

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

3
4 In the Matter of the Application of San Diego)
Gas & Electric Company (U 902 E) for a)
Certificate of Public Convenience and) Application 06-08-010
Necessity for the Sunrise Powerlink) (Filed August 4, 2006)
Transmission Project.)
_____)

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10 **PHASE 2 REBUTTAL TESTIMONY**
11 **OF ROBERT SPARKS ON BEHALF OF**
12 **THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR**
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1 **I. INTRODUCTION**

2 **Q. Please state your name, title and employer.**

3 **A.** My name is Robert Sparks, Lead Regional Transmission Engineer at the
4 California Independent System Operator Corporation (CAISO).

5 **Q. Are you the same Robert Sparks who provided direct testimony in Phase 2?**

6 **A.** Yes.

7 **Q. On whose behalf are you submitting this Phase 2 rebuttal testimony?**

8 **A.** I am submitting this testimony on behalf of the CAISO.

9 **Q. How is your testimony organized?**

10 **A.** My testimony is organized by party according to topics addressed in their Phase 2
11 direct testimony.

12 **II. UCAN TESTIMONY REGARDING THE DELIVERABILITY OF**
13 **RENEWABLES WITHOUT SUNRISE**

14
15 **Q. Please describe the purpose of your testimony with respect to the issues**
16 **raised by UCAN.**

17 **A.** The Phase 2 direct testimony of David Marcus, submitted on behalf of UCAN
18 (“UCAN Phase 2 Direct Testimony”), disputes that the Sunrise Powerlink Project
19 (Sunrise) as proposed by San Diego Gas & Electric Company (SDG&E) is needed
20 to deliver renewable energy from the Imperial Valley and Salton Sea areas to the
21 San Diego area. Specifically, UCAN suggests that the Southwest Powerlink
22 (SWPL) provides sufficient capacity to deliver needed levels of renewable power

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1 to the San Diego area or, in the alternative, that a “southern route” would be
2 preferable to Sunrise.¹

3 The CAISO does not believe the delivery of sufficient renewable energy
4 to meet renewable portfolio standard (RPS) goals from resources located in the
5 Imperial Valley and Salton Sea areas can be realized absent the construction of
6 Sunrise. In my Phase 2 direct testimony, I explained that a recently
7 implemented 1150 MW dispatch limit on generation connected at the Imperial
8 Valley (IV) substation would *prevent* all generation at the IV substation above the
9 1150 MW limit from being deliverable to San Diego. A significant benefit of
10 Sunrise is that it would provide SDG&E with access to renewable generation
11 connected at the IV substation for purposes of meeting both local and system
12 Resource Adequacy (RA) requirements and RPS requirements. In contrast,
13 because current generation connected at the IV substation is limited by the 1150
14 dispatch limit, the existing transmission system cannot deliver sufficient levels of
15 renewable energy to San Diego for purposes of meeting RA and RPS
16 requirements. In this section of my rebuttal testimony, I respond to specific
17 assertions made by UCAN on this issue.

18 **A. Green Path North**

19

20 **Q. UCAN states that the CAISO “now expects [Green Path North] to be built
21 with or without Sunrise.”² Do you agree with this position?**

¹ UCAN Phase 2 Direct Testimony at 6-13.

² UCAN Phase 2 Direct Testimony at 7.

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1 **A.** No, the CAISO is not certain that Green Path North will actually be built.
2 UCAN’s statement appears to be based on the CAISO’s 2010-2012 Local
3 Capacity Requirements (LCR) modeling assumptions, which should not be
4 assumed to reflect a change in the CAISO’s position regarding the certainty of the
5 project.

6 Because Green Path North is a *non-CAISO project* that is in Phase 3 of the
7 Western Electricity Coordinating Council’s (WECC’s) Path Rating process, the
8 project has been included in the WECC base case building process which, by
9 default, means that the project is automatically included in the CAISO’s LCR
10 modeling. This is the case because all future projects in Phase 3 of the Path
11 Rating Process, such as Green Path North, are routinely included in the WECC
12 base cases for the Annual WECC Study Program. Achieving a Phase 3 status in
13 the WECC rating process, however, does not mean that a project will actually be
14 built. For example, if a project’s plan of service is significantly changed, it will
15 lose its Phase 3 status from the WECC Path Rating Process and must start over
16 again. Accordingly, the mere status of the WECC’s review of Green Path North
17 should not be relied upon as an indicator that the project will go forward as
18 currently proposed.

