Sycamore-Penasquitos Project
Project Sponsor Selection Report

March 4, 2014

California Independent System Operator

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LIST OF ATTACHMENTS

1. INTRODUCTION

This report describes the competitive solicitation process conducted by the California Independent System Operator Corporation (ISO) for a 230 kV transmission line element between San Diego Gas & Electric Company's (SDG&E) Sycamore Canyon and Penasquitos substations in the San Diego, California area (the "Sycamore-Penasquitos project"). The ISO has conducted this competitive solicitation because the ISO identified the Sycamore-Penasquitos project as a reliability-driven element with additional policy benefits in its 2012-2013 transmission planning process. As required by the ISO Tariff, the ISO undertook a comparative analysis of the degree to which each project sponsor met the qualification criteria under tariff section 24.5.2.1 and the selection criteria under tariff section 24.5.2.4 to determine the approved project sponsor to finance, construct, own, operate, and maintain the Sycamore-Penasquitos project. The result of this competitive solicitation process is that the ISO has selected SDG&E, in conjunction with Citizens Energy Corporation, as the approved project sponsor to finance, construct, own, operate, and maintain the Sycamore-Penasquitos project.

2. BACKGROUND

2.1 The Sycamore-Penasquitos Project and Competitive Solicitation Process

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 economic or public policy reasons. In the ISO's 2012-2013 transmission plan, the ISO identified the new Sycamore-Penasquitos 230 kV transmission line as a reliability-driven project eligible for competitive solicitation because of its additional policy benefits. The ISO governing board approved the Sycamore-Penasquitos project in March 2013 as part of its approval of the 2012-2013 transmission plan.

Following the approval of the transmission plan, the ISO opened a bid solicitation window on April 1, 2013, which provided project sponsors with the opportunity to submit proposals to finance, construct, own, operate, and maintain the Sycamore-Penasquitos 230 kV line. In accordance with tariff section 24.5.1 and applicable sections of the ISO's Business Practice Manual for the Transmission Planning Process, the bid solicitation window remained open through June 3, 2013. [1]

At the time the bid solicitation window opened, the ISO posted a paper on its website entitled Sycamore-Penasquitos 230 kV Line Description and Functional Specifications Eligible for Competitive Solicitation (Sycamore-Penasquitos Functional Specifications) describing the Sycamore-Penasquitos project.[2] As described in the Sycamore-Penasquitos Functional Specifications, the project consists of a 230 kV line between two existing substations at Sycamore Canyon and Penasquitos. The transmission line will become a network facility and upon completion will be turned over to ISO operational control. The ISO's planning cost estimate for the Sycamore-Penasquitos project is $111-221 million. The wide range of the planning cost estimate is due to several factors including, but not limited to, the fact that the line could be an AC or a DC line and the line could be an overhead line, an underground line, or a combination of the two. Also, the ISO recognized that there could be physical project alternatives that do not involve the use of existing rights-of-way. The Sycamore-Penasquitos Functional Specifications specify that the latest in-service date for the Sycamore-Penasquitos line must be May 2017. The general area through which the Sycamore-Penasquitos line must pass is relatively heavily developed, making the rights-of-way acquisition, environmental permitting, and construction processes a challenge.

[1] The ISO revised this tariff section as part of the ISO's Order No. 1000 compliance filing that was submitted on October 11, 2012 and accepted by FERC, subject to further modification, in an order dated April 18, 2013. FERC approved an effective date of October 1, 2013 for the Order No. 1000 compliance filing and stated that it would apply to the ISO's 2013-2014 transmission planning cycle. Because the Sycamore-Penasquitos project was approved in the ISO's 2012-2013 transmission planning cycle, the prior version of the ISO Tariff governs both the identification of the element as one that would be subject to the competitive solicitation process and the qualification and selection criteria to be applied in the project sponsor evaluation and selection process.

[2] http://www.caiso.com/Documents/Description-FunctionalSpecificationsSycamore-Penasquitos230kVLine.pdf

The need for the Sycamore-Penasquitos line was initially identified in the Sycamore-Penasquitos Functional Specifications and the ISO's 2012-2013 transmission plan to avoid projected system overloads to ensure the delivery of renewable generation in the ISO's generation interconnection queue to the ISO grid.[3] Subsequently, this date has become even more critical to the reliability of the electric system in light of the intervening retirement of the San Onofre Nuclear Generating Station (SONGS) announced on June 7, 2013. The ISO anticipated the possibility of an extended SONGS outage in the 2012-2013 transmission planning process, conducting a study of the grid reliability impact of unplanned extended outages of the SONGS facility, which study identified the construction of the Sycamore-Penasquitos line as one of the key transmission system upgrades to mitigate the impact of an extended SONGS outage.[4] Because the SONGS facility has since been retired, the need for the Sycamore-Penasquitos line has become even more critical, as recognized in the draft "Preliminary Reliability Plan for LA Basin and San Diego" issued on August 30, 2013 by the staff of the CPUC, the California Energy Commission, and the ISO. That preliminary plan was developed specifically to address the retirement of the SONGS facility and points out that the ISO's approval of the Sycamore-Penasquitos line is intended to "address local transmission overloads in the northern region of San Diego system, some of which are exacerbated by the absence of [SONGS] ….[5] The plan goes on to state that the target on-line date is 2017, "although permitting and construction risk may delay the final operating date."[6] Given the increased importance of the placement of the Sycamore-Penasquitos line in service at the earliest opportunity and the identified risks of permitting or construction delays, the ISO considers the ability to meet at least the May 2017 latest in-service date set forth in the Sycamore-Penasquitos Functional Specifications to be critical for this project.

The ISO also identified some key selection factors for the project. These are the tariff criteria that the ISO has determined are most important to the selection of the project sponsor best able to design, finance, license, construct, operate, and maintain the project in an efficient, cost-effective, prudent, reliable, and capable manner over the lifetime of the project while maximizing overall benefits and minimizing the risk of untimely project completion, project abandonment, and future reliability, operational, and other relevant problems. For purposes of this project, the ISO identified the following subsections of tariff section 24.5.2.4 as the key selection factors:

> Section 24.5.2.4(a) [overall capability to finance, license, construct, operate, and maintain the facility]: The ISO has identified this selection criterion as a key selection factor based on the importance of all these aspects of development and operation of the project to the selection of the most efficient and cost-effective proposal.
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> Section 24.5.2.4(b) [existing rights-of-way and substations]: The ISO has identified this selection criterion as a key selection factor because the use of existing rights-of-way can contribute to lower project cost, fewer siting approvals,

[3] See the Sycamore-Penasquitos Functional Specifications and the ISO's 2012-2013 transmission plan at pages 17, 282-296, 371-377.
[4] See the ISO's 2012-2013 transmission plan at 19-20, 33-34, 170-195.
[5] See draft "Preliminary Reliability Plan for LA Basin and San Diego" issued on August 30, 2013 by the staff of the CPUC, the California Energy Commission, and the ISO, at page 4.
[6] Id.

less extensive rights-of-way acquisition efforts, and reduction in the overall time needed to complete the project, which is particularly significant given the relatively short time frame in which this project must be completed.

Section 24.5.2.4(c) [experience and authority to acquire rights-of-way]: The ISO has identified this selection criterion as a key selection factor because of the potentially problematic nature of the area through which the project route is expected to pass.

Section 24.5.2.4(d) [proposed schedule and ability to meet schedule]: The ISO has identified this selection criterion as a key selection factor because, as explained in greater detail earlier in this Section 2.1, the Sycamore-Penasquitos Functional Specifications establish a relatively short timeframe for the completion of this project, and even small delays could have significant adverse consequences for the completion of the project in time to meet the need identified in the Sycamore-Penasquitos Functional Specifications. Moreover, given the increased need for this project in light of the intervening retirement of the SONGS facility, the ISO considers the potential for a project sponsor to complete the project even earlier than the specified in-service date of May 2017 to be an advantage.

Section 24.5.2.4(f) [environmental permitting and engineering experience and qualifications]: The ISO has identified this selection criterion as a key selection factor because the ability of a project sponsor to complete the environmental permitting thoroughly and expeditiously will have a significant impact on the relatively tight schedule for completion of the project, and experience with the design and engineering of an underground high voltage transmission line is a specialized capability that will be important to the successful development of the underground portion of the project.

Section 24.5.2.4(j) [cost containment capability and other advantages, including commitment to a cost cap]: The ISO has identified this selection criterion as a key selection factor because the ISO considers commitment to a robust cost cap to be the most effective way in which the ISO can ensure that a project is developed in an efficient and cost-effective manner.

The ISO described these key selection factors as part of its April 15, 2013 presentation to stakeholders, entitled Transmission Planning Process Phase 3 Competitive Solicitation, which it has posted on its website.[7]

The ISO received applications on behalf of four project sponsors – (1) an affiliate of AbengoaT&D, (2) an affiliate of Elecnor Inc., (3) San Diego Gas & Electric Company, in conjunction with Citizens Energy Corporation, and (4) an affiliate of Trans Bay Cable LLC. The ISO posted a list of project sponsors to the ISO website on June 6, 2013.

[7] http://www.caiso.com/Documents/Presentation-TransmissionPlanning-Phase3CompetitiveSolicitationProcess–InformationCallApr15_2013.pdf

2.2 The ISO Transmission Planning Process and Competitive Solicitation Tariff Structure

The framework for the competitive solicitation process is set forth in ISO Tariff section 24.5 and details are provided in the ISO's Business Practice Manual for the Transmission Planning Process at section 5. In addition, the ISO posted the form of the application (Attachment 1) on its website. Also, while the bid solicitation window was open, the ISO maintained a question and answer log detailing questions from prospective project sponsors and the ISO's responses so that all interested parties would have access to the same clarifying information. In compliance with tariff section 24.5.5.2.3(c), the ISO hired an expert consultant to assist with the qualification and selection processes.

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

- Project Sponsor Qualifications (questions Q-1 to Q-3)
- Project Finance, Project Management and Cost Containment (questions P-1 to P-28)
- Environment and Public Processes (questions E-1 to E-12)
- Substation (questions S-1 to S-8)
- Transmission (questions T-1 to T-11)
- Operation and Maintenance (questions O-1 to O-26)
- Miscellaneous (question M-1)

As provided in the business practice manual, the ISO provided the project sponsors opportunities to correct deficiencies in their applications. Following the project sponsors' submissions of supplemental information necessary for the ISO's qualification assessment, the ISO next determined whether the project sponsors satisfied the minimum qualification criteria set forth in tariff section 24.5.2.1 to finance, own, construct, operate, and maintain the Sycamore-Penasquitos project. As specified in the tariff, the qualification criteria that the ISO applied were:

(a) whether the proposed project is consistent with needed transmission elements identified in the comprehensive Transmission Plan;

(b) whether the proposed project satisfies Applicable Reliability Criteria and CAISO Planning Standards; and

(c) whether the Project Sponsor and its team are physically, technically, and financially capable of (i) completing the project in a timely and competent manner; and (ii) operating and maintaining the facilities consistent with Good Utility Practice and applicable reliability criteria for the life of the project.

The ISO found that all four project sponsors met the minimum qualification criteria set forth in tariff section 24.5.2.1 with respect to the Sycamore-Penasquitos project and, consistent with the milestone dates in the business practice manual, the ISO posted the list of qualified project sponsors to its website on August 13, 2013.

Once the ISO posted the list of qualified project sponsors, the ISO offered them an opportunity for possible collaboration and submission of a joint proposal pursuant to tariff section 24.5.2.3(a). No project sponsors advised the ISO within the period specified in the business practice manual that they intended to collaborate. At that point, because all project sponsors proposed to apply to the California Public Utilities Commission (CPUC) for project siting, the ISO advised the project sponsors that in accordance with tariff section 24.5.2.3(b) the CPUC would conduct the selection phase of the competitive solicitation process to determine the selection of the approved project sponsor. However, the CPUC subsequently notified the ISO that it preferred to have the ISO select the approved project sponsor. On November 1, 2013, the ISO and CPUC filed a joint petition with FERC requesting a waiver of the tariff provisions that would have required the CPUC to select the project sponsor for the Sycamore-Penasquitos project. On December 19, 2013, FERC issued an order granting the request for waiver and authorizing the ISO to conduct the process of selecting the approved project sponsor for the Sycamore-Penasquitos project.[8] Section 3 of this report describes the ISO's selection process for this project.

[8] *California Independent System Operator Corporation* 145 FERC ¶61,221 (2013)

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, and has provided an opportunity for collaboration, tariff section 24.5.2.3(c) directs the ISO to select one approved project sponsor "based on a comparative analysis of the degree to which each Project Sponsor meets the criteria set forth in section 24.5.2.1 [which are identified in Section 2.2 of this report] and a consideration of the factors set forth in 24.5.2.4."[9] Following receipt of the December 19, 2013 FERC order authorizing the ISO to conduct the process of selecting the approved project sponsor for the Sycamore-Penasquitos project, the ISO implemented this selection process. The selection criteria set forth in tariff section 24.5.2.4 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 project;

(b) The Project Sponsor's existing rights of way and substations that would contribute to the project in question;

(c) The experience of the Project Sponsor and its team in acquiring rights of way, and the authority to acquire rights of way by eminent domain, if necessary, that would facilitate approval and construction;

(d) The proposed schedule for development and completion of the project 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 ISO Controlled Grid of the Project Sponsor and its team;

(h) Demonstrated capability to adhere to standardized construction, maintenance and operating practices;

[9] As discussed in Sections 2, 3.14, 3.15, and 3.16 of this report, the ISO initially used the section 24.5.2.1 criteria to determine whether each project sponsor had the minimum qualifications to finance, own, construct, operate, and maintain the Sycamore-Penasquitos project. The ISO found that all four project sponsors met the minimum qualifications. The qualification assessment did not involve a comparative analysis of the degree to which each project sponsor satisfied the three qualification criteria (relative to other project sponsors), but simply considered whether each project sponsor met the minimum qualifications for the Sycamore-Penasquitos project. Consistent with tariff section 24.5.2.3(c), the ISO has now undertaken a comparative analysis of the degree to which each project sponsor's proposal has met the qualification criteria in section 24.5.2.1 as part of its project sponsor selection process pursuant to section 24.5.2.4.

(i) Demonstrated ability to assume liability for major losses resulting from failure of facilities; and

(j) Demonstrated cost containment capability and other advantages the Project Sponsor and its team may have to build the specific project, 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.

In selecting the approved project sponsor, the ISO has undertaken a comparative analysis of the proposals of the project sponsors with regard to each of the ten selection criteria set forth in tariff section 24.5.2.4 and each of the three qualification criteria set forth in tariff section 24.5.2.1 based on the information provided in the project sponsors' applications and supplemental responses. As part of this comparative analysis, the ISO has given particular consideration to the key selection factors for the Sycamore-Penasquitos project 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 with respect to each of the selection and qualification criteria. At the beginning of each subsection of Section 3 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 selection or qualification criterion. 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 section of the project sponsor's application that served as the source for that summary. *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.*

The ISO's comparative analysis for each of the ten selection criteria is set forth in Sections 3.3 to 3.13 below, followed by the ISO's comparative analysis for each of the three qualification criteria in Sections 3.14 to 3.16. The ISO's conclusion with respect to selection of the approved project sponsor is set forth in Section 3.17.

3.2 Description of Project Sponsors for the Sycamore-Penasquitos Project

The ISO received project sponsor applications for the Sycamore-Penasquitos project on behalf of four project sponsors:

- an affiliate of Abengoa T&D
- an affiliate of Elecnor Inc.
- San Diego Gas & Electric Company, in conjunction with Citizens Energy Corporation
- an affiliate of Trans Bay Cable LLC

The ISO found all four entities to be qualified and as a result the ISO has considered all four project proposals in the comparative analysis process for the selection of the approved project sponsor.

Following is a description of each project sponsor, including how it is organized, and how it fits with its parent company, if applicable. This information was provided on behalf of the project sponsors as part of their applications.

Affiliate of Abengoa T&D (Abengoa)

According to the application, Abengoa S.A. is an international company that is a public company traded on the Madrid Stock Exchange (symbol ABG). Abengoa S.A. provides products and services in the energy and environment sectors. Abengoa T&D, listed as project sponsor, is a subsidiary of Abengoa S.A. and is organized as a limited liability company. Abengoa T&D is the entity that would lead the development of the electric transmission project and would own and operate the project. According to the application, if selected, the project would be owned through a newly created special purpose vehicle, wholly owned by Abengoa T&D, which, in turn, is wholly owned by Abengoa S.A. Abengoa T&D's application indicated that it may involve other investment partners and thus would not be the sole equity partner in the project. This report refers to the project sponsor as Abengoa.

Affiliate of Elecnor Inc. (Elecnor)

According to the application, Elecnor Inc. is a wholly owned subsidiary of Elecnor S.A., which is a public company that is traded on the Madrid Stock Exchange (symbol ENO). Elecnor S.A. and its subsidiaries, including Elecnor Inc., are referred to as Elecnor Group. According to the application, if selected, the project would be owned through a dedicated single purpose vehicle, wholly owned by Elecnor Inc., which, in turn, is wholly owned by Elecnor S.A. This report refers to the project sponsor as Elecnor.

San Diego Gas & Electric Company (SDG&E)

According to the application, San Diego Gas & Electric Company (SDG&E) is a regulated public utility subsidiary of Sempra Energy (NYSE: SRE), a publicly-traded energy services holding company based in San Diego, California. According to the application, SDG&E and Citizens Energy Corporation have signed a non-binding letter of intent for the proposed project in which the parties have structured a transaction whereby Citizens Energy would have an option to acquire a leasehold interest in a portion of the project for 30 years, similar to their transaction for the Sunrise Power Link project. Participation in this new transaction is subject to regulatory and corporate approvals. This report refers to the project sponsor as SDG&E.

Affiliate of Trans Bay Cable LLC (TBC)

According to the application, the project sponsor is "S2P ProjectCo LLC," an affiliate of Trans Bay Cable LLC (TBC), which is a company owned and managed by SteelRiver Infrastructure Partners LP and its affiliates. If selected as the approved project sponsor, S2P ProjectCo LLC would be capitalized by equity partners of SteelRiver. This report refers to the project sponsor as TBC.

3.3 Selection Criterion 24.5.2.4(a): Overall Capability to Finance, License, Construct, Operate, and Maintain the Facility

The first selection criterion is "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 project." As discussed in Section 2.1, the ISO has identified this selection criterion as a key selection factor based on the importance of all these aspects of development and operation of the project to the selection of the most prudent, efficient, and cost-effective proposal. A proposal that best satisfies this criterion will contribute significantly to ensuring that the selected project sponsor will finance, permit, develop, own, operate, and maintain the project in a prudent, efficient, and cost-effective manner.

The ISO notes that the first selection criterion is a broad criterion that encompasses several of the subsequent more narrow selection criteria. The ISO will therefore address satisfaction of this more general criterion in its discussion of the applicable, more specific selection criteria. The ISO will not duplicate here (1) the information provided by the project sponsors for purposes of demonstrating their capabilities and experience with respect to each of the encompassed selection criteria, or (2) the ISO's comparative analysis of the project sponsors in this regard, as set forth in the following sections of this report. The ISO will discuss the comparative analysis for selection criterion 24.5.2.4(a) after the discussion of the other selection criteria in Section 3.13 of this report.

3.4 Selection Criterion 24.5.2.4(b): Existing Rights-of-Way and Substations that Would Contribute to the Project

The second selection criterion is "the Project Sponsor's existing rights of way and substations that would contribute to the project in question." As discussed in Section 2.1, the ISO has identified this selection criterion as a key selection factor because the use of existing rights-of-way can contribute to lower project cost, fewer siting approvals, less extensive rights-of-way acquisition efforts, and reduction in the overall time needed to complete the project, which is particularly significant given the relatively short time frame in which this project must be completed. This criterion takes on added importance for this particular project due to the special circumstances created by the need to mitigate the consequences of the recent retirement of the SONGS facility, as also discussed in Section 2.1. A proposal that best satisfies this criterion will contribute significantly to ensuring that the project sponsor selected will develop the project in an efficient, cost-effective, and timely manner. Given the functional specifications of the project, existing substations would not contribute to the project design and therefore were not identified by any project sponsors or included in the analysis.

