Rulemaking _	12-03-014 (LTPP Local Reliability Track	<u>(</u>
Exhibit No		
Witness _	Mona Tierney-Lloyd	
Commissione	r Michel P. Florio	
ΔΙ.Ι	David R. Gamson	

ENERNOC, INC.

LOCAL RELIABILTY TRACK I PREPARED REPLY TESTIMONY

Rulemaking 12-03-014 Long Term Procurement Plans (LTPP) Track 1 (Local Reliability)

July 23, 2012

ENERNOC, INC. PREPARED REPLY TESTIMONY RULEMAKING (R) 12-03-014: LONG TERM PROCUREMENT PLANS (LTPP) TRACK 1 (LOCAL RELIABILITY)

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ENERNOC, INC. PREPARED REPLY TESTIMONY RULEMAKING (R) 12-03-014: LONG TERM PROCUREMENT PLANS (LTPP): LOCAL RELIABILITY TRACK I

1 2	I. INTRODUCTION
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4	EnerNOC, Inc. ("EnerNOC") timely served opening testimony of its two
5	witnesses, Mona Tierney-Lloyd and Andrew Hoffman, on June 25, 2012. By this
6	testimony, EnerNOC replies to the opening testimony of San Diego Gas & Electric
7	Company (SDG&E) and Southern California Edison Company (SCE) also served on
8	June 25. EnerNOC's reply to this opening testimony incorporates relevant responses to
9	the Assigned Commissioner's Ruling (ACR) dated July 13, 2012. EnerNOC's Reply
10	Testimony is sponsored by witness Mona Tierney-Lloyd, whose Statement of
11	Qualifications is included in Appendix A of her Opening Testimony dated July 25, 2012,
12	and incorporated herein.

1	II.
2	OVERVIEW

Q. What is the purpose of EnerNOC's Reply Testimony?

A. In EnerNOC's Opening Testimony of June 25, 2012, EnerNOC identified concerns with the failure of the California Independent System Operator (CAISO) to incorporate preferred resources, principally demand response, into the calculations of need for the Los Angeles (LA) Basin and Big Creek/Ventura local capacity areas (LCAs). Further, EnerNOC identified several markets in which demand response resources are providing flexible resources to grid operators. Several parties, in their June 25 Opening Testimony, expressed similar concerns to those raised by EnerNOC.

In this reply testimony, EnerNOC replies to the June 25 Opening Testimony of SDG&E's Witness Anderson at pages 5-8 and SCE's Witnesses Minick and Cabbell at pages 5-8, 9-10 (Minick) and 15-16 (Cabbell). Specifically, EnerNOC replies herein to SDG&E Witness Anderson's assertion that demand response (DR) resources will be used in a residual manner to other resource types and; SCE Witness Minick's identification of issues that could significantly affect the resulting needs assessment; and SCE Witness Cabbell's assertion that large-scale local generation resources need to be built in the LA Basin. In addition, EnerNOC replies in opposition to the failure of SCE's testimony to explicitly contemplate preferred resource alternatives to large-scale conventional resources and the conditions that SDG&E places around consideration of preferred resource alternatives in its testimony. In offering this reply, EnerNOC has incorporated the relevant inquiries posed by the Assigned Commissioner's Ruling of July 13, 2012 (July 13 ACR).

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¹ EnerNOC Opening Testimony of Mona Tierney-Lloyd (June 25, 2012), Chapter II.

² EnerNOC Opening Testimony of Andrew Hoffman (June 25, 2012), Chapter II.

³ See, e.g., Division of Ratepayer Advocates (DRA) Opening Testimony of Yakov Lasko, at p. 1; The Utility Reform Network (TURN) Opening Testimony of Kevin Woodruff, at p. 9; Natural Resources Defense Council Opening Testimony of Sierra Martinez, at p. 1 (regarding need to account for "for approved or expected growth in energy efficiency" in compliance with the State's loading order"); and California Environmental Justice Alliance Opening Testimony of Julia May, at pp. 18-22 (specific to demand response (DR)); Clean Coalition Opening Testimony of Craig Lewis, at pp.4-5 (specific to DR and storage).