19 **Q.** **UCAN states that the CAISO “admitted” that Green Path North “would**
20 **enable the delivery of up to 2000 MW of new generation from Imperial**

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1 **County to the Southern California grid.”³ Does the 1150 MW dispatch limit**
2 **that you’ve previously discussed impact this assumption?**

3 **A.** Yes. With respect to access to renewable generation in the IV area, the CAISO
4 studied numerous alternatives in Phase 1 that included Green Path North. For
5 these studies, the CAISO assumed that a total of 2000 MW of renewable
6 generation could reliably be connected and delivered to the CAISO and Los
7 Anegales Department of Water and Power (LADWP) with Green Path North, as
8 opposed to the 2700 MW of renewable generation that would be deliverable
9 solely to the CAISO with Sunrise.⁴ However, because of the dispatch limit, no
10 generation at the IV substation above the 1150 MW limit would be deliverable to
11 San Diego. The same transmission constraints requiring the dispatch limit are
12 also expected to significantly reduce the amount of renewable generation that
13 could be reliably connected and delivered to San Diego from the Imperial
14 Irrigation District (IID) area via Green Path North well below 2000 MW.

15 **Q.** **UCAN identifies a recent CAISO deliverability study showing that 1561 MW**
16 **of wind and solar generation can be fully delivered to the San Diego area “in**
17 **the presence of Green Path North”⁵ as support for its position that Green**
18 **Path North provides access to IV renewables without Sunrise. Do you agree**
19 **with UCAN’s interpretation of the CAISO deliverability study?**

20 **A.** No. The deliverability study referred to by UCAN *assumes Sunrise is in service*,
21 which is the reason why the study shows the 1561 MW of renewable generation

³ UCAN Phase 2 Direct Testimony at 6-7.

⁴ See, e.g. CAISO Ex. I-6 at 48-49.

⁵ UCAN Phase 2 Direct Testimony at 7.

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1 to be deliverable. UCAN is similarly mistaken when it implies that the 400-1250
2 MW of Sempra wind generation in Mexico would be deliverable with Green Path
3 North and without Sunrise. For all of the reasons discussed in my answer to the
4 previous question, Green Path North does not resolve deliverability problems
5 associated with the 1150 MW dispatch limit for generation connected to the IV
6 substation or the IV-Miguel portion of SWPL.

7 **B. Sempra’s Proposed 500 kV Line to Mexico from SWPL**

8 **Q. UCAN states that Sempra’s proposed 500 kV line to Mexico from SWPL and**
9 **a 500/230 kV substation in Mexico “suggest that either Sunrise is not needed**
10 **to deliver renewables or that a Southern Route would be more appropriate**
11 **for interconnecting to Mexican wind [generation].”⁶ Do you agree?**

12 **A.** No, I do not believe either of these statements is valid. I have not seen the
13 specifics of the Sempra project; although my general understanding is that the
14 Sempra project would consist of a radial 500 kV wind generation collector line
15 that would be connected to a new substation looped into the IV-Miguel portion of
16 SWPL. My review indicates that the wind generation referred to by UCAN is not
17 deliverable without the construction of Sunrise or one of the Sunrise transmission
18 alternatives (*i.e.*, the environmentally superior southern or northern route
19 alternative identified in the Draft Environmental Impact Report/Environmental
20 Impact Statement [DEIR/EIS]). As I discussed above and in my Phase 2 direct
21 testimony, the maximum amount of new generation that can be interconnected to

⁶ UCAN Phase 2 Direct Testimony at 9-14.

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1 the IV substation or the IV-Miguel portion of SWPL and dispatched on the
2 CAISO grid is 1150 MW. Thus, based on my understanding of the project,
3 Sempra’s proposed 500 kV line to Mexico from SWPL and a 500/230 kV
4 substation in Mexico would not change this dispatch limit, and as such, would not
5 result in additional levels of renewable generation being delivered to the CAISO
6 grid.