3.4.1 Information Provided by Abengoa

Abengoa indicated it does not have any existing rights-of-way that could be used for this project. (E-8)

3.4.2 Information Provided by Elecnor

Elecnor did not identify any existing rights-of-way that could be used for this project. (E-8)

3.4.3 Information Provided by SDG&E

SDG&E indicated it has existing rights-of-way or utility franchise rights for all but about 0.5 acre needed for this project. For approximately 5.4 miles of SDG&E's proposed route for the project, SDG&E indicated that it will utilize existing overhead towers on existing SDG&E rights-of-way for the conductor for the overhead portion of the line. SDG&E indicated that it will reconductor the existing conductors on these towers to make room for the new conductor for this project. For approximately 8.2 miles of its proposed route, SDG&E indicated that it will replace existing wood H-frame structures with new 230 kV dulled galvanized tubular monopole steel poles for overhead transmission within SDG&E's existing rights-of-way. For the remaining approximately 2.8 miles of its proposed route, SDG&E indicated that it will install underground transmission within a city street utilizing its existing franchise rights for almost the entire segment. For the 0.5 acre of additional rights-of-way needed, SDG&E indicated that it will negotiate for underground easement rights in rights-of-way where it already has an existing overhead easement. (E-8)

3.4.4 Information Provided by TBC

TBC indicated that it does not have any existing rights-of-way that could be used for this project. (E-8)

3.4.5 ISO Comparative Analysis

For purposes of the comparative analysis for this criterion, the ISO has considered the representations by the project sponsors regarding the rights-of-way they possess that they propose to contribute to this project. The Sycamore-Penasquitos Functional Specifications specify an approximate line length of 11 miles. The ISO notes that the siting authority will ultimately determine the length of the route. All of the project sponsors except SDG&E will require separate, brand new rights-of-way. SDG&E proposes to use existing rights-of-way or franchise rights for all but 0.5 acres needed for rights-of-way for this project. While this increases the length of SDG&E's proposed route for the project to approximately 16.4 miles, this will greatly minimize SDG&E's need to acquire additional rights-of-way and will allow SDG&E to rely on reconductoring for a large portion of the project, thereby minimizing the incremental environmental impacts of SDG&E's proposal for the project. This is a significant advantage to SDG&E's proposal, given the potential challenges the other project sponsors might encounter in acquiring new rights-of-way and associated environmental permitting for their proposed routes. As a result, SDG&E's proposal will require significantly less acquisition of new rights–of-way compared to the proposals of the other project sponsors. SDG&E's proposed use of existing rights-of-way, as well as existing infrastructure, can contribute to lower project cost, fewer siting approvals, and less extensive rights-of-way acquisition efforts. Moreover, possession of needed rights-of-way and use of some existing infrastructure for a sizeable portion of the project can help to reduce the overall time needed to complete the project, which is particularly significant given the relatively short time specified for development of this project and the

importance of placing the project in service at the earliest opportunity, especially in light of the recent retirement of the SONGS facility. The potential that SDG&E's proposal could save time in the rights-of-way acquisition process and in the environmental permitting process, thereby resulting in an earlier in-service date than the rights-of-way acquisition proposals of the other project sponsors, is a significant advantage of SDG&E's proposal. Thus, the ISO has determined that SDG&E's proposal is better than those of the other three project sponsors and that there are no material differences among the proposals of the other three project sponsors with regard to this criterion.

3.5 Selection Criterion 24.5.2.4(c): Experience in Acquiring Rights-of-Way and Authority to Acquire Rights-of-Way

The third selection criterion is "the experience of the Project Sponsor and its team in acquiring rights of way, and the authority to acquire rights of way by eminent domain, if necessary, that would facilitate approval and construction." As discussed in Section 2.1, the ISO has identified this selection criterion as a key selection factor because of the potentially problematic nature of the area through which the project route is expected to pass. A proposal that best satisfies this criterion will contribute significantly to ensuring that the project sponsor selected will develop the project in a prudent, efficient, and cost-effective manner.

For the purpose of performing the comparative analysis for this criterion, the ISO has initially considered the two components of the criterion separately and then combined them into an overall comparative analysis for this criterion. The two components are: (1) the experience of the project sponsor and its team in acquiring rights-of-way and (2) the project sponsor's authority to acquire rights-of-way by eminent domain, if necessary, that would facilitate approval and construction.

Experience in Acquiring Rights-of-Way

(E-3, E-3a, E-3b, E-7a-d, E-9b, T-5g(v), T-10)

3.5.1 Information Provided by Abengoa

Abengoa indicated that a contractor with rights-of-way acquisition experience will provide rights-of-way acquisition services for this project. (E-3)

Abengoa indicated it has built thousands of kilometers of transmission lines around the world, including a 6 mile Mojave Solar 230 kV generation tie-line in California and a 32 mile transmission line in Arizona. Abengoa did not indicate if rights-of-way were acquired for these lines, and, if so, who acquired these rights-of way and how they were acquired. Abengoa provided information regarding its rights-of-way firm's experience, which includes rights-of-way acquisition services for electric and gas transmission projects in California and elsewhere for many entities, including major investor-owned and municipal utilities. (E-3b)

Abengoa indicated that its proposed rights-of-way width is 30 feet for the underground segments of the project and 150 feet for overhead facilities. (T-5g(v))

3.5.2 Information Provided by Elecnor

Elecnor did not indicate any experience acquiring rights-of-way in the U.S. or California. Elecnor indicated it has contracted with a consultant to assist with rights-of-way acquisition; however, Elecnor provided no information regarding the experience of the consultant in acquiring rights-of-way. (E-3, E-3a, E-9b)

Elecnor's proposed rights-of-way width for the underground segment of the project is 60 feet, and 150 feet for the overhead portion. Elecnor indicated that the separation between any transmission lines that are paralleled would be minimized, including through the use of overlapping the rights-of-ways of existing facilities if possible. (T-5g(v) and T-10)

3.5.3 Information Provided by SDG&E

SDG&E indicated that in-house staff would provide land acquisition services. SDG&E provided resumes for the director, manager, and supervisor responsible for rights-of-way acquisition at SDG&E. (E-3)

SDG&E indicated it has acquired rights-of-way for and constructed 15 projects, each over $10,000,000 in the past 5 years. (E-9b)

SDG&E indicated it will use existing rights-of-way and franchise rights for most of this project, with a small underground easement to be acquired for a single cable riser pole to be located within an existing overhead easement. (T-5g(v) and T-10)

3.5.4 Information Provided by TBC

TBC indicated that it has rights-of-way acquisition experience with one submarine cable project in California (the Trans Bay Cable project). TBC has indicated that it has contracted with a consultant and sub-consultant who have transmission line rights-of-way acquisition experience in California. (E-3, E-3a, E-9b)

TBC's proposed rights-of-way width for its all-underground line is 20 feet of permanent easement with a 40 foot temporary easement for construction. TBC indicated that it is still considering options for the route of the line. (T-5g(v) and T-10)

Authority to Acquire Rights-of-Way by Eminent Domain

(E-7e)

3.5.5 Information Provided by Abengoa

Abengoa indicated that it currently does not have eminent domain authority; however, it would pursue it if necessary. (E-7e)

3.5.6 Information Provided by Elecnor

Elecnor indicated that it currently does not have eminent domain authority; however, Elecnor expects to receive eminent domain authority from the CPUC through the process of obtaining a certificate of public convenience and necessity (CPCN). (E-7e)

3.5.7 Information Provided by SDG&E

SDG&E indicated that it currently has eminent domain authority as a California regulated utility. (E-7e)

3.5.8 Information Provided by TBC

TBC indicated that it has eminent domain authority under Senate Bill 177. (E-7e)

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 criterion, the ISO has considered the representations by the project sponsors regarding the experience of both the project sponsors and their team members in acquiring rights-of-way, including but not limited to experience in the U.S. and California. The ISO considers experience in the U.S. and California to be an advantage over experience in rights-of-way acquisition in other jurisdictions because the project will be located in California and there are special aspects of rights-of-way acquisition in the U.S. and California for which experience is an advantage.

As described above, SDG&E has greater experience in transmission line rights-of-way acquisition in California than the other three project sponsors and their teams. In addition, SDG&E has experience with right-of-way acquisition in the local area where the project will be located, having already acquired the existing rights-of-way that it proposes to utilize for this project. Also, the additional rights-of-way SDG&E will need to acquire are minimal -- 0.5 acres -- (and are already subject to an existing overhead easement), as opposed to the entirely new rights-of-way corridor the other project sponsors will have to acquire. Based on these factors, in conjunction with all of the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that SDG&E's proposal is better than the proposals of the other three project sponsors with regard to this component of the criterion.

The ISO has determined that Abengoa's proposal is slightly better than TBC's and Elecnor's proposals regarding this component of the criterion because Abengoa has some limited experience in California (as does TBC), and its consultant's previous transmission line rights-of-way acquisition experience in California is slightly better. The ISO has determined that TBC's proposal is better than that of Elecnor because, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, TBC has some rights-of-way acquisition experience in California, as does its consultant, and Elecnor did not provide any information regarding its staff's rights-of-way acquisition experience or its consultant's rights-of-way acquisition experience.

Comparative Analysis of Authority to Acquire Rights-of-Way by Eminent Domain

For purposes of the comparative analysis for this component of the criterion, the ISO has considered the representations by the project sponsors regarding their authority to

acquire rights-of-way by eminent domain. The ISO has determined that there is no material difference among the proposals of the four proposed project sponsors with regard to this factor because the ISO accepts, based on the representations of the project sponsors that currently are not regulated public utilities, that if the approved project sponsor did not currently have eminent domain authority, it would receive such authority once the CPUC had approved that entity's application for a CPCN. SDG&E indicates that it has eminent domain authority as a regulated utility, and TBC indicates that it has eminent domain authority under SB 177.

Overall Comparative Analysis

The ISO has determined that SDG&E's proposal is slightly better than those of the other three project sponsors with regard to this criterion because there is no material difference among the four project sponsors regarding their authority to acquire rights-of-way by eminent domain, so the analysis regarding rights-of-way acquisition experience is determinative. SDG&E has more experience with transmission line rights-of-way land acquisition in California and the local region and, in any event, will need to acquire significantly less rights-of-way than the other project sponsors.

The ISO has determined that the proposal of Abengoa is slightly better than those of TBC and Elecnor with respect to this criterion because Abengoa and its consultant combined have more transmission line rights-of-way acquisition experience in California.

The ISO has determined that the proposal of TBC is better than that of Elecnor with regard to this criterion because TBC and its consultant have transmission line rights-of-way acquisition experience in California, and Elecnor did not demonstrate any rights-of-way acquisition experience in California for it or its consultant.

3.6 Selection Criterion 24.5.2.4(d): Proposed Schedule and Demonstrated Ability to Meet Schedule

The fourth selection criterion is "the proposed schedule for development and completion of the project and demonstrated ability to meet that schedule of the Project Sponsor and its team." The ISO has identified this selection criterion as a key selection factor because, as explained in greater detail in Section 2.1, the Sycamore-Penasquitos Functional Specifications establish a relatively short timeframe for the completion of this project, and even small delays could have significant adverse consequences for the completion of the project in time to meet the need identified in the Sycamore-Penasquitos Functional Specifications. Moreover, given the increased need for this project in light of the intervening retirement of the SONGS facility, the ISO considers the potential for a project sponsor to complete the project even earlier than the specified in-service date of May 2017 to be an advantage. A proposal that best satisfies this criterion 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 criterion, the ISO has initially considered the two components of the criterion separately and then combined them into an overall comparative analysis for this criterion. 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. In

performing the analysis of the project sponsors' proposed schedules, the ISO provided the project sponsors an opportunity to update their proposed schedules from those submitted in their original applications to account for the delay in approved project sponsor selection resulting from the transfer of responsibility from the CPUC to the ISO granted in the December 13, 2013 FERC order, as discussed in Section 2.2 of this report. The ISO notified the project sponsors that for scheduling purposes the latest potential date for selection of the approved project sponsor would be March 28, 2014. The proposals for the project schedule and demonstration of ability to meet that schedule are particularly important because the ISO's Sycamore-Penasquitos Functional Specifications provide for an in-service date of May 2017 at the latest, which results in a relatively short timeframe for the development of this transmission project.

Proposed Schedule

(P-24)

3.6.1 Information Provided by Abengoa

In response to the offer by the ISO of an opportunity to submit an updated project schedule, as described in Section 3.6 of this report, Abengoa provided a revised schedule, broken down by critical path activities, showing the project starting on March 28, 2014 and being placed in-service on May 1, 2017. The schedule included the appropriate critical path activities. (P-24)

3.6.2 Information Provided by Elecnor

In its original application, Elecnor provided a schedule starting on January 1, 2014 with a line "commissioning" on November 23, 2016. The schedule included the appropriate critical path activities. Elecnor did not respond to the ISO's offer of an opportunity for project sponsors to submit an updated schedule, as described in Section 3.6 of this report.

To analyze Elecnor's schedule (because one was not submitted that showed a feasible start date*, i.e*., a date after the March 28, 2014 latest potential project sponsor selection date specified by the ISO), the ISO adjusted the schedule Elecnor provided by shifting the start date from January 1, 2014 to March 29, 2014 and by shifting all other dates in Elecnor's schedule by the same number of days the start date was shifted. After shifting the Elecnor schedule to accommodate the latest potential project sponsor selection of date of March 28, 2014, the Elecnor compressed schedule still provides for the project to be operational by the required ISO operational date of May 2017. (P-24)

3.6.3 Information Provided by SDG&E

SDG&E provided a revised project schedule in response to the ISO's offer of an opportunity to submit an updated schedule, as described in Section 3.6 of this report, showing the approved project sponsor selected on March 28, 2014 and an in-service date of May 25, 2017. The schedule included the appropriate critical path activities.

SDG&E also indicated in conjunction with its revised schedule that it plans to file an application with the CPUC for a CPCN (including a proponent's environmental

assessment with its filing) for the project on April 7, 2014 based upon an assumed ISO approved project sponsor selection date of March 28, 2014. (P-24)

3.6.4 Information Provided by TBC

TBC provided a revised project schedule in response to the ISO's offer of an opportunity to submit an updated schedule, as described in Section 3.6 of this report, showing the project starting on March 31, 2014 and the project available to the ISO for use on May 15, 2017. The schedule included the appropriate critical path activities. (P-24)

Ability to Meet Schedule

(P-1, P-20, P-21, P-22, P-23, P-25, E-2)

3.6.5 Information Provided by Abengoa

Abengoa listed 26 Abengoa SA transmission projects with which it has been involved, all in Brazil or Chile. Abengoa indicated that two of these projects involved underground transmission. Abengoa also listed five transmission projects, including two in California, for which it was the engineering, procurement, and construction (EPC) contractor. (P-1)

Abengoa provided information regarding the development schedule for five projects for which it was the EPC contractor. Abengoa indicated that all the projects were completed by the schedule date. (P-20)

Abengoa provided five charts reflecting various aspects of its project organization and resumes for key individuals. Abengoa provided no indication of how it will interact with its contractors regarding project management and scheduling on this project, and its application did not show reporting relationships among the five organizations identified. (P-22)

Abengoa indicated that the major schedule risks are in the permitting and rights-of-way acquisition stages of project development. To mitigate these risks, Abengoa indicated that it will attempt to expedite negotiation for and acquisition of rights-of-way. Abengoa also indicated that it could use eminent domain to obtain rights-of-way. (P-25)

3.6.6 Information Provided by Elecnor

Elecnor identified twelve Elecnor SA projects in Brazil and two in Chile. Elecnor indicated that none of the projects included underground transmission. It also described three other projects that it developed in Spain involving underground transmission, the most recent of which was in 2004. (P-1)

Elecnor provided details regarding the development schedule for several of its projects; one project was completed 6 months later than the schedule and the other projects completed a few months ahead of schedule. (P-20)

Elecnor provided several organization charts depicting the various aspects of the project organization and the resume for the project manager. The resume lacked details. (P-22)

Elecnor indicated that transmission projects in urban areas can face a considerable amount of interest, and potentially opposition, from the public. Elecnor indicated that

additional cost and delay may arise from that process, despite Elecnor's best efforts. Elecnor indicated that its project schedule provides for a degree of "float" to partially accommodate any such eventuality. (P-25)

3.6.7 Information Provided by SDG&E

SDG&E provided a listing of 71 transmission projects, 22 of which involved underground transmission (various at 69, 138, and 230 kV), including five new transmission lines. (P-1)

SDG&E provided extensive project details regarding the development schedule for four transmission projects, two of which involved underground transmission. (P-20)

SDG&E provided a proposed management structure showing the SDG&E project manager linked to all the major SDG&E work groups associated with the project. SDG&E also provided a detailed resume for the project manager. (P-22)

SDG&E indicated it would complete a project risk management assessment, including risks and mitigation for the project. SDG&E indicated that the major potential risk for the project is the agency approval process. SDG&E discussed a number of mitigation measures. SDG&E also included additional "float" of six months in the schedule to cover any approval process delays. (P-25)

3.6.8 Information Provided by TBC

TBC provided information on the Trans Bay Cable project involving a submarine transmission cable in the San Francisco bay area. TBC's EPC contractor listed numerous transmission projects it has designed and constructed in the U.S., including three recent underground transmission projects at 138 kV or lower. No projects were in California. Another TBC subcontractor that provides engineering services identified numerous underground transmission projects, with several projects above 138 kV, including four cable projects in California. (P-1)

TBC provided a thorough review of the development schedule for the Trans Bay Cable project. TBC indicated that the project operation was delayed about nine months due to technical problems. (P-20)

TBC provided the proposed management structure for the project, reflecting the relationship between TBC and major entities involved with the project. TBC indicated that it will use a development advisor in the early stages of the project who will become the project manager at the appropriate stage in the project. A detailed resume was provided for this individual. (P-22)

TBC identified risks for this project, including permitting risk, construction risk, commodity risk, and exchange risk, and described potential mitigations for each. (P-25)

As discussed in other sections of this report, TBC proposes that its all-underground plan be treated as mitigation for the risk of potential public opposition to the project. In addition, TBC proposes to utilize existing environmental impact analyses that were prepared for the Sunrise Power Link project proposed and built by SDG&E several years ago, where feasible. (P-24, E-2)

3.6.9 ISO Comparative Analysis

Comparative Analysis of Proposed Schedule

For purposes of the comparative analysis for this component of the criterion, 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. The ISO has determined that all project sponsors' schedules contain a set of all expected major activities and potentially achievable associated timelines (permitting, engineering, construction, etc.) given the ISO's understanding of how long similar activities have taken on projects that have been completed in the recent past in California. In addition, all project sponsors have proposed schedules with an in-service date prior to the latest in-service date of May 2017 for the Sycamore-Penasquitos line specified by the ISO in the Sycamore-Penasquitos Functional Specifications. Consequently, the ISO has determined that there are no material differences among the proposals of the four project sponsors with regard to this component of the criterion.

Comparative Analysis of Ability to Meet Schedule

The ISO's analysis has focused primarily on the ability of the project sponsors to complete the project by the date in the Sycamore-Penasquitos Functional Specifications and any potential risks associated with each project sponsor's proposal that might impact completion of the project in a timely manner. For purposes of the comparative analysis for this component of the criterion, the ISO considered the representations by the project sponsors regarding the experience of both the project sponsors and their team members in meeting schedules, including but not limited to the information in their proposed schedules as well as 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 (either favorably or unfavorably). In terms of completing projects on schedule, all four project sponsors and their teams had various degrees of success in meeting project schedules.

However, the time available to complete this project (from an assumed March 28, 2014 start date to a May 2017 completion data) is relatively short for the development of a transmission project and will likely result in a tight schedule for whichever project sponsor is selected. While all the project sponsors submitted schedules that indicated that they can meet the required operations date of May 2017 and all project sponsors' schedules contain similar activities and associated timelines (permitting, engineering, construction, etc.), the ISO is concerned that some activities may take longer than the project sponsors have indicated in their plans, making achievement of their overall schedule potentially problematic. While overly optimistic schedule dates might not be so significant in other circumstances, the ISO is concerned in the case of this project that even small delays could have significant adverse consequences for the completion of the project in time to meet the date identified by the ISO in the Sycamore-Penasquitos Functional Specifications – or to place the project in service even prior to that identified date in order to help mitigate the consequences of the retirement of the SONGS facility, as discussed in more detail in Section 2.1 of this report.

SDG&E has demonstrated significant experience with recent projects in California and with underground transmission. SDG&E also provided a thorough proposal regarding project management and major risks for the project and mitigations. Furthermore, SDG&E's proposed route relies on existing rights-of-way and utilizes existing tower structures and reconductoring for a portion of the project. This has the potential to mitigate permitting concerns. The ISO notes that California Public Utilities Code Section 1005.1 provides that in approving new transmission to meet renewable portfolio standards (RPS) goals the CPUC must consider the following: (1) the utilization of rights-of-way by upgrading existing facilities instead of building new transmission, if technically and economically justified, (2) the expansion of existing rights-of-way if technically and economically justified, and (3) the creation of new rights-of-way if environmentally, technically, and economically justified. SDG&E's use of both existing facilities and existing rights-of-way is consistent with this mandate and is more economically justified compared to the costlier extensive undergrounding and new rights-of-way options proposed by TBC and Abengoa. In addition, the ISO considers SDG&E's plan to start the CPUC's CPCN process, including filing an environmental assessment immediately after the project selection is made as facilitating timely approval of the project and supporting achievement of the ISO's target completion date of May 2017. No other project sponsor has proposed a schedule to expedite the permitting process in this manner, although TBC has proposed a schedule that would have TBC file its CPCN application within four months following the ISO's selection of the approved project sponsor. This aspect of SDG&E's proposal provides SDG&E a better chance of expediting the development of and in-service date for this project. Filing the CPCN application shortly after the selection report is issued provides SDG&E the best chance not only of meeting the latest in-service date of May 2017 specified in the Sycamore-Penasquitos Functional Specifications, notwithstanding the permitting and construction risks identified by regulatory agency staff for this project, but also placing the project in service prior to that date, which would help mitigate the increased concerns for system reliability resulting from the recent retirement of the SONGS facility.

Although TBC notes that its all-underground proposal has the potential to reduce public opposition, the proposal requires the acquisition of new rights-of-way and is a costlier option than that of SDG&E. The circumstances here are not identical to the circumstances regarding the mandated undergrounding of a proposed transmission line segment in Chino Hills in response to staunch public opposition. The Chino Hills situation involved switching-out 230 kV lines for a 500 kV line and installing large 500 kV towers. Based on these factors, in conjunction with all of the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that SDG&E's proposal is better than those of the three other project sponsors with regard to this component of the criterion.

