BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long -Term Procurement Plans	Rulemaking 12-03-014 (Filed March 22, 2012)

OPENING BRIEF OF THE PROTECT OUR COMMUNITIES FOUNDATION

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I. INTRODUCTION

Pursuant to Rule 13.11 of the Commission's Rules of Practice and Procedure, the Protect Our Communities Foundation ("POC") submits the following Opening Brief for proceeding R.12-03-014.

For the reasons stated below, the Commission must not authorize SDG&E to procure additional resources at this time. The Commission must reject the LCR need projections made by SDG&E and CAISO using N-1-1 as the limiting critical contingency. Further, the Commission must require that SDG&E conduct a probabilistic study for the Sunrise Powerlink / Southwest Powerlink contingency before authorizing any procurement requests based on N-1-1.

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II. SDG&E AND CAISO HAVE FAILED TO MAKE A SHOWING ON THE RECORD THAT N-1-1 IS A VALID LIMITING CRITICAL CONTINGENCY

In this proceeding, neither SDG&E nor CAISO has made a showing on the record establishing the reasonableness of the key assumption underlying their studies – the use of N-1-1 as the limiting critical contingency for the San Diego local area.

A. SDG&E and CAISO's LCR projections depend on N-1-1

In this proceeding, both SDG&E and CAISO have submitted testimony presenting the results of studies they conducted to project the LCR need for the combined San Diego and Los Angeles Basin local areas (the SONGS Study Area). Both the SDG&E study[1] and the CAISO study[2] used N-1-1 as the limiting critical contingency for the Study Area.

SDG&E and CAISO's attempt to use N-1-1 as the limiting critical contingency for the San Diego area has multi-billion dollar implications for ratepayers:

> San Diego's G-1, N-1 contingency is the concurrent outage of the 604 MW Otay generation plant and the ~2,000 MW Southwest Powerlink transmission line. San Diego's N-1-1 contingency is the concurrent outage of the ~1,000 MW Sunrise Powerlink transmission line and the 2,000 MW Southwest Powerlink. Thus, to meet an N-1-1 criterion (by procuring sufficient generation capacity to cover for an N-1-1 contingency) SDG&E would be required to procure 400 MW more than it would to meet a G-1, N-1 contingency. In effect, the N-1-1 standard imposes a net "loss" of 400 MW of otherwise available local capacity under the G-1, N-1 limiting contingency. In addition, N-1-1 keeps SDG&E's Imperial Valley Substation out of the LCR, removing 1,080 MW of combined cycle capacity connected to the Imperial Valley Substation from the LCR.
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> …
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> Adopting an N-1-1 criterion would force SDG&E ratepayers to cover the cost of this additional 400 MW of generation capacity. The cost of this capacity is likely to significantly exceed $1.6 billion dollars (the cost of the SDG&E's proposed PPA with the 305 MW Pio Pico plant currently being considered in A.13-06-015).[3]

B. The Reasonableness of N-1-1 Is an Unresolved Issue that the Commission Must Address

[1] Exhibit SDG&E-3

[2] Exhibit CAISO-1

[3] Exhibit PAO-1 at p. 5

The Commission must fully review the reasonableness of N-1-1 before it can reach any finding of need in this proceeding based on SDG&E and CAISO's studies.

Despite the multi-billion dollar implications of SDG&E and CAISO's decision to use N-1-1 as the limiting critical contingency in their studies, in opening testimony both SDG&E and CAISO treat N-1-1 as an assumption, making no attempt to justify its use. In doing so, SDG&E and CAISO ignore three key facts: (1) the use of N-1-1 as the limiting critical contingency is a new practice that differs significantly from the long-standing, official G-1/N-1 critical limiting contingency; (2) the Commission has not previously reviewed the reasonableness of N-1-1 or reached an evidence-based finding that N-1-1 is reasonable; and (3) N-1-1 has not been approved by CAISO's board and represents a significant departure from CAISO's official G-1/N-1 reliability criterion.