7 For the purposes of delivering the Sempra wind generation from Mexico,
8 the environmentally superior southern (DEIR/EIS Alternative 4) and northern
9 (DEIR/EIS Alternative 5) route alternatives, or Sunrise as proposed by SDG&E,
10 would be equally effective. This is because the transmission line overloads in the
11 CFE system occur during a contingency on the IV-Miguel portion of SWPL that
12 can be mitigated only by creating a redundant electrical path out of the IV
13 substation directly to the San Diego load pocket. However, as described in my
14 Phase 2 direct testimony, DEIR/EIS Alternative 4 poses a significant risk of load
15 shedding and does not provide the option value of a potential 500 kV network
16 connection to the north that is provided by Sunrise as proposed by SDG&E.

17 **Q. UCAN states that “[s]tarting the Southern Route at Jacumba instead of [the]**
18 **Imperial Valley [substation]” would allow wind generation located in eastern**
19 **San Diego and Mexico to be deliverable to San Diego and provide the same**
20 **reliability benefits as Sunrise or one of the Sunrise transmission alternatives.⁷**
21 **Do you agree?**

⁷ UCAN Phase 2 Direct Testimony at 11-12.

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1 **A.** No. Although it would allow wind generation connected at the Jacumba
2 substation to be deliverable, it would not provide the same reliability benefits as
3 Sunrise. Generation connected to the IV substation or the IID system would not
4 benefit from beginning a southern route at Jacumba instead of the IV substation
5 because it would not alleviate the 1150 MW dispatch limit I have previously
6 discussed. In other words, UCAN’s proposal would not allow for renewable
7 generation located in the Imperial Valley and Salton Sea areas to be deliverable to
8 SDG&E. In addition, by providing a new line to the IV substation, Sunrise
9 increases the deliverability of imports from PaloVerde and Hassayampa, and
10 provides reliability and economic benefits associated with the need to integrate
11 intermittent generation. In contrast, a radial line which merely connects wind
12 generation at the Jacumba substation would not provide these additional benefits.

13 UCAN’s proposal also raises more practical concerns. Building a line
14 only from the Jacumba substation to the Sycamore Canyon substation would be
15 the equivalent of building a 60 to 70 mile long interconnection tie line (gen-tie),
16 the cost of which under current practices is the responsibility of the generation
17 customer. It is unclear at best whether a generation customer would be willing to
18 cover such a significant cost. Thus, it is unlikely that beginning the southern
19 route at the Jacumba substation would provide a realistic option for phasing
20 construction of a southern route as UCAN suggests.⁸

⁸ UCAN Phase 2 Direct Testimony, 9-11.

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1 **Q. Do you agree with UCAN that, as compared to the Sunrise or northern route**
2 **alternatives, a Southern Route alternative could reduce the number of new**
3 **500 kV substations from as many as five to one or two?**⁹

4 **A.** No. UCAN claims that SDG&E is contemplating one or two new substations at
5 Jacumba, as well as new substations at Central, San Felipe and in Mexico.
6 Ongoing interconnection studies which include generation in Mexico and Eastern
7 San Diego County include only two of these substations - Central and Jacumba.
8 In these plans, the wind generation is connected to the Jacumba substation using
9 230 kV tie-lines. A Southern Route alternative would still require the Jacumba
10 substation. If Sempra were to build a 500 kV collector line and connect it to the
11 Jacumba substation, the additional 500 kV substation at the originating end of the
12 line would be common to both the Northern Route and the Southern Route
13 Alternatives. In other words, there would only be the need for one additional 500
14 kV station associated with the Northern route, due to the need for Central
15 Substation. Importantly, as the CAISO has previously discussed, the Central
16 substation provides the option value of creating a 500 kV connection between the
17 SCE and SDG&E 500 kV systems.

18 **C. Miguel Substation**

19 **Q. UCAN states that, “[t]he [CA]ISO has recently admitted that its modeling of**
20 **flows into Miguel tends to overstate those flows when compared to actual**
21 **flows, which means that its models tend to overstate congestion at Miguel**

⁹ UCAN Phase 2 Direct Testimony at 12-13.

