

Application No.: 15-08-027  
Exhibit No.: CAISO-  
Witness: Neil Millar

In the Matter of the Application of  
NEXTERA ENERGY TRANSMISSION  
WEST, LLC for a Certificate of Public  
Convenience and Necessity for the Suncrest  
Dynamic Reactive Power Support Project

Application 15-08-027

**TESTIMONY OF NEIL MILLAR  
ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
CORPORATION**

May 16, 2017

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1 **BEFORE THE PUBLIC UTILITIES COMMISSION OF THE**  
2 **STATE OF CALIFORNIA**

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5 **TESTIMONY OF NEIL MILLAR**  
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7 **CORPORATION**

8  
9 **I. INTRODUCTION**

10 **Q1. What is your name and by whom are you employed?**

11 **A1.** My name is Neil Millar. I am employed by the California Independent System Operator  
12 Corporation (CAISO), 250 Outcropping Way, Folsom, California as the Executive  
13 Director, Infrastructure Development.

14  
15 **Q2. Please describe your educational and professional background.**

16 **A2.** I received a Bachelor of Science in Electrical Engineering degree at the University of  
17 Saskatchewan, Canada, and am a registered professional engineer in the province of  
18 Alberta.

19  
20 I have been employed for over 30 years in the electricity industry, primarily with a major  
21 Canadian investor-owned utility, TransAlta Utilities, and with the Alberta Electric  
22 System Operator and its predecessor organizations. Within those organizations, I have  
23 held management and executive roles responsible for preparing, overseeing, and  
24 providing testimony for numerous transmission planning and regulatory tariff  
25 applications. I have appeared before the Alberta Energy and Utilities Board, the Alberta  
26 Utilities Commission, and the British Columbia Utilities Commission. Since November,  
27 2010, I have been employed at the CAISO, leading the Transmission Planning and Grid  
28 Asset departments.

29

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1 **Q3. What is the purpose of your testimony?**

2 **A3.** The purpose of my testimony is to provide an overview of the CAISO's transmission  
3 planning process that identified the policy-driven need for the Suncrest static var  
4 compensator (Suncrest SVC). I address the factors the CAISO took into account in  
5 making this need determination and the process by which the CAISO selected NextEra  
6 Energy Transmission West, LLC (NEET West) as the Approved Project Sponsor<sup>1</sup> to  
7 build the Suncrest SVC as proposed in this Application (Proposed Project).

8

9 **Q4. What are your recommendations in this proceeding?**

10 **A4.** I recommend that the Commission approve NEET West's Application for a certificate of  
11 public convenience and necessity for the Proposed Project. As explained in my  
12 testimony and the supporting technical testimony of Mr. Frank Chen, the Suncrest SVC  
13 project is necessary to (1) reliably provide the requested level of service to generators  
14 seeking transmission service under the CAISO's Federal Energy Regulatory Commission  
15 (FERC) approved tariff, (2) meet policy requirements of the State of California, and (3)  
16 meet North American Electric Reliability Corporation (NERC) and CAISO planning  
17 standards.

18

19 I also provide testimony regarding the infeasibility of the Suncrest Substation Alternative,  
20 which the Draft Environmental Impact Report (DEIR) identifies as the environmentally  
21 superior alternative, and the potential negative consequences to the CAISO's competitive  
22 solicitation process if the Commission approves the Suncrest Substation Alternative.

23

24 **II. BACKGROUND**

25 **Q5. Please provide an overview of the CAISO's transmission planning process.**

26 **A5.** The CAISO conducts an annual transmission planning process to identify and plan the  
27 development of solutions to meet the future needs of the CAISO controlled grid. This  
28 annual process culminates in the CAISO Board of Governors approving a comprehensive  
29 transmission plan. The plan identifies needed transmission solutions and authorizes their

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<sup>1</sup> All terms not otherwise defined herein are defined in the CAISO Tariff, Appendix A.

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1 cost recovery through CAISO transmission rates, subject to regulatory approval. The  
2 CAISO develops the plan in the larger context of supporting achievement of important  
3 State energy and environmental policies and facilitating the transition to a cleaner, lower  
4 emission future, while maintaining reliability through a resilient electric system.

5  
6 The transmission plan identifies transmission facilities that are needed for three main  
7 purposes: reliability; public policy; and economics. In the planning process, the CAISO  
8 also considers and evaluates non-transmission alternatives, including conventional  
9 generation and preferred resources such as energy efficiency, demand response,  
10 renewable resources, and energy storage.

11  
12 The annual planning process is structured in three consecutive phases with each planning  
13 cycle identified by a beginning year and a concluding year. Each annual cycle begins in  
14 January and extends into the subsequent year.

15  
16 In Phase 1 of the annual planning process, the CAISO establishes the assumptions and  
17 models to be used in the planning studies, develops and finalizes a study plan, and  
18 specifies the public policy mandates that CAISO planners will adopt as objectives in the  
19 current planning cycle. This phase takes roughly three months from January through  
20 March of the first year of the planning cycle. During Phase 1, the CAISO first posts a  
21 draft study plan for stakeholder review and then conducts a public stakeholder session.  
22 At the stakeholder session, the CAISO answers questions regarding the draft study plan  
23 and requests additional written comments from stakeholders. The CAISO then considers  
24 stakeholder comments in completing its final study plan.

25  
26 In Phase 2, the CAISO performs studies to identify transmission needs and the necessary  
27 solutions to meet those needs, culminating in the annual comprehensive transmission  
28 plan. Phase 2 takes approximately 12 months and generally involves three additional  
29 public stakeholder sessions at which the CAISO presents preliminary and draft results for  
30 vetting with stakeholders. After each stakeholder session, the CAISO requests and  
31 considers stakeholder comments on its planning analyses. Identifying non-transmission

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1 alternatives that the CAISO can rely upon in lieu of transmission solutions also occurs  
2 during Phase 2. After this process concludes, the draft transmission plan is presented to  
3 the CAISO's Board of Governors for final review and approval. Phases 1 and 2 take a  
4 total of 15 months to complete.

5  
6 During Phase 3, the CAISO solicits competitive bids for the construction and ownership  
7 of new transmission facilities identified in the approved transmission plan eligible for  
8 competition. In any given planning cycle, Phase 3 may or may not occur depending on  
9 whether the final plan includes transmission facilities that are open to competitive  
10 solicitation in accordance with criteria specified in the CAISO tariff.

11  
12 **Q6. Please provide additional detail regarding the CAISO's process to identify public**  
13 **policy-driven transmission solutions.**

14 **A6.** As part of Phase 2 of the annual transmission planning process, the CAISO evaluates  
15 transmission solutions needed to meet federal, state, and local policy requirements. In  
16 particular, the CAISO evaluates whether transmission solutions are necessary to meet the  
17 State's Renewable Portfolio Standard (RPS). To evaluate necessary transmission  
18 additions, the CAISO relies on RPS portfolios developed by the Commission and  
19 submitted to the CAISO for use in the CAISO's transmission planning process. These  
20 Commission-developed RPS portfolios provide expected renewable buildouts for  
21 capacity and energy by location and technology that the CAISO uses in its 10-year  
22 forward transmission planning analysis. The CAISO's policy-driven transmission  
23 planning analysis identifies the need for network upgrades that provide area-wide  
24 benefits by relieving deliverability constraints in areas of the CAISO grid specified for  
25 generation development through the RPS portfolios.

26  
27 **III. THE SUNCREST SVC PROJECT**

28 **Q7. Please describe the Suncrest SVC Project.**

29 **A7.** In the 2013-14 Transmission Plan, the CAISO identified a policy-based need for a 300  
30 Mvar dynamic reactive power support device connected to the Suncrest 230 kV bus. The

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1 policy-based purpose of the project was to integrate renewable resources sufficient to  
2 meet the State's RPS requirements. The dynamic reactive power support is required to  
3 provide reactive power response following system disturbances. The Proposed Project  
4 provides for the installation of a 300 Mvar static var compensator (SVC) connected to the  
5 Suncrest substation. The CAISO estimated the cost of the proposed dynamic reactive  
6 power support would range from \$50 to \$75 million. The Transmission Plan specified an  
7 in-service date of on or before June 1, 2017.

8  
9 The CAISO and NEET West executed an Approved Project Sponsor Agreement (APSA)  
10 for the Proposed Project on May 7, 2015. The APSA provides the terms and conditions  
11 under which NEET West has agreed to construct, operate, and own the Proposed Project.  
12 The APSA has not been amended to date, but the CAISO anticipates it will be amended  
13 at the conclusion of this proceeding to memorialize updated dates for engineering,  
14 construction, testing, and energization. These dates cannot be determined until the  
15 Commission issues a CPCN for the Proposed Project. Any amendment to the APSA will  
16 be filed with the Federal Energy Regulatory Commission (FERC) through the Electronic  
17 Quarterly Reporting process.

18  
19 **Q8. Please describe the process by which the CAISO identified the Suncrest SVC**  
20 **Project as a necessary policy-driven upgrade.**

21 **A8.** The CAISO followed its FERC-approved transmission planning process, as generally  
22 described above. The CAISO identified a need for a reactive power device connected to  
23 the Suncrest substation to meet the 33% RPS goal. The initial driver for the Project was  
24 based on the need for voltage support in the southern California transmission grid based  
25 on the 33% RPS goal and the associated Commission-developed RPS portfolios. The  
26 voltage support issues were primarily caused by the addition of renewable generation in  
27 the Imperial area coupled with the impact of the early retirement of generation in the  
28 southern California area, including the San Onofre Nuclear Generating Station (SONGS),  
29 and gas-fired generation set to close in compliance with the State's policy to eliminate  
30 coastal water use in once-through cooling.

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1  
2 **Q9. Based on the CAISO's most recent analysis, is the Proposed Project still necessary?**

3 **A9.** Yes. Although some changes have occurred since the time the Suncrest SVC  
4 transmission solution was approved as part of the 2013-14 Transmission Plan, the  
5 Proposed Project remains necessary to integrate renewable resources necessary to meet  
6 the State's RPS goals by providing adequate voltage support to reliably operate the grid.  
7 Mr. Chen's testimony provides the CAISO's updated analysis demonstrating the  
8 continued need for the Proposed Project.

9  
10 **IV. THE CAISO COMPETITIVE SOLICITATION PROCESS**

11 **Q10. Please describe the process by which the CAISO selected NEET West as the**  
12 **Approved Project Sponsor to construct and own the Suncrest SVC.**

13 **A10.** As outlined above, after the CAISO identifies, and the CAISO Board approves, a needed  
14 transmission solution in Phase 2 of its transmission planning process, the CAISO then  
15 commences Phase 3, in which it solicits competitive bids for the construction and  
16 ownership of the new transmission facilities. The CAISO followed the Phase 3 planning  
17 process set forth in the CAISO tariff in selecting NEET West as the Approved Project  
18 Sponsor to build the Suncrest SVC. In my testimony below, I describe and summarize the  
19 key events in the competitive solicitation process and the selection of the Approved  
20 Project Sponsor for the Suncrest Reactive Power project.

- 21
- 22 • On April 16, 2014, the CAISO issued a market notice indicating that it had  
23 opened a competitive solicitation bid window to receive proposals to build the  
24 Suncrest Dynamic Reactive Power Support project. This notice required  
25 completed proposals for the Suncrest project to be submitted prior to June 16,  
26 2014.
  - 27 • The CAISO received applications to build the Suncrest project from two project  
28 sponsors –NEET West and San Diego Gas & Electric Company (SDG&E).
  - 29 • The CAISO then validated the applications submitted by NEET West and  
SDG&E to determine if they were complete and satisfied the information



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1 requirements in the CAISO tariff. The CAISO posted a list of the valid project  
2 sponsor applications on August 4, 2014.

- 3
- 4 • Subsequently, the CAISO determined whether the applicants met the minimum  
5 qualifications, as specified in the CAISO tariff, to finance, design, engineer,  
6 construct, operate, and maintain the requisite transmission facilities. The CAISO  
7 found that both NEET West and SDG&E were qualified Project Sponsors. The  
8 CAISO posted the list of qualified Projects Sponsors on September 9, 2014.
  - 9 • Because the CAISO determined that more than one Project Sponsor was qualified,  
10 it then conducted a comparative analysis pursuant to Section 24.5.4 of the CAISO  
11 tariff to select an Approved Project Sponsor to construct and own the Project. I  
12 describe the comparative analysis in the answer to the next question below.

13 **Q11. Please describe the selection factors the CAISO considered in selecting NEET West**  
14 **as the Approved Project Sponsor.**

15 **A11.** As required by its tariff, the CAISO must select the qualified Project Sponsor that is  
16 “best able to design, finance, license, construct, maintain, and operate the particular  
17 transmission facility in a cost-effective, efficient, prudent, reliable, and capable manner  
18 over the lifetime of the facility, while maximizing overall benefits and minimizing the  
19 risk of untimely project completion, project abandonment and future reliability,  
20 operational and other relevant problems, consistent with Good Utility Practice, applicable  
21 reliability criteria, and CAISO Documents.”<sup>2</sup> The tariff requires the CAISO to make this  
22 selection based on a comparative analysis using the qualification criteria and the specific  
23 selection factors described in the tariff. The tariff specifies eleven selection factors, which  
24 are reproduced below:

- 25 (a) the current and expected capabilities of the Project Sponsor and its team to  
26 finance, license, and construct the facility and operate and maintain it for the life  
27 of the solution;

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<sup>2</sup> CAISO Tariff, Section 24.5.4.

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- 1 (b) the Project Sponsor’s existing rights of way and substations that would  
2 contribute to the transmission solution in question;
- 3 (c) the experience of the Project Sponsor and its team in acquiring rights of way,  
4 if necessary, that would facilitate approval and construction, and in the case of a  
5 Project Sponsor with existing rights of way, whether the project Sponsor would  
6 incur incremental costs in connection with placing new or additional facilities  
7 associated with the transmission solution on such existing right of way;
- 8 (d) the proposed schedule for development and completion of the transmission  
9 solution and demonstrated ability to meet that schedule of the Project Sponsor and  
10 its team;
- 11 (e) the financial resources of the Project Sponsor and its team;
- 12 (g) if applicable, the previous record regarding construction and maintenance of  
13 transmission facilities, including facilities outside the CAISO controlled grid of  
14 the Project Sponsor and its team;
- 15 (h) demonstrated capability to adhere to standardized construction, maintenance  
16 and operating practices of the Project Sponsor and its team;
- 17 (i) demonstrated ability to assume liability for major losses resulting from failure  
18 of facilities of the Project Sponsor;
- 19 (j) demonstrated cost containment capability of the Project Sponsor and its team,  
20 specifically binding cost control measures the Project Sponsor agrees to accept,  
21 including any binding agreements by the project Sponsor and its team to accept a  
22 cost cap that would preclude costs for the transmission solution above the cap  
23 from being recovered through the CAISO’s transmission access charge, and, if  
24 none of the competing Project Sponsors proposes a binding cost cap, the authority  
25 of the selected siting authority to impose binding cost caps or cost containment  
26 measures on the project Sponsor, and its history of imposing such measures; and
- 27 (k) any other strengths and advantages the Project Sponsor and its team may have  
28 to build and own the specific transmission solution, as well as any specific  
29 efficiencies or benefits demonstrated in its proposal.

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1 In conducting the comparative analysis, the CAISO compared the proposals of each  
2 qualified Project Sponsor to assess the degree to which each applicant met the  
3 qualification criteria and selection factors, ultimately supporting achievement of the  
4 selection standard identified above. The results of the comparative analysis are  
5 documented in the Suncrest Reactive Power Project Sponsor Selection Report, which the  
6 CAISO posted in January, 2015, and which is included as Attachment A to my testimony.

7  
8 **Q12. What were the key selection factors that the CAISO used to determine the**  
9 **Approved Project Sponsor for the Suncrest Project?**

10 **A12.** The CAISO tariff also requires the CAISO to identify the key selection factors for each  
11 competitive solicitation prior to opening a bid window for the solicitation. CAISO  
12 identified the following as the key qualification criteria and selection factors for the  
13 Suncrest SVC Project:

- 14 1. The Project Sponsor's existing rights of way and substations that would  
15 contribute to the transmission solution;
- 16 2. The proposed schedule for development and completion of the transmission  
17 solution and demonstrated ability to meet that schedule of the Project Sponsor and  
18 its team;
- 19 3. Demonstrated cost containment capability of the Project Sponsor and its team,  
20 specifically, binding cost control measures the Project Sponsor agrees to accept,  
21 including any binding agreement by the Project Sponsor and its team to accept a  
22 cost cap that would preclude costs for the transmission solution above the cap  
23 from being recovered through the CAISO's Transmission Access Charge, and, if  
24 none of the competing Project Sponsors proposes a binding cost cap, the authority  
25 of the selected siting authority to impose binding cost caps or cost containment  
26 measures on the Project Sponsor and its history of imposing such measures.

27 The CAISO posted these key selection factors on May 1, 2014 and discussed them during  
28 a stakeholder information conference call on May 2, 2014.

29

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1 **Q13. Please describe how the CAISO selected NEET West as the Approved Project**  
2 **Sponsor for the Suncrest SVC project.**

3 **A13.** NEET West’s proposal was superior based on the key selection factors. Specifically, the  
4 CAISO determined that NEET West’s proposal was superior because (1) it included  
5 binding cost containment measures that were more robust than those in SDG&E’s  
6 proposal. In particular, NEET West agreed to a materially lower cap on capital costs; and  
7 (2) NEET West assumed more cost increase risk than SDG&E’s proposal. Although  
8 SDG&E’s proposal included an SVC within the footprint of the existing Suncrest  
9 substation, NEET West’s materially lower cost cap and greater assumption of risk for  
10 cost increases outweighed any permitting or schedule advantages provided under  
11 SDG&E’s proposal.

12  
13 In the Selection Report for the Suncrest SVC, the CAISO outlined the reasons why  
14 NEET West’s cost cap was determined to be the most robust:

15 NEET West’s proposed cost cap is materially lower than SDG&E’s  
16 proposed cost cap. In addition, SDG&E’s proposed cost cap mechanism  
17 would provide for cost cap increases if EPC costs are greater than 10% of  
18 the initial EPC cost estimate, while only increases in costs below that  
19 level would not trigger an upward adjustment in the cost cap amount.  
20 SDG&E also indicated that should commodity costs significantly  
21 increase prior to project award (not an “Uncontrollable Force” within the  
22 scope of cost cap adjustments reserved by NEET West), SDG&E would  
23 reserve the right to revise the cost cap. NEET West’s construction cost  
24 cap includes all costs associated with the construction period, including  
25 direct costs, allocated/overhead costs, and capital/AFUDC costs. The  
26 greater latitude reserved by SDG&E for upward adjustments in its cost  
27 cap also makes SDG&E’s cost cap proposal less robust than NEET  
28 West’s cost cap proposal.<sup>3</sup>

29  
30 Essentially, NEETWest “assumed more cost risk than SDG&E and agreed to more  
31 effective binding measures to limit the potential for any cost increases.”<sup>4</sup>

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<sup>3</sup> See Suncrest Reactive Power Project – Project Sponsor Selection Report (Selection Report), p. 39 (accessible at <http://www.caiso.com/Documents/SuncrestProjectSponsorSelectionReport.pdf>, also included as Attachment A to this testimony).

<sup>4</sup> Selection Report, p. 40.

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1 It is important to note that in its proposal NEET West did not indicate that it had any  
2 rights to use property within the confines of SDG&E's existing Suncrest substation.  
3 Because building inside the substation was not an option for NEET West, it chose to  
4 secure an option on property located approximately 1.5 miles northeast of Suncrest  
5 substation to locate the SVC. NEET West's proposal includes approximately 1.5 miles  
6 of new 230 kV transmission line to connect the proposed SVC to Suncrest substation.  
7 The costs of the transmission line are captured in NEET West's proposal and are subject  
8 to the overall project cost cap, which was lower than SDG&E's proposed cost cap.