N-1-1 is a new limiting critical contingency that differs significantly from the G-1/N-1 contingency that CAISO and SDG&E have used for the San Diego area for at least a decade. In the Sunrise Powerlink proceeding, for instance, SDG&E used the G-1, N-1 standard to justify the construction of the multi-billion dollar Sunrise Powerlink transmission line. In a major departure from this long-established precedent, in CPUC proceeding A.11-05-023 CAISO used N-1-1 as CAISO's limiting critical contingency for the San Diego area. CAISO has since proposed the use of N-1-1 as the San Diego area limiting critical limiting contingency in two proceedings – A.13-06-015 and the instant proceeding, R.12-03-014. As established in Section II(A) above, for the San Diego area the switch from G-1/N-1 to N-1-1 would result in a 400 MW reduction in local area capacity and potentially billions of dollars in additional cost to ratepayers.

The Commission has not previously reviewed the reasonableness of N-1-1 or reached an evidence-based finding that N-1-1 is reasonable. In A.11-05-023, the proceeding in which

CAISO first introduced N-1-1, CAISO made no attempt on the record to argue that the switch to N-1-1 was reasonable, nor did CAISO submit any evidence to the record to establish the reasonableness of N-1-1. CAISO's failure to make any showing on the record that N-1-1 is reasonable is reflected in the final decision in A.11-05-023, D.13-03-029, which reaches no findings of fact regarding the reasonableness of N-1-1.

The use of N-1-1 for the San Diego area has not been approved by CAISO's board and is inconsistent with CAISO's official G-1/N-1 standard. CAISO's official, board-approved planning standard is G-1/N-1, defined as the concurrent outages of a local area's largest transmission line and its largest generating facility. G-1/N-1 was reaffirmed by CAISO as its official reliability standard in its most recent (2011) update to its transmission planning standards.[4]

Because N-1-1 is a new reliability criterion that has not previously been found reasonable by the Commission and has not been approved by CAISO's Board, the reasonableness of N-1-1 is an open issue that the Commission must fully consider and resolve before it can approve any procurement requests based on studies using N-1-1.

C. The Elimination by CAISO of Path Ratings for Major SDG&E Import Pathways Undermines Import Pathway LCR Value in G-1, N-1 Contingency

The elimination by CAISO of path ratings for major SDG&E import pathways, instead of increasing the path ratings to reflect that actual thermal capabilities of this import pathways, is resulting in a dramatic undercounting of the reliable import capacity available at the CAISO-approved standard G-1 (Otay Mesa combined cycle), N-1 (Southwest Powerlink) contingency in SDG&E service territory.

[4] Exhibit PSC, Attachment 3, "Californria ISO Planning Standards"

Commission Florio cross-examined CAISO witness Sparks on this specific point:[5]

> Q Okay. Good. You talk about, starting at line 17, SDG&E was well into the path rating process for establishing a thousand megawatt rating on Sunrise itself. But that rating was found to impair the capability of the internal ISO system. Can you explain a little further what that means, impairing the internal system?
> A Yes. The thousand megawatt (Sunrise Powerlink) rating would require that, say, for instance, if a neighboring utility, IID or CFE, puts some improvements in their system and tried to increase the capability of their system, they couldn't reduce the capability of that line below a thousand megawatts. So that's the advantageous part of putting a rating on that line. But the downside is that you can't use it for more than a thousand megawatts, and the line itself has a thermal capability of well over a thousand megawatts. And so, and we found we hit that thousand megawatt limit. And so we are essentially just not able to utilize the full capability of the line with that rating. And so it was requested to just eliminate that rating protection so that we could fully utilize the line.
> Q Okay. So there is no specific path rating for Sunrise, is that?
> A That's correct.
> Q Is there a combined path rating for Sunrise and Imperial to Miguel, or is there just not a path rating?
> A There's no path rating there on Sunrise and SWPL combined or by themselves.

There must be a path rating for Sunrise Powerlink under the CAISO-approved standard G-1, N-1 contingency in order to determine existing LCR capacity in the SDG&E load pocket. It is one of two major transmission pathways, along with the "SONGS-to-San Diego" Path 44, that remains operational under the G-1, N-1 contingency. The seemingly obvious action to be taken by CAISO to account for the fact that Sunrise Powerlink has a thermal capability well over 1,000 MW is to recommend to SDG&E to modify the proposed path rating in its Sunrise Powerlink path rating application. CAISO and SDG&E should be seeking a path rating for the Sunrise Powerlink of well over 1,000 MW, not the elimination of the path rating.