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1 **compared to actual congestion levels”¹⁰ suggesting that the CAISO’s Phase 1**
2 **testimony may overstate congestion. Do you agree with this statement?**

3 **A.** No. UCAN’s conclusion in this regard is off-base. The CAISO’s post-MRTU
4 models, which are the subject of UCAN’s testimony at footnote 75, are used for
5 real-time operational purposes and do not take into account the development of
6 renewable generation that is specifically considered in the planning models used
7 by the CAISO in Phase 1.

8 **Q.** **UCAN also states that the CAISO intends to modify the Special Protection**
9 **System (SPS) at the Miguel substation “to increase the flow capacity and**
10 **SWPL and through the Miguel transformers to 1900 Mw, on a permanent**
11 **basis.”¹¹ Will modifying the Miguel SPS have any effect on the deliverability**
12 **of renewable generation on SWPL without Sunrise?**

13 **A.** No. The Miguel SPS is merely being considered as an option for mitigating
14 existing congestion problems at the *Miguel substation*. As I stated earlier, and in
15 my Phase 2 direct testimony, the 1150 MW dispatch limit for generation at the *IV*
16 *substation and IV-Miguel portion of SWPL* will constrain any new generation at
17 those locations. This dispatch limit is to protect against the outage of the IV-
18 Miguel line. In contrast, the Miguel SPS is to protect against the outage of a
19 Miguel 500/230 kV transformer. Thus, the Miguel SPS would not provide for the
20 deliverability of incremental megawatts of renewable generation to SDG&E over
21 SWPL.

¹⁰ UCAN Phase 2 Direct Testimony at 16

¹¹ UCAN Phase 2 Direct Testimony at 16.

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1 **Q. Is it true that there is one wind project in the SDG&E area, pending in the**
2 **CAISO interconnection queue, that will be deliverable without Sunrise?**¹²

3 **A.** No. The wind project referred to by UCAN is not deliverable. The discussion in
4 UCAN's testimony is based on an error in the study results for ISO Queue
5 projects 93 to 156 which was posted to the CAISO's website. The CAISO has
6 corrected this error and posted the corrected study results on its website.

7 **D. Path 44 Upgrades**

8 **Q. UCAN suggests that upgrades to Path 44 will effectively provide needed**
9 **import capability into San Diego to resolve SDG&E reliability**
10 **requirements.**¹³ **Do you agree?**

11 **A.** No. As I have previously testified in this proceeding, the impacts of a Path 44
12 upgrade on the Los Angeles Basin LCR and the risk of increased usage of a
13 common corridor for some of the Path 44 upgrade alternatives, is a significant
14 concern to the CAISO. Moreover, the CAISO found bulk system reliability
15 criteria violations when it analyzed this alternative and increasing the Path 44
16 rating could cause a transient frequency dip on the Mexico CFE system, as well as
17 thermal overloads.¹⁴ Accordingly, the CAISO does not view upgrades to Path 44
18 as either an effective or prudent alternative to Sunrise.

¹² UCAN Phase 2 Direct Testimony at 18

¹³ UCAN Phase 2 Direct Testimony at 24.

¹⁴ See CAISO Ex. I-6 at 55-57.

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1 **III. IID TESTIMONY REGARDING UPGRADES TO THE IID SYSTEM**

2 **Q. IID describes upgrades it plans to make to its transmission system that it**
3 **believes will provide SDG&E with access to Imperial Valley renewables**
4 **without Sunrise. Do you agree?**

5 **A.** No. The IID upgrades will not address the deliverability problems that I
6 described above with regard to the 1150 MW dispatch limit. IID states that it is
7 moving ahead on several 230 kV and 500 kV upgrades to its system, along with
8 participation in a 500 kV project between Palo Verde and North Gila. However,
9 none of these projects will improve the deliverability of the approximately 6000
10 MW of renewable generation in the CAISO generation queue proposed to be
11 located in the Imperial Valley area and along the IV-Miguel corridor because they
12 do not resolve the 1150 MW dispatch limit. Without Sunrise, all of this
13 renewable generation in the CAISO queue is limited by the outage of the IV-
14 Miguel portion of SWPL. In other words, none of the IID transmission projects
15 discussed in IID’s testimony would alleviate the SWPL outage constraint causing
16 the dispatch limit.