While TBC itself does not have extensive project development experience, its designated engineering firms have significant project experience, including work in California and with underground transmission, although TBC did not provide schedule information regarding the projects of its EPC contractor. The ISO considers TBC's (and its team's) project development experience at least as relevant as that of Abengoa and Elecnor. TBC also provided a more thorough proposal regarding project management and risk mitigation than those of Abengoa and Elecnor. In addition, compared to Elecnor, which relies primarily on overhead transmission lines on entirely new rights-of-way, TBC's all-underground proposal on new rights-of-way may have the potential for less public opposition, which potentially could mitigate against risks of delays in

permitting time and other schedule factors compared to Elecnor's proposal. Compared to Elecnor's proposal, Abengoa's primarily underground proposal has similar potential mitigation benefits, although to a slightly lesser degree than TBC's proposal because it does have a small overhead component.

Unlike SDG&E and TBC, neither Abengoa nor Elecnor identified any measures to expedite filing of a CPCN application. Abengoa's primarily underground proposal may have the potential for less public opposition compared to Elecnor's primarily overhead proposal. Based on these factors, in conjunction with all of the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that TBC's proposal is better than those of Abengoa and Elecnor with regard to this component of the criterion, and that Abengoa's proposal is slightly better than Elecnor's proposal regarding this factor.

Abengoa provided information for several projects where it served as an EPC contractor, including two projects in California, all of which it reported as completed on schedule. Abengoa has some experience with underground transmission, and its design firm has extensive overhead transmission and some underground transmission experience. Because Abengoa provided no indication of how it will interact with its contractors regarding project management and scheduling on this project, and its application did not show reporting relationships among the five organizations identified, Abengoa's approach to project management was incomplete. Abengoa's approach to major risks and cost containment actions was also limited in scope and detail.

Elecnor indicated that it had completed several projects on schedule and one project later than the schedule. Elecnor's reported experience for Elecnor SA with underground transmission is not recent, and Elecnor does not have experience in California. However, the design firm identified by Elecnor has extensive experience with overhead and underground transmission in the U.S. and California. Also, Elecnor provided sufficient project management information, although the resume for its project manager lacked details. Elecnor's discussion of risk management was limited in scope and provided little detail regarding its stated cost containment actions.

Based on the possibility that Abengoa's primarily underground proposal may have the potential for less public opposition compared to Elecnor's primarily overhead proposal, in conjunction with all of the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that Abengoa's proposal is slightly better than Elecnor's proposal with regard to this component of the criterion.

Overall Comparative Analysis

The ISO considers the two components of this criterion to be of roughly equal importance in the selection process for this project. Because the ISO determined that there was no material difference among the four project sponsors with regard to the first component (the proposed schedule for development and completion of the project), the result of the overall comparative analysis is determined by the results of the comparative analysis of the second component (demonstrated ability to meet that schedule of the project sponsor and its team). The result of that analysis is that SDG&E's proposal is better than those of the other three project sponsors with regard to this criterion, TBC's proposal is better than those of Abengoa and Elecnor, and Abengoa's proposal is slightly better than Elecnor's proposal with regard to this criterion.

3.7 Selection Criterion 24.5.2.4(e): The Financial Resources of the Project Sponsor and Its Team

(P-1, P-2, P-4, P-5, P-6, P-7, P-8, P-11, P-13, P-14, P-15)

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

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

Project sponsors provided information related to their experience in developing and financing similar projects in the past five years, 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")[10] – 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, that provides the ISO another metric on par with the agency credit ratings.

While 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, the ISO relies on tangible net worth,[11] 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. Also, not all project sponsors have credit ratings. 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

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

[11] 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.

information into a highly predictive measurement of stand-alone credit risk. EDF provides the ISO one 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 on par with 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.

3.7.1 Information Provided by Abengoa

Abengoa listed 26 transmission and substation projects that Abengoa S.A. has constructed, financed, owned, operated, and maintained – including five in the U.S. of which three were in California. Two of the projects involved underground transmission. No project or financing information was provided for Abengoa T&D projects. (P-1, P-2)

Abengoa provided reported assets, liabilities, income, debt service, and financial ratios for its parent company, Abengoa S.A. (P-4, P-13, P-14)

Abengoa provided credit ratings for Abengoa S.A. of "B" from S&P and "B2" from Moody's. (P-5)

Abengoa provided a preliminary financing plan and stated that it will create a special purpose entity for the project. While Abengoa indicated it received strong support from its parent, Abengoa S.A. (P-4) and its sound financial health is demonstrated through its parent relationship (P-5), Abengoa stated that it does not rely on any affiliate for credit, investment, or financing to provide credit to the entity that is going to be created; rather Abengoa will use project financing. (P-8, P-11, P-15)

3.7.2 Information Provided by Elecnor

Elecnor identified 14 Elecnor S.A. projects developed outside of the U.S and provided financing information for five projects. Elecnor provided no project or financing information for any Elecnor Inc. projects. (P-1, P-2)

Elecnor provided reported assets, liabilities, income, and financial ratios for its parent company, Elecnor S.A. Elecnor did not provide debt service information for evaluation. (P-4, P-13, P-14)

Elecnor did not provide any independent credit ratings, stating that it has not needed to be rated due to its excellent global banking relationships, which allows the company not to have to rely on the capital markets. (P-5)

Elecnor stated the project will be owned by a dedicated special purpose entity, wholly owned by Elecnor Inc., which in turn is owned by Elecnor S.A. Elecnor indicated that the Elecnor Group is fully capable of funding the development, construction, and operation of the project from internal group resources and that the successful execution of the project will not be dependent upon raising any additional capital. Elecnor further indicated that it anticipates using a prudent amount of debt financing and that any financing will be conservative and in line with best industry practices. (P-8, P-11, P-15)

3.7.3 Information Provided by SDG&E

SDG&E provided a listing of 71 transmission and substation projects, 22 of which involved underground transmission. SDG&E indicated that it finances all of its projects. (P-1, P-2)

SDG&E provided reported assets, liabilities, income, debt service, and financial ratios. (P-4, P-13, P-14)

SDG&E provided credit ratings of "A" from S&P and "A2" from Moody's. (P-5)

SDG&E stated it is a regulated public utility and is a subsidiary of Sempra Energy. SDG&E indicated that it does not rely on affiliates for credit, investments, or financing arrangements and finances its own projects. (P-8, P-11, P-15)

SDG&E also indicated that it has entered into a non-binding letter of intent with Citizens Energy that provides Citizens Energy the option to acquire a leasehold interest in a portion of the project for 30 years.

3.7.4 Information Provided by TBC

TBC provided information on one transmission project, the Trans Bay Cable project, that it has constructed, financed, owned, operated, and/or maintained within the last five years. (P-1, P-2)

TBC provided reported assets, liabilities, income, debt service, and financial ratios. In addition, TBC provided reported assets, liabilities, and income for SteelRiver Infrastructure Partners, LP – an investment partnership. TBC did not provide financial ratios for SteelRiver because TBC considered such financial metrics only suitable for a traditional operating utility. (P-4, P-13, P-14)

TBC provided credit ratings of "BBB-" from Fitch and "Baa2" from Moody's. TBC indicated that SteelRiver does not have its own credit ratings as it relies on the credit ratings of its portfolio of companies. (P-5)

TBC indicated that S2P ProjectCo LLC, an affiliate of TBC, is a company owned by SteelRiver Investment Fund North America and managed by SteelRiver. If selected to develop the project, TBC indicated that S2P ProjectCo LLC will be capitalized by equity partners of SteelRiver and project financed debt will be put in place to fund the construction of the project. The S2P ProjectCo LLC project will not rely upon TBC for any credit. TBC also provided significant information and support for financing of the project, including letters of support from SteelRiver, which will effectively be the overall financial coordinator for the project including arranging for equity financing (and potentially providing some or all of the equity in the project) and debt financing. TBC provided five letters of support from potential lenders that indicated that they may be interested in arranging debt financing for the project. While these letters clearly stated interest in further discussions with TBC for financing this project, the letters also stated that they were not a commitment to finance the project. TBC provided two letters of support from potential equity investors – SteelRiver and another organization, although this support is "non-binding" at this time. (P-8, P-11, P-15)

3.7.5 ISO Comparative Analysis

In performing the comparative analysis for this criterion, the ISO has 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.*). Each project sponsor has demonstrated general experience and financial wherewithal to undertake a project of this size. This comparative analysis relies in large part on minor degrees of separation.

Based upon the information provided and representations of each project sponsor, the ISO has determined that Abengoa, Elecnor, and SDG&E (or their affiliates and partners) have more experience financing and completing a significant number of projects, compared to TBC and its affiliate, SteelRiver.

Based on the annual reports provided by the project sponsors, which generally were those of an affiliated entity and considered by the ISO to be the entity providing some if not all the financial backing for the project, the ISO has determined that SDG&E's financial data and financial ratios, including SDG&E's tangible net worth, EDF, and equivalent rating, are consistently better than those of the other project sponsors. SDG&E has the largest net worth of the project sponsors, followed by Abengoa, TBC/SteelRiver, and Elecnor. With regard to the ISO's reliance on tangible net worth as the better metric, SDG&E also has the largest tangible net worth, followed by Elecnor, TBC/SteelRiver, and Abengoa, in that order. While the likelihood of default is low for all project sponsors, the default probability, as measured by Moody's Analytics EDF, shows SDG&E having the lowest EDF followed by TBC/SteelRiver and Elecnor, whose EDFs are only slightly different, and Abengoa, in that order.

The ISO has determined that SDG&E has better credit ratings than the other project sponsors that have credit ratings, followed by TBC and Abengoa (note that Elecnor and TBC's affiliate, SteelRiver, do not have credit ratings). In its analysis of project sponsor financial capabilities, the ISO assesses the entirety of the pertinent information provided, not just credit ratings. For those entities that do not have credit ratings, the ISO has relied on other financial demonstrations to assess a project sponsor's financial capabilities. When the Moody's Analytics equivalent rating is considered, which is provided by Moody Analytics as part of its EDF calculation, the results are consistent; *i.e.*, SDG&E's equivalent rating is better than TBC/SteelRiver's, which is slightly better than Elecnor's, which is better than Abengoa's.

Each project sponsor other than SDG&E proposes establishing a special purpose entity for the construction, ownership, and operation of the project. While SDG&E proposes providing Citizens Energy the option to acquire a 30-year lease of a portion of the project, SDG&E otherwise proposes to finance the construction, ownership, and operation of the project itself. With the exception of SDG&E, all project sponsors are relying on another entity's financial statements to demonstrate their financial strength and ability to finance this project. However, the three project sponsors relying on an affiliate's financial statements and support did not provide clear representations as to what form or level of support the affiliated or other entities would provide or if the level of

support could be established prior to awarding the project. Consequently, the ISO has determined that SDG&E's proposal is better than those of the other three project sponsors regarding this consideration since there is less uncertainty regarding its source of financial backing. As the proposals of Abengoa, Elecnor, and TBC all include general representations that the affiliates of the project sponsor would provide support for the project sponsor, the ISO does not consider them materially different regarding this consideration.

Considering all of the foregoing comparative analysis related to this criterion, in conjunction with all the other factors included in the ISO's analysis for this criterion, the ISO has determined that SDG&E's proposal is better than those of the other three project sponsors with respect to this criterion because of its consistently better financial metrics, including tangible net worth, EDF, and equivalent rating, and because SDG&E has demonstrated that it has at least as much experience if not more experience developing and financing transmission and substation projects than the other three project sponsors. The ISO has determined that Elecnor's proposal is slightly better than TBC/SteelRiver's proposal with respect to this criterion because, in conjunction with all the other factors included in the ISO's analysis for this criterion, Elecnor has a higher tangible net worth and more experience financing and completing projects than TBC/SteelRiver, and Elecnor's and TBC/SteelRiver's EDFs, equivalent ratings, and representations of affiliate support are comparable. The ISO has determined that Elecnor's proposal is better than Abengoa's proposal with regard to this criterion because, in conjunction with all the other factors included in the ISO's analysis for this criterion, Elecnor's tangible net worth, EDF, and equivalent rating are better than Abengoa's and they have comparable experience financing and completing projects and comparable representations of affiliate support. The ISO has determined that TBC/SteelRiver's proposal is better than Abengoa's proposal with regard to this criterion because, in conjunction with all the other factors included in the ISO's analysis for this criterion, they have comparable representations of affiliate support, and TBC/SteelRiver's better tangible net worth, EDF, and equivalent rating outweigh Abengoa's greater experience financing and completing projects.

3.8 Selection Criterion 24.5.2.4(f): Technical (Environmental Permitting) and Engineering Qualifications and Experience

The sixth selection criterion 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 criterion as a key selection factor because the ability of a project sponsor to complete the environmental permitting thoroughly and expeditiously will have a significant impact on the relatively tight schedule for completion of this project and experience with the design and engineering of an underground high voltage transmission line is a specialized capability that will be important to the successful development of the underground portion of the project. A proposal that best satisfies this criterion will contribute significantly to ensuring that the project sponsor selected will develop the project in a prudent, efficient, and cost-effective manner.

For the purpose of performing the comparative analysis for this criterion, the ISO has initially considered the two components of the criterion separately and then combined them into an overall comparative analysis for this criterion. 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

(P-1, E-1, E-2, E-3, E-3a, E-3b, E-3c, E-4, E-5, E-6(a-h), E-9a, E-9c, E-9d(i-iv), E-11a-f, E-12)

3.8.1 Information Provided by Abengoa

Abengoa indicated that it has built thousands of miles of transmission line in other parts of the world including the 6 mile Mojave Solar 230 kV generation tie-line in California and a 32 mile transmission line in Arizona. (P-1) Abengoa did not specify if environmental permits were required for these projects or who acquired the permits if needed. (E-9a)

Abengoa indicated that an environmental firm would provide environmental and permitting services for this project. (E-3) The environmental permitting firm provided a list of similar electric transmission projects in California, including SDG&E's Southwest Powerlink 500 kV/230 kV project, PG&E's Embarcadero-Potrero 230 kV project, PG&E's Central Valley Clean Energy 500 kV project and others in Arizona. (E-3b)

Abengoa indicated that the CPUC would be the lead agency for purposes of compliance with the California Environmental Quality Act and that it would file an application for a CPCN with the CPUC pursuant to CPUC General Order 131D. (E-6b)

Abengoa indicated that it has not received a notice of violation of permit requirements in the last five years. (E-11a)

3.8.2 Information Provided by Elecnor

Elecnor indicated that it has constructed thousands of miles of transmission lines in other parts of the world. (P-1) Elecnor indicated that it has very limited experience permitting transmission projects in the U.S. and California. (E-3)

Elecnor indicated it has selected a consultant to assist with environmental permitting. The consultant provided information that listed experience that was primarily consulting work for regulators rather than for project developers. (E-3a, E-3b, and E-9a)

Elecnor indicated that it plans to file an application for a CPCN with the CPUC pursuant to CPUC General Order 131D. (E-6b)

Elecnor indicated that it has not received a notice of violation of permit requirements in the last five years. (E-11a)

3.8.3 Information Provided by SDG&E

SDG&E provided a listing of 71 transmission and substation projects it has constructed over the last five years, 22 of which involved underground transmission lines (various at 69, 138 and 230 kV). (P-1)

SDG&E indicated that in-house staff would provide environmental and permitting services. SDG&E provided resumes for the director, manager, and supervisor responsible for environmental reviews and obtaining permits. (E-3)

SDG&E indicated that the CPUC will be the lead agency for purposes of compliance with the California Environmental Quality Act for this project and that it will file an application for a CPCN with the CPUC pursuant to CPUC General Order 131D. (E-6b)

SDG&E indicated that it has constructed, completed environmental reviews for, and permitted 15 projects of over $10,000,000 each in the past five years. This includes the Sunrise Power Link, Silvergate, Laguna Nigel Underground Conversion, and North Coast Transmission Line. (E-9a, E-9c) SDG&E provided information showing that the scope of these four projects included the installation of 230 kV transmission lines in San Diego county. The Sunrise Power Link project included the installation of two 230 kV underground transmission lines in the community of Alpine's business district, and SDG&E worked with numerous public agencies to obtain permits for the project. For the Silvergate project, SDG&E replaced an aging 138 kV substation with a new 230 kV substation, including the installation of two 230 kV underground transmission line segments. The project was located in a mostly commercial and industrial area, and SDG&E obtained a CPCN for the project.

SDG&E indicated it has had one transmission line-related notice of violation of permit requirements in the past five years, in this case for impacts to archeological resources during installation of a pole in the Cleveland National Forest in 2008. (E-11a)

3.8.4 Information Provided by TBC

TBC indicated that it has permitting experience with one submarine cable transmission project (the Trans Bay Cable project) and that its consultants have been involved with permitting of several electric transmission line projects in California. (P-1 and E-3)

TBC did not indicate any experience with permitting overhead transmission lines, and its consultant has some permitting experience as a project applicant in California. (E-3a, E-3b, and E-9a)

TBC indicated that it will file an application for a CPCN with the CPUC pursuant to CPUC General Order 131D. (E-6b)

TBC indicated that it has not received any notices of violation of permit requirements in the last five years. (E-11a)

Engineering Qualifications and Experience

(P-1, T-1a-g(iv), T-4, T-4(a-c), T-5(a-l), T-6a-d, T-7, T-8a, T-8b, T-9(a-e))

3.8.5 Information Provided by Abengoa

Abengoa indicated that it has been responsible for the design of 5,800 miles of overhead transmission lines in South America and 38 miles of overhead transmission lines in the U.S., including 6 miles in California. Abengoa provided information on a design firm that has substantial experience with design of overhead transmission and some experience with duct bank underground transmission design in the U.S. and California. Abengoa

did not identify any Abengoa underground transmission experience. (P-1, T-4, T-4a-c, T-8a, T-9a)

3.8.6 Information Provided by Elecnor

Elecnor indicated that it has been responsible for the design of 6,000 miles of overhead transmission lines in South America and several underground projects in Spain between 1997 and 2004. Elecnor identified a design firm that has substantial experience with the design of overhead and underground transmission in the U.S. and California. (P-1, T-4, T-4a-c, T-8a, T-9a)

3.8.7 Information Provided by SDG&E

SDG&E indicated that it has been responsible for the design of 2000 miles of transmission lines in California. This includes 34 miles of underground 230 kV lines. SDG&E provided information on several pre-approved consultants who might assist them in completing this project. The consultants all have substantial experience with the design of overhead and underground transmission lines in the U.S. and California. (P-1, T-4, T-4a-c, T-8a, T-9a)

3.8.8 Information Provided by TBC

TBC indicated that its proposal is 100% underground and that its two design firms responsible for the design have substantial underground transmission line design experience in the U.S. and California. TBC's only underground experience is a high voltage direct current submarine cable (the Trans Bay Cable project). (P-1, T-4, T-4a-c, T-8a, T-9a)

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 criterion, the ISO considered the representations by the project sponsors regarding the qualifications and experience of both the project sponsor and its team members in obtaining and complying with environmental permits for a transmission project, 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. 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.

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 is particularly unique to the state of California.

The ISO has determined that SDG&E's proposal regarding environmental permitting qualifications and experience is better than those of the other three project sponsors with regard to this component of the criterion because, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, SDG&E has significantly more experience as a developer, owner, and operator of transmission projects and has a more experienced staff and consultants in the area of environmental permitting. SDG&E provided a list of more than fifteen transmission and substation projects that it completed within the past five years, each with costs exceeding $10 million. SDG&E obtained all the requisite environmental permits for these projects. Four of them have key similarities to the Sycamore-Penasquitos project. Also, SDG&E obtained the permits for the existing facilities located on the same existing rights-of-way that SDG&E will be using for this project. Moreover, as discussed in Section 3.6 of this report, SDG&E indicates that it will have the proponent's environmental assessment ready for submittal with its CPCN application to the CPUC shortly after the ISO designates the approved project sponsor for this project. The ability to submit this environmental analysis for permitting review in such a short period of time gives SDG&E a better chance to expedite the environmental permitting process for this project and thereby gives SDG&E a better chance of completing this project on schedule or even earlier, which is a particular benefit due to the increased need for this project as discussed in Section 2.1. The ISO has determined that the one transmission line-related NOV that SDG&E received for impacts in conjunction with the installation of a pole five years ago was not a significant issue in view of the number of transmission lines SDG&E has developed, operated, and maintained over the past five years.

The ISO has determined that with regard to this component of the criterion that there is no material difference between the proposals of TBC and Abengoa regarding environmental permitting qualifications and experience. However, as discussed above with regard to SDG&E and as discussed in Section 3.6 of this report, TBC has proposed a schedule that would have TBC file its CPCN application, including its proponent's environmental assessment, within four months following the ISO's selection of the approved project sponsor. The ability to submit this environmental analysis for permitting review in such a short period of time gives TBC a better chance than Abengoa to expedite the environmental permitting process for this project and thereby gives TBC a better chance than Abengoa of accelerating the schedule for this project, which is a particular benefit due to the increased need for this project as discussed in Section 2.1. Based on this consideration, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that TBC's proposal is slightly better than Abengoa's proposal with regard to this component of the criterion. The ISO considers the proposals of TBC and Abengoa to be slightly better than the proposal of Elecnor with regard to this component of the criterion because, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, TBC and Abengoa and their consultants have project permitting experience with projects developed in California, Elecnor has less environmental permitting experience as a transmission project developer, owner, and operator in the U.S. and California, and Elecnor's consultant has less environmental permitting experience supporting an application in California compared to the other three project sponsors.