California IOU ratepayers are paying $2 billion for the Sunrise Powerlink.[6] A substantial Commission basis for approving the Sunrise Powerlink was that it would

[5] Volume [illegible] lines [illegible] lines [illegible]

[6] [illegible] p [illegible] 5.

provide at least 1,000 MW of reliability under a standard G-1, N-1 contingency. California ratepayers are paying for at least a 1,000 MW path rating for the Sunrise Powerlink under this standard G-1, N-1 contingency. Both CAISO and SDG&E have an obligation to provide at a minimum this level of reliability under a standard G-1, N-1 contingency, and the Commission has an obligation to ratepayers to assure that they do.

This same phenomenon is also in play with Path 44. CAISO identifies the thermal capability of Path 44 as approximately 3,200 MW.[7] The rating for Path 44 prior to the permanent retirement of SONGS was 2,500 MW. Mr. Sparks confirmed the 3,200 MW thermal capability of Path 44 under cross-examination:[8]

> ALJ GAMSON: I think the question is should the (Path 44) 2500 number really be 3200.
> Would that -- is that correct, Mr. Rostov?
> (No response)
> ALJ GAMSON: I'll take that as a yes.
> MR. ROSTOV: Yes.
> MS. SANDERS: Okay.
> THE WITNESS (Sparks): Yeah, . . .

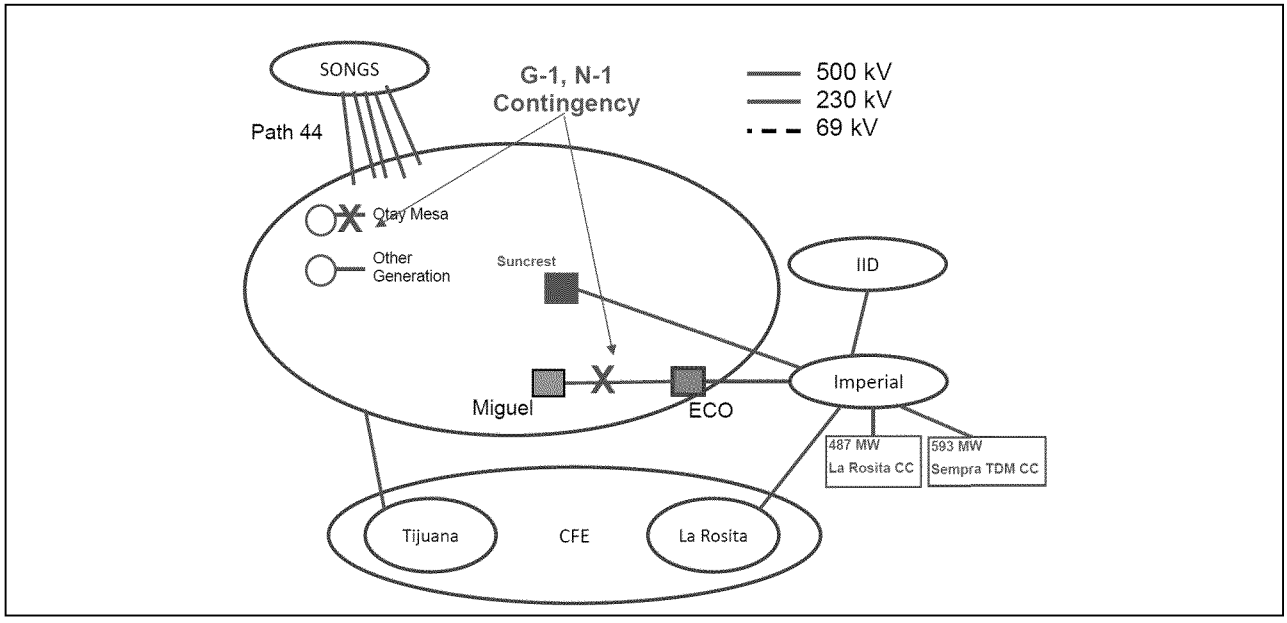
However, instead of adding 700 MW to the existing LCR capacity in the San Diego load pocket to account of the substantially greater thermal capacity of Path 44 compared to its historic path rating, what would appear to be the logical step, CAISO simply eliminates the path rating for Path 44 under its unvetted N-1-1 limiting contingency.