17 **Q. IID claims that its proposed Coachella Valley-Devers II (CV-Devers II)**
18 **project, in conjunction with LEAPS, “will provide SDG[&]E with direct**
19 **access to Imperial Valley renewables.”¹⁵ Do you agree?**

20 **A.** No, I do not believe this outcome is likely. Similar to my response to the previous
21 question, TE/VS does not provide deliverability benefits to generation in the

¹⁵ IID Phase 2 Direct Testimony at 15

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1 CAISO interconnection queue located in the greater Imperial Valley area because
2 it would not resolve the 1150 MW dispatch limit. Furthermore, without the
3 completion of the 500 kV Palo Verde-Devers 2 project and the associated
4 upgrades west of Devers, it is likely that Imperial Valley renewable generation
5 would be constrained. This would occur because the CV-Devers II project would
6 reinforce the system between IID and Devers, but there are known constraints
7 West of Devers which would not get any reinforcements and, as such, may not be
8 able to accommodate increase power flows from IID to San Diego.

9 **Q. Could the TE/VS project along with IID's proposed transmission projects be**
10 **used to deliver renewable generation in the IID Interconnection queue to San**
11 **Diego?**

12 **A.** Only to a limited degree. In my Phase 1 testimony, I described a 700 MW limit
13 on new renewable generation that could reliably be interconnected and considered
14 deliverable to the CAISO controlled grid. This limit was due to a transient
15 frequency criteria violation caused by new generation in excess of 700 MW. As a
16 result, without a major system upgrade, such as Sunrise, the CAISO's study
17 results indicate that no more than 700 MW of generation in the IID
18 interconnection queue could be delivered to San Diego.

19 However, the 1150 MW dispatch limit discussed above and in my Phase 2
20 direct testimony is a more restrictive limit. Sunrise would mitigate the 1150 MW
21 dispatch limit because it is highly effective at mitigating contingency flows
22 through the CFE system which trigger the cross-tripping scheme referred to in my

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1 Phase II direct testimony. In contrast, Green Path North would not be effective at
2 mitigating contingency flows through the CFE system, and therefore would not be
3 effective at mitigating the 1150 MW dispatch limit.. At the same time it is
4 expected that generation in the IID queue would adversely impact the CFE system
5 during contingency conditions on the IV-Miguel line, and therefore this
6 generation would be constrained by this limitation with or without Green Path
7 North.

8 **IV. DRA TESTIMONY REGARDING THE IMPACT OF RENEWABLES**
9 **DEVELOPMENT ON THE GREATER IMPERIAL VALLEY-SAN DIEGO**
10 **LOCAL CAPACITY REQUIREMENTS (GIV-SD LCR) AREA**

11
12 **Q. What concerns have been raised by DRA with respect to the LCR analysis**
13 **conducted by the CAISO in Phase 1 of this proceeding?**

14 **A.** The Phase 2 direct testimony of Kevin Woodruff on behalf of DRA responds to
15 the CAISO's Phase 1 LCR analysis of Sunrise and the alternative scenarios. Mr.
16 Woodruff's testimony suggests that the CAISO has overstated the reliability
17 benefits attributable to Sunrise. In particular, DRA raises the following issues
18 that will be addressed in my rebuttal testimony:

- 19 • DRA incorrectly concludes that the CAISO's 2006 and 2007
20 LCR studies, as well as the 2008 transmission plan results, are
21 inconsistent with the assumption that Sunrise will reduce San
22 Diego's LCR requirements by 1000 MW.¹⁶

¹⁶ DRA Phase 2 Direct Testimony (Woodruff) at 8-17.

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- 1 • Uncertainties regarding the development of renewable generation
2 discussed by DRA do not affect the validity of the CAISO’s
3 reliability analysis.