Comparative Analysis of Engineering Qualifications and Experience

For purposes of the comparative analysis for this component of the criterion, 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 projects, including but not limited to (1) the engineering experience of the project sponsor for projects it has developed, (2) the engineering experience for similar projects of the project sponsor's team member or members who have been designated as having responsibility for project engineering, and (3) how much of the experience of the project sponsor and its team is in the U.S. and in California. The ISO considers experience in the U.S. and California to be an advantage over transmission engineering experience in other jurisdictions because the project will be located in California and there are special aspects of transmission engineering codes and regulations in the U.S. and California for which experience is an advantage.

U.S. engineering codes and regulations are unique to the U.S., and California has a number of laws, regulations, and codes with provisions unique to California that have the potential to apply to the design of electrical equipment depending upon the details of the project. 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). Requirements unique to California include the CPUC's General Order 95 that applies to the design of overhead transmission lines, California Office of Safety and Health Administration regulations that also apply to certain aspects of transmission line design, the CPUC's Interim EMF Design Guideline, the California Public Resources Code (including but not limited to sections 4171, 4292 and 4293), Title 24 of the California Code of Regulations, and the General Industry Safety Orders provisions of Title 8 of the California Code of Regulations.

With regard to its analysis of this component of the criterion, the ISO considers the engineering contractors identified by the project sponsors as part of their teams to be highly qualified. As a result, the ISO's analysis identifies only the slightest of advantages for any project sponsor over any other with one of these engineering firms on its team. SDG&E has acted as a project developer, and its design firms have substantial experience with the engineering and design of overhead and underground transmission in the U.S. and California. Elecnor has substantial experience with the engineering and design of overhead transmission in South America and some experience with the engineering and design of underground transmission in Spain about 9 years ago, and its design firm has substantial experience with the engineering and design of overhead and underground transmission in the U.S. and California. Based on the substantial experience of SDG&E and Elecnor and their teams with both overhead and underground transmission engineering, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that there is no material difference between the proposals of SDG&E and Elecnor and that they have a slight edge over those of Abengoa and TBC with regard to this component of the criterion. In particular, although TBC's design firms have substantial experience with the engineering and design of underground transmission in the U.S. and California, TBC does not have experience as a developer with the type of underground transmission that it has proposed.

The ISO has determined that TBC's proposal has a very slight edge over Abengoa's proposal with regard to this component of the criterion because of the following considerations, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion. While (1) Abengoa has substantial experience with the engineering and design of overhead transmission and some underground transmission in South America and some experience with the engineering and design of overhead transmission in the U.S. and California, and (2) its design firm has substantial experience with the engineering and design of overhead transmission and limited experience with the engineering and design of underground transmission in the U.S. and California, its design firm does not have experience with the type of underground transmission that Abengoa has proposed.

Overall Comparative Analysis

The ISO considers the two components of this criterion to be of roughly equal importance in the selection process for this project. Based upon the comparative analysis for the two components of this criterion, the ISO has determined that SDG&E's proposal is better than those of the other three project sponsors because its proposal includes more relevant experience for both environmental permitting and engineering. The ISO has determined that there is no material difference between the proposals of TBC and Elecnor because TBC's proposal is better with regard to environmental permitting experience and Elecnor's proposal is better with regard to relevant engineering experience, with the differences effectively offsetting each other. The ISO has determined that the proposals of both TBC and Elecnor are slightly better than that of Abengoa because TBC's proposal is slightly better than Abengoa's proposal with regard to both environmental permitting experience and relevant engineering experience and Elecnor's proposal includes sufficiently greater relevant engineering experience that it more than offsets the slightly greater environmental permitting experience included in Abengoa's proposal.

3.9 Selection Criterion 24.5.2.4(g): Previous Record Regarding Construction and Maintenance of Transmission Facilities

The seventh selection criterion 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 criterion, the ISO has initially considered the two components of the criterion separately and then combined them into an overall comparative analysis for this criterion. 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

(T-4, T-4(a-c), T-7, T-8a, T-8b, T-9(a-e))

3.9.1 Information Provided by Abengoa

Abengoa indicated that it has been responsible for the construction of substantial overhead lines in South America and 36 miles of overhead lines in the U.S. and California, but it did not provide information on underground lines it has constructed. Abengoa identified a construction firm that did not provide experience with any specific overhead or underground transmission projects in the U.S. or California. (T-4, T-4a-c, T-8a, T-9a)

3.9.2 Information Provided by Elecnor

Elecnor provided information on major overhead lines it has constructed in South America, several underground projects constructed between 1997 and 2004 in Spain, and resumes of its key construction personnel, which included substantial overhead transmission construction experience but no underground transmission construction experience. Elecnor provided no information to indicate that it has overhead or underground transmission construction experience in the U.S. or California. (T-4, T-4a-c, T-8a, T-9a)

3.9.3 Information Provided by SDG&E

SDG&E identified pre-approved overhead and underground transmission construction firms and provided a list of projects that each of these firms has constructed in the U.S. and California. SDG&E provided information indicating that it and its pre-approved construction firms have significant experience in the development, design, and construction of overhead and underground transmission lines and that SDG&E owns and operates 1900 miles of transmission lines, including 34 miles of underground 230 kV transmission lines. (T-4, T-4a-c, T-8a, T-9a)

3.9.4 Information Provided by TBC

TBC identified a firm that will act as its EPC contractor and indicated that the EPC contractor will be responsible for construction. TBC indicated that the firm that will be responsible for construction has substantial overhead transmission construction experience in the U.S. TBC provided no information that the firm has overhead transmission construction experience in California or has experience with the installation of underground transmission lines in the U.S. or California. TBC provided no information indicating that it has construction experience with the type of underground transmission line that it has proposed for this project. TBC indicated that its primary EPC contractor will partner with another firm for engineering associated with its proposed underground cable. (T-4, T-4a-c, T-8a, T-9a).

Maintenance Record

(O-1, O-2, O-3, O-4, O-5, O-7, O-9, O-10, O-15, O-20)

3.9.5 Information Provided by Abengoa

Abengoa provided an organization chart that shows positions and names for operation and maintenance (O&M) managers of substations, transmission lines, and control and system operations. Abengoa did not describe the roles and responsibilities for these positions. Abengoa also did not provide any information regarding compliance management. Abengoa stated that changes can be made to their proposed organization chart to accommodate the project as needed. (O-1)

Abengoa provided names and titles of team members but information was limited to years of experience primarily as technicians. Abengoa provided no description of O&M management experience for the team members. (O-2)

Abengoa indicated that its team members have O&M experience with 500 kV and 230 kV projects in Brazil and Chile. The information provided did not clearly indicate what role the proposed team members had in the operation and maintenance of the referenced projects. None of the O&M experience provided involves compliance with North American Electric Reliability Corporation (NERC) standards. (O-3)

Abengoa indicated that candidates for each job have to have a minimum of one year of O&M experience and must be able to use all necessary test equipment without reference to test equipment instruction books while performing the required tests. Abengoa indicated that each potential worker must pass two on-line assessments, one for ethics and one for technical, and that medical and psychological tests are required. (O-4)

Abengoa described its training program, which includes initial training in technical, safety, and ethics, on the job training, and finally a certification process. Abengoa provided no information regarding its training programs to address compliance with NERC or California requirements. (O-5)

3.9.6 Information Provided by Elecnor

Elecnor proposed an O&M organization consisting of a technical manager, an assistant, three engineers, three supervisors, and three linemen. Elecnor indicated that the operation and maintenance will be managed by its organization, and could either be part of the company or subcontracted. (O-1)

Elecnor indicated that staff for its internal compliance program would have autonomy from those responsible for compliance with reliability standards. (O-7)

Elecnor provided resumes describing educational background and experience of potential candidates for positions shown on its organization chart. Potential candidates appeared to have experience in construction and project management but limited experience in managing operation and maintenance. (O-2)

Elecnor described its experience in Brazil, including its system operation center. The information provided did not clearly indicate what role the proposed team members had

in the operation and maintenance of the referenced projects. None of the O&M experience provided involves compliance with NERC standards. (O-3)

Elecnor provided a description of policies, processes, and procedures and qualification and experience requirements for field personnel. The documents mentioned the requirement of knowledge of CPUC General Orders 95 and 128 but no mention of NERC requirements. (O-4)

Elecnor indicated that it has various training programs in all the countries in which it operates. Elecnor listed a number of training courses available to linemen and operations personnel. Elecnor provided no information regarding its training programs to address compliance with NERC or California requirements. (O-5)

A number of the documents identified by Elecnor as describing procedures and training were not in English. (O-3, O-5)

3.9.7 Information Provided by SDG&E

SDG&E indicated that its existing organization includes operations and maintenance and compliance management groups. SDG&E stated that no organizational changes are needed to accommodate the project. (O-1)

SDG&E provided resumes indicating that several of those holding key O&M management positions have over 30 years of experience with transmission systems, including O&M management, and hold engineering degrees. (O-2)

SDG&E indicated that it operates and maintains over 750 miles of 500 kV or 230 kV transmission lines under ISO jurisdiction and subject to NERC standards and that 34 miles of its 230 kV facilities are underground. (O-3)

SDG&E provided detailed descriptions of its policies and practices for recruiting, testing, and training of employees. (O-4)

SDG&E provided a detailed description of its training and apprenticeship programs, including course descriptions and training requirements. SDG&E indicated that training includes compliance with various standards and regulatory requirements, including but not limited to those of FERC, NERC, the ISO, the CPUC, the California Office of Safety and Health Administration, and the California Department of Transportation. (O-5)

3.9.8 Information Provided by TBC

TBC indicated that the project will be owned by S2P ProjectCo LLC, an affiliate of TBC, which will enter into a services agreement with TBC to provide back-office support that will include provision of operation and maintenance services, among other things. TBC indicated that it plans to add one engineer and one accountant position to its existing organization to oversee the O&M contract with its maintenance contractor for the proposed project. TBC described the capabilities and experience of key contractors. (O-1)

TBC provided resumes of team members in key maintenance and operating management positions. The information provided by TBC shows that its director of

operations had 10 years of experience as director of operations for a utility company as well as related military experience, that its operations manager has power plant operations experience, and that its consultant has experience in developing operating and maintenance processes and procedures. (O-2)

TBC indicated that it has been highly successful at operating and maintaining its sole current asset, the Trans Bay Cable project. TBC indicated that this undersea cable system is subject to NERC standards and that availability increased from 95.83% in 2011 to 97.64% in 2012. (O-3)

TBC stated that its personnel qualification system includes NERC certification and NERC compliance. (O-4)

TBC stated that its training includes NERC continuing education programs and NERC compliance testing. TBC also mentioned NFPA and OSHA requirements. TBC did not include any specific information regarding its training programs to address compliance with California requirements. TBC indicated that it uses a reputable organization as a training resource. (O-5)

3.9.9 ISO Comparative Analysis

Comparative Analysis of Construction Record

For purposes of the comparative analysis for this component of the criterion, 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 projects, including both overhead and underground transmission lines.

SDG&E acting as a project developer and its pre-approved construction firms have more extensive overhead and underground transmission construction experience in the U.S. and California than the other three project sponsors. Based in large part on this more extensive experience, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that SDG&E's proposal is better than those of the other three project sponsors with regard to this component of the criterion. Elecnor has substantial overhead transmission construction experience in South America and some underground transmission construction experience in Spain (completed in 2004), but does not have overhead and underground transmission construction experience in the U.S. and California. Elecnor's transmission construction experience is greater than that of TBC and its construction firm, and Elecnor has demonstrated more experience with underground transmission construction than Abengoa and its construction firm. Based on this greater experience, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that Elecnor's proposal is slightly better than those of Abengoa and TBC with regard to this component of the criterion. Abengoa has substantial overhead transmission construction experience in South America and some overhead transmission construction experience in the U.S. and California, and Abengoa has some underground experience, but its construction firm did not identify any specific overhead or underground projects in the U.S. or California. TBC does not have experience as a developer with the type of underground transmission construction that it has proposed, and its designated EPC firm does not have underground transmission construction experience in the U.S. and California. Based on Abengoa's overall greater

transmission construction experience, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that Abengoa's proposal is slightly better than TBC's proposal with regard to this component of the criterion.

Comparative Analysis of Maintenance Record

For purposes of the comparative analysis for this component of the criterion, 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. The ISO considers experience maintaining lines in compliance with NERC standards to be an advantage over transmission line maintenance experience in other jurisdictions because the project will be subject to NERC standards and there are special aspects of compliance with NERC standards for which demonstrated experience is an advantage.

SDG&E has an existing organization that has the capability to manage the O&M of the project with no changes, and its organization includes a compliance management function for the operations and maintenance functions. SDG&E also has the greatest amount of experience with similar facilities subject to NERC standards as well as California requirements. SDG&E identified specific team members who will be responsible for the project, and they had a greater depth of experience than personnel identified by the other project sponsors. SDG&E has also established training and apprenticeship programs that include compliance training. Based on these factors, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that SDG&E's proposal is better than those of the other three proposed project sponsors regarding this component of the criterion.

TBC has ongoing responsibility for and experience with one line subject to NERC standards. TBC's proposed organization includes a compliance management function, and TBC has established training and apprenticeship programs that include compliance training. TBC identified some team members with experience operating and maintaining transmission lines that will be responsible for the project, but they had substantially less experience than SDG&E's team members. Also, TBC will need to expand its organization and contract with a maintenance company, which it has selected. Based in large part on TBC's greater experience with compliance with NERC standards and otherwise thorough proposal regarding maintenance experience, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that TBC's proposal is slightly better than those of Abengoa and Elecnor with regard to this component of the criterion.

Elecnor would need to put in place a new function including one or more management positions and a new contract with a maintenance company, which has not been selected. Elecnor addressed the need for a compliance management function. Elecnor does not have experience with facilities subject to NERC standards. Elecnor provided sample resumes of personnel responsible for other projects who appear to have limited experience in O&M management. Elecnor would need to adapt its training program to cover U.S. and California requirements. Abengoa would also need to put in place a new function to manage this project. Abengoa stated that it would have to implement new procedures to assure compliance with NERC reliability standards. Abengoa's proposed

team members appeared to have limited O&M management experience. Abengoa does not have experience with transmission facilities subject to NERC standards. Abengoa would need to adapt its training program to cover U.S. and California requirements. Based on the foregoing factors, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that there is no material difference between Elecnor's proposal and Abengoa's proposal with regard to this component of the criterion.

Overall Comparative Analysis

The ISO considers the two components of this criterion to be of roughly equal importance in the selection process for this project. Based upon this and the comparative analysis for the two components of this criterion, the ISO has determined that SDG&E's proposal is better than those of the other three project sponsors with regard to this criterion because it has more relevant experience in both construction and maintenance. The ISO has determined that Elecnor's proposal is slightly better than those of Abengoa and TBC because Elecnor's proposal includes more relevant construction experience than that of Abengoa and Elecnor's proposal includes sufficiently greater relevant construction experience that it more than offsets the slightly greater maintenance experience included in TBC's proposal. The ISO has determined that there is no material difference between the proposals of Abengoa and TBC with regard to this criterion, because Abengoa's proposal is slightly better with regard to construction experience and TBC's proposal is slightly better with regard to maintenance experience.

3.10 Selection Criterion 24.5.2.4(h): Adherence to Standardized Construction, Maintenance, and Operating Practices

The eighth selection criterion is "demonstrated capability to adhere to standardized construction, maintenance and operating practices."

For the purpose of performing the comparative analysis for this criterion, the ISO has initially considered the three components of this criterion separately and then combined them into an overall comparative analysis for this criterion. 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

(T-1a-g(iv), T-5a-l, T-6a-d, T-7)

3.10.1 Information Provided by Abengoa

Abengoa provided design criteria, a list of standards and requirements, a copy of its overhead construction specifications, and indicated that it will use an open trench for construction. Abengoa provided a constructability review process. Abengoa identified a 4 conductor bundle on tubular steel poles for overhead and 5 direct buried cables per phase for underground. (T-1a-g(iv), T-5a-l, T-6a-d, T-7)

3.10.2 Information Provided by Elecnor

Elecnor provided detailed design criteria, a list of standards and requirements, a representation that it would use existing access as much as possible, information on construction practices, and a constructability review process. Elecnor identified a 2 conductor bundle on tubular steel poles for overhead and a 3 x 3 duct bank with 2 cables per phase for underground. (T-1a-g(iv), T-5a-l, T-6a-d, T-7)

3.10.3 Information Provided by SDG&E

SDG&E provided detailed design criteria and a list of standards and requirements, indicated that it would use existing structures, rights-of-way, and access, and provided a constructability review process. SDG&E identified a 2 conductor bundle on tubular steel poles for overhead and a 3 x 3 duct bank with 2 cables per phase for underground. (T-1a-g(iv), T-5a-l, T-6a-d, T-7)

3.10.4 Information Provided by TBC

TBC provided a design document, a list of standards, and a constructability review process. TBC identified a 3 x 3 duct bank with 2 cables per phase for underground. (T-1a-g(iv), T-5a-l, T-6a-d, T-7)

Maintenance Practices

(E-7f, O-9, O-16, O-17, O-19, O-20, O-21, O-22, O-23, O-24, O-25)

3.10.5 Information Provided by Abengoa

Abengoa's response did not describe its approach to assure compliance with NERC standards related to maintenance. Abengoa did not provide the requested information indicating whether or not temporary waivers from compliance with applicable reliability criteria would be required. (O-9)

Abengoa indicated that it will provide an experienced O&M team and that for each activity there are quality procedures that are intended to minimize errors. Abengoa indicated that for specific conditions of ISO standards or federal standards, it would provide workers with local experience and training. Abengoa did not describe its ability to provide availability measures nor did it provide any samples. (O-16, O-17, O-19, O-21, O-22, O-25)

Abengoa's description of its rights-of-way management plan did not include the criteria used to clear the rights-of-way, nor did it include the schedule of frequency for inspection and maintenance. The plan did not include specific clearance requirements. Abengoa did not describe its plan as it applies to this project or refer to NERC standards and requirements. (E-7f, O-23)

Abengoa did not provide the requested information regarding its experience with compliance with its standards. (O-24)

3.10.6 Information Provided by Elecnor

Elecnor indicated that it has not yet developed its compliance program for transmission owner (TO) requirements, including a maintenance compliance program, and may require temporary waivers from compliance with applicable reliability criteria. (O-9)

Elecnor indicated that it has been complying for more than a decade with the activities related to the operation of facilities in the transmission system of Brazil, having been involved in more than 18 projects and more than 8,000 km of high voltage lines at 500 kV and 230 kV and that it is experienced in coordinating with the equivalent to the ISO in Brazil and complying with protocols and procedures. Elecnor indicated that it is acquainted with the requirements of the Transmission Control Agreement (TCA) and that it has proven its capability to operate and maintain more complex lines than the object of this solicitation. Elecnor indicated that it will prepare its maintenance practices consistent with the requirements of the ISO transmission maintenance standards and good utility practice. (O-16, O-17, O-19, O-21, O-22, O-25)

Elecnor provided a vegetation management plan that described activities in general terms; it did not include specific clearance requirements. Elecnor did not describe its plan as it applies to this project or refer to California or NERC standards and requirements. (E-7f, O-23)

Elecnor provided a statement from the ISO equivalent in Brazil certifying that it was complying with that entity's standards. (O-24)

3.10.7 Information Provided by SDG&E

SDG&E provided a detailed description of its internal compliance program and compliance organization including Western Electricity Coordination Council (WECC) assessment of its plan. SDG&E indicated that no temporary waivers from compliance with applicable reliability criteria would be required. (O-9)

SDG&E stated that it is currently operating under TCA in compliance with all of its provisions and described actions it takes to comply. SDG&E provided a sample report that included line outage data sent to the ISO. (O-16, O-17, O-19, O-21, O-22, O-25)

SDG&E described its vegetation management plan and stated: "The SDG&E transmission vegetation management program meets NERC requirements for transmission vegetation management as well as the State of California regulatory requirements for transmission and distribution systems." (E-7f, O-23)

SDG&E provided reports from the ISO indicating that it is in compliance with its maintenance standards. (O-24)

3.10.8 Information Provided by TBC

TBC indicated that it has a compliance program that addresses NERC TO requirements. TBC indicated that no temporary waivers from compliance with applicable reliability criteria would be required. (O-9)

TBC indicated that it is currently in compliance with the provisions of the TCA and that its maintenance standards have been approved by the ISO. (O-16, O-17, O-19, O-21, O-22, O-25)

TBC stated that it will establish a vegetation management plan following best industry practices and in compliance with NERC reliability standard FAC-003-2 for vegetation management. (E-7f, O-23)

TBC provided four documents to demonstrate TBC's experience with implementation and compliance with its standards for inspection, maintenance, repair, and replacement. (O-24)

Operating Practices

(O-6, O-7, O-10, O-11, O-12, O-13, O-14, O-15, O-16, O-17, O-18, O-20, O-26)

3.10.9 Information Provided by Abengoa

Abengoa indicated that it plans to register with NERC as a TO. (O-6)

Abengoa did not indicate how it would assure compliance of any contracted NERC functions. (O-7)

Abengoa indicated that it currently does not have any transmission facilities in North America so could provide no evidence of compliance with NERC standards. (O-15)

Abengoa's proposal was not responsive to questions regarding agreements with other entities, SCADA, and encumbrances. (O-13, O-14, O-18)

Abengoa's proposal did not describe the resources such as crews and equipment that would be available to respond to emergencies. Abengoa did not provide a sample emergency plan. (O-20)

3.10.10 Information Provided by Elecnor

Elecnor indicated that it plans to registers with NERC as a TO and transmission operator (TOP). (O-6)

Elecnor indicated that it currently does not have any transmission facilities in North America so could provide no evidence of compliance with NERC standards. (O-15)

Elecnor indicated that it would consider executing a mutual assistance agreement with other participating transmission owners with the ISO to provide capability to respond to emergencies. (O-20)

3.10.11 Information Provided by SDG&E

SDG&E indicated that it is registered with NERC as a TO and TOP. (O-6)

SDG&E provided audit reports indicating compliance with WECC and NERC standards. SDG&E indicated that it owns operates 1,934 miles of transmission system and has 12 substations that are considered part of the bulk electric system. (O-15)

SDG&E stated that it has personnel and spare equipment in the area of the project to respond to emergencies and that it is party to several mutual assistance agreements. SDG&E also provided several examples of its emergency operations plans. (O-20)

3.10.12 Information Provided by TBC

TBC indicated that it will add this new asset to its existing assets for which TBC is currently registered as a TO and TOP. (O-6)

TBC provided a document entitled "WECC Audit Final Report (Public)" that indicated no findings of non-compliance or notices of violation. (O-15)

TBC indicated that it is evaluating long-term agreements with aerial service providers to support line surveys to determine required repairs within hours of an event occurring and will establish a mutual assistance agreement with the local utility and/or local utility service companies. TBC provided an emergency operating plan for the Trans Bay Cable project as an example. Following the five year warranty period on the project, TBC indicated that it will establish a service agreement with the construction company it has selected to build the project or with a similar company to provide long term maintenance and emergency response services. (O-20)

3.10.13 ISO Comparative Analysis

Comparative Analysis of Construction Practices

For purposes of the comparative analysis for this component of the criterion, 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 proposed project sponsors provided detailed design criteria, engineering information, and a constructability review that demonstrates that the transmission line would adhere to standardized construction practices. The ISO has determined that there is no material difference among the proposals of the four project sponsors with respect to this component of the criterion.