9 **Q14. The DEIR identifies an SVC located inside the Suncrest substation as the**  
10 **environmentally preferred alternative to the Proposed Project. In the CAISO's**  
11 **view, is such an alternative feasible for NEET West to build, operate and own?**

12 **A14.** Pursuant to the CAISO tariff, transmission solutions that involve an upgrade or  
13 improvement to, addition on, or a replacement of part of an existing Participating  
14 Transmission Owner facility are constructed and owned by the Participating  
15 Transmission Owner, unless the Participating Transmission owner agrees to a different  
16 arrangement.<sup>5</sup> The CAISO included this specific tariff language to comply with FERC  
17 Order No. 1000, and FERC approved it as being in compliance.<sup>6</sup> In Order No. 1000,  
18 FERC ruled that incumbent transmission owners may maintain a federal right of first  
19 refusal for upgrades to their own transmission facilities. Upgrades include improvements,  
20 additions to, or replacements of a part of an existing facility.<sup>7</sup> Thus, needed transmission  
21 solutions that are an improvement, addition to, or replacement of part of an existing  
22 facility are to be constructed and owned by the Participating Transmission Owner, and  
23 the CAISO does not put such transmission solutions out to bid in the CAISO's

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<sup>5</sup> CAISO Tariff Section 24.5.1.

<sup>6</sup> *California Independent System Operator Corporation*, 143 FERC ¶61,057 (2013).

<sup>7</sup> *Transmission Planning and Cost Allocation by Transmission Owning and Operating Utilities*, Order No. 1000 at P 319, FERC Stats. & Regs. ¶31,323 (2011), order on reh'g, Order No. 1000-A at PP 426-27 (2012).

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1 competitive solicitation process in Phase 3 of the planning process. Constructing an SVC  
2 within the Suncrest substation would constitute an upgrade to an existing facility.

3  
4 Allowing a third party to construct and own upgrades to existing facilities raises safety,  
5 reliability, and liability issues. As the CAISO explained to FERC, a tariff provision that  
6 transmission owners are solely responsible for upgrades to their existing facilities,

7 is consistent with numerous other [FERC] decisions and supported by  
8 sound policy reasons. The Commission has correctly recognized that since  
9 existing transmission owners have the risk and responsibility for reliably  
10 operating their transmission systems, these owners should have sole  
11 responsibility to construct and own transmission provider interconnection  
12 facilities, upgrades to existing network facilities, and substation facilities.<sup>8</sup>

13  
14 This rationale supports, and the CAISO tariff preserves, SDG&E's right to construct and  
15 own any improvements or additions to its Suncrest substation.

16  
17 Based on the CAISO tariff and FERC precedent, the CAISO does not believe it would be  
18 consistent with existing rules for the Commission to mandate that NEET West build the  
19 Suncrest SVC as an addition to the existing SDG&E-owned Suncrest substation, unless  
20 SDG&E has agreed to such an arrangement. The CAISO is not aware of SDG&E  
21 agreeing to such an arrangement.

22  
23 In the event that the Commission orders the Suncrest SVC to be constructed within the  
24 Suncrest Substation Alternative and the CAISO determines that NEET West cannot  
25 secure necessary approvals or property rights or is otherwise unable to construct the  
26 transmission solution approved by the CAISO, Section 24.6.4 of the tariff requires the  
27 CAISO "take such action as it reasonably considers appropriate, in coordination with the  
28 Participating TO and other affected Market Participants, to facilitate the development and  
29 evaluation of alternative solutions." Although the mechanics have not been fully  
30 explored, the CAISO believes that the consequence would be that the Suncrest SVC  
31 would ultimately be assigned to the incumbent utility, SDG&E either through a

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<sup>8</sup> CAISO Revised Transmission Planning Process Tariff Amendment Filing, p. 71, June 4, 2010.

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1 subsequent solicitation process in which only SDG&E could participate, or by being  
2 directly assigned to SDG&E. Under these circumstances, the CAISO would have no  
3 authority under its tariff to unilaterally impose, or enforce, a binding cost cap or other  
4 cost containment measures on SDG&E.

5  
6 **Q15. If the Commission orders the Suncrest SVC to be constructed within the Suncrest**  
7 **Substation on the grounds that it is the environmentally superior alternative, how**  
8 **will that decision affect the CAISO’s competitive solicitation process?**

9 **A15.** The CAISO considers the Suncrest SVC to be at the low end of the spectrum of  
10 environmental impacts for a new transmission facility. The Proposed Project would be  
11 located on already disturbed land with a 1.5 mile underground line along an existing  
12 roadway. Indeed, even the DEIR recognized that the identified impacts “could be  
13 mitigated to a level of less-than-significant.”<sup>9</sup> Given the specifics of this particular  
14 situation and the characteristics of the NEET West proposal, a Commission determination  
15 that the SVC must be located within the Suncrest substation because it is the  
16 environmentally superior alternative would have an impact on the CAISO competitive  
17 solicitation process going forward. Specifically, in Phase 2 of future transmission  
18 planning processes, the CAISO would generally select any reasonably viable projects that  
19 constitute upgrades or improvements to, additions on, or a replacements of existing  
20 facilities (*i.e.*, in-substation options) based on the regulatory precedent set in this case.  
21 This would lead to the exclusion of potentially viable outside the substation solutions  
22 and, as a result, a reduction in the number of approved transmission solutions that that are  
23 subject to competitive solicitation under the CAISO tariff. The CAISO would take this  
24 approach to avoid potentially disruptive outcomes and the expenditure of significant  
25 costs, time, and resources by the CAISO and transmission developers in participating in  
26 the competitive solicitation process and pursuing potential solutions outside of the  
27 substation.

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<sup>9</sup> Draft Environmental Impact Report NextEra Energy Transmission West’s Proposed Suncrest Dynamic Reactive Power Support Project, Executive Summary, p. ES-8, lines 2-4, (November 2016).

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1           The CAISO does not believe that limiting the application of the competitive solicitation  
2           process is optimal, and it would not advance the Commission’s goal to reduce  
3           transmission costs as it could drive the CAISO to select alternatives that could be  
4           materially more costly in return for less-than-significant environmental benefits. In that  
5           respect, the Commission has been a strong supporter of the CAISO’s competitive  
6           solicitation process and, in particular, the importance of cost containment. In FERC  
7           Docket No. ER13-103, which established the competitive solicitation tariff provisions  
8           that exist today, the Commission filed comments that stated that “it is critical that the  
9           CAISO’s Order 1000 compliant process for soliciting and selecting developers of  
10          whatever transmission is eligible for competitive development [...] provides a  
11          substantial, transparent, predicable, and verifiable role for cost containment, as an  
12          important aspect of selecting developers [...] for such transmission. Otherwise, cost  
13          management could be thwarted.”<sup>10</sup>

14  
15 **V. CONCLUSION**

16 **Q16. Please summarize your recommendations.**

17 **A16.** As explained in my testimony and the supporting technical testimony of Mr. Frank Chen,  
18          the Proposed Project is necessary to meet policy requirements of the State of California.  
19          As a result, I recommend that the Commission approve the Application filed by NEET  
20          West for a certificate of public convenience and necessity for the Proposed Project.

21  
22 **Q17. Does this conclude your testimony?**

23 **A17.** Yes, it does.

---

<sup>10</sup> Motion to File Comments Out of Time and Comments of the Public Utilities Commission of the State of California, Docket No. ER13-103 (December 14, 2014).



**TESTIMONY OF NEIL MILLAR  
ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
CORPORATION  
A.15-08-027**

**Page 15 of 15**

**ATTACHMENT A**

Suncrest Reactive Power Project – Project Sponsor Selection Report



California ISO  
Shaping a Renewed Future

# Suncrest Reactive Power Project Project Sponsor Selection Report

January 6, 2015

California Independent System Operator

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**LIST OF ATTACHMENTS**

Attachment 1 – Competitive Solicitation Transmission Project Sponsor Application dated 04/08/14 Version 4.

## **1. INTRODUCTION**

This report describes the competitive solicitation process conducted by the California Independent System Operator Corporation (ISO) for the Suncrest 230 kV 300 MVAR dynamic reactive power support project. The ISO has conducted this competitive solicitation because the ISO identified a policy-driven need for 300 MVAR of dynamic reactive power support connected to the Suncrest 230 kV bus in its 2013-2014 transmission planning process. As required by the ISO Tariff, the ISO undertook a comparative analysis of the degree to which each project sponsor and its proposal met the qualification criteria set forth in ISO Tariff Section 24.5.3.1 and the selection factors set forth in ISO Tariff Section 24.5.4 to determine the approved project sponsor to finance, construct, own, operate, and maintain the Suncrest project. Two project sponsors submitted exceptionally detailed, well-supported proposals for the Suncrest project. The ISO would like to emphasize that it considers both project sponsors to be highly qualified to finance, construct, own, operate, and maintain the Suncrest project. While conducting the comparative analysis the ISO had to make very slight distinctions between the project sponsors' proposals in determining the approved project sponsor. The result of this competitive solicitation process is that the ISO has selected NextEra Energy Transmission West, LLC (NEET West), an affiliate of NextEra Energy, Inc., as the approved project sponsor to finance, construct, own, operate, and maintain the Suncrest project.

## 2. BACKGROUND

### 2.1 The Suncrest Reactive Power Project and Competitive Solicitation Process

The ISO Tariff specifies that the ISO's transmission planning process must include a competitive solicitation process for new, stand-alone regional transmission facilities needed for reliability, economic, and/or public policy driven reasons. The ISO's 2013-2014 transmission plan identified a policy-driven upgrade as necessary to meet the 33 percent California Renewable Portfolio Standard. The upgrade consists of a 300 MVAR dynamic reactive device at the Suncrest 230 kV bus<sup>1</sup>. The ISO governing board approved the Suncrest 230 kV 300 MVAR dynamic reactive power support project (Suncrest project) on March 25, 2014 as part of its approval of the 2013-2014 transmission plan.

Following approval of the transmission plan, the ISO opened a bid solicitation window on April 16, 2014, which provided project sponsors with the opportunity to submit proposals to finance, construct, own, operate, and maintain the Suncrest project<sup>2</sup>. In accordance with ISO Tariff Section 24.5.1 and the posted 2013-2014 Transmission Planning Process Phase 3 Sequence Schedule<sup>3</sup>, the bid solicitation window remained open through June 16, 2014.

At the time the bid solicitation window opened, the ISO posted a paper on its website entitled *Suncrest 230 kV 300 MVAR Dynamic Reactive Power Support Description and Functional Specifications for Competitive Solicitation* (Suncrest Functional Specification) describing the Suncrest project<sup>4</sup>. As described in the Suncrest Functional Specification, the dynamic reactive power support facility is required to deliver +300/-100 MVAR of continuous or quasi-continuous reactive power response at the Suncrest 230 kV bus following system disturbances. The Suncrest Functional Specification indicated that the reactive power facility needed to be one of the following types: Static VAR compensator (SVC), static synchronous compensator (STATCOM), or synchronous condenser. Both project sponsors proposed an SVC for the reactive power facility. The Suncrest Functional Specification estimates that the cost of the proposed dynamic reactive power support project would be approximately \$50 to \$75 million. The Suncrest Functional Specification also provides that, if proposed, a 230 kV tie-line from the dynamic reactive power support facility to the Suncrest Substation would be the responsibility of the project sponsor up to within 100 feet of the Suncrest Substation fence line. The Suncrest Functional Specification specifies that the latest in-service date is June 1, 2017. Upon completion of the Suncrest project, the facility or facilities must be turned over to ISO operational control.

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<sup>1</sup> See 2013-2014 ISO Transmission Plan 7.2 Transmission Projects found to be needed in the 2013-2014 Planning Cycle, Table 7.2-2 New policy-driven transmission projects found to be needed, page 291

<sup>2</sup> [http://www.caiso.com/Documents/2013-2014TransmissionPlanningProcessCompetitiveSolicitation-OpenApr16\\_2014.htm](http://www.caiso.com/Documents/2013-2014TransmissionPlanningProcessCompetitiveSolicitation-OpenApr16_2014.htm)

<sup>3</sup> [http://www.caiso.com/Documents/2013-2014\\_TransmissionPlanningProcessPhase3SequenceSchedule.pdf](http://www.caiso.com/Documents/2013-2014_TransmissionPlanningProcessPhase3SequenceSchedule.pdf)

<sup>4</sup> <http://www.caiso.com/Documents/Description-FunctionalSpecificationsSuncrest230ReactivePowerSupport.pdf>

The ISO identified and posted key selection factors for the Suncrest project<sup>5</sup>. These are the tariff criteria that the ISO determined were the most important for selecting the project sponsor that is 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 ISO Tariff Section 24.5.4 as the key selection factors:

- Section 24.5.4(b) – “the Project Sponsor’s existing rights of way and substations that would contribute to the transmission solution in question;”
- Section 24.5.4(d) – “the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet that schedule of the Project Sponsor and its team;”
- Section 24.5.4(j) – “demonstrated cost containment capability of the Project Sponsor and its team, specifically, binding cost control measures the Project Sponsor agrees to accept, including any binding agreement by the Project Sponsor and its team to accept a cost cap that would preclude costs for the transmission solution above the cap from being recovered through the CAISO’s Transmission Access Charge, and, if none of the competing Project Sponsors proposes a binding cost cap, the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor, and its history of imposing such measures.”

The ISO described these key selection factors during a stakeholder information conference call on May 2, 2014<sup>6</sup>.

The ISO received applications on behalf of two project sponsors – (1) NEET West, an affiliate of NextEra Energy, Inc., and (2) San Diego Gas & Electric Company (SDG&E). The ISO posted a list of validated project sponsor applications on August 4, 2014<sup>7</sup> and posted a list of qualified project sponsors and proposals on September 9, 2014<sup>8</sup>.

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<sup>5</sup> <http://www.caiso.com/Documents/KeySelectionFactors2013-2014TPP.pdf> page 2.

<sup>6</sup>

[http://www.caiso.com/Documents/TransmissionPlanningProcessPhase3CompetitiveSolicitationInformationCallMay2\\_2014.htm](http://www.caiso.com/Documents/TransmissionPlanningProcessPhase3CompetitiveSolicitationInformationCallMay2_2014.htm)

<sup>7</sup> [http://www.caiso.com/Documents/ValidatedProjectSponsorApplications-Suncrest230kV\\_DynamicReactiveSupportElement.htm](http://www.caiso.com/Documents/ValidatedProjectSponsorApplications-Suncrest230kV_DynamicReactiveSupportElement.htm)

<sup>8</sup> <http://www.caiso.com/Documents/QualifiedProjectSponsorsandProposals-Suncrest230kVDynamicReactiveSupportProject.htm>

## 2.2 The ISO Transmission Planning Process and Competitive Solicitation Tariff Structure

In 2010, the Federal Energy Regulatory Commission (FERC) approved changes to the ISO's transmission planning process that included a competitive solicitation process for new, stand-alone transmission facilities needed for reliability, economic, and/or public policy driven reasons. Subsequently in 2012 the ISO filed tariff amendments to comply with the requirements of FERC Order No. 1000 to further promote competition in the transmission planning process. The ISO conducted its first competitive solicitation process during the 2012-2013 transmission planning cycle. Based on the experience gained during the competitive selection process and discussions with stakeholders, the ISO identified improvements to clarify and provide more transparency to the process for participating transmission owners and other transmission developers. The ISO conducted a competitive transmission improvement initiative in late 2013, which concluded with ISO Tariff Section 24.5 and process changes. The enhancements are applicable to the 2013-2014 transmission planning cycle. The following is a summary of tariff and process changes to Section 24.5:

1. In order to provide more transparency in the ISO selection process and assist potential project sponsors in the preparation of their applications, the ISO now posts key selection factors 30 days after the draft transmission plan is posted as required by Section 24.5.1.
2. Project sponsor application information requirements are set forth in Section 24.5.2.1.
3. In an effort to shorten the competitive solicitation process, the ISO moved the collaboration period to the beginning of the solicitation process, and it now commences after the posting of project sponsors with information-sufficient applications in accordance with Section 24.5.3.1, rather than following the project sponsor qualification phase.
4. The revised tariff contains additional clarifying qualification criteria in Sections 24.5.3.1 (Project Sponsor Qualification) and 24.5.3.2 (Proposal Qualification).
5. If the ISO does not find a project sponsor and/or its proposal to be qualified, Section 24.5.3.3 now provides a cure period to allow the project sponsor to submit additional information and/or clarify its application to correct the deficiency, and the ISO will repost the list of qualified project sponsors and proposals if necessary.
6. The revised tariff includes clarifying language to the existing selection factors set forth in Section 24.5.4 to select the approved project sponsor.
7. The ISO will now select the approved project sponsor when there are multiple project sponsors with the same authorized governmental body for project siting approval in accordance with Section 24.5.3.5.
8. The ISO also modified tariff language requiring the approved project sponsor to initiate contact with the project siting authority within 120 days. Section 24.5.3.5 now specifies that the approved project sponsor must enter into an approved project sponsor agreement with the ISO within 120 days of selection.
9. Section 24.5.6 now provides for an application fee.



In addition, for regional transmission facilities approved in the ISO's 2013-2014 transmission plan, the ISO staggered the bid solicitation window closing dates to facilitate efficient management of large number of projects subject to competitive solicitation.

Project sponsor application changes include:

1. The ISO aligned the project sponsor application with the tariff changes.
2. The ISO simplified the application.
3. The ISO added financial and construction sections.
4. The ISO added a requirement that the application include a statement by an officer that the information presented is true and correct.

With the enhancements noted above, the framework for the 2013-2014 competitive solicitation process is set forth in the ISO Tariff Section 24.5. In addition, the ISO posted the revised form of the project sponsor application (Attachment 1) on its website. Also, while the bid solicitation window was open, the ISO maintained a question and answer matrix detailing questions from prospective project sponsors and the ISO's responses so that all interested parties would have access to the same clarifying information.<sup>9</sup> In compliance with ISO Tariff Section 24.5.3.5, the ISO engaged two expert consultants to assist with the selection of the approved project sponsor.

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

- Project Sponsor, Name and Qualifications
- Past Projects, Project Management and Cost Containment
- Financial
- Environment and Public Process
- Substation
- Transmission Line
- Construction
- Operation and Maintenance
- Miscellaneous
- Officer Certification
- Payment Instructions

The ISO provided the project sponsors opportunities to correct deficiencies in their applications. Following a project sponsor's submission of supplemental information, the ISO validated the project sponsor's application to determine if it contained sufficient information for the ISO to determine whether the project sponsor and its proposal were qualified. Once the ISO validated the applications, the ISO posted the list of validated project sponsor applications to its website, as described in Section 2.1 of this report.

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<sup>9</sup> <http://www.caiso.com/Documents/ProjectSponsorQuestion-AnswerMatrix.pdf>

The collaboration period opened on August 5, 2014 and closed on August 19, 2014 with no project sponsors requesting collaboration.

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

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

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

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

The ISO found that both project sponsors and their proposals met the minimum qualification criteria as set forth in ISO Tariff Sections 24.5.3.1 and 24.5.3.2 for the Suncrest project. Therefore, the ISO determined that no cure period was needed for the qualification phase. As described in Section 2.1 of this report, the ISO posted the list of qualified project sponsors and their proposals to its website on September 9, 2014. Section 3 of this report describes the ISO's selection process for this project.