The differences between the standard G-1, N-1 planning contingency and the unvetted N-1-1 contingency being utilized as the planning contingency by CAISO, SCE and SDG&E in Track 4 is are shown in Figures 1 and 2. The critical difference between

[7] [illegible] Exhibit 2, Tables 1 and 2, p. 4 and p. 6.
[8] Volume 10, p. [illegible] lines [illegible] Tables 1

the two contingency scenarios is that the N-1-1 scenario severs the two 500 kV interconnections between San Diego and the Imperial Valley substation (N-1-1). This would exclude 1,080 MW of existing combined cycle capacity connected to SDG&E's Imperial Valley substation as local capacity that meets the LCR need.

Figure 1. Graphic of G-1, N-1 Limiting Contingency Applicable to SDG&E Territory[9]



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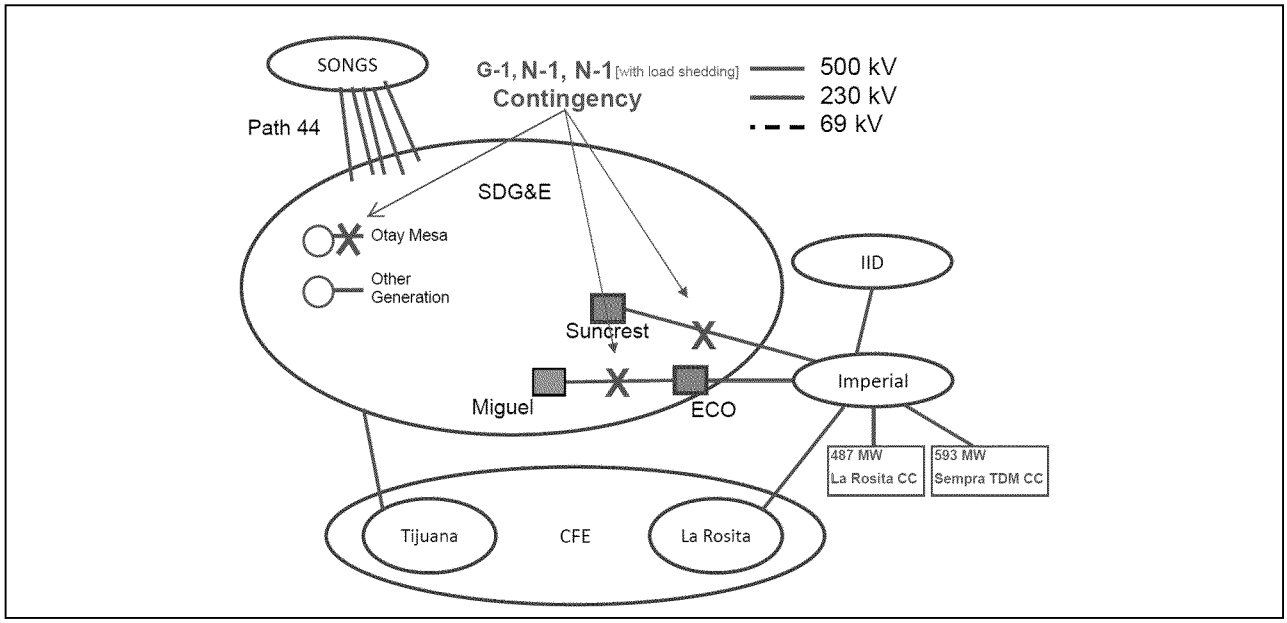
[9] [redacted], p. [redacted] 1.

Figure 2. Graphic of G-1, N-1-1 with Load Shedding that SDG&E Identifies as G-1, N-1[10]



The elimination of path ratings for Sunrise Powerlink and Path 44 presupposes that the unvetted N-1-1 scenario is the critical contingency. In fact, it is no longer possible to calculate what the available San Diego LCR capacity under a standard G-1, N-1 contingency, as the path ratings have been eliminated for the two import pathways that would remain available under the standard G-1, N-1 contingency. Concurrent with advancing the N-1-1 contingency, CAISO has administratively dismantled the framework necessary to calculate there is any LCR need under a standard G-1, N-1 contingency.