Comparative Analysis of Maintenance Practices

For purposes of the comparative analysis for this component of the criterion, the ISO has considered the representations by the project sponsors regarding the maintenance practices they propose for this project, including but not limited to their proposed plans for compliance with NERC TO requirements, the TCA, and the ISO's transmission maintenance standards. All project sponsors are likely capable of complying with the provisions of the TCA. The ISO considers proposals showing current compliance with the TCA to be relevant; however, the ISO has also considered other experience of the project sponsors complying with comparable maintenance standards. The ISO also considers proposals showing compliance with standards that meet U.S. requirements to be slightly better than those that do not. The ISO is not familiar with the degree of similarity of the requirements in other jurisdictions, and the project sponsors have not demonstrated the similarity of the requirements, so there is some potential risk that it

might take longer to achieve compliance with transmission maintenance standards that meet U.S. requirements.

SDG&E already has a compliance program that addresses NERC TO requirements. SDG&E is currently complying with the TCA and has maintenance standards that include the elements required by the TCA. SDG&E indicated that its rights-of-way management plan meets NERC and California requirements. SDG&E provided evidence from the ISO of compliance with ISO maintenance standards.

TBC also has a compliance program that addresses NERC TO requirements. TBC is also currently complying with the TCA and has maintenance standards that include the elements required by the TCA. TBC stated that it will develop rights-of-way management plans that meet requirements, including the mandatory NERC requirements. TBC provided evidence from the ISO of compliance with ISO maintenance standards.

Elecnor would need to develop a compliance program for U.S. and California requirements, and Elecnor indicated that it may require temporary waivers for compliance with applicable reliability standards. Elecnor states that it has experience in other jurisdictions with requirements similar to those of the TCA and would thus only need to adapt its standards to meet ISO requirements. Elecnor described a rights-of-way management plan for other parts of the world but did not describe its plan as it applies to this project or refer to NERC standards and requirements. Elecnor provided evidence from other jurisdictions of compliance with maintenance standards.

Abengoa would need to develop a compliance program. Abengoa has experience in other jurisdictions with requirements similar to those of the TCA and would only need to adapt its standards to meet ISO requirements. Abengoa's rights-of-way management plan did not include specific clearance or schedule requirements, and Abengoa did not describe its plan as it applies to this project or refer to California or NERC standards and requirements. Abengoa's proposal did not provide evidence of compliance with any maintenance standards.

Based on their compliance plans and demonstrations of current compliance with NERC and ISO transmission maintenance requirements, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that there is no material difference between SDG&E's and TBC's proposals and that their proposals are slightly better than the proposals of the other two project sponsors with regard to this component of the criterion. In addition, based on its somewhat more complete proposal, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that Elecnor's proposal is slightly better than Abengoa's proposal regarding this component of the criterion.

Comparative Analysis of Operating Practices

For purposes of the comparative analysis for this component of the criterion, 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 TO requirements and the ISO's standards.

SDG&E is registered with NERC as a TO and therefore has experience with the applicable reliability criteria and provided evidence of compliance with those standards. SDG&E has personnel and spare equipment in the area of the project to respond to emergencies and is party to several mutual assistance agreements. Based on these factors, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that SDG&E's proposal is slightly better than that of TBC and better than the proposals of the other two project sponsors with regard to this component of the criterion.

TBC is currently registered with NERC as a TO and therefore has experience with the applicable reliability criteria and provided evidence of compliance with those standards. TBC is evaluating options for entering into an agreement for emergency repairs. The terms of the emergency response agreements and the amount of resources available to respond have not yet been determined. Based on TBC's experience with compliance with NERC and ISO standards and criteria, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that TBC's proposal is better than the proposals of Abengoa and Elecnor with regard to this component of the criterion.

Elecnor has no existing facilities subject to NERC compliance and thus no experience with operating practices required by NERC. Elecnor will make arrangements for emergency response for this project. Based on Elecnor's more complete proposal with regard to this component of the criterion, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that Elecnor's proposal is slightly better than Abengoa's proposal with regard to this component of the criterion.

Abengoa has no existing transmission facilities subject to NERC compliance and thus no experience with operating practices required by NERC. Abengoa will make arrangements for emergency response for this project. Abengoa's application was not responsive to a number of questions. Based on the more detailed proposals for operating practices of SDG&E and TBC and the more complete proposal by Elecnor with regard to this component of the criterion, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that the proposals of the other three project sponsors are better than Abengoa's proposal regarding this component of the criterion.

Overall Comparative Analysis

The ISO considers the three components of this criterion to be of roughly equal importance in the selection process for this project. Because the ISO determined that there was no material difference among the proposals of the four project sponsors with regard to the first component (demonstrated capability to adhere to standardized construction practices), the result of the overall comparative analysis is determined by the results of the comparative analysis of the other two components (demonstrated capability to adhere to standardized maintenance practices and demonstrated capability to adhere to standardized operating practices).

Based upon the consideration of these two components of this criterion, the ISO has determined that SDG&E's proposal is slightly better than TBC's proposal and is better than those of the other two project sponsors because SDG&E has demonstrated slightly

more relevant capability relative to operating practices than TBC and has demonstrated more relevant maintenance and operating practices than the other two project sponsors. The ISO has determined that TBC's proposal is slightly better than those of Abengoa and Elecnor because TBC has demonstrated more capability in both areas than Abengoa or Elecnor. The ISO has determined that that Elecnor's proposal is slightly better than Abengoa's proposal because Elecnor's proposal is more complete than Abengoa's proposal with regard to both maintenance practices and operating practices.

3.11 Selection Criterion 24.5.2.4(i): Ability to Assume Liability for Major Losses

(P-11, P-18, P-19)

The ninth selection criterion is "demonstrated ability to assume liability for major losses resulting from failure of facilities."

3.11.1 Information Provided by Abengoa

Abengoa indicated that for emergency repairs it will rely on parts and crews to respond and will require strong guarantees from its EPC contractor; in addition, Abengoa indicated it will have insurance and backing from Abengoa SA. (P-18)

Abengoa indicated that it will consider several types of insurance for the project. (P-19)

3.11.2 Information Provided by Elecnor

Elecnor indicated that it has been a high voltage transmission operator for more than 12 years and has experience dealing with incentives and penalties with system operators. Elecnor also indicated that it would be supportive of a program of incentives and penalties that could be tied to availability measures. In addition, Elecnor noted that it has an excellent balance sheet, and should there be any need to finance unexpected repairs, it would do so through "Group resources." (P-18)

Elecnor indicated that it will consider several types of insurance for the project. (P-19)

3.11.3 Information Provided by SDG&E

SDG&E indicated that it is able to cover any increased costs associated with equipment failure with cash flows from operating activities and new long-term debt financing. (P-18)

SDG&E described its capability for "self-insurance." (P-19)

3.11.4 Information Provided by TBC

TBC described a multi-pronged approach to this issue, including EPC warranties, storage of spare parts, cash flow, and working capital. TBC provided no plans for financing emergency repairs. (P-18)

TBC indicated that it has experience with project insurance. (P-19)

3.11.5 ISO Comparative Analysis

For purposes of the comparative analysis for this component of the criterion, 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 financing emergency repairs.

The financial resources of the project sponsors, and their parent companies, vary widely. And the proposals of the project sponsors also vary as to how they will finance emergency repairs, including the use of warranties, spare parts, cash reserves, support from the parent, insurance, letters of credit, etc. However, all the project sponsors have identified reasonable levels of insurance, including during the operation of the project.

Failures of facilities would likely represent only a portion of the investment in the facility – *e.g.*, a number of towers, a limited number of spans of wire, damaged insulators, underground cable (considered very unlikely), etc. The ISO considers all of the project sponsors to have sufficient financial resources and the operational incentives to make the repairs and return the line to service in a reasonable period of time.

Based on the foregoing factors, in conjunction with all the other factors included in the ISO's analysis for this criterion, the ISO has determined that there is no material difference among the proposals of the four project sponsors with regard to this criterion

3.12 Selection Criterion 24.5.2.4(j): Cost Containment Capability, Binding Cost Cap, and Other Advantages

The tenth selection criterion is "demonstrated cost containment capability and other advantages the Project Sponsor and its team may have to build the specific project, 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." As discussed in Section 2.1, the ISO has identified this selection criterion as a key selection factor because the ISO considers commitment to a robust cost cap to be the most effective way in which the ISO can ensure that a project is developed in an efficient and cost-effective manner. A proposal that best satisfies this criterion will contribute significantly to ensuring that the project sponsor selected will develop the project in an efficient and cost-effective manner.

For the purpose of performing the comparative analysis for this criterion, the ISO has initially considered the three components of the criterion separately and then combined them into an overall comparative analysis for this criterion. The three components are: (1) demonstrated cost containment capability of the project sponsor and its team, (2) other advantages the project sponsor and its team may have to build the specific project, and (3) 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.

Cost Containment Capability

(P-3, P-9, P-12, P-15, P-16, P-17, P-18, P-20, P-21, P-22, P-23, P-24, P-25, P-26, P-27)

3.12.1 Information Provided by Abengoa

Abengoa provided cost-related information on five projects for which it was the EPC contractor. Abengoa indicated that all the projects were completed at the budget amount. (P-20)

Abengoa indicated that it intends to enter into a fixed rate contract with its EPC provider. (P-1)

Abengoa provided five charts reflecting various aspects of its project organization and resumes for key individuals. (P-21)

Abengoa provided no indication of how it will interact with its contractors regarding project management and scheduling on this project and did not show reporting relationships among the five organizations identified. (P-22)

Abengoa indicated that the major risks are in the permitting and rights-of-way acquisition stages of project development. To mitigate these risks, Abengoa indicated that it will attempt to expedite negotiation for and acquisition of rights-of-way. Abengoa also indicated that it could use eminent domain to obtain rights-of-way. (P-25)

Abengoa indicated that it has a strict policy to contain costs, including negotiating payments with suppliers and subcontractors, local financing resources, and controlling on a weekly basis, but provided no additional details for cost containment. (P-26)

3.12.2 Information Provided by Elecnor

Elecnor provided cost-related details for several projects. Elecnor indicated that the projects were completed within 3% or less of the estimated costs. (P-20)

Elecnor provided several organization charts depicting the various aspects of the project organization and the resume for the project manager. The resume lacked details. (P-22)

Elecnor indicated that transmission projects in urban areas can face a considerable amount of interest, and potentially opposition, from the public. Elecnor advised that additional cost and delay may arise from that process, despite Elecnor's best efforts. Elecnor indicated that its capital cost estimate assumes a measure of contingency to partially accommodate any such eventuality. (P-25)

Elecnor stated that it has fifty-five years of experience with transmission line projects and that its engineering contractor has comparable experience. Elecnor described the details of how its engineering contractor controls budget and schedules to contain costs on a project. Elecnor did not describe any of its specific cost control expertise. (P-26)

3.12.3 Information Provided by SDG&E

SDG&E provided extensive cost-related project details for four transmission and substation projects and indicated that all the projects were near or under the project

budget costs. SDG&E indicated that the scope of one project, the Sunrise Power Link project, included the installation of a new 500 kV overhead transmission line, a new 500/230 kV substation, and two new 230 kV transmission lines. SDG&E indicated that portions of the underground 230 kV transmission lines were placed underground in the Alpine community. SDG&E indicated that the completed project budget was under the proposed budget, and under the budget cap mandated by the CPUC. SDG&E also provided information regarding the Silvergate project, including the retirement of an old 138 kV substation, which was replaced with a new 230 kV substation. SDG&E indicated that the scope of the project included the installation of two new 230 kV underground transmission line segments in a dense commercial and industrial area and that this project was completed slightly over budget (1.6%). (P-20)

SDG&E provided a proposed management structure for project management and scheduling, showing the SDG&E project manager linked to all the major SDG&E work groups associated with the project. SDG&E also provided a resume for the project manager. (P-22)

SDG&E indicated that it would complete a project risk management assessment, including risks and mitigation for the project. SDG&E indicated that the major potential risk for the project is the agency approval process. SDG&E described a number of mitigation measures. (P-25)

SDG&E stated that it has a recent track record of cost containment and has illustrated its capabilities through successful completion of on budget. SDG&E provided several specific cost containment plans. (P-26)

SDG&E stated that direct O&M costs for the project would be significantly reduced because SDG&E's design utilizes existing rights-of-way, structures, and access roads that are already being maintained by SDG&E. The anticipated average annual direct O&M costs for the project would represent an increase of less than one percent over its 2012 Transmission O&M as stated in its FERC Form 1. (P-15)

SDG&E stated that, for the project transfer capability that Citizens Energy is leasing, Citizens Energy would charge a levelized rate that is no higher than the total rate SDG&E could recover on the in-service date of the project if SDG&E held Citizen Energy's transfer capability. (P-9)

SDG&E stated that it will alleviate the cost containment risk by entering into a fixed rate EPC contract that requires the contractor to carry the budget and schedule risk for any deviation above the agreed upon fixed price bid. (P-26)

SDG&E stated that its utilization of existing rights-of-way and franchise agreements would eliminate uncertainty as to the cost of land acquisition because these costs have already been incurred. Utilization of existing SDG&E structures also would minimize the uncertainty of additional construction and material costs because these structures are known and the costs are already sunk. SDG&E stated that it has existing and internal departments for every aspect of the project, which enables known internal labor and engineering costs. Finally, SDG&E stated that utilization of existing material alliances would reduce uncertainty about price and availability. (P-26)

SDG&E noted that Section 1005.5 of the California Public Utilities Code requires the CPUC to establish a cost cap for the project. (P-26)

SDG&E stated that the existence of an applicable Natural Resources Communities Conservation Plan would allow SDG&E to mitigate the impacts to biological resources using existing mitigation lands, which would remove any cost associated with mitigation land that would be necessary (thereby eliminating an unknown cost) and would eliminate costs for direct consultation with the California Department of Fish and Wildlife. (P-26)

3.12.4 Information Provided by TBC

TBC provided cost information for one unique project (the Trans Bay Cable project) that faced significant technical and budget problems, which resulted in a significant settlement from the equipment supplier. (P-20)

TBC provided its proposed management structure for the project, reflecting the relationship between the TBC and major entities involved with the project. TBC indicated that it will use a development advisor in the early stages of the project who will become the project manager at the appropriate stage in the project. TBC provided a detailed resume for this individual. (P-22)

TBC identified risks and mitigation for this project including permitting, construction, commodity, and exchange risks, and described potential mitigations for each. (P-25)

As discussed in other sections of this report, TBC proposes that its all-underground plan be treated as mitigation for the risk of potential public opposition to the project. In addition, TBC proposes to utilize existing environmental impact analyses prepared several years ago for the Sunrise Power Link project where feasible. (P-24)

TBC's stated its proposed cost estimates to permit, construct, and operate the project were created through a bottom-up analysis whereby all costs were based on the best available information. TBC provided several specific cost containment plans. (P-26)

TBC stated that its EPC contractor is prepared to provide certain warranties in connection with the project that can address items such as spare parts, systems, and structures. (P-18)

TBC indicated that it envisions a fixed price contract with its EPC contractor. (P-26)

Other Sponsor or Team Advantages

(M-1)

3.12.5 Information Provided by Abengoa

Abengoa's proposal did not assert any other advantages. (M-1)

3.12.6 Information Provided by Elecnor

Elecnor indicated that it brings a strong balance sheet and a wealth of global transmission experience to this project. Elecnor stated that it will deploy a project team comprised of individuals with California and/or international experience. Elecnor

indicated that it is committed to a long term presence in California and aims to be a long term owner of this asset. (M-1)

3.12.7 Information Provided by SDG&E

SDG&E indicated that it is a regulated public utility with about 1900 miles of transmission lines in the area of the proposed project. It indicated that it has a track record of delivering cost compliant and reliable transmission-related projects. It also indicated that it supports partnering with independent energy companies and pointed out that it has proposed a partnership with Citizens Energy as it has done for another project.

SDG&E considers its proposed project unique in that it incorporates many aspects of SDG&E's existing system and would capitalize on existing infrastructure. SDG&E indicated that the required rights-of-way are essentially already in place and that the use of existing transmission corridors and infrastructures would be optimized. SDG&E indicated that the project O&M activities would be folded into SDG&E's existing structure and program. The incremental transmission lines represent less than a one percent increase in SDG&E's infrastructure and could be easily implemented. SDG&E indicated that the proposed project would be co-located within existing transmission corridors with existing 69 kV, 138 kV and 230 kV transmission lines in the SDG&E system, thereby alleviating any incremental logistical considerations.

SDG&E discussed its comprehensive understanding and experience with the process to site 230 kV transmission lines, including the permits, authorizations, and project monitoring elements of the work. SDG&E stated that it has outlined a public education, outreach, and communications plan consistent with its philosophy of being a member of the community that strives to provide innovative ways to achieve project advocacy as well as community support. SDG&E indicated that its performance in this area has received widespread recognition for its excellence and is a vital element of the SDG&E proposed project package.

SDG&E stated that the proposed project was developed based upon key project elements, identified by SDG&E engineering, planning, and environmental staff, displayed in a diagram, including estimating and cost containment, proven track record, strong balance sheet, project management, project design, and risk management. SDG&E also provided a description of the SDG&E project benefit for each of the ten ISO selection factors. (M-1)

3.12.8 Information Provided by TBC

TBC indicated that, if chosen as the approved project sponsor, TBC would expect to deliver savings to ratepayers of greater than 10% over the life the project when compared to "traditional utility cost of service" model. As stated in its application, TBC expects to attract competitively priced equity capital for this opportunity, which would result in long-term benefit to California and its ratepayers. Furthermore, TBC indicated that it believes that it possesses a unique ability to produce significant reduction in initial costs to ratepayers by shaping recovery of the investment through a non-traditional transmission revenue requirement. TBC indicated that it could offer a levelized transmission revenue requirement, which would result in a first-year cost to ratepayers significantly less than the traditional utility cost of service model. Finally, TBC indicated that another aspect of its proposed levelized transmission revenue requirement would

produce significant savings on an annual basis and asserted that the latter approach would provide optimal benefits to ratepayers by addressing the problem of "intergenerational equity." TBC committed to work with the ISO to develop an approach to its transmission revenue requirement that best meets the objectives established by the ISO. (M-1)

Cost Cap Agreement

(P-28)

3.12.9 Information Provided by Abengoa

Abengoa stated that it "is willing to accept binding cost cap in those items that it has the capability to control, however the capital cost cap will be adjusted for certain increases in costs above the estimated amount, such as right of ways costs, environmental licenses, indemnization to SDG&E for sharing part of its installations, inflation increases over 3.5% per year or the financial market increases the cost of money over the expected according to the SWAP market, 0.5% for the next 24 months or 3.29% for the SWAP of the long-term loan. The capital cost cap shall be also adjusted in the case the period to obtain certain licenses last over expected." Abengoa also emphasized that "the costs related to the issuing of the project loan shall also be out of the capital cost cap." In addition, Abengoa stated: "In case that those capital costs categories increase and those deadlines end beyond the expected, the later cap shall be increased." Abengoa stated it is willing to accept a capital cost cap that is equal to a value that is slightly higher than its capital cost estimate, subject to the foregoing qualifications. (P-28)

3.12.10 Information Provided by Elecnor

Elecnor indicated that it has experience with cost caps and believes it may be possible to convert to a fixed capital cost sum at some stage in the development. However, Elecnor did not commit to a cost cap at this time. (P-28)

3.12.11 Information Provided by SDG&E

SDG&E discussed the regulatory framework associated with a project of this nature, including the cost cap set by the CPUC. However, SDG&E did not commit to a cost cap at this time. (P-28)

3.12.12 Information Provided by TBC

TBC indicated that it is willing to discuss and accept a binding cost cap, later in the process. However, TBC did not commit to a cost cap at this time. (P-28)

3.12.13 ISO Comparative Analysis

Comparative Analysis of Cost Containment Capability

For purposes of the comparative analysis for this component of the criterion, the ISO's analysis has considered the representations by the project sponsors regarding the expected effectiveness of a proposed project sponsor's overall cost containment abilities, including but not limited to experience of cost containment performance on

previous projects, project management and scheduling organizations and capabilities, experience of key individuals, the project risks and mitigation that each identified, and proposed cost containment plans. The cost containment capability component of the criterion is not as important as the component pertaining to agreement to a specific, binding cost cap in the project sponsor's application because the existence of demonstrated cost containment capability does not "lock-in" any specific tangible cost containment caps or measures.