4 **Q. Please describe DRA’s perceived inconsistencies between the LCR analysis**
5 **conducted by the CAISO in this proceeding and the CAISO’s 2007 and 2008**
6 **transmission studies.**

7 **A.** The CAISO long-term LCR studies conducted in 2006 and 2007 assume that
8 Sunrise has been completed and the line is modeled for the purposes of the
9 analysis. Thus, for the purposes of these studies, the most limiting contingency in
10 the Greater Imperial Valley-San Diego area is described by the outage of SWPL
11 (500 kV) between the Imperial Valley and N. Gila Substations over-lapping with
12 an outage of the Otay Mesa Combined-Cycle Power plant (561 MW). This
13 creates a “Greater Imperial Valley – San Diego” (GIV-SD) LCR area. The
14 CAISO LCR studies for the Sunrise proceeding have assumed that renewable
15 generation will be developed in the GIV-SD LCR area to meet RPS requirements
16 and LCR requirements. However, DRA is concerned that this renewable
17 generation will not be developed in a timely manner along with Sunrise, and
18 therefore that Sunrise will not reduce local capacity requirements in the GIV-SD
19 LCR area to the extent determined by the CAISO in this proceeding.

20 **Q. Are DRA’s concerns regarding the impact on the GIV-SD LCR area valid?**

21 **A.** No. DRA appears to be concerned that Sunrise is expected to reshape the San
22 Diego area load pocket by moving the boundary further east to encompass the

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1 Imperial Valley renewable generation area. The CAISO sees this as a positive
2 and expected outcome. It would allow renewable generation already needed to
3 meet RPS requirements to also meet local generation capacity requirements.
4 Currently this local generation capacity requirement is met by old, inefficient
5 fossil fuel fired generation. Consequently, the Sunrise and the Imperial Valley
6 Renewable generation area represents low hanging fruit that should be picked
7 immediately and used to meet LCR and RPS requirements. The construction of
8 Sunrise would allow this to happen.

9 **Q. Should the uncertainties regarding the development of renewable generation**
10 **identified by DRA affect the Commission's evaluation of Sunrise and**
11 **DEIR/EIS Alternatives 4 and 5?**

12 **A.** No. While forecasting future events necessarily includes some uncertainty,
13 DRA's concerns are not well-founded. For example, DRA is concerned that the
14 development of the renewable generation in the GIV-SD LCR is uncertain.
15 However, a primary reason for this uncertainty is the lack of transmission
16 capability to deliver these resources to customer load. Once this barrier is
17 removed (which would occur by constructing Sunrise), it is reasonable to expect
18 that these renewable projects will be rapidly developed.

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1 **Q. How sensitive are the San Diego area LCR reduction benefits developed by**
2 **the CAISO to the timing of the renewable development in the greater**
3 **Imperial Valley area?**

4 **A.** Dr. Orans addresses this question in his testimony. Based on sensitivity studies
5 conducted by E3, he concludes that the economic benefits of Sunrise are not
6 dramatically affected by a delay in the development of these renewables.

7 **Q. Do you agree with DRA that potential changes to the LCR drivers in the LA**
8 **Basin cause changes to the fundamental assumptions used in the CAISO's**
9 **Phase 1 LCR analysis?**¹⁷

10 **A.** No. It is my understanding that DRA questions the CAISO assumption that
11 resources in the San Diego and IV areas can help to mitigate "South of Lugo"
12 constraints on the SCE system. Both the "2007 Long-Term LCR Study" and the
13 "2008 Transmission Plan" identify the SP26 Zonal requirement as the binding
14 constraint requiring the need for generation capacity to be dispatched in the LA
15 Basin. These reports also suggest that the planned additions of the Vincent-Mira
16 Loma 500 kV line, together with Green Path North and Palo Verde-Devers 2,
17 could increase imports into the LA Basin local area, and with these additions, the
18 South of Lugo constraint could be relieved. However, the primary constraint
19 driving the SP26 local capacity requirement is the Midway-Vincent Path 26, and
20 renewable generation in the Imperial Valley area would be effective at relieving
21 either this Path 26 constraint or the South of Lugo constraint. Thus, the CAISO's

¹⁷ DRA Phase 2 Direct Testimony (Woodruff) at 20-22.

