design criteria and identified a list of standards and requirements that it would use in the design of the North of SONGS Substation and its proposed 141 mile Imperial Valley-North of SONGS 500 kV transmission line, including codes and standards, GO 95 and NESC requirements, detailed engineering routing criteria, and California and local requirements. CalGrid provided a description of the major electrical equipment, protection, relays, supervisory control and data acquisition (SCADA) system, diverse communication paths, transmission conductor, structures, ampacity at 50^0C ambient, and impedances. CalGrid indicated that the audible noise would meet the EPA suggested limit of 55 dBA at the edge of rights-of-way. (S-1 to S-8, T-1 to T-8).

3.8.6 Information Provided by Horizon West

Horizon West provided a list of its experience and the experience of its contractors with designing substation and transmission lines projects and that the list included 26 substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years, and are located in the U.S., with one in California. Horizon West also indicated that it has prior experience with three out of five of its proposed contractors with design experience. (Prior Projects and Experience Workbook)

Horizon West indicated that its proposal satisfies the ISO Functional Specifications for the new project. (QP-1)

Horizon West indicated that the design has been verified to satisfy all applicable reliability planning standards, criteria, and guidelines and has applied design and performance criteria from the North American Electric Reliability Corporation (NERC), WECC, and ISO. (QP-2)

Horizon West indicated that potential engineering risks include unexpected subsurface conditions, route changes, FAA hazard determination, and requirement to change conductor, structures, or foundations. (P-4)

Horizon West indicated that it has faced design-related risks and challenges similar to those foreseen for the project, such as field conditions that are inconsistent with initial design basis, and provided examples of five projects where it had faced similar risks. (P-5)

Horizon West indicated that the proposed site for its North of SONGS Substation would be located ten miles from SONGS and near SCE's 230 kV lines. Horizon West provided detailed design criteria and identified a list of standards and requirements that it would use in the design of the North of SONGS Substation and 135-mile Imperial Valley-North of SONGS 500 kV transmission line, including codes and standards, GO 95 and NESC requirements, detailed engineering routing criteria, and California and local requirements. Horizon West provided a description of the major electrical equipment, protection, relays, SCADA system, diverse communication paths, transmission conductor, structures, ampacity at 50^0C ambient, and impedances. Horizon West indicated that the audible noise would meet the EPA suggested limit of 55 dBA at the edge of rights-of-way. (S-1 to S-8, T-1 to T-8)

3.8.7 Information Provided by Lotus-SCE

Lotus-SCE provided a list of its experience and the experience of its contractors with designing substations and transmission line projects. The list included 52 substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years and are located in the U.S., with 20 in California. Lotus-SCE also indicated that it has prior experience with two of its proposed contractors that would be involved with project design and engineering. (Prior Projects and Experience Workbook)

Lotus-SCE indicated that the proposed project designs meet all the requirements set forth in the ISO Functional Specifications and that the proposed design for the transmission line meets or exceeds the criteria. (QP-1)

Lotus-SCE indicated that the ISO Tariff and the ISO planning standards were considered in designing the project and that the project would be designed with two diverse forms of telecommunication to support WECC guidelines. (QP-2)

Lotus-SCE indicated that the major risks to the project include lack of detailed system data, siting and land acquisition, environmental permitting, and mitigation cost containment. (P-4)

Lotus-SCE indicated engineering risks include subsurface and foundation design, heights near airports, long spans, vegetation impacts, and foundation design in non-accessible locations. (P-5)

Lotus-SCE provided detailed design criteria and identified a list of standards and requirements that it would use in the design of the North of SONGS Substation and 144 mile Imperial Valley-North of SONGS 500 kV transmission line, including codes and standards, GO 95 and NESC requirements, detailed engineering routing criteria, and California and local requirements. Lotus-SCE provided a description of the major electrical equipment, protection, relays, SCADA system, diverse communication paths, transmission conductor, structures, ampacity at 50^0C ambient, and impedances. Lotus-SCE provided a detailed discussion of audible noise that included information that the CPUC does not list a required noise level. Lotus-SCE indicated that recent SCE projects had audible noise levels of 64 dBA at the edge of the rights-of-way and indicated that if an impact is determined, the design would be adjusted by increasing ground clearance or extension of the rights-of-way. (S-1 to S-8, T-1 to T-8)

3.8.8 Information Provided by SDG&E

SDG&E provided a list of its experience and the experience of its contractors with designing of substations and transmission line projects. The list included ten substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years and are located in the U.S., with ten in California. SDG&E also indicated that it has prior experience with one of its proposed contractors that would be involved with project design and engineering. (Prior Projects and Experience Workbook)

SDG&E indicated that its proposed project is consistent with the needs identified in the ISO Functional Specifications and its proposed project's 500 kV transmission line and its associated plan of service meet the electrical performance requirements. (QP-1)

SDG&E indicated that its proposed project and associated plan of service would meet all applicable NERC, WECC, and ISO planning criteria. (QP-2)

SDG&E indicated risks that included ground disturbances, vegetation trimming, natural waterways, challenging landscapes, terrain, and water crossings. (P-4)

SDG&E indicated that its project design would account for steep slopes, poor soils, unexpected conditions in the field, and wildfire prevention. (P-5)

SDG&E indicated that the proposed site for its North of SONGS Substation would be located six miles from SONGS and 0.9 mile from SCE 230 kV lines. SDG&E provided detailed design criteria and identified a list of standards and requirements that it would use in the design of the North of SONGS Substation and 153 mile Imperial Valley-North of SONGS 500 kV transmission line, including codes and standards, GO 95 and NESC requirements, detailed engineering routing criteria, and California and local requirements. SDG&E provided a description of the major electrical equipment, protection, relays, SCADA system, diverse communication paths, transmission conductor, structures, ampacity at 50^0C ambient, and impedances. SDG&E indicated that there are no federal regulations limiting audible noise and that best industry practices would be used in the design and construction of the transmission line to minimize audible noise along the edges of the rights-of-way. SDG&E did not provide an estimate of the audible noise for its proposed design at the edge of the rights-of-way. (S-1 to S-8, T-1 to T-8)

3.8.9 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 substation or transmission project, including but not limited to (1) the permitting experience of the project sponsor 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 in 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, the process that must be followed in California to comply with the California Environmental Quality Act (CEQA) is particularly unique to the state of California.

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

All four project sponsors' teams have experience permitting projects in the U.S. and in California, including experience with the environmental permitting process for transmission lines and substations 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 has determined that regarding environmental permitting experience in the U.S. and California that there is no material difference among the four proposals because all proposals included substantial project experience in the U.S. and California.

In consideration of the foregoing, the ISO has determined that there is no material difference among the four proposals regarding this component of the factor.

Comparative Analysis of Engineering 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 engineering and designing transmission line and substation projects, including but not limited to (1) the engineering experience for similar projects of the project sponsor and its team member or members who have been designated as having responsibility for project engineering, and (2) 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 and substation engineering and design experience in other countries because the project is located in California and there are special aspects of engineering and design codes and regulations in the U.S. and 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 the Institute of Electrical and Electronics Engineers (IEEE). In addition, the process that must be followed for engineering and design of transmission lines and substations 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 Administration (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 teams identified by CalGrid, Horizon West, Lotus-SCE, and SDG&E to be highly qualified and have substantial experience.

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 proposals of CalGrid, Lotus-SCE, and SDG&E and their proposals are better than Horizon West's proposal regarding this component of the factor because Horizon West's proposal indicated that its team has limited design and engineering experience in California.

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 of this factor (environmental permitting experience), there is no material difference among the experience of the four proposals.

As discussed above, the ISO determined that there is no material difference among the experience of the proposals of CalGrid, Lotus-SCE, and SDG&E and their proposals are better than Horizon West's proposal regarding the second component of this factor (engineering experience).

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-SCE, and SDG&E and their proposals are better than Horizon West's proposal 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

(Prior Projects and Experience Workbook; P-5, C-8)

3.9.1 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with construction of substations and transmission lines. The list included 41 substation and transmission line construction projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years, and are located in the U.S., with two in California. (Prior Projects and Experience Workbook)

CalGrid indicated risks that its contractor encounters when constructing transmission lines, which included access, landowner relations, federal and indigenous engagement, geotechnical and environmental issues, and crossing bodies of water, critical species habitats, and railroads. (P-5)

CalGrid indicated that its construction contractor has experience complying with a California utility's wildfire standard for preventing and mitigating fires while performing work in California. (C-7)

CalGrid indicated that neither CalGrid nor its contractor has had any safety, litigation, or environmental legal violations, fines, or other notices related to construction in the past ten years and is not under investigation or a defendant in any legal proceeding. (C-8)

3.9.2 Information Provided by Horizon West

Horizon West provided a list of its experience and the experience of its contractors with construction of substations and transmission lines. The list included 53 substation and transmission line construction projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years, and are located in the U.S., with 33 in California. (Prior Projects and Experience Workbook)

Horizon West indicated that it has faced construction-related risks and challenges similar to those foreseen for the project, such as construction in mountainous, windy, high-heat, and environmentally sensitive areas and provided examples of previous projects. Horizon West indicated that it would draw on the vast experience of its parent company, gained through the successful execution of both transmission line and substation projects, and that the Horizon West project team would leverage lessons learned from recent projects to successfully execute and deliver the project. (P-5)

Horizon West indicated that neither it nor any of its affiliates has been subject to any violations or fines related to construction in the past ten years. (C-8)

3.9.3 Information Provided by Lotus-SCE

Lotus-SCE indicated that it has not yet chosen a construction contractor and submitted a list of five possible construction contractors along with experience of each of the contractors. (A-5)

Lotus-SCE provided a list of its experience and the experience of its contractor with the construction of substations and transmission line projects. The list included five substation and transmission line construction projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years and are located in the U.S., with all five in California. Lotus-SCE also indicated that it has prior experience with its proposed construction contractors. (Prior Projects and Experience Workbook)

Lotus-SCE indicated that the risks and challenges for the construction of this project are similar to those it has faced on other projects, including poor soil conditions and limited or no access due to rough or mountainous terrain. (P-5)

Lotus-SCE indicated that Lotus and its contractor have not received any construction-related fines and are not under investigation for any violations of any construction-related laws, and they are not defendants in any legal proceeding regarding construction. (C-8)

3.9.4 Information Provided by SDG&E

SDG&E provided a list of its experience and the experience of its contractors with the construction of substations and transmission line projects. The list included 30 substation and transmission line construction projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years and are located in the U.S., with 18 in California. (Prior Projects and Experience Workbook)

SDG&E indicated that that it has faced construction risks, including difficult terrain, extreme climate, worker injuries, helicopter incidents, and excessive dust. (P-5)

SDG&E indicated that it is unaware of any NOVs for transmission line, reactive support, series compensation, and substation projects developed and completed by SDG&E in the past ten years. (C-8)

Maintenance Record

(Prior Projects and Experience Workbook; P-5, M-4, M-5, M-6, M-7)

3.9.5 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with the maintenance of substations and transmission lines. The list included 25 substation and transmission line projects that operate at voltages above 200 kV and have been completed in the past ten years and are located in the U.S., with five in California. (Prior Projects and Experience Workbook)

CalGrid indicated that its O&M contractor has a successful record of providing operations and maintenance 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 resources. CalGrid indicated that its O&M contractor's experience includes overhead and underground transmission lines, submarine cables, DC transmission cables, substations, and converter stations. (M-4)

CalGrid indicated that its management personally led the development and implementation of wildfire mitigation plans in California and would do the same for CalGrid. (Response to clarification question)

CalGrid indicated that as a recently formed entity, it does not currently have historical audit reports for maintenance of facilities. However, CalGrid provided the inspection reports from its O&M contractor for work performed for third parties that covered maintenance activities, such as (1) the condition of towers, foundations, and ground straps; (2) the condition of conductors and hardware, including spacers, insulators, and splices; and (3) vegetation and other threats. These reports indicated that no anomalies were observed and that no vegetation was encroaching on the transmission line and concluded that the power lines appeared to be in good condition with no loose or failing hardware. The reports include additional information on vegetation management. (M-6)

CalGrid listed facilities for which its team members have been responsible for maintenance. (M-6)

CalGrid indicated that its O&M subcontractor regularly reports on availability measures for transmission systems under its management and is capable of capturing the

necessary information to report on availability measures as described in Appendix C Section 4.3 of the Transmission Control Agreement (TCA). (M-7)

CalGrid indicated that it has encountered a number of operations and maintenance challenges that are comparable to the risks and challenges posed by the project, including wildfire risk, environmental impact, access challenges, and weather challenges. (P-5)

3.9.6 Information Provided by Horizon West

Horizon West provided a list of its experience and the experience of its contractors with the maintenance of substations and transmission lines. The list included 111 substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years, and are located in the U.S., with ten in California. (Prior Projects and Experience Workbook)

Horizon West indicated that it is an ISO PTO and has transmission line and substation maintenance practices that are consistent with the ISO transmission maintenance standards, and each has been approved by the ISO. (M-4)

Horizon West indicated that with the combined experience of three ISO PTOs (Horizon West, GridLiance, and Trans Bay Cable) and its affiliate, FPL, Horizon West has the capability to update its substation and line maintenance practices as it pertains to the proposed project's equipment. (M-4)

Horizon West indicated its field maintenance team members have experience addressing a wide variety of operating challenges, ranging from wildfires, seismic, hurricanes, tornadoes, and other high wind conditions, to dust contamination, avian interaction, and lightning. (M-4)

Horizon West indicated that NextEra would provide vegetation management services and that it manages vegetation alongside over 80,000 miles of power lines and has done so for about the past one hundred years. (M-5)

Horizon West indicated that its vegetation management team manages lines in similar rural and weather conditions for other NextEra projects in California. (M-5)

Horizon West provided the annual maintenance audit reports of Horizon West's maintenance practices by the ISO for the years 2012 through 2022, which showed generally good compliance with Horizon West and Trans Bay Cable standards. (M-6)

Horizon West indicated it has a CPUC-approved wildfire mitigation plan and maintains active fire-prevention programs. Horizon West indicated it would extend its wildfire mitigation plan to include the new project. (O-13)

Horizon West indicated that it has experience providing the ISO with availability measures in accordance with TCA Appendix C. Horizon West indicated that its procedures describe how it would track operational performance and availability of facilities to adequately report the facilities' performance to the ISO and other stakeholders. Horizon West provided copies of monitoring procedures and reports. (M-7)

Horizon West indicated that it has faced maintenance-related risks and challenges similar to those foreseen for the project, such as vegetation management and maintenance of underground cables, and provided several examples of projects where it had faced similar risks and challenges. (P-5)

3.9.7 Information Provided by Lotus-SCE

Lotus-SCE provided a list of its experience and the experience of its contractors with the maintenance of substations and transmission lines. The list included eight substation and transmission line projects that operate at voltages above 200 kV and have been completed in the past ten years and are located in the U.S., with all eight in California. (Prior Projects and Experience Workbook)

Lotus-SCE indicated that since 1998, all SCE facilities under the operational control of the ISO have been subject to all aspects of TCA Appendix C. Lotus-SCE indicated that SCE is compliant with the elements listed in TCA Appendix C, Sections 5.2.1 (Transmission Line Maintenance) and 5.2.2 (Substation Maintenance). Lotus-SCE indicated that SCE's maintenance practices have been filed with and approved by the ISO. (M-4)

Lotus-SCE indicated that SCE's transmission vegetation management plan describes how vegetation management is performed within SCE's service territory. (M-5)

Lotus-SCE indicated that SCE has extensive experience in mitigating wildfire risk in Southern California and since 2018 SCE has deployed substantial wildfire mitigation efforts, including hardening the grid with over 5,000 miles of covered conductor, trimming more than a million trees, performing more than one million inspections in high fire risk areas, and deploying advanced detection technologies. (F-14)

Lotus-SCE indicated that SCE has a comprehensive wildfire detection and mitigation program and a CPUC approved wildfire mitigation plan that is intended to reduce the wildfire risk through annual inspection of overhead transmission lines, trimming and removal of trees to prevent vegetation from coming into contact with electrical equipment, and monitoring of high fire threat areas through a network of weather stations and wildfire cameras to make real-time informed operation decisions. (Z-1)

Lotus-SCE indicated that the most recent ISO annual review, conducted April 25-28, 2023, noted one minor deviation with adherence to SCE's filed maintenance practices for substations and one minor deviation from SCE's filed maintenance practices for transmission lines. (M-6)

Lotus-SCE indicated that SCE 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. (M-6)

Lotus-SCE indicated that SCE has extensive experience with providing its availability measures in accordance with TCA Appendix C Section 4.3. (M-7)

Lotus-SCE indicated that Startrans, a subsidiary of Lotus, became a PTO within the ISO by executing the TCA in 2007. Lotus-SCE indicated that since then, Startrans has been satisfying all of the related ISO requirements. Lotus-SCE indicated that Delaney Colorado River Transmission Project, LLC, a joint venture led by Lotus and the

developer of Ten West Link, has been performing the responsibilities associated with a PTO and has been performing interconnection studies and executing interconnection agreements with generation facilities proposing to connect to the bulk transmission network via the Ten West Link. (M-7)

Lotus-SCE indicated that it has faced maintenance-related risks and challenges similar to those foreseen for the project, such as getting maintenance crews to the location when needed for emergencies. (P-5)

3.9.8 Information Provided by SDG&E

SDG&E provided a list of its experience and the experience of its contractors with the maintenance of substations and transmission lines. The list included 12 substation and transmission line projects that operate at voltages above 200 kV and have been completed in the past ten years and are located in the U.S., with all 12 in California. (Prior Projects and Experience Workbook)

SDG&E indicated it brings an experienced team of over 250 transmission line and substation maintenance experts, including construction supervisors, start engineers, electricians, transmission linemen, managers, analysts, and executive leaders. SDG&E indicated it has dedicated Transmission Construction and Maintenance (TCM) and Substation Construction Maintenance (SCM) departments. SDG&E indicated that its TCM department maintains all of SDG&E's bulk power transmission, which consists of 69 kV, 138 kV, 230 kV, and 500 kV three-phase AC transmission lines. SDG&E indicated that since its inception in 1984, SDG&E's TCM department has built and maintained more than 2,000 miles of transmission lines. SDG&E indicated that its SCM department is responsible for the maintenance and construction of all 157 substations in the SDG&E territory. (M-1)

SDG&E indicated that its transmission inspection and maintenance practice has been on file with the ISO since 1998. SDG&E indicated that over the decades, its maintenance practices have been subject to auditing processes at state and federal levels, by regulators, and with the ISO. (M-4)

SDG&E indicated that it has complied with maintenance standards described in Appendix C of the TCA since the inception of the ISO. (M-4)

SDG&E indicated that its transmission line and substation maintenance programs are robust and provided details of these programs. (M-4)

SDG&E indicated that its vegetation management program has been recognized by WECC as leading edge. (M-5)

SDG&E indicated its vegetation management department responsibilities involve identifying, recording, and managing an inventory of approximately 490,000 trees within SDG&E's service territory. SDG&E indicated its vegetation management department prunes and removes approximately 185,000 trees each year and is responsible for clearing brush for approximately 35,000 poles and towers to ensure compliance and fire safety and to prevent inadvertent transmission conductor contact leading to phase-to-ground faults. (M-5)

SDG&E indicated that it performs multiple inspection and tree trimming activities annually within CPUC-designated High Fire Threat Districts as an added wildfire prevention safety measure and in accordance with its wildfire mitigation plan filed annually with the state. (M-5)

SDG&E indicated it has fire-hardened a large portion of its electric system, which included replacing over 26,000 wood poles with fire-resistant poles in backcountry communities and throughout its service territory, and hardening many of its electric lines to withstand 85 mph winds—and in some cases up to 111 mph winds. (A-4)

SDG&E indicated that the California Office of Energy Infrastructure Safety issued a draft decision approving SDG&E's 2023-2025 wildfire mitigation plan on August 30, 2023 and in its approval noted several strengths, including that SDG&E has the lowest number of vegetation-caused ignitions and outages per 10,000 overhead circuit miles among large electrical corporations. (Z-1)

SDG&E provided recent audit reports from the CPUC 2022 audit of transmission lines, and the ISO 2022 audit of stations and lines, and the reports indicated no concerns or findings. (M-6)

SDG&E indicated that, in accordance with TCA Appendix C Section 4.3, it submits an annual report to the ISO within 90 days after the end of each calendar year describing its availability performance based on forced outages. SDG&E provided the 2022 SDG&E transmission availability report. (M-7)

SDG&E indicated that it has faced maintenance risks similar to those foreseen for the project, including the requirement for helicopter only maintenance in rugged and environmentally challenging areas and environmental restrictions due to sensitive species habitats, and provided examples of three projects where it faced a similar situation. (P-5)

3.9.9 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 substation 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, reactive stations, and substation construction experience in other jurisdictions because the project will be 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 Cal 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, Storm Water Pollution Prevention Plan, and

USFS and USFWS requirements, Fair Labor Standards Act regulations, 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, Horizon West, Lotus-SCE, and SDG&E to be qualified, experienced, and capable of handling the construction work associated with this project. All four project sponsors' teams have relevant experience in the construction of transmission line and substation projects in the U.S. and California and 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 in the past ten years.

