

Docket	:	<u>A.24-05-020</u>
Exhibit Number	:	<u>CA-01</u>
Commissioner	:	<u>John Reynolds</u>
Admin. Law Judge	:	<u>Trevor Pratt</u>
Witnesses	:	<u>Paul Worhach</u>
	:	<u>Bret Weinberger</u>
	:	<u>Kayla Lutes</u>
	:	<u>Christopher Myers</u>



PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

PREPARED TESTIMONY
ON THE
APPLICATION OF BEAR VALLEY ELECTRIC
SERVICE, INC. (U 913 E) FOR A CERTIFICATE OF
PUBLIC CONVENIENCE AND NECESSITY TO
ACQUIRE, OWN, AND OPERATE THE BEAR VALLEY
SOLAR ENERGY AND BATTERY STORAGE
PROJECTS AND AUTHORIZE RATEMAKING
ASSOCIATED WITH THE STORAGE AND SOLAR
ENERGY PROJECTS' CAPITAL INVESTMENT AND
OPERATING EXPENSES
(PUBLIC VERSION)

San Francisco, California
May 9, 2025

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This testimony was prepared by the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) for Bear Valley Electrical Service, Inc.’s (BVES) Application (A.) 24-05-020, *Application of Bear Valley Electric Service, Inc. (U 913 E) for a Certificate of Public Convenience and Necessity to Acquire, Own, and Operate the Bear Valley Solar Energy and Battery Storage Projects and Authorize Ratemaking Associated With the Storage and Solar Energy Projects’ Capital Investment and Operating Expenses* (Application), filed May 17, 2024. BVES requests that the California Public Utilities Commission (Commission) approve, among other things, BVES entering into Engineering, Procurement and Construction (EPC) agreements for the development of a solar and a battery project; a maximum reasonable cost for the solar and battery projects pursuant to Public Utilities Code Sections 399.14 and/or 1001 *et seq.*; and an adjusted revenue requirement for the incremental cost of the projects.¹ In this testimony, Cal Advocates presents its analyses and recommendations associated with BVES’ requests.²

Paul Worhach serves as Cal Advocates’ project coordinator in this review and is responsible for the overall coordination in the preparation of this testimony. The witnesses’ prepared qualifications and testimony declarations are contained in Appendix A of this report.

List of Cal Advocates’ Witnesses and Respective Chapters

Chapter Number	Description	Witness(es)
-	Executive Summary	Worhach
1	Application Overview and Evaluation of Net Benefits	Worhach, Weinberger and Lutes
2	Solar and Battery Project Evaluation and Need	Worhach, Weinberger, Myers, and Lutes
3	Alternatives and Recommendations	Worhach, Weinberger

¹ Application (Public Version) at 2-3.

² Application (Public Version) at 32-34.

1 **EXECUTIVE SUMMARY (Worhach)**

2 BVES seeks approval from the Commission to acquire, finance, own, operate and
3 maintain the Bear Valley Solar Energy Project (Solar Project) and the Bear Valley
4 Energy Storage System (Battery Project) (collectively, Projects.)³ BVES requests that
5 the Commission approve the EPC agreements for the Projects, establish a maximum
6 reasonable cost (MRC) for construction and initial operation expenses of the Solar
7 Project and the Battery Project pursuant to Public Utilities Code Section 399.14 and/or
8 1001 *et seq.*⁴ BVES further requests that the Commission establish certain processes for
9 recovery of the Projects' costs, including costs in excess of the MRC through a Tier 2
10 advice letter process.⁵

11 BVES claims that the Projects are needed for local reliability,⁶ will provide energy
12 and capacity benefits,⁷ and help BVES meet its Renewables Portfolio Standard (RPS) and
13 greenhouse gas (GHG) emissions reduction requirements.⁸ BVES further claims that the
14 Solar Project and the Battery Project provide net benefits that are reasonable with respect
15 to Project costs,⁹ and that the Projects are cost-effective due in part to BVES utilizing the
16 30 percent Investment Tax Credit (ITC).¹⁰

17 This testimony examines BVES' claims that the Projects provide net benefits that
18 are reasonable with respect to costs. Cal Advocates' analysis shows that if considered
19 individually, the Solar Project and the Battery Project are not cost-effective. BVES fails
20 to show that the individual Projects will be effective in providing local reliability and
21 fails to show that the Solar Project is needed for RPS purposes or provides comparable

³ Application (Public Version) at 1.