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1 assumptions regarding the reliability benefits to the LA Basin that will be
2 provided by Sunrise remain unchanged even if the identified (but currently
3 uncertain) projects are ultimately constructed. Therefore DRA's concern about
4 the CAISO's study assumptions is misguided.

5 **V. DRA'S TESTIMONY REGARDING THE IMPACT OF SUNRISE ON**
6 **RETIREMENTS**

7
8 **Q. Do you agree with DRA that much of the generation capacity in the San**
9 **Diego area should be expected to retire over the next ten years and that the**
10 **Sunrise Project will not provide a major contribution towards meeting the**
11 **San Diego area local capacity requirements associated with the loss of this**
12 **local generation?¹⁸**

13 **A.** I agree that much of the generation capacity in the San Diego area should be
14 expected to retire over the next ten years but *disagree* with the assertion that
15 Sunrise will not provide a major contribution towards meeting the San Diego area
16 local capacity requirements associated with the loss of this local generation.
17 Specifically, Sunrise will *reduce* the local capacity requirements in the San Diego
18 area by 1000 MW and will be a major contribution towards mitigating the loss of
19 local generation capacity due to retirements.

¹⁸ DRA Phase 2 Direct Testimony (Woodruff) at 5-6.

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1 **Q. Do you agree with DRA that even with the completion of Sunrise the**
2 **retirement of the South Bay Power Plant (SBPP) is uncertain?**¹⁹

3 **A.** No. DRA has made references to public statements made by the CAISO, and has
4 referred to two newspaper articles describing these statements, but has
5 misinterpreted the CAISO’s position with respect to the removal of the SBPP
6 RMR designation. According to a January 28, 2008 letter from CAISO Chief
7 Executive Officer Yakout Mansour to the Mayor of Chula Vista (attached), there
8 are several modifications that must be made to SDG&E’s transmission/generation
9 infrastructure before SBPP can be retired. These are the completion of the Otay
10 Mesa Energy Center, Silvergate Substation, and the Baja Norte natural gas
11 interconnection. Because all of these projects are already in progress or have
12 been completed, the completion of Sunrise is the last condition to be met in order
13 to allow the CAISO’s RMR contract SBPP to expire and for the plant to retire.

¹⁹ DRA Phase 2 Direct Testimony (Woodruff) at 18-19.

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1

2 **VI. THE ENHANCED NORTHERN ROUTE PROPOSED BY SDG&E**

3

4 **Q. SDG&E has proposed a modified northern route alternative for Sunrise, the**
5 **Enhanced Northern Route. What is the CAISO's opinion of this proposal?**

6 **A.** The CAISO learned of this modified northern route alternative from the SDG&E
7 Phase 2 direct testimony and has not studied the proposal in depth. However, it
8 appears that the Enhanced Northern Route could provide the same benefits as
9 Sunrise (as proposed by SDG&E) and DEIR/EIS Alternative 5. The Enhanced
10 Northern Route apparently would not result in a common mode contingency risk
11 as determined by the WECC Planning Coordination Committee because it would
12 only be in the Imperial Valley-Miguel 500 kV line corridor for four miles in the
13 barren desert. In addition, it would still terminate at the Central 500 kV
14 substation and provide the option value of being able to complete the 500 kV
15 network connection between the San Diego and LA Basin 500 kV systems that I
16 have discussed in prior testimony. Dr. Orans has included a net benefits analysis
17 of this proposal in his testimony.

18 **Q. Does this conclude your Phase 2 rebuttal testimony?**

19 **A.** Yes.

CERTIFICATE OF SERVICE

I hereby certify that I have served, by electronic and United States mail, a copy of the foregoing Phase 2 Rebuttal Testimony of Robert Sparks on Behalf of The California Independent System Operator to each party in Docket No. A.06-08-010.

Executed on March 28, 2008 at Folsom, California.