### **3. SELECTION OF THE APPROVED PROJECT SPONSOR**

#### **3.1 Description of Project Sponsor Selection Process**

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

- (a) the current and expected capabilities of the Project Sponsor and its team to finance, license, and construct the facility and operate and maintain it for the life of the solution;
- (b) the Project Sponsor’s existing rights of way and substations that would contribute to the transmission solution in question;
- (c) the experience of the Project Sponsor and its team in acquiring rights of way, if necessary, that would facilitate approval and construction, and in the case of a Project Sponsor with existing rights of way, whether the Project Sponsor would incur incremental costs in connection with placing new or additional facilities associated with the transmission solution on such existing right of way;
- (d) the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet that schedule of the Project Sponsor and its team;
- (e) the financial resources of the Project Sponsor and its team;
- (f) The technical and engineering qualifications and experience of the Project Sponsor and its team;
- (g) if applicable, the previous record regarding construction and maintenance of transmission facilities, including facilities outside the CAISO Controlled Grid of the Project Sponsor and its team;
- (h) demonstrated capability to adhere to standardized construction, maintenance and operating practices of the Project Sponsor and its team;
- (i) demonstrated ability to assume liability for major losses resulting from failure of facilities of the Project Sponsor;
- (j) demonstrated cost containment capability of the Project Sponsor and its team, specifically, binding cost control measures the Project Sponsor agrees to accept, including any binding agreement by the Project Sponsor and its team to accept a cost cap that would preclude costs for the transmission solution above the cap from being recovered through the CAISO’s Transmission Access Charge, and, if none of the competing Project Sponsors proposes a binding cost cap, the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor, and its history of imposing such measures; and
- (k) any other strengths and advantages the Project Sponsor and its team may have to build and own the specific transmission solution, as well as any specific efficiencies or benefits demonstrated in their proposal.

In selecting the approved project sponsor, the ISO undertook a comparative analysis of the project sponsors' proposals with regard to the qualification criteria described in ISO Tariff Section 24.5.3.1 and the selection factors in ISO Tariff Section 24.5.4. As part of the comparative analysis, the ISO gave particular consideration to the key selection factors for the Suncrest project as described in Section 2.1 of this report.

This report summarizes information provided by each project sponsor that was considered by the ISO to be important in analyzing their proposals with respect to each of the qualification criteria and selection factors. At the beginning of each subsection of Section 3.3 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 qualification criterion or selection factor. In addition, in the ISO's summaries in this report describing the information provided by each project sponsor, the ISO has provided a reference to the particular 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.*

### **3.2 Description of Project Sponsors for the Suncrest Reactive Power Project**

The ISO received project sponsor applications for the Suncrest project on behalf of two project sponsors:

- NEET West, an affiliate of NextEra Energy, Inc.
- San Diego Gas & Electric Company

Both entities are highly qualified and submitted strong, competitive applications supporting their proposals. As a result, the ISO had to make very slight distinctions between the two project proposals in the comparative analysis process in selecting the approved project sponsor.

#### **NextEra Energy Transmission West, LLC, an affiliate of NextEra Energy, Inc. (NEET West)**

According to the application, NEET West is a Delaware limited liability company formed in 2014, is a wholly-owned subsidiary of NextEra Energy Transmission, LLC (NEET), and is an indirect subsidiary of NextEra Energy, Inc. (NextEra). NEET West's application indicated that it was created to own the proposed Suncrest project and other assets in the ISO region as a portfolio, and according to the application is not intended to be a stand-alone project company for the Suncrest project. NEET West stated that it would draw 100% of its financial requirements from its ultimate corporate parent NextEra and provided appropriate documentation from NextEra reflecting this guaranty.

NEET West indicated that its ultimate parent NextEra is a company with revenues of approximately \$15 billion and 13,900 employees as of December 31, 2013. NextEra, and its wholly owned subsidiaries, NEET and NEET West, are headquartered in Juno

Beach, Florida. NEET West indicated that NextEra's principal subsidiaries are Florida Power & Light Company (FPL) and NextEra Energy Resources, LLC (NEER). NEET West indicated that another key entity in the NextEra organization is NextEra Energy Capital Holdings (NEECH), which owns and provides funding for NextEra's operating subsidiaries, other than FPL and its subsidiaries.

NEET West indicated that its immediate parent, NEET, was formed by NextEra in 2007 to apply NextEra's experience and resources in developing, owning, and operating transmission facilities to projects across the United States and Canada. NEET West stated that it intends to own 100% of the project from development through operations, for the life of the project.

NEET West stated that it is an indirect, wholly owned subsidiary of NEECH and would rely upon NEECH for financial backing of this project. NEET West indicated that it plans to finance the project from development through commercial operation with corporate parent funding provided by NEECH, which will ultimately be guaranteed by NextEra.

NEET West stated that it would have ultimate responsibility for siting, permitting, engineering, procurement, construction, and placing the project into operation. NEET West indicated that it would draw from expertise across the entire NextEra organization, as well as engage a selected suite of consulting firms specifically in the areas of engineering design, construction, environmental permitting, land management, and legal and regulatory support to bring the project to successful completion. NEET West has assembled a leadership team consisting of a project director and team leads from within NextEra who will select experienced, qualified engineers, technicians, and other staff from within NextEra or third party consultants to support the Suncrest project.

NEET West stated that it would draw from NextEra's existing pool of high-voltage technicians and existing field support resources already located in Southern California to support existing NEER power generation and transmission assets. These personnel would be responsible for providing 24/7 on-call response, site switching and safety, routine inspection and maintenance, and general site care duties. In addition, NEET West indicated that NEET's existing in-house transmission operations team, located in Austin, Texas, would monitor and control the project's operations.

### **NEET West Access to Affiliate Technical Experience and Expertise**

NEET West stated that for the Suncrest project it would draw from the expertise and experience from across NextEra in transmission and substation siting, design, construction, operations and maintenance, and financing – including a substantial amount of experience for extra high voltage (EHV) transmission and substation projects. NEET West indicated that its proposed O&M team members have had experience operating and maintaining SVCs, STATCOMS, MSCs, series compensators, and synchronous condensers.

In support of its ability to leverage the skills and experience at FP&L, NEET West indicated that if selected to construct the proposed project, NEET West and FPL would execute a service agreement that documents the terms and conditions by which FPL would provide specific support services to NEET West, which would be paid in accordance with the terms of the FPL Cost Allocation Manual (CAM). NEET West indicated that the CAM is prepared in accordance with FERC guidelines, National

Association of Regulatory Utility Commissioners guidelines, and Florida Public Service Commission rules (25-6.1351).

NEET West indicated that it is responsible for all design and construction activities and is supported by NextEra's internal Engineering and Construction (E&C) and Intergrated Supply Chain departments. NEET West indicated that NextEra's E&C department has assigned a project director, engineering lead, procurement lead, and construction lead to this project and that these positions would be filled using internal NextEra resources.

### **NEET West Access to Financial Support**

NEET West provided evidence that NextEra maintains a blanket guarantee of certain obligations of NEECH, pursuant to a Guarantee Agreement between FPL Group, Inc. and FPL Group Capital Inc., dated as of October 14, 1998 (the "Guarantee Agreement"). NEET West further demonstrated that guarantee obligations by NEECH to NEET West would, in turn, be guaranteed by NextEra pursuant to the aforementioned Guarantee Agreement. NEET West indicated that that each and every obligation of NEET West to the ISO would be backstopped by mutually agreed upon support obligations between NEET West and its affiliates.

### **San Diego Gas & Electric Company (SDG&E)**

According to the application, SDG&E is a regulated public utility subsidiary of Sempra Energy (NYSE:SRE), a Fortune 500 energy services holding company based in San Diego, California with annual revenues of over \$4 billion.

SDG&E stated that it would be responsible for owning the assets of the proposed project during the construction and operating periods. SDG&E indicated that it would not intend to create a special purpose entity as part of the proposed project. SDG&E indicated that it would service the debt associated with the design, procurement, construction, and placing the proposed project in service, in addition to the debt carried after commercial operation. SDG&E indicated that it would finance the proposed project with a combination of debt and equity in order to maintain SDG&E's current California Public Utilities Commission (CPUC) authorized capital structure.

SDG&E indicated that it would be responsible for any siting, permitting, engineering, procurement, and construction of the proposed project in addition to the commercial operation. SDG&E stated that it retains the right to utilize an engineering, procurement, and construction (EPC) contractor for a portion of the proposed project and would utilize its supply management department to ensure adequate terms and conditions, cost containment, and execution of the schedule. SDG&E indicated that it would be responsible for the operation of the proposed project with existing organizations and control center facilities. SDG&E noted that it reserves the right to utilize a long-term service agreement for portions of the proposed project with the equipment manufacturer or EPC contractor to comply with standard operation and maintenance procedures.

### **SDG&E Access to Technical Expertise and Experience and Financial Support**

SDG&E's application did not list any involvement of or reliance upon other entities within Sempra Energy for technical or financial support.



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

The first selection factor 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 solution.”

The ISO notes that the first selection factor is a broad criterion that encompasses several of the subsequent more narrow selection factors. The ISO will therefore address satisfaction of this more general criterion in its discussion of the applicable, more specific selection factors. The ISO will not duplicate here (1) the information provided by the project sponsors for purposes of demonstrating their capabilities and experience with respect to each of the encompassed selection factors, 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 factor 24.5.4(a) after the discussion of the other selection factors in Section 3.14 of this report.

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

The second selection factor is “the Project Sponsor’s existing rights of way and substations that would contribute to the solution in question.” As discussed in Section 2.1, the ISO identified this selection factor as a key selection factor because the use of existing rights-of-way can contribute to lower project cost, fewer siting approvals or delays, less extensive rights-of-way acquisition efforts, and reduction in the overall time needed to complete the project. A proposal that best satisfies this factor can contribute to ensuring that the project sponsor selected will develop the project in an efficient, cost-effective, and timely manner.

(Section 3 - General Project Information, QS-1, QS-4, E-10, E-13)

#### **3.4.1 Information Provided by NEET West**

NEET West indicated that it has acquired from a private party an option for purchase of a parcel sufficient for the proposed substation, as well as an easement sufficient for its structures and access up to the boundary of SDG&E’s Suncrest Substation property line. (E-10)

#### **3.4.2 Information Provided by SDG&E**

SDG&E indicated that its project would be constructed entirely in the Suncrest Substation property, which is currently owned by SDG&E. (E-10)

#### **3.4.3 ISO Comparative Analysis**

NEET West does not own existing rights-of-way or substations that would contribute to the transmission project, while SDG&E’s proposed project would be entirely constructed in its own existing Suncrest Substation.

Because SDG&E’s proposal includes SDG&E’s contribution of all of the property rights necessary for the project, while NEET West’s proposal includes no contribution of pre-existing rights-of-way or substation property, the ISO has determined that SDG&E’s proposal is better than NEET West’s proposal with regard to this factor.

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

The third selection factor is “the experience of the Project Sponsor and its team in acquiring rights of way, if necessary, that would facilitate approval and construction and in the case of a Project Sponsor with existing rights of way, whether the Project Sponsor would incur incremental costs in connection with placing new or additional facilities associated with the transmission solution on such existing right of way.”

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) the experience of the project sponsor and its team in acquiring rights-of-way and (2) for the case of a project sponsor with existing rights-of-way, whether the project sponsor would incur incremental costs in connection with placing new or additional facilities associated with the transmission solution on such existing rights-of-way.

#### **Experience in Acquiring Rights-of-Way**

(Section 3 - General Project Information, QS-1, QS-4, P-1, P-9, P-10, E-1, E-2, E-3, E-4, E-7, E-8, E-9c, E-10, E-11, E-12, E-14a, E-14b, E-15a, E-15b, E-16a, E-16b, E-16c, E-16d, E-16e, E-16f, S-1, S-5, T-1)

##### **3.5.1 Information Provided by NEET West**

NEET West indicated that its personnel and its team have experience in acquiring land rights for similar transmission line and substation projects in California. As examples, NEET West provided a list of transmission and substation projects that included projects in California and the U.S. (E-14, E-15)

##### **3.5.2 Information Provided by SDG&E**

SDG&E indicated that its proposed project would be entirely on existing SDG&E property and that no land rights acquisition is required. (E-14, E-15)

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

(Section 3 - General Project Information, E-1, E-13)

##### **3.5.3 Information Provided by NEET West**

NEET West indicated that it has acquired from a private party an option for purchase of a parcel sufficient for the proposed substation, as well as an easement sufficient for its structures and access up to the boundary of SDG&E’s Suncrest Substation property line. NEET West indicated that it would need to negotiate an easement with SDG&E to



traverse onto SDG&E property for the interconnection into the Suncrest Substation. (E-1, E-13)

### **3.5.4 Information Provided by SDG&E**

SDG&E indicated that the project would be built on SDG&E property, completely within the existing SDG&E Suncrest Substation, and that it does not expect any incremental rights-of-way costs for this project. (E-13)

### **3.5.5 ISO Comparative Analysis**

## **Comparative Analysis of Experience in Acquiring Rights-of-Way**

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the experience of both the project 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.

The ISO has determined that NEET West's proposal demonstrates sufficient rights-of-way acquisition experience to complete this particular project successfully, and SDG&E has no need for rights-of-way acquisition because it already possesses the necessary property rights. Accordingly, with respect to this particular project, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

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

The ISO has determined that this component of the factor is inapplicable to NEET West's proposal, and SDG&E's proposal would not result in incremental rights-of-way costs. Consequently, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

## **Overall Comparative Analysis**

Because the ISO has determined that for this project there is no material difference between the proposals of the two project sponsors with regard to the two components of this factor, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this factor overall.

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

The fourth selection factor is “the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet that schedule of the Project Sponsor and its team.” As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because timing of project implementation is critical to ensure viability of renewable generation resources. The following considerations were used to guide the ISO’s analysis for this component of the factor:

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

A proposal that best satisfies this factor will contribute significantly to ensuring that the project sponsor selected will develop the project in a prudent, efficient, cost-effective, and timely manner.

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

#### **Proposed Schedule**

(Section 3 - General Project Information, QS-1, QS-4, QS-3, P-1, P-6, P-9, E-1, E-2, E-3, E-4, E-7, E-14a, E-14b, E-14c, E-14di, E-14dii, E-14diii, E-15a, E-15b, E-15c, E-15di, E-15dii, E-15diii, S-2, S-3, S-4, T-2, T-3, T-4)

#### **3.6.1 Information Provided by NEET West**

NEET West provided a detailed project schedule that identified critical path work items. NEET West’s schedule included going through the CPUC Certificate of Public Convenience and Necessity (CPCN) process. NEET West’s schedule indicated that the Suncrest reactive project would be completed and placed into service by May 31, 2017, which would meet the ISO’s required in-service date of June 1, 2017.

NEET West identified steps it would undertake to meet the in-service date of June 1, 2017 should the originally planned scheduled start be delayed for as much as 6 months. Those steps included reduced permitting time, expediting easement agreements with SDG&E, beginning equipment fabrication earlier, and possibly using a 6-day work week. NEET West indicated that there is a potential of six to eight months of float in its overall schedule. (P-9)

### **3.6.2 Information Provided by SDG&E**

SDG&E provided a detailed project schedule that identified critical path work items. The SDG&E schedule indicated that the Suncrest project would be completed and placed into service on June 1, 2017, which would meet the ISO's required in-service date of June 1, 2017. SDG&E's schedule did not include time for obtaining a CPCN because SDG&E indicated that it does not require a CPCN given that it will build the SVC in the existing substation site. Thus, it is considered a modification.

SDG&E stated that its typical construction contracts include a construction acceleration clause, which would enable the acceleration of different aspects of the construction for a known fixed contract price. SDG&E indicated that it had already built six months of contingency float into the schedule. (P-9)

### **Ability to Meet Schedule**

(Section 3 - General Project Information, QS-1, QS-3, QS-4, P-1, P-6, P-7, P-8, P-9, P-10, E-1, E-2, E-3, E-4, E-14a, E-14b, E-14c, E-14di, E-14dii, E-14diii, E-15a, E-15b, E-15c, E-15di, E-15dii, E-15diii, S-1, S-2, S-3, S-4, T-2, T-3, T-4)

### **3.6.3 Information Provided by NEET West**

As discussed above, NEET West's schedule included going through the CPUC CPCN process. NEET West indicated that it would complete the Suncrest project by May 31, 2017, subject to 6 to 8 months of float.

NEET West provided a table summarizing NextEra's project schedule performance since 2003. The table indicated that NextEra has completed 100% of its stand-alone transmission projects on time, and overall 89% of its major capital projects on time. NEET West indicated that the vast majority of projects that did not meet originally planned schedules were due to interconnection delays with the local utility. (P-6)

NEET West provided a risk and issues log that identified 53 major risks and obstacles to successful project completion on schedule and within budget. The log showed the specific risk, category of risk, whether it affects cost or schedule, the probability of occurrence, the impact of the occurrence, whether it would be a risk during development or construction, and planned or potential mitigation. (P-10)

NEET West stated that it would apply NextEra's project management approach to its execution of the Suncrest project. NEET West indicated that its approach would consist of active management of all aspects of the project by an experienced and skilled project team of professionals and subject matter experts. (P-7)

NEET West indicated that its core project team would draw upon NextEra's matrix organization of shared resources for project execution. NEET West stated that the core team would be directed by NEET senior management with the ultimate decision-making authority for the project. NEET West has assembled a leadership team consisting of a project director and team leads from within NextEra who will select experienced, qualified engineers, technicians, and other staff from within NextEra or third party consultants to support the Suncrest project that have experience on past projects in support of NextEra.

NEET West described its proposed project management for different teams in the development and pre-construction phase, the construction phase, and the operations phase along with each of the lead individuals and descriptions of their work experience. NEET West indicated that its proposed overall project director has more than 30 years of experience. (P-8)

### **3.6.4 Information Provided by SDG&E**

As discussed above, SDG&E's schedule indicated that the Suncrest project would have a project in-service date of June 1, 2017, subject to 6 months of float, and would not include obtaining a CPCN because SDG&E is building the SVC in the existing substation site, and it is considered a modification. SDG&E provided information for substation projects constructed within the past five years (one project is still in progress). The information indicated that three projects were completed after the scheduled operations date due to explainable causes. (P-6)

SDG&E indicated that it would complete a project risk management assessment as identified in its project governance guide, which would include risk identification, risk mitigation, risk monitoring, risk reporting, and integrate with business plan.

For this proposed project, SDG&E identified two specific risks – soil conditions and long lead time equipment procurement. SDG&E specified actions to mitigate these risks. (P-10)

SDG&E indicated the proposed project would be managed by its Major Projects Group. SDG&E indicated that its Major Projects Group is responsible for effectively managing major substation and transmission line projects by focusing on a clearly defined project scope, schedule, and budget. (P-7)

SDG&E provided an organizational chart for the proposed project, including key personnel, SDG&E groups, and general responsibilities.

SDG&E also provided resumes for key personnel identified within the project organization chart. SDG&E indicated that its proposed project director has about 10 years of experience and that its proposed project manager has about seven years of experience. (P-8)

SDG&E's proposal includes SVC installation at the existing Suncrest Substation. (P-9, S-1)

### **3.6.5 ISO Comparative Analysis**

#### **Comparative Analysis of Proposed Schedule**

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

Both project sponsors have proposed schedules that meet the latest in-service date specified in the Suncrest Functional Specification. The ISO has determined that those schedules contain all expected major activities for the project and contain potentially achievable associated timelines given the ISO's understanding of how long similar activities have taken on projects that have been completed in the recent past in California. In addition, the ISO considers the six months of float in SDG&E's schedule to be comparable to the potential float of six to eight months in NEET West's schedule depending on permitting and approval process results and available schedule expediting steps to compensate for delays that may develop. Consequently, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

## **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 Suncrest Functional Specification 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 factor, 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).

As discussed above, both project sponsors proposed schedules that meet the ISO in-service date and include comparable amounts of float in their schedules. In terms of completing past projects on schedule, both project sponsors and their teams have had a reasonable degree of success in meeting project schedules. NEET West has assembled a leadership team consisting of a project director and team leads from within NextEra who will select experienced, qualified engineers, technicians, and other staff from within NextEra or third party consultants to support the Suncrest project that have experience on past projects in support of NextEra. NEET West is relying on NextEra's experience, management structure, and proven processes on past projects in presenting its credentials for completing past work on schedule, as NEET West was created for this project and future ISO projects.

Both project sponsors provided a reasonable approach to professional project management. NEET West would draw upon the project management experience from NextEra and would use different teams for different phases of the project. SDG&E would use its existing internal project management group for this activity. The NEET West project manager has more experience than SDG&E's project manager, but the ISO considers the experience of the SDG&E project manager more than adequate for this particular project.

