

Rulemaking No.: 20-11-003 .

Exhibit No.: PES-3

Witnesses David Meyers

Commissioner Marybel Batjer

ALJ Brian Stevens

PHASE 2 REPLY TESTIMONY OF POLARIS ENERGY SERVICES

Rulemaking 20-11-003
2021 Extreme Weather Event Reliable Electric Service

September 10, 2021

1 R.20-11-003 (Extreme Weather)
2 PHASE 2 REPLY TESTIMONY OF
3 POLARIS ENERGY SERVICES
4

5 **Q. Please state your name and business address.**

6 **A.** My name is David Meyers, and my business address is Polaris Energy Services
7 (Polaris), 411 Woodbridge Street, San Luis Obispo, Ca 93401.

8 **Q. On whose behalf are you testifying?**

9 **A.** I am testifying on behalf of Polaris.

10 **Q. Have you testified previously in this proceeding?**

11 **A.** Yes. On January 11, 2021, Polaris served my Opening Prepared Testimony and
12 on September 1, 2021, Polaris served my Opening Phase 2 Prepared Testimony. My
13 Statement of Qualifications was appended to both of those documents as Appendix A. I
14 also spoke at the Oral Argument in this proceeding held on March 19, 2021.

15 **Q. What issues do you address in your Reply Testimony?**

16 **A.** Polaris reiterates that the Commission should adopt the proposals set forth in
17 Exhibit (Ex.) PES-1 and Ex. PES-2.

18 In addition, Polaris discusses its support for proposals set forth by the Joint
19 Demand Response Parties (Joint DR Parties),¹ Temix Inc. (Temix), Valley Clean Energy
20 (VCE), and Voltus, Inc. (Voltus).

21 Polaris also discusses proposals and statements made by Pacific Gas & Electric
22 Company (PG&E), California Large Energy Consumers Association (CLECA), and
23 Southern California Edison (SCE).

24 **Q. Are there any agricultural demand response (DR) proposals that you
25 support?**

26 **A.** Yes.

27 **Q. What agricultural DR proposal(s) do you support?**

28 **A.** In Ex. PES-2, Polaris set forth a detailed proposal “to implement an Agricultural
29 AutoDR Demand Flexibility pilot” that would be made available to customers on

¹ The Joint DR Parties are comprised of CPower and Enel X North America, Inc.

1 irrigation pumping tariffs in investor-owned utility (IOU) service territories.² This
2 Agricultural AutoDR Demand Flexibility pilot builds on the UNIDE framework which
3 “incorporates approaches developed and tested by Temix in its RATES pilot in the
4 Southern California Edison (SCE) territory and adapted and tested for irrigation
5 pumping loads by Polaris in its Transactive Energy Pilot in the PG&E service territory.”³

6 In addition, the Polaris proposal stated that:

7 This pilot will include automation of these loads to receive dynamic price
8 signals and implementation of an experimental rate that incorporates
9 dynamic energy and capacity charges in hourly prices. Customers who
10 successfully respond to the price signals and shift load out of expensive
11 hours – typically the ramp hours – will enjoy bill savings.⁴
12

13 Essentially, Polaris proposed “to make the experimental rate optional for all customers
14 taking service on irrigation pumping tariffs in IOU service territories with the exception of
15 customers of” VCE and community choice aggregators (CCAs) that opt in to the
16 separate VCE pilot.⁵

17 As such, Polaris supports VCE’s “proposal regarding an Agricultural AutoDR
18 Demand Flexibility Pilot.”⁶ VCE’s Agricultural AutoDR Demand Flexibility pilot will be
19 made available to customers on irrigation pumping tariffs.⁷ VCE’s proposal also builds
20 on the UNIDE framework which “incorporates approaches developed by TeMix and
21 tested in the agricultural sector by Polaris Energy Services.”⁸

22 Both the Polaris and VCE proposals are based on TeMix’s proposal to provide a
23 Pilot UNIDE Platform which TeMix describes in detail in the Opening Phase 2 Prepared
24 Testimony of TeMix Inc. (Ex. TeMix-01).⁹

² Ex. PES-2, at p. 8, lines 13-15.

³ *Id.*, at p. 8, lines 16-21.

⁴ *Id.*, at p. 8, line 27 through p. 9, line 3.

⁵ *Id.*, at p. 10, lines 2-6.