The application of revised path ratings for Sunrise Powerlink and Path 44, that reflect the actual thermal capabilities of these two lines, under a standard G-1, N-1 limiting contingency would completely reverse the direction of the current Track 4 proceeding. Up to 700 MW of additional LCR capacity would be added to Path 44. Presuming the actual thermal capability of

[10] [redacted]

the Sunrise Powerlink is similar to that of the Southwest Powerlink's 2,000 MW,[11] up to 1,000 MW of additional LCR capacity would be added along the Sunrise Powerlink.

In addition, CAISO's erroneous categorization of outages at Palomar Energy and Otay Mesa combined cycle plants as presumptive "whole plant" outages for LCR planning purposes conflicts with FERC's clear statement on the capabilities of these two combined cycle plants.[12] This matters when the CAISO board-approved G-1, N-1 planning standard is applied. CAISO's simple acknowledgement of the design capabilities of the two combine cycle plants, which the plants to continue operating as simple-cycle units with the steam turbine-generator in forced outage, would increase the LCR capacity in the SDG&E load pocket by approximately 344 MW under the CAISO-approved standard G-1, N-1 planning contingency in SDG&E territory (cite to Powers opening testimony).

The Sunrise Powerlink-Southwest Powerlink N-1-1 "ripple effect" felt as an N-1 in SCE territory,[13] the basis for joint SCE-SDG&E powerflow modeling in Track 4, would disappear, as power would continue to flow over Sunrise Powerlink under contingency conditions and not be forced through the SCE transmission system.

Under a standard G-1, N-1 planning contingency in SDG&E territory, assuming Sunrise Powerlink and Path 44 path ratings that accurately reflecting the thermal capabilities of these two lines, and an accurate G-1 capacity for the San Diego area combined cycle units, SDG&E territory would have up to 2,000 MW of LCR capacity that is not currently counted. There would be no Track 4 determination of need in either SDG&E territory or SCE territory if a standard G-1, N-1 planning contingency is assumed, accurate path ratings are applied for Path 44 and

[11] [redacted],[redacted]p[redacted]5.

[12] [redacted],[redacted]Exhibi[redacted]1

[13] [redacted]Volume[redacted]13,[redacted]p.[redacted]3134,[redacted]lines[redacted]5

Sunrise Powerlink, and a G-1 that reflects the inherent design capability of the two San Diego combined cycle plants is assumed.

D. Mandatory NERC and WECC Standards do Not Require the Use of N-1-1

SDG&E and CAISO have presented only one substantive argument regarding the reasonableness of N-1-1. Both parties have agued that in order to comply with mandatory NERC reliability planning standards, they are required to use N-1-1 as the limiting critical contingency for the San Diego local area.[14] This argument is incorrect. Mandatory NERC and WECC reliability standards do not require that SDG&E and CAISO use N-1-1 as the limiting critical contingency.

The National Electricity Reliability Corporation is the national entity responsible for establishing mandatory system reliability standards. NERC's mandatory standards are composed of four contingency Categories – Categories A, B, C, and D. Category B contingencies are relatively frequent and minor events.[15] Entities are required to have sufficient resources in place to mitigate Category B contingencies without resorting to load shedding.[16] Category C contingencies are rarer, more serious events.[17] Entities are required to have sufficient resources in place to mitigate Category C events, but load shedding is allowed.[18] Category D contingencies are extremely rate, "Act of God" events.[19] Although entities are required to "consider" Category D contingencies as part of their transmission planning process, Category D events are sufficiently rare that entities are not required to have resources in place to mitigate for them.

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[14] See, Exhibit SDG&E-34; Tr. Vol. 11, p. 1558, lines 2

[15] Exhibit PSD-1, Attachment 1

[16] Id.

[17] Exhibit PSD-1, Attachment 6

[18] Id.

[19] Exhibit PSD-1, Attachment 7

SDG&E and CAISO have claimed that the N-1-1 of SWPL and Sunrise Powerlink is a Category C3 event. They further argue that, as the most severe Category C event for the San Diego local area, the N-1-1 of SWPL and Sunrise Powerlink must be used as the limiting critical contingency for the local area. This is not the case: WECC has a robust procedure for making individual exceptions to contingency categorizations; the N-1-1 used by SDG&E and CAISO qualifies for this process; and the N-1-1 is a *prima facie* probabilistic Category D that would almost certainly succeed in a re-categorization application.

i. WECC has a robust process for making probabilistic exceptions to contingency categorizations.