The most significant difference between the proposals with regard to ability to meet the proposed project schedule is the need for NEET West to go through the CPUC CPCN process for this project. The need to obtain a CPCN presents some increased potential risk of delay in the NEET West schedule. This could lead to potential delays in completing the project on schedule that are not present in the SDG&E proposal because

SDG&E's proposal does not require a CPCN. In addition to building a substation with an SVC, NEET West, unlike SDG&E, would also need to construct a short transmission line.

On the other hand, SDG&E's proposal for SVC installation at the existing Suncrest Substation involves a more complex installation than work at a new site. The ISO considers SDG&E's proposal to raise the possibility of potential construction delays as a result of having to work in close proximity to energized equipment, the need for outages and clearances, and the need to establish multiple interconnections, including those for power, controls, communications, and others. While SDG&E's proposal to construct the SVC in its existing operational substation presents some schedule risk due to its potential complications in comparison to NEET West's proposal, the ISO considers this risk to be much less than the risk of delay associated with the need for NEET West to obtain a CPCN.

Based upon a consideration of all aspects of the ability of the project sponsors to meet their proposed schedules, the ISO has determined that SDG&E's proposal is slightly better than NEET West's proposal with respect to this component of the factor, primarily due its inherently lower risk schedule because there is no need for SDG&E to obtain a CPCN.

## **Overall Comparative Analysis**

The ISO considers the two components of this factor to be of roughly equal importance in the selection process for this project. Because the ISO has determined that there is no material difference between the two project sponsors' proposals with respect to the first component (proposed schedule) and that SDG&E's proposal is slightly better than NEET West's proposal with respect to the second component (demonstrated ability to meet schedule), the ISO has determined that SDG&E's proposal is slightly better than NEET West's proposal with respect to this factor.

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

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

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

Project sponsors provided information related to their experience in developing and financing similar projects, annual financial results including key financial metrics, credit ratings, proposed financing sources, and other financial-oriented information requested by the ISO. In performing the comparative analysis, the ISO has considered all of the financial information provided by the project sponsors. The ISO has also utilized two metrics – tangible net worth and Moody's Analytics Estimated Default Frequency



(“EDF”)<sup>10</sup> – 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 similar to 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<sup>11</sup>, which removes certain assets and liabilities from the net worth calculation. For the purpose of evaluating the financial resources of the project sponsors and their teams for this project, the ISO considers tangible net worth to be more meaningful because it better represents assets that are more immediately available for project funding.

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

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

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

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

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<sup>10</sup> Estimated Default Frequency is a proprietary scoring model developed by Moody’s Analytics, Inc., a subsidiary of Moody’s Corporation (NYSE: MCO).

<sup>11</sup> The ISO Tariff defines “Tangible Net Worth” as total assets minus assets (net of any matching liabilities, assuming the result is a positive value) the CAISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (examples include restricted assets and Affiliate assets) minus intangible assets (i.e., those assets not having a physical existence such as patents, trademarks, franchises, intellectual property, and goodwill) minus derivative assets (net of any matching liabilities, assuming the result is a positive value) minus total liabilities.

## **Project Financing Experience**

(P-1, F-11)

### **3.7.1 Information Provided by NEET West**

NEET West provided a table that listed more than 40 substation projects and more than 1100 circuit miles of transmission lines that NextEra has financed. (P-1) NEET West provided information showing that NextEra is the ultimate guarantor of NEET West's financial commitments with respect to this project through NEECH.

### **3.7.2 Information Provided by SDG&E**

SDG&E indicated that it has financed all of its substations in the SDG&E service territory. (P-1)

## **Project Financing Proposal**

(Section 3 - General Project Information, QS-2, P-5, F-1, F-2, F-3, F-4, F-5, F-6, F-7, F-8, F-9, F-10, F-11, F-12, F-13, F-14, F-15)

### **3.7.3 Information Provided by NEET West**

NEET West stated that it would draw 100% of its financial requirements during development, permitting, and construction from its corporate parent using both equity and short-term debt. NEET West supported these financial assurances by providing a blanket guarantee from NextEra through NEECH. NEET West indicated its intent that each and every obligation of NEET West to the ISO would be backstopped by mutually agreed upon support obligations from its ultimate parent NextEra through NEECH. (Section 3 - General Project Information, F-1, F-2, F-14)

### **3.7.4 Information Provided by SDG&E**

SDG&E indicated it would finance the proposed project with a combination of debt and equity in order to maintain SDG&E's current CPUC authorized capital structure. (Section 3 - General Project Information)

## **Financial Resources**

(Section 3 - General Project Information, QS-2, P-5, F-1, F-2, F-3, F-4, F-5, F-6, F-7, F-8, F-9, F-10, F-11, F-12, F-13, F-14, F-15)

### **3.7.5 Information Provided by NEET West**

NEET West indicated that it does not issue its own audited financial statements and instead provided links to audited, annual financial statements for the years 2009 through 2013 for NextEra. The ISO accepted using the ultimate parent's financial information to conduct the financial analysis because NextEra provided financial assurances for the project. (F-3)



### **3.7.6 Information Provided by SDG&E**

SDG&E indicated that its 2009-2013 annual audited financial statements are included as part of Sempra Energy's annual 10-K filing with the Securities & Exchange Commission (SEC). SDG&E provided a link to access these filings. (F-3)

### **Credit Rating**

(Section 3 - General Project Information, QS-2, P-5, F-1, F-2, F-3, F-4, F-5, F-6, F-7, F-8, F-9, F-10, F-11, F-12, F-13, F-14, F-15)

### **3.7.7 Information Provided by NEET West**

Because NextEra is guaranteeing NEET West's financial commitments, NEET West provided the following credit ratings and credit reports for NextEra:

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

### **3.7.8 Information Provided by SDG&E**

SDG&E provided the following credit ratings as well as credit rating reports:

- Moody's: A1
- S&P: A
- Fitch: A

### **Financial Ratio Analysis**

(Section 3 - General Project Information, QS-2, P-5, F-1, F-2, F-3, F-4, F-5, F-6, F-7, F-8, F-9, F-10, F-11, F-12, F-13, F-14, F-15)

### **3.7.9 Information Provided by NEET West**

NEET West reported the following financial ratios based on its ultimate parent's most recent audited financial statements (F-10):

- Funds from operations (FFO)/interest coverage
- FFO/Total Debt
- Total Debt/Total Capital

### **3.7.10 Information Provided by SDG&E**

SDG&E reported the following financial ratios based on its most recent audited financial statements (F-10):

- FFO/interest coverage
- FFO/Total Debt
- Total Debt/Total Capital

### **3.7.11 ISO Comparative Analysis**

#### **Comparative Analysis of Project Financing Experience**

Based upon the information provided and representations by both project sponsors, the ISO has determined that both project sponsors have experience financing and completing a significant number of projects, including projects significantly larger than this one. Consequently, the ISO has determined that there is no material difference between the project sponsors in this regard.

#### **Comparative Analysis of Project Financing Proposals**

Both project sponsors have proposed “in-house” financing. NextEra provided financial assurances in support of NEET West’s proposal. SDG&E finances its own projects without the need of any parental support. The ISO has determined that there is no material difference between the proposals with regard to financing for this particular project.

#### **Comparative Analysis of Financial Resources**

Based on both project sponsors’ 2013 annual financial statements and their quarterly reports for the first and second quarters of 2014, including tangible net worth, as calculated by the ISO, both project sponsors exhibit sufficient financial strength and resources to complete this project. Consequently, the ISO has determined that there is no material difference between the project sponsors in this regard.

#### **Comparative Analysis of Credit Rating**

Both project sponsors have investment grade credit ratings. However, based on current credit ratings, Moody’s rates SDG&E three rating levels higher than NextEra, while S&P and Fitch rate SDG&E one rating level higher. SDG&E has consistently shown better results in Moody’s Analytics equivalent rating and Estimated Default Frequencies (EDF) metrics. Based on the combination of credit ratings, EDF, and equivalent rating as a reflection of each project sponsor’s financial condition, SDG&E’s current and historical ratings are slightly better than those of NextEra. For this reason, the ISO considers SDG&E to have demonstrated slightly better credit results than NEET West.

## Comparative Analysis of Financial Ratio Analysis

NextEra's ratio of total assets to the total projected capital cost of the project is in excess of five times more than that of SDG&E. This is approximately three times more if calculated based on tangible net worth to total projected capital costs. The ISO considers this difference to be significant enough to provide NEET West's proposal a slight advantage over SDG&E's proposal in this regard.

SDG&E's financial ratios are consistently better than those provided by NEET West. The ratios indicate that NextEra is more highly leveraged than SDG&E, which is consistent with what the credit rating agencies reported as one of the drivers for NextEra's current credit ratings. The ISO considers this difference in financial ratios to be significant enough that it provides SDG&E's proposal a slight advantage over NEET West's proposal in this regard. Each project sponsor's slight advantages essentially offset each other, and the ISO has determined that there is effectively no material difference between the two project sponsors' financial capabilities with respect to this particular project.

## Overall 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 difference.

Based on the information provided by the project sponsors and a review of their current financial resources, the ISO has concluded that both project sponsors have the financial resources to finance the completion of the project as well as to operate and maintain the project over its anticipated life. Neither project sponsor has a significant advantage over the other with regard to many of the financial criteria. The ISO has determined that there is overall no material difference between the project sponsors and their proposals with regard to this factor since both project sponsors have demonstrated that they have more than sufficient financial resources to complete this project. The slight differences with regard to individual measures of financial resources give neither project sponsor a distinct overall advantage when considered in the context of this particular project.

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

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

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the two components of the factor separately and then combined them

into an overall comparative analysis for this factor. The two components are: (1) the technical (environmental permitting) qualifications and experience of the project sponsor and its team and (2) the engineering qualifications and experience of the project sponsor and its team.

## **Technical (Environmental Permitting) Qualifications and Experience**

(Section 3 - General Project Information, QS-1, QS-4, P-1, P-6, P-8, P-9, P-10, E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8, E-9 a, E-9 b, E-9bi, E-9bii, E-9c, E-10, E-14a, E-14c, E-14di, E-14dii, E-14diii, E-15a, E-15c, E-15di, E-15dii, E-15diii, E-16a, E-16b, E-16c, E-16d, E-16e, E-16f, S-1, S-2, S-5, T-1)

### **3.8.1 Information Provided by NEET West**

NEET West provided a list of transmission line and substation projects for which its personnel and team members obtained federal and state discretionary permits and regulatory approvals. The projects are located in California and other states within the U.S.

### **3.8.2 Information Provided by SDG&E**

SDG&E indicated that because the project would be built at the existing Suncrest Substation no federal or state discretionary permits would be required. SDG&E indicated that it would comply with any existing ministerial permits at Suncrest Substation.

SDG&E provided a list of substation projects for which it obtained permits in the last five years. (E-5, E-9, E-14, and E-15)

## **Engineering Qualifications and Experience**

(Section 3 - General Project Information, QS-1, QS-4, P-1, P-6, S-2, S-3, S-4, S-6, S-7, S-8, S-9, S-10, T-2, T-3, T-4, T-6, T-7, T-8, T-9 (T items as appropriate to the proposed project))

### **3.8.3 Information Provided by NEET West**

NEET West indicated that it has assembled a team consisting of its personnel, affiliate personnel, and pre-qualified consultants for the design of the proposed substation and transmission line. NEET West indicated that its team also includes EPC firms for the SVC portion of the project.

NEET West indicated that it is responsible for all design and construction activities and is supported by NextEra's internal Engineering and Construction (E&C) and Intergrated Supply Chain departments. NEET West indicated that NextEra's E&C department has assigned a project director, engineering lead, procurement lead and construction lead to this project and that these positions would be filled using internal NextEra resources.

NEET West indicated that its personnel and its team have completed an extensive list of transmission line and substation projects in the U.S. and California, including numerous reactive support projects. (S-2, S-3)

NEET West provided detailed design criteria and a list of standards, codes, and requirements for the design of the SVC substation, the SVC, and the transmission line. NEET West indicated that the transmission line would be designed to the most stringent requirements of both National Electric Safety Code and CPUC General Order (GO) 95. (P-1, P-6, S-2, S-3, S-4, S-6, S-7, S-8, S-9, S-10, T-2, T-3, T-4, T-6, T-7, T-8, T-9)

### **3.8.4 Information Provided by SDG&E**

SDG&E indicated that it would outsource the design of the SVC to an EPC firm. SDG&E identified three potential EPC contractors for the SVC and provided a list of past projects for each of these potential contractors.

SDG&E indicated that it would use in-house resources for the design of portions of the project. SDG&E indicated that it plans to complete the design of its portion of the project with internal personnel.

SDG&E provided information on reactive support and substation projects that it has completed within the past five years.

SDG&E provided design criteria and a list of standards, codes, and requirements for the design of the SVC. (P-1, P-6, S-2, S-3, S-4, S-6, S-7, S-8, S-9, S-10)

### **3.8.5 ISO Comparative Analysis**

## **Comparative Analysis of Technical (Environmental Permitting) Qualifications and Experience**

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the qualifications and experience of both the project sponsor and its team members in obtaining and complying with environmental permits for a transmission project, including substations and reactive support devices, 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 the proposals of both project sponsors demonstrate sufficient environmental permitting qualifications and experience, including experience in California, and that, for purposes of this particular project, there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

## **Comparative Analysis of Engineering Qualifications and Experience**

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the qualifications and experience of both the project sponsor and its team members in engineering and designing transmission projects, including substations and reactive support devices, 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 including experience with substations and reactive support devices, 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 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 the analysis of this component of the factor, the ISO first wants to point out that it considers the engineering contractors identified by the project sponsors as part of (or, in the case of SDG&E, potentially part of) its teams to be highly qualified. Both project sponsors and their teams have extensive and widespread experience with designing transmission lines, substations, and reactive devices, and the firms they identified as responsible for design have substantial experience in the U.S. and California, which demonstrates their knowledge of California codes and regulations.

The ISO has determined that the proposals of both project sponsors demonstrate sufficient engineering qualifications and experience and that, for purposes of this particular project, there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.



## Overall Comparative Analysis

The ISO considers the two components of this factor to be of roughly equal importance in the selection process for this project. Based upon the comparative analysis for the two components of this factor, the ISO has determined that there is no material difference between the two proposals with respect to both components.

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

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

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

#### Construction Record

(Section 3 - General Project Information, QS-1, QS-4, P-1, P-2, P-6, P-7, E-14a, E-14b, E-14c, E-14di, E-14dii, E-14diii, E-15a, E-15b, E-15c, E-15di, E-15dii, E-15diii, E-16a, E-16b, E-16c, E-16d, E-16e, E-16f, S-2, S-3, S-4 T-2, T-3, T-4)

#### 3.9.1 Information Provided by NEET West

NEET West identified potential construction and EPC firms and indicated that these firms have constructed transmission lines, reactive support projects, and substations, including experience with SVC construction in the U.S. and California. NEET West also provided a list of projects in which NEET West personnel and its consultants have been involved in constructing both within and outside the ISO controlled grid. NEET West provided information on NextEra’s substation and reactive support projects completed within the last five years that are new construction. Of the projects provided by NEET West approximately 37 are projects over 100 kV, of which as many as seven projects contained reactive support facilities. The reactive support facilities listed included a mix of static reactive support devices and one dynamic reactive support device. The dynamic reactive support device was a dynamic volt-amp reactive (DVAR) component, which is similar to an SVC in technology and sophistication, installed on a 161 kV project. NEET West indicated that NextEra was responsible for financing, designing, siting, constructing, operating, and maintaining the majority of the projects, including the DVAR project. (P-1, P-6, S-2, S-3, S-4, T-2, T-3, T-4)

#### 3.9.2 Information Provided by SDG&E

SDG&E identified potential below grade contractors and EPC firms for the SVC portion of the project and indicated that these firms have significant experience with below grade and SVC construction.

SDG&E indicated that it would plan to complete important parts of the SVC installation and its interface with the remainder of the substation equipment using internal construction personnel.

SDG&E provided information on reactive support and substation projects that it has completed within the last five years. The list included projects involving new construction and the expansion of existing facilities. The reactive support facilities listed included a mix of static reactive support devices. SDG&E's list did not include any SVC or other dynamic reactive support device completed within the last five years. Of the projects provided by SDG&E, approximately ten are projects 100 kV or above, of which as many as five projects contained reactive support facilities. SDG&E indicated that it was responsible for financing, designing, siting, constructing, operating, and maintaining a majority of the projects. (P-1, P-6, S-2, S-3, S-4)

## **Maintenance Record**

(Section 3 - General Project Information, QS-1, QS-4, P-1, O-3, O-4, O-5, O-6, O-7, O-9, O-11, O-14, O-18)

### **3.9.3 Information Provided by NEET West**

NEET West proposed using an operations and maintenance (O&M) management team that currently maintains transmission facilities, including substation reactive support equipment, in North American Electric Reliability Corporation (NERC) regions throughout North America. NEET West indicated that its personnel and its team have experience establishing maintenance standards and procedures designed to comply with NERC standards. NEET West indicated that its proposed O&M team members have had experience operating and maintaining SVCs, STATCOMS, Mechanical Switched Capacitors (MSC), series compensators, and synchronous condensers. NEET West also indicated that its team has experience maintaining transmission lines and substation facilities across California. (P-1, O-3, O-4, O-5, O-6, O-7, O-9, O-14, O-18)

### **3.9.4 Information Provided by SDG&E**

SDG&E proposed to use its current O&M organization and management team to maintain the proposed project facilities. SDG&E indicated that all of its transmission system is currently under ISO operational control and is maintained in accordance with ISO maintenance standards and NERC reliability standards. SDG&E indicated that its O&M team has had experience operating and maintaining capacitor banks, reactor banks, and a STATCOM. (O-3, O-4, O-5, O-6, O-9, O-11, O-14, O-18)

### **3.9.5 ISO Comparative Analysis**

## **Comparative Analysis of Construction Record**

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the record and experience of both the project sponsor and its team members in constructing transmission projects, including substations and reactive support devices. NEET West and its affiliates have extensive experience in the construction of transmission lines, substations, and reactive support devices. NEET West also identified qualified



construction firms for the transmission line, substations, and SVC with extensive experience in the U.S. and California.

SDG&E proposes to outsource the below grade and SVC construction and is planning to perform construction work for important parts of the SVC installation and its interface with the remainder of the substation equipment using internal substation construction personnel.

Both NEET West and SDG&E have established records and experience in construction of transmission facilities. However, the ISO considers the experience of NextEra provided by NEET West to be slightly better than SDG&E's because NextEra has constructed more substations that contained static and dynamic reactive support devices than SDG&E, and the substations identified by SDG&E contained only static reactive support devices. Based on the information provided by the project sponsors, the ISO has determined that NEET West's proposal is slightly better than SDG&E's proposal with regard to this component of the factor.

### **Comparative Analysis of Maintenance Record**

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

Both NEET West and SDG&E have established records and experience regarding maintenance of transmission facilities in compliance with NERC standards. However, NEET West's O&M team has experience operating and maintaining SVCs, STATCOMS, MSCs, series capacitors, and synchronous condensers, while SDG&E's O&M team only has experience operating and maintaining capacitor banks, reactor banks, and a STATCOM. Based primarily on the experience of NEET West's team regarding operating and maintaining SVCs, the ISO has determined that NEET West's proposal is slightly better than SDG&E's proposal with regard to this component of the factor.

### **Overall Comparative Analysis**

The ISO considers the two components of this factor to be of roughly equal importance in the selection process for this project. Based upon this and the comparative analysis of the two components of this factor, the ISO has determined that NEET West's proposal is slightly better than SDG&E's proposal with respect to this factor because NEET West and its teams have more relevant experience with regard to both construction and maintenance of substations and reactive support devices, particularly including SVC-related devices.

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

The eighth selection factor is “demonstrated capability to adhere to standardized construction, maintenance and operating practices.”