⁴ Application (Public Version) at 2-3.

⁵ Application (Public Version) at 2-3.

⁶ Application (Public Version) at 2.

⁷ Application (Public Version) at 12 and 18.

⁸ Application (Public Version) at 2.

⁹ BVES Supplemental Prepared Testimony (Public Version), March 26, 2025 (BVES Supplemental Testimony (Public Version)) at 1-3 and 1-13.

¹⁰ Application (Public Version) at 25.

1 value to alternatives. Moreover, ratepayers bear the risks that increases to the MRC or
2 the failure to obtain the ITC will significantly degrade the Projects' value. The
3 Commission should not approve one Project without also approving the other Project.

4 However, Cal Advocates' analysis indicates that, if considered together and under
5 certain conditions, the Solar Project and the Battery Project are likely to provide net
6 benefits that are reasonable with respect to costs. The Commission should approve both
7 the Solar Project and the Battery Project only if the conditions described in this testimony
8 are adopted to ensure that net benefits are reasonable with respect to costs and to protect
9 ratepayers from unreasonable cost increases and reductions in Project value.

10

1 **CHAPTER 1 : APPLICATION OVERVIEW AND EVALUATION OF**
2 **THE PROJECTS' NET BENEFITS TO RATEPAYERS**

3 (Witnesses: Paul Worhach, Bret Weinberger)

4 **I. INTRODUCTION (Worhach)**

5 On May 17, 2024, BVES filed A.24-05-020 seeking Commission approval to
6 acquire, finance, own, operate and maintain the 5 megawatt (MW) Solar Project and the 5
7 MW, 20 MW-hour (MWh) Battery Project.¹¹ BVES requests that the Commission
8 approve the EPC agreements for the Projects and establish an MRC for construction and
9 initial operation expenses of the Solar Project and the Battery Project pursuant to Public
10 Utilities Code Section 399.14 and/or 1001 *et seq.*¹² BVES further requests that the
11 Commission establish certain processes for recovery of the Projects' costs, including
12 costs in excess of the MRC,¹³ and authorize BVES to file a Tier 1 advice letter to
13 establish a Solar and Battery Tax Memorandum Account (SBTMA) to track the
14 difference between the forecasted and actual ITC that is achieved once the Projects are in
15 service.¹⁴ Finally, BVES requests that the Commission authorize BVES to seek an
16 increase to the MRC in a Tier 2 advice letter if the Projects' capital or operating costs
17 increase.¹⁵

18 BVES purchases wholesale power from the California Independent System
19 Operator Corporation (CAISO) controlled grid through its connection to Southern
20 California Edison Company's (SCE) distribution system. BVES also operates the local
21 8.4 MW natural gas-fired Bear Valley Power Plant (BVPP) to meet peak electric
22 demand.¹⁶

¹¹ Application (Public Version) at 1.

¹² Application (Public Version) at 2-3.

¹³ Application (Public Version) at 2-3.

¹⁴ Application (Public Version) at 3.

¹⁵ Application (Public Version) at 28.

¹⁶ Application (Public Version) at 5.

1 In its Application, BVES requests an MRC for the Solar Project of [REDACTED]¹⁷
2 plus an undetermined allowance for funds used during construction (AFUDC).¹⁸ On
3 March 26, 2025, BVES served supplemental testimony in which it provides updated cost
4 forecasts, with a revised forecasted cost of [REDACTED] plus an undetermined AFUDC
5 for the Solar Project, [REDACTED] increase over the BVES' forecast in May
6 2024.¹⁹ BVES attributes the increased forecast to recent and forthcoming changes in
7 federal policy for renewable energy and inflation on materials and labor.²⁰ In its
8 Application, BVES requests an MRC for the Battery Project of [REDACTED]²¹ plus an
9 undetermined AFUDC.²² In its supplemental testimony, BVES provides an AFUDC
10 estimate of [REDACTED] for the Battery Project,²³ for a total cost of [REDACTED]. BVES
11 proposes to seek additional approval for the AFUDC for the Solar Project and the Battery
12 Project in a subsequent Tier 1 advice letter.²⁴