Based on the foregoing considerations, and considering the specific nature and scope of the construction involved with this project, in conjunction with all the other considerations included in the ISO's analysis of project sponsor and contractor construction qualifications and experience, the ISO determined that there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E 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 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, Horizon West, Lotus-SCE, and SDG&E to be qualified, experienced, and capable of handling the maintenance of the project. Each of the four project sponsors provided examples of relevant U.S. and California experience with the maintenance of substations and transmission lines, including vegetation management, and have faced maintenance risks similar to those foreseen for the project.

Horizon West, Lotus-SCE, and SDG&E have experience maintaining EHV transmission facilities as ISO PTOs in accordance with the TCA, which the ISO considers an advantage, while CalGrid does not. Horizon West, Lotus-SCE, and SDG&E provided ISO maintenance review reports showing compliance with ISO maintenance standards. CalGrid provided sample internal inspection reports but no external assessment of compliance with its standards.

All project sponsors have experience with developing wildfire mitigation plans. However, Horizon West, Lotus-SCE, and SDG&E have existing CPUC approved wildfire mitigation plans and each maintains transmission facilities in CPUC-designated High Fire Threat Districts, which the ISO considers an advantage, while CalGrid does not.

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, that there is no material difference among the proposals of Horizon West, Lotus-SCE, and SDG&E, and that their proposals are better than CalGrid'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 of this factor (previous record regarding construction of transmission facilities), the ISO has determined that there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E.

Regarding the second component of the factor (previous record regarding maintenance), the ISO has determined there is no material difference among the proposals of Horizon West, Lotus-SCE, and SDG&E and their proposals are better than CalGrid's proposal.

Based on the combination of the ISO's analyses of the two components of this factor, the ISO has determined that there is no material difference among the proposals of Horizon West, Lotus-SCE, and SDG&E, and their proposals are better than CalGrid'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

(P-5, C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-8)

3.10.1 Information Provided by CalGrid

CalGrid identified common construction risks and challenges that its contractor encounters when constructing lines, which included access work complications, landowner relations, federal and indigenous engagement, geotechnical and environmental issues, and crossings of critical (threatened or endangered) species habitats or railroads. (P-5)

CalGrid indicated that its construction contractor would use a detailed process for receiving and inspecting materials and equipment delivered to the project, and it would develop tailored construction inspection and test plans. CalGrid indicated it plans to establish eighteen 660'x660' primary laydown areas along the 141-mile route and that the material for the substation would be delivered directly to the site. (C-1, C-2)

CalGrid provided a table that identified line crossings and indicated that it does not anticipate clearances being required to cross transmission lines. CalGrid indicated it

would contact the owner two months in advance of a crossing, and that, if de-energization was not an option, a guard structure would be utilized. (C-3)

CalGrid indicated that a multi-disciplinary team would complete constructability reviews and that constructability planning would also include procurement strategies, construction execution, and periodic drawing and specification reviews. (C-4)

CalGrid indicated it does not currently possess any easements, orders of possession, or permits for the project. (C-5)

CalGrid indicated that it would use Primavera P6 software to develop a project schedule using the critical path method. (C-6)

CalGrid indicated that helicopters would be utilized to build 369 lattice tower structures in the mountains, including to string and clip the conductor, shield wire, and optical ground wire. CalGrid indicated that construction would involve wildfire prevention and mitigation and that each construction crew is staffed with one team member who would be solely responsible for wildfire detection and mitigation. (C-7)

3.10.2 Information Provided by Horizon West

Horizon West indicated the project would require construction in mountainous, windy, high-heat, and environmentally sensitive areas. Horizon West indicated the project would traverse mountainous terrain likely to require helicopter-only construction and micro-pile foundations and that construction may be further challenged by the Santa Ana winds from August to October. Horizon West indicated that it has reduced these challenges with a route that shortens exposure to those mountainous areas. Horizon West indicated it has also planned for six helicopter fly yards, environmental mitigation measures, and operations in high-heat areas and has incorporated those costs into the cost containment proposed. (P-5)

Horizon West indicated that its construction management and inspection team would be active through all phases of construction and the engineer(s) of record would perform site visits, inspections, walk-downs, and witnessing of tests prior to energization. (C-1)

Horizon West indicated that it would establish material laydown yards close to the project and these yards are anticipated to be approximately 5-6 acres in size and would be fenced, screened, and staffed with full-time, on-site security personnel. (C-2)

Horizon West indicated that it would develop a plan to establish a procedure required for outages, as well as the necessary steps required to restore the equipment to service, and provided crossing procedures to be used for energized and non-energized crossings. (C-3)

Horizon West indicated it would coordinate design and constructability reviews and that design reviews would encompass all aspects of the design and indicated that project or design changes would be discussed with the engineering, environmental, land, or other project disciplines prior to implementation. (C-4)

Horizon West indicated that along the proposed route the vegetation profile poses a high wildfire potential and that vegetation management during construction would include the

removal of all non-compatible species in the rights-of-way and addressing potentially dangerous trees along the route. (Z-1)

Horizon West indicated it has not secured any easements. (C-5)

Horizon West indicated that it would use Primavera P6 for the project schedule and that the project manager and construction superintendent would have overall responsibility and oversight of the project schedule. (C-6)

Horizon West indicated that standard construction techniques would be used for the project. Horizon West indicated that six helicopter fly yards, each approximately five to ten acres in size, have been identified along the route and that fly yards were selected to minimize flight time and safeguard the public and surrounding properties and they would be for equipment and material staging as well as structure pre-assembly. (C-7)

3.10.3 Information Provided by Lotus-SCE

Lotus-SCE indicated that risks for construction of this project are similar to the ones experienced on Ten West Link and other southwest region transmission line projects and that poor soil conditions and desert and mountainous areas with rough or inaccessible terrain would affect access and foundation installation. (P-5)

Lotus-SCE indicated that the construction contractor would implement a project quality control plan, which would be designed to ensure all scope elements achieve uniform, high-quality workmanship throughout the phases of the procurement, fabrication, and construction of the project. Lotus-SCE indicated its quality control manager would conduct daily field inspections of the construction operations, including those by subcontractors, and would perform quality control tests on materials for self-performed work. (C-1)

Lotus-SCE indicated that construction laydown yards would be identified and sized for multiple uses and that and that the construction contractor would construct the yards and establish mobile on-site offices. Lotus-SCE indicated that transformers would require special coordination to ensure the delivery and placement of equipment meets the manufacturer's requirements. (C-2)

Lotus-SCE indicated that it would coordinate with the ISO and impacted utility operations and management teams regarding all outages, crossings, and tie-ins to existing stations and that all facilities that would be crossed over would also be guarded throughout the wire pulling activities. (C-3)

Lotus-SCE indicated that engineering constructability reviews would be completed at 30%, 60%, 90%, and issue for construction milestones and that these reviews would include, but not be limited to, drawings, construction specifications, material specifications, and expectations. (C-4)

Lotus-SCE indicated it does not currently possess any easement. (C-5)

Lotus-SCE indicated that project sequencing would rely on build-up of project activities so that it would not need unique lags or constraints and, throughout the progression of the project, the project manager would maintain and update the schedule regularly. (C-6)

Lotus-SCE indicated that it would keep as much of the scope of construction as conventional as possible, with particular regions requiring special consideration, including special considerations for structure locations that would require helicopter only installation, including foundations and structure installation and where a helicopter would be used for wire pulling operations. (C-7)

Lotus-SCE indicated that for segments that pass through wildfire zones, an additional 15 feet of rights-of-way vegetation clearing would be implemented by the construction contractor to facilitate vegetation management and as recommended by GO-95. (T-1, C-7)

3.10.4 Information Provided by SDG&E

SDG&E indicated that it has demonstrated experience successfully constructing projects with risks and challenges similar to those involved with constructing high-voltage transmission lines in remote arid environments similar to this project. SDG&E indicated that effective coordination would be required for the overcrossing of multiple transmission lines between 69 kV and 500 kV lines, Interstate 8, and termination at substations. (P-5)

SDG&E indicates it has an internal 50-person construction team of localized experts and a leadership team with decades of experience. SDG&E indicated that it would perform inspections on all construction activities during all phases of construction, which would vary based on the scope of work and facility type and cover electrical, mechanical, civil, and structural aspects of each project. (C-1)

SDG&E indicated that the construction contractor would procure and manage most of the material throughout the course of the project, with direct oversight from SDG&E, and that the construction contractor would be responsible for meeting the contractual deadlines for procurement and delivery and would develop and manage all phases of that procurement process accordingly. SDG&E indicated that the construction contractor would solicit bids through its own strategic supplier partnerships along with SDG&E's alliance suppliers and that SDG&E may directly procure certain material or equipment for the proposed project, such as the substation transformers and circuit breakers, through its own alliance vendors to reduce costs, maintain schedule, and avoid markup costs. (C-2)

SDG&E indicated that it has 49 active laydown yards in its service territory, including 17 within five miles of the route, and maintains a database of 180 additional yards that have been previously used or identified for use where SDG&E may already have a relationship with the landowners. (C-2)

SDG&E indicated it would bring an established process and expertise for coordinating the clearance of existing circuits during construction. SDG&E indicated that nearly all existing circuits along the proposed route are owned and operated by SDG&E and that outage coordination and any authorizations required during construction would follow ISO procedures. (C-3)

SDG&E indicated that constructability review for the project would feature pre-construction review of overhead transmission and substation design packages at various stages (e.g., scoping, field walk, and 30%, 60%, and 90% design milestones) of the job package, and involve both desktop analysis and field reviews to provide insight and

recommendations from qualified personnel. SDG&E indicated that once the job package is released to construction, in-process and post-construction inspections would occur to verify and validate compliance with project-specific requirements. (C-4)

SDG&E indicated that one-third of the line runs adjacent to easements for its existing transmission infrastructure and access roads and, upon receiving final approval of the project, SDG&E would request amendments to widen these easements or execute new easements to include the new line and indicated that the North of SONGS Substation would require new land rights. (C-5)

SDG&E indicated that it would create a critical path-managed Primavera P6 schedule for the project that would be monitored by SDG&E teams fluent in the nuances of its service territory. SDG&E indicated that this schedule would include all phases of the proposed project, addressing design, permitting, construction, and close-out. (C-6)

SDG&E indicated that existing access roads would be used where feasible, and that helicopter service would be employed for select stringing and structure placement due to access and terrain limitations. SDG&E also indicated that it would use micropile foundations in select areas, especially those with limited access. (C-7)

Maintenance Practices

CC-3, CC-4, CC-5, M-1 through M-10, P-5, O-3, O-13, O-15)

3.10.5 Information Provided by CalGrid

CalGrid provided a list of maintenance activities proposed by its O&M contractor, as well as the frequency of those activities, such as monthly, semi-annually, or annually. This list included transmission tower and line maintenance, surge arrestor maintenance, conductors, optical ground/static/shield/ground wires, and associated hardware maintenance, vegetation management, switchyard maintenance, maintenance related to transformers, relays, protection systems, battery systems, communication systems, switches, circuit breakers and cables. (CC-3)

CalGrid indicated that three employees would be assigned to oversee the O&M contractors. (CC-4)

Regarding the number of contractor personnel assigned for maintenance, CalGrid estimated four to six full-time equivalent employees (FTEs). (CC-5)

CalGrid indicated that its O&M contractor's training program encompasses all aspects of training, including management, operations, maintenance, environmental considerations, safety programs, and administration, to ensure that it has qualified, skilled, and experienced O&M personnel assigned to the transmission project. (O-3)

CalGrid provided a copy of the signed memorandum of understanding between it and its O&M contractor and indicated that it would enter into a maintenance services agreement with this contractor. (M-1)

CalGrid described how anticipated maintenance responsibilities would be divided among itself, its O&M contractors, and other subcontractors. (M-1)

CalGrid indicated that it would utilize subcontractors through its O&M contractor for maintenance work.

CalGrid 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 and described the skills required for field personnel. (M-2)

CalGrid indicated that its O&M contractor would administer training for maintenance personnel based on training programs successfully used at other facilities operated by it. CalGrid indicated that the O&M contractor training program encompasses all aspects of training, including management, operations, maintenance, environmental considerations, safety programs, and administration. (M-3)

CalGrid indicated that the maintenance program of its O&M contractor for transmission line projects includes all of the elements listed in TCA Appendix C Sections 5.2.1 (Transmission Line Circuit Maintenance) and 5.2.2 (Station Maintenance). (M-4)

CalGrid indicated that the O&M contractor's vegetation management plan complies with the National Electric Safety Code, ANSI A300 Part 7: American Operations Integrated Vegetation Management and Electric Utility Rights-of-Way and the ISA Best Management Practices. CalGrid indicated that the project would comply with vegetation management standards required by the NERC and WECC vegetation management guidelines. (M-5)

CalGrid indicated that its management personally led the development and implementation of wildfire mitigation plans in California and would do the same for CalGrid. (Response to clarification question)

CalGrid indicated that, as a recently-formed entity, it does not currently have historical audit reports for maintenance of facilities. CalGrid indicated that its O&M contractor has provided five years of examples of third-party inspection reports for a 230 kV line in California regarding compliance with industry standards implemented for an existing confidential client with no anomalies observed. (M-6)

CalGrid indicated that its O&M contractor regularly reports on availability measures for transmission systems under its management. CalGrid indicated that its current system is capable of capturing the necessary information to report on availability measures as described in TCA Appendix C Section 4.3. (M-7)

CalGrid indicated that it does not anticipate any exceptions to the TCA to integrate the project into the ISO-controlled grid. (M-8)

CalGrid indicated that its team is experienced in coordinating outages for scheduled and unscheduled maintenance with the ISO and non-participating generators and described the steps that it would take to ensure compliance with TCA Section 7. (M-9)

CalGrid 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, which would allow for a quick response to any issues that may arise. (M-10)

CalGrid indicated that for mitigation and operations under extreme or red flag conditions for facilities in CPUC-designated High Fire Threat Districts, CalGrid would have an enhanced set of strategies that refer to inspections, maintenance, vegetation and access

road management, and plans and protocols for maintenance and operations in these areas. (Attachment G1_1 Wildfire Plans and Procedures)

CalGrid indicated that within four hours of an event occurring, on-call local response personnel would be on-site to perform in-person assessment of an event and within four to eight hours, repair crews, equipment, and material would be on-site for live-line or typical corrective repairs. CalGrid also estimated that repairs for small-scale emergency events would be completed within 48 hours and large-scale events within 72 hours of an event. (M-10)

CalGrid indicated that its O&M contractor is currently in the process of finalizing selection of a contractor for emergency maintenance services. CalGrid indicated that its O&M contractor has consulted with this subcontractor to develop the emergency response times for the project. (O-13)

CalGrid indicated that it would seek to join the Western Region Mutual Assistance group, which provides mutual aid to its members in the event restoration is needed. (O-13)

CalGrid 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 the O&M contractor and other providers to maximize ability to respond, minimize costs, and provide these services in accordance with good utility practice. (O-15)

CalGrid indicated that for hardware and insulators, its construction contractor would procure and hold a small percentage (2-3%) of construction spares for loss and breakage during construction and would transfer any unused spares to CalGrid and the O&M contractor to have at project startup. CalGrid indicated that during commercial operations, its O&M contractor would 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 in accordance with prudent utility practice. (O-15)

3.10.6 Information Provided by Horizon West

Horizon West indicated that it has experience in accordance with the ISO maintenance procedures. (M-4)

Horizon West provided the frequency of transmission line maintenance activities, such as maintenance associated with rights-of-way, vegetation management, foundations, structures, bonding, and grounding, guys, and anchors, among others. (CC-3)

Horizon West provided the frequency of substation maintenance activities, such as maintenance associated with switches, breakers, bus work, and structures, among others. (CC-3)

Horizon West indicated that three FTEs would be required for performing O&M functions and provided additional information on the number of FTEs that would be used for various O&M job categories and their estimated utilization. (CC-4)

Horizon West indicated it plans to supplement its O&M capability as needed with services from an O&M contractor. (CC-5)

Horizon West provided information on its training program, which included descriptions of training courses required by Horizon West for its operations personnel who are responsible for substation maintenance, system operations, protection and control, and transmission lines and includes training for entry-level operations personnel. (O-3)

Horizon West indicated that the project's maintenance operations would be undertaken by its field operations team and that the maintenance team would include two dedicated local personnel at the North of SONGS Substation with additional staff at the existing Horizon West Suncrest SVC facility in Alpine, California. (M-1)

Horizon West indicated that its affiliates, which have strong track records of maintaining transmission assets under the ISO, would provide maintenance support services, such as vegetation management and compliance, maintenance audit, inspection reviews, safety, security, wildfire and environmental management, land management, and maintenance compliance. (M-1)

Horizon West indicated that out of an abundance of caution, it has designed a custom vegetation management plan, including bi-annual patrols, one led by a forester, to identify and manage hazards throughout the operational life of the project transmission line. (Z-1)

Horizon West listed certifications and experience requirements for the personnel who undertake maintenance activities. Horizon West indicated that its maintenance and emergency support vendor has agreed to provide qualified maintenance personnel, tools, and equipment as necessary to assist in substation, line, and protection maintenance. Horizon West described the training and qualification requirements of various of its emergency support vendor's engineers, technical specialists, line foremen, linemen, and apprentice linemen. (M-2)

Horizon West indicated that it has a rigorous system maintenance personnel training program and continued education requirement. (M-3)

Horizon West indicated that it is an ISO PTO and has transmission line and substation maintenance practices that are consistent with the ISO transmission maintenance standards, and each has been approved by the ISO. (M-4)

Horizon West indicated that NextEra would provide vegetation management services. Horizon West indicated that NextEra manages vegetation alongside over 80,000 miles of power lines and has done so for about the past one hundred years. (M-5)

Horizon West indicated that its vegetation management team manages lines in similar rural and weather conditions for other NextEra projects in California. (M-5)

Horizon West indicated that its vegetation management team has already identified priority work zones for trimming along the rights-of-way for this project by using LiDAR data and manual inspection. (M-5)

Horizon West provided the annual maintenance audit reports of its maintenance practices by the ISO for the years 2012 through 2022. Audit results showed generally good compliance with Horizon West and Trans Bay Cable standards. (M-6)

Horizon West indicated it would minimize fire hazards by reducing fuel levels to acceptable limits, as well as by including in its procedures operating practices that reduce the likelihood of ignition events. (M-6)

Horizon West also provided a document describing experience creating and reporting wildfire mitigation plans. (M-6)

Horizon West indicated it has a CPUC-approved wildfire mitigation plan and maintains active fire-prevention programs. Horizon West indicated it would extend its wildfire mitigation plan to include the new project. (O-13)

Horizon West indicated it employs a wildfire prediction and tracking program that would be extended to include the project's assets. (O-13)