/s Susan L. Montana
Susan L. Montana
An Employee of the California
Independent System Operator



Yakout Mansour
President & Chief Executive Officer

January 28, 2008

Honorable Cheryl Cox
Mayor
City of Chula Vista
276 Fourth Avenue, MS A-101
Chula Vista, CA 91910

Dear Mayor Cox:

Thank you for your letter of January 7, 2008, regarding the future of the South Bay Power Plant ("SBPP"). The letter asks the California Independent System Operator (ISO) to respond to the following questions:

- 1) What is the function of the SBPP as it relates to reliability and transmission?
- 2) What needs to occur in order to reduce the reliability designation on the SBPP enough to allow the lattice towers and transmission lines to be removed by December 2008?
- 3) What needs to occur in order to eliminate the Reliability Must Run (RMR) designation on SBPP so that it can be decommissioned and removed by February 2011?

I understand that the City of Chula Vista is in negotiations with various parties regarding the future use of the bay front that would require removal of the SBPP. Thus, the timing of the possible retirement of the SBPP is an important factor in these negotiations. As you know, the generating units at the SBPP are currently designated by the CAISO as Reliability Must-Run (RMR) units. This designation cannot be removed until local reliability requirements can be met without the SBPP.

The CAISO is a non profit public benefit corporation chartered under the laws of the State of California for the purpose of operating and maintaining the reliability of the statewide electric transmission grid. The reliability of the transmission grid is dependent on a number of specific power plants located in specific areas. SBPP is, in fact, critical to maintaining the reliability of the San Diego area. In order to remove the RMR designation from SBPP, the California ISO must find that reliability requirements can be met without SBPP units.

In May 2007, San Diego Gas & Electric ("SDG&E") entered into an agreement with the operator of the SBPP to fill SDG&E's Local Capacity Area Resource requirement needs as mandated by the California Public Utility Commission (CPUC). This agreement runs through December 31, 2009 and

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will secure all of the 704-megawatt capacity from the SBPP to the region. Although this agreement will provide SDG&E more flexibility over the operation of the facility and will ensure that the output from the plant is available to the CAISO to support the local area needs, the CAISO concluded that continued RMR designation was required in order to ensure availability of the resource to meet local reliability needs.

The CAISO is aware of the widespread interest that exists to see SBPP decommissioned and has been in discussions with SDG&E about the requirements necessary to remove the SBPP'S RMR designation. In order to remove the RMR designation, there are a number of modifications to the transmission and/or generation infrastructure that must happen first to ensure that local area reliability is maintained.

Three projects are underway to meet this local area reliability requirement. First, with respect to the need for new resources, construction of the Otay Mesa Energy Center is currently underway. Second, SDG&E has filed an application with the CPUC to construct the Sunrise Powerlink Transmission Project that will enable SDG&E to substantially improve system reliability and provide access to renewable resources. Third, SDG&E has recently executed contracts with two developers for new peaking generation resources in its service territory.

From the CAISO's perspective, at least two out of three of these major modifications must occur before the RMR designation at the SBPP can be removed. In addition to these modifications, the new Silvergate 230 kV substation and its related upgrades (scheduled for December 2008) as well as the new Baja Norte natural gas interconnection (scheduled for January 2008) must both be in service.

Given that the Otay Mesa Energy Center is under construction, the future addition of Sunrise Powerlink would satisfy the requirements for removal of RMR designation at SBPP. If Sunrise is delayed or not constructed, additional new peaking generation will be required within SDG&E's service territory. The amount of new capacity would be based on the CAISO's existing grid reliability standards, which are analyzed each year. Based on the current status of the previously noted projects, the RMR designation at the SBPP could be removed as early as 2010. However, delays in construction of the Sunrise Powerlink, lack of sufficient new peaking capacity, or delays in the in-service dates in implementing the new Baja Norte natural gas interconnection, would clearly delay this date. Once the RMR designation is removed, there should be no CAISO-related impediment to retiring and decommissioning SBPP.

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I trust that this sheds some light on the California ISO's role in determining the generation and transmission infrastructure necessary to ensure grid reliability and its analysis of local reliability needs related to the SBPP. If you have additional questions, please call Ali Chowdhury, Director of Regional Transmission South, at (916) 608-1113.

Sincerely,



Yakout Mansour
President & CEO

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