13 BVES claims that the Projects will significantly contribute to local reliability,²⁵
14 provide energy and capacity benefits,²⁶ and help BVES meet its RPS and GHG emissions
15 reduction requirements.²⁷ BVES further claims that the Solar Project and the Battery
16 Project provide net benefits at reasonable costs.²⁸ BVES provides a Net Market Value
17 (NMV) analysis that purports to show that [REDACTED]

¹⁷ Application (Confidential Version) at 26.

¹⁸ Application (Public Version) at 26.

¹⁹ BVES Supplemental Prepared Testimony (Confidential Version), March 26, 2025 (BVES Supplemental Testimony (Confidential Version)) at 1-8:9.

²⁰ BVES Supplemental Testimony (Public Version) at 1-8:3-5.

²¹ Application (Confidential Version) at 34.

²² Application (Public Version) at 34.

²³ BVES Supplemental Testimony (Confidential Version), Confidential Appendix B.

²⁴ Application (Public Version) at 11.

²⁵ Application (Public Version) at 2.

²⁶ Application (Public Version) at 12 and 18.

²⁷ Application (Public Version) at 2.

²⁸ BVES Supplemental Testimony (Public Version) at 1-3 and 1-13.

1 [REDACTED]

2 [REDACTED].²⁹

3 The evidence shows that BVES significantly overstates the Projects' value by
4 including unsubstantiated transmission off-set and reliability benefits. When considered
5 separately, based upon the direct economic market costs and benefits to ratepayers, the
6 Solar Project and the Battery Project do not provide reasonable net benefits with respect
7 to costs. Moreover, any increases in the capital costs of the Projects would further
8 degrade their value to ratepayers. This chapter examines BVES' claims that the Projects
9 provide net benefits at reasonable costs.

10 II. DISCUSSION (Worhach)

11 BVES claims that the net benefit of the Solar Project is reasonable in light of its
12 costs and rate impacts³⁰ and that the Battery Project provides the best value to BVES
13 customers.³¹ To support its claims, BVES provides an NMV analysis that purportedly
14 quantifies the present value of various costs and benefits, including the benefits of the
15 ITC.

16 Cal Advocates' analysis shows that BVES significantly overstates the value of the
17 Projects. Consequently, BVES fails to demonstrate that the net benefits of the Projects
18 are reasonable and that the Projects are the best value to BVES customers. Moreover,
19 BVES' proposal to increase the MRC through a Tier 2 advice letter does not provide
20 sufficient oversight and ratepayer safeguards to ensure that any costs incurred above a
21 Commission-approved MRC are reasonable and do not degrade the Projects' value to
22 ratepayers. The following sections examine BVES' NMV methodology.

²⁹ BVES Supplemental Testimony (Confidential Version) at 1-4 and 1-11.

³⁰ BVES Supplemental Testimony (Public Version) at 1-3.

³¹ BVES Supplemental Testimony (Public Version) at 1-11.

1 **A. BVES’ proposal to separately interconnect the Solar**
2 **Project and Battery Project warrants evaluation of each**
3 **project individually (Worhach)**

4 BVES filed its Application pursuant to Public Utilities Code Section 399.14.³²
5 Public Utilities Code Section 399.14(a)(1) specifies that an electrical corporation
6 in order to meet its unmet renewables portfolio standard
7 procurement requirements, may apply to the commission for
8 approval to construct, own, and operate an eligible renewable energy
9 resource.