The Western Electricity Coordinating Council ("WECC") is the regional entity responsible for monitoring and enforcing mandatory NERC reliability standards in California. WECC has developed and implemented a robust process for making individual exceptions to NERC contingency categorizations. This process, referred to as Probabilistic Based Reliability Criteria "PBRC" is described by WECC as follows:

> The introduction of probabilistic planning is intended to optimize performance without degrading system reliability. The performance requirements of the NERC/WECC Planning Standards are established based on deterministic methods. For the rare case where a facility should meet a standard other than the classification dictated by the NERC/WECC Planning Standards, this probabilistic based reliability criteria (PBRC) will provide a means to reclassify the facility. If a facility has excessive outages for its classification, then it should be expected to meet the requirements of a more stringent performance category. If a facility can be shown to perform much better as compared to its normal classification, the facility operator may request that the facility be qualified to meet the requirements of a less stringent performance category.[20]

To be allowed PBRC categorization for a compliance year, the complete

[20] WECC, Reliability Performance Evaluation Work Group Phase 1 Probabilistic Based Reiliability Criteria Implementation Procedure, Available at www.wecc.biz/committees/StandingCommittees/.../RPEWGImpProc.doc .

following seven step process:[21]

1. Provide a description of the facility or project;
2. Provide an outage database for the facility or project with at least 10 years of data;
3. Calculate the facility or project's Mean Time Between Failure ("MTBF") using the outage data;
4. Robust line design – if a MTBF calculation is not possible due to limited data, an application may be made based on Robust Line Design Features. The applicant must be able to fully justify and conclude that significant risk does not exist for the project;
5. Exposure Analysis – describe customer exposure to critical outage;
6. Illustrate the Consequence of an outage;
7. Provide a report to the RPEWG that details the information in steps 1-6.

Through this seven step PBRC process, an applicant must establish that the likelihood of a contingency occurring is sufficiently low (or high) to justify a re-categorization. As part of the PBRC, WECC assigned probabilistic values (stated as Outage Frequency Per Year) to the deterministic categories set forth in NERC's reliability standards. These values are set forth in the following chart:[22]

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[21] Ex. POC X CAISO B at p. 49

[22] Ex. PBRC Attachment 8 at p. 8

Table B: Phase I PBRC Performance Table for the NERC/WECC Planning Standards

WECC DISTURBANCE-PERFORMANCE TABLE OF ALLOWABLE EFFECTS ON OTHER SYSTEMS

NERC and WECC Categories	Outage Frequency Associated with the Performance Category (outage/year)	Transient Voltage Dip Standard	Minimum Transient Frequency Standard	Post Transient Voltage Deviation Standard (See Note 2)
A	Not Applicable	Nothing in addition to NERC		
B	≥ 0.33	Not to exceed 25% at load buses or 30% at non-load buses. Not to exceed 20% for more than 20 cycles at load buses.	Not below 59.6 Hz for 6 cycles or more at a load bus.	Not to exceed 5% at any bus.
C	0.033 - 0.33	Not to exceed 30% at any bus. Not to exceed 20% for more than 40 cycles at load buses.	Not below 59.0 Hz for 6 cycles or more at a load bus.	Not to exceed 10% at any bus.
D	< 0.033	Nothing in addition to NERC		

For example, a utility seeking to re-categorize a specific Category B contingency as Category C through the PBRC process would qualify for a re-categorization if it established that the likelihood of the specific contingency event in question occurring was less than 0.33 outages per year.

In cross-examination, SDG&E and CAISO have acknowledged the existence of the PBRC process, and admitted that the process allows for probabilistic exceptions to NERC categorizations.[23]

ii. The SWPL and SPL N-1-1 qualifies for PBRC consideration

[23] Tr. Vol. 11, p. 1560, lines 1

Both SDG&E and CAISO use the same N-1-1 event as their limiting critical contingency: an overlapping outage (N-1-1) event involving the Sunrise Powerlink transmission line and the Southwest Powerlink transmission line, with time for a system adjustment between the two outages.[24] This N-1-1 contingency qualifies for the PBRC re-categorization process.