THE PROPOSALS MADE BY SCE AND SDG&E DO NOT FOLLOW THE LOADING ORDER AND THE COMMISSION MUST ACT TO ENSURE THAT PREFERRED RESOURCES ARE PROCURED FIRST TO MEET LOCAL RELIABILITY NEEDS BEFORE NEW FOSSIL-FUELED RESOURCES ARE COMMITTED.

III.

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Q. 1. Does SDG&E's Local Capacity Resource Planning Proposal offered in its Opening Testimony follow the Energy Action Plan "Loading Order"?

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A. 1. No. SDG&E states that they support a "conservative" approach to local reliability planning versus system resource planning. SDG&E's testimony supports using resources that have a high degree of certainty, but that this position does not demonstrate a lack of support for the loading order policy.⁵ SDG&E asks that the Commission avoid incorporation of "stretch" goals into the planning process.⁶

EnerNOC agrees that planning for local reliability requires a high degree of certainty and should result in resource selections, including DR and energy efficiency (EE). which are cost effective, reliable and feasible. However, EnerNOC does not believe that the CAISO's approach allows for such a determination to be made. Rather, uncommitted EE and growth in DR are either assumed not to occur at all or assumed to not pass the test of being cost effective, reliable and feasible.

While EnerNOC can appreciate SDG&E's desire to be "conservative," EnerNOC wonders how the specific direction of Public Utilities (PU) Code §454.5(b)(9)(C) (requiring utilities to first meet need with all available cost-effective EE and demand reduction resources) or the Commission's adopted "loading order" policy (requiring the utilities to procure "preferred resources" (i.e., EE and DR) to meet need first) can ever be realized if acquiring resources for any future local need is assumed to be met by conventional resources. If the loading order is not the guide for planned resource additions, of what value is the policy? If the value of the policy is to "fill in the gaps" that will arise in a utility's portfolio after central station generation resources are procured, than DR and EE are hardly preferred resources, but residual resources. It is not only the loading order policy that is affected by this

SDG&E Opening Testimony (Anderson), at pp. 5-6.

⁵ <u>ld</u>., at p. 6.

⁶ <u>ld</u>., at pp. 6-7.

1 logic. It is the assumption that any Commission action, future or present, to expand 2 DR and EE, will be ineffectual so as to produce unreliable, infeasible and cost 3 ineffective programs that cannot be counted upon for resource planning purposes. Fossil fueled resources are going to need to be built. The question that must be 4 answered is how much of the future need will be met by these conventional 5 6 resources. If we commit to fossil fueled resources first this time, it could influence 7 the amount of clean-resource penetration that can be achieved now and in the 8 future. By virtue of making a decision for fossil generation first, the Commission will 9 be diminishing the need for preferred resources. First, the need will be reduced 10 because large-scale, central station generation additions are lumpy in nature. They 11 are added in advance of the anticipated shortfall of capacity to meet demand needs. 12 As such, capacity additions tend to result in excess supply, at the time the 13 generation becomes operational, with the expectation that demand will continue to 14 grow over time. But, for some period of time, there will be a tolerated amount of 15 excess capacity. Excess capacity will tend to reduce market pricing signals for both 16 short-term capacity and energy. Short-term capacity and energy price signals will be 17 the basis for compensating the resources that "fill in the gaps." which could be DR 18 and EE. These short-term pricing signals, for energy, will also be at least part of the 19 basis for calculating cost effectiveness. So, upon operation of the generation facility, 20 there will likely be a surplus of capacity, calling into question the need for resources 21 like DR and potentially reducing the ability for DR to be cost effective until the next 22 period when a new resource addition is necessary. 23 As mentioned earlier, this manner of using preferred resources to "fill in the gaps" 24 sets the loading order on its head. In D.12-01-033, the Commission provided the 25 following clarification as it relates to utility procurement and the loading order: 26 "It appears necessary to reiterate here the centrality of the loading 27 order, and to direct the utilities to procure all of their generation resources in the sequence set out in the loading order. While hitting a 28 29 target for energy efficiency or demand response may satisfy other 30 obligations of the utility, that does not constitute a ceiling on those

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31 32 resources for purposes of procurement.