10 Thus, in order to approve the projects pursuant to 399.14, the Commission must find that
11 Solar Project and Battery Project are eligible renewable energy resources or, in the
12 Battery Project’s case, meet specific requirements. Specifically, the California Energy
13 Commission’s Renewables Portfolio Standard Eligibility Guidebook (RPS Guidebook)³³
14 states that energy storage technologies “are not inherently renewable as they are not
15 dependent on the use of a renewable energy resource.”³⁴ However, energy storage may
16 be considered an addition or enhancement to an eligible renewable facility, if the energy
17 storage device is: (1) Integrated into, and only capable of storing energy from, the eligible
18 renewable energy resource facility, or (2) Directly connected to the eligible renewable
19 energy resource facility with specific charging and metering requirements.³⁵

20 BVES proposes to connect the Solar Project and the Battery Project to different
21 sub-stations in its service territory, such that the Projects are not integrated and will not
22 be directly connected.³⁶ [REDACTED]

23 [REDACTED] ³⁷ [REDACTED]

³² Application (Public Version) at 1.

³³ California Energy Commission, *Renewables Portfolio Standard Eligibility*, Ninth Edition (Revised), January 2017 (RPS Guidebook). Available at: <https://efiling.energy.ca.gov/getdocument.aspx?tn=217317>.

³⁴ RPS Guidebook at 40.

³⁵ RPS Guidebook at 40.

³⁶ Application (Public Version) at 9 and 12.

³⁷ Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 2, at 2.

1 [REDACTED]
2 [REDACTED]
3 [REDACTED].³⁸ As such, the Battery Project does not qualify as an eligible
4 renewable resource under the RPS Guidebook.³⁹ Therefore, the Battery Project is neither
5 an eligible renewable resource nor is it considered an addition or enhancement to an
6 eligible renewable facility. The Battery Project is ineligible for approval under Public
7 Utilities Code Section 399.14.

8 The February 24, 2025 *Assigned Commissioner's Scoping Memo and Ruling*
9 (Scoping Memo) in this proceeding sets forth separate scoping issues for the Solar
10 Project and the Battery Project. The Scoping Memo considers each Project under
11 different statutory authorities.⁴⁰ [REDACTED]

12 [REDACTED].⁴¹
13 Given these facts and factors, Cal Advocates evaluates the Projects individually, as well
14 as jointly, to determine if the various Project configurations provide net benefits that are
15 reasonable with respect to costs.

16 **B. Project benefits, costs, and BVES' NMV methodology**
17 **(Worhach)**

18 BVES compares the purported present value [REDACTED]
19 [REDACTED]
20 [REDACTED]

³⁸ Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 2 at 2.

³⁹ RPS Guidebook at 40:

[A]n energy storage device may be considered an addition or enhancement to an eligible renewable facility, consistent with Public Resources Code Section 25741, subdivision (a)(1), if the device is . . . Integrated into the facility, such that the energy storage device is capable of storing only energy produced by the facility, either as an intermediary form of energy during the generation cycle or after electricity has been generated.

⁴⁰ Scoping Memo at 3-4.

⁴¹ Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 5 at 6.

1 [REDACTED].⁴² [REDACTED]
2 [REDACTED].⁴³ [REDACTED]
3 [REDACTED]
4 [REDACTED].⁴⁴ [REDACTED]

5 [REDACTED].⁴⁵ BVES' present value calculation of costs is based upon (1) its revised March
6 2025 capital cost for the Solar Project, without AFUDC, and (2) its May 2024 capital cost
7 estimate for the Battery Project [REDACTED].⁴⁶ BVES also forecasts
8 first year operating expenses of [REDACTED] for the Solar Project⁴⁷ and [REDACTED] for the
9 Battery Project, which are reflected in the NMV calculation.⁴⁸ BVES separately
10 quantifies the present value of avoided transmission and increased reliability value, as
11 discussed in Sections II.B and II.C in this chapter.

12 BVES states that its proposed MRC for the Solar Project and the proposed MRC
13 for the Battery Project do not assume that any tax benefits will be obtained from the
14 federal ITC.⁴⁹ Although BVES does not subtract the potential 30 percent ITC credit from

⁴² BVES Supplemental Testimony (Confidential Version) at 1-4 and 1-12.