As described above, SDG&E provided the most thorough and comprehensive demonstration of cost containment capability, including its ability to deliver past projects within the final approved budget, proposed project organization, approach to risk management, and specific cost containment actions. The ISO considers SDG&E's demonstration that it has developed projects and elements of projects within budget that have greater similarities to this project than the projects for which the other project sponsors provided information to provide particular evidence that SDG&E is capable of developing the project in an efficient and cost-effective manner.

Further, SDG&E has identified specific capital and O&M cost elements that will be eliminated or significantly reduced as the result, *inter alia,* of SDG&E's use of existing rights-of-way, use and/or upgrading of existing facilities, reliance on reconductoring for a large portion of the project, use of its existing O&M structure as opposed to having to establish a brand new wholly incremental structure, reliance on its existing land mitigation scheme, its intent to use a fixed price contract where the EPC contractor will bear the risk of any costs in excess of the agreed fixed price bid, and a physical project alternative that is primarily overhead. Therefore, the ISO anticipates that SDG&E's proposed approach will cost less than a physical project alternative that is primarily or entirely underground. Because SDG&E is relying in large part on existing property rights, facilities, and infrastructure, many of the capital costs and O&M costs associated with the project are "sunk," and this can significantly reduce the overall project costs for the life of the project.

Based on these considerations, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, The ISO has determined that SDG&E's proposal is better than those of the three other proposed project sponsors with regard to this component of the criterion.

TBC provided a thorough proposal regarding project management, risk management, and cost containment strategies.[12] Based on this fact, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that TBC's proposal is slightly better than those of Abengoa and Elecnor with regard to this component of the criterion.

Abengoa provided project cost information for several projects where it performed as an EPC contractor within the project budget. However, Abengoa's description of its approach to project management was limited. Abengoa's proposal regarding its approach to major risks and cost containment actions was also limited.

[12] As discussed above, TBC did encounter budget problems with the Trans Bay Cable project that were the subject of a settlement with the equipment provider. However, this did not impact the ISO's consideration of TBC's cost containment proposal.

Elecnor indicated that it had completed several projects within budget. Elecnor provided sufficient project management information, although the resume for the project manager lacked details. In addition, Elecnor's proposal was limited in discussing risk management and provided little detail regarding its stated cost containment actions.

Based on the foregoing considerations, in conjunction with all the other factors included in the ISO's analysis for this component of the criterion, the ISO has determined that there is no material difference between the proposals of Abengoa and Elecnor with regard to this component of the criterion.

Comparative Analysis of Other Sponsor or Team Advantages

For purposes of the comparative analysis for this component of the criterion, the ISO reviewed the proposals of the four project sponsors to determine if they identified other advantages the project sponsor or its team have for building the project that were not addressed in other parts of the selection process. The ISO determined that the information provided by Abengoa, Elecnor, and SDG&E did not represent new or additional information to what was presented or considered in one of the other criterion components or criteria.

TBC indicated that its primary advantage over other project sponsors would be that it could deliver a project that would result in a 10% reduction in costs over the life of the project when compared to the cost using a "traditional utility cost of service" model. TBC's projection appears to be based upon the potential for savings associated with (1) a lower cost of equity financing TBC believes it can obtain compared to the cost of financing its competitors can obtain, and (2) TBC's reshaping of the transmission revenue requirement over the life of the project to be a more levelized cost of service compared to a "traditional utility cost of service" model.

First, if TBC were able to obtain equity financing that is lower in cost than the other project sponsors are able to obtain then this would result in a cost reduction with respect to this particular cost component compared to the other project sponsors. However, TBC provides no guarantee or other evidence that its equity financing costs will in fact be lower than those of its competitors to the extent it claims they will. TBC did provide some letters of support for financing of the project as part of the information it submitted regarding its financial resources, as summarized in Section 3.7.4 of this report. However, the letters provided from potential lenders and equity partners were all non-binding and did not contain specific pricing commitments. Consequently, the ISO has no factual basis for treating TBC's expectation in this regard as constituting a material other advantage over the proposals of the other project sponsors.

Second, using a levelized revenue requirement approach does not reduce the total capital cost to build the project or contain the overall costs that the project sponsor can recover through rates; it merely re-shapes how such total capital costs are recovered over the life of the project. The primary purpose of a levelized cost of service is to mitigate rate shock on existing ratepayers during the early years of the project by allowing for lower cost early on, but it provides a more steady income stream to the developer over the life of the project by allowing for higher rates later on, compared to what the rates would be under a more traditional revenue requirement. Thus, a levelized revenue requirement approach is not a binding cost cap or a total cost containment mechanism as contemplated in tariff section 24.5.2.4(j).

Third, the cost of equity financing and the manner of recovery of the transmission revenue requirement are only two factors influencing the overall cost of the project as seen by ratepayers. The cost that ratepayers will see is a function of the capital cost of the project (cost of development and construction of the project) and the cost of on-going operations and maintenance of the project, in addition to the cost of financing the project, both debt and equity. The primary drivers of a project's overall transmission revenue requirement tend to be the capital and O&M costs of the project, with financing costs an important but less impactful driver for the range of capital costs usually considered. Even assuming that TBC could achieve a 10% reduction in overall project costs for the life of the project due to a lower cost of equity, and taking that amount "off the top" of the project cost, it is still likely to result in capital costs that are higher because of TBC's proposed 100% undergrounding of the line, lack of existing rights-of-way, and reliance on entirely new infrastructure. Further, this analysis does not even take into account O&M costs. TBC would be creating a new stand-alone entity to perform the O&M for the project that likely would incur significant incremental O&M costs on an annual basis when compared to SDG&E.

Based on these considerations, even assuming that TBC's claims were to come to fruition, from the ratepayer point of view the ISO expects that TBC's physical project alternative would cost not only more than SDG&E's physical project, but more than Elecnor's and Abengoa's physical project alternatives as well, because it is entirely underground and, therefore, most likely would result in higher costs. Also, TBC has not provided a guarantee of its proposed cost reductions.

Comparative Analysis of Cost Cap Agreement

Abengoa has proposed to accept a cost cap, but only as to "those items that it has the capability to control." Abengoa's proposal explicitly provides that the cap can be adjusted for certain increases in costs above the estimated amount "such as" increases in rights-of-way costs, environmental permitting costs, costs of use of SDG&E facilities, projected inflation, and financing costs above its estimated budget. This listing is not a limit on the specific cost components that can be adjusted upward; it merely provides some examples of the types of potential cost increases not subject to its proposed cap. Abengoa's statement of its cost cap commitment does not identify the specific categories of costs that are actually subject to its commitment; *i.e.,* Abengoa does not identify which costs are within its "capability to control."

The other three project sponsors did not provide a specific commitment to a cost cap as part of their proposals, although all of them indicated that they would be willing to consider other ways to contain their costs. While the ISO would ordinarily give great weight to a commitment by a project sponsor to a cap on its costs to develop the project, the qualifications to and open-ended nature of the cost cap that Abengoa has proposed diminishes the value and any "binding" effect of Abengoa's proposal and undermines the purpose of a binding, fixed cost cap commitment. The ISO is particularly concerned that the list of costs that could be increased over the cap is open-ended; accordingly, it is not certain which, if any, of the estimated project costs are subject to a cap. Thus, the ISO has determined that Abengoa's cost cap proposal as stated in the application does not provide significant assurance of effective and binding cost containment that will not result in potential rate increases.

Further, the base level of Abengoa's open-ended cost cap is based on Abengoa's proposal to "underground" most of the project, which is expected to cost more compared to project sponsors that are proposing on a primarily overhead project alternative. Also, there are other cost elements that Abengoa faces that SDG&E does not, and these could result in higher capital costs for Abengoa than for SDG&E. For example, SDG&E will utilize existing rights-of-way and franchises, utilize many existing facilities and infrastructure, and rely on reconductoring for a large part of the project. Abengoa will rely entirely on new rights-of-way and new facilities.

Also, Abengoa's proposed open-ended cap does not apply to O&M costs, which are significant over the life of a project. Abengoa must create a brand new, separate entity with an incremental (to existing costs recovered through the ISO's transmission access charge) O&M structure and property costs. As discussed above, SDG&E has many O&M costs associated with the project that are sunk.

Abengoa's purported cost cap is not a binding, fixed cost cap on total costs. The ISO notes that the other three project sponsors did not provide a specific commitment to a cost cap as part of their proposals. However, they did express a willingness to establish a cap after the final scope of the project became more definitive, *i.e.*, essentially after certain costs beyond their ability to control were finalized. Abengoa's cost cap would apply only to costs within its capability to control, but Abengoa has not defined with certainty what they are.

Overall Comparative Analysis

While the ISO considers all three components of this criterion to be important, the most important factor in satisfying this overall criterion is a project sponsor's agreement to a binding, fixed cost cap on total costs. As discussed above, the ISO does not consider Abengoa's cost cap proposal to be a binding commitment to a fixed cap on total capital costs. Abengoa would not be situated any differently than the other project sponsors if cost increases beyond its control were to occur. Thus, none of the project sponsors has satisfied this ultimate objective.

The ISO has also determined that there is no material difference among the four project sponsors with regard to the second component of this criterion (other advantages the project sponsor and its team may have to build the specific project).

The value of this overall criterion is more limited than it would be if a project sponsor had agreed to a binding, fixed cost cap on total project costs that clearly would result in the most efficient and cost-effective project for the life of the project. SDG&E presented the most thorough and comprehensive demonstration of its cost containment capability and relies heavily on existing infrastructure and property rights, the costs of which are sunk. This results in a better ability to constrain total project costs. Finally, SDG&E's proposal for a primarily overhead project should result in lower costs compared to those proposals that rely entirely or primarily on undergrounding.

Because of its stronger cost containment capabilities, the edge in this criterion weighs in favor of SDG&E. TBC's description of its cost containment capabilities was better than either Abengoa or Elecnor, but given that TBC is proposing an entirely underground alternative, its physical project proposal likely poses higher costs compared to the primarily overhead line proposal of Elecnor and the proposal of Abengoa, which has

some overhead components. Although Abengoa has proposed a cost cap, it does not apply to costs not within its capability to control and is extremely open-ended for the reasons discussed above. Elecnor's and Abengoa's proposed cost containment capabilities were comparable. Elecnor did not propose any type of cost cap, even an open-ended one such as Abengoa's. However, compared to Abengoa, Elecnor is relying primarily on an overhead project which should result in lower capital costs compared to Abengoa's primarily underground project alternative.

3.13 Selection Criterion 24.5.2.4(a): Overall Capability to Finance, License, Construct, Operate, and Maintain the Facility

In this section the ISO provides the comparative analysis of this selection criterion, as discussed in Section 3.3 of this report. This selection criterion is "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 project." As noted in Section 3.3, this criterion encompasses a number of the more specific selection criteria discussed in this report. As also noted in Section 3.3, this is one of the key selection factors that the ISO identified for the Sycamore-Penasquitos project in its April 15, 2013 presentation to stakeholders described in Section 3.1 of this report. As discussed in Section 2.1 and Section 3.3, the ISO has identified this selection criterion as a key selection factor based on the importance of all these aspects of development and operation of the project to the selection of the most efficient and cost-effective proposal. A proposal that best satisfies this criterion will contribute significantly to ensuring that the project sponsor selected will develop the project in a prudent, efficient, and cost-effective manner.

What follows is an overall comparative analysis for this criterion based upon the discussion of the other criteria encompassed by this criterion. 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 criteria and the comparative analysis for each.

The other selection criteria (or components of a criterion) considered in the comparative analysis for this criterion are as follows:

- 24.5.2.4(e): the financial resources of the project sponsor and its team;
- 24.5.2.4(f): the technical (environmental permitting) qualifications and experience of the project sponsor and its team (component);
- 24.5.2.4(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
- 24.5.2.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices.

3.13.1 ISO Comparative Analysis

The ISO's comparative analysis has considered the results of the analysis of the four criteria or criterion components listed above. The ISO has determined that SDG&E's

proposal is better than the proposals of the other three project sponsors with respect to this general criterion because it is better than the other three proposals in the analysis of all four of the criteria or criterion components. As discussed in the sections of this report regarding each of the relevant individual selection criteria, SDG&E's proposal is better in the area of financial resources (Section 3.7.5), environmental permitting experience (Section 3.8.9), construction and maintenance record (Section 3.9.9), and capability to adhere to standardized construction, maintenance, and operating practices (Section 3.10.13).

With respect to the other three project sponsors, the ISO has determined that there is effectively no material difference between the proposals of Elecnor and TBC with regard to this criterion and that they are both better than Abengoa's proposal. Elecnor's proposal is better than TBC's proposal with respect to financial resources and construction and maintenance record, but TBC's proposal is better than Elecnor's proposal with respect to environmental permitting experience and capability to adhere to standardized construction, maintenance, and operating practices. The ISO considers these relative advantages effectively to offset each other. The ISO has determined that Elecnor's proposal is better than Abengoa's proposal with regard to this criterion because Elecnor's proposal is better with respect to financial resources, construction and maintenance record, and capability to adhere to standardized construction, maintenance, and operating practices, which outweighs the advantage of Abengoa's proposal with regard to environmental permitting experience. The ISO has determined that TBC's proposal is better than Abengoa's proposal with regard to this criterion because TBC's proposal is better with respect to financial resources, environmental permitting experience, and capability to adhere to standardized construction, maintenance, and operating practices and is comparable to Abengoa's proposal with respect to construction and maintenance record.

3.14 Qualification Criterion 24.5.2.1(a): Consistency with Needed Transmission Elements

The first qualification criterion is "whether the proposed project is consistent with needed transmission elements identified in the comprehensive Transmission Plan."

3.14.1 Information Provided by Abengoa

Abengoa indicated that the ISO Tariff sets out a competitive solicitation process for policy-driven and economically driven elements found to be needed in the ISO's transmission plan, as well as elements of reliability projects that provide additional policy or economic benefits. Abengoa also indicated that the ISO conducted a review and based on this review identified two elements eligible for competitive solicitation in the transmission plan. The Sycamore-Penasquitos 230 kV line was one of these projects. (Q-1)

3.14.2 Information Provided by Elecnor

Elecnor indicated that it reviewed the functional specification for the Sycamore-Penasquitos 230 kV line project and is confident that the proposed project is consistent with the needed transmission elements identified in the ISO's comprehensive transmission plan. Additionally, Elecnor indicated that the line was also identified as an

alternative to policy-driven transmission projects that would otherwise be needed to meet state renewable portfolio standards, as indicated in chapter 3 "Special Reliability Studies and Results," in section 3.5.6.3 "Grid Reliability Assessment of the Absence of SONGS Scenarios Conclusions," in chapter 4 "Policy-Driven Need Assessment," and in section 4.4.3 "SDG&E Area Policy-Driven Conclusions." (Q-1)

3.14.3 Information Provided by SDG&E

SDG&E indicated that its proposal meets the electrical performance specified in the ISO's comprehensive transmission plan, as follows:

- The project includes a new 230 kV transmission line between Sycamore Canyon and Penasquitos substations, as specified by the ISO.
- The proposed project includes reconfiguration and planned retirements of other portions of the transmission system to minimize construction costs and maximize feasibility of the proposed project as a whole. This is accomplished in part by minimizing required rights-of-way acquisition and maximizing the use of existing transmission corridors and infrastructures.
- The proposed project includes a comprehensive plan of service, including optimization of and upgrades to existing transmission infrastructure to ensure the proposed project performs adequately across a range of load and generation profiles, through the duration of the planning window. (Q-1)

3.14.4 Information Provided by TBC

TBC indicated that the proposed project is consistent with the ISO's "Sycamore-Penasquitos 230 kV Line Description and Functional Specifications Eligible for Competitive Solicitation" document and is thus consistent with needed transmission elements identified in the ISO's comprehensive transmission plan. During preliminary design, TBC indicated that it considered functional specifications such as voltage ratings, ampacity ratings, impedance parameters, shield wire and fiber optic requirements, and other requirements included and not included in the ISO's specifications. (Q-1)

3.14.5 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all four project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to tariff section 24.5.2.4, the ISO has further reviewed the proposals in its comparative analysis for purposes of selection of the approved project sponsor. Based on a detailed review of the proposals of all four project sponsors, the ISO is satisfied that all proposals are consistent with the needed transmission elements identified in the ISO's transmission plan. Because all four proposals are consistent with the needed transmission elements, the ISO has determined that there is no material difference among these proposals with respect to this criterion.

3.15 Qualification Criterion 24.5.2.1(b): Satisfying Applicable Reliability Criteria and ISO Planning Standards

The second qualification criterion is "whether the proposed project satisfies Applicable Reliability Criteria and ISO Planning Standards."

3.15.1 Information Provided by Abengoa

Abengoa stated that all stages of the project will be developed to satisfy the reliability standards established by: NERC standards (especially the standards in the categories specified by NERC as FAC, PER and TOP), WECC standards (especially security and data requirements), and ISO planning standards. Abengoa indicated that ISO planning standards address specifics not covered in the NERC or WECC criteria and criteria should be adopted that are more stringent than NERC or WECC criteria, especially in relation to new transmission versus involuntary load interruption, combined line and generator outage standards, etc. Abengoa indicated that it will combine its international experience with local expertise in engineering, construction, operations, and maintenance in California and Arizona. (Q-2)

3.15.2 Information Provided by Elecnor

Elecnor indicated that it is familiar with WECC and ISO reliability criteria and planning standards and is confident that the project will satisfy applicable reliability criteria and ISO planning standards. Elecnor also indicated it is familiar with the following NERC reliability standards: TPL-001 System Performance under Normal Conditions (category A), TPL-002 (category B), TPL-003 (category C), and TPL-004 (category D). Elecnor indicated that ISO planning standards specify the grid planning criteria to be used in the planning of ISO transmission facilities, addressing specifics not covered in NERC and WECC reliability standards and identifying criteria to be adopted that are more stringent than NERC and WECC regional criteria. (Q-2)

3.15.3 Information Provided by SDG&E

SDG&E indicated that its proposed project would meet all applicable NERC, WECC, and ISO planning criteria, including but not limited to:

- TPL-001-0
- TPL-002-0a
- TPL-003-0a
- ISO planning standards rev July 6, 2001, Section II.2 – Combined line and generator outage standard
- ISO planning standards rev July 6, 2011, Section II.5 – Loss of combined cycle power plant module as a single generator outage
- ISO planning standards rev July 6, 2011, Section II.6 – Planning for new transmission versus involuntary load interruption. (Q-2).

3.15.4 Information Provided by TBC

TBC indicated that it performed limited power flow simulations by adding the project with parameters as submitted by TBC in the 2017 and 2022 power flow cases. TBC indicated that it reviewed the results of contingency simulations, resulting overloads, and voltage violations and determined that the results of preliminary analyses demonstrate that this project satisfies all the NERC planning and reliability standards (TPL-001. TPL-002, TPL-003, and TPL-004), WECC reliability criteria, and the ISO's planning standards. (Q-2)

3.15.5 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all four project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to tariff section 24.5.2.4, the ISO has further reviewed the proposals in its comparative analysis for purposes of selection of the approved project sponsor. Based on a detailed review of the design detail provided in the proposals of the four project sponsors, the ISO is satisfied that all of the proposals would satisfy applicable reliability criteria and ISO planning standards. Because all proposals would satisfy applicable reliability criteria and ISO planning standards, the ISO has determined that there is no material difference among the proposals with respect to this criterion.

3.16 Qualification Criterion 24.5.2.1(c): Physical, Technical, and Financial Capability to Timely Complete the Project and Operate and Maintain the Facilities

The third qualification criterion is "whether the Project Sponsor is physically, technically, and financially capable of (i) completing the project in a timely and competent manner; and (ii) operating and maintaining the facilities consistent with Good Utility Practice and applicable reliability criteria for the life of the project."

The third qualification criterion is a broad criterion that encompasses five specific selection criteria and one qualification criterion that are discussed in other sections of this report. The ISO will not repeat here the information provided by the project sponsors for these more specific selection and qualification criteria or the comparative analysis for each. What follows is an overall comparative analysis for this criterion based upon the comparative analyses for the criteria encompassed by this criterion.

3.16.1 ISO Comparative Analysis

The ISO previously determined and posted notice on its website that all four project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to tariff section 24.5.2.4, the ISO has further reviewed the proposals in its comparative analysis for purposes of selection of the approved project sponsor. The selection criteria considered in the comparative analysis for this criterion are as follows:

- 24.5.2.4(d): the proposed schedule for development and completion of the project and demonstrated ability to meet that schedule of the project sponsor and its team;
- 24.5.2.4(e): the financial resources of the project sponsor and its team;
- 24.5.2.4(f): the technical (environmental permitting) and engineering qualifications and experience of the project sponsor and its team; and
- 24.5.2.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices; and
- 24.5.2.4(i): demonstrated ability to assume liability for major losses resulting from failure of facilities.