"We understand that opportunities to procure additional energy efficiency or demand response resources may be more constrained than just signing up for more conventional fossil generation, but the utilities should still procure additional energy efficiency and demand response resources to the extent they are feasibly available and cost effective. If the utilities can reasonably procure additional energy efficiency and demand response resources, they should do so. This approach also continues for each step down the loading order, including renewable and distributed generation."

There is an adage that says that "If you always do, what you've always done; you'll always get, what you've always got." DR and EE will never be anything more than a priority resource in name only, unless the Commission requires it to be a priority resource for purposes of planning and resource procurement.

Q. 2. Does SCE's Proposals for Flexibility in Local Capacity Procurement Observe the "Loading Order"?

- **A. 2.** No. In its Opening Testimony, SCE seeks flexibility in making procurement decisions by acknowledging variables that could significantly change the need assessment, but does not explicitly recognize the "loading order" as a necessary aspect of local capacity procurement. In this regard, SCE Witness Minick identifies several factors which could significantly change the estimation of resource needs calculated by CAISO.⁸ Some of the "input" assumptions that SCE identified were:
 - CAISO augmentation of the planning criteria beyond the requirements of either Western Electricity Coordination Council (WECC) and the North American Electric Reliability Corporation (NERC);
 - CAISO used the California Energy Commission's (CEC's) median load forecast in the most recent Integrated Energy Policy Report (IEPR);
 - Different resource assumptions, including higher assumptions for EE and DR, could significantly reduce the need calculated by CAISO;
 - Changes in the location of the resources could change the need;
 - CAISO did not consider transmission mitigating the need for new resources.
- SCE's proposal, as a result of all of this potential uncertainty, is to give the utility flexibility in making resource commitments, in terms of timing, type, and location.

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⁷ D.12-01-033, at pp. 20-21.

⁸ SCE Opening Testimony (Minick), at pp. 5-9. R12-03-014 (LTPP Local Reliability Track 1) EnerNOC Prepared Reply Testimony

1 Yet, SCE never specifically mentions the loading order or the procurement of 2 preferred resources as part of the flexibility that SCE seeks. It may be more prudent for the utility to have flexibility to make resource 3 procurement decisions, as SCE states. 9 as the timing associated with resource 4 needs may change as assumptions change, as opposed to making all procurement 5 6 decisions today. SCE has not made clear in its testimony how it would evaluate 7 resource types, such as DR and EE, versus new conventional, fossil-fueled generation resources. In fact, SCE Witness Cabbell states that non-generation 8 9 alternatives are not likely to fulfill the local need and goes on to support the use of large-scale generation resources for meeting the local reliability requirements. 10 10 However, the only "non-generation" resource that SCE appears to have considered 11 12 is transmission. SCE gives no mention to the loading order policy as a consideration 13 for new resource acquisition. 14 In fact, local uncommitted EE and DR could reduce the need, to an extent, within the 15 local area without requiring changes to the transmission configuration. The value of 16 DR is that it is not transmission dependent and yet can provide the benefit of being distributed within the load pocket. DR is required to be locally dispatchable in order 17 18 to count for local resource adequacy (RA) for the 2013 RA Compliance Year in SCE's service territory. 11 Therefore, local dispatchability will be part of the DR 19 20 services available to the utility during the planning period. In fact, local dispatchability is a requirement in the current DR requests for offers (RFOs) issued 21 22 by SCE and Pacific Gas & Electric (PG&E) for 2013 and 2014. Local dispatchability 23 is also a requirement for future participation in the wholesale market. SCE discusses the difficulties associated with building generation in the LA Basin, 24 such as air permitting and the urban environment. 12 both of which could be resolved 25 26 by using clean, distributed resources, such as DR. As such, EnerNOC would 27 request that before the Commission approve SCE's request to provide SCE with the

⁹ SCE Opening Testimony (Minick), at pp. 9-10.