⁴³ BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab Summary, Column AI. [REDACTED]

⁴⁴ BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab Summary.

⁴⁵ BVES Supplemental Testimony (Confidential Version), Confidential Appendix B, tab Summary.

⁴⁶ BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab Summary; and BVES Supplemental Testimony (Confidential Version), Confidential Appendix B, tab Summary.

⁴⁷ BVES Prepared Testimony (Confidential Version), May 17, 2024 (BVES Testimony (Confidential Version)) at 3-9.

⁴⁸ BVES Testimony (Confidential Version) at 3-13.

⁴⁹ BVES Prepared Testimony (Public Version), May 17, 2024 (BVES Testimony (Public Version)) at 3-16 and 3-17.

1 its proposed MRC, [REDACTED],⁵⁰ [REDACTED]
2 [REDACTED]
3 [REDACTED],⁵¹ [REDACTED]
4 [REDACTED],⁵² [REDACTED]
5 [REDACTED],⁵³
6 [REDACTED]
7 [REDACTED] contrary to BVES' statement that the
8 MRCs do not assume any tax benefits. The impact of the ITC on Project value is
9 discussed further in Section II.D of this chapter.

10 BVES' calculation of the NMV of the Solar Project, [REDACTED]

11 [REDACTED] as shown in Table 1-1.⁵⁴
12

⁵⁰ BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab CashFlow Lifetimes, Rows 45 and 93, and BVES Supplemental Testimony (Confidential Version), Confidential Appendix B, tab CashFlow Lifetimes, Rows 45 and 93.

⁵¹ BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab CashFlow Lifetimes, Rows 45 and 93, and BVES Supplemental Testimony (Confidential Version), Confidential Appendix B, tab CashFlow Lifetimes, Rows 45 and 93.

⁵² BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab CashFlow Lifetimes, Rows 45 and 93.

⁵³ BVES Supplemental Testimony (Confidential Version), Confidential Appendix B, tab CashFlow Lifetimes, Rows 45 and 93.

⁵⁴ BVES Supplemental Testimony (Public Version) at 1-4; and BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, tab Summary.

Table 1-1 Solar Project Net Market Value

Present Value of Benefits	Amount
Total PV Benefits	
Present Value of Costs	Amount
Total PV Costs	
Total NMV	

BVES' calculation of the NMV of the Battery Project, [REDACTED]

as shown in Table 1-2.⁵⁵

Table 1-2 Battery Project Net Market Value

Present Value of Benefits	Amount
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
Total PV Benefits	[REDACTED]
Present Value of Costs	Amount
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
Total PV Costs	[REDACTED]
Total NMV	[REDACTED]

BVES' Battery Project NMV analysis assumes that both the Solar Project and the Battery Project go forward. In response to Cal Advocates' discovery, BVES provided a revised NMV for the standalone Battery Project, [REDACTED] as shown in Table 1-3.⁵⁶ The primary difference with regard to NMV between the standalone configuration and the combined

⁵⁵ BVES Supplemental Testimony (Confidential Version) at 1-11.

⁵⁶ Confidential Attachment 5, Confidential BVES Response Cal Advocates Data Request 005, Question 1 at 1; and Confidential Attachment 5.a, Confidential BVES Response to Cal Advocates Data Request 005, Question 2, Attachment "Battery Storage Facility Analysis Standalone Confidential 032825" at 1. [REDACTED]

configuration is that, without the Solar Project, BVES must purchase power from the grid to charge the Battery Project.

Table 1-3 Standalone Battery Project Net Market Value

Present Value of Benefits	Amount
Total PV Benefits	
Present Value of Costs	Amount
Total PV Costs	
Total NMV	

Cal Advocates' analysis of BVES' NMV calculations indicates that both the combined Projects, and the standalone Solar Project and the standalone Battery Project, are not cost-effective. The evidence shows that the Projects' energy, capacity, REC, and GHG benefits are not sufficient to yield reasonable net benefits with respect to the Projects' costs.

The following sections consider BVES' claim that the Projects will provide significant transmission and reliability benefits, examine the impact of alternative ITC scenarios on the Project NMVs, and assess the impact of increases to the MRC on Project NMVs.

