

Rulemaking: R.20-11-003
Exhibit No: _____
Date: September 10, 2021
Witness: Joel Yu
Commissioner: Marybel Batjer
ALJ: Brian Stevens and Sarah R. Thomas

**PREPARED REPLY TESTIMONY OF JOEL YU
ON BEHALF OF ENCHANTED ROCK, LLC**

1 **I. INTRODUCTION**

2 **1. Q. Please state your name for the record.**

3 A. My name is Joel Yu.

4 **2. Q. Are you the same Joel Yu who submitted Opening Testimony on**
5 **behalf of Enchanted Rock, LLC (“Enchanted Rock”)?**

6 A. Yes. I described my experience and qualifications in my opening
7 testimony and provided my CV as Exhibit 1 to my opening testimony.

8 **3. Q. Please summarize the purpose of your reply testimony.**

9 A. The purpose of my reply testimony is to demonstrate how Enchanted
10 Rock’s proposal can integrate seamlessly with the proposals from Pacific Gas and Electric
11 Company (“PG&E”) and Southern California Edison Company (“SCE”) and also address
12 longer-term reliability and emissions reduction issues. I also recommend that the Commission
13 focus on solutions that will provide significant net demand relief in the short term. Finally, I
14 recommend the Commission adopt PG&E’s proposed core gas tariff reforms to further support
15 the immediate growth of cleaner distributed generation.

16 **II. PROPOSALS TO MODIFY THE BASE INTERRUPTIBLE PROGRAM**

17 **1. Q. Why do several parties’ proposals address possible reforms to the**
18 **current Base Interruptible Program (“BIP”)?**

19 A. The BIP is an existing program that can easily be modified to deliver
20 incremental reliability benefits during high net load hours.

21 **2. Q. How do PG&E and SCE propose to reform the BIP?**

22 A. PG&E supports increasing the BIP incentive at least for 2022 and 2023 by
23 \$1.00/kW for May-October¹. PG&E also supports waiving the Prohibited Resources limitation

¹ See PG&E Emergency Reliability Order Instituting Rulemaking Opening Testimony (“PG&E Opening Testimony”) at 4-2:19-22.

1 to allow the use of backup generation to support BIP events in 2022 and 2023.² SCE proposes
2 to allow dual participation in BIP and Emergency Load Relief Program (“ELRP”) during non-
3 overlapping events³, as well as suspending the Prohibited Resource limitation for 2022 only⁴,
4 anticipating that sufficient resources will be available in 2023. SCE estimates that 66 MW of
5 additional load reduction capacity will be made available by the suspension. SCE also notes
6 that air quality permits may not allow the use of backup generation to support BIP participation
7 in 2022 absent further emergency orders from the Governor.

8 **3. Q. How does the Enchanted Rock proposal work with the PG&E and**
9 **SCE proposals?**

10 A. The Enchanted Rock proposal is generally consistent with these proposals
11 and could be implemented together with either proposal. Long-term measures are needed to
12 provide adequate incentivize for cleaner MWs to enter the market in support of grid reliability
13 and to reduce the need for future emergency orders to gain access to backup generation.
14 California Independent System Operator Corporation (“CAISO”) and the Public Advocates
15 Office have also recommended that the Commission focus on long-term system needs and the
16 danger of “waiting to procure capacity until the problem is imminent.”⁵

17 **4. Q. Why do you recommend a ten-year contract term be implemented for**
18 **programs like BIP to supplement the PG&E and SCE proposals?**

19 A. PG&E and SCE do not propose any new long-term actions with respect to
20 programs like BIP.⁶ However, backup generation is intended to enhance reliability for those

² See PG&E Opening Testimony at 4-3:14-17.

³ Direct Testimony of SCE-Phase 2 (“SCE Direct Testimony”) at 35:14-36:3.

⁴ See SCE Direct Testimony at 47:2-48:1.

⁵ Public Advocates Office Prepared Testimony at 1-3: 1-5. Opening Testimony of CAISO at 8:19-9:3.