There is nothing in the official WECC documents setting forth the PBRC that would limit the applicability of the PBRC process to the N-1-1 in this case. The broad language used by WECC in the official PBRC documents makes clear that the process is intended to apply to any NERC Category A through Category D contingency.[25]

During cross-examination, CAISO witness Sparks admitted that the Sunrise/SWPL N-1-1 qualifies for the PBRC process:

> THE WITNESS [Mr. Sparks]: As I described, it [the PBRC process] applies to – I've seen it in examples applied to single contingencies being reclassified as Category C and sometimes it can reclassify double contingency to Category B. I've never seen it [the PBRC process] applied to Category C3, but I suppose it could be.[26]

iii. The N-1-1 of SWPL and SPL is a *prima facie* probabilistic Category D

Although the N-1-1 relied upon by SDG&E and CAISO in this proceeding is currently classified as a Category C contingency, sufficient evidence has been presented in this proceeding to establish that the Southwest/Sunrise N-1-1 is a *prima facie* probabilistic Category D. SDG&E would almost certainly be successful in a PBRC application to re-categorize the Southwest/Sunrise N-1-1.

[24] Exhibit SDG&E at p. 3,

[25] WECC, Seven Step Process for Performance Category Upgrade Request, at p. 1. Available https://www.wecc.biz/committees/StandingCommittees/PCC/RS/RPEWG/Shared%20Documents/Seven_Step_Process_BOD_Approved_12[illegible]04.pdf

[26] Vol. 11, p. [illegible] Lines 15

It is uncontested that the N-2 (simultaneous outage) of Sunrise and Southwest Powerlink is a Category D contingency, and SDG&E and CAISO have both asserted that an N-1-1 involving the same lines is a Category C3 event. While these categorizations are accurate from a purely deterministic perspective (looking only at what NERC category a particular contingency fits into without regard to actual likelihood of the contingency occurring), SDG&E and CAISO's logic collapses as soon as probabilistic factors (the real-world factors affecting the actual probability of a specific contingency occurring for specific facilities) are taken into consideration.

From a probabilistic perspective, if the likelihood of an N-2 event occurring for a specific pair of transmission lines is sufficiently low to justify its classification as a Category D "act of God" event, then an N-1-1 involving the exact same pair of transmission lines is almost certain to qualify for Category D as well.

This is partly because there is very little real-world difference between an N-1-1 event and an N-2 event. The primary factor that differentiates between the two is a minor issue of timing: "the N-1-1 vs N-2 terminology was introduced only as a mere temporal differentiation between [N-1-1 and N-2]."[27] In an N-2 event, the interval between the outages of the two lines is too short for a system adjustment to be made (CAISO has defined this interval as falling between 15 and 30 minutes). From a probabilistic perspective, there is nothing inherent in these definitions that would make an N-1-1 event more likely to occur than an N-2 event.

If anything, a Sunrise/Southwest N-1-1 event is *less likely* to occur than a Sunrise/Southwest N-2 event. As part of the PBRC process, WECC looks at the likelihood of

[27] [illegible]

various real-world risk factors causing the contingency in question to occur. These factors include:[28]

> R1: Risk of fire affecting both lines
> R2: Risk of one tower falling into another line
> R3: Risk of a conductor from one line being dragged into another line
> R4: Risk of lightning strikes tripping both lines
> R5: Risk of an aircraft flying into both lines
> R6: Risk of station related problems resulting in loss of two lines for a single event
> R7: Risk of natural disasters (ice, wind, snow or earth slides, flood, etc.) affecting both lines
> R8: Risk of loss of two lines due to an overhead crossing
> R9: Risk of loss of two lines due to vandalism/malicious acts
> R10: Risk of flashover to vegetation.
> R11: Risk of a single breaker failure causing loss of two lines

SDG&E has admitted that, while the risk factors R6, R8, and R11 apply equally to lines that are close together (which are more likely to experience an N-2 event) and lines that are far apart (which are more likely to experience an N-1-1 event), the remaining risk factors, including fire, vandalism, flashover, airplane crashes, and natural disasters, decreases as the distance between the lines increases. Thus, lines that are further apart, and more likely to experience an N-1-1 event, are significantly less susceptible to the key risk factors considered by WECC in the PBRC. If an N-2 involving the same lines is sufficiently rare to qualify as a Category D, then the N-1-1 event involving the same lines is almost certain to qualify for Category D treatment as well.