C. The Commission should disregard BVES' claimed transmission off-set benefits (Weinberger)

BVES states that it needs a local resource like the Battery Project to increase capacity and meet peak demand.⁵⁷ In response to Cal Advocates' discovery, BVES claims

⁵⁷ BVES Supplemental Testimony (Public Version) at 1-9.

1 [REDACTED].⁵⁸ Based on the costs of a
2 2024 transmission project that BVES completed, BVES estimates that the cost to upgrade
3 the incoming transmission capacity (hereafter referred to as transmission upgrades) is
4 over \$60 million.⁵⁹ [REDACTED]

5 [REDACTED].⁶⁰

6 However, as described below, BVES has repeatedly stated that transmission upgrades are
7 not a suitable option for BVES' needs.

8 First, in its Supplemental Testimony, BVES states that "a transmission expansion
9 project would not address the area's reliability concerns" and that "transmission upgrades
10 can be costly, and the threat of supply disruptions would remain."⁶¹ Second, Cal
11 Advocates asked BVES if it would pursue transmission upgrades if the Solar and Battery
12 Projects are not approved. [REDACTED]

13 [REDACTED]
14 [REDACTED].⁶² Third, in a
15 separate case,⁶³ BVES informed the Commission that "it would not be practical for

⁵⁸ Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 4.b at 4.

⁵⁹ BVES calculated this estimate by taking the cost-per-mile for a transmission project BVES completed in 2024 called the Radford Rebuild Project, \$3.082 million/mile, and multiplying that by 20 miles. BVES incorrectly calculates this to be \$76.4 million in its Supplemental Testimony. BVES Supplemental Testimony (Public Version) at 1-10.

⁶⁰ Confidential Attachment 2, Confidential BVES Response to Cal Advocates DR 002, Question 2.a at 4-5; Confidential Attachment 3, Confidential BVES Response to Cal Advocates DR 003, Question 1 at 1; Confidential Attachment 3.b, Confidential BVES Response to Cal Advocates Data Request 003, Question 3, Attachment "NMV Battery 030325 (Final)"; Confidential Attachment 5, Confidential BVES Response to Cal Advocates DR 005, Question 1 at 1; Confidential Attachment 5.b, Confidential BVES Response to Cal Advocates Data Request 005, Question 1, Attachment "NMV Battery & Solar Hybrid 032825_Confidential"; Confidential Attachment 3, Question 3, Attachment NMV Battery Standalone 032825_Confidential; and BVES Supplemental Testimony (Confidential Version) at 1-11.

⁶¹ BVES Supplemental Testimony (Public Version) at 1-10 and 1-11.

⁶² Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 4.c at 5.

⁶³ A.19-03-008, Application of Golden State Water Company, on behalf of its Bear Valley Electric Service Division (U 913 E), for Approval to Acquire, Own, and Operate the Bear Valley

(continued on next page)

1 BVES to continue to work with SCE to upgrade its transmission capacity” considering
2 BVES’ unsuccessful attempts to force SCE to increase capacity on the lines.⁶⁴ BVES
3 also informed the Commission that

4 Even assuming it was possible for BVES to work with SCE to
5 upgrade the transmission capacity coming into BVES’s service
6 territory, this would not solve the reliability need that will be
7 presented when future wildfires or [public safety power shut-off
8 (PSPS)] events cause these lines to be de-energized.⁶⁵

9 Fourth, BVES stated in its 2022 Integrated Resource Plan (IRP) that transmission
10 capacity expansion is not a suitable, least-cost option that fits into its future resource
11 plans.⁶⁶

12 Given that BVES does not consider transmission upgrades to be suitable to its
13 needs, in addition to BVES’ acknowledgement that it cannot compel SCE to upgrade the
14 transmission lines, the Commission should exclude [REDACTED]

15 [REDACTED].