Horizon West indicated that it has experience providing the ISO with availability measures in accordance with TCA Appendix C Section 4.3 and the ISO maintenance procedures. Horizon West indicated that its procedures describe how it would track operational performance and availability of facilities to adequately report the facilities' performance to the ISO and other stakeholders. Horizon West provided copies of monitoring procedures and reports. (M-7)

Horizon West indicated that adding the project to the ISO controlled grid is not expected to require any changes or exceptions to the provisions of the TCA. (M-8)

Horizon West indicated that it is an ISO PTO operating in accordance with TCA Section 7. (M-9)

Horizon West indicated that it and its affiliates have a team of approximately 150 technical staff in California and that over a third of this team are located within a 90-minute drive from the project. Horizon West further indicated that the project maintenance team would have two dedicated staff based at the North of SONGS Substation. (M-10)

Horizon West indicated that it and its affiliates have experience in and are capable of establishing and managing their own standards of inspection, maintenance, repair, replacement, and maintaining the rating and technical performance of its facilities in accordance with the ISO applicable reliability criteria and the performance standards established under Section 14 of the TCA. (O-12)

Horizon West indicated that it would maintain a spare stock of critical transmission line components, hardware, wire, and structures to ensure expedient recovery in the event of an emergency. (O-15)

Horizon West indicated that it would use the NextEra integrated supply chain computerized spares asset management program that manages the spares stock and restocking, oversees the spares holding location, and dispatches spare parts of delivery within hours. (O-15)

Horizon West indicated that in addition to spares on-site, it would have access to its affiliate-wide spares sharing program, specifically FPL spares, and strategic support of equipment suppliers. (O-15)

Horizon West described its plans to replace major substation equipment in the event of failure, including transformers and reactors. (O-15)

3.10.7 Information Provided by Lotus-SCE

Lotus-SCE indicated SCE's maintenance practices address all the requirements of TCA Appendix C Sections 5.2.1 (Transmission Line Circuit Maintenance) and 5.2.2 (Station Maintenance). (M-4)

Lotus-SCE provided a list of maintenance activities which included maintenance related to patrols and inspections, conductor and shield wire, disconnections/pole-top switches, structures and foundations, guys and anchors, insulators, and vegetation management, among others. (M-4)

Lotus-SCE provided a list of substation maintenance activities, which included maintenance related to battery systems, circuit breakers, switches, insulators, protective relays systems and transformers, among others. (Attachment M-4.1)

Lotus-SCE indicated that SCE would utilize existing substation maintenance electrician crews and substation test technician crews to handle all maintenance, troubleshooting and repairs that arise within the substation. (CC-4)

Lotus-SCE indicated that for typical transmission line maintenance activities and other administrative and general needs, SCE would utilize existing internal structures with a small incremental need of two FTEs for maintenance. (CC-4)

Lotus-SCE indicated that it would not be contracting with any third-party provider for O&M services but would instead utilize SCE's in-house personnel to conduct maintenance for the project. (CC-5)

Lotus-SCE indicated that SCE has training programs in place to ensure all persons (i.e., operators, linemen, and substation electricians) in scope by trade are qualified, trained, and skilled in line with all applicable internal SCE policies and state and federal policies. (O-3)

Lotus-SCE indicated that for transmission and substation related training, SCE's transmission and distribution (T&D) training department based out of Chino, CA would be responsible for all training, and the content for each job function would be consistent with the training SCE's personnel already receive today in operating and maintaining SCE's extensive 500 kV network. (O-3)

Lotus-SCE indicated that SCE would follow well-established maintenance practices and processes for the project, similar to those practices used today to maintain its existing system. Lotus-SCE indicated that SCE intends to own, operate, and maintain all infrastructure required to operate the project. Lotus-SCE indicated that SCE would integrate the new lines and equipment into its existing operations and maintain them in accordance with SCE's most current standards. (M-1)

Lotus-SCE indicated that SCE has more than 2,900 appropriately skilled, highly qualified, and experienced electrical workers responsible for maintenance. Lotus-SCE indicated that SCE's approach to training electrical workers aligns with NERC and DOE guidelines. (M-2)

Lotus-SCE indicated that SCE utilizes agile and informal training to assist employee development learning in addition to facilitating formal training programs. (M-3)

Lotus-SCE indicated that T&D training has a staff of full-time instructors; adjunct instructors from SCE's field organizations supplement this staff. (M-3)

Lotus-SCE indicated that since 1998, all SCE facilities under the operational control of the ISO have been subject to all aspects of TCA Appendix C. Lotus-SCE indicated that SCE is compliant with the elements listed in TCA Appendix C, Sections 5.2.1 (Transmission Line Maintenance) and 5.2.2 (Substation Maintenance). (M-4)

Lotus-SCE indicated that SCE's maintenance practices have been filed with and approved by the ISO. (M-4)

Lotus-SCE indicated that due to SCE's robust organizational structure, SCE is able to manage its system by planning and executing large scale vegetation management initiatives. Lotus-SCE described vegetation activities scoped for 2025-2028 within high fire risk areas for T&D, which 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)

Lotus-SCE indicated that SCE's vegetation management operations department prunes vegetation in high and non-high fire risk areas to meet the clearances documented in SCE's transmission vegetation management plan. Lotus-SCE indicated that these clearances also require the incorporation of conductor sag and sway for lines subject to NERC Reliability Standard FAC-003-4. (M-5)

Lotus-SCE provided a copy of SCE's 2023-2025 wildfire mitigation plan. (M-4)

Lotus-SCE indicated that the ISO has approved SCE's filed maintenance practices. (M-6)

Lotus-SCE indicated that the most recent ISO annual review, conducted April 25-28, 2023, noted one minor deviation with adherence to SCE's filed maintenance practices for substations and one minor deviation from SCE's filed maintenance practices for transmission. (M-6)

Lotus-SCE indicated that it and SCE have extensive experience with providing its availability measures in accordance with TCA Appendix C Section 4.3.

Lotus-SCE indicated that Startrans, a subsidiary of Lotus, became a PTO with the ISO by executing the TCA in 2007. (M-7)

Lotus-SCE indicated that the project sponsor 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)

Lotus-SCE indicated that all SCE facilities (new and existing) under the operational control of the ISO are maintained in accordance with activities and requirements listed in TCA Sections 6.1, 6.3, and 7. (M-9)

Lotus-SCE indicated that SCE's transmission organization has eight grid locations spread throughout 50,000 square miles with additional locations for more "outlying" patrol crew personnel, along with a crew that specializes in helicopter-assisted work system-wide. Lotus-SCE indicated that the proposed new line would likely be maintained by the Eastern and Orange grid crews (located in Rialto, CA and Santa Ana, CA, respectively). Lotus-SCE indicated that the Santa Ana based crew is located less than an hour away from the proposed substation and transmission line and that outlying patrols located north of Palm Springs would also likely support the more eastern locations. (M-10)

Lotus-SCE indicated that SCE 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)

Lotus-SCE indicated that in accordance with Standard 1 of General Order Number 166 of the CPUC, SCE has developed a corporate emergency response and recovery plan. (O-13)

Lotus-SCE indicated that the time for the crew to respond could be as short as under an hour, in exigent circumstances. Lotus-SCE indicated that SCE is able to use its helicopter fleet or can direct crews across its territory to the project as necessary. Lotus-SCE indicated that in remote areas, such as near Imperial Valley Substation, a crew can be present in a matter of a couple of hours, or less, depending upon the severity of the event at-hand. (O-13)

Lotus-SCE indicated that SCE transmission has 16 line crews, wire stringing equipment, cranes, digger derricks, and bucket trucks to support emergency transmission work. (O-15)

Lotus-SCE described the structures stocked by SCE to facilitate emergency repairs. (O-15)

Lotus-SCE indicated that SCE's substation construction and maintenance organization maintains SCE's substation equipment and maintains a reserve inventory of major substation equipment such as power transformers, circuit breakers, and disconnect switches that are not readily available in the marketplace. (O-15)

Lotus-SCE indicated that SCE maintains inventories of 500/230 kV transformers and has access to other units through its spare transformer equipment program. (O-15)

Lotus-SCE indicated that not only does SCE have access to the spares it maintains, but the large amount of capital projects at all voltage levels provides the ability for SCE to prioritize and redirect similar equipment for use in emergent situations. (O-15)

Lotus-SCE indicated that in the event of a very large event, SCE has arrangements with neighboring utilities as part of a mutual aid arrangement to obtain such equipment at cost so the other utilities can then purchase replacements after providing them to SCE in an emergency. (O-15)

3.10.8 Information Provided by SDG&E

SDG&E indicated that its maintenance practices are consistent with the California Public Utilities Code, the CPUC's GOs, the ISO's standards, and WECC regional reliability standards. (CC-3)

SDG&E provided information regarding detailed inspection, visual and infrared inspection, climbing inspection, condition assessment, and corrective maintenance for transmission lines. (CC-3)

SDG&E also provided a list of required monthly inspections, annual thermal inspections, routine preventive maintenance, and corrective maintenance for substations. SDG&E indicated that its TCM and SCM departments manage various maintenance programs to support grid reliability in accordance with the standard maintenance practice filed with the ISO. (CC-3)

SDG&E indicated that it has a workforce of over 300 FTEs, including operations, maintenance, and administrative personnel, and further indicated that it does not expect to hire any additional FTEs for maintenance activities for the project. (CC-4)

SDG&E indicated that it has existing contracts with professional vendors to perform certain O&M activities, such as vegetation management. SDG&E also indicated that it does not intend to enter into any additional third-party contracts for O&M services related to the project. (CC-5)

SDG&E indicated that it utilizes its own in-house training center and system to provide development, coordination, and administration of company-wide training programs for system operators, field personnel, support personnel, first line supervision, and project management. SDG&E indicated that subject matter experts with field experience compose 80% of the instructor workforce. (O-3)

Regarding all electrical maintenance activities for this project, SDG&E indicated that all substation maintenance would be done by internal crews and transmission maintenance will primarily utilize internal crews. SDG&E indicated that if supplemental labor is needed, it would be contracted out to existing SDG&E contractors that perform transmission maintenance when needed. (M-1)

SDG&E provided information describing essential functions and job requirements for key personnel. (M-2)

SDG&E indicated that comprehensive skills and compliance training programs serve to maintain the safety and reliability of its electric and gas transmission and distribution systems, so that it is in compliance with regulatory requirements and its internal standards, work methods, and operating procedures. (M-3)

SDG&E indicated that training is obtained from the manufacturers of new equipment and tools, and industry leaders are hired to teach crews and train the trainer on new work methods. SDG&E indicated that incidents are reviewed for lessons learned and discussed at safety meetings. (M-3)

SDG&E provided documents that describe the procedures per Appendix C of the TCA. SDG&E indicated that its transmission inspection and maintenance practice has been on

file with the ISO since 1998. SDG&E indicated that over the decades, its maintenance practices have been subject to auditing processes at state and federal levels, by regulators, and with the ISO. SDG&E indicated that its maintenance practice has proven to be successful, with it receiving favorable audit reports. SDG&E indicated that its success is further evidenced by transmission line availability metrics. (M-4)

SDG&E indicated that its vegetation management program has been recognized by WECC as leading edge and its vegetation management program is a centerpiece in its program's maintenance effectiveness goals. (M-5)

SDG&E indicated that it performs multiple inspection and tree trimming activities annually within CPUC-designated High Fire Threat Districts as an added wildfire prevention safety measure and in accordance with its wildfire mitigation plan filed annually with the state. (M-5)

SDG&E indicated all vegetation management contractors are required to conduct annual, internal training for hazard tree assessment, environmental regulation, wildfire preparedness, and customer service. (M-5)

SDG&E indicated that the project would be integrated into its existing vegetation management program schedule and operational plan. (M-5)

SDG&E indicated that its TCM department has a mature inspection and maintenance program that is regularly reviewed at the state and federal levels. SDG&E provided recent audit reports from the CPUC 2022 audit of transmission lines and the ISO 2022 audit of stations and lines. (M-6)

SDG&E indicated that adding the project would not require any changes to the TCA. (M-8)

SDG&E indicated that it complies with all the system operation and maintenance requirements of Section 7 of the TCA, including scheduled maintenance. (M-9)

SDG&E indicated that its maintenance personnel are based out of its Kearny construction and maintenance facility, which is in the Kearny Mesa neighborhood of the City of San Diego. SDG&E indicated that additionally it has six electric distribution construction and operations centers and two electric distribution satellite yards. SDG&E indicated that electric troubleshooters are first responders based out of these locations. SDG&E indicated that both its SCM and TCM departments have on-duty supervisor assignments 24/7 year-round. SDG&E indicated that response time is one to two hours, depending on location. SDG&E indicated that it also has an aviation service department located at Gillespie Field in El Cajon, California. SDG&E indicated that it owns or leases helicopters and contracts with pilots who are specially trained in power line patrols, flying in the wire strike environment, and ferrying crews and equipment to work locations. (M-10)

SDG&E indicated that, utilizing the department operations centers and district field response crews, SDG&E can quickly respond to incidents to stabilize, repair, and restore electric services. (O-13)

SDG&E indicated that its O&M team identifies required major equipment replacements within a substation. SDG&E indicated that it maintains a fleet of portable substation transformers and breakers that may be used in an emergency.

SDG&E indicated that its TCM department has emergency material stock to address events, which includes Lindsey emergency restoration structures. SDG&E indicated that it also participates in mutual aid programs. (O-15)

Operating Practices

(Prior Projects and Experience Workbook; P-5, CC-3, CC-4, CC-5, O-1 through O-12, O-14, O-16 to O-18)

3.10.9 Information Provided by CalGrid

CalGrid provided a list of its experience and the experience of its contractors with operating substations and transmission lines. The list included a total of 32 substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years and are located in the U.S., with six in California. (Prior Projects and Experience Workbook)

CalGrid indicated that it has encountered a number of operations and maintenance challenges that are comparable to the risks and challenges posed by the project, including wildfire risk, environmental impact, access challenges, and weather challenges. (P-5)

CalGrid indicated that during operations it would adhere to industry leading programs, processes, and operations procedures that would be documented in a CPUC-ratified wildfire mitigation plan. CalGrid provided an outline of its envisioned plans for mitigation and operations under extreme conditions for facilities in CPUC-designated High Fire Threat Districts. (Attachment G1_1 Wildfire Plans and Procedures)

Regarding the number of contractor personnel assigned for operations, CalGrid indicated that there would be 20 personnel – ten engineering support and ten operations management. (CC-5)

CalGrid provided an executed memorandum of understanding with its O&M contractor. CalGrid indicated that a subsidiary of its O&M contractor would fulfil the NERC functional role of Transmission Operator (TOP) for the project. CalGrid indicated that under these services, the operations contractor would be monitoring the operations of the line, including communicating with the ISO on the line's availability and coordinating with the maintenance team on any emergency or maintenance activities. (O-1)

CalGrid indicated that its operations contractor is a NERC-registered TOP in WECC with 24 x 7, primary and backup control centers staffed with NERC-certified transmission system operators. (O-1)

CalGrid indicated that its operations contractor monitors the certification requirements for the Transmission Operator personnel, including progress and completion of required continuing education and emergency training requirements. (O-2)

CalGrid described the qualifications, certifications and experience required for field personnel and the project manager. (O-2)

CalGrid indicated that its O&M contractor's training program encompasses all aspects of training, including management, operations, maintenance, environmental considerations,

safety programs, and administration, to ensure that it has qualified, skilled, and experienced O&M personnel assigned to the transmission project. (O-3)

CalGrid 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. (O-4)

CalGrid indicated that it would become the NERC-registered Transmission Owner (TO) and Transmission Planner (TP) for the project. CalGrid indicated that it expects its operations contractor to register as the TOP. (O-5)

CalGrid indicated that its operations contractor would develop the appropriate policies and procedures, maintain the proper documentation, and submit reports as required by NERC or the regional entity to be compliant with applicable TOP NERC reliability standards. (O-6)

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

CalGrid indicated that its operations contractor has maintained and developed compliant facilities, programs, and procedures to support control center services for over 22 years. (O-8)

CalGrid provided audit reports for the most recent audits, completed in 2022, by SERC and WECC. CalGrid indicated that both audits found no violations and no areas of concern. (O-8)

CalGrid indicated that its O&M contractor plans to enter a Coordinated Functional Registration (CFR) agreement with the ISO. (O-9)

CalGrid provided a list of relevant agreements such as interconnection agreements and operating procedures with adjacent TOs. (O-10)

CalGrid indicated that its operations contractor has two remote data centers that are "hot-hot" to ensure no loss of data could occur. (O-11)

CalGrid indicated that the EOP-008 loss of primary control center functionality was most recently audited in 2022 and there were no findings or areas of concern by WECC or SERC. (O-11)

CalGrid indicated that its operations contractor would install its field communications equipment, which generally would consist of router, switch, remote terminal unit, universal power supply, and supplemental equipment to support physical access controls. (O-11)

CalGrid indicated that its operations contractor would be the primary point of contact for the ISO and neighboring transmission operators for voice communications, including ISO issued operating instructions. (O-12)

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

CalGrid indicated that neither it nor its O&M contractor nor the subsidiary operations contractor, as a registered TO or TOP, has had any violations of NERC reliability standards in the past ten years. (O-16)

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

CalGrid indicated that neither it nor its O&M contractor nor the subsidiary operations contractor has incurred any violations of operations-related laws, statues, rules, or regulations. (O-18)

3.10.10 Information Provided by Horizon West

Horizon West provided a list of its experience and the experience of its contractors with operating substations and transmission lines. The list included a total of 109 substation and transmission line projects that operate at voltages above 200 kV and are ongoing or have been completed in the past ten years, and are located in the U.S., with seven in California. (Prior Projects and Experience Workbook)

Horizon West indicated that it has prior operational experience in the ISO and provided examples of two projects in California where its affiliate was responsible for operations. (P-5)

Horizon West provided detailed information on the number of FTEs that would be used for various O&M job categories and their estimated utilization. Based on the information provided by Horizon West, the full-time FTE equivalent for performing all the O&M functions listed was approximately five FTEs. (CC-4)

Horizon West indicated that the project's operations would be undertaken by Horizon West field operations staff based in the vicinity of the project and by Horizon West's existing control center team, staffed by its system operating affiliate, Lone Star Transmission, LLC (Lone Star), located in Austin, Texas. Horizon West indicated that Lone Star is an existing ISO and WECC-certified transmission operator, which currently operates Horizon West's facilities with interconnection to SDG&E. Horizon West indicated that Lone Star has a strong track record of operating transmission assets under the ISO Tariff and interconnection protocols with incumbent investor-owned utilities. (O-1)

Horizon West indicated that the project's dedicated field operations and maintenance team would be located at the North of SONGS Substation. (O-1)

Horizon West indicated that its and its affiliates' system operators are NERC-certified TOP operators. (O-2)

Horizon West provided the minimum qualifications and experience, training, and certification requirements for its system operators and field personnel, including those involved in switching operations. (O-2)

Horizon West indicated that its operations staff and Lone Star operations personnel supporting its projects are required to be familiar with the switching protocols contained in their emergency operation plan and required to take an annual switching refresher class to maintain qualification for conducting switching operations. (O-2)

Horizon West provided information on its training program, which included descriptions of training courses required by Horizon West for its operations personnel who are responsible for substation maintenance, system operations, protection and control, and transmission lines and includes training for entry-level operations personnel. (O-3)

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

Horizon West indicated that for the proposed project, Horizon West would perform the TO and TP function under its registration and Lone Star, under its registration, would undertake the project's TOP role for Horizon West. (O-5)

Horizon West indicated that its compliance and responsibility organization would monitor its and Lone Star's execution of their NERC functional programs to ensure compliance with the reliability standards or requirements associated with the project. (O-6)

Horizon West indicated that it would follow NextEra's documented NERC reliability standards internal compliance program, which consists of compliance processes and procedures, effective independent oversight, effective training and education for roles and responsibilities, monitoring and auditing, internal controls, reporting possible violations or concerns, and corrective actions.