¹⁰ SCE Opening Testimony (Cabbell), at pp. 15-16.

¹¹ D.11-10-003, Ordering Paragraph 1.a.

¹² SCE Opening Testimony (Minick/Silsbee), at pp. 12-14. *R12-03-014 (LTPP Local Reliability Track 1)*

1 utmost latitude in making resource procurement decisions, that it require SCE to 2 observe and incorporate the loading order into those decisions.

Q. 3. Do you believe that there are steps that the Commission can take to ensure that preferred resources are procured first, consistent with the "loading order," to meet SCE's and SDG&E's Local Capacity Procurement needs?

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A. 3. Yes. First, EnerNOC supports and agrees with the July 13 ACR, which encourages reply testimony that, in response to parties' opening testimony, can offer recommendations on whether and how, among other things, to "enable the participation of non-traditional resources like energy storage, demand response and distributed generation" in meeting local capacity needs, including through "cost-plus" contracts and/or solicitations. 13 Second, EnerNOC, as testified above, does not believe that the proposals of either SCE or SDG&E achieve that end.

To begin with, as to whether the Commission can direct the utilities to procure local capacity resource needs on behalf of the system, SCE's testimony addresses this issue and concludes that SCE could ensure that local capacity resource needs are met and allocate the costs to beneficiaries which would include electric service providers (ESPs) and community choice aggregators (CCAs). 14 However, it is not entirely clear that the issue is as simple as SCE purports.

SCE states that the current resource adequacy (RA) requirement is inadequate to support new generation development. ¹⁵ SCE also points to the inability of the CAISO's current market structure to provide long-term capacity market signals 16 to signal the need for new entry for generation resources. In addition, the Sutter Plant, which is operating without a long-term power purchase agreement (PPA), is unable to obtain revenues through market means that are sufficient to support its continued operation.¹⁷ As such, it would seem that the CAISO market can neither support new entry, nor for that matter, support existing generation outside of a long-term PPA.

¹³ July 13 ACR, at pp. 1-2.

¹⁴ SCE Opening Testimony (Cushnie), at p.25.

¹⁵ <u>Id</u>., at p. 22. ¹⁶ <u>Id</u>., at p. 19.

 $^{^{17}}$ ld.

1	As a result, the entity responsible for ensuring the security and reliability of the
2	transmission grid, the CAISO, cannot rely upon its markets for new resource
3	development and the IOUs must plan and develop resources, either directly or
4	through PPAs. SCE suggests that a forward capacity market, administered by the
5	CAISO, would be one way of ensuring that adequate generation is built and costs
6	are allocated properly. However, that is not likely to occur in a period of time that is
7	needed for resources to be built for this planning period. 18 An IOU does not have
8	the same ability to recover costs from all beneficiaries as CAISO could through its
9	cost recovery mechanisms. In fact, utilities can only allocate costs to its customers
10	through Commission-approved rates. SCE mentions that other LSEs may be
11	potential beneficiaries for the local reliability that is procured by SCE either through
12	utility development, a public solicitation resulting in a PPA with a third party, or,
13	subsequent to the submission of a utility procurement plan, the ability to negotiate
14	cost-plus contracts.
15	EnerNOC agrees with the concerns raised by SCE about the CAISO's ability to
16	attract and support new investment. In fact, EnerNOC shares this concern as it
17	relates to the wholesale market's ability to support DR. It is apparent to EnerNOC
18	that if a wholesale market alone does not provide sufficient revenues to support the
19	operation of a combustion turbine, it is not likely to support DR either.
20	EnerNOC is a participant in wholesale markets, with and without forward capacity
21	markets. However, the wholesale market design that incorporates the most DR –
22	PJM – includes a forward capacity mechanism. In the most recent Revenue
23	Procurement Mechanism (RPM) Auction, over 14,000 MW of DR capacity cleared in
24	the auction in a market with a peak demand of over 180,000 MW. There are
25	significant differences between the design of the PJM wholesale market versus
26	CAISO's. EnerNOC does not expect similar levels of DR market penetration in
27	CAISO's market, especially in the absence of a forward capacity mechanism.
28	EnerNOC also agrees with SCE that it will be difficult to incorporate a forward

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¹⁸ SCE Opening Testimony (Cushnie), at p. 25. R12-03-014 (LTPP Local Reliability Track 1) EnerNOC Prepared Reply Testimony

1 capacity mechanism into CAISO's market design, if ever. Even if it could be done, 2 the timing may not be useful for this planning cycle.