16 **D. BVES fails to provide an accurate estimate of the**
17 **Projects’ reliability benefits (Weinberger)**

18 BVES states that both the Solar Project and Battery Project provide substantial
19 reliability benefits, which represent the avoided cost of electrical service outages that the
20 Projects would mitigate.⁶⁷ BVES purports that, because both Projects would be located

Solar Energy Project, Authorize Ratemaking Associated with the Project, Authorize a Deviation from Its Tariff, and Issue an Expedited Decision Granting Such Relief, March 11, 2019.

⁶⁴ Response of Golden State Water Company, on Behalf of its Bear Valley Electric Service Division (U 913 E) to Administrative Law Judge’s Ruling Requesting Additional Information (Public Version), May 11, 2020 (Response of Golden State Water Company to ALJ Ruling) at 12; filed in A.19-03-008. Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M337/K426/337426061.PDF>.

⁶⁵ Response of Golden State Water Company to ALJ Ruling at 12.

⁶⁶ Bear Valley Electric Service, Inc. (U 913-E) Integrated Resource Plan [Public Version], October 18, 2023 (BVES 2022 IRP) at 50; filed in Rulemaking (R.) 20-05-003, Order Instituting Rulemaking to Continue Electric Integrated Resource Planning and Related Procurement Processes. Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M520/K709/520709178.PDF>.

⁶⁷ BVES Testimony (Public Version) at 1-25 and 1-28-1-29.

1 [REDACTED]

2 [REDACTED]



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6

Confidential Figure 1-2 [REDACTED] Reliability Inputs

7

8

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14

[REDACTED] misrepresent the reliability benefits over each Project's lifetime.

The reliability benefit estimates provided by BVES are also flawed because [REDACTED]

⁷⁵

⁷⁶

[REDACTED]. See Confidential Attachment 4, Confidential BVES Response to Cal Advocates Data Request 004, Question 2.c.

⁷⁷ Confidential Attachment 4, Confidential BVES Response to Cal Advocates Data Request 004, Question 2.c.

1 [REDACTED].⁷⁸ [REDACTED]
2 [REDACTED] BVES'
3 reliability benefits estimates do not represent BVES' longer-term outage risk. As such,
4 [REDACTED]
5 [REDACTED].

6 To address the flaws Cal Advocates discovered in BVES' reliability benefits
7 estimates, [REDACTED]

8 [REDACTED]
9 [REDACTED].⁷⁹ [REDACTED]

10 [REDACTED]
11 [REDACTED].⁸⁰ However, the evidence shows that BVES' revised reliability benefit estimate
12 remains flawed.

13 [REDACTED]
14 [REDACTED].⁸¹

15 However, BVES does not provide evidence showing that this assumption is accurate.
16 BVES experiences many outages within its distribution system.⁸² During scenarios in

⁷⁸ BVES customers experienced 17,910,281 customer minutes out due to SCE supply outages in 2022, compared with 17,357,747 total customer minutes out due to SCE supply outages for the years 2023 and 2014-2021. See BVES, 2023 Annual Electric Distribution Reliability Report, July 15, 2024 (2023 Reliability Report) at 18-24, with the 2022 event shown at 19. Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/infrastructure/electric-reliability-reports/bves-annual-electric-distribution-reliability-report-d1601008-2023.pdf>.

⁷⁹ Cal Advocates asked for an estimate of reliability benefits with the assumption that both Projects go forward because, as discussed in other sections of this testimony, Cal Advocates determined that the Projects only have ratepayer value if they are both built. See Confidential Attachment 6, Confidential BVES Response to Cal Advocates Data Request 006, Question 1.

⁸⁰ Confidential Attachment 6, Confidential BVES Response to Cal Advocates Data Request 006, Question 1.c.

⁸¹ Confidential Attachment 6, Confidential BVES Response to Cal Advocates Data Request 006, Question 1.a, Attachment "Reliability Generic Year SCE 041625", Column D.

⁸² BVES experienced over 46.5 million customer minutes out due to distribution system outages within its own system from 2014-2023, in comparison with 35,268,028 minutes out due to SCE supply outages. These figures exclude an event that occurred on February 14, 2019 because it is not clear what portion of the customer minutes out are attributable to SCE or BVES. See 2023 Reliability Report at 18-24.