Horizon West indicated that it does not foresee any applicable reliability criteria for which TOs are responsible that would require temporary waivers under TCA Section 5.1.6. (O-7)

Horizon West provided the number of miles of transmission lines for which it and its affiliates are responsible for compliance. (O-8)

Horizon West indicated that in January 2020, Lone Star (the Horizon West NERC TOP) executed a CFR agreement with the ISO. (O-9)

Horizon West indicated that its operations team members have been instrumental in establishing several CFRs with the ISO. (O-9)

Horizon West indicated that it and its operating system affiliate, Lone Star, would continue to work with the ISO as the CFR evolves, which includes defining roles and responsibilities related to complying with all applicable NERC TOP reliability standards requirements. (O-9)

Horizon West provided a table listing the applicable agreements that would define the project TOP's responsibilities and authority regarding other NERC functional entities. (O-10)

Horizon West indicated that the project would be integrated into its and Lone Star's existing control center infrastructure. Horizon West indicated that Lone Star would perform the system operations function for the project. (O-11)

Horizon West described Lone Star's infrastructure for providing real-time operational information. (O-11)

Horizon West indicated that it is fully capable of managing emergencies and fulfilling its obligations for system emergency reports under TCA Sections 9.2 and 9.3. Horizon West indicated that it is a signatory to the TCA in connection with the Suncrest SVC project and has operated that project in compliance with the responsibilities of TCA Section 9.2 and 9.3 requirements. Horizon West indicated that it has identified resources including two dedicated local personnel committed to the project, approximately 50 technical staff within a two-hour drive, and more than 40 certified switching personnel throughout California. (O-13)

Horizon West indicated it has a CPUC-approved wildfire mitigation plan and maintains active fire-prevention programs. Horizon West indicated it would extend its wildfire mitigation plan to include the new project, which plan includes, among other things, real-time monitoring capability (visual and electronic), seismic and fire hardening infrastructure, and comprehensive vegetation management. (O-13)

Horizon West also provided information on NextEra's corporate emergency management plan framework for organizational readiness for threats and hazards. (O-13)

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

Horizon West indicated that it has had no violations of NERC reliability standards or other reliability standards in the past ten years. Horizon West provided a list that identified and described NextEra's and the project sponsor's team violations in all NERC regions, including WECC. Horizon West indicated that for the project's system operator, Lone Star, and most NextEra entities in California, potential violations have been the subject of self-reports submitted to the applicable regional entity, WECC. (O-16)

Horizon West indicated that there were no operations-related tariff violations or FERC rules violations the project sponsor or its team has incurred in the past ten years. (O-17)

Horizon West indicated that there were no violations of operations-related laws, statutes, rules, or regulations the project sponsor or its team has incurred in the past ten years. (O-18)

3.10.11 Information Provided by Lotus-SCE

Lotus-SCE provided a list of its experience and the experience of its contractors with operating substations and transmission lines. The list included a total of eight substation and transmission line projects that operate at voltages above 200 kV and have been completed in the past ten years and are located in the U.S., with all eight in California. (Prior Projects and Experience Workbook)

Lotus-SCE indicated that it has faced operations-related risks and challenges similar to those foreseen for the project, such as operational challenges where there are overlapping points of operational jurisdiction, and provided an example where SCE developed operating procedures for a substation that had interconnections with several operators. (P-5)

Lotus-SCE indicated that for typical transmission line operations activities and other administrative and general needs, SCE would utilize existing internal structures with a small incremental need of one FTE for operations. (CC-4)

Lotus-SCE indicated that it would not be contracting with any third-party provider for O&M services but would instead utilize SCE's in-house personnel to conduct operations for the project. (CC-5)

Lotus-SCE indicated that SCE would own and operate the project and would provide, among other things, operational services for the project following the in-service date. Lotus-SCE indicated that SCE operates a total of two control centers and 13 switching centers and coordinates operations across 30 interconnections with the ISO within Southern California. (O-1)

Lotus-SCE indicated the entire capacity of the project would be under the operational control of the ISO. (M-8)

Lotus-SCE indicated that SCE would follow well-established operational practices and processes, similar to those practices used today to operate its existing T&D system.

Lotus-SCE indicated that the SCE grid control center (GCC) is the single point of contact for communications with the ISO and the GCC has overall authority of the entire SCE electric system via two control centers (Alhambra and Irvine). Lotus-SCE indicated that the GCC would assign operational jurisdiction to a switching center (Orange County) and Orange County would have operational control of the facility. (O-1)

Lotus-SCE indicated that SCE has policies, processes, and procedures in place to ensure all persons in scope by trade are qualified, skilled, and experienced in its respective trades or occupations in line with all applicable SCE internal policy requirements and state and federal requirements. (O-2)

Lotus-SCE indicated that SCE has training programs in place to ensure all persons (i.e., operators, linemen, and substation electricians) in scope by trade are qualified, trained, and skilled in line with all applicable Internal SCE policies and state and federal policies. (O-3)

Lotus-SCE indicated that for real time operations related training, the compliance and training department within SCE's GCC located in Alhambra, CA would be responsible. (O-3)

Lotus-SCE indicated that SCE's transmission operators in the GCC are both certified internally and have NERC certifications that meet if not exceed the necessary requirements. (O-3)

Lotus-SCE 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)

Lotus-SCE indicated that SCE have responsibilities for NERC compliance. Lotus-SCE indicated that SCE is registered with NERC as a TP, TO, and TOP. (O-5)

Lotus-SCE indicated that SCE has established the energy regulation compliance program (ERCP), which provides the framework and governance over how SCE

maintains compliance with the applicable reliability standards. Lotus-SCE indicated that the ERCP uses an integrated compliance management framework comprised of elements that make up the core compliance responsibilities (prevention, detection, monitoring, and response). (O-7)

Lotus-SCE indicated that temporary waivers under TCA Section 5.1.6 are not applicable. (O-7)

Lotus-SCE indicated that it has completed all compliance reporting on-time, including, but not limited to, self-certifications, periodic data response submittals, relay mis-operations, and vegetation outages. (O-8)

Lotus-SCE provided the number substations and miles of transmission lines for which SCE is responsible for compliance. Lotus-SCE provided WECC compliance reports for WECC's triennial review of SCE for compliance with applicable NERC reliability standards. (O-8)

Lotus-SCE indicated that it would develop a reliability standards agreement with the ISO. Lotus-SCE indicated that this agreement would contain the delegation of responsibilities between the project sponsor and other entities in accordance with NERC standards and would be similar to the one in place between the ISO and SCE. (O-9)

Lotus-SCE indicated that SCE is actively registered with NERC to perform the following functions: distribution provider, generator owner, generator operator, resource planner, transmission owner, transmission operator, and transmission planner, and intends to maintain its registration with NERC for the duration of the project. (O-10)

Lotus-SCE indicated that it intends to use SCE for control center operations subject to any necessary approvals from the CPUC. Lotus-SCE indicated that it plans to negotiate an O&M agreement with SCE for this service. Lotus-SCE indicated that SCE operates a large transmission system subject to ISO control and has experience in acquiring adequate and reliable data acquisition facilities for its TOP area. Lotus-SCE indicated that if SCE is providing these services, adequate and reliable SCADA data for the transmission operator area would be available at SCE's primary and backup control centers for use by operations. Lotus-SCE indicated that with this SCADA system being available at both the primary and backup control centers, it would have the required information to maintain reliable system operation. (O-11)

Lotus-SCE indicated that SCE, as a PTO, currently operates all of its high voltage electric facilities subject to TCA Sections 6.1 and 6.3 and this project would be operated in the same manner. (O-12)

Lotus-SCE indicated that since 1998, all SCE facilities under the operational control of the ISO have been subject to and have been fully compliant in all aspects with the requirements of TCA Sections 9.2 and 9.3 (Management of Emergencies). (O-13)

Lotus-SCE indicated that in accordance with requirements of the CPUC, SCE has developed a corporate emergency response and recovery plan. (O-13)

Lotus-SCE indicated that SCE has a comprehensive wildfire detection and mitigation program and a CPUC approved wildfire mitigation plan that is intended to reduce the wildfire risk through annual inspection of overhead transmission lines, trimming and

removal of trees to prevent vegetation from coming into contact with electrical equipment, and monitoring of high fire threat areas through a network of weather stations and wildfire cameras to make real-time informed operation decisions. (Z-1)

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

Lotus-SCE provided a summary of six NERC NOVs SCE has incurred from 2013-2023 related to transmission operations and maintenance and indicated that all six have been mitigated to WECC's satisfaction. (O-16)

Lotus-SCE indicated that neither the project sponsor, Lotus, SCE, nor any member of the proposed project team has incurred any operations-related tariff violations or FERC rules violations in the past ten years. (O-17)

Lotus-SCE indicated that neither it, Lotus, SCE, nor any member of the proposed project team has had any violations of operations-related laws, statutes, rules, or regulations related to each of their respective transmission operations and maintenance in the past ten years. (O-18)

3.10.12 Information Provided by SDG&E

SDG&E provided a list of its experience and the experience of its contractors with operating substations and transmission lines. The list included a total of 12 substation and transmission line projects that operate at voltages above 200 kV and have been completed in the past ten years and are located in the U.S., with all 12 in California. (Prior Projects and Experience Workbook)

SDG&E indicated that it has faced operating risks similar to those foreseen for the project, including operations under high winds, extreme fire weather, and stressed system conditions by way of operating several 500 kV lines in its operating territory. (P-5)

SDG&E indicated that it has a workforce of over 300 FTEs, including operations, maintenance, and administrative personnel. (CC-4)

SDG&E indicated that it has existing contracts with professional vendors to perform certain O&M activities, such as vegetation management. SDG&E also indicated that it does not intend to enter into any additional third-party contracts for O&M services related to the project. (CC-5)

SDG&E indicated that it employs approximately 70 experts dedicated to electric transmission grid operations. SDG&E indicated that as part of its operational responsibilities, SDG&E utilizes both primary and backup control centers to monitor and control its transmission system. (O-1)

SDG&E indicated that the control center is normally staffed with two to five people based on the shift, one operating shift supervisor, and up to four transmission system operators. SDG&E indicated that SDG&E coordinates with the ISO and neighboring utilities when switching interties. (O-1)

SDG&E indicated that its primary and backup control center locations are located within its service territory. (O-1)

SDG&E indicated that both control centers are functionally equivalent and can operate independently of one another. SDG&E indicated that whichever control center is operationally controlling its electric transmission system would serve as the ISO point of contact. (O-1)

SDG&E indicated that its recruiting and selection process includes several industry best practices to ensure it is inclusive and that individuals hired have the requisite skills, experience, and fit for the position and its company. SDG&E provided information describing essential functions and job requirements for key personnel. (O-2)

SDG&E indicated that it offers a world-class training program and facility with a goal toward continuous improvement to provide the best training possible for a safe, efficient, and effective workforce. SDG&E indicated that it utilizes its own in-house training center and system to provide development, coordination, and administration of company-wide training programs for system operators, field personnel, support personnel, first line supervision, and project management. SDG&E indicated that subject matter experts with field experience compose 80% of the instructor workforce. SDG&E indicated that its transmission system operators are NERC certified, as required under NERC's Reliability Standard, PER-003. SDG&E indicated that its transmission operator personnel are required to complete at least five days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel. (O-3)

SDG&E indicated that adding the project would not require any changes or exceptions to the provisions of the TCA. (O-4)

SDG&E indicated that SDG&E has seven registered NERC functions: TO, TOP, TP, GO, GOP, DP, and RP. SDG&E indicated that it does not anticipate registering for any new functions in connection with the project. (O-5)

SDG&E indicated that it is already registered to perform NERC functions and does not contract, nor does it plan to contract, for services to perform NERC functions. (O-6)

SDG&E indicated that there are no applicable reliability criteria for which transmission operators are responsible that require temporary waivers under TCA Section 5.1.6.

SDG&E indicated that it has a strong federal compliance department with direct oversight by senior leadership. SDG&E indicated that its reliability standards internal compliance plan (RSCP) documents and describes SDG&E's program for compliance with NERC and WECC reliability standards applicable to its NERC registered functions.

SDG&E indicated that the RSCP is supplemented by other documents, such as SDG&E standard operating procedures, which address and document specific SDG&E procedures for reliability standards compliance. SDG&E indicated that the RSCP provides for senior management and oversight. (O-7)

SDG&E indicated that it has an established compliance program associated with 69 applicable reliability standards and has participated in five WECC and NERC audits going back to 2009, with the most recent being in 2021. SDG&E provided non-public audit reports.

SDG&E provided the number of substations and miles of transmission lines for which it is responsible for compliance. (O-8)

SDG&E indicated that SDG&E would continue to operate under the current executed CFR agreement between the ISO and SDG&E as it has in the past. SDG&E indicated that it does not expect that there would be any change to the existing CFR agreement in connection with the project. (O-9)

SDG&E indicated that because it is an existing PTO and TO within the ISO, it does not identify a need for additional or new agreements. (O-10)

SDG&E indicated that its control center is staffed 24 hours a day, seven days a week with NERC-certified real-time operators who can address real-time emergency conditions. SDG&E indicated that SDG&E is an existing TO and has adequate and reliable data acquisition facilities established to support existing operational requirements to meet NERC reliability standard compliance requirements. SDG&E indicated that its primary and back-up control centers have redundant back up. (O-11)

SDG&E indicated that as an established transmission operator within the ISO's service territory and operational jurisdiction, SDG&E complies with TCA Section 6.1 and TCA Section 6.3. (O-12)

SDG&E indicated that it has a long-standing track record of compliance with TCA Section 9.2. SDG&E indicated that SDG&E is a member of four mutual assistance agreements. (O-13)

SDG&E indicated that if an emergency requires it, it has a fully operational emergency operations center that follows and incident command system. SDG&E indicated that to ensure reliability and redundancy, it maintains two physical emergency operations center locations, and each location was reviewed for its risk factors to ensure no one risk would affect both sites. (O-13)

SDG&E indicated that it maintains a 24/7 emergency on-duty call notification system to manage risk and quickly respond to incidents or emergencies in its service territory. SDG&E indicated that utilizing its department operations centers and district field response crews, SDG&E can quickly respond to incidents to stabilize, repair, and restore electric services. (O-13)

SDG&E indicated it utilizes Indji Watch, a weather hazard monitoring and alerting tool for utilities, to aid in safety, project planning, and inspections and provide situational awareness to its grid control center to operate safely and efficiently for many potentially hazardous conditions. SDG&E indicated that Indji Watch provides email and text notifications for detected lightning near SDG&E transmission lines, as well as detected wildfires within two miles and within one-half mile of SDG&E transmission lines. (O-13)

SDG&E indicated that often during extreme fire weather conditions, there is the need to de-energize a line in connection with a public safety power shutoff, and then to subsequently re-energize the line. SDG&E indicated it mitigates this risk by deploying observers to the highest risk areas, and only de-energizes as a last resort. SDG&E indicated it also mitigates this risk through increased situational awareness, utilizing real time contingency analysis, to determine if any element would cause an overload or reliability violation should it be removed from service. SDG&E indicated it utilizes a team of operators and fire experts that can use SDG&E's situational awareness tools,

including more than 222 weather stations, over 130 cameras, and satellite technology to act efficiently to make the grid safe or restore operations. (P-5)

SDG&E indicated it has created a comprehensive wildfire mitigation and safety program, consisting of an in-house fire science and climate adaptation department, comprising six full-time meteorologists continuously monitoring weather conditions that could lead to wildfire events, fire coordinators, wildfire risk models, a grid-hardening program, and world-class situational awareness tools, including an emergency operations center dedicated to monitoring and responding to wildfires and other emergencies. SDG&E indicated these tools include a state-of-the-art camera network with over 130 high-definition cameras that continuously monitor for wildfire events, 44 of which are remotely-operable pan-tilt-zoom cameras that help the California Department of Forestry and Fire Protection (CAL FIRE) more quickly locate and size up wildfires to develop plans of attack for first responders. SDG&E indicated it has two helicopters, an Air Crane and a Black Hawk helicopter, dispatched (through an agreement) by CAL FIRE, available at a moment's notice to combat wildfires with thousands of gallons of water and fire suppressant. SDG&E's indicated its helicopter mounted multi-spectral camera and unmanned aircraft system or drone program can give ground-based operators a bird's eye view of wildfires when requested by an incident commander in coordination with aircraft operations. (A-4)

SDG&E indicated any arrangement with Citizens Energy associated with the project would be reflected as an encumbrance in Appendix B of the TCA. (O-14)

SDG&E indicated that consistent with WECC, NERC, and FERC guidance, SDG&E applies a six-year retention period for records associated with compliance matters relevant to violations of NERC reliability standards or other reliability standards. SDG&E indicated that it had no confirmed violations associated with any NERC or WECC operations and planning (i.e., non-CIP) reliability standards in the past six years. SDG&E listed confirmed violations associated with CIP standards during this period. (O-16)

SDG&E indicated that it has not incurred any tariff violations or FERC rules violations in the past ten years regarding its FERC-jurisdictional transmission operations or wholesale distribution operations. (O-17)

SDG&E indicated that in the last ten years, it has had no violations of operations-related laws, statutes, rules, or regulations related to its 500 kV lines or switchyards that are not discussed elsewhere in its proposal. (O-18)

3.10.13 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 of the project sponsors provided detailed design criteria and constructability review processes that demonstrate that their respective projects would adhere to standardized construction practices. 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, Horizon West, Lotus-SCE, and SDG&E 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 has determined that all the project sponsors and their proposed teams have the capability to adhere to standardized maintenance practices. Some of the project sponsors and their teams have more local experience and resources near the project than others. 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.

Horizon West, Lotus-SCE, and SDG&E have existing maintenance practices complying with the ISO's transmission maintenance standards under the TCA that have been approved by the ISO. CalGrid indicated that its maintenance practices include the elements of the ISO's maintenance standard.

All four project sponsors have proposed enhanced vegetation management for the areas of this project that are in high fire threat districts and will create or update their CPUC wildfire mitigation plans accordingly.

The proposed emergency response and restorations times for all of the project sponsors are reasonable. Lotus-SCE and SDG&E would have more local resources (crews, vehicles, cranes, helicopters, wire stringing equipment, etc.) and access to mutual assistance programs to respond to emergencies than the other two proposals. Horizon West would have more resources through its affiliates to respond to emergencies than CalGrid would.

Regarding plans or provisions to be implemented by the project sponsor to replace major failed equipment, the proposals of Horizon West, Lotus-SCE, and SDGE indicate greater access to spare substation and transmission line equipment and parts than the proposal of CalGrid.

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, Lotus-SCE's and SDG&E's proposals are slightly better than Horizon West's proposal, which is better than CalGrid'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 has determined that all the project sponsors and their proposed teams have the capability to adhere to standardized operating practices and standards and applicable tariffs. All of the project sponsors indicated they have faced challenges and risks similar to what they will face with this project, including wildfire risk. Some of the project sponsors and their teams have more local experience and situational awareness near the project than others. 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.

Horizon West, Lotus-SCE, and SDG&E and their teams operate transmission facilities under the ISO's operational control and are required to comply with NERC standards, the TCA, and the ISO Tariff. CalGrid does not have transmission facilities operating under the ISO's operational control that are subject to the TCA and the ISO Tariff.

Regarding the approach the project sponsor would use to assure compliance with applicable reliability standards, Horizon West, Lotus-SCE, and SDG&E identified existing comprehensive corporate level compliance oversight functions that would include subcontractors. CalGrid indicated that its approach to compliance would be built upon its team's past experiences operating and maintaining significant transmission infrastructure.

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. Horizon West, Lotus-SCE, SDG&E, and their affiliates have more transmission facilities subject to NERC compliance than CalGrid. CalGrid, provided compliance reports for its O&M contractor, which has more experience with generation facilities and less with transmission facilities than the other project sponsors.

Horizon West, Lotus-SCE, and SDG&E all maintain active fire prevention programs and have CPUC approved wildfire mitigation plans that they would update to include this project. Horizon West, Lotus-SCE, and SDG&E indicated they have visual and electronic monitoring tools that continuously monitor weather conditions that could lead to wildfires and assist in making real time operation decisions; however, Lotus-SCE and SDG&E have more extensive networks of weather stations and cameras in the Southern California region. CalGrid indicated that during operations it would adhere to industry leading programs, processes, and operations procedures that would be documented in a CPUC-ratified wildfire mitigation plan. ..