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

- (1) demonstrated capability to adhere to standardized construction practices,
- (2) demonstrated capability to adhere to standardized maintenance practices, and
- (3) demonstrated capability to adhere to standardized operating practices.

#### **Construction Practices**

(Section 3 - General Project Information, QS-1, QS-4, P-1, E-16a, E-16b, E-16c, E-16d, E-16e, E-16f, S-7, T-6, C-1, C-2, C-3, C-4, C-5, C-6, C-7)

##### **3.10.1 Information Provided by NEET West**

NEET West provided detailed design criteria, provided an inspection process that included construction inspections, quality assurance and quality control plans, and laboratory testing, identified a material yard, provided a constructability review process, indicated that it would develop a detailed schedule including actions to maintain schedule, and indicated that special construction techniques would not be required. NEET West indicated that it would work with SDG&E to determine if its line would cross over or under SDG&E circuits in the vicinity of Suncrest Substation and indicated that clearances of 1 to 2 days would be required on the SDG&E circuits. (S-7, T-6, C-1, C-2, C-3, C-4, C-5, C-6, C-7)

##### **3.10.2 Information Provided by SDG&E**

SDG&E provided a list of substation industry standards, an IEEE Guide for the Functional Specification of Transmission SVC, and detailed design criteria. SDG&E indicated that it would use a quality management plan that would include testing, described a procedure for developing lay down yards, and indicated that its EPC contractor would be responsible for receiving and distributing the material. SDG&E outlined procedures for obtaining clearances.

SDG&E indicated that its EPC contractor would be responsible for the constructability review and that SDG&E would review and comment on the design. SDG&E indicated that it would have weekly schedule meetings and referenced a guide for maintaining the project schedule. SDG&E indicated that no special construction techniques would be required and that the project would be constructed entirely inside the Suncrest Substation with no additional land requirement. (S-7, C-1, C-2, C-3, C-4, C-5, C-6, C-7)

## **Maintenance Practices**

(Section 3 - General Project Information, QS-1, QS-4, P-1, O-1, O-2, O-3, O-4, O-5, O-6, O-7, O-8, O-9, O-10, O-11, O-12, O-13, O-14, O-17, O-19)

### **3.10.3 Information Provided by NEET West**

NEET West indicated that its personnel and its O&M management team members have experience and have established standards and procedures for maintenance of transmission facilities. It provided information demonstrating its ability to adhere to its maintenance practices. NEET West indicated that its maintenance practices are designed to comply with NERC standards and provide evidence of compliance. NEET West indicated that its personnel and its team have a significant number of facilities subject to standardized maintenance practices in other jurisdictions, such as the Electric Reliability Council of Texas (ERCOT). (P-1, O-1, O-2, O-3, O-4, O-5, O-6, O-7, O-8, O-9, O-10, O-11, O-12, O-13, O-14, O-17, O-19)

### **3.10.4 Information Provided by SDG&E**

SDG&E indicated that it and its O&M management team currently maintain SDG&E's transmission facilities, which are subject to ISO and NERC standards. SDG&E provided information demonstrating its ability to adhere to its practices. (P-1, O-1, O-2, O-3, O-4, O-5, O-6, O-7, O-8, O-9, O-10, O-11, O-12, O-13, O-14, O-17, O-19)

## **Operating Practices**

(Section 3 - General Project Information, QS-1, QS-4, P-1, O-1, O-2, O-3, O-4, O-5, O-11, O-12, O-13, O-14, O-15, O-16, O-17, O-18, O-19, O-20)

### **3.10.5 Information Provided by NEET West**

NEET West indicated that its team has operated transmission facilities in NERC regions throughout North America in compliance with NERC standards. NEET West proposed to operate the project facilities from its existing control center in Texas, which it indicated adheres to the standardized operating practices of ERCOT. NEET West indicated that its proposed O&M team members have experience adhering to standardized operating practices in other jurisdictions in North America, in addition to Texas.

NEET West stated that it would rely on transmission operations personnel both in the project area and in support functions throughout the NextEra affiliate company organizations to ensure availability in response to emergency operating conditions. NEET West stated that through its real time monitoring and coordination with the ISO, affected transmission operators, and neighboring entities, NextEra transmission operations personnel would coordinate responses to emergency conditions for the facilities. In addition to proven event response processes, NEET West indicated that it would also establish a comprehensive emergency operations plan, which would outline individual roles and responsibilities. NEET West indicated that the emergency operations plan would also address applicable NERC and U.S. Department of Energy compliance requirements, including, as applicable, black start coordination and critical asset recovery plans. NEET West indicated that NextEra companies are experienced at devising recovery plans, specifically for storms, to help respond to system emergencies.

(P-1, O-1, O-2, O-3, O-4, O-5, O-11, O-12, O-13, O-14, O-15, O-16, O-17, O-18, O-19, O-20)

### **3.10.6 Information Provided by SDG&E**

SDG&E indicated that it and its O&M management team currently operate all of SDG&E's transmission facilities in accordance with the ISO's standardized operating practices.

SDG&E stated that it has operated its transmission system in compliance with Section 9.2 of the Transmission Control Agreement (TCA) and has actively responded to and managed emergencies subject to that provision of the TCA. SDG&E indicated that its transmission system operators and its transmission shift supervisors are fully trained on how to respond to a system emergency and that they are prepared to follow ISO directions and communicate with the ISO from the SDG&E control center. SDG&E indicated that these same individuals are required to participate in an annual training exercise with other participating transmission operators over a five day period, where system restoration is simulated, and oversight of the training is provided by the ISO. SDG&E included copies of sample emergency plans in the appendices. (P-1, O-1, O-2, O-3, O-4, O-5, O-11, O-12, O-13, O-14, O-15, O-16, O-17, O-18, O-19, O-20)

### **3.10.7 ISO Comparative Analysis**

#### **Comparative Analysis of Construction Practices**

For purposes of the comparative analysis for this component of the factor, the ISO 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. Both of the project sponsors provided detailed design criteria and a constructability review process that demonstrates that their respective projects would adhere to standardized construction standards. Based on these considerations, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that there is no material difference between the proposals of the two project sponsors with respect to this component of the factor.

#### **Comparative Analysis of Maintenance Practices**

For purposes of the comparative analysis for this component of the factor, the ISO 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 requirements for transmission operators, the TCA, and the ISO's transmission maintenance standards. Both NEET West and SDG&E have established records and experience demonstrating the capability to adhere to standardized maintenance practices. Although SDG&E has been in compliance with the TCA and the ISO's transmission maintenance standards, it does not have any greater experience or superior proposed practices than those of NEET West with respect to maintenance of an SVC. Consequently, the ISO has determined that, for this particular project, there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

## Comparative Analysis of Operating Practices

For purposes of the comparative analysis for this component of the factor, the ISO has considered the representations by the project sponsors regarding the operating practices they propose for this project, including but not limited to their proposed emergency plans and other plans for compliance with NERC requirements for transmission operators and the ISO's standards. Both NEET West and SDG&E have established records and experience demonstrating the capability to adhere to standardized operating practices and they have adequate emergency plans and the capability to implement them. Although SDG&E has experience operating within the ISO's standards, it does not have any greater experience or superior proposed practices than those of NEET West with respect to operation of an SVC. Consequently, the ISO has determined that, for purposes of this project, there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

## Overall Comparative Analysis

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

Because the ISO has determined that there is no material difference between the proposals of the two project sponsor with regard to the three components of this factor, the ISO has determined that there is no material difference between the proposals with regard to this factor overall.

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

The ninth selection factor is “demonstrated ability to assume liability for major losses resulting from failure of facilities.”

(Section 3 - General Project Information, QS-1, QS-2, QS-4, P-5, F-1, F-2, F-3, F-4, F-5, F-6, F-7, F-8, F-9, F-10, F-11, F-12, F-13, F-14, F-15, F-16, S-1, O-19)

#### 3.11.1 Information Provided by NEET West

NEET West indicated that NextEra and/or its affiliated, subsidiary, and associated companies and/or corporations, which would include NEET West, maintains and would maintain a property all-risk insurance program that would cover the facility from “all risks” of direct physical loss or damage.

NEET West indicated that it would maintain a commercial general liability insurance program with industry leading insurance carriers with limits commensurate with industry standards that would provide protection against liability claims for bodily injury and property damage.

NEET West stated that the insured values during construction and over the operational life of the project facilities would not be less than the full replacement cost of the facility and that it included these costs in its estimate of O&M costs for the project. (P-5)

NEET West's substation design included three single phase transformers with a spare transformer for the main 230/20 kV transformer bank, which would mitigate a lengthy outage due to a single transformer failure. (S-1)

### **3.11.2 Information Provided by SDG&E**

SDG&E indicated that it is permissibly self-insured by the State of California for automobile liability and statutory workers' compensation requirements. SDG&E indicated that it self-insures physical damage losses to property that it owns or leases or for which it has assumed responsibility. In addition, SDG&E indicated that it is self-insured for third party bodily injury and property damage liability arising from its operations. (P-5)

The SDG&E substation design included three single phase transformers with a spare transformer for the main 230/22 kV transformer bank, which would mitigate a lengthy outage due to a single transformer failure. (S-1)

### **3.11.3 ISO Comparative Analysis**

For purposes of the comparative analysis for this factor, the ISO 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.

Both project sponsors have mitigated the risk of potential loss of the largest single point of failure by proposing single phase transformers including a spare transformer for the main 230 kV transformer. NEET West's design results in a slight increase in the risk of failure of project facilities due to the short (approximately 1.5 miles) radial transmission line that is not a part of SDG&E's proposal. However, a failure of NEET West's transmission facilities would likely represent only a portion of the investment in the facility, e.g., a number of towers/poles, a limited number of spans of wire, or damaged insulators, that would not result in a prolonged outage for the SVC.

The approach to insurance by the project sponsors is different; NEET West proposes to use commercial insurance from insurance carriers, while SDG&E is self-insured. And, as discussed in Section 3.7, the project sponsors have slight differences in their financial resources. However, the ISO has concluded that both project sponsors have sufficient financial resources, insurance coverage, and operational incentives to make necessary repairs and return the facilities to service in a reasonable period of time.

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

## **3.12 Selection Factor 24.5.4(j): Cost Containment Capability, Binding Cost Cap, and Siting Authority Cost Cap Authority**

The tenth selection factor is "demonstrated cost containment capability of the Project Sponsor and its team, specifically, binding cost control measures the Project Sponsor



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

As discussed in Section 2.1, the ISO has identified this selection factor as a key selection factor because the ISO considers commitment to a robust binding 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 with a lower risk of cost increase. A proposal that best satisfies this factor will contribute significantly to ensuring that the project sponsor selected will develop the project in an efficient and cost-effective manner with the lowest risk of cost increase.

For the purpose of performing the comparative analysis for this factor, the ISO has initially considered the two components of the factor separately and then combined them into an overall comparative analysis for this factor. The two components are: (1) demonstrated cost containment capability of the project sponsor and its team including any binding agreement by the project sponsor and its team to accept a cost cap that would preclude project costs above the cap from being recovered through the ISO's transmission access charge and (2) if none of the competing project sponsors proposes a binding cost cap, the authority of the selected siting authority to impose binding cost caps or cost containment measures on the project sponsor, and its history of imposing such measures.

Both project sponsors agreed to binding capital cost caps set at their respective total project estimated costs with provisions for escalation of costs. Because both project sponsors agreed to a binding cost cap and submitted competitive bids, the ISO further assessed which proposal presented a lower risk of potential cost increases. The ISO also retained a separate consultant to advise it on cost-related matters. In addition to evaluating the proposals with respect to a binding cost cap and potential for cost escalation, the ISO evaluated each project sponsor's proposal with respect to the following factors relating to cost containment:

- Cost containment performance of past projects
- Project management and scheduling organization and capabilities
- Project risks and mitigation of risks
- Cost containment plans

The ISO emphasizes that it went to great lengths in conducting the analysis for this selection factor, including retaining a second consultant, to assess the differences between the project sponsors' proposals.

### **Cost Containment Capability Including Binding Cost Cap**

(Section 3 - General Project Information, QS-1, QS-4, P-2, P-3, P-4, P-6, P-7, P-8, P-10, P-11, P-12, P-13, F-16)

### **3.12.1 Information Provided by NEET West**

NEET West proposed a binding construction cost cap, subject to adjustment prior to the completion of construction to reflect any scope changes directed by the ISO, CPUC, or other governmental or regulatory body that impact project costs. NEET West also proposed that cost cap adjustments could be triggered by the occurrence of any events that would qualify as an “Uncontrollable Force,” as defined in the ISO Tariff. NEET West clarified that this binding construction cost cap would include all costs associated with the construction period, including direct costs, allocated and overhead costs, and capital costs, including allowance for funds used during construction (AFUDC). Absent a change resulting from one of the foregoing types of events, NEET West indicated that all construction costs would not be subject to change. NEET West indicated that its cost cap does not include costs to connect the project to the SDG&E Suncrest Substation. (P-12)

NEET West also proposed a cap of annual O&M expense (including administrative and general) for the first five years following commencement of commercial operation of the project, after which point NEET West indicated that it would reserve the option of requesting FERC approval for a different rate. NEET West indicated that it would also agree to include a provision in the approved project sponsor agreement with the ISO to effectuate this commitment. (P-12)

NEET West stated that it would apply NextEra’s project management approach to its execution of the Suncrest project. NEET West indicated that its approach would consist of active management of all aspects of the project by an experienced and skilled project team of professionals and subject matter experts. (P-7)

NEET West indicated that its core project team would draw upon NextEra’s matrix organization of shared resources for project execution. NEET West stated that the core team would be directed by NEET senior management, which would have the ultimate decision-making authority for the project. NEET West provided a table with budget results for 91 NextEra projects delivered since 2003. Overall, the information provided for NextEra demonstrated a positive variance of \$600 million (i.e., delivering projects under budget) for a total project capital cost of more than \$23 billion. (P-6)

NEET West indicated that it would utilize different teams in the development and pre-construction phase, the construction phase, and the operations phase and provided a listing of each of the lead individuals and descriptions of their work. According to NEET West, its proposed overall project director has more than 30 years of experience. (P-8)

NEET West provided a risk and issues log that identified 53 major risks and obstacles to successful project completion on schedule and within budget. The log showed the specific risk, category of risk, whether it affects cost or schedule, the probability of occurrence, the impact of the occurrence, whether it is a risk during development or construction, and planned or potential mitigation. (P-10)

NEET West stated that it would use a two part cost containment approach for the project. NEET West indicated that it would seek to eliminate project uncertainties as early in the project lifecycle as feasible by identifying specific measures to eliminate project uncertainties. NEET West indicated that the second part of its cost containment approach is related to uncertainties that cannot be eliminated. NEET West indicated



that it would consider these project risks and seek to identify, categorize, and then mitigate these risks throughout project execution.

NEET West indicated that it is not proposing to use a turn-key EPC contract for the entire project and would be responsible for O&M of the project. (P-11)

### **3.12.2 Information Provided by SDG&E**

SDG&E proposed a cost cap set at the total project estimated cost with provisions for escalation. SDG&E indicated that its proposed cost cap would be contingent upon the proposed project as specified in SDG&E's proposal and is based upon the information provided to SDG&E by the ISO, material suppliers, and construction contractors.

SDG&E indicated that if the information SDG&E used in developing its cost estimate were to change, if the scope of the proposed project were to change, or if unforeseen issues were to arise that were out of SDG&E's control, SDG&E would revise its cost cap accordingly, and SDG&E would notify the ISO immediately. Furthermore, SDG&E indicated that the proposed project cost is based on current, publicly available commodity costs, such as those seen on Bureau of Labor Statistics (BLS), American Metals Market (AMM), and Commodity Exchange (COMEX) market indices. SDG&E stated that if commodity costs significantly increase prior to project award, SDG&E would reserve the right to revise the cost cap.

SDG&E clarified that if the EPC contract costs were to exceed the estimate that SDG&E used to develop its cost cap, SDG&E would only propose to adjust the project cost cap upward if the EPC costs went up by more than 10%. SDG&E did not indicate the amount of the EPC cost estimate that it used as the basis for its proposed cost cap. SDG&E indicated that the contingency it included for the project would accommodate increases in EPC costs less than 10% of the cost used in developing its cost cap.

SDG&E indicated that it would have a fixed cost EPC contract by April 2015 and would be in a position to make a final adjustment to the cost cap at that time if necessary.

SDG&E indicated that its cost cap does not include costs to connect the project to its Suncrest Substation. (P-12)

SDG&E did not offer a cost cap on O&M costs and projected that actual O&M expenses would grow at the rate of inflation. SDG&E stated that O&M costs take advantage of existing processes. SDG&E stated that direct O&M costs for the project would be reduced due to the fact that SDG&E's design utilizes existing SDG&E substation facilities, rights-of-way, and access roads that it currently maintains.

SDG&E provided detailed project information for five substation projects constructed within the past five years. SDG&E indicated that all projects were completed under budget, and indicated that charges for the Sunrise Powerlink Project are still coming in. (P-6)

SDG&E indicated that its major projects group would manage the project. SDG&E indicated that its major projects group is responsible for effectively managing major substation and transmission line projects by focusing on a clearly defined project scope, schedule, and budget. (P-7)

SDG&E provided an organizational chart for the proposed project, including key personnel, SDG&E groups, and general responsibilities.

SDG&E also provided resumes for the key personnel identified within the project organization chart. SDG&E indicated that its proposed project director has approximately 10 years of experience and its proposed project manager has approximately seven years of experience. (P-8)

SDG&E indicated that it would complete a project risk management guide, as identified in its project management manual, which would include risk identification, risk mitigation, risk monitoring, and risk reporting..

For this proposed project, SDG&E identified two specific risks for its site: (1) soil conditions and (2) long lead time equipment procurement. SDG&E specified actions to mitigate these risks. (P-10)

SDG&E provided specific cost containment details and assumptions for the proposed project as follows:

- Engineering, Procurement, and Construction (EPC) Contract - SDG&E indicated that it would use an EPC contractor to complete the SVC portion of the project and may propose to complete the remainder of the proposed project through an EPC contract. SDG&E indicated that it would use a performance bond in the EPC contract in addition to retention. SDG&E did not commit to use an EPC contractor for the non-SVC work.
- Design Elements of the Proposed Project - SDG&E stated that it has designed the proposed project with cost containment in mind, including the use of existing SDG&E rights-of-way, laydown yards, staging areas, and substations in an attempt to eliminate uncertainty as to the cost of land acquisition. SDG&E indicated that these costs have already been incurred and are not applicable. SDG&E also indicated that use of existing SDG&E substation structures would minimize significantly the uncertainty of additional construction and material costs.
- O&M Outsourcing - SDG&E proposed to enter into a long term service agreement with the equipment manufacturer or EPC contractor to ensure adequate O&M procedures are followed for the commercial life of the SVC. (P-11)

## **Authority to Impose Binding Cost Caps**

(Section 3 - General Project Information, QS-1, QS-4, P-2, P-6, P-7, P-8, P-10, P-11, P-12, P-13)

### **3.12.3 Information Provided by NEET West**

NEET West stated that it would seek siting approval from the CPUC through the CPCN application process for utility construction projects. While NEET West indicated that it has no experience with the CPUC imposing its cost cap authority, NEET West indicated

that it is aware that the CPUC has imposed this authority on other jurisdictional utilities in the past. (P-13)

### **3.12.4 Information Provided by SDG&E**

SDG&E stated that the proposed project is considered a substation modification pursuant to CPUC General Order 131-D Section III(B) and that it is therefore not subject to siting approval by the CPUC. (P-13)

### **3.12.5 ISO Comparative Analysis**

## **Comparative Analysis of Cost Containment Capability Including Cost Cap Agreement**

For purposes of the comparative analysis for this component of the factor, the ISO analyzed the expected effectiveness of the project sponsors' overall cost containment capabilities, 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 sponsor identified, and proposed cost containment plans. Project sponsor agreement to a binding cost cap is more definitive than identification of general cost containment capability, as demonstrated cost containment capability does not "lock-in" any specific tangible cost containment caps or measures nor guarantee a lower risk for cost escalation. Because both project sponsors agreed to a binding cost cap for the project, the ISO addresses this aspect of the analysis first.