1 which BVES' distribution system experiences an outage, the Solar and Battery Projects
2 would not be able to provide service to at least some of BVES' customers until the
3 problem within the distribution system is resolved. That means that during the time of
4 the distribution outage, the Projects would be unable to provide reliability benefits to
5 some of BVES' customers in the case of a simultaneous transmission outage. For
6 example, in 2019, a snowstorm caused outages that affected both BVES' distribution
7 system and SCE's transmission line.⁸³ In this scenario, the Projects would not have been
8 able to fully mitigate the outages for all customers.

9 BVES' assumption that [REDACTED]
10 [REDACTED] is inaccurate. Rather, as BVES
11 testifies, the Projects would enable *some*, not all BVES customers to retain power during
12 an event impacting the broader BVES service territory.⁸⁴ BVES has not provided
13 accurate estimates of the Solar and Battery Projects' reliability benefits to include in the
14 Projects' [REDACTED].

15 **E. BVES fails to maximize ITC value for ratepayers**
16 **(Worhach)**

17 This section examines the ITC's impact on Project value for BVES' customers.
18 Cal Advocates' analysis shows that potential ratepayer value varies widely depending on
19 two factors: (1) the accounting treatment of the ITC, and (2) whether the ITC is
20 eliminated given current federal policy uncertainty.

21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED].⁸⁵

⁸³ 2023 Reliability Report at 22.

⁸⁴ BVES Testimony (Public Version) at 1-28, emphasis added.

⁸⁵ See BVES Supplemental Testimony (Confidential Version), Confidential Appendix B, tab CashFlow Lifetimes, Rows 45 and 93.

1 BVES' approach provides significantly lower value than an alternative accounting
2 method that was recently authorized under the Inflation Reduction Act of 2022 (IRA).

3 On December 12, 2024, the United States Department of Treasury released final
4 rules for the implementation of certain sections of the IRA.⁸⁶ The final rules clarify that
5 regulated utilities can opt-out of the previously required normalization accounting rules
6 for all eligible energy technologies, including energy storage technologies.⁸⁷ Regulated
7 utilities may instead use flow-through accounting that recognizes the ITC income tax
8 credit up-front, rather than deferring the benefit over the lifetime of the asset.⁸⁸ The
9 effect of this provision is to reduce the initial rate base of the asset by the amount of the
10 ITC. Flow-through accounting provides significant ratepayer value because the return to
11 the utility on the rate-based asset over the asset's lifetime is reduced. Flow-through
12 accounting of the ITC has a similar effect as capping the incremental Project rate base at
13 the MRC minus the expected 30 percent ITC benefit.

14 Cal Advocates' analysis further indicates that, if the Projects do not qualify for the
15 full ITC or if the ITC is eliminated, the value of the Projects is lower than BVES'
16 estimate. BVES' customers bear the full risk of lower Project value and higher energy
17 rates should the ITC be eliminated.⁸⁹ Table 1-4 shows Cal Advocates' NMV calculations
18 under the normalized ITC, flow-through ITC, and no ITC scenarios.

⁸⁶ See Federal Register, *Definition of Energy Property and Rules Applicable to the Energy Credit*, December 12, 2024. Available at: <https://www.federalregister.gov/documents/2024/12/12/2024-28190/definition-of-energy-property-and-rules-applicable-to-the-energy-credit>.

⁸⁷ See Federal Register, *Definition of Energy Property and Rules Applicable to the Energy Credit*, December 12, 2024. Available at: <https://www.federalregister.gov/d/2024-28190/p-673>.

⁸⁸ See KPMG, *Accounting for Energy Tax Credits: Audit Insights*, May 2022. Available at: <https://kpmg.com/kpmg-us/content/dam/kpmg/corporate-communications/pdf/2023/kpmg-accounting-for-energy-tax-credits.pdf>.

⁸⁹ On January 25, 2025, the Executive Order *Unleashing American Energy*, Section 7, paused the disbursement of funds appropriated through the Inflation Reduction Act of 2022, which authorized the ITC