The qualification criterion considered in the comparative analysis for this criterion is qualification criterion 24.5.2.1(b): satisfying applicable reliability criteria and ISO planning standards.

The ISO's comparative analysis has considered the results of the comparative analysis of the five selection criteria, as well as qualification criterion 24.5.2.1(b). The ISO has determined that SDG&E's proposal is better than the proposals of the other three project sponsors with respect to this general criterion because the SDG&E proposal is better than or comparable to the other three proposals in the analysis of all six of the applicable selection and qualification criteria. As discussed in the sections of this report regarding each of the relevant individual selection and qualification criteria, there is no material difference among the proposals of the four project sponsors with respect to the qualification criterion regarding satisfaction of applicable reliability criteria and ISO planning standards (Section 3.15.5) and with regard to the selection criterion regarding ability to assume liability for major losses (Section 3.11.5). Consequently, the comparative analysis for this criterion is based on the results of the comparative analyses of the other four relevant selection criteria. SDG&E's proposal is better than those of the other three project sponsors with respect to proposed schedule and ability to meet that schedule (Section 3.6.9), financial resources (Section 3.7.5), environmental permitting and engineering experience (Section 3.8.9) and capability to adhere to standardized construction, maintenance, and operating practices (Section 3.10.13).

With regard to the analysis of the proposals of the other three project sponsors for this general criterion, the analysis is similar to the ISO's analysis with respect to selection criterion 24.5.2.4(a), which includes several of the factors applicable to this criterion. Again, as there is no material difference among the three proposals with regard to the ability to assume liability for major losses resulting from failure of facilities or the ability to satisfy applicable reliability criteria and ISO planning standards, the comparative analysis for this criterion is based upon the remaining four selection criteria.

The ISO has determined that TBC's proposal with regard to the four remaining criteria is slightly better than Elecnor's proposal and better than Abengoa's proposal. TBC's proposal is better than that of Abengoa with respect to proposed schedule and ability to meet that schedule, financial resources, environmental permitting and engineering experience, and capability to adhere to standardized construction, maintenance, and operating practices. TBC's proposal is comparable to that of Elecnor with respect to environmental permitting and engineering experience and is better than that of Elecnor with respect to proposed schedule and ability to meet that schedule and capability to adhere to standardized construction, maintenance, and operating practices, which

outweighs the slight advantage of Elecnor's proposal with respect to financial resources. The ISO has determined that Elecnor's proposal is better than that of Abengoa with regard to this criterion because Elecnor's proposal is better than that of Abengoa with respect to financial resources, environmental permitting and engineering experience, and capability to adhere to standardized construction, maintenance, and operating practices, which outweighs the very slight potential advantage that Abengoa's proposal might have with respect to proposed schedule and ability to meet that schedule.

3.17 ISO Overall Comparative Analysis for Approved Project Sponsor Selection

As described above, the ISO has performed a comparative analysis of the proposals of the four project sponsors with regard to each of the applicable tariff criteria. As discussed above, the ISO has determined that SDG&E's proposal is better than the other three proposals based on its comparative analysis of all the selection and qualification criteria because SDG&E's proposal is better than the other proposals with regard to most of the tariff criteria and is comparable to the other proposals with respect to the other criteria.

Of particular note, SDG&E's proposal is better with respect to all six key selection factors specified in the ISO's April 15, 2013 presentation to stakeholders, entitled Transmission Planning Process Phase 3 Competitive Solicitation: (1) overall capability to finance, license, construct, operate, and maintain the facility (tariff section 24.5.2.4(a)), (2) possession of existing rights-of-way that could contribute to the project (24.5.2.4(b)), (3) experience in acquiring rights-of-way to facilitate approval and construction of the project (24.5.2.4(c)), (4) proposed schedule and demonstrated ability to meet that schedule (24.5.2.4(d)), (5) environmental permitting and engineering qualifications and experience (24.5.2.4(f)), and (6) demonstrated cost containment capability (tariff section 24.5.2.4(j)). Regarding these key selection factors, the ISO notes that for purposes of this project it considers selection criterion 24.5.2.4(c) regarding experience in acquiring rights-of-way less of a key factor than selection criterion 24.5.2.4(b) regarding the possession of existing rights-of-way that can contribute to the project because when a project sponsor, like SDG&E in this case, has a large percentage of existing rights-of-way and other project sponsors do not, the capabilities of acquiring rights-of-way are of less importance.

In particular, as the ISO discussed in Section 2.1 of this report and in the comparative analyses in previous sections of this report for the key selection factors regarding (2) possession of existing rights-of-way (Section 3.4), (3) experience in acquiring rights-of-way (Section 3.5), (4) proposed schedule and ability to meet that schedule (Section 3.6), and (5) environmental permitting and engineering experience (Section 3.7), SDG&E's proposed use of its existing rights-of-way and franchise rights and its proposal to file its application for a CPCN, including its proponent's environmental assessment, shortly after the ISO's designation of the approved project sponsor for this project constitute significant advantages for SDG&E's proposal over the proposals of the other project sponsors regarding all four of these key selection factors. These aspects of SDG&E's proposal offer a greater chance of expediting the development of and in-service date for this project, thereby providing SDG&E the best chance not only of meeting the latest in-service date of May 2017 specified in the Sycamore-Penasquitos Functional Specifications, notwithstanding the permitting and construction risks identified by regulatory agency staff for this project, but also placing the project in service prior to that date, which would help mitigate the increased concerns for system reliability resulting from the recent retirement of the SONGS facility. The prospective benefits to the electric system from the advantages of SDG&E's proposal with respect particularly to these four key selection factors, in conjunction with SDG&E's comparable or better proposal with regard to the other selection and qualification criteria set forth in the tariff, render SDG&E's proposal better than the proposals of the other three project sponsors.

As a result, the ISO selects SDG&E, in conjunction with Citizens Energy Corporation, to develop the Sycamore-Penasquitos transmission line project pursuant to the proposal set forth in its project application.

Attachment 1

Competitive Solicitation Transmission Project Sponsor Application (Version used for the Sycamore-Penasquitos Project)

Transmission Project Sponsor Proposal - Application

1. INTRODUCTION

According to the schedule set forth in the Business Practice Manual for the Transmission Planning Process (BPM-TPP) sections 5.1 and 5.8, the ISO will initiate a period of two (2) months that will provide an opportunity for Project Sponsors to submit specific transmission project proposals to finance, own, construct, maintain and operate certain transmission elements identified in the comprehensive Transmission Plan, or those approved by ISO management 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 BPM-TPP sufficient to enable the ISO to determine whether the proposal meets the criteria specified in ISO Tariff sections 24.5.2.1 and 24.5.2.4. This application 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 selected Project Sponsors will become Participating Transmission Owners (PTO) and will sign the Transmission Control Agreement (TCA) and a Reliability Standards Agreement (RSA). It has been assumed that the Project Sponsor or its contracted representative(s) will be registered with NERC as a Transmission Owner, Transmission Operator, and other functions as applicable.

2. GENERAL INSTRUCTIONS

The information to be included in this application will be used by the ISO to determine if the proposal is qualified per BPM-TPP Section 5.4.1 and related ISO Tariff sections, and if so to compare each Project Sponsor and its proposal with other Project Sponsors and proposals for the same approved transmission element. To facilitate this assessment and comparison, Project Sponsors should provide information that reflects a thorough understanding of the requirements, processes and activities needed to accomplish project completion and continuing operation and maintenance.

This application is separated into specific sections. Each section requests information to be provided and is assigned a unique identifier for each item, such as Q - 1 for Qualifications, E - 1 for Environmental and Public Process items and S - 1 for Substation related items. Project Sponsors must provide responses to each of the items in the space provided after the request and clearly note in the response the unique identifiers in each part of their responses. If attachments are provided as part of the response, the file name of the attachment should be specified in the space provided. In addition, the files should be named using the following

naming convention – file name should include the unique identifier that the information is in response to (e.g. E-1.a) and a description of the contents (e.g. E-1.a 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. In addition, the application should include a table or index in Word format that contains a list of documents provided. The table or index must include the file name, contents and a description of the section(s) that it responds to.

All responses and attached material shall be in English.

If supporting documentation is provided along with specific responses, the Project Sponsor must include the item number and specific references to the pages and paragraphs of the supporting documentation that are responsive along with a brief explanation of how the referenced material is responsive. If the Project Sponsor believes that any item is not applicable to their proposed project it may indicate "N/A" but should provide a brief reason why it believes it is not applicable.

If the Project Sponsor proposes to contract with others to perform duties related to the application below, responses shall 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, regulatory and reliability requirements.

For each item, if the Project Sponsor is proposing to own, finance, construct, operate and maintain multiple transmission elements, the Project Sponsor should also indicate how its response would change depending on how many of its proposals are approved. For example, the Project Sponsor should 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.

To the extent a Project Sponsor considers any of the information submitted with its application to be confidential or proprietary; such information must be clearly identified and must include an explanation as to why the information should be handled by the ISO as confidential. The identity of Project Sponsors and basic information about proposed projects is not confidential information.13

Applicant Project Sponsors should note that the maximum size of E mail submitted to the CAISO should not exceed 5 MB. Files or attachments larger than 5 MB must be compressed. Applicants may also submit their information via CD or DVD medium. If this option is selected, please provide 3 complete sets of CDs or DVDs.

If the applicant wishes to apply for more than one project, a separate Application must be submitted for each project.

[13] BPM-TPP 5.2.1

The applicant Project Sponsor may submit questions to the CAISO for clarification. The CAISO will attempt to answer these questions in a timely manner. The answers will be made available in a table which will be posted to the CAISO web site on the Transmission Planning page. Note: the identity of the applicant posing the question will not be included in the table. In general, the CAISO will update this table on a weekly basis or as needed.

3. PROJECT SPONSOR, NAME AND QUALIFICATIONS

Project Sponsor Name:

Response: (Enter Project Sponsor Company Name)

Project Description:

Response: (Enter Project Description)

Submittal Date:

Response: (Enter Submittal Date)

Project Sponsor Qualifications:

The ISO will review each Project Sponsor's proposal to assess its qualifications based on the qualification criteria set forth in ISO Tariff section 24.5.2.1 and BPM-TPP section 5.4.1. The ISO will use the following criteria to determine whether the Project Sponsor's proposal is qualified to engineer, finance, construct, own, operate and maintain a transmission element:

The proposed project must be consistent with needed transmission elements identified in the comprehensive Transmission Plan, or approved by ISO management if the capital costs of the project are $50 million or less.

The proposed project must satisfy Applicable Reliability Criteria and ISO Planning Standards.

The Project Sponsor must be physically, technically, and financially capable of (i) completing the project in a timely and competent manner; and (ii) operating and maintaining the facilities consistent with Good Utility Practice and applicable reliability criteria for the life of the project.

Please demonstrate that you meet the qualification criteria for the needed transmission element by providing responses to the following three items. Note: when providing these responses, the applicant may refer to information that has been provided in other sections of this application for additional information and support. However, the following three responses should provide a complete demonstration or qualification – either through the three responses directly or by including references to responses to other items in this application.

Describe how:

Q-1. The proposed project is consistent with needed transmission elements identified in the comprehensive Transmission Plan, or approved by ISO management if the capital costs of the project are $50 million or less:

Response:

Q-2. The proposed project satisfies Applicable Reliability Criteria and ISO Planning Standards:

Response:

Q-3. The Project Sponsor is physically, technically, and financially capable of (i) completing the project in a timely and competent manner; and (ii) operating and maintaining the facilities consistent with Good Utility Practice and applicable reliability criteria for the life of the project.

Response:

4. PROJECT FINANCE, PROJECT MANAGEMENT AND COST CONTAINMENT

Project Financing, Historical Performance Related, Project Sponsor's Past Project Information

P - 1. Provide a list of transmission lines and/or substations which the Project Sponsor or the Project Sponsor's team has constructed, financed, owned, operated and/or maintained within the last five years.

Response:

P - 2. Describe the financing used on up to five projects listed in the P-1 Response, that are as similar in type and size to (or larger than) the transmission element or substation proposed in this application : e.g. structure (LLC vs. corporate) equity contribution, debt contribution, debt sources, bank(s) involved, etc.

Response:

P - 3. For the same projects addressed in P-2, provide a breakdown of the total capital costs of the project up to and including the point where the project was completed and initially receiving cost recovery.

Response:

Project Financing, Historical Performance Related, Project Sponsor Information

P - 4. Provide the Project Sponsor's audited financial statements (Balance Sheet, Income Statement, Statement of Cash Flows) or equivalent, for the most recent year and previous four years, including:

a. Asset value (excluding transition bonds of subsidiaries), including current assets and fixed assets
b. Liabilities (current liabilities plus long-term debt)
c. Net income before taxes (but after interest payments)
d. Debt service – include interest and principal repayment and by project if special purpose entities (e.g. project financed LLC, etc.) were created solely for that specific project

Response:

P - 5. Provide the Project Sponsor's credit rating from Moody's Investor Services and Standard & Poor's for the previous five years or an equivalent demonstration of sound financial health. Also provide an affirmative statement that indicates that completing this project will not have a negative impact on the Project Sponsor's creditworthiness.

Response:

P - 6. Provide a report of any failure by the Project Sponsor to make debt service payments on time during the previous five years. If the Project Sponsor is a Special Purpose Entity (SPE), report any such failures by its predecessor or supporting organizations.

Response:

P - 7. Provide a summary of any history of bankruptcy, dissolution, merger, or acquisition of the Project Sponsor for the current calendar year and the five prior calendar years. If the Project Sponsor is an SPE, report any such events by its predecessor or supporting organizations.

Response:

P - 8. Describe the financial structure of the Project Sponsor, 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. Provide a list of equity holders, equity contribution by each investor, and the amount of debt.

Response:

Project Financing, Project Related

P - 9. Provide a capital cost estimate presented as a buildup of costs by category, such as environmental, engineering, civil works, materials, equipment, construction, construction management, physical and price contingencies, allowance for funds used during construction (AFUDC), and all other categories for which the proposing Project Sponsor plans to seek FERC approval to recover. See P-10 for suggested cost categories. These categories are illustrative; the Project Sponsor should aggregate costs into the categories most relevant to its development of the proposed project. For projects with transmission and substation components, separate the costs into two rows (e.g. use one row for substation construction and a second for transmission line construction).

Response:

P - 10. Describe the detailed financial plan on a monthly basis during the construction period, e.g., for 3 years or as long as necessary. The plan should present the costs and financial outlays in each month of the construction period, and the corresponding sources of financing (equity contribution and debt drawdown), as in the following illustrative table. Data should include an estimate of the cost of both physical and price contingencies during the construction period. The Project Sponsor should use the same cost categories and amounts as used in P – 9. The financing plan should indicate the ability to finance the construction of the proposed project under base case and contingency scenarios.

		Year 1												Year 2												
Item	Cost Categories Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
1	Environmental and Related																									
2	Engineering																									
3	Civil Works																									
4	Materials																									
5	Equipment																									
6	Construction																									
7	Construction Management																									
8	Other																									
9	Subtotal - Base Cost																									
10	Physical Contingencies																									
11	Price Contingencies																									
12	Subtotal - Installed Cost																									
13	Working Capital																									
14	AFUDC																									
15	Total Cost = Total Financing Req'd																									
16	Finance Drawdowns																									
17	Debt																									
18	Equity																									
19	Total Finance Drawdowns																									

Response:

P - 11. Describe the Project Sponsor's proposed financing sources and instruments:
-Sources of funds for construction and working capital - include name of entity providing debt financing, loan amounts, interest rates, repayment period, grace period during construction; and equity provided by Project Sponsor,
-Project Sponsor should also indicate how it would be able to finance unexpected repairs or replacement construction during the operating period, e.g., replacement of tower. Note: the operating period is the applicant's estimate of the useful life or accounting life of the transmission element(s).

Response:

P - 12. Provide the Project Sponsor's annual revenue forecasts for the project – including assumptions. The Project Sponsor should provide a draft version of the revenue requirement calculation in a format that is similar to what would be included in their

tariff application to FERC, indicating the requested tariff level and all assumptions used in the calculations. This should include but not be limited to the assumptions regarding rate of return, depreciation life, split between debt and capital, AFUDC and weighted cost of capital.

Response:

P - 13. Provide a Ratio of the Project Sponsor's or SPE's total Assets to the total projected capital costs of the project, based upon the most recent audited financial statements.

Response:

P - 14. Provide the following financial ratios for the most recent year adjusted to exclude transition bonds of subsidiaries, obtained from the Project Sponsor's most recent audited financial statements:

a. Funds from operations to interest coverage
b. Funds from operations to total debt
c. Total debt to total capital
d. Levels of the above ratios the Project Sponsor will maintain throughout the construction period of the proposed project

Response:

P - 15. If the Project Sponsor relies or will rely on an affiliate for credit, investment or financing arrangements, please demonstrate how these arrangements comply with all legal and regulatory requirements related to affiliate transactions.

Response:

P - 16. Provide a detailed estimate of the anticipated average annual operating and maintenance cost if a stand-alone project company, or the current direct operating and maintenance cost if the Project Sponsor is an incumbent PTO.

Response:

P - 17. Provide the Project Sponsor's assumptions for the cost estimate and the sensitivity analyses. (Note: all assumptions and sensitivities need to be documented).
- Cost sensitivities – specify the cost sensitivities included in the financing plan analysis. Project Sponsor should include a sensitivity that assumes at least a 30% cost overrun during the construction period and a 25% longer schedule;
- Interest rate sensitivities included in the financing plan analysis.

Response:

P - 18. Document the Project Sponsor's ability to cover increased costs associated with equipment failure after the project enters commercial operation – either additional maintenance or construction costs or incentives/penalties under the TCA with the ISO with respect to availability performance targets. Examples of incentives/penalties provisions in the TCA are included in Sections 12.3, 14.4 and Appendix C, Section 9.0 of the TCA filed with FERC on December 3, 2010.

Response:

P - 19. Provide the Project Sponsor's planned insurance coverage, including but not limited to covering negligent performance.

Response:

Project Management, Historical Performance Related

P - 20. For the transmission projects included in the response to P-2, provide the following:
- Overall project description;
- Initial schedule **and** final project in-service date;
- Overall cost summary, including initial budget forecast **and** final project cost;
- Major issues confronted and resolved during project;
- Typical management progress reports for the project;
- Other specific materials that reflect project management skills for an actual project.

Response:

Project Management, Project Related

P - 21. Provide a general description of the proposed approach to project management and scheduling (PM&S) for the transmission element.

Response:

P - 22. Provide the proposed management structure, organization, authority levels and resources committed to PM&S for the transmission element, including relevant experience and capability for proposed Project Manager (PM) and other relevant decision-makers for the project.

Response:

P - 23. Provide the systems proposed for use in tracking and reporting PM&S; include a proposed project progress report schedule, including cost tracking and forecasts, that the Project Sponsor proposes to provide to the ISO.

Response:

P - 24. Provide a proposed schedule for project development through release for operation that includes, as a minimum, key critical path items such as:
- Develop contracts for project work;
- Permitting; R/W and land acquisition;
- Engineering and design;
- Material and equipment procurement;
- Facility construction;
- Agreements (interconnection, operating, scheduling, etc.) with other entities;
- Pre-operations testing;
- Project in-service date;
- Other items identified by the Project Sponsor.

Response:

P - 25. For proposed project, identify the major risks and obstacles to a successful project completion on schedule and within cost budget and proposed mitigations to minimize the risks. Cover actions that the Project Sponsor will take to keep the project on schedule and describe schedule contingencies included in the overall schedule.

Response:

Cost Containment, Overall Process

P - 26. Describe the Project Sponsor's cost containment approach and capabilities and how these will be applied to the proposed project.

Response:

Process Used to Develop the Cost Estimate

P - 27. For the cost estimate for the Project Sponsor's proposed project described in P-12, provide the following information:
- Provide a description of overall process;
- Describe the specific steps in process;
- Describe the use of and development of a cost contingency;
- Specify the sources of data for the estimate and any key assumptions;
- Describe the relevant experience of the staff preparing the estimate;
- Describe the review process by senior staff for the estimate.

Response:

Cost Containment, Cost Cap

P - 28. Indicate the Project Sponsor's willingness (or not) to accept a binding cost cap (or some other binding cost containment measures) and if so, the amount of the cost cap. The

Project Sponsor may specify that the cost cap will be adjusted for certain increases in costs above the estimated amount.

Response:

5. ENVIRONMENT AND PUBLIC PROCESSES

E - 1. Provide a general overview of the various project activities needed to achieve siting approval, obtain rights of way (ROW) or other land acquisition for the project, and any other necessary public processes required to construct the project. List the steps and describe their purpose.

Response:

E - 2. Describe in general the proposed regulatory strategy that is planned to be used for the proposed project and which agencies and permits may be required and why. Base this on a review of the proposed project ROW and/or substation lands to be acquired. Provide a description of the business practices that will be followed (e.g. list of steps or flow chart).

Response:

E - 3. Provide a description of the firm or group who will be responsible for the siting, land acquisition and permitting aspects of the project. Specify the relationship between the Project Sponsor and these firms or groups (e.g. owned by the Project Sponsor, under contract to Project Sponsor, etc.)

Response:

a. For each of the firms or groups listed, indicate their individual responsibilities and provide a resume for each lead individual.