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, that there is no material difference between the proposals of Lotus-SCE and SDG&E and their proposals are slightly better than Horizon West's proposal, which is better than CalGrid's proposal, regarding this component of the factor, the capability to adhere to standardized operating practices.

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

Regarding the second component of this factor (demonstrated capability to adhere to standardized maintenance practices), the ISO has determined that there is no material difference between the proposals of Lotus-SCE and SDG&E and that their proposals are slightly better than Horizon West's proposal, which is better than CalGrid's proposal.

Regarding the third component of this factor (demonstrated capability to adhere to standardized operating practices), the ISO has determined that there is no material difference between the proposals of Lotus-SCE and SDG&E and their proposals are slightly better than Horizon West's proposal, which is better than CalGrid's proposal.

Based on the combination of the foregoing comparisons for the three components of this factor, the ISO has determined that there is no material difference between the proposals of Lotus-SCE and SDG&E and that their proposals are better than Horizon West's proposal, which is better than CalGrid's proposal, regarding this factor overall.

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

(F-14, F-15, O-15)

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 prior to commencement of construction it would procure or cause its contractors to procure a builder's "all-risk" insurance policy in an amount that is not less than the full replacement cost of the project that will cover perils of flood, earthquake, windstorm, 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. (F-14)

CalGrid indicated that upon completion of testing, commissioning, and achievement of substantial completion, the builder's risk insurance policy would expire and the property would be covered by an operational property policy. CalGrid indicated 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 the operational property policy would include coverage for mechanical and electrical breakdown, plus resulting or ensuing damage arising out of defects, the perils of flood, earthquake, windstorm, 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. (F-14)

During construction, CalGrid indicated it would require the construction contractor's corporate insurance program to include, but not be limited to, general liability (including wildfire), automobile liability, excess liability (including wildfire), worker's compensation, professional liability, and pollution liability coverage.(F-14)

CalGrid indicated it would also procure an owner's interest policy during the course of construction to cover third party bodily injury and property damage. CalGrid indicated the owner's interest limits will be excess and above the construction contractor'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 the limits would be subject to commercial reasonableness, availability, and in line with prudent industry practice. (F-14)

During the operational life of the facilities, CalGrid indicated it would require the O&M contractor's corporate insurance program to include, but not be limited to, general liability (including wildfire), automobile liability, excess liability (including wildfire), and worker's compensation coverage. (F-14)

CalGrid indicated it would purchase general liability (including wildfire) and excess liability (including wildfire) insurance over the operational phase of the facilities. CalGrid indicated the policy's limits would be in excess of the O&M contractor's contractually required limits and would cover 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 limits would be subject to commercial reasonableness, availability, and in line with prudent industry practice. (F-14)

CalGrid indicated its approach to risk management would follow prudent utility practice. CalGrid indicated that should CalGrid's exposure extend beyond its anticipated insurance coverage, it expects that any additional uninsured exposure would be eligible for recovery at FERC. (Attachment G1-1 Wildfire Plans and Procedures)

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 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. (O-15)

CalGrid indicated that for hardware and insulators, its construction contractor would procure and hold a small percentage (2-3%) of construction spares for loss and breakage during construction and would transfer any unused spares to CalGrid and the O&M contractor to have at project startup. (O-15)

CalGrid indicated that during commercial operations, the O&M contractor would 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 in accordance with prudent utility practice. (O-15)

For the substation and its equipment, CalGrid indicated it would plan to carry an inventory stock of, at minimum, one replacement breaker for both SF6 and non-SF6 breakers. (O-15)

3.11.2 Information Provided by Horizon West

Horizon West indicated that NextEra and its affiliated, subsidiary, and associated companies and corporations, which includes Horizon West, maintain and will maintain a property all-risk insurance program that would cover the facility from all risks of direct physical loss or damage, including, but not limited to, mechanical and electrical breakdown, wildfire, flood, earthquake, windstorm, and terrorism. (F-14)

Horizon West indicated it maintains and would maintain a commercial general liability insurance program with limits commensurate with industry standards that would protect against liability claims for bodily injury and property damage. (F-14)

Horizon West indicated the insured values during construction and over the operational life of the project facilities would not be less than the full replacement cost of the facility and include the entire extent of the failure of project facilities during the operation of the project. (F-14)

Horizon West indicated that during construction and operations it would have in place property insurance, general liability insurance, workers compensation insurance, auto liability insurance, pollution liability insurance, professional liability insurance, excess umbrella liability insurance, and wildfire liability insurance. (F-14)

Horizon West indicated its affiliate NextEra has an umbrella general liability policy that includes hundreds of millions of dollars of California wildfire-specific coverage. (Z-1)

Horizon West indicated it would rely on its internal financial resources, including operating revenues from its projects as well as its NEECH debt facility, to fund unexpected repairs during the project's expected useful life. (F-15)

Horizon West indicated it would have access to additional equity funding, additional credit facilities, and a robust insurance program to finance unexpected repairs, both during construction and over the life of the project. Horizon West indicated its access to additional parent equity and debt funding is backed by NextEra, which has access to and regularly secures financing in the public debt and equity markets. (F-15)

Horizon West indicated that it would maintain a spare stock of critical transmission line components, hardware, wire, and structures to ensure expedient recovery in the event of an emergency. Horizon West provided a transmission line restoration plan to be implemented in response to an outage or other emergency conditions that would be encountered over the life of the project resulting in damages requiring structure, wire, or hardware replacement. Horizon West indicated that the overall strategy would be to have important strategic spares immediately available on site at the project location. Horizon West provided a list of critical spare equipment it would store on site. (O-15)

Horizon West indicated that in addition to spares on-site, it would have access to its affiliate-wide spares sharing program, specifically FPL spares and strategic support of equipment suppliers. Horizon West indicated that the project would be built to NextEra

equipment design standards to the extent possible so that the project can be incorporated into the larger NextEra spare parts management program. (O-15)

3.11.3 Information Provided by Lotus-SCE

Lotus-SCE indicated it plans to maintain insurance for the project that is typical of industry standards and required for debt financing. Lotus-SCE indicated this would include coverage based on replacement value, construction coverage, and business interruption and general liability. (F-14)

Lotus-SCE indicated that Lotus would fund the insurance coverages during the period prior to completion and operations. Lotus-SCE indicated insurance coverage for negligence prior to operations would be covered under three different insurance policies: (1) Lotus' project builders all risk policy - which would equate to the replacement cost of the material and labor cost of the project; (2) Lotus' project general liability umbrella policy – which would cover third party property and injury liabilities; and (3) the construction contractor's general liability insurance package – which would be in the range of 50% of the contract value. (F-14)

Lotus-SCE indicated that, during the course of the construction of the project, the construction contractor would provide insurance coverage for the project during this period. Lotus-SCE indicated that typically such coverage would be commercial general liability coverage, which would include protection for wildfires as part of the overall insurance package that would be needed for the performance of construction work. Lotus-SCE indicated the project constructors would have difference-in-conditions coverage to guard against catastrophic perils that could be encountered during the performance of construction activities, automotive liability coverage, and worker's compensation coverage for their personnel and, depending upon the level required, there would also be levels of umbrella coverage over the initial amount.

Lotus-SCE indicated that SCE would be responsible for funding insurance coverage during the operational period. Lotus-SCE indicated that SCE expects to maintain property insurance limits of hundreds of millions of dollars throughout the operational life of the project facilities and that this insurance would cover structures, such as substations, but coverage for transmission lines would only be available within 1000 meters of a structure such as a substation or generating station. (F-14)

Lotus-SCE indicated that other insurance coverage carried by SCE includes general liability insurance and wildfire liability insurance. Lotus-SCE indicated that SCE maintains hundreds of millions of dollars of general liability insurance covering bodily injury and property damage to third parties caused by SCE's negligence and that SCE also maintains $1 billion of customer-funded self-insurance coverage for potential wildfire liability involving SCE's facilities. Lotus-SCE indicated that additional wildfire liability coverage would be available through the separate California Wildfire Fund. (F-14)

Lotus-SCE indicated that it would utilize SCE's existing wildfire self-insurance once the project is operational and that this would reduce the ongoing operations and maintenance costs, as well as the administrative and general expenses that are allocated to the project. Lotus-SCE indicated this would protect the ISO's customers from both increases in insurance rates due to uncertainty in wildfire insurance markets

and unnecessary additional insurance policies from new ISO PTOs, saving substantial amounts of money per year in project expenses. (CC-1)

Lotus-SCE indicated that SCE would be providing financing during the time period that the project is in-service. Lotus-SCE indicated SCE possesses a credit facility in the billions of dollars to provide access to short-term liquidity in order to finance unexpected repairs or replacements. (F-15)

Lotus-SCE indicated that SCE transmission has 16 line crews, wire stringing equipment, cranes, digger derricks, and bucket trucks to support emergency transmission work.

Lotus-SCE indicated that SCE stocks Lindsey emergency restoration structures, emergency steel poles, and lattice structures that can facilitate various terrains, voltages, and other constraints, as well as various types of conductors. Lotus-SCE indicated that SCE maintains an emergency inventory of substation equipment such as power transformers (including 500/230 kV), circuit breakers, regulators, bushings, disconnect switches, and other equipment. Lotus-SCE indicated that in the event of a very large event, SCE has arrangements with neighboring utilities as part of a mutual aid arrangement to obtain such equipment in an emergency situation. (O-15)

3.11.4 Information Provided by SDG&E

SDG&E indicated it would self-insure workers' compensation, automobile liability, and a portion of third-party bodily injury and property damage-related risks. SDG&E indicated it maintains a comprehensive non-wildfire liability insurance program that provides coverage in excess of its self-insurance for third-party bodily injury and property damage arising from its operations. SDG&E indicated that the non-wildfire liability limits maintained by SDG&E are nearly a billion dollars. (F-14)

SDG&E indicated for both construction and operations it also has a dedicated and comprehensive wildfire liability insurance program, which provides coverage for third-party bodily injury, property damage, and firefighting expenses. SDG&E indicated that it currently maintains wildfire liability insurance of at least $1 billion. (F-14, Response to clarification question)

SDG&E indicated it is one of three entities with access to the California Wildfire Fund, which is expected to reach $21 billion of wildfire insurance. SDG&E indicated that the California Wildfire Fund is only available to participating electric investor-owned utilities in California (and not their joint venture partners or other third parties). SDG&E indicated that the California Wildfire Fund covers wildfires caused by the direct activities of the participating California electrical corporations, and because SDG&E proposed to be the sole developer, owner, and operator of the project, all phases of the proposed project, including construction and operation, would be covered by the California Wildfire Fund. (F-14, Response to clarification question)

SDG&E indicated it would procure, or require its contractors to procure, builders all risk insurance to cover the proposed project during the construction phase. SDG&E indicated that builders all risk insurance would provide coverage for physical loss of or damage to the proposed project and cover all equipment, materials, machinery, supplies, and other property intended to be permanently incorporated in the proposed project. (F-14)

SDG&E indicated it finances project expenses with a combination of debt and equity, for both routine and unexpected repairs. SDG&E indicated that to cover expenses and repairs it can: (1) issue long term debt to raise capital and has over $1 billion in short-term debt capacity; (2) utilize a $1.5 billion revolving line of credit; and 3) utilize cash from operations and retained equity to cover expenses and repairs. (F-15)

SDG&E indicated that for substations it maintains a fleet of portable substation transformers and breakers that may be used in an emergency. SDG&E indicated that SDG&E also keeps extra inventory assets. SDG&E indicated that for transmission lines its transmission construction and maintenance department has emergency material stock to address events, which includes the Lindsey emergency restoration structures, which can be built to temporarily replace dead-end structures. SDG&E indicated that SDG&E also participates in mutual aid programs. (O-15)

3.11.5 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.

The ISO will consider 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 High Fire Threat Districts; 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 above in Section 3.7 of this report, the financial resources of the project sponsors vary. The comparative analysis in Section 3.7 primarily focuses on the ability of a project sponsor to finance the development and construction of the project. However when comparing the ability of a project sponsor to assume liability for major losses for this project, the ISO considers the financial resources available to cover major losses both during development and construction as well as during the operational life of the project. For this factor, the ISO also considers the financial resources 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 in the comparative analysis of financial resources.

In the discussion of financial resources of the project sponsors in Section 3.7 of this report, the ISO concluded that the proposals of CalGrid, Horizon West, and SDG&E are the strongest, followed by Lotus-SCE's proposal. This conclusion was primarily based on the financial resources Lotus-SCE represented in its proposal that would be available during the development and construction phase of the project. Lotus-SCE further represented in its proposal that SCE would be providing financing during the time period

that the project is in-service and that SCE possesses a credit facility in the billions of dollars to provide access to short-term liquidity in order to finance unexpected repairs or replacements.

Based on the forgoing considerations, the ISO has determined that for this component of this factor there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E.

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, CalGrid, Horizon West, and Lotus-SCE indicated that there would be an all risk insurance policy in place for not less than the replacement cost of the project, including general or excess liability insurance that covers wildfires. Horizon West indicated that it would have in place hundreds of millions of dollars in additional wildfire liability insurance for California fire-related liability coverage. SDG&E indicated that during construction it would have a builder's all risk insurance policy in place, as well as wildfire liability insurance of at least $1 billion and access to the California Wildfire Fund.

During the operational life of the project, CalGrid and Horizon West indicated there would be an all risk insurance policy in place for not less than the replacement cost of the project, including general or excess liability insurance that covers wildfires. Horizon West indicated that it would have in place hundreds of millions of dollars in additional wildfire liability insurance for California fire-related liability coverage. Lotus-SCE indicated that SCE expects to maintain property insurance in the hundreds of millions of dollars and general liability insurance in the hundreds of millions of dollars. SDG&E indicated it maintains a comprehensive non-wildfire liability insurance program and that the non-wildfire liability limits maintained by SDG&E are nearly a billion dollars. Both Lotus-SCE and SDG&E indicated that they also maintain $1 billion of customer-funded self-insurance coverage for potential wildfire liability involving their facilities, with additional wildfire liability coverage through the separate California Wildfire Fund, which is expected to reach $21 billion of wildfire insurance.

Based on the forgoing considerations, and since the ISO considers project insurance coverage during operations more important than during construction, the ISO has determined that for this component of this factor the proposal of SDG&E is slightly better than the proposal Lotus-SCE due to its access to the California Wildfire Fund during construction in addition to during operations. The ISO has determined that the proposal of Lotus-SCE is better than the proposal of Horizon West due to its access to the California Wildfire Fund during operations. The ISO has also determined that the proposal of Horizon West is better than the proposal of CalGrid due to Horizon West's hundreds of millions of dollars in additional wildfire liability insurance available during construction and operations.

Mitigation of Equipment Failures
For the comparative analysis for this component of this factor the ISO has determined that the proposals of Horizon West, Lotus-SCE, and SDG&E, among which there no

material differences, are better than the proposal of CalGrid because of their greater access to emergency structures, spare equipment, and parts.

Overall Analysis
For the specific scope of this project, in the comparative analysis of this factor, the ISO considers that insurance coverage is more important than financial resources and mitigation of equipment failures, especially since this project runs through CPUC-designated High Fire Threat Districts. 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 the proposal of SDG&E is slightly better than the proposal of Lotus-SCE, which is better than the proposal of Horizon West, which is better than the proposal of CalGrid, 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 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) 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 four project sponsors provided binding capital cost containment proposals for their four proposals. The proposals had 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 binding cost containment measures, the ISO evaluated each project sponsor's proposal regarding the following factors relating to cost containment:

- Cost containment performance for past projects
- Project management capabilities
- Project risks and mitigation of risks
- Impact of the project proposal on the costs to be incurred by the interconnecting PTO

Cost Containment Capability Including Binding Cost Cap

(Prior Projects and Experience Workbook, Cost and Cost Containment Workbook; P-1, P-2, P-4, CC-1 through CC-15, S-1)

3.12.1 Information Provided by CalGrid

Cost Containment

CalGrid proposed the following cost containment measures:

- a cap on its return on equity (ROE);
- an annual revenue requirement cap for a limited period of time; and
- a financial incentive penalty for failure to energize the project by an in-service date of June 1, 2034.

(CC-1, Cost and Cost Containment Workbook)

CalGrid proposed specified limited exclusions to its cost containment measures and rate treatment for any incurred costs associated with such exclusions. (CC-1, CC-7)

Cost Containment Performance for Past Projects

CalGrid provided a list of project experience for its substation and transmission line 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 and transmission line projects operating at voltages above 200 kV that are ongoing or have been completed in the past ten years and are located in the U.S., the list included 18 projects. The information provided by CalGrid showed that all 18 projects were completed at 3.4% below budget on average and the average budget of these projects was $136 million. (Prior Projects and Experience Workbook)

Project Management Capabilities

CalGrid indicated that its project management steps include project kickoff and scoping, schedule development, risk identification and mitigation plans, and cost estimates and provided detailed information for these steps. (P-1)

Regarding cost estimates, CalGrid indicated that it has performed internal analyses and benchmarking to ensure the project cost estimates were accurate, complete, and competitive against relevant benchmarks. (P-1)

CalGrid described its approach to project management execution, which includes project controls, project communication, quality management, risk management, procurement coordination, and safety management. (P-1)

CalGrid also provided information on its project management leadership team that brings decades of experience in management of projects. (P-2)

Project Risks and Mitigation of Risks
CalGrid provided a risk log that included 67 risk items grouped into several risk categories (permitting, procurement, construction, rights-of-way, 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. (P-4)

CalGrid indicated that the proposed project route would cross federal land (BLM, USFS, DoD, etc.) and a NEPA review process would be required. (E-4)

CalGrid indicated its proposed route would cross approximately 3.3 miles of the La Jolla Band of Luiseño Indians Reservation, mostly along State Route 76, and would cross approximately one mile of the Pala Band of Mission Indians Reservation, for a total of 144.2 acres. CalGrid indicated that traversing these reservation lands would require rights-of-way from the BIA for the tribal lands held in trust, which would require a resolution from the Pala Band and La Jolla Band consenting to the rights-of-way grant from the BIA. (L-1)

CalGrid indicated its proposed North of SONGS Substation site is in Orange County just north of Camp Pendleton that is close to the 230 kV lines that would be looped into the new substation. CalGrid indicated it has contacted the landowner, who it believes would be willing to negotiate the acquisition of that property for the substation. (L-1)

CalGrid indicated that it would be sponsoring proposals for two other competitive solicitation projects: (1) North Gila-Imperial Valley #2 500 kV transmission line project; and (2) North of SONGS-Serrano 500 kV transmission line project. CalGrid further indicated that if selected as the approved project sponsor for two or more projects, it would utilize other key staff members with long histories of project management and development experience to take lead project director roles for either one or both of the additional project awards and add resources if gaps are identified. CalGrid also indicated that it would critically evaluate the resource availability of key contractors (environmental, engineering, design, and construction) and bid project work out to other capable and qualified contractors to ensure resource availability and timely project execution is not compromised for any additional awarded projects. (P-4)

3.12.2 Information Provided by Horizon West

Cost Containment
Horizon West proposed a soft capital cap that would limit ROE to 8.5% on project capital costs in excess of Horizon West's estimated capital costs of $1,004 million. The soft capital cost cap would not limit the ROE used to calculate a return on expenses for construction work in progress (CWIP) during the construction period or the accrual of an allowance for funds used during construction (AFUDC). (CC-1)

Horizon West proposed an operations cap that would cap cumulative nominal expenditures on combined O&M and administrative and general (A&G) costs over the first 15 full years of operation of the project. Horizon West indicated that the size of the cap is designed to match Horizon West's forecasted O&M and A&G expenditures over the first 15 years of project operations. Should the project capital costs increase above $1,004 million, Horizon West indicated that the operations cap would increase based on a standard adjuster of 1.108% times the total project capital cost, times 15 years, times a weighted average inflation adjuster of 1.16. Horizon West indicated that the weighted

average inflation adjuster would account for the cumulative effect of inflating O&M and A&G at the ISO's prescribed annual 2.1% rate. (CC-1)

Horizon West proposed a cost of debt cap for the first full 15 years of operation. This would limit the project cost of debt to no more than 6.8% for the first 15 full years of operations. This cap would apply to any costs up to the soft capital cost cap. Horizon West indicated that this cost of debt cap would not apply for any debt costs over 8.0%. (CC-1, CC-7)

Horizon West identified the following exclusions to its cost containment that would apply to the soft capital cost cap, the operations cap, and the cost of debt cap and indicated that these exclusions to the cost caps are limited to the incremental costs incurred because of:

- A change in law after submission of Horizon West's proposal;
- A change by a transmission owner other than Horizon West;
- Uncontrollable Force, as defined in the ISO Tariff;
- A change in scope of the ISO Functional Specifications;
- Capital expenditures after the in-service date of the project;
- Cost of debt for the project exceeding 8%;
- Losses or liabilities in excess of insurance policy coverages and uninsured losses or liabilities;
- Liability insurance premium costs in excess of what is assumed in the proposal;
- Operations and maintenance costs required for wildfire mitigation, pursuant to a mitigation plan ratified by the Office of Energy Infrastructure Safety, in excess of what is assumed in the proposal; and
- Cumulative O&M and A&G expenditures over the first fifteen full years of operation in excess of 1.5 times the cap, to the extent those costs are not already excluded as liability insurance premium costs or operations and maintenance costs required for wildfire mitigation.