III. N-1-1 HARMS RATEPAYERS BY REDUCING THE RELIABLITY VALUE OF THEIR INVESTMENT IN SUNRISE POWERLINK

CAISO's switch to N-1-1 nullifies a significant portion of the reliability benefit to ratepayers used to justify SDG&E's $2 billion Sunrise Powerlink project.

Sunrise Powerlink was presented to the public and justified to the Commission as a project that would significantly increase San Diego's long-term reliability. The Commission

[28] Ex. POC-X-[illegible] p. 49

approved Sunrise Powerlink on the grounds that it would add 1,000 MW of Local Reliability under the G-1, N-1 standard. In the Commission's decision approving Sunrise Powerlink, the Commission noted:

> SDG&E's Local Capacity Requirement – both now and in the future – is a critical factor in determining whether Sunrise or other generation or transmission resources are needed to meet reliability criteria. Pursuant to reliably criteria established by the North American Electric Reliability Corporation (NERC), SDG&E must have enough local generation resources to reliably serve all load in its Local Reliability Area after the loss of its largest generating unit in its service area followed by the loss of its most critical transmission line (the "G-1/N-1" criteria). The G-1/N-1 criteria determine SDG&E's "Local Capacity Requirement" since the Local Capacity Requirement is the amount of local generation that SDG&E must have to continue operating reliably after a G-1/N-1 event.

The Decision's Finding of Fact 14 places a specific cash value on the Sunrise Powerlink's reliability benefit to ratepayers:

> Modeling performed by the CAISO, updated for our baseline assumptions, demonstrates total projected reliability benefits of [Sunrise Powerlink built along] the Environmentally Superior Southern Route to be $214 million per year.

The Commission must not allow CAISO and SDG&E to pull a "bait and switch" on SDG&E ratepayers – justifying a $2 billion dollar transmission line based on claimed reliability benefits under the G-1, N-1 standard, then changing the standard to obviate the Sunrise Powerlink's reliability benefits to justify even more reliability procurement. Switching from G-1, N-1 to N- 1-1 would effectively reduce the reliability benefit of Sunrise Powerlink by 40% (the 1000 MW reliability loss under the N-1-1 standard is partially offset by the 604 MW Otay Plant, which is not assumed out as it would be under N-1, G-1), and exclude existing combined cycle RA capacity connected to the Imperial Valley Substation.[29] Ratepayers have invested $2 billion in Sunrise Powerlink. A 40% reduction of the value of this investment amounts to an $800

[29] PDC31 at p. 16

million loss to ratepayers.[30] Assuming that the Commission's Finding of Fact 14 is correct, a loss of 40% of the reliability value of Sunrise Powerlink will harm ratepayers at the rate of $85 million per year.[31]

IV. SDG&E AND CAISO IMPROPERLY ASSUME THE RETIREMENT OF KEY GENERATION ASSETS

In their respective studies, both SDG&E and CAISO improperly assume the retirement of two key generation assets located in the San Diego local area – the Encina Generating Station, and the Cabrillo II Peakers facility. As noted by Sierra Club witness Powers in the Sierra Club's Opening Testimony:

> CAISO is currently negotiating an extension of the proposed shutdown date of the Cabrillo II combustion turbines (188 MW), yet these units are assumed retired in Track 4 modeling. The 964 MW Encina Generating Station has submitted a compliance plan to meet its December 2017 OTC compliance date, yet the plant is assumed retired in Track 4 modeling.[32]

V. CONCLUSION

For the reasons stated above, the Commission must not authorize SDG&E to procure additional resources at this time. The Commission must reject the LCR need projections made by SDG&E and CAISO using N-1-1 as the limiting critical contingency. Further, the Commission must require that SDG&E conduct a probabilistic study for the Sunrise Powerlink / Southwest Powerlink contingency before authorizing any procurement requests based on N-1-1.

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[30] [illegible]

[31] [illegible]

[32] [illegible]

Respectfully Submitted,

Dated: November 25, 2013

/S/

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