As a result of an inability to attract generation investment through the wholesale market design, it is left for the utilities to either build or buy capacity through PPAs to ensure local capacity resource needs are met. So, arguably, the utilities' role of ensuring that there is adequate local capacity available provides benefits to the loadserving entities (LSEs) in the load pocket and is replacing the role that a workable market would have - which is to attract new capacity where and when it is needed and to allocate the costs to the beneficiaries.

The issue of cost allocation is a thorny one. When costs are allocated, the recipients will want to ensure that authority exists to do so and that the benefits they receive are commensurate with the costs that they incur. For example, the ESPs and CCAs are required, by statute, to meet the resource adequacy requirement. 19 If these entities are already meeting their local resource adequacy requirement, they may object to being allocated additional costs. In addition, unless there is an allocation of the associated capacity in exchange for the allocation of costs, other load serving entities may object to paying for something for which they receive no direct benefit. The costs for utility procurement of local or system resource adequacy are to be recovered from those customers "on whose behalf the costs were incurred". 20 In fact, the statute directs the Commission to exclude cost recovery for resource adequacy for CCA OR direct access customers, as follows:

"The commission shall exclude any amounts authorized to be recovered pursuant to Section 366.2 when authorizing the amount of costs to be recovered from customers of a community choice aggregator or from customers that purchase electricity through a direct transaction pursuant to this subdivision."²¹

As such, the issue of simply allocating costs to "beneficiaries" will raise questions as to the equity of that allocation and the possible conflict with the statute, among other concerns.

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¹⁹ Public Utilities Code Section 380.

²⁰ Public Utilities Code Section 380(g).

As to the use of "cost plus" contracts, AB 1576 permits the utilities to enter into costplus power purchase agreements under certain conditions. Subsequent to the requirements of Public Utilities (PU) Code §454.5, a utility may enter into a cost plus contract to replace or repower an existing thermal unit that meets all federal, state and local laws, requires no additional rights of way, and operates more efficiently than the previous unit, and is needed, as determined by the CAISO, to meet local reliability needs. Cost plus contracts include the cost of generating the electricity plus a reasonable return and recovery of financing costs. 22 However, the question is how priority resources will be evaluated in the determination of need for either replacing or repowering the existing resource. If the loading order is to be observed for all procurement decisions, then repowering or replacing existing generation would not seem to pre-empt the evaluation of preferred resources for the current facility. In addition, the statute also requires the utilities to procure all cost-effective, feasible and reliable DR and EE first. 23 Finally, any "request for offers" (RFOs) or solicitation to meet local reliability needs must first consider the preferred resources of the loading order, including costeffective, feasible and reliable DR and EE. As this is a planning and procurement proceeding, looking out over a future period, the filter for evaluating preferred resources must not only be what is feasible and reliable by today's standards; but, what is likely to be available during the planning window. Otherwise, the Commission will dismiss or discount the developments that are likely to occur over this period of time. In this regard, there are several technological advancements that are in various stages of availability and deployment today; but those resources are likely to be much more accessible in the next five to 10 years. Smart grid deployments by all three utilities are likely to occur. Customer and third party data access issues are being discussed and debated with the expectation that greater data access will increase the potential for DR and EE services. Faster data access will also assist in providing fast response services such as ancillary services or the flexible capacity

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²² PU Code, §454.6.