(CC-7)

Horizon West indicated that it would not seek relief from its proposed cost caps and cost containment measures for any siting or permitting authority directive to relocate the project. (CC-9)

Horizon West indicated that it would not seek relief from its proposed cost caps and cost containment measures for any siting or permitting authority directive to change the proposed structures, equipment, or transmission lines associated with the project. (CC-10)

Horizon West indicated that it would not seek relief from requirements to increase the amount of environmental mitigation costs beyond that assumed in their proposal. (CC-11)

Horizon West indicated that it would not seek relief from its proposed cost caps and containment measures for any siting or permitting authority directive to underground any portion of the line. (CC-12)

Horizon West indicated that if there were to be a delay in the receipt of any of Horizon West's siting or permit authorizations, Horizon West would not seek relief from its proposed cost cap and other cost containment measures. (CC-13)

Horizon West indicated that costs caused by other transmission owners are excluded from Horizon West's cost containment proposal. (CC-14)

Cost Containment Performance for Past Projects
Horizon West provided a list of project experience for its substation and transmission line projects that included actual cost versus budget performance. Horizon West 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 and transmission line projects operating at voltages above 200 kV that are ongoing or have been completed in the past ten years and are located in the U.S., the list included 71 projects. Of these 71 substation and transmission line projects, 46 were completed at or below budget, 24 were completed above budget and information was not available for one project.

The projects that were completed below budget were completed below budget by an average of 4% and the average budget of these projects was $460 million. Similarly, the projects that were completed above budget were completed above budget by an average of 4% and the average budget of these projects was $300 million. (Prior Projects and Experience Workbook)

Project Management Capabilities
Horizon West provided information regarding its five phases of project management, which includes project launch and initiation, project planning, project execution, project monitoring and controlling, and project closeout. (P-1)

Regarding project execution, Horizon West indicated that the project management team, led on a day-to-day basis by the project manager, would begin working on the tasks and milestone deliverables identified within the project execution plan using technology platforms such as Microsoft SharePoint and Primavera Unifier to facilitate the exchange of project information, engineering plans, and drawings. (P-1)

Regarding monitoring and control, Horizon West indicated that the project schedule, budget, and risk logs for the project would be updated based on current information. (P-1)

Project Risks and Mitigation of Risks
Horizon West provided a risk and issue log that identified 23 high-level sets of risks, category of risk, whether it affects cost or schedule, the probability of occurrence, the impact of the occurrence, whether it is a risk during development or construction, and both completed and potential mitigation. (P-4)

Horizon West indicated that the major risks to the project include routing and substation location risk, delay in the CPUC CPCN process, and construction cost risk and in each case identified mitigation measures. (P-4)

Horizon West indicated that its proposed route would minimize impacts to the Anza Borrego Desert State Park by following a combination of existing transmission lines, existing roads, and other permanent impacts within the park for the majority of the crossing. (L-1)

Horizon West indicated that its proposed route would avoid the National Forest, federal wilderness and inventoried roadless areas and that any route that crosses the National Forest would require a master special use permit for construction. Horizon West indicated that constructing a transmission line in the federal wilderness may require an amendment of the Federal Wilderness Act by an act of Congress. (L-1).

Horizon West indicated that its proposed route would avoid tribal lands and lands managed by the USFS with federally designated wilderness or inventoried roadless areas and Williamson Act parcels, would follow existing overhead utility corridors and established public roads to the extent feasible, and would minimize impacts to the Anza Borrego Desert State Park, USFWS-designated critical habitat, and conserved lands to the greatest extent possible. (Attachment 8.L-1)(L-1)

Horizon West indicated that the proposed route would limit exposure to dense urban areas but would traverse an urban area for one portion of the proposed route. (L-1)

Horizon West indicated its 25 to 40 acre proposed North of SONGS Substation site is in San Diego County on DoD Camp Pendleton property just south of the Orange County line. (L-1) Horizon West indicated that the selected site would be on a vacant parcel proximate to the Talega Substation and currently leased to the California State Parks for the San Onofre State Beach through 2024. Horizon West indicated that there is precedent for siting transmission infrastructure at the proposed site. (S-1, S-2)

Horizon West indicated that it is sponsoring more than one project in the ISO's 2022-2023 competitive solicitation process and that, if awarded more than one project, it would be able to draw on NextEra's scale, as well as access to financial guarantees in excess of the financing required for the project, to complete multiple projects. (P-4)

3.12.3 Information Provided by Lotus-SCE

Cost Containment
Lotus-SCE proposed the following cost containment measures:

- a capital cost cap in 2023 dollars;
- an ROE cap for the Lotus portion of the project;
- an equity structure for the Lotus portion of the project; and
- an additional cost containment incentive in the event of an increase in project cost, in which Lotus would absorb a set amount of additional cost increase before the exclusion would be triggered.

(CC-1, Cost and Cost Containment Workbook)

Lotus-SCE indicated that the cost cap provided in its proposal did not include an inflation cap and that Lotus-SCE would seek an increase if the assumed inflation was exceeded. (CC-1)

Lotus proposed specified exclusions to its cost containment provisions and agreed to certain cost containment measures if certain exceptions are triggered. (CC-8-CC-14)

Cost Containment Performance for Past Projects
Lotus-SCE provided a list of project experience for its substation and transmission line projects that included actual cost versus budget performance. Lotus-SCE 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 and transmission line projects operating at voltages above 200 kV that are ongoing or have been completed or in final development in the past ten years and are located in the U.S., the list included eight projects, six of which were developed by SCE. Of the six substation and transmission line projects developed by SCE, five were completed at or below budget and one was above budget. The five projects that were completed below budget were completed below budget by an average of 10.4% and the average budget of these projects was $560 million. One project was completed above budget by 26.7%, and the original budget of this project was approximately $1.5 billion. Lotus-SCE did not provide any project budget performance experience information for the two projects developed by Lotus (which Lotus-SCE proposes to be responsible for the development and construction of the project), one was marked confidential and one is still in development. (Prior Projects and Experience Workbook)

Project Management Capabilities
Lotus-SCE indicated that through respective contractors, it would develop plans that include preconstruction, coordination with SCE and SDG&E, FERC filings, public outreach plan, and SCE and SDG&E interconnection applications. (P-1)

Lotus-SCE also indicated that during the preconstruction phase, it would develop plans for procurement, health and safety, project execution, environmental management, electrical studies, interconnection studies etc. (P-1)

Project Risks and Mitigation of Risks
Lotus-SCE provided a list of major risks and obstacles for the project that included lack of detailed system data for design, siting and land acquisition, environmental permitting, agreeable terms for easements across tribal lands, cost containment, and its ability to develop multiple projects simultaneously. Lotus-SCE also provided mitigation measures for these risks and obstacles. (P-4)

Regarding siting and land acquisition, Lotus-SCE identified failing to garner the willingness of landowners to participate in negotiations as the highest risk and indicated its experience in anticipating and addressing landowner questions and concerns. Lotus-SCE also indicated that its affiliates have the tools and resources to investigate land ownership changes and locate contact information to establish contact with the new landowner. (P-4)

Lotus-SCE indicated that the proposed route would minimize the length within the Anza Borrego Desert State Park and Anza Borrego Desert State Park General Plan designated wilderness areas. (E-3)

Lotus-SCE indicated its proposed route would cross the La Jolla Band of Luiseño Indians Reservation and Pala Band of Mission Indians Reservation. Lotus-SCE indicated it has contacted both tribes and received a response from the Pala Band, which indicated its willingness to work with the successful project sponsor. (L-1)

Lotus-SCE indicated its proposed North of SONGS Substation site is on a parcel located in southern Orange County regarding which Lotus-SCE has received a favorable indication from the owner that it would feasibly host the substation. (L-1)

Regarding environmental permitting and mitigation, Lotus-SCE indicated that its experience with this process for a similar transmission project mitigates the risk associated with this process, which could take several years. Lotus-SCE indicated that changes to the project description and scope during the permitting phase could cause significant delays and that it is committed to minimizing these changes. Lotus-SCE also indicated that it would conduct micrositing as the results of the biological, cultural, and other environmental fieldwork are noted and could shift the location of the structures away from sensitive resources. (P-4)

Lotus-SCE also indicated that if selected as the approved project sponsor for all three projects in the ISO's 2022-2023 competitive solicitation process, including this project, its team has the capability to effectively develop all three projects simultaneously. (P-4)

3.12.4 Information Provided by SDG&E

Cost Containment

SDG&E proposed the following cost containment measures:
- an annual revenue requirement cap for a limited period of time;
- an annual O&M cost cap for a limited time period; and
- a capital cost cap.

(CC-1; Cost and Cost Containment Workbook)

SDG&E indicated that the cost containment measures provided in its proposal were subject to inflation based escalation as well as a number of escalation based indices provided in SDG&E's proposal. (CC-1)

SDG&E also proposed specified exclusions to its proposed cost caps and committed to certain cost containment measures if certain exclusions are triggered. (CC-1, CC-9-CC-15)

Cost Containment Performance for Past Projects
SDG&E provided a list of project experience for its substation and transmission line projects that included actual cost versus budget performance. SDG&E 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 and transmission line projects operating at voltages above 200 kV that are ongoing or have been completed in the past ten years and are located in the U.S., the list included eight projects. Of these eight substation and transmission line projects, six were completed on or below budget and two were above budget.

The projects that were completed below budget were completed below budget by an average of 5%, and the average budget of these projects was $485 million. The two projects that were completed above budget were above budget by 8%, and the average budget of these projects was $530 million. (Prior Projects and Experience Workbook)

Project Management Capabilities
SDG&E provided information on its project management process, as well as a comprehensive guide for project management process that included the process to follow for (i) cost management, (ii) schedule management, (iii) scope and change management, (iv) risk, issue, and opportunity management, (v) communications and

reporting, (vi) document management, (vii) quality management, (viii) safety management, (ix) materials management, and (x) closeout.

SDG&E also provided information on the project management tools such as Primerva P6 and others that it plans to leverage for this project. (P-1)

Project Risks and Mitigation of Risks
SDG&E provided a risk registry that included 38 risk items under five categories – agency permitting, land acquisitions, environmental mitigation strategy, external stakeholder sentiment, and construction risks. Under each category, SDG&E identified several risks, the cause for the risk, and the phase of the project in which the risk would occur, such as design, preconstruction, and final construction. For each risk, SDG&E also provided the probability of the risk, its impact (moderate, major, extreme etc.), a score based on probability and impact, as well as mitigation measures. (P-4)

SDG&E indicated its proposed route would not cross any tribal lands and noted that, while developers can condemn private land for a transmission line, the same is not true for tribal lands. SDG&E indicated that to site energy infrastructure on reservation or trust lands, one would need formal support from the tribe (tribal government and tribal general membership, depending on the tribe), individual landowners on impacted allotment land (if any), and approval from the BIA. (L-1, E-1)

SDG&E indicated that while its preferred route is longer than its alternative route, it takes advantage of traversing the Anza Borrego Desert State Park in an area where there are existing transmission facilities and is located outside areas of critical environmental concern in the southeastern portion of the study area. (Appendix P-4c)

SDG&E indicated its proposed route is approximately 153 miles long and it would acquire land rights from BLM, USFS, DoD, California State Parks, Orange County, and private landowners. (E-1, E-2, E-3, E-4, L-1)

SDG&E indicated its proposed site for the North of SONGS Substation is in Orange County on 50 acres of private property. SDG&E indicated it has secured an agreement to exclusively negotiate an option to acquire, lease, or otherwise use land for the development and construction of a new substation and related facilities with one of the last remaining large landowners with developable land in the vicinity of the ISO's preferred location for a new substation north of SONGS. (L-1, L-4, CC-1)

SDG&E indicated that it deliberately chose to bid only on this project to focus its efforts on one project. (P-4)

Authority to Impose Binding Cost Caps
(CC-16)

3.12.5 Information Provided by CalGrid

CalGrid indicated that this is inapplicable because CalGrid is proposing binding cost control measures. (CC-16)

3.12.6 Information Provided by Horizon West

Horizon West indicated that its transmission rates are regulated by FERC, and therefore the binding cost containment measures that Horizon West proposes for the project will primarily be enforced by FERC, through the Approved Project Sponsor Agreement and Horizon West's FERC-approved transmission rates. (CC-16)

3.12.7 Information Provided by Lotus-SCE

Lotus-SCE indicated that FERC has the authority to impose cost control measures in the context of rate setting and that while the CPUC has a statutory mandate to establish maximum reasonable cost, the CPUC's authority over costs in this context is preempted by federal law. (CC-16)

3.12.8 Information Provided by SDG&E

SDG&E indicated that this provision is inapplicable because SDG&E is proposing cost caps. (CC-16)

3.12.9 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.

The ISO anticipates that the need that the project is intended to address may not exist prior to June 1, 2034. If the project can be placed into service earlier and the interconnection facilities necessary to accommodate the project are completed sooner than expected, the ISO would anticipate seeking to negotiate an earlier in-service date with the approved project sponsor when the ISO has better information regarding the potential benefits (and risks) of achieving an earlier in-service date.

Cost Estimates

The project sponsors provided a range of cost estimates for capital costs and operations and maintenance costs. The differences in cost estimates are reflected in the proposed annual revenue requirements and binding cost caps proposed by each project sponsor. The ISO discusses below potential site and route-related risks associated with particular projects. The ISO has not identified any significant physical site-related risks, physical project features, or special construction techniques that would inherently or materially increase the costs of a particular project sponsor's project or pose a distinct cost or cost escalation risk not accounted for by a project sponsor.

Binding Cost Containment Measures and Cost Containment Exclusions

All four 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 varies greatly. Consistent with the practice the ISO implemented in connection with the competitive solicitation for past projects and to respect confidentiality concerns, the ISO only specifies in this section the specific, detailed estimated cost and cost containment measures and conditions of the approved project sponsor. The estimated cost and cost containment measures and conditions proposed by the other project sponsors are described only in very general terms.

Horizon West proposed a limited or soft capital cap that would limit ROE to 8.5% on project capital costs in excess of Horizon West's estimated capital costs of $1,004 million. The soft capital cost cap would not limit the ROE used to calculate a return on CWIP during the construction period or the accrual of AFUDC.

Horizon West proposed an operations cap that would cap cumulative nominal expenditures on combined O&M and A&G costs over the first 15 full years of operation of the project. Horizon West indicated that the size of the cap is designed to match Horizon West's forecasted O&M and A&G expenditures over the first 15 years of project operations. Should the project capital costs increase above $1,004 million, Horizon West indicated that the operations cap would increase based on a standard adjuster of 1.108% times the total project capital cost, times 15 years, times a weighted average inflation adjuster of 1.16. Horizon West indicated that the weighted average inflation adjuster would account for the cumulative effect of inflating O&M and A&G at the ISO's prescribed annual 2.1% rate.

Horizon West proposed a cost of debt cap for the first full 15 years of operation. This would limit the project cost of debt to no more than 6.8% for the first 15 full years of operations. This cap would apply to any costs up to the soft capital cost cap. Horizon West indicated that this cost of debt cap would not apply for any debt costs over 8.0%.

CalGrid provided robust cost containment provisions through a proposed annual revenue requirement cap for a significant portion of the identified project useful life. However, the CalGrid proposal had significantly higher evaluated estimated present value annual revenue requirements than Horizon West's proposal, primarily due to having higher proposed capital costs.

SDG&E proposed a limited annual revenue requirement cap for a shorter time period than CalGrid and noted that it would be subject to numerous defined changes. The defined changes in SDG&E's proposed annual revenue requirement caps severely limited the effectiveness of SDG&E's cost containment proposal. SDG&E also provided a limited binding capital costs cap and O&M cost cap. SDG&E indicated that both of these proposed caps were subject to inflation-based escalation and specified exclusions.

Lotus-SCE provided a capital cost cap and noted that the cap would be increased for any realized cost increases above the assumed inflation rate provided by the ISO. Lotus-SCE also provided a financial commitment by Lotus to absorb costs up to a certain amount before seeking recovery regardless of the cause of the increase and agreed to a proposed capital structure for the Lotus portion of the project.

Both CalGrid and Lotus-SCE for the Lotus portion of the project provided ROE caps for specified durations.

All proposals included numerous siting-related costs that would be excluded from their binding cost caps. Many of these siting-related cost cap exclusion items are common across all of the project sponsors' proposals. The proposal of Horizon West included the fewest cost cap exclusions, specifically noting that route and structure changes and a limited number of other changes would not be excluded from cost containment.

The annual revenue requirement cap offered by CalGrid is more robust than the combination of the soft capital cost, operations, and cost of debt caps offered by Horizon West. However, despite Horizon West's more limited cost containment as compared to CalGrid's, Horizon West, based on its lower capital cost estimate and reduced return on equity associated with its soft capital cost cap, operations cap, and cost of debt cap, provides lower present value estimated revenue requirements in the base case analysis as well as in all but the most extreme case of sensitivity analyses performed. This is due to Horizon West's lower projected capital costs and cost of debt. Accordingly, the ISO has determined that Horizon West's proposal is strongest from an estimated revenue requirement and cost containment perspective.

Regarding the proposed costs and cost containment measures of the other three project sponsors for their three proposals, CalGrid's proposal has a robust annual revenue requirement cap, the lowest ROE cap, and the lowest evaluated annual revenue requirements caps across all sensitivities, even after accounting for excluded costs, followed by Lotus-SCE's proposal, which provided lower capital costs, a limited ROE cap for the life of the project, and a capital cost cap that had limited effectiveness due to its many exclusions. Lotus-SCE's proposal was followed by the proposal from SDG&E, which included both an annual revenue requirement and capital cost cap that had limited effectiveness due to their many exclusions and included higher estimated costs.

Excluding consideration of any siting-related cap exclusions from the various cost containment measures or any project risk considerations, and accounting for the projected lower capital costs of Horizon West's proposal in coordination with its soft capital cost cap and limited operations and cost of debt caps, the ISO has determined that Horizon West's proposed cost and cost containment measures are strongest, followed by CalGrid's proposal, Lotus-SCE's proposal, and then SDG&E's proposal.

The ISO has determined that the project sponsors' proposed cost cap exclusions cannot be fully compared and evaluated in isolation. They must also be considered in the context of the specific risks each project presents, the likelihood that specific cost cap exclusions might be triggered, and the potential magnitude of impact of any triggered cost cap exclusion. The ISO discusses each project's risk profile in the project risks and mitigation subsection below and then provides a more holistic comparative analysis of the binding cost containment measures, cost cap exclusions, risk profiles, and likelihood of triggering cost cap exclusions in the overall assessment subsection below.