⁶ Opening Testimony of Gordon Samuel on Behalf of Valley Clean Energy, submitted on September 1, 2021 (Ex. VCE-01), at p. 1, lines 16-17.

⁷ Ex. VCE-01, at p. 3, lines 9-10.

⁸ *Id.*, at p. 4, lines 7-9.

⁹ Ex. TeMix-01, at p. 2, line 50 through p. 3, line 70.

1 Polaris recommends that the CPUC adopt the Polaris, VCE, and TeMix
2 proposals. Together these pilots will capture the valuable benefits of agricultural
3 pumping and DR.

4 **Q. Are there other proposals that you support? If so, what are those**
5 **proposals?**

6 **A.** Yes. The Joint DR Parties recommend making the Agricultural Demand
7 Flexibility Pilot rate available to other types of smart enabling technologies such as EV
8 charging, behind-the-meter (BTM) batteries, and controllable loads.¹⁰ This proposal
9 would expand the benefits of a tested load shift approach to a wider cross-section of
10 non-residential customers.

11 In addition, Polaris supports the proposal by Voltus to reduce Base Interruptible
12 Program (BIP) penalties.¹¹ Polaris agrees with Voltus that “[r]esources that are ready
13 and willing to provide emergency grid support are sidelined due to punitive penalty
14 structures, because failing to perform in a single event could – and has – erased all
15 prior revenue.”¹² Polaris agrees with Voltus’s recommendations to: (1) align penalties
16 for third-party aggregator resources with utility penalties and (2) the CPUC should retain
17 firm program enrollment and nomination rules for June 1 through October 31, but
18 increase flexibility in the remaining months through flexible unenrollment and varying
19 firm service levels.¹³

20 **Q. Do you agree with statements made by PG&E in its Opening Phase 2**
21 **Testimony?**

22 **A.** No. Polaris disagrees with PG&E’s decision to ignore the substance of the CPUC
23 Staff Concept Paper (SCP) and, instead, to promote its Demand Response Emerging

¹⁰ Phase 2 – Reliability for 2022-2023 – Update: Opening Prepared Testimony of Joint Demand Response Parties, submitted on September 1, 2021 (Ex. JDRP-3), at p. 27, lines 18-24.

¹¹ Opening Prepared Testimony of Voltus, Inc., submitted on September 1, 2021 (Ex. VOLT-01), at p. 5, lines 11-16.

¹² Ex. VOLT-01, at p. 5, lines 12-14.

¹³ *Id.*, at p. 5, line 17 through p. 6, line 14.

1 Technology (DRET) program as the vehicle for developing and testing new ideas.¹⁴ The
2 SCP explicitly states that a new approach to demand flexibility is needed and nothing in
3 PG&E’s testimony acknowledges that reality or proposes a course change. Instead,
4 PG&E says, in essence, ‘give us more money to do more of the same.’¹⁵ In justifying its
5 request for more money, PG&E provides four examples of technologies it may fund and
6 a vague item addressing process: “new ways to streamline and simplify the DR program
7 enrollment process.”¹⁶ This stands in stark contrast to SCP’s conclusion that the goal is
8 not to repair the program enrollment process but to replace it and to its roadmap
9 focused on market design, not on new technology.

10 As an example, with which Polaris is familiar, PG&E indicates that within DRET it
11 is “Assessing a new DR Program design for Agricultural customers.”¹⁷ This is a good
12 example of why PG&E should not be authorized to dictate the substance and pace of
13 demand flexibility research. First, the study does not build on—and nothing in this
14 proposal requires them to consider—ratepayer funded research by several institutions
15 and companies under EPIC grants and other funding mechanisms meaning that, at very
16 best, they are reinventing the wheel. Second, the study does not consider the UNIDE
17 framework nor the pilot that Polaris conducted using several elements of UNIDE that
18 was successful among PG&E’s own customers. Third, the study focuses on well-worn
19 program design elements that are part of the problem described in the SCP, not part of
20 the solution. Fourth, the study includes no pilot component. Even if all these deficiencies
21 were addressed, there is a fundamental difference between DRET and what the SCP
22 posits. A regulated utility can make progress—faster or slower—under DRET without
23 calling into question its own business model. Under UNIDE, California is rightfully
24 considering the appropriate role of each player in achieving demand flexibility which, by

¹⁴ Pacific Gas and Electric Company Emergency Reliability Order Instituting Rulemaking Opening Testimony, submitted on September 1, 2021 (Ex. PG&E Opening Testimony), at p. 7-1, lines 5-16.