⁶ See, e.g., PG&E Testimony at 4-2:19-4-3:19 (proposes the seasonal incentive and Prohibited Resources waiver only through 2023); SCE Direct Testimony at 48:5-12 (proposes the Prohibited Resources waiver for 2022 only).

1 customers that are highly dependent on constant power availability regardless of the vagaries of
2 grid operation and cannot accept even occasional outages. A loss of load expectation of once in
3 ten years is insufficient for economic and/or safety reasons to justify investing in costly
4 equipment that customers may never use, thus for many customers, diesel backup generators are
5 the predominant choice today because of their relatively low cost.

6 **5. Q. Why do you recommend replacing diesel generators typically used for**
7 **backup with generators utilizing California Air Resources Board**
8 **(“CARB”)-compliant renewable fuels?**

9 A. Criteria emissions from diesel generators typically used for backup often
10 exceed air quality emissions limitations and are thus constrained to operate for a small number
11 of hours to mitigate local outages only. SCE explained that these air quality emissions
12 limitations reduce the amount of support that these generators can provide in support of BIP
13 demand response absent another emergency proclamation from the Governor. Replacing these
14 diesel units with generation units using CARB-compliant renewable fuels can reduce local air
15 emissions significantly and allow operation to support grid reliability without an emergency
16 proclamation. Each renewable-fueled backup generator installed in response to the ten-year BIP
17 commitment would permanently displace planned diesel generation or retire an existing diesel
18 generator. Renewable fuels, such as renewable natural gas, have the added advantage of having
19 low to negative greenhouse gas emissions on a lifecycle basis.⁷ By adopting the Enchanted
20 Rock proposal, the Commission can mobilize near-term private investment to transition from
21 high-emitting diesel generation to a zero emissions future by way of renewable-fueled DG

⁷ See, e.g., the range of carbon intensities for bio-gas, [LCFS Pathway Certified Carbon Intensities | California Air Resources Board](#).

1 resources that can significantly reduce criteria pollutants and greenhouse gas emissions in
2 California.⁸

3 **III. COMMENTS ON OTHER PROPOSALS**

4 **1. Q. Should the Commission implement other proposed demand response**
5 **solutions like Vehicle-to-Grid implementation or direct load control?**

6 A. Many of the other proposals, such as Vehicle to Grid implementation
7 proposed by Vehicle Grid Integration Council (“VGIC”)⁹ and direct load control proposed by
8 EV.ENERGY CORP (“ev.energy”)¹⁰ while having potential long-term benefits, are unlikely to
9 provide significant net demand relief in the short term. As the Bay Area Air Quality
10 Management District pointed out in its presentation to the California Energy Commission,¹¹
11 over 60 facilities with 1 GW of diesel backup generation are currently operational in the Bay
12 Area with another 1.5 GW proposed at new facilities. Converting *any* of this load to renewable
13 gas-fueled resources eligible to support demand response would provide significant, emergency
14 support while reducing emissions from the diesel generation replaced. Implementing the
15 Enchanted Rock proposal would provide sufficient time for new approaches to demand
16 response to be developed and implemented while helping meet the current need for peak
17 demand reduction using a dependable and easily measured demand response resource.

⁸ See Prepared Testimony of Joel Yu on Behalf of Enchanted Rock (“Enchanted Rock Opening Testimony”) at Exhibit 5.

⁹ See Opening Testimony of Ed Burgess on Behalf of the VGIC at 5-6. The potential capacity today may be only 23 MW and 247 MW in 2022, subject to significant uncertainty.

¹⁰ See Opening Phase II Prepared Testimony of Joseph Vellone on behalf of ev.energy (“ev.energy Opening Testimony”). Ev.energy Opening Testimony does not attempt to quantify the total MWs that may become available to contribute to the net peak load through their recommended improvements to managed charging program, but one could estimate a similar impact as VGIC’s program recommendations.

¹¹ See Enchanted Rock Opening Testimony at Exhibit 3.

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5. Q. Do you adopt this testimony as your sworn testimony in this proceeding?

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A. Yes, I do.

_____/s/_____
Joel Yu

Director of Regulatory and Legislative Affairs,
Enchanted Rock