

Rulemaking 12-03-014 (LTPP Local Reliability Track I)

Exhibit No. ENR-06

Witnesses Mona Tierney-Lloyd / Andrew Hoffman

Commissioner Michel P. Florio

ALJ David R. Gamson

ENERNOC, INC.

LOCAL RELIABILITY TRACK I

ERRATA TO OPENING TESTIMONY OF MONA TIERNEY-LLOYD (ENR-01) AND ANDREW HOFFMAN (ENR-02)

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

August 3, 2012

ENERNOC, INC.
ERRATA TO OPENING TESTIMONY
MONA TIERNEY-LLOYD (ENR-01) AND ANDREW HOFFMAN (ENR-02)
 RULEMAKING (R) 12-03-014:
 LONG TERM PROCUREMENT PLANS (LTPP) TRACK 1 (LOCAL RELIABILITY)

EnerNOC Opening Testimony (ENR-01 and ENR-02)
Witnesses: Mona Tierney-Lloyd (MTL) and Andrew Hoffman (AH)

Exhibit	Page(s)	Line(s)	Errata (Redlined in Replacement Page)
ENR-01 (MT-L)	Page II-2	20	Strike “, fast responding,” and replace with “of fast responding”
ENR-01 (MT-L)	Page II-3	8	Strike “gives”
ENR-01 (MT-L)	Page II-5	6, 9, 11, and footnote 8	<u>Line 6</u> : Strike “. ‘T’” and replace with “and states that “[t]” <u>Line 9</u> : Strike “[emphasis added]”; strike “)” and replace with “[” <u>Line 11</u> : Replace “‘9, a strategy” with “, ‘9 a strategy that” <u>Footnote 8</u> : Add “; emphasis added.”
ENR-01 (MT-L)	Page II-6	18	Strike “,”
ENR-02 (AH)	Page II-8	1, 12	<u>Line 1</u> : Strike “Authority’s” and replace with “Administration’s” <u>Line 12</u> : Strike “of”

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REPLACEMENT PAGES FOR

ENERNOC OPENING TESTIMONY OF MONA TIERNEY-LLOYD (ENR-01)

1 replacement for flexible thermal resources, he is unaware of a viable
2 replacement for flexible, conventional.⁴

3 EnerNOC does not question the veracity of CAISO's calculation of need for
4 local capacity nor the assumptions for retirement of existing resources as a result
5 of OTC regulations. However, EnerNOC does take exception to the limited
6 consideration given to the incorporation of demand response in CAISO's
7 analysis, including dispatchable demand resources, as a plausible alternative to
8 conventional, thermal generation and, therefore, the near complete reliance upon
9 thermal resources to meet local reliability needs. Further, CAISO, in Mr.
10 Rothleder's Testimony, only considered the use of Emergency DR in its
11 calculations. It failed to consider other services that DR resources are currently
12 capable of providing like economic demand response, ancillary services, voltage
13 or under-frequency support or the future expanded potential for DR resources for
14 system or local support purposes as the result of technological advancements
15 including smart grid enablement. Mr. Hoffman's testimony will describe the ways
16 in which dispatchable and fast-response DR resources currently support system
17 reliability in markets across the United States and in certain international
18 markets.

19 It is, therefore, not a stretch of the imagination to consider the potential for
20 expanded use of this type of fast responding DR for system support, including
21 renewable integration, over the next ten years in California. Failure to do so will
22 ensure that California's clean energy policy will be set back, perhaps by a
23 decade, by continuing to deploy significant fossil-fueled resources at the expense

⁴ CAISO Witness Rothleder's Testimony at p. 9.

1 of the loading order. Clean energy policies will be derailed because there will be
2 no, or significantly reduced, need for cost effective, demand-side resources.
3 EnerNOC is not opposed to fossil-fuel resource development that is necessary
4 and supported by record evidence, as one of a diversified mix of resources for
5 system security. However, EnerNOC is opposed to the CAISO designating
6 fossil-fuel resources to the exclusion of all other alternatives, especially those
7 that are consistent with state energy policy objectives. Therefore, in my opinion,
8 the CAISO's analysis ~~gives~~ does not give due consideration to DR resources for
9 supporting local reliability needs.

10

11 **B. State Energy Policy Requires the use of Energy Efficiency and Demand**
12 **Response as Priority Resources**

13

14 The Joint Agencies (California Public Utilities Commission (CPUC), California
15 Energy Commission (CEC)), in October 2005, adopted the Energy Action Plan (EAP) II.
16 The EAP II modifies and amplifies the document upon which it was based, the EAP I,
17 2003, which adopts a loading order. EAP II specifies the loading order to include all
18 cost-effective energy efficiency and DR resources first, then renewable resources and
19 distributed generation before clean, fossil fuel resources.⁵ EAP II also states that DR
20 should be incorporated "appropriately and consistently into the planning protocols of the
21 CPUC, the CEC, and the CAISO."⁶ The loading order is codified into the Public Utilities
22 Code: "The electrical corporation shall first meet its unmet resource needs through all

⁵ EAP II at p. 2.

⁶ EAP II at p. 7.