¹⁵ *Id.*, at p. 7-3, lines 4-21.

¹⁶ *Id.*, at p. 7-3, line 21.

¹⁷ *Id.*, at p. 7-2, line 9.

1 definition, could change the IOU's role in a way that is less attractive to it. The IOU can
2 be neither asked nor permitted to set the agenda for advancing this framework.

3 The growing share and importance of CCAs is another reason that research and
4 development on DR should not be the exclusive purview of the DRET. By definition, and
5 quite reasonably, IOUs will pilot technologies and program designs that they can
6 potentially implement for their customers. This excludes, though, research or pilots of
7 technologies and program or market designs that CCAs would implement that are
8 not related to the delivery services provided by the IOUs. If, for example, a CCA signed
9 a long term contract for locally sourced wind energy that was most plentiful at night
10 (perhaps a CCA located on the coast where offshore wind is developed), and it wished
11 to incentivize load shift to those hours, there is little motivation for the IOU to research
12 that program.

13 **Q. Do you agree with statements made by CLECA in its Opening Testimony?**

14 **A.** Polaris agrees with CLECA's statement that "Properly designing demand
15 charges so that they do not create cost shifting among different customer classes is
16 complex and is a matter for a general rate case, not a rulemaking."¹⁸ This is the proper
17 rebuttal to their objection to the hold harmless provision. Before adjusting demand
18 charges in a General Rate Case, the mechanism that leads to this change must be
19 studied and piloted and that is what this proposal suggests. It is common practice to
20 socialize the costs of research and pilots across the rate base, whether through EPIC
21 projects or DRET. There is no reason that this pilot should be treated differently. Finally,
22 if there is a significant difference between the delivery charges under a UNIDE pilot and
23 otherwise applicable tariff, it will only happen because the pilot was very successful in
24 incentivizing load shift, which is a problem that we should hope to have. If that indeed
25 happens, Polaris agrees that the successful dynamic tariff be implemented fully, and
26 utilities should recover appropriate delivery costs under the tariff.

27 **Q. Do you agree with statements made by SCE in its Opening Testimony?**

¹⁸ Testimony of Catherine Yap and Paul Nelson on behalf of the California Large Energy Consumers Association, submitted on September 1, 2021 (Ex. CLECA Opening Testimony), at p. 7, lines 16-18.

1 **A.** Polaris agrees with SCE’s proposal to remove the 60/40 incentive split because
2 of its dampening effect on demand for the program and because of the difficulties in
3 measuring performance for the 40% payment which are not always—or even usually—
4 related to customers’ ability and willingness to curtail load.¹⁹ It is understandable that
5 this proposal makes the program more attractive to customers and sponsors and there
6 is a desire to balance this with a change that provides more value to the grid in return.

7 The proposal to extend the enrollment requirement to five years is, however,
8 misguided. If the goal is to make the program more attractive because of low
9 participation rates then offsetting a proposal to increase demand with one that will
10 decrease demand fails to achieve the objective. In reality, the five-year requirement
11 could have a chilling effect on participation as it extends beyond most commercial
12 planning cycles and across two or three DR program cycles, meaning that customers
13 are committing to participate in programs that could change twice before their
14 commitment ends. To the best of our understanding, irrigation automation represents
15 approximately half of the program megawatts in recent years, and it is well-documented
16 that farmers are struggling to continue cultivating the same number of acres and are
17 often forced to sell or fallow land, both of which can trigger the clawback provision of the
18 ADR agreement. Few of them will want to risk writing a check in five years to pay back
19 incentives on a pump controller that is no longer needed. It should be noted that in most
20 of these cases, even if participation ends after three years, the load usually disappears
21 as well.

22 **Q. Was Exhibit PES-3 prepared by you?**

23 **A.** Yes.

24 **Q. Are the statements made in your testimony true and correct to the best of
25 your knowledge and belief?**

26 **A.** Yes.
27

¹⁹ Direct Testimony of Southern California Edison Company – Phase 2, submitted September 1, 2021 (Ex. SCE-04), at p. 40, line 9 through p. 41, line 16.

1 **Q. To the extent that Exhibit PES-3 contains expressions of opinion, do they**
2 **represent your best professional judgment?**

3 **A. Yes.**

4 **Q. Do you adopt Exhibit PES-3 as your sworn testimony in R.20-11-003**
5 **(Extreme Weather)?**

6 **A. Yes.**

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