Both project sponsors committed to a binding cost cap with proposed adjustments to the cap for changes in scope and unforeseen problems. NEET West's proposed cost cap is materially lower than SDG&E's proposed cost cap. In addition, SDG&E's proposed cost cap mechanism would provide for cost cap increases if EPC costs are greater than 10% of the initial EPC cost estimate, while only increases in costs below that level would not trigger an upward adjustment in the cost cap amount. SDG&E also indicated that should commodity costs significantly increase prior to project award (not an "Uncontrollable Force" within the scope of cost cap adjustments reserved by NEET West), SDG&E would reserve the right to revise the cost cap. NEET West's construction cost cap includes all costs associated with the construction period, including direct costs, allocated/overhead costs, and capital/AFUDC costs. The greater latitude reserved by SDG&E for upward adjustments in its cost cap also makes SDG&E's cost cap proposal less robust than NEET West's cost cap proposal.

NEET West also committed to a binding cost cap for O&M for the first five years of project. SDG&E did not propose any O&M cost cap. Although NEET West committed to an O&M cost cap, it is expected that NEET West's incremental O&M costs would be higher than SDG&E's incremental O&M costs (e.g., based on NEET West's operation and maintenance of a transmission line in addition to a SVC and new substation and acquisition of new property rights, compared to SDG&E's use of existing substation facilities, rights-of-way, and access roads currently maintained by SDG&E).

With regard to the general cost containment capabilities of the project sponsors, in terms of completing past projects within the project budget, both project sponsors and their teams demonstrated a reasonable degree of success in meeting budgets. The ISO

notes that NEET West is relying on NextEra's experience on past projects in presenting its credentials for completing past work within budget. NEET West indicates that it is using NextEra's established approach to cost containment and the same personnel that have used that approach.

In terms of risk management, NEET West provided more detail than SDG&E; however, SDG&E identified risks more specific to this project location based on its more intimate knowledge of the project location. Also, SDG&E's use of an existing substation and other lands removes some uncertainty regarding the costs of property acquisition.

Both project sponsors provided a reasonable approach to professional project management. NEET West would draw upon project management experience from NextEra and would use different teams for different phases of the project, while SDG&E would use its existing internal project management group for this activity. The NEET West project manager has much more experience than SDG&E's project manager, but the experience of the SDG&E manager is sufficient.

The project sponsors offered similar approaches to using EPC contracts. NEET West would use an EPC contractor for the SVC portion of the project, while SDG&E would consider using an EPC contractor for the SVC portion of the project and is planning to use in-house resources for the remaining work, although it reserves the right to use an EPC contractor.

NEET West would be responsible for the O&M for this project, while SDG&E would contract with the equipment manufacturer or EPC contractor for the O&M procedures for the commercial life of the SVC. SDG&E crews would perform the O&M on the interconnection equipment.

In consideration of all of the foregoing, the ISO has not identified any significant differences between the general cost containment approaches and capabilities of the two project sponsors that would outweigh the advantage that one project sponsor might have over the other with regard to the terms of their proposed commitments to a cost cap. Consequently, the ISO's comparative analysis for this component of the factor is driven primarily by its analysis of the project sponsors' cost cap proposals.

Neither project sponsor included costs for interconnection facilities at SDG&E's Suncrest Substation. Consequently, the ISO has not included this aspect of the proposals in its analysis.

Based on NEET West's commitment to a materially lower and more robust binding cost cap and the ISO's analysis that NEET West's proposal provides more robust limitations on potential cost increases, in conjunction with all the other considerations included in the ISO's analysis for this component of the factor, the ISO has determined that NEET West's proposal is better than SDG&E's proposal with regard to this component of the factor. Essentially, NEET West has assumed more cost risk than SDG&E and agreed to more effective binding measures to limit the potential for any cost increases.

## **Authority to Impose Binding Cost Caps**

Both project sponsors propose a binding cap on capital costs, so the ISO does not consider the potential for the selected siting authority to impose a binding cost cap or

cost containment mechanism to be an important consideration in the analysis of the project sponsors' cost containment capabilities. Consequently, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this component of the factor.

## **Overall Comparative Analysis**

The ISO carefully considered the cost containment proposals of both project sponsors and retained a consultant to advise it regarding cost and rate matters. Both project sponsors submitted competitive proposals from a cost containment perspective. The ISO has determined that NEET West's proposal is better than SDG&E's proposal because of the amount of the difference between the two cost caps and NEET West's more robust measures to limit potential cost increases. NEET West has assumed more cost risk, and its proposal poses less risk of cost increase relative to SDG&E's proposal. Given the particular circumstances presented here, the ISO believes that these factors outweigh the expectation that SDG&E's O&M costs will be lower than NEET West's.

### **3.13 Selection Factor 24.5.4(k): Additional Strengths or Advantages**

The eleventh selection factor is "any other strengths and advantages the Project Sponsor and its team may have to build and own the specific transmission solution, as well as any specific efficiencies or benefits demonstrated in their proposal."  
(Section 3 - General Project Information, QS-1, QS-4, C-7, M-1)

#### **3.13.1 ISO Comparative Analysis**

For purposes of the comparative analysis for this component of the factor, the ISO reviewed the proposals of the two 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 did not identify any other advantages not already addressed in its analysis of the more specific selection factors. Consequently, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this factor.

### **3.14 Selection Factor 24.5.4(a): Capability to Finance License, Construct, Operate, and Maintain the Facility**

In this section the ISO provides the comparative analysis of this selection factor, as discussed in Section 3.3 of this report. This selection factor is a comparative analysis of "the current and expected capabilities of the Project Sponsor and its team to finance, license, and construct the facility and operate and maintain it for the life of the solution." As noted in Section 3.3, this factor encompasses a number of the more specific selection factors discussed in this report.

What follows is an overall comparative analysis for this factor based upon the discussion of the other factors encompassed by this factor. As stated in Section 3.3, the ISO will not repeat all of the information provided by the project sponsors for these more specific selection factors and the comparative analysis for each.



In addition to the general project information provided in the application, the other selection factors (or components of a factor) considered in the comparative analysis for this factor are as follows:

- 24.5.4(e): the financial resources of the project sponsor and its team;
- 24.5.4(f): the technical (environmental permitting) qualifications and experience of the project sponsor and its team (component of 24.5.4 (f));
- 24.5.4(g): the previous record regarding construction and maintenance of transmission facilities, including facilities outside the ISO controlled grid, of the project sponsor and its team; and
- 24.5.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices.

### **3.14.1 ISO Comparative Analysis**

As discussed regarding each of the relevant individual selection factors, there is no material difference between the proposals with regard to financial resources, environmental permitting experience, and construction, maintenance, and operating practices, while NEET West's experience and proposal is slightly better with regard to SVC-related construction and maintenance record.

The ISO's comparative analysis has considered the results of the analysis of the four factors or factor components listed above. The ISO has determined that, for this particular project, NEET West's proposal is slightly better than SDG&E's proposal with regard to this criterion based on NEET West's slight advantage with regard to its SVC-related construction and maintenance experience.

### **3.15 Qualification Criterion 24.5.3.1(a): Manpower Equipment and Knowledge to Design, Construct, Operate and Maintain Transmission Solution**

The first qualification criterion is: "Whether the Project Sponsor has demonstrated that it has assembled, or has a plan to assemble, a sufficiently-sized team with the manpower, equipment, knowledge and skill required to undertake the design, construction, operation and maintenance of the transmission solution."

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

#### **3.15.1 ISO Comparative Analysis**

The ISO previously determined and posted notice on its website that both project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has

further reviewed the proposals with regard to the project sponsor qualification criteria in its comparative analysis for purposes of selection of the approved project sponsor.

This qualification criterion considers a number of factors that are addressed by the selection factors previously discussed. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analysis for the selection factors that were addressed above. The selection factors considered in the comparative analysis for this criterion are as follows:

- 24.5.4(f): the technical [environmental permitting] and engineering qualifications and experience of the project sponsor and its team;
- 24.5.4(g): the previous record regarding construction and maintenance of transmission facilities, including facilities outside the ISO controlled grid, of the project sponsor and its team; and
- 24.5.4(h): demonstrated capability to adhere to standardized construction, maintenance, and operating practices, of the project sponsor and its team.

The ISO's comparative analysis has considered the results of the analysis of the three selection factors listed above. Based on a detailed review of the proposals of both project sponsors with respect to these factors, the ISO has determined that there is no material difference between the proposals with respect to environmental permitting and engineering experience (Section 24.5.4(f)), NEET West's proposal is slightly better with regard to SVC-related construction and maintenance record (Section 24.5.4(g)), and there is no material difference between the proposals with respect to capability to adhere to standardized construction, maintenance, and operating practices (Section 24.5.4(h)). Therefore, the ISO has determined that, for this particular project, NEET West's proposal is slightly better than SDG&E's proposal with respect to this criterion based on NEET West's slight advantage with regard to SVC-related construction and maintenance experience.

### **3.16 Qualification Criterion 24.5.3.1(b): Financial Resources**

The second qualification criterion is: "Whether the Project Sponsor and its team have demonstrated that they have sufficient financial resources, by providing information including, but not limited to, satisfactory credit ratings, audited financial statements, or other financial indicators."

#### **3.16.1 ISO Comparative Analysis**

The ISO previously determined and posted notice on its website that both project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals with regard to the project sponsor qualification criteria in its comparative analysis for purposes of selection of the approved project sponsor.

This qualification criterion essentially duplicates the factors that are addressed by selection factor 24.5.4(e) (the financial resources of the project sponsor and its team) discussed above. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analysis for the selection factor above. As discussed above with respect to selection factor 24.5.4(e), the ISO has determined that,

for this particular project, there is no material difference between the proposals of the two project sponsors with regard to this criterion.

### **3.17 Qualification Criterion 24.5.3.1(c): Ability to Assume Liability for Losses**

The third qualification criterion is: “Whether the Project Sponsor and its team have demonstrated the ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution by providing information such as letters of credit, letters of interest from financial institutions regarding financial commitment to support the Project Sponsor, insurance policies or the ability to obtain insurance to cover such losses, the use of account set asides or accumulated funds, the revenues earned from the transmission solution, sufficient credit ratings, contingency financing, or other evidence showing sufficient financial ability to cover these losses in the normal course of business.”

#### **3.17.1 ISO Comparative Analysis**

The ISO previously determined and posted notice on its website that both project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals with regard to the project sponsor qualification criteria in its comparative analysis for purposes of selection of the approved project sponsor.

This qualification criterion essentially duplicates the factors that are addressed by selection factor 24.5.4(i) (demonstrated ability to assume liability for major losses resulting from failure of facilities of the project sponsor) discussed above. For this reason, the ISO bases its comparative analysis for this criterion on the results of the comparative analysis for the selection factor above. As discussed above with respect to selection factor 24.5.4(i), the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this criterion.

### **3.18 Qualification Criterion 24.5.3.1(d): Proposed Schedule and Ability to Meet Schedule**

The fourth qualification criterion is: “Whether the Project Sponsor has (1) proposed a schedule for development and completion of the transmission solution consistent with need date identified by the CAISO; and (2) has the ability to meet that schedule.”

#### **3.18.1 ISO Comparative Analysis**

The ISO previously determined and posted notice on its website that both project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals with regard to the project sponsor qualification criteria in its comparative analysis for purposes of selection of the approved project sponsor.

This qualification criterion essentially duplicates the factors that are addressed by selection factor 24.5.4(d) (the proposed schedule for development and completion of the transmission solution and demonstrated ability to meet that schedule of the project



sponsor and its team) discussed above. As discussed above with respect to selection factor 24.5.4(d), the ISO has determined that SDG&E's proposal is slightly better than NEET West's proposal with respect to this criterion.

### **3.19 Qualification Criterion 24.5.3.1(e): Technical and Engineering Qualifications and Experience**

The fifth qualification criterion is: "Whether the Project Sponsor and its team have the necessary technical and engineering qualifications and experience to undertake the design, construction, operation and maintenance of the transmission solution."

#### **3.19.1 ISO Comparative Analysis**

The ISO previously determined and posted notice on its website that both project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals with regard to the project sponsor qualification criteria in its comparative analysis for purposes of selection of the approved project sponsor.

This qualification criterion essentially duplicates the factors that are addressed by qualification criterion 24.5.3.1(a) and, by extension, selection factors 24.5.4(f), (g), and (h) discussed above. As discussed above with respect to qualification criterion 24.5.3.1(a), the ISO has determined that NEET West's proposal is slightly better than SDG&E's proposal with regard to this criterion.

### **3.20 Qualification Criterion 24.5.3.1(f): Commitment to Enter Into TCA and Adhere to Applicable Reliability Criteria**

The sixth qualification criterion is: "Whether the Project Sponsor makes a commitment to become a Participating TO for the purpose of turning the Regional Transmission Facility that the Project Sponsor is selected to construct and own as a result of the competitive solicitation process over to the ISO's Operational Control, to enter into the Transmission Control Agreement with respect to the transmission solution, to adhere to all Applicable Reliability Criteria and to comply with NERC registration requirements and NERC and WECC standards, where applicable."

#### **3.20.1 Information Provided by NEET West**

NEET West indicated that it would become a participating transmission owner (PTO) and turn over the project to the ISO's operational control, enter into the TCA with respect to the project, and adhere to all applicable reliability criteria and comply with NERC registration requirements and NERC and Western Electricity Coordinating Council (WECC) standards, where applicable. (QS-5)

#### **3.20.2 Information Provided by SDG&E**

SDG&E indicated that it is already a PTO and would continue to adhere to all NERC and WECC standards and requirements as applicable. (QS-5)

### **3.20.3 ISO Comparative Analysis**

The ISO previously determined and posted notice on its website that both project sponsors submitted proposals that meet the minimum requirements to qualify for evaluation in the selection process. Pursuant to ISO Tariff Section 24.5.4, the ISO has further reviewed the proposals with regard to the project sponsor qualification criteria in its comparative analysis for purposes of selection of the approved project sponsor.

Both project sponsors have committed to comply with the requirements specified in this qualification criterion. Consequently, the ISO has determined that there is no material difference between the proposals of the two project sponsors with regard to this criterion.

### **3.21 ISO Overall Comparative Analysis for Approved Project Sponsor Selection**

Both NEET West and SDG&E submitted strong proposals to develop the Suncrest 230 kV 300 MVar dynamic reactive power support project. As described above, the ISO has performed a comparative analysis of the proposals of the two project sponsors with regard to each of the applicable tariff factors and criteria. The competition was extremely close. Based on the ISO's review of the proposals and a comparative analysis with regard to all of the selection factors and qualification criteria, the ISO has determined that NEET West's proposal is slightly better than SDG&E's proposal.

There were either no material differences or slight differences between the project sponsors and their proposals with respect to most of the qualification criteria and selection factors. The ISO has determined that, given the specific nature of this project and taking into account the key selection factors, the slight overall edge goes to NEET West primarily because (1) its proposed binding cost containment measures are more robust, in particular, it has agreed to a materially lower cap on capital costs and (2) it has proposed to assume more cost increase risk than SDG&E. Although SDG&E's proposal is better with respect to meeting schedule because SDG&E does not need a CPCN and is utilizing existing property rights, schedule risk is not as critical here because there is no imminent, identified reliability need. And even though SDG&E's proposal has an advantage in the use of existing rights-of-way, it did not result in SDG&E proposing a lower cost cap. Also, NEET West has already secured an option to purchase property on which to locate the SVC as well as easements for the transmission line (except for SDG&E property), and the overall scope and size of the project is not particularly extensive or complex.

As a result, the ISO selects NEET West to develop the Suncrest 230 kV 300 MVar dynamic reactive power support project pursuant to the proposal set forth in its project application.

Attachment 1

Competitive Solicitation Transmission Project Sponsor Application  
(Version used for the Suncrest Reactive Project)

## **1 INTRODUCTION**

In accordance with ISO Tariff section 24.5 (Transmission Planning Process Phase 3), the ISO will initiate a period of at least two (2) months that will provide an opportunity for project sponsors to submit specific transmission project proposals to finance, construct, own, operate, and maintain certain transmission elements identified in the ISO's comprehensive transmission plan, or those approved by ISO management in advance of the issuance of the transmission plan if the capital cost of the project is less than or equal to \$50 million. Such project proposals must include plan of service details and supporting information as set forth in the Business Practice Manual for the Transmission Planning Process (BPM-TPP) sufficient to enable the ISO to determine whether the proposal meets the criteria specified in ISO Tariff sections 24.5.3 and 24.5.4. This 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 approved project sponsors will become Participating Transmission Owners (PTO) and will sign the Transmission Control Agreement (TCA) and a Reliability Standards Agreement (RSA). The ISO also anticipates that the project sponsor or its contracted representative(s) will be registered with the North American Electric Reliability Corporation (NERC) in the NERC categories of Transmission Owner and other functions as applicable.

## 2 GENERAL INSTRUCTIONS

The information to be included in this application will be used by the ISO to determine if the proposal meets the qualification criteria set forth in ISO Tariff section 24.5.3 and, if so, to compare each project sponsor and its proposal with other project sponsors and proposals for the same approved transmission element pursuant to ISO Tariff section 24.5.4. To facilitate this assessment and comparison, project sponsors 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 specifies information to be provided and is assigned a unique identifier for each item of information required, for example, QS-1 for Sponsor Qualifications, QP-1 for Project Qualification, E – 1 for Environmental and Public Process items, S-1 for Substation related items, and so on. Project sponsors must provide responses to each of the items in the space provided after the specification of the information required and clearly note in the response the unique item identifier in each part of the response. If a project sponsor provides attachments as part of the response, the project sponsor should specify the file name of the attachment in the space provided for the response. In addition, the project sponsor should name the attached files using the following naming convention – the file name should include the unique identifier for the application item that the information responds 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 Microsoft Word format that contains a list of documents provided. The table or index must include the file name, contents, and a description of the application section(s) and items that it responds to. The project sponsor must provide a copy of the application in Word format. The project sponsor must provide all responses and attached material in English or the ISO may disregard the information submitted.

If supporting documentation is provided to supplement specific responses to application items, the project sponsor must include a specific reference to the item number and to the page numbers and paragraphs of the supporting documentation that are responsive to the application item, along with a brief explanation of how the referenced material is responsive. If the project sponsor believes that any item of the application is not applicable to its project proposal, 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 proposed project, the project sponsor’s responses to the items in the application must reflect the roles, responsibilities, processes, and procedures to be used by the organization that will perform those duties, and the management controls that will be used by the project sponsor to assure that the work is done in accordance with applicable agreements, contracts, regulatory, and reliability requirements.

For each item in the application, if the project sponsor is proposing to finance, construct, own, operate, and maintain multiple transmission elements, the project sponsor should also indicate how its response would change depending on how many of its proposals are approved by the ISO. 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.

Note that at end of the application there is an officer certification form that must be signed by an officer of the authorized representative for the application to be considered complete.

To the extent a project sponsor considers any of the information submitted with its application to be confidential or proprietary, the project sponsor must clearly identify the confidential or proprietary information and must include an explanation as to why the information should be handled by the ISO as confidential. The ISO will not treat the identity of a project sponsor and basic information about the project sponsor's proposed project as confidential information.

Project sponsors should note that the maximum size of an e-mail submitted to the ISO should not exceed 5 MB or the ISO's e-mail system may not be able to process it. An application that includes files or attachments larger than 5 MB must be compressed to files of a size less than 5 MB. Project sponsors 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 a project sponsor wishes to apply for more than one project eligible for the ISO's transmission procurement process, the project sponsor must submit a separate application for each project.

A project sponsor may submit questions to the ISO for clarification regarding any particular transmission procurement proposal. The ISO will attempt to answer these questions in a timely manner. The answers will be made available in a table that will be posted to the ISO website on the "Transmission Planning" page. Note that the identity of the project sponsor posing the question will not be included in the table. In general, the ISO will update this table on a weekly basis or as needed.