²³ PU Code 454.5(b)(9)(C). R12-03-014 (LTPP Local Reliability Track 1)

1 resources that the CAISO is seeking, such as load following, ramping and 2 regulation. Other markets, as described in EnerNOC Witness Hoffman's Opening 3 Testimony, use DR for fast-response DR including under-frequency support, spinning reserves and regulation. The range of services provided by DR today 4 5 would understate the range of DR services that can be provided over the not-so-6 distant future. The way in which an RFO is structured, including the product definition and the 7 8 timing of the RFO, will be exceedingly important as to the type of responses that 9 respond to the request. EnerNOC does not believe that an all-source RFO is going 10 to be the best way for the Commission to solicit resources for local reliability 11 purposes that also fulfill the loading order policy objectives, unless there is a very 12 clear understanding of the products that will be solicited. Preferred resources should 13 be solicited first and then conventional generation resources. That is not to say that 14 all preferred resources must respond to an RFO in 2012, and, if not available in 15 2012, they are excluded from future consideration over the planning horizon. 16 Rather, as SCE indicates in its testimony, after the need is established, the IOU 17 should have some flexibility as to when and where it will seek new resources; but, in any resource solicitation, preferred resources should be given an opportunity to bid 18 19 upon the products that are sought. 20 However, even with specific product solicitations for preferred resources, there are 21 still ways to limit responses from preferred resource providers by the product 22 definition. For example, CAISO is seeking resources to provide a ramping service. 23 CAISO's studies indicate that the longest continuous need for ramping may be over 24 a 10-to-11-hour period in July and August. DR may not be able to provide a continuous ramp over that period of time, but could certainly provide a portion of that 25 26 ramping need. So, if the product is defined to exclude a resource that can provide 27 only a portion of the ramping need, then DR could be eliminated from being eligible 28 to provide a ramping service.

1 For example, CAISO has stated, in the resource adequacy proceeding (R.11-10-023)²⁴. that it may require resources to provide a ramping service. CAISO's studies 2 3 indicate that the longest continues need for ramping may be over a 10-to-11-hour period. DR may not be able to provide a continuous ramp over that period of time, 4 5 but could certainly provide a portion of that ramping need. So, if the product is 6 defined to exclude a resource that can provide only a portion of the ramping need, 7 then DR could be eliminated from being eligible to provide a ramping service. 8 Another example would be to define a capacity requirement such that it necessitates 9 the delivery of energy in all hours. Base-load delivery is important for grid stability; 10 but, so is flexibility, or the ability to shape resources to meet system peaks. A baseload resource sized to meet a peak capacity requirement would result in a lot of 11 12 excess capacity in many hours. Therefore, if resource needs are defined in terms of delivery of energy in all hours, many preferred resources will be eliminated. 13 14 Therefore, the way the RFO is structured, and the definition of the product, is critical 15 to whether or not preferred resources will be able to bid to participate.

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²⁴ 2013 Flexible Capacity Procurement Requirement, Supplemental Information to Proposal, March 2, 2012, at p. 5.

1 2	IV. CONCLUSION
3	CONCESSION
4	Q. 1. Please summarize your conclusions.
5 6	A. 1. The prepared testimony of both SDG&E and SCE suggests a bias toward
7	replacing or repowering existing resources with large-scale fossil generation
8	resources or soliciting fossil generation first and then, only afterwards, "filling in the
9	gaps" with preferred resources. In either case, these proposals upend the loading
10	order and continue the use of fossil fuels as the primary source of generation in
11	California.
12	While it is likely that some portion of the local capacity resource needs will be met
13	through fossil generation, it is important to preserve the loading order policy by
14	ensuring that preferred resources are sought first to the extent they are feasible and
15	cost effective. This is a pivotal decision that will affect not only the local reliability
16	needs on the system, but will determine the state's commitment to advance clean
17	energy resources and technologies, meet the renewable portfolio standard, reduce
18	greenhouse gas emissions, and advance a "smarter" network. These important
19	state policies should not become solely pronouncements, but should be realized
20	through the force of action.
21	Q. 2. Does that complete your reply testimony?
22 23	A.2. Yes.