1
2 responsible for air emissions behind transportation. Therefore, fairly aggressive
3 measures need to be taken in order to achieve sizeable emissions reductions in the
4 electricity sector. The primary sources of emissions reductions come from
5 implementing a 33% renewable portfolio standard and aggressively expanding energy
6 efficiency measures. For energy efficiency purposes, the Scoping Plan establishes a
7 statewide energy efficiency goal of 32,000 GWh per year, and states that “[t]hese
8 targets represent a higher goal than existing efficiency targets established by CPUC for
9 the investor-owned utilities **due to the inclusion of innovative strategies above**
10 **traditional utility programs.**”⁸ [emphasis added] One of the “innovative strategies”
11 includes “[p]roviding real time energy information technologies to help consumers
12 conserve and optimize energy performance,”⁹ a strategy that is already underway at
13 the CPUC. As will be discussed later in this testimony, deployment and implementation
14 of smart grid technologies, including actionable access to data, is one way of potentially
15 realizing expanded energy efficiency and DR penetration.

16 Governor Brown recently issued Executive Order B-18-12, on April 25, 2012,
17 wherein he directed state buildings to, among other things, reduce grid purchases of
18 electricity by 20% by 2018, relative to 2003 levels, to participate in demand response to
19 the maximum extent cost effective and to participate in building commissioning. The
20 Governor has certainly taken a “lead-by-example” approach of implementing his clean
21 energy policies for all state buildings.

22 As indicated above, it is not only the CPUC and the CEC with policies that favor
23 implementation of cost-effective DR and energy efficiency resources. This position is

⁸ CARB Scoping Plan at p. 41; emphasis added.

⁹ CARB Scoping Plan at p. 42.

1 reflected in the implementation of AB 32 through the CARB’s Scoping Plan and in an
2 Executive Order of the Governor. Therefore, it is not only prudent, it is necessary to
3 incorporate expanded DR and energy efficiency assumptions, beyond those in place
4 today, to be consistent and compliant with existing law for purposes of determining local
5 and system resource planning needs.

6 **D. Demand Response Expansion is Expected as a Part of Current CAISO and**
7 **IOU Initiatives**
8

9 The State of California has, in so many ways, stated and restated its commitment to
10 clean energy technologies through the EAP II’s loading order directive, through
11 greenhouse gas reduction initiatives and through several initiatives at both the CPUC
12 and the CAISO, that it is hard to understand how DR could be so “under” considered
13 when evaluating new resource needs. On its face, the omission is in conflict with these
14 policies and initiatives.

15 While CAISO considered existing Emergency DR resources in its analysis,
16 Emergency DR is only one form of DR resources available today in California. Other
17 DR resources can be available for any number of reasons other than system
18 emergencies, which include high temperatures, high prices,⁷ local or system
19 transmission or distribution outages, heat rate triggers, or at the complete discretion of
20 the utility. In fact, this year, due to concerns relative to the outage of the San Onofre
21 Nuclear Generating Station, retail DR programs could be dispatched upon request of
22 the CAISO. CAISO didn’t even consider the integration of retail demand response
23 resources as either economic or ancillary service resources participating in its Proxy
24 Demand Resource (PDR). Nor did CAISO consider the expanded potential of demand
25 response, such as dispatchable demand response, even though CAISO is obviously

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REPLACEMENT PAGES FOR

ENERNOC OPENING TESTIMONY OF ANDREW HOFFMAN (ENR-02)

1 **F. Wind Integration Pilots in Bonneville Power Authority's Administration's**
2 **Service Territory**

3
4 The Bonneville Power Administration (BPA) is a federal agency in the Northwest
5 with multiple responsibilities, including marketing and selling wholesale power from
6 federal hydro projects in the Columbia River Basin, operating and maintaining a
7 significant portion of the transmission in the Northwest, and serving as the balancing
8 authority for an area covering rural portions of Oregon and Washington, as well as small
9 segments in neighboring states.

10 BPA's balancing area represents approximately 11,000 GW¹⁶ of peak demand,
11 to which 4,000 MW of wind is interconnected today¹⁷. The result is one of the highest
12 concentrations of ~~of~~ intermittent wind generation in North America. While the majority
13 of this wind power serves load outside of BPA's balancing area, BPA is responsible for
14 ensuring a constant balance between load and generation within its system. BPA's
15 hydroelectric resources currently provide approximately 1,000 MW of balancing
16 reserves¹⁸, but they are reaching their limit. And thousands of additional MW of wind
17 generation are expected to come online in the coming years.

18 As new intermittent generation is connected, BPA will require additional
19 balancing reserves. They have implemented several pilot projects to assess the
20 abilities of demand-side resources to provide these load following resources. The pilots
21 explore whether residential water heaters and commercial and industrial (C&I)
22 businesses can provide INCs (load curtailments) and DEC's (load increases) to respond
23 to real-time deviations from forecasted system supply and demand. Response times

¹⁶ http://www.bpa.gov/corporate/pubs/fact_sheets/10fs/BPA_Wind_Power_Efforts_March_2010.pdf

¹⁷ <http://www.bpa.gov/corporate/BPANews/ArticleTemplate.cfm?ArticleId=article-20120322-01>

¹⁸ Berwager, Sydney, "BPA Report on Wind Integration: Progress and Challenges", NWPPA Power Supply Workshop, October 5, 2011