Cost Containment Performance for Past Projects

Regarding completing past projects within the project budget, Horizon West indicated that it had a substantial number of projects that were completed at or below budget as well as a number of projects that were completed above budget. The projects identified by Horizon West had similar capital requirements to this project, and those projects that were completed both over and under budget had costs that were an average of 4% above or below the estimated costs. CalGrid and SDG&E demonstrated a reasonable degree of success in completing projects at or under budget, recognizing that the number of completed projects was less than Horizon West's. The ISO has determined

that there is no material difference among the proposals from CalGrid, Horizon West, and SDG&E regarding demonstrated ability to complete projects at or under budget. The ISO also determined that their proposals were better than the proposal from Lotus-SCE in this regard, because the majority of the experience identified by Lotus-SCE was for SCE projects, and SCE is not responsible for the construction and development of this project, and because of Lotus' recent public FERC filing for the Ten West Link transmission tariff, which includes significant costs in excess of the cost cap.

Project Management Capabilities
The ISO determined that all four project sponsors provided a reasonable approach to professional project management for their proposals and, as result, it has determined them to be comparable regarding project management capabilities.

Project Risks and Mitigation of Risks
All four project sponsors provided 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 for their proposals. All project sponsors except SDG&E confirmed their ability to work on multiple projects simultaneously, if awarded more than one. SDG&E indicated that it is submitting a proposal for only this project. All four project sponsors indicated that they have taken steps to reduce risk.

All four project sponsors' proposals identified a variety of similar cost exclusions that were excluded from their respective binding cost containment provisions. Horizon West's proposal was the only proposal that did not exclude additional costs due to route or structure changes that may be required, undergrounding, environmental mitigation, and costs associated with siting and permitting authority delays. These changes would not be excluded from its binding cost containment provisions.

The proposals from Lotus-SCE and SDG&E included a number of additional cost exclusions beyond those specified in the proposals of the other project sponsors and indicated cost cap provisions were subject to numerous escalations, including inflation. The ISO considers these representations from Lotus-SCE and SDG&E to create an additional risk of cost escalation above Lotus-SCE's and SDG&E's estimated costs in their proposals beyond the typical exclusions set forth in the proposals of the other project sponsors.

The proposals from CalGrid and Lotus-SCE both include routes that cross tribal lands. Rights-of-way acquisition across tribal lands requires additional review and approvals and increases the risk of route changes. Route changes required by a governmental entity were identified by both CalGrid and Lotus-SCE as being excluded from their cost cap and cost containment provisions and represent a particular risk of cost escalation for these proposals.

All of the proposals include routes of differing lengths that must traverse the Anza Borrego Desert State Park and environmentally sensitive areas. The proposals from CalGrid, Lotus-SCE, and SDG&E include routes that would require permitting across USFS lands that require special easements, while the proposal from Horizon West includes a route that would traverse an urban area. All of these requirements carry the risk of schedule delays, mandated route changes, and associated cost escalation; however, the limited number of cost cap exclusions identified in Horizon West's proposal limit the potential cost exposure to ratepayers to a greater extent than the cost cap exclusions in the proposals of the other project sponsors.

Each proposal identified proposed substation locations with identified risks and challenges. The proposed substation site identified by Horizon West will require the granting of a lease from the Department of Defense and is located in close proximity to another high voltage substation near the northern border of Camp Pendleton. The land is currently leased to the state parks service through the end of 2024. The proposals from CalGrid and SDG&E identified the same substation location on private land located just north of Camp Pendleton. SDG&E indicated that it has exclusive rights to negotiate for the acquisition of the land. The Lotus-SCE proposed site is located on a site in Orange County planned as an expansion to current county facilities. In addition, all project sponsors indicated that they had identified and evaluated additional substation sites. The ISO determined that these sites could be used if the identified sites were not available. The risks of each of these proposals are different in nature, but the ISO does not consider any of these risks to be so much greater or smaller in magnitude that it finds a material difference among the project sponsors' proposals regarding these various substation site acquisition risks.

Based on the foregoing analysis, the ISO has determined that regarding project risk and mitigation the proposal from Horizon West is slightly better than the proposals of CalGrid, Lotus-SCE, and SDG&E, primarily due to Horizon West's comparatively low risks for acquisition of land rights and Horizon West's more limited cost cap exclusions related to land rights acquisition than for the proposals of the other project sponsors. While SDG&E has similarly lower risks than CalGrid and Lotus-SCE for its land rights acquisition proposal, Horizon West's more limited number of cost cap exclusions related to land rights acquisition gives its proposal an advantage over SDG&E's proposal.

The ISO considers the route proposed by SDG&E to provide less risk regarding acquisition of land rights than the proposals from CalGrid and Lotus-SCE, between which there is no material difference, primarily due to SDG&E's avoidance of tribal lands.

Regarding identified project risk mitigation, the ISO determined that there is no material difference among the proposed mitigation measures proposed by CalGrid, Lotus-SCE, and SDG&E.

Impact of Project Sponsor Proposals on SCE Interconnection Costs

As indicated in the ISO Functional Specifications, the overall scope of this project involves extending the San Onofre-Santiago 220 kV #1 and #2 transmission lines and the San Onofre-Viejo 220 kV transmission line to within 100 feet of the new North of SONGS Substation fence.

As indicated in the ISO Functional Specifications, the costs associated with SCE's scope of work to extend these lines depends on the distance from the new North of SONGS Substation to the existing 220 kV lines. Thus, where a project sponsor proposes to locate its facilities can affect the overall costs of the project.

CalGrid, Horizon West, Lotus-SCE, and SDG&E provided graphical information system maps and coordinates that identified the preferred North of SONGS Substation sites. The site proposed by Horizon West was immediately adjacent to the existing SCE 220 kV transmission lines that would be looped into the North of SONGS Substation, minimizing the SCE 220 kV transmission line extension interconnection costs. The site identified by Lotus-SCE required slightly longer transmission line extensions, resulting in higher projected transmission line interconnection costs. CalGrid and SDG&E identified

the same proposed site within proximity to the existing SCE 220 kV lines, which would cause SCE to incur higher 220 kV transmission line interconnection costs than those associated with the proposals of Horizon West and Lotus-SCE.

In total, the substation site proposed by Horizon West would result in slightly lower projected SCE interconnection costs than the site proposed by Lotus-SCE, which in turn has lower projected interconnection costs than the site proposed by CalGrid and SDG&E.

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 estimated capital costs, 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, projected interconnection costs, and proposed cost containment plans and proposed binding cost caps.

As discussed above and in Section 2.1, the ISO has identified this selection factor as a key selection factor because under ISO Tariff Section 24.5.1 binding cost containment commitments are a key selection factor in every ISO competitive solicitation, and the ISO considers commitment to robust, binding cost containment measures to be the most effective way in which the ISO can ensure that a project is developed in an efficient and cost-effective manner. Consequently, the ISO considers the proposed cost and binding cost containment measures, inclusive of identified exclusions, proposed by project sponsors to be the most significant inputs into the comparative analysis for this component of the factor.

As discussed above, the ISO has determined that the proposals of the four project sponsors are comparable regarding project management capabilities, that the proposals of CalGrid, Horizon West, and SDG&E are comparable and better than the proposal of Lotus-SCE regarding cost containment performance on prior projects, and that Horizon West's proposal is better than Lotus-SCE's proposal, which is better than the proposals of CalGrid and SDG&E, regarding projected interconnection costs. The ISO addresses the comparison of project risks and mitigation in conjunction with the analysis of cost containment below.

Horizon West's soft capital cost cap provisions, in combination with its lower estimated costs, limited operations and cost of debt caps, and limited proposed cost cap exclusions, makes it stronger than all other proposals regarding estimated costs and cost containment. The present value of the projected revenue requirements of Horizon West's proposal is lower than the present value of the projected revenue requirements of all of the other proposals in all but one extreme financial sensitivity case. Also, Horizon West proposes the fewest cost cap exclusions of all proposals, and the ISO considers Horizon West's proposal to present less risk of modification or relocation than the proposals from CalGrid and Lotus-SCE, which the ISO considers to have the potential to result in significant cost escalation due to the higher risk of issues, with minimal cost containment protection, associated with the acquisition of rights-of-way across tribal lands than the risks of other land rights acquisition issues faced by Horizon West and SDG&E. This advantage of Horizon West's proposal regarding the combination of estimated costs, cost containment, and risks of cost escalation is only enhanced by the

advantage of Horizon West's proposal regarding cost containment performance on prior projects and regarding projected interconnection costs.

The proposal from CalGrid has the most robust cost containment provisions and provides a present value of revenue requirements that is lower than the present value of the revenue requirements for both Lotus-SCE's and SDG&E's proposals. The cost containment provisions of CalGrid's annual revenue requirement cap in conjunction with its estimated capital costs, even with the identified route risk concerns, make its proposal stronger than the proposals from Lotus-SCE and SDG&E, primarily due to Lotus-SCE's and SDG&E's many cost containment exclusions and higher estimated costs.

The proposal from Lotus-SCE has more route and land acquisition risk than the proposal of SDG&E but provides lower projected project costs as well as some cost containment provisions for a portion of the project that are slightly better than those offered by SDG&E. The proposals from Lotus-SCE and SDG&E both contain the most exclusions to the proposed cost cap provisions. The ISO considers the proposal of Lotus-SCE to be slightly better than the proposal provided by SDG&E for this factor because the effect of SDG&E's lesser risk of cost escalation from land acquisition obstacles is more than offset by the lower projected costs and somewhat greater cost containment in Lotus-SCE's proposal.

As a result, after applying all of the foregoing considerations included in the ISO's analysis for this component of the factor, the ISO has determined that Horizon West's proposal is better than the three proposals of the other three project sponsors regarding this component, followed in order by CalGrid's proposal, Lotus-SCE's proposal, and then SDG&E's proposal. Horizon West proposed the best combination of lowest estimated capital costs, a soft capital cost cap, limited operations and cost of debt caps, and the fewest proposed cost cap exclusions, which produced the lowest projected total revenue requirements, and its proposal included other advantages regarding cost and cost containment.

Comparative Analysis of the Authority to Impose Binding Cost Caps

Because all four project sponsors have proposed binding cost cap provisions 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 four project sponsors offered a binding cost cap 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 Horizon West's proposal is better than the three proposals of the other three project sponsors regarding this factor, followed in order by CalGrid's proposal, Lotus-SCE's proposal, and then SDG&E's proposal.

3.13 Selection Factor 24.5.4(k): Additional Strengths or Advantages

(Introduction, A-4, A-5, QP-1, QP-2, Z-1)

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

Project Design and Construction

CalGrid indicated series compensation equipment would be located within the North of SONGS Substation footprint. CalGrid indicated the 500/230 kV substation is designed with a breaker and a half arrangement and includes provisions for both 500 kV and 230 kV expansion in the future. (A-4)

CalGrid indicated that its project would have a transmission line rating of 5,298 Amps. CalGrid indicated that all aspects of the transmission line, including the conductor, insulation, hardware, connectors, line fittings, dead end assemblies, jumper assemblies, and v-string assemblies are rated to 5,298 Amps. CalGrid indicated that the project substation is currently designed to a 4,000-Amp rating. CalGrid indicated it would build the substation to support a 5,000-Amp rating while maintaining all cost and cost containment submitted with the original proposal should the ISO analyses using the higher substation rating of 5,000 Amps provide system benefits. CalGrid confirmed that all switches, breakers, capacity banks, surge arrestors, capacitors, transformers, reactors, buses, jumpers, and ATS units in the substation would be designed to support the increased amperage if ISO analyses determine system benefits for the additional capacity. CalGrid indicated that it would coordinate with the ISO on all aspects of operational ratings in accordance with ISO, WECC, and NERC reliability standards. (Z-1)

3.13.2 Information Provided by Horizon West

Project Design and Construction

Horizon West indicated that the series compensation required by the ISO Functional Specifications would be located at the new North of SONGS Substation. (A-4)

Horizon West indicated its proposal has three distinguishing technical features in excess of the required ISO Functional Specifications:

(1) Flexibility to add a second circuit into North of SONGS Substation. The proposal includes a double-circuit capable segment along the most challenging portion of the route to construct the 26 miles north of Camp Pendleton.
(2) 5% more transmission capacity and the ability to upgrade to 30% more at minimal cost. Horizon West indicated the proposal includes conductor rated to 4,989 Amps, a substation rated to 4,000 Amps, and the ability to uprate limiting terminal equipment at North of SONGS Substation to operate the project at 4,989 Amps.
(3) The proposal includes rating all structures for 300-year mean recurrence interval, specifying over a hundred tubular steel monopoles, and adding an additional five-foot buffer on structures to minimize wildfire risk. (QP-1)

Horizon West indicated that it selected a conductor with a continuous rating of 4,989 Amps at 50°C. Horizon West's proposal includes a substation design with a 4,000 Amp capacity. (QP-1)

Horizon West indicated its substation design includes an additional 200 Amps of conductor capacity above the ISO Functional Specifications of 3,800 Amps. (Response to Qualification Questions)

Horizon West indicated that with minimal upgrades to the terminal connections at both Imperial Valley Substation and North of SONGS Substation, the proposed substation could support approximately 5,000 Amps and fully utilize the 4,989 Amps of conductor capacity. (Response to Qualification Questions)

Horizon West indicated that it designed the project to a 300-year mean return period, minimizing the risk of equipment failure and resulting in larger baseline design clearances. Horizon West indicated it added an additional 5' design buffer to all calculated NESC and GO 95 clearances for the line, which would minimize the risk of contact with conductor. (Z-1)

Other Advantages
Horizon West indicated it is also qualified as a PTO in the ISO. Horizon West indicated its indirect parent, NextEra, is the world's largest electric utility by market capitalization and one of America's largest infrastructure capital investors in any industry and that NextEra companies own and operate more than 12,800 miles of high voltage transmission lines and nearly 1,200 substations across North America. (A-5)

Horizon West indicated that the vegetation profile for a portion of the line poses a high wildfire potential and that vegetation management during construction would include the removal of all non-compatible species in the rights-of-way and addressing potentially dangerous trees along the route. Horizon West indicated it has designed a custom vegetation management plan, including bi-annual patrols, one led by a forester, to identify and manage hazards throughout the operational life of the line. (Z-1)

Horizon West indicated that while crossing a CPUC Tier 3 High Fire Threat District is unavoidable for this project, its proposed route minimizes the crossing distance through Tier 3 High Fire Threat District areas. (Z-1)

Horizon West indicated that its affiliate NextEra has an umbrella general liability policy that includes hundreds of millions of dollars of California wildfire specific coverage. Horizon West indicated it has reviewed its coverage with subject matter experts and executives at its affiliate and it provides sufficient coverage in the unlikely event that damages should occur. (Z-1 response to qualification items).

3.13.3 Information Provided by Lotus-SCE

Project Design and Construction
Lotus-SCE indicated it has designed this new 500 kV transmission line with the calculated continuous rating of 5,254 Amps summer and 6,179 Amps winter, approximately 38.3% and 62.6% higher than the minimum required by the ISO, a 4-hour emergency rating of 5,636 Amps summer and 6,471 Amps winter, approximately 27.9% and 46.8% higher than the minimum requirements set forth in the ISO Functional Specifications, and a 30-minute emergency rating of 5,638 Amps summer and 6,473

Amps winter, which is approximately 9.9% and 26.2% higher than the minimum requirements specified in the in the ISO Functional Specifications, while adhering to the ISO impedance requirements. (A-4)

Lotus-SCE indicated that the project would include a series compensation station approximately halfway along the route and that the location was chosen because it is an important design factor for optimizing the performance of the transmission line. Lotus-SCE indicated choosing the midpoint considers the effectiveness of the compensation, the voltage profile, and the fault current and energy duty on the series compensation equipment. (A-4)

Lotus-SCE indicated that its project would utilize a TS conductor. Lotus-SCE indicated that the TS conductor would provide an optimal solution for the project because the conductor would reduce traditional line losses, provide for lower conductor sag, allow for longer span lengths, and provide a design that would reduce the impact to the environment based upon reducing the ground disturbance required to support it. (Z-1)

Other Advantages
Lotus-SCE indicated that it would seek project labor agreements with the local unions. Lotus-SCE provided a letter from IBEW Local 47 in support of the project sponsors. (Z-1)

Lotus-SCE indicated that it has developed a network of weather stations and high definition cameras that are used to monitor transmission and distribution equipment in high fire risk areas. Lotus-SCE indicated that these networks provide information used to forecast weather and fire risk and used in artificial information applications to predict fire risk and assist in mitigation in day-to-day operations. (Z-1) Lotus-SCE indicated that it has revised its situational awareness capability and wildfire mitigation plans based upon application of its mitigation plans over the past three-to-four year period. (M-4 SCE 2023-2025 Wildfire Mitigation Plan)

Lotus-SCE indicated that it has extensive relationships with suppliers of major transmission and substation equipment that it could use to procure the equipment and services for project the at the most favorable price and terms, as well as secure manufacturing space to ensure timely delivery of long lead time items. (Z-1)

Lotus-SCE indicated that it would leverage its experience in developing a telecommunication network that consists of diverse paths, with a combination of optical ground wire and microwave telecommunication. (Z-1)

Lotus-SCE indicated that it would complete 30-50% design and would issue a request for proposals to select a construction contractor, which would reduce the potential of change orders for construction companies. (Z-1)

Lotus-SCE indicated that the project would require a non-linear construction schedule and that it has experience with such a construction approach. (Z-1)

3.13.4 Information Provided by SDG&E

Project Design and Construction
SDG&E indicated that the proposed site for its North of SONGS 500 kV Substation is located on privately-owned, undeveloped land in southern Orange County, where it has an exclusive negotiation agreement with the landowner. SDG&E indicated this location

would reduce ratepayer risk and costs by avoiding military and environmentally sensitive lands and eliminating the need for 12 additional transmission line miles to and from siting at SONGS on Camp Pendleton.

SDG&E indicated that its proposed route reduces ratepayer risk and costs by maximizing existing SDG&E land rights, minimizing impacts to protected public lands, tribal lands, and environmental resources, and providing more certainty around permitting than other contemplated routes.

SDG&E indicated that its proposed project includes locating the series compensation at the Imperial Valley Substation. (A-4)

SDG&E indicated that approximately one-third of its proposed route is adjacent to existing transmission facilities and rights-of-way, which it asserts presents a strong advantage with permitting. SDG&E indicated that because it understands the complexity of permitting projects in this region, it conducted a comprehensive comparative analysis of potential routes between the Imperial Valley Substation and the new proposed North of SONGS Substation. SDG&E also indicated that any route staying within the ISO's proposed 145-mile route length would have to cross Anza Borrego Desert State Park. SDG&E indicated that it is the only bidder with existing electric facilities through a long stretch of the state park and has a significant track record of permitting in this region. (A-4)

SDG&E indicated it would leverage existing land rights and adjacency to existing transmission infrastructure where feasible and permissible to support construction and minimize the line's length and cost. SDG&E indicated efficiencies would be achieved by using SDG&E's existing access roads, fee-owned property, and laydown yards. (A-4)

SDG&E indicated that it currently has 49 active laydown yards throughout its service territory, of which 17 are located within five miles of the project's construction corridor. SDG&E indicated that these laydown yards range in size between one to 40 acres and are available for use for the project and will help mitigate risks associated with logistical constraints. SDG&E indicated that this is a distinct advantage for SD&GE. (L-1)

SDG&E indicated that a 500 kV series capacitor to be installed at SDG&E's Imperial Valley Substation would have a minimum continuous summer ampacity of 3800 Amps, a minimum continuous winter ampacity of 3800 Amps, a minimum 4-hour continuous summer ampacity of 4408 Amps, a minimum 4-hour continuous winter ampacity of 4408 Amps, and a minimum 30-minute emergency ampacity of 5130 Amps. (QP-1)

SDG&E indicated that while there is extra capacity on the conductor, the terminal substation equipment in the project is not sized to utilize this extra capacity. (Z-1)

Other Advantages

SDG&E indicated the project includes a strategic partnership with Citizens Energy, a non-profit energy company. SDG&E indicated that Citizens Energy believes this partnership will infuse up to $100 million worth of investment into communities impacted by this project. SDG&E indicated that, according to Citizens Energy, the transmission development model initiated by Citizens Energy and SDG&E is now being replicated in other parts of the country and is a model that brings renewable energy onto the grid, improving grid reliability and investing in host communities with no added cost to stakeholders or the public. (Z-1)

SDG&E indicated its wildfire mitigation plan summarizes primary goals, objectives, framework for investment, and progress toward achieving goals and targets set in prior wildfire mitigation plan submissions. SDG&E indicated that the California Office of Energy Infrastructure Safety issued a draft decision approving SDG&E's 2023-2025 wildfire mitigation plan on August 30, 2023. In its approval, SDG&E indicated that the Office of Energy Infrastructure Safety noted several strengths. (Z-1)

SDG&E indicated that it has a relatively dense weather station network, with all stations able to report wind speed, wind gust, wind direction, temperature, and humidity every 10 minutes, and with most of the stations able to report these indicators every 30 seconds, if needed. SDG&E indicated that it would be able to use past data to train its artificial intelligence forecasting system, which is now integrated into most of its stations. SDG&E indicated that it utilizes a state-of-the-art camera network, with over 130 cameras that continuously monitor for wildfire events, 17 of which are high-definition, live-streaming, and pan-tilt-zoom cameras. (Z-1)

3.13.5 ISO Comparative Analysis

For the purposes of the comparative analysis for this factor, the ISO has reviewed the four proposals from the four project sponsors 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.