Please note that there are several tables in the application for use in providing responses. Project sponsors may add rows to the tables if the number of entries exceeds the number of rows initially provided in the tables.

The ISO requires a deposit of \$75,000 for each submitted application. The ISO will not consider applications if the project sponsor fails to include the deposit. Payment instructions and a project sponsor deposit form can be found in Section 13 of this application.

### 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)*

Describe the legal and financial structure of the project sponsor and its team, including type of corporation if a corporation, or type of entity if it is a special purpose entity (e.g. project financed LLC) created explicitly for the proposed project. Describe the legal and financial relationship of the entity listed as the project sponsor to all other entities that are referred to in the application to include but not limited to all parent or holding company organizational entities, equity investors and any entity that will finance or otherwise financially support or provide guarantees for part or all of the project if different from the project sponsor. This description should include but not be limited to the following information:

- Which entity or entities will own the assets of the project (whether through a special purpose entity or as part of a portfolio of assets or other mechanism) during the construction period and during the operating period.
- Which entity will service the debt associated with the design, procurement, construction and placing the project in service and the debt carried after commercial operation
- The entity (or planned entity) that will have the responsibility for carrying out the siting, permitting, engineering, procurement, construction and placing the project into operation; also describe if this is to be accomplished through a turn-key EPC contract or some other manner and the type of relationship to be used (e.g. fixed price contract, etc.)
- The entity (or planned entity) that will be responsible for the operation of the project; also describe the mechanism to be used for carrying out this responsibility (e.g. in-house staff, subsidiary, outsourced to a separate O&M company, etc.)

*Response:*



**Project Sponsor and Project Qualifications:**

The ISO will review each project sponsor’s proposal to assess the qualifications of the project sponsor and its project proposal based on the qualification criteria set forth in ISO Tariff section 24.5.3. The ISO will evaluate the information submitted by each project sponsor in response to the application items pertaining to sections 24.5.3.1(a)-(e) to determine whether the project sponsor has demonstrated that its team is physically, technically, and financially capable of (i) completing the needed transmission solution in a timely and competent manner and (ii) operating and maintaining the transmission solution in a manner that is consistent with good utility practice and applicable reliability criteria for the life of the project. The ISO will determine whether the transmission solution proposed by a project sponsor is qualified for consideration, based on the qualification criteria contained in ISO Tariff sections 24.5.3.2(a) and (b).

**Project Sponsor Qualification**

The project sponsor must demonstrate that it meets the project sponsor qualification criteria for the needed transmission element by providing responses to the following five items (QS-1, QS-2, QS-3, QS-4, QS-5) that relate to the qualification of the project sponsor. Note that when providing these responses, the project sponsor may refer to information that has been provided in other sections of this application for additional information and support. However, the following five responses should provide a complete demonstration of qualification – either through the responses directly or by including references in the responses to material provided in responses to other items in this application.

Describe and demonstrate how:

QS-1. The project sponsor has assembled a sufficiently-sized team (or planned team) with the manpower, equipment, knowledge, and skill required to undertake the design, construction, operation, and maintenance of the transmission solution.

*Response:*

QS-2. The project sponsor and its team (or planned team) will have sufficient financial resources; for example, satisfactory credit ratings and other financial indicators as well as the demonstrated ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution.

*Response:*

QS-3. The project sponsor (1) has a proposed schedule for development and completion of the transmission solution consistent with needed in service date identified by the ISO and (2) has the ability to meet that schedule.

*Response:*

QS-4. The project sponsor and its team (or planned team) have the necessary technical and engineering qualifications and experience to undertake the design, construction, operation and maintenance of the transmission solution.



*Response:*

QS-5. The project sponsor is making a commitment to become a Participating Transmission Owner for the purpose of turning the transmission element that the project sponsor is selected to construct and own as a result of the competitive solicitation process over to the ISO's operational control, to enter into the Transmission Control Agreement with respect to the transmission element, to adhere to all applicable reliability criteria and to comply with NERC registration requirements and NERC and Western Electricity Coordinating Council (WECC) standards, where applicable.

*Response:*

### **Proposal Qualification**

Please demonstrate that the proposed project meets the proposal qualification criteria for the needed transmission element by providing responses to the following two items (QP-1, QP-2) that relate to the qualification of the proposed project. 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 two responses should provide a complete demonstration or qualification – either through the two responses directly or by including references in the two responses to material provided in responses to other items in this application.

Describe and demonstrate how:

QP-1. The proposed design of the transmission solution is consistent with needs identified in the comprehensive ISO transmission plan.

*Response:*

QP-2. The proposed design of the transmission solution satisfies applicable reliability criteria and ISO planning standards.

*Response:*

## 4 PAST PROJECTS, PROJECT MANAGEMENT AND COST CONTAINMENT

### Project Sponsor's Past Project Information

P - 1. Provide a list of all transmission lines (if this proposed project includes one or more transmission lines) and substations wherever located, (if this proposed project includes one or more substations) which the Project Sponsor or the Project Sponsor's team or planned team has constructed, financed, owned, operated and/or maintained within the last five years. Segregate the transmission line projects from the substation projects. For each project include the following in the table provided below:

- 1) For transmission line projects, provide a description of the line including type of construction (underground, overhead, steel pole, etc.). For substation projects include the number of breakers by voltage and the bus arrangement (BAAH, DBDB, etc.).
- 2) location (country, state, city),
- 3) voltage level(s),
- 4) length,
- 5) nominal rating of transmission line or total MVA of substation transformers,
- 6) capital cost,
- 7) year placed in service, and
- 8) whether the sponsor was responsible for each of the following for the projects listed - financing (F), designing (D), siting (S), constructing (C), operating (O) and maintaining (M) the line or substation. List all areas that apply. For example if the Project sponsor had responsibility for only Construction, Operation and Maintenance on a project, then a C, O, M would be entered in that cell in the table.



**P-1 Responses - List of Past Projects**

<b>P-1 Transmission Line Projects</b>							
(1)Project Description	(2)Location (Country, City(ies))	(3)Voltage Level(s)	(4)Length (Miles)	(5)Nominal Rating (MVA)	(6)Capital Cost (Million USD)	(7)Date Placed in Service(7)	(8)Sponsor and Team Responsibility (F, D, S, C, O, M)
<b>P-1 Substation Projects</b>							
(1)Project Description	(2)Location (Country, City(ies))	(3)Voltage Level(s)	(4)Length (Miles)	(5)Nominal Rating of All Transformers (MVA)	(6)Capital Cost (Million USD)	(7)Date Placed in Service	(8)Sponsor and Team Responsibility (F, D, S, C, O, M)

### Project Cost Related

- P - 2. 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. The above 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, the costs for each component should be clearly separated). All costs should be in constant 2015 dollars.

*Response:*

- P - 3. Provide the Project Sponsor's assumptions for the cost estimate (e.g. design assumptions, weather, manpower needed and work schedule like 10 hour days, construction area access, planned outages needed, cost of capital, etc.) and any sensitivity analyses performed in developing the cost estimate. (Note: all assumptions and sensitivities need to be documented).

*Response:*

- P - 4. Provide a detailed estimate of the anticipated average annual operating and maintenance cost to operate the project over its life (i.e. the specific incremental project O&M cost information and not total aggregate costs for the operation and maintenance of a sponsor's overall transmission system). Detail all of the components of the cost estimate. All costs should be in constant 2015 dollars.

*Response:*

- P - 5. Provide the Project Sponsor's planned insurance coverage, including types of coverage and insured values during the construction period and over the operational life of the project facilities including but not limited to covering negligent performance.

*Response:*

### Project Management, Historical Performance Related

- P - 6. For the transmission and substation projects included in the response to P-1, provide the following:
- Overall project description;
  - Initial schedule **and** final project in-service date; explain the circumstances for a project that did not meet the initial in-service date
  - Overall cost summary, including initial budget for the project **and** final project cost; explain the

circumstances for a project that did exceed the initial project budget

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

*Response:*

P - 8. 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. If the sponsor does not have a team in place, please provide your plan to meet these requirements.

*Response:*

P - 9. Provide a proposed schedule for project development through release for operation that includes, at a minimum, key critical path items such as:

- Develop contracts for project work;
- 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.

Provide a list of measures that the Project Sponsor would take to meet its schedule if the start date in the schedule was delayed by 6 months.

*Response:*

P - 10. For the proposed project, identify the major risks and obstacles to successful project completion on schedule and within cost budget and identify proposed mitigations to minimize the risks. Describe all actions that the Project Sponsor will take to keep the project on schedule and within budget in light of the major risks identified.

If the Project Sponsor is sponsoring more than one project, the Project Sponsor should also describe how the projected in-service date of this project (as reflected in the

proposed schedule) would be affected if two or more of the Project Sponsor's proposals are selected.

*Response:*

**Cost Containment Overall Process**

P - 11. Describe the Project Sponsor's cost containment approach and capabilities and how these will be applied to the proposed project. This should include, but not be limited, to the following information:

- Overall description of how the project risks described in P-10 are allocated and managed.
- If a turn-key EPC contract will be used, provide a description of the provisions in the contract (or planned to be included in the contract) to support containing the costs of this activity (e.g. performance bonds, invoice retention, etc.).
- If O&M will be outsourced, provide a description of the provisions in the contract (or planned to be included in the contract) to support containing the costs of this activity (e.g. planning and budgeting, insurance, standards of performance, etc.

*Response:*

**Cost Containment Cost Cap and Emergency Costs**

P - 12. Does the Project Sponsor propose a binding cost cap (or some other binding cost containment measures)? If so, specify the amount of the cost cap and describe the cost cap or other cost containment measure in detail.

*Response:*

P - 13. Indicate the authorized government body from which the Project Sponsor will seek siting approval for the transmission and/or substation solution and the authority of the selected siting authority to impose binding cost caps or cost containment measures on the Project Sponsor. Indicate the history of imposing such measures by this authorized government body.

*Response:*

## 5 FINANCIAL

The project sponsor must demonstrate it has sufficient financial resources, including, but not limited to, satisfactory credit ratings and other financial indicators as well as the demonstrated ability to assume liability for major losses resulting from failure of any part of the facilities associated with the transmission solution. In the event the project sponsor proposes to rely on an affiliated entity to meet any or all of these financial criteria, as evidenced by the submission of a non-project sponsor's financial statements or credit ratings, the ISO will require that the affiliated entity provide financial assurances in the form of a written guarantee acceptable to the ISO following the award of the project.

### General

- F - 1. Describe the financial and legal structure of the project sponsor, including type of corporation if a corporation, or type of entity if it is a Special Purpose Entity (SPE; 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 over the entire life of the project.

*Response:*

- F - 2. If the project sponsor is relying on a parent or another affiliated entity to satisfy the financial criterion of this application, please describe the entity's relationship to the Project Sponsor in the form of a corporate hierarchy. In addition, provide details of the parent or affiliated entity's plan for providing for credit, investment or financing arrangements including providing the ISO the necessary guarantees for financial backing of the project. If the financial recourse is limited, please describe under what conditions recourse is available to the parent or affiliate's financial resources. Describe how these arrangements comply with all legal and regulatory requirements related to affiliate transactions.

*Response:*

### Financial Strength and Creditworthiness

For the entity that has the financial resources to meet the financial strength and creditworthiness criteria and is required to provide financial assurances for the project, provide the information requested in F-3 through F-10.

- F - 3. If available, provide annual, audited financial statements or equivalent (for example, Auditors Statement, Management Statement, Balance Sheet, Income Statement, Statement of Cash Flows and Notes to the Financial Statements), for the most recent year and previous four years (five years total). If audited financial statements are not available, the Sponsor may provide other documentation demonstrating financial capability. If this information is available electronically, it is acceptable for the Applicant to provide links to the appropriate documents. NOTE: All financial statements must be provided in English.

*Response:*

- F - 4. If available, provide quarterly, unaudited financial statements or equivalent published since the last annual, audited financial statement. If not available, the Sponsor may provide other documentation demonstrating financial capability. If this information is available electronically, it is acceptable for the Applicant to provide links to the appropriate document. NOTE: All financial statements must be provided in English.

*Response:*

- F - 5. If the creation of a Special Purpose Entity (SPE) is being proposed for this project, provide pro-forma financials (balance sheet, income statement, statement of cash flows, assumptions) for the SPE for each year of the useful life of the project's duration. Describe the funding source(s) for the SPE for the duration of the project's useful life and how it fits into the corporate hierarchy.]

*Response:*

- F - 6. If available, provide current credit ratings and rating agency reports from Moody's Investor Services and Standard & Poor's or another rating agency designated by the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization. If not available, the Sponsor may provide other supporting information.

*Response:*

- F - 7. Provide a report of any failure to make debt service payments on time during the previous five years. If the project sponsor is a Special Purpose Entity (SPE), report any such failures by its affiliated entities including any predecessor SPEs.

*Response:*

- F - 8. Provide a summary of any history of bankruptcy, dissolution, merger, or acquisition for the current calendar year and the five prior calendar years. If the project sponsor is an SPE, report any such events by its affiliated entities including any predecessor SPEs.

*Response:*

- F - 9. Based upon the most recent audited financial statements (if available), provide a ratio of total assets to the total projected capital costs of the project.

*Response:*

- F - 10. For each year for which audited financial statements were submitted according to F – 3 above, provide the following financial ratios:
- 1) Funds from operations to interest coverage
  - 2) Funds from operations to total debt
  - 3) Total debt to total capital



Response:

**Project Financing**

For the entity that will secure project financing and is required to provide financial assurances for the project, provide the information requested in F-11 through F-16.

F - 11. Describe the financing used on up to five projects listed in the P-1 Response that are similar in type and size to (or larger than) the transmission element and/or substation proposed in this application. Include the following in your response and use the table provided below:

- 1) Project description
- 2) Financing structure (e.g. LLC vs. corporate, etc.)
- 3) Equity and debt contribution,
- 4) Debt sources,
- 5) Bank(s) involved,
- 6) Other important information.

F-11 (1)Project Description	(2)Financing Structure	(3)Equity and Debt Contribution	(4)Debt Sources	(5)Banks Involved	(6)Other Important Information

F - 12. Describe the proposed financing sources of funds and instruments for construction and working capital for this project by completing the following table:

Entity Providing Debt Financing	Loan Amount	Interest Rate	Repayment Period	Grace Period During Construction	Equity Provided by Project Sponsor

F - 13. Specify the estimated useful life of the transmission element(s) (i.e., the “operating period”) and describe your ability to finance unexpected repairs or replacement construction during the operating period (e.g., replacement of a series of towers). For example, this demonstration could include but not be limited to the following: use of account set-asides or accumulated funds, parent organization guarantees, letters of credit, letters of intent from intent from financial institutions to support the project sponsor, insurance or other means of ensuring that these increased costs can be covered in a timely manner and thus not delay the return of the

project to normal operation.

Describe any actual events where the Project Sponsor had to cover increased costs due to equipment failures including the nature of the event, costs incurred, and how these costs were funded by the Project Sponsor.

Describe any actual events where the Project Sponsor had to cover increased costs due to equipment failures including the nature of the event, costs incurred, and how these costs were funded by the Project Sponsor.

*Response:*

- F - 14. For financing sources other than the capital markets, describe the benefits to ratepayers and others of your proposed financing source(s). This should include the projected cost of the financing sources.

*Response:*

- F - 15. Describe the detailed financial plan, including planning assumptions, on a monthly basis during the construction period and the first three years of commercial operation for the project. 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 same cost categories and amounts as used in P – 2. The financing plan should indicate the ability of the sponsor to finance the construction of the proposed project under base case and contingency scenarios. Once commercial operation is achieved, the plan should present ongoing maintenance costs as well as cash inflows as construction costs are recovered via the anticipated revenue stream from the project.

In addition to the contingencies included in the base plan, demonstrate how financing would be accomplished under significant project overruns and delays in completion. This should be demonstrated by developing a second plan (or changes to the base plan) that demonstrates how a project that is 30% over budget during construction would be financed, and a third plan (or changes to the base plan) that demonstrates how a project whose commercial operation date is delayed by 20% of the planned time to reach this milestone would be financed.

Item	Cost Categories	Month	Year 1												Year 2												Total
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
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:*

- F - 16. Provide the annual revenue forecasts for the project - including assumptions. Provide a draft version of the revenue requirement calculation in a format that is similar to what would be included in the 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, CWIP, special rate or return adders or bonuses and the weighted cost of capital.

*Response:*

## 6 ENVIRONMENT AND PUBLIC PROCESSES

- E - 1. Provide an 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. Include 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). If the project is located within more than one state provide a response for each state as applicable.

*Response:*

### Environmental Team and Experience

- E - 2. Provide a list of and 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, a division or department of the Project Sponsor, etc.). For each of the firms or groups listed, indicate their individual responsibilities and provide a resume for each lead individual. If the sponsor does not have a team assembled, provide your plan to meet these requirements.

*Response:*

- E - 3. Complete a section of the table below for each firm or group listed in E-2, whether in place or planned. For each of the firms or groups listed provide a list of all transmission substation projects in which they have had the responsibility for siting, land acquisition and/or permitting aspects of the project within the last five years. Include the following information:
- 1) Firm or group name
  - 2) Summary of the project (purpose, include voltage level(s), capacity, number of breakers and arrangement)
  - 3) The firm or group's responsibility on the project (e.g. siting, permitting, ROW acquisition, etc.)
  - 4) Year project was completed
  - 5) Capital cost of the project in US Dollars (millions)
  - 6) Client, who the firm or group worked for

E-3 (1) Firm or Group Name [Use for first firm or group]				
(2) Project Summary	(3) Firm/Group Responsibility	(4) Year Comp	(5) Capital Cost (USD) (M)	(6) Client

(1) Firm or Group Name [Use for second firm or group if needed]				
(2) Project Summary	(3) Firm/Group Responsibility	(4) Year Comp	(5) Capital Cost (USD) (M)	(6) Client
(1) Firm or Group Name [Use for third firm or group if needed]				
(2) Project Summary	(3) Firm/Group Responsibility	(4) Year Comp	(5) Capital Cost (USD) (M)	(6) Client

E - 4. For each firm or group listed, indicate what work the Project Sponsor has completed in the past using these firms for similar areas of responsibilities.

*Response:*

**Permitting**

E - 5. 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 - 6. Using your best estimate and available resources, indicate whether any state discretionary permit(s) will be required and the type of permit to be filed (e.g. incidental take permit, water quality Section 401, etc.)

*Response:*

- E - 7. Provide a generalized schedule of the permit activities anticipated and their dependencies and timelines.

*Response:*

- E - 8. Indicate if any federal land (for example Forest Service, BLM, etc.) is proposed to be crossed and if a NEPA (National Environmental Policy Act) environmental process is required.

*Response:*

- E - 9. For projects within the State of California:

- a. Indicate which Agency is the expected California Environmental Quality Act (CEQA) Lead Agency. Explain why that agency was chosen and indicate whether that agency has agreed to be the lead agency for this project.

*Response:*

- b. Provide a list of Best Management Practices<sup>12</sup> (BMPs) and Applicant Proposed Measures<sup>13</sup> (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.

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<sup>12</sup> 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.

<sup>13</sup> 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.

*Response:*

- c. 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:*

### **Transmission or Substation ROW Acquisition**

- E - 10. Provide a general description of the land siting and acquisition needed for the proposed project and a map of the proposed project alignment and/or substation site on a suitable map base and scale - USGS quadrangle 1:24000 at a minimum. The map should show the study area for routing the project as well as any alternate routes, existing transmission lines, California Natural Diversity Data Base (CNDDDB) information within the project area and avoidance areas (such as parks, airports, military installations, and areas of local, state or national interest and any other major exclusion areas). Provide estimated acreages required. Include construction access, permanent access roads, laydown yards and landing zones if required. Show alternatives evaluated, dismissed and justification for preferred.