Response:

b. For each of these firms, provide a list of all transmission projects that have been completed (preferably in California or in the state where the work will be completed) in the last five years, and a reference for each – references should include a description of the work, the name of the client for whom the work was performed, and a client contact person, phone number and email.

Response:

c. For each firm or group listed, indicate what work the Project Sponsor has completed using these firms for similar areas of responsibilities.

Response:

E - 4. Using your best estimate and available resources, indicate whether any Federal discretionary permit(s) will be required, which agency and under which governing rule or statute. Describe these in detail e.g. EPA Clean Water Act, USACOE Section 401- 404, USFWS Biological Opinion required, etc.

Response:

E - 5. Indicate if any federal, Forest Service or BLM land is crossed and how the Project Sponsor will comply with the NEPA (National Environmental Policy Act) environmental process.

Response:

E - 6. 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. Note: The ISO will require copies of all submitted permit applications (the CAISO anticipates that this will occur after the successful applicant Project Sponsor is identified). The Project Sponsor shall include the ISO on the recommended service list.

Response:

b. Indicate if the applicant will file with the CPUC for financial / environmental review and under what section of the pertinent General Order.

Response:

c. Explain what other Resource Agency permits will be required and the kind of permit to be filed (e.g. CDF&G California Endangered Species Act (CESA), Lake and Streambed Alteration (LSA), State Water Resources Control Board (SWRCB), etc.)

Response:

d. Explain why each permit is necessary. Identify if the construction impact or potential impact to protected species will generate the need for a discretionary permit. Provide a California Natural Diversity Data Base (CNDDB) map of the

project area, showing proposed transmission element(s) locations and potential alignments.

Response:

e. Provide a list of Best Management Practices[14] (BMPs) and Applicant Proposed Measures[15] (APMs) that would be applicable for the proposed project.

Response:

i. BMPs – provide Project Sponsor standing policies, related to siting and permit processes, that all employees are required to observe, how are they implemented, how are they reported.

Response:

ii. APMs –provide Project Sponsor mitigation measures that would be applied to reduce the potential environmental impact for a particular construction activity to ensure the impact is reduced below the level of a significant unavoidable impact. These are normally related to the CEQA checklist.

Response:

[14] BMPs, which are environmental industry standard terminology, are the applicant'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/injury reporting, community involvement programs involving both the local elected officials and the immediate community that will be impacted by the proposed project.

[15] An environmental consultant industry standard generic term found in any environmental application, that the project proponent would offer in their application submitted to their Lead Agency as initial mitigation for potential environmental impact that the applicant has identified. Normally APMs are fully accepted by the Lead Agency which would then build upon the offered measures based upon the Lead Agencies further assessment of construction impacts to the environment. For example, an applicant's APMs could be a commitment to limit project construction speed limits to 10 mph in order to limit fugitive dust and to re-fuel motor vehicles at least 100 feet from any body of water.

f. Provide a list of any ministerial[16] permits required, which agency the applicant will need to contact, and expected time frames for issuance.

Response:

g. Indicate if you expect to perform any public outreach (e.g. open houses, project hotline number, project update mailings etc.) and describe the planned program in general.

Response:

h. Provide a generalized schedule of the permit activities anticipated and their dependencies and timelines.

Response:

E - 7. The following are related to transmission line ROW or substation land acquisition for the proposed project. Provide:

a. 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, and avoidance areas (such as parks, airports, military installations, and areas of local, state or national interest and any other major exclusion areas). Show alternatives evaluated, dismissed and justification for preferred.

Response:

b. A basic key map of property ownerships anticipated to be acquired. Provide estimated acreages required. Include construction access, permanent access roads, laydown yards and landing zones if required.

Response:

[16] Ministerial permitting as opposed to discretionary permitting refers to permits that a local jurisdiction, city or county, would issue such as a street opening permit, traffic control permit, i.e. a permit that is obtained by completing a local application, paying the permit fee then proceeding and usually cannot be refused and is issued in the normal course of construction business. Discretionary permitting authority carries the police power to significantly condition a project, including denial, where the applicant would only have recourse in the courts to challenge work restrictions/conditions. Typically the proponent's application to the Lead Agency for environmental review is considered a discretionary permit. A Lead Agency in California has the discretion to approve, modify or deny an application.

c. A copy of the standard grant of easement anticipated and any temporary construction easement documents necessary for the project construction.

Response:

d. A description of your proposed strategy for crop loss and or business loss compensation.

Response:

e. An indication whether the Project Sponsor has eminent domain authority. Describe the negotiation strategy in general up to the necessity to file eminent domain. If applicant does not have eminent domain authority, describe strategy for acquisition of necessary land rights.

Response:

f. Describe long term ROW management requirements.

Response:

E - 8. Indicate whether the Project Sponsor has any existing ROW or substations or plans to acquire existing ROWs or substation property from another party on which all or a portion of the transmission element can be built.

Response:

E - 9. Provide information describing all transmission lines that were constructed in the last 5 years where the Project Sponsor or its contractor (designated to complete the environmental and public processes for this proposed project) completed the environmental and public processes. The information provided should include:

a. Transmission line routing

Response:

b. Rights of way acquired

Response:

c. All permits acquired to construct the project

Response:

d. The approach taken and business practices used to obtain the necessary permits to construct, operate and maintain the facilities

Response:

i. Federal National Environmental Policy Act (NEPA) or Cal State CEQA filing history and hardcopy of the final adjudication or Cal State Clearinghouse number;

Response:

ii. list of any discretionary Resource Agency permits acquired;

Response:

iii. copies of post project mitigation agreements for endangered species impact mitigation; and

Response:

iv. any management plans instituted to comply with Fed/State permits authorizing construction.

Response:

E - 10. Provide information describing all transmission substation projects that were constructed in the last 5 years in which the Project Sponsor or its contractor (designated to complete the environmental and public processes for this proposed project) completed the environmental and public processes. The information provided should include (for multiple projects, duplicate the headings (a-d) and Response boxes for each project):

a. Substation location

Response:

b. Land acquired

Response:

c. All permits acquired to construct the project

Response:

d. The approach taken and business practices used to obtain the necessary permits to construct, operate and maintain the facilities

Response:

i. Federal NEPA or Cal State CEQA filing history and hardcopy of the final adjudication or Cal State Clearinghouse number;

Response:

ii. list of any discretionary Resource Agency permits acquired;

Response:

iii. copies of post project mitigation agreements for endangered species impact mitigation; and

Response:

iv. any management plans instituted to comply with Fed/State permits authorizing construction.

Response:

E - 11. Provide information related only to transmission line and substation siting, permits, rights of way and land acquisition in the last 5 years. Provide:

a. A description of any project Notice of Violation (NOV) in the last 5 years

Response:

b. Fines levied by the Project approval authority and any other discretionary/ministerial authority

Response:

c. Remediation actions taken to avoid future violations

Response:

d. A summary of law violations by the Project Sponsor found by federal or state courts, federal regulatory agencies, state public utility commissions, other regulatory agencies, or attorneys general

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 is currently under investigation or is a defendant in a proceeding involving an attorney general or any state or federal regulatory agency, for violation of any laws

Response:

E - 12. Provide any other relevant information, not listed above, that pertains to the Environmental and Public Processes that the Project Sponsor believes is relevant to the review of its project.

Response:

6. SUBSTATION

S - 1. With respect to each substation that will be required provide the location, 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. Describe how your proposed project is consistent with the transmission elements in the ISO comprehensive Transmission Plan. Describe any technical differences (transmission configurations, substation configurations, voltages, etc.) in your project compared to the ISO plan.

Response:

S - 3. Describe the Applicable Reliability Standards and ISO Planning Standards that your project satisfies as they are defined in the ISO Tariff.

Response:

S - 4. Provide a list and a description of the firms or groups who will be responsible for substation design and construction. Specify the relationship between the Project Sponsor and these firms or groups (e.g. owned by the Project Sponsor, under contract to Project Sponsor, etc.)

Response:

a. For each of the firms or groups listed, indicate their individual responsibilities in the project and provide a resume for the lead individual for each. Identify and provide resume of the Engineer of Record (EOR) for the substation.

Response:

b. For each of these firms, provide a list of all transmission substation projects they have constructed within the last five years and a reference for each – reference should include a description of the work, the name of the client for whom the work was performed, and a client contact person, phone number and email.

Response:

c. For each firm or group listed, indicate what previous work the Project Sponsor has completed using these firms for similar areas of responsibility.

Response:

S - 5. Provide the following for the proposed substation or substations:

a. The substation siting criteria that will be used on the project (e.g. future area plans, constructability, earthquake activity, flood plain and mud slide considerations, etc.).

Response:

b. Basic parameters for the substation - primary and secondary voltage, BIL[17], initial design power capacity and final design power capacity (if developed in stages).

Response:

c. Preliminary design criteria document – provide a copy of the design criteria document that specifies the criteria that will be used in the design of the substation or its equivalent.

Response:

d. A list of standards and requirements that will be used in the substation design – e.g. IEEE 142, etc. Provide a complete list of California specific requirements.

Response:

[17] 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.

e. Substation single line diagram and general arrangement plan - Provide a single line diagram and a general arrangement plan for the substation, including:
   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,
   xii. substation layout with equipment location, fencing, grounding, control/relay building, etc.,
   xiii. Station minimum BIL

Response:

f. The protection system criteria and specific components included in the substation design for primary and back-up protection. Identify any special protection considerations for the substation.

Response:

g. SCADA incorporated in the design:

Response:

   i. list the data that will be provided to the ISO

Response:

   ii. list the control functions that will be included, and which entity will be in control of the devices

Response:

h. The substation physical security criteria and specific security measures that will be incorporated in the final substation design.

Response:

i. The substation oil containment criteria and specific containment measures that will be incorporated in the final design.

Response:

S - 6. Provide a general description of existing substations presently owned by the Project Sponsor, that the Project Sponsor or its contractor (designated to the designer for the proposed project) designed and constructed. Include:

a. Number of stations by high side voltage

Response:

b. Number of transmission voltage circuit breakers by voltage

Response:

c. Installed transmission substation transformer capacity (MVA)

Response:

S - 7. Provide a description of all transmission substation projects that the Project Sponsor or its contractor (designated as the designer on the proposed project) designed and constructed in the last 5 years. Include (for multiple projects, duplicate the headings (a-d) and Response box for each project):

a. Design and construction firm
b. Single line diagram and general arrangement drawing for the project
c. Number, size and type of transmission circuit breakers installed
d. Number, size and type of substation transformers installed

Response:

S - 8. Provide any other information, not listed above, that pertains to the substation that the Project Sponsor believes is relevant to the review of its project.

Response:

7. TRANSMISSION LINE

T - 1. Provide a general overview and description of the transmission line that the Project Sponsor proposes including :

a. the starting and ending points,

Response:

b. proposed conductor size, bundling and type,

Response:

c. intervening substations,

Response:

d. typical structures (wood poles, lattice steel towers and tubular poles),

Response:

e. typical span lengths,

Response:

f. any other unique aspects of the line that the Project Sponsor proposes.

Response:

g. If any underground transmission is proposed, include:

Response:

i. a general description of the proposed substructures, conduits and duct banks,

Response:

ii. underground conductor size and type,

Response:

iii. proposed termination facilities, and

Response:

iv. other unique aspects of the underground portion of the line.

Response:

T - 2. Describe how your transmission line facilities are consistent with the transmission elements in the comprehensive Transmission Plan.

Response:

T - 3. Describe the Applicable Reliability Standards and ISO Planning Standards that your proposal satisfies as these are defined in the ISO Tariff.

Response:

T - 4. Provide a description of the firms or groups who will be responsible for the transmission line design and construction. Specify the relationship between the Project Sponsor and these firms or groups (e.g. owned by the Project Sponsor, under contract to Project Sponsor, etc.)

Response:

a. For each of the firms or groups listed, indicate their individual responsibilities and provide a resume for the lead individual for each.

Response:

b. For each of these firms, provide a list of all transmission projects that have been completed in the past 5 years and a reference for each – references should include a description of the work, the name of the client for whom the work was performed, and a client contact person, phone number and email.

Response:

c. For each firm or group listed, indicate what previous work the Project Sponsor has completed using these firms for similar areas of responsibility.

Response:

T - 5. Provide the following for the proposed overhead transmission line:

a. The transmission line siting criteria that will be used on the project (e.g. future area plans, linear features, constructability, etc.).

Response:

b. 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).

Response:

c. Preliminary design criteria document – provide a copy of the design criteria document that specifies the criteria that will be used in the design of the transmission line.

Response:

d. Provide a list of standards and requirements that will be used in the transmission line design – e.g. IEEE 951, ASCE Manual No. 72, GO 95, etc. with an emphasis on providing a complete list of California specific requirements. Also provide any interconnection standards for interconnection of the project to existing utility system(s).

Response:

e. Single line diagram - Provide a single line diagram and a general arrangement plan of the proposed transmission line, including transmission line crossings by the new project line. Include isolation devices to be installed for operations and maintenance purposes.

Response:

f. If the proposed transmission line terminates in an existing utility substation, include a diagram of the bus/breaker arrangement and drawing of the proposed connection and termination for the transmission line facilities (even if these will be owned by the existing utility).

Response:

g. Support structures including wood poles, tubular poles, and lattice steel structures – provide:
    i. a description of the proposed support structures and conductor geometry,

Response:

    ii. structure foundations as appropriate and grounding criteria and implementation,

Response:

    iii. insulation level, insulator types,

Response:

iv. lightning protection

Response:

v. estimated right of way widths for each different segment of the project with drawings for each.

Response:

h. Line ratings – 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 proposed ampacity for the line under normal conditions and emergency operations (specify time limit for emergency operations) for summer and winter operating conditions.

Response:

i. Line impedance – 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.

Response:

j. Transmission line crossings - provide a list by voltage and type of construction of lines crossed (either over or under) by the proposed project.

Response:

k. GO95 Grade of Construction - will the transmission line be designed to meet the requirements of GO95 Grade A or B?

Response:

l. Unique or special construction techniques proposed, including ROW clearing, construction and permanent access road construction, expected helicopter work, etc.)

Response:

T - 6. For any proposed underground transmission sections, provide:

a. Type of transmission cable, including splicing and cable grounding,

Response:

b. Substructures, conduits and duct banks, and splicing enclosures,

Response:

c. Termination facilities and structures,

Response:

d. Additional relevant information listed for the overhead line sections above (5a, b, c, d, e, f, g, h, i, j) that pertains to UG.

Response:

T - 7. Provide your plan for a constructability review of the project at various phases to identify and address potential problems that maybe encountered.

Response:

T - 8. Provide a general description of existing transmission facilities presently owned by the Project Sponsor, that the Project Sponsor or its contractor (designated to design the proposed project) designed and constructed. Include:

a. Miles of overhead transmission facilities by voltage. If the proposed project includes underground, include miles of underground transmission facilities by voltage.

Response:

b. Types of support structures for these lines (i.e., lattice steel structures, tubular steel poles, etc.)

Response:

T - 9. Provide information for all transmission line projects that the Project Sponsor or their contractor (designated to complete the design of the proposed project) has designed and constructed in the last 5 years. Include:

a. Design and construction firm

Response:

b. Single line diagram for the project

Response:

c. Pole and tower map for the project

Response:

d. Design voltage, miles of line and conductor size, type and bundling,

Response:

e. Types of supporting structures

Response:

T - 10. For transmission line elements, please provide the following information:

a. Corridor separation – Identify all existing or permitted transmission lines, including voltage, structure type, and separation, located in the same corridor as the proposed project.

Response:

T - 11. Provide any other relevant information, not listed above, that pertains to the transmission line that the Project Sponsor believes is relevant to the review of its project.

Response:

8. OPERATION AND MAINTENANCE

O-1 Provide a chart of the Project Sponsor's current organizations showing the reporting relationships of the maintenance and operations organizations. Describe the roles and responsibilities of the maintenance and operations organizations, including operating jurisdictions as they relate to the proposed project. Describe any organizational changes that are planned to accommodate the proposed project.

Response:

O-2 Provide resumes describing the qualifications of key management personnel in the maintenance and operating organizations. Relate each resume to a position on the organization chart provided in response to O-1.

Response:

O-3 Describe the experience over the past 5 years with operating and maintaining all transmission facilities by the Project Sponsor or Project Sponsor team members.

Response:

O-4 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 and experience requirements for operators and field personnel.

Response:

O-5 Describe the Project Sponsor's training program for operations and maintenance personnel. Include initial and continuing education requirements for maintaining qualifications for classifications with operation and maintenance responsibilities (e.g. what are the training requirements for operators, linemen and substation electricians?). Identify training resources used.

Response:

O-6 Identify the NERC functions for which the Project Sponsor has registered or intends to become registered related to the proposed project. 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.

Response:

O-7 If the Project Sponsor plans to contract for services to perform any NERC functions, describe how the Project Sponsor will ensure that these reliability standard(s) or requirement(s) will be accomplished?

Response:

O-8 Who will perform the Scheduling Coordinator function for the proposed project in accordance with ISO Tariff 4.3.1.2.? For which NERC function is, or will the designated Scheduling Coordinator be registered?

Response:

O-9 Describe the approach the Project Sponsor will use to assure compliance with NERC reliability standards for which Transmission Owners are responsible. Include descriptions of processes and procedures if available. Identify any Applicable Reliability Criteria for which Transmission Owners are responsible that require temporary waivers under TCA 5.1.6. Explain any.

Response:

O-10 Describe the approach the Project Sponsor will use to assure compliance with NERC reliability standards for which Transmission Operators are responsible. Include descriptions of processes and procedures if available. Identify any Applicable Reliability Criteria for which Transmission Operators are responsible that require temporary waivers under TCA 5.1.6. Explain any.

Response:

O-11 Describe, in general, how the Project Sponsor proposes to divide responsibility for NERC reliability standards between the Project Sponsor and the ISO in the Reliability Standards Agreement. Compare your response with existing agreements between the CAISO and other PTOs, and describe expected differences if any. Existing agreements are available on the CAISO website.

Response:

O-12 Describe the approach the Project Sponsor will use to assure compliance with NERC reliability standards related to cyber security as identified in CIP-001 to CIP-009. Include descriptions of processes and procedures if available.

Response:

O-13 Describe the applicable agreements that will define the Transmission Operator responsibilities and authority with respect to 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-14 Describe how the Project Sponsor will meet the requirement that Transmission Operators 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.

Response:

O-15 Provide information demonstrating that the Project Sponsor has been in compliance with the Applicable Reliability Standards for all transmission facilities that it owns, operates, and or maintains. This could include information for facilities outside the ISO controlled grid and should include available NERC compliance audit results and any notices of violation. Provide information describing the amount of transmission facilities subject to NERC compliance, e.g. miles of line by voltage class, number of substations by voltage class.

Response:

O-16 Describe the Project Sponsor's capability and experience that will enable it to comply with the activities required by TCA 6.1. Physical Operation of Facilities. (Operation, ISO Operating Orders, Duty of Care, Outages, Return to Service and Written Report)

Response:

O-17 Describe the Project Sponsor's capability and experience that will enable it to comply with the activities required by TCA 6.3 Other Responsibilities.

Response:

O-18 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 the ISO's Operational Control are subject, together with any documents creating such Encumbrances and any instructions on how to implement Encumbrances and Entitlements in accordance with the TCA 6.4.2.

Response:

O-19 Describe the Project Sponsor's capability and experience that will enable it to comply with the activities required by TCA 7 Operations and Maintenance. (Scheduled Maintenance, Exercise of Contractual Rights and Unscheduled Maintenance)

Response:

O-20 Describe the Project Sponsor's capability and experience that will enable it to comply with the activities required by TCA 9.2. Management of Emergencies by Participating TOs and 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-21 Describe the Project Sponsor's capability and experience that will enable it to comply with the maintenance standards described in Appendix C of the TCA.

Response:

O-22 Indicate whether or not the project sponsor's standards include the elements listed in TCA Appendix C 5.2.1. Transmission Line Circuit Maintenance and 5.2.2. Station Maintenance. If not, indicate whether the Project Sponsor will revise its standards to include those elements for the facilities to be subject to conditions of the TCA Appendix C. (Note: Each PTO will prepare its own Maintenance Practices that shall be consistent with the requirements of these ISO Transmission Maintenance Standards. The effectiveness of each PTO's Maintenance Practices will be gauged through the Availability performance monitoring system. Each PTO's adherence to its Maintenance Practices will be assessed through an ISO review. (TCA Appendix C Maintenance Procedure 4).

Response:

O-23 Provide the Project Sponsor's preexisting procedures and historical practices for managing ROW for transmission facilities. If the Project Sponsor does not have such preexisting procedures, provide a detailed description of its plan for managing ROW. Describe the project Sponsor's Vegetation Management plan as it applies to the proposed project.

Response:

O-24 Provide information, notices or reports regarding the Project Sponsor's experience with implementation and compliance with its standards for inspection, maintenance, repair and replacement of similar facilities.

Response:

O-25 Describe the Project Sponsor's capability and experience that will enable it to provide its Availability Measures in accordance with TCA Appendix C 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 and experience.

Response:

O-26 Would adding the project to the ISO controlled grid require any changes or exceptions to the provisions of the TCA? If "yes", describe.

Response:

9. MISCELLANEOUS:

M-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.

Response:

Approval History

Approval Date: December 19, 2012

Effective Date: December 19, 2012

Application Owner: Stephen Rutty

Application Owner's Title: Director, Grid Assets

Revision History

Version	Date	Description
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