Project Design and Construction
All project sponsors submitted a design that includes a transmission line whose ampacity exceeds that identified in the ISO Functional Specifications, although some indicated that the substation ampacity would have a lower ampacity limit. CalGrid and Horizon West indicated that it was possible to increase the ampacity of their substation terminal equipment to allow full utilization of the proposed higher transmission line ampacity. The ISO's planning studies have not identified a need for additional transmission line ampacity. For this reason, the ISO does not consider the additional transmission line capacity a material advantage at this time.

Horizon West indicated that a portion of its proposed transmission line would be built to allow for the installation of a second circuit in the future. The ISO planning studies do not identify the need for this line within the planning horizons, and therefore the ISO does not consider this a material advantage at this time.

Lotus-SCE indicated that the transmission line's series compensation would be installed in a capacitor switching station located approximately halfway between the Imperial Valley Substation and new proposed North of SONGS Substation, which Lotus-SCE indicated would provide an advantage over location of the series compensation at either end of the line. The ISO considers that there may be additional capital and maintenance costs associated with the placement of the series capacitors in the middle of the line. Lotus-SCE would also need to acquire land rights and undertake environmental mitigation, siting, and permitting for this additional separate site. Additionally, the remote location could impact the time required for Lotus-SCE personnel to respond to unplanned equipment maintenance or series compensation station equipment failures. The ISO expects that the possible decrease in costs due to lower short circuit design criteria as well as the added land acquisition and permitting requirements, including the

potential increase in maintenance cost due to the placement of the capacitors, are already factored into Lotus-SCE's proposed project cost and that these are offsetting, making the overall benefits of the location of the series capacitors uncertain.

SDG&E indicated that additional efficiencies would be achieved by using its existing access roads, fee-owned property, and laydown yards. The ISO expects any such efficiencies would be reflected in SDG&E's proposed project cost and schedule, which are evaluated in other sections of this report. Regarding other aspects of SDG&E's proposal presenting potential benefits based on SDG&E's proposed route and substation site and its familiarity with the project area, the ISO has also considered and addressed these potential benefits in its analysis of the more specific selection factors.

Based on the ISO's foregoing determinations, the ISO is unable to identify a clear advantage for any of the proposed aspects of the project design and engineering proposed by any of the project sponsors for this area (proposed project design and construction). In addition, the ISO has determined that there is no material difference among the four proposals of the four project sponsors regarding this aspect of the selection factor that the ISO has not already considered and addressed in its analysis of the more specific selection factors.

Other Advantages

SDG&E proposes the inclusion of Citizens Energy as a potential participant in the project and asserts that Citizens Energy's participation in the project would create benefits for disadvantaged communities in the project area. However, the ISO notes that the inclusion of Citizens Energy is optional and not guaranteed. Consequently, the ISO is unable to attribute any particular advantage to this aspect of SDG&E's proposal.

Both Lotus-SCE and SDG&E assert that their processes and infrastructure regarding wildfire mitigation are particular additional advantages of their proposals. However, the ISO has considered and addressed these potential advantages in its analysis of the more specific selection factors to which they relate.

The ISO notes that many of the advantages claimed by the project sponsors were determined by the ISO to be inapplicable for this analysis because they are projected to decrease the cost of constructing, owning, or operating the project. For these types of potential advantages, the ISO expects that the project cost savings are already reflected in the respective project costs included in the proposals and therefore do not qualify as additional advantages beyond the aspects of the proposals considered and addressed in the ISO's analysis of the more specific selection factors.

Subject to the foregoing considerations, the ISO has determined that none of the project sponsors' proposals identifies any other particular advantage to the ISO and transmission ratepayers that the ISO has not already considered and addressed in its analysis of the more specific selection factors.

Overall Comparative Analysis

Based on consideration of the above two areas of this factor, the ISO identifies no material differences among the four proposals of the four project sponsors regarding this factor.

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 analysis 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 this project. The ISO has determined that SDG&E's proposal is better than the three proposals of the other three project sponsors regarding this factor because, as discussed regarding each of the relevant individual selection factors or factor components, it is better than Lotus-SCE's proposal regarding the first selection factor (financial resources), it is better than Horizon West's proposal regarding the fourth selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices), it is better than CalGrid's proposal regarding the third selection factor (construction and maintenance record) and regarding the fourth selection factor, and there is no material difference among SDG&E's proposal and the three proposals of the other three project sponsors regarding the other relevant selection factors or factor components.

The ISO has determined that there is no material difference between Horizon West's proposal and Lotus-SCE's proposal regarding this factor because, as discussed regarding each of the relevant individual selection factors or factor components, Horizon

West's proposal is better than Lotus-SCE's proposal regarding the first selection factor, Lotus-SCE's proposal is better than Horizon West's proposal regarding the fourth selection factor, and there is no material difference between Horizon West's proposal and Lotus-SCE's proposal regarding the other relevant selection factors or factor components, which the ISO considers to result in offsetting advantages for Horizon West's and Lotus-SCE's proposals.

The ISO has determined that Horizon West's proposal is better than CalGrid's proposal regarding this factor because, as discussed regarding each of the relevant individual selection factors or factor components, it is better than CalGrid's proposal regarding the third selection factor and the fourth selection factor, and there is no material difference between Horizon West's proposal and CalGrid's proposal regarding the other relevant selection factors or factor components.

The ISO has determined that Lotus-SCE's proposal is better than CalGrid's proposal regarding this factor because, as discussed regarding each of the relevant individual selection factors or factor components, although CalGrid's proposal is better than Lotus-SCE's proposal regarding the first selection factor, and there is no material difference between Lotus-SCE's proposal and CalGrid's proposal regarding the second selection factor component (technical [environmental permitting] qualifications and experience of the project sponsor and its team), Lotus-SCE's proposal is better than CalGrid's proposal regarding both the third selection factor and the fourth selection factor, which the ISO considers to result in an advantage for Lotus-SCE's proposal.

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 SDG&E's proposal is better than Horizon West's proposal and Lotus-SCE's proposal, between which there is no material difference, which are better than CalGrid'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 four proposals submitted by the four 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 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 analysis 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 analysis 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 there is no material difference between Lotus-SCE's proposal and SDG&E'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 them regarding any of the relevant factors or factor components.

The ISO has determined that Lotus-SCE's proposal and SDG&E's proposal are better than the proposals of the other two project sponsors regarding this criterion because, as discussed regarding each of the relevant individual selection factors or factor components, they are better than Horizon West's proposal regarding the first selection factor component (engineering qualifications and experience of the project sponsor and its team) and the third selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices), and they are better than CalGrid's proposal regarding the second selection factor (construction and maintenance record) and the third selection factor, and there is no material difference among Lotus-SCE's proposal, SDG&E's proposal, and the two proposals of the other two project sponsors regarding the other relevant selection factors or factor components.

The ISO has determined that Horizon West's proposal is better than CalGrid's proposal regarding this criterion because, as discussed regarding each of the relevant individual selection factors or factor components, although CalGrid's proposal is better than Horizon West's proposal regarding the first selection factor component, Horizon West's proposal is better than CalGrid's proposal regarding both the second selection factor and the third selection factor, which the ISO considers to result in an advantage for Horizon West's proposal.

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 Lotus-SCE's proposal and SDG&E's proposal and that they are better than Horizon West's proposal, which is better than CalGrid'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 four proposals submitted by the four 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 that there is no material difference among CalGrid and its proposal, Horizon West and its proposal, and SDG&E and its proposal, which are better than Lotus-SCE 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 four proposals submitted by the four 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 SDG&E is slightly better than the proposal of Lotus-SCE, which is better than the proposal of Horizon West, which is better than the proposal of CalGrid, regarding this 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 four proposals submitted by the four 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 CalGrid's proposal is better than the proposals of Horizon West and SDG&E, between which there is no material difference, and which are better than the proposal of Lotus-SCE, 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 four proposals submitted by the four 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 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 analysis 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 analysis of the three selection factors 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 this project. The ISO has determined that there is no material difference between Lotus-SCE's proposal and SDG&E's proposal regarding this criterion because, as discussed regarding each of the relevant individual selection factors, there is no material difference between them regarding any of the relevant factors.

The ISO has determined that Lotus-SCE's proposal and SDG&E's proposal are better than the proposals of the other two project sponsors regarding this criterion because, as discussed regarding each of the relevant individual selection factors, they are better than Horizon West's proposal regarding the first selection factor (technical [environmental permitting] and engineering qualifications and experience of the project sponsor and its team) and the third selection factor (demonstrated capability to adhere to standardized construction, maintenance, and operating practices), and they are better than CalGrid's proposal regarding the second selection factor (construction and maintenance record) and the third selection factor, and there is no material difference among Lotus-SCE's proposal, SDG&E's proposal, and the two proposals of the other two project sponsors regarding the other relevant selection factors.

The ISO has determined that Horizon West's proposal is better than CalGrid's proposal regarding this criterion because, as discussed regarding each of the relevant individual selection factors, although CalGrid's proposal is better than Horizon West's proposal regarding the first selection factor, Horizon West's proposal is better than CalGrid's proposal regarding both the second selection factor and the third selection factor, which the ISO considers to result in an advantage for Horizon West's proposal.

In summary, based on a detailed review of the proposals of the project sponsors regarding these individual selection factors, the ISO has determined that there is no material difference between Lotus-SCE's proposal and SDG&E's proposal and that they are better than Horizon West's proposal, which is better than CalGrid'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

(A-6)

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 indicated that it commits to enter into the TCA for the project transmission elements and to adhere to all applicable reliability criteria and to comply with NERC registration requirements and WECC standards, where applicable. (A-6)

3.20.2 Information Provided by Horizon West

Horizon West indicated that If selected by the ISO as the approved project sponsor for the project, Horizon West, which is already a PTO, commits to turn over the transmission element to the ISO's operational control, to enter into the TCA concerning the transmission element, to adhere to all applicable reliability criteria, and to comply with NERC registration requirements and NERC and WECC standards, where applicable. (A-6)

3.20.3 Information Provided by Lotus-SCE

Lotus-SCE indicated that the special purpose entity formed by Lotus for the development and construction of the project would sell the entire project to SCE, and SCE would thereafter lease 50% of the transfer capability of the project to the special purpose entity. Lotus-SCE indicated that SCE would be the owner of the project and would perform all necessary O&M services for the project. Lotus-SCE indicated that SCE is already a PTO and registered as a TO and TOP at NERC as recognized by WECC and the ISO. Lotus-SCE indicated that SCE would be responsible for operating and maintaining the project in accordance with all applicable NERC, WECC, and ISO reliability standards and criteria in addition to the ISO's Operating Procedures, the ISO Tariff, and ISO business practice manuals. (A-6)

3.20.4 Information Provided by SDG&E

SDG&E indicated that it is already a PTO and commits to remain a PTO for the purpose of turning the transmission element that SDG&E is selected to construct and own as a result of the competitive solicitation process over to the ISO's operational control and has entered into the TCA into which the transmission element would be included. SDG&E indicated that it would adhere to all applicable reliability criteria and to comply with NERC registration requirements and NERC and WECC standards, where applicable. (A-6)

SDG&E indicated that it anticipates entering into an agreement or agreements with a subsidiary of Citizens Energy in connection with the project, similar to the Development and Coordination Agreement and Transfer Capability Lease arrangements with Citizens Sunrise Transmission, LLC and Citizens Sycamore to Penasquitos Transmission LLC. SDG&E indicated that any arrangement with Citizens Energy associated with the project would be reflected as an encumbrance in Appendix B of the TCA, in a manner consistent with the encumbrances reflected in TCA Appendix B associated with Citizens Sunrise Transmission, LLC and Citizens Sycamore to Penasquitos Transmission LLC. (O-14)

3.20.5 ISO Comparative Analysis

All four 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 there is no material difference among the proposals of the four 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 solutions being proposed by 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 its 2022-2023 transmission planning process, the ISO identified a policy-driven need for the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation 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(s) 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.

One of the key selection factors for which the ISO identified material differences among the project sponsors' proposals is the estimated cost and cost containment factor, including the project sponsors' commitment to binding cost containment measures. As discussed above, this factor is one of the six key selection factors identified by the ISO at the outset of this competitive solicitation process. Horizon West proposed the best combination of lowest estimated capital costs, a soft capital cost cap, limited operations and cost of debt caps, and the fewest proposed cost cap exclusions, which produced the lowest projected total revenue requirements, and its proposal included other advantages regarding cost and cost containment.

A second key selection factor is the project sponsor's existing rights-of-way and substations that would contribute to the transmission solution in question. As discussed above, the ISO found there were no material differences among the proposals of the project sponsors regarding satisfaction of this factor. No project sponsor has existing

land rights along the proposed route, and all project sponsors had sufficient plans for acquiring the necessary land rights.

A third key 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 costs in connection with placing new or additional facilities associated with the transmission solution on such existing rights-of-way. The ISO has determined there is no material difference among the proposals of CalGrid, Horizon West, Lotus-SCE, and SDG&E because their teams all had substantial land rights acquisition experience in the U.S., including experience in California.

A fourth key 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. The ISO determined that regarding project schedule risk and management, due to the significant amount float identified in all of the proposals, none of the risks to the proposed schedules of the project sponsors is significant enough to pose a risk that the project could not be completed by the latest in-service date in the ISO Functional Specifications. CalGrid's proposal also included an incentive penalty for failure to meet the latest ISO in-service date while the other proposals did not. The ISO has determined that, based on the specific scope of this project, CalGrid's proposal is better than the proposals of Horizon West, Lotus-SCE, and SDG&E, due to its inclusion of an incentive penalty in its proposal for failure to meet the latest ISO in-service date, and that the proposals of Horizon West and SDG&E, between which there is no material difference, are better than the proposal of Lotus-SCE, regarding this key selection factor.

The fifth key selection factor is the financial resources of the project sponsor and its team. The ISO's analysis concluded that the proposals from CalGrid, Horizon West, and SDG&E are comparable and have an advantage over Lotus-SCE and its proposal in the area of financial resources and that Horizon West's proposal demonstrated it has substantial financing experience, financial resources, and financial backing sufficient to finance this project along with any other project for which it might be selected as the approved project sponsor, regarding this key selection factor.

The sixth key selection factor is the technical and engineering qualifications and experience of the project sponsor and its team. The ISO's analysis showed that the proposals from CalGrid, Horizon West, Lotus-SCE, and SDG&E all have environmental permitting teams with significant experience and that the teams of CalGrid, Lotus-SCE, and SDG&E identified slightly more design and experience in California than Horizon West's team. However, Horizon West's proposal demonstrated it and its team have sufficient experience with the design and engineering of EHV transmission projects to ensure that they are fully capable of performing the design and engineering of this project. The advantage of the proposals of CalGrid, Lotus-SCE, and SDG&E regarding this selection factor does not offset the significant advantage of Horizon West's cost and cost containment proposal and the overall strength of Horizon West's proposal regarding the other key selection factors.

Regarding the non-key selection factors, Horizon West's proposal was either as strong as or better than the proposals of the other project sponsors for every selection factor with the exception of the selection factors for which the local utilities had an advantage based primarily on their more established local maintenance and wildfire mitigation processes, resources, and infrastructure. However, Horizon West's proposal included robust plans and procedures to address all necessary maintenance and wildfire

mitigation requirements. And regarding the six qualification criteria, Horizon West's proposal was as strong as or better than the proposals of the other project sponsors for all six of these criteria, with the same exception for the qualification criteria for which the local utilities had an advantage based primarily on their more established local maintenance and wildfire mitigation processes, resources, and infrastructure – and for CalGrid's advantage regarding its financial incentive for meeting the project schedule.

For the foregoing reasons, the ISO determined that Horizon West 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 at the lowest cost and by the specified in-service date. Based on the ISO's review of the proposals and a comparative analysis regarding all of the selection factors and qualification criteria, the ISO determined that Horizon West's proposal is better than the proposals of CalGrid, Lotus-SCE, and SDG&E regarding this project. The result of this competitive solicitation is that the ISO selected Horizon West as the approved project sponsor to finance, construct, own, operate, and maintain the Imperial Valley-North of SONGS 500 kV Line and 500/230 kV Substation project.[9]

[9] Selection of Horizon West as the approved project sponsor does not preclude the ISO from taking positions on specific rate proposals contained in Horizon West'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 ..... ERROR! BOOKMARK NOT DEFINED.

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2 PROJECT QUALIFICATION ..... ERROR! BOOKMARK NOT DEFINED.

3 PRIOR PROJECTS AND EXPERIENCE ..... ERROR! BOOKMARK NOT DEFINED.

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10 TRANSMISSION LINE DESIGN AND ENGINEERING ..... ERROR! BOOKMARK NOT DEFINED.

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14 MISCELLANEOUS: ..... ERROR! BOOKMARK NOT DEFINED.

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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.
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 project team and areas of responsibility, including the responsibilities of all contractors. In addition, provide a corporate organizational chart of the project sponsor and any parent companies and affiliates. Attach resumes of all key management and lead personnel of the project sponsor, affiliates, and contractors who will be used for the project, including a resume for each lead individual of the project sponsor and its contractors in each area of responsibility for the project. Identify any parent organization or affiliate personnel responsible for a specific project listed in the Prior Projects and Experience Workbook who will be part of the project sponsor's team for the instant project. For project sponsor and affiliated personnel and for contractor personnel, relate each resume to a position on the organization chart provided. 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. 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:

2 PROJECT QUALIFICATION

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 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 constructing facilities with voltages greater than 200 kV, but do have experience constructing lower voltage facilities, this experience may be included. 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 a realistic short list of contractors under consideration. 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.

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.

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:

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[10] and project sponsor standing policies, related to siting and permit processes, that all employees are required to observe, 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

[10] 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.

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[11], 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,
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,

[11] 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.

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.

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. 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.

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 trades or occupations are employed. Include qualifications, certifications, and experience requirements for maintenance and field 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.

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. Describe what specific operations activities will be handled by project sponsor staff and what activities will be handled by contractors or vendors.

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 trades or occupations are employed. Include qualifications, certifications, and experience requirements for operators and field 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, linemen, and substation electricians?). 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.**

	Overnight Address
California ISO	California ISO
Attn: Julie Balch	Attn: Julie Balch
Grid Assets	Grid Assets
P.O. Box 639014	250 Outcropping Way
Folsom, CA 95763-9014	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: $75,000 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 23, 2023

Effective Date: June 23, 2023

Application Owner: Scott Vaughan

Application Owner's Title: Manager, Transmission Assets

Revision History

Version	Date	Description
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