*Response:*

- E - 11. Provide a copy of the standard grant of easement anticipated and any temporary construction easement documents necessary for the project construction and a description of your proposed strategy for crop loss and or business loss compensation.

*Response:*

- E - 12. Provide an indication of whether the Project Sponsor has eminent domain authority. Describe the negotiation strategy in general up to the necessity to file for eminent domain. If applicant does not have eminent domain authority and does not plan to obtain eminent domain authority, describe strategy for acquisition of necessary land rights.

*Response:*

- E - 13. 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. For any such ROW describe how it would be used as part of the proposed project. Also, for any such ROW describe any incremental costs and / or risks associated with using the existing ROW (for example negotiating additional land rights or the potential of "overburdening" existing easements, etc.).

*Response:*

- E - 14. Provide information describing all transmission lines that were constructed in the last 5 years for which the Project Sponsor or its environmental contractor (designated to complete the



environmental and public processes for this proposed project) completed the environmental and public processes associated with the project. The information provided should include:

- a. Transmission line routing and length of routes

*Response:*

- b. Rights of way acquired

*Response:*

- c. Federal and State permits acquired to construct the project

*Response:*

- d. Environmental processes and results as follows:
  - i. Provide Federal NEPA or State environmental review determinations if applicable. For projects in California provide CEQA filing history and link to agency web site of the final adjudication or Cal State Clearinghouse number;

*Response:*

- ii. Provide a list of post project mitigation agreements for endangered species impact mitigation; and

*Response:*

- iii. Provide a list of any management plans instituted to comply with Fed/State permits authorizing construction.

*Response:*

E - 15. 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. Federal and State permits acquired to construct the project

Response:

- d. Environmental processes and results as follows:

Response:

- i. Provide Federal NEPA or State environmental review determinations if applicable. For projects in California provide CEQA filing history and link to agency web site of the final adjudication or Cal State Clearinghouse number;

Response:

- ii. Provide a list of post project mitigation agreements for endangered species impact mitigation; and

Response:

- iii. Provide list of any management plans instituted to comply with Fed/State permits authorizing construction.

Response:

- E - 16. 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:*

## 7 SUBSTATION

The S items listed below should only be completed if the propose transmission solution contains a substation or facilities similar to a substation (e.g. synchronous condenser, STATCOM, etc.).

- S - 1. For each substation or reactive control element that is included as part of your proposed project, 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. Provide a list and a description of the firms or groups who will be responsible for substation design and construction. Indicate if the work will be done by the Applicant’s personnel, specific firms, firms pre-approved by the Applicant or a combination. Specify the relationship between the Project Sponsor and these firms or groups (e.g. owned by the Project Sponsor, under contract to Project Sponsor, a division or department of the Project Sponsor, etc.). For each of the firms or groups listed indicate their individual responsibilities on the proposed project (e.g. design, construction, etc.) and provide a resume for the lead individual for each group or firm. If this information is not available provide your plan to meet these requirements.

*Response:*

- S - 3. Complete a section of the table below for each firm or group listed in S-2, whether in place or planned. For each firm or group listed provide a list of all transmission substation projects they have constructed within the last five years.
1. Firm or group name
  2. Summary of the project (purpose, include voltage level(s), capacity, number of breakers and arrangement)
  3. The firm or group’s responsibility on the project (e.g. engineering, construction, procurement, etc.)
  4. Year project was completed
  5. Capital cost of the project in US Dollars (million)

S-3 (1) Firm or Group Name [Use for first firm or group]			
(2) Project Summary	(3) Firm/Group Responsibility	(4) Year Completed	(5) Capital Cost (USD) (M)

(1) Firm or Group Name [Use for second firm or group if needed]			
(2) Project Summary	(3) Firm/Group Responsibility	(4) Year Completed	(5) Capital Cost (USD) (M)
(1) Firm or Group Name [Use for third firm or group if needed]			
(2) Project Summary	(3) Firm/Group Responsibility	(4) Year Completed	(5) Capital Cost (USD) (M)

S - 4. For each firm or group listed, indicate what previous work (list projects or activities) the Project Sponsor has completed using these firms. In particular, list any previous work that is similar to the work that the firm or group will be responsible for on the project.

*Response:*

S - 5. For each proposed substation provide 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:*

S - 6. For each proposed substation provide the basic parameters for the substation - primary and secondary voltage, BIL<sup>14</sup>, initial design power capacity and final design power capacity (if developed in stages).

*Response:*

<sup>14</sup> 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.

- S - 7. For each proposed substation provide a preliminary design criteria document that specifies the criteria that will be used in the design of the substation or its equivalent. Also provide a list of standards and requirements that will be used in the substation design - e.g. IEEE 142, etc. Provide a complete list of state specific requirements for each US state that the project will be located in (e.g. California and other state specific requirements if part of the project or the entire project is located outside California).

*Response:*

- S - 8. For each proposed substation provide a single line diagram and general arrangement plan which includes:
- i. bus and breaker arrangement,
  - ii. transformer arrangement,
  - iii. automatic tap changer, if any,
  - iv. power factor correction equipment if any,
  - v. voltage regulator, if any,
  - vi. ground fault limiting resistor or reactor, if any,
  - vii. line terminations for existing or proposed transmission lines,
  - viii. bus type and rating,
  - ix. high voltage switch types and ratings,
  - x. switchgear type and ratings,
  - xi. battery system arrangements,
  - xii. substation layout with equipment location, fencing, grounding, control/relay building, etc.

*Response:*

- S - 9. For each proposed substation describe 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:*

- S - 10. For each proposed substation describe the SCADA incorporated in the design; list the data that will be provided to the ISO; list the control functions that will be included, and which entity will be in control of the devices.

*Response:*

- S - 11. For each proposed substation describe the substation physical security criteria and specific security measures that will be incorporated in the final substation design and the substation oil containment criteria and specific containment measures that will be incorporated in the final design.

*Response:*



## 8 TRANSMISSION LINE

The T items listed below should only be completed if there is a transmission line included in the proposed transmission solution.

- T - 1. Provide a general overview and description of the transmission line that the Project Sponsor proposes including the following items. Use the table provided below for your responses :
- a. the starting and ending points including length of preferred route. If the route is in more than one state provide the information for each state.
  - b. proposed conductor size, bundling and type,
  - c. intervening substations,
  - d. typical span lengths,
  - e. any other unique aspects of the line that the Project Sponsor proposes that has not previously been provided for the overhead portions of the line.

If any underground transmission is proposed, include a general description of the following items:

- f. the underground conductor size and type and length of segment(s)
- g. the proposed termination facilities and,
- h. any other unique aspects of the underground portion of the line not previously provided.

T-1 Item	Response
a	
b	
c	
d	
e	
f	
g	
h	

- T - 2. Provide a description of the firms or groups who will be responsible for the transmission line design and construction. Indicate if the work will be done by the Applicant’s personnel, specific firms, firms pre-approved by the Applicant or a combination. Specify the relationship between the Project Sponsor and these firms or groups (e.g. owned by the Project Sponsor, under contract to Project Sponsor, a division or department of the Project Sponsor, etc.). For each of the firms or groups listed indicate their individual responsibilities on the proposed project (e.g. design, construction, etc.) and provide a resume for the lead individual for each group or firm.

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.) If this information is not currently available, please provide your plan to meet these requirements.

*Response:*

- T - 3. Complete a section of the table below for each firm or group listed in T-2, whether in place or planned. For each of the firms or groups listed provide a list of all transmission line projects they have designed or constructed within the last five years and the following information:
1. Firm or group name
  2. Summary of the project purpose, include voltage level(s), capacity, conductor, structure type, and mileage. If both overhead and underground transmission was included separate info into overhead and underground.
  3. The firm or group’s responsibility on the project (e.g. engineering, construction, procurement, etc.)
  4. Year project was completed
  5. Capital cost of the project in US Dollars (million)
  6. Client – who the firm or group worked for on the project

<b>T-3 (1) Firm or Group Name [Use for first firm or group]</b>				
<b>(2) Project Summary</b>	<b>(3) Firm/Group Responsibility</b>	<b>(4) Year Comp</b>	<b>(5) Capital Cost (USD) (M)</b>	<b>(6) Client</b>
<b>(1) Firm or Group Name [Use for second firm or group]</b>				
<b>(2) Project Summary</b>	<b>(3) Firm/Group Responsibility</b>	<b>(4) Year Comp</b>	<b>(5) Capital Cost (USD) (M)</b>	<b>(6) Client</b>

- T - 4. 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 transmission line siting criteria that will be used for any overhead section of the proposed transmission line and any underground sections of the proposed transmission line.

*Response:*

- T - 6. Provide the preliminary design criteria document for any overhead section of the proposed transmission line and any underground section of the proposed transmission line.

*Response:*

- T - 7. Provide a list of standards and requirements that will be used in the transmission line design for both overhead and underground - e.g. IEEE 951, ASCE Manual No. 72, GO 95, etc. with an emphasis on providing a complete list of State specific requirements and the requirements of other states where the proposed project will be located. Also provide any interconnection standards for interconnection of the project to existing utility system(s).

*Response:*

- T - 8. Provide a single line diagram and a general arrangement plan of the entire proposed transmission line, including transmission line crossings by the new project line. For crossings, provide a list by voltage and type of construction of lines crossed (either over or under) by the proposed project. Include isolation devices to be installed for operations and maintenance purposes.

*Response:*

- T - 9. Provide the following information in the table provided for any proposed overhead transmission line:
- Basic parameters of the transmission line(s) - Design voltage, BIL (design or adjacent substation criteria), initial design power capacity and final design power capacity (if developed in stages).

### **Support Structures**

For any support structures including wood poles, tubular poles, and lattice steel structures – provide:

- a description of the proposed support structures and conductor geometry,
- structure foundations as appropriate and grounding criteria and implementation,
- insulation level, insulator types,
- lightning protection,
- estimated right of way widths for each different segment of the project with drawings for each and the basis of determining each right of way width.

### **Line Ratings and Impedance**

- g. Provide the estimated per mile line impedances for each different line section proposed in the project, suitable for use in power flow, system stability and system protection studies. Also provide an estimate of the completed line overall impedance in per unit on a 100 MVA base.
- h. Provide NESC and/or GO95 Grade of Construction.
- i. Provide NESC and/or GO95 Loading Corridor Separation.
- j. Identify all existing or permitted transmission lines, including voltage, structure type, and separation, located in the same corridor as the proposed project. Identify the criteria used to establish the corridor separation.

T-9 Item	Response
a	
b	
c	
d	
e	
f	
g	
h	
i	
j	

T - 10. For any proposed overhead transmission line Provide the ampacity rating methodology including maximum conductor temperature that will be used to determine the normal and emergency ratings of the overhead line for summer and winter. Provide the actual ampacity for the line under normal conditions and emergency operations (specify time limit for emergency operations) for summer and winter operating conditions.

*Response:*

T - 11. For any proposed underground transmission sections, provide the following additional information not included in response to T-1 in the table provided below:

- a. Type of transmission cable, including splicing and cable grounding,
- b. Substructures, conduits and duct banks, and splicing enclosures,
- c. Termination facilities and structures,

- d. Description of the type of transmission cable, including splicing and cable grounding
- e. Provide the estimated per mile line impedances for each different line section proposed in the project. All line impedances shall be provided on a per unit 100 MVA base. Also provide an estimate of the completed line overall impedance.
- f. lightning protection
- g. estimated right of way widths for each different segment of the project with drawings for each.

**Corridor Separation**

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

T-11 Item	Response
a	
b	
c	
d	
e	
f	
g	
h	

T - 12. For any proposed underground transmission sections provide the ampacity rating methodology including maximum conductor temperature that will be used to determine the normal and emergency ratings of the overhead line for summer and winter. Provide the actual ampacity for the line under normal conditions and emergency operations (specify time limit for emergency operations) for summer and winter operating conditions.

*Response:*

T - 13. For each substation that the proposed transmission line would terminate in that will not be the responsibility of the Project Sponsor to modify in order to interconnect the line, provide the following information in the table below:

- a. Name of the substation where the interconnection will take place.
- b. A description of the demarcation point that identifies the point in the interconnection where responsibility for implementation (e.g. design, construction, testing, etc.) changes from the Project Sponsor to the substation owner.
- c. List of agreements that must be reached with the substation owner or others to interconnect and operate the proposed line to the substation (e.g. interconnection agreement, schedule agreement, etc.).
- d. A description of the Project Sponsor’s approach to determining if any environmental permitting will be required to terminate the proposed line at the substation
- e. A description of the approach the Project Sponsor’s will use to determine the cost to implement changes at the substation or other locations that are associated with the interconnection of the proposed project at the substation and of those costs which will be paid for by the Project Sponsor.

T-13 Item	Response
a	
b	
c	
d	
e	

## 9 CONSTRUCTION

Provide an overview and description of the construction plan and management practices that the Project Sponsor proposes to follow in response to the questions below;

- C-1 Description of inspection of construction activities including substations, overhead transmission lines and underground transmission lines if part of the project.

*Response:*

- C-2 Description of the method of establishing material yards, sequencing and receiving material, to provide material to contractors, quality, and expediting.

*Response:*

- C-3 Description of the method of coordination of the duration and timing of any clearances of existing circuits necessary during construction.

*Response:*

- C-4 Description of the plans for a constructability review including completeness of engineering drawings, construction specifications, material orders, and tracking and providing changes.

*Response:*

- C-5 Description of the status of easements orders of possession, permits, and compliance with pre- construction permit conditions and mitigation measures.

*Response:*

- C-6 Description of the method for detail scheduling showing sequence of work, environmental restrictions, clearances requirements, progress reports, and actions taken to maintain schedule.

*Response:*

- C-7 Description of any unique or special construction techniques proposed for any aspect of the proposed project, including ROW clearing, construction and permanent access road construction, expected helicopter work, etc.)

*Response:*



## 10 OPERATION AND MAINTENANCE

### Operation and Maintenance Team and Operating and Maintenance Record

- O-1 Provide a chart of the Project Sponsor's proposed organizations showing the reporting relationships of the maintenance and operations organizations including compliance management functions. 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 to the Project Sponsor's current organization that are planned to accommodate the proposed project.

*Response:*

- O-2 Provide resumes describing the qualifications and experience of key management personnel in the proposed 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. Describe the role played by the proposed project team members in operating and maintaining those facilities.

*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 and certification requirements for operators, linemen and substation electricians?). Identify training resources used.

*Response:*

### Maintenance Practices

- O-6 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. 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. (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-7 Describe the project Sponsor's Vegetation Management plan as it applies to the proposed project. Provide the Project Sponsor's preexisting procedures and historical practices for managing ROW for transmission facilities.

*Response:*

- O-8 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-9 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-10 Would adding the project to the ISO controlled grid require any changes or exceptions to the provisions of the TCA? If "yes", describe.

*Response:*

### **Operating Practices**

- O-11 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-12 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-13 Describe the approach the Project Sponsor will use to assure compliance with Applicable Reliability Standards. Include descriptions of organizational responsibility, processes and procedures for assuring compliance. Identify any Applicable Reliability Criteria for which Transmission Owners are responsible that require temporary waivers under TCA 5.1.6. Explain any.

*Response:*

- O-14 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. If the Project Sponsor does not have experience with transmission facilities subject to NERC Standard, provide information demonstrating compliance with standards that do apply to those facilities and the amount of facilities subject to such compliance.

*Response:*

- O-15 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-16 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-17 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. Also include provisions for providing the availability data required by TCA Appendix C 4.3.

*Response:*

- O-18 Describe the Project Sponsor's (for its team or planned team) 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), TCA 6.3 Other Responsibilities and TCA 7 Operations and Maintenance. (Scheduled Maintenance, Exercise of Contractual Rights and Unscheduled Maintenance).

*Response:*

- O-19 Describe the Project Sponsor's capability (for its team or its planned team) 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, including spare parts and material, 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-20 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:*

## 11 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 or additional information that was not requested in the other sections that supports the selection of the Sponsor's application.

*Response:*

## 12 OFFICER CERTIFICATION

### OFFICER CERTIFICATION FORM

<b>Project Sponsor Name:</b> _____
------------------------------------

I, \_\_\_\_\_, an officer of the entity identified above as the Project Sponsor or affiliate of the Project Sponsor, understanding that the ISO is relying on the information set forth in the foregoing application to select an Approved Project Sponsor for the transmission element that is the subject of the application, hereby certify that I have full authority to represent the Project Sponsor or affiliate of the Project Sponsor, as described below. I further certify that:

1. I am the \_\_\_\_\_ (title) of \_\_\_\_\_ (Project Sponsor).
  
2. I have prepared, or have reviewed, all of the information contained in the foregoing application which is being submitted into the ISO's competitive selection process for the:  
  
 \_\_\_\_\_ (name of transmission element).
  
3. On behalf of the Project Sponsor, I agree that any dispute between the ISO and the Project Sponsor regarding any aspect of the competitive selection process, including the ISO's selection report, will be resolved in accordance with ISO Tariff Section 13 ("Dispute Resolution").

I acknowledge that I understand the relevant provisions of Section 24.5. of the ISO Tariff and the Business Practice Manual for Transmission Planning applicable to the Project Sponsor's application, including, but not limited to, those provisions describing the information that will be used by the ISO to determine the Project Sponsor's qualifications to participate in the competitive selection process and the criteria that the ISO will apply in the comparative evaluation for purposes of Selecting an Approved Project Sponsor. I certify, after due investigation, that the information provided in the application is true and accurate to the best of my belief and knowledge and there are no material omissions. In addition, by signing this certification, I acknowledge the potential consequences of making incomplete or false statements in this certification, which may include exclusion from the current and subsequent competitive selection processes.

\_\_\_\_\_  
(Signature)

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_





### 13 APPLICATION DEPOSIT PAYMENT INSTRUCTIONS

Please complete this entire form.

#### Project Sponsor Deposit Information

1. **Name of Phase 3 Project:** \_\_\_\_\_
  
2. **Name, address, telephone number, and e-mail address of the Customer’s contact person (primary person who will be contacted):**

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State: \_\_\_\_\_  
 Zip Code: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_  
 Fax Number: \_\_\_\_\_  
 Email Address: \_\_\_\_\_

3. **Alternate contact:**

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State: \_\_\_\_\_  
 Zip Code: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_  
 Fax Number: \_\_\_\_\_  
 Email Address: \_\_\_\_\_

4. **Any deposit paid by check shall be submitted to the CAISO representative indicated below: Note – the check may be included with applications submitted on CDs or DVDs. Checks should be made payable to the CAISO.**

California ISO  
 Attn: Julie Balch  
 Grid Assets  
 P.O. Box 639014  
 Folsom, CA 95763-9014

**Overnight Address**  
 California ISO  
 Attn: Julie Balch  
 Grid Assets  
 250 Outcropping Way  
 Folsom, CA 95630

**5. Project Sponsor Deposit is submitted by:**

**Legal name of the Customer:** \_\_\_\_\_

By (signature): \_\_\_\_\_

Name (type or print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

\*\*Required Deposit: \$75,000 USD (note: Wires originating from outside the U.S. are subject to currency conversion rates and/or additional bank fees).

\*\*Your application will not be considered received if the deposit is not received prior to the bid window close date.

**Wire Information**

California ISO - Remit to Addresses

Beneficiary Bank Name

Beneficiary Bank Address

Wells Fargo Bank, NA

420 Montgomery St.

San Francisco, CA 94104

LGIP/SGIP

Wells Fargo Bank, NA

ABA # 121000248

Account # 4122041825

Account name: CAISO LGIP

## Approval History

Approval Date: April 7, 2014

Effective Date: April 7, 2014

Application Owner: Stephen Rutty

Application Owner's Title: Director, Grid Assets

## Revision History

Version	Date	Description
4	4-07-2014	Revised to align with updated tariff.
3	4-4-2013	Revised Version Released – Add Version Control, Approval History, and Revision History Sections
2	4-1-2013	Revised Version Released - General clarification modifications and clean-up for 2012-2013 TPP Phase 3 Bid Window Opening
1	12-19-2012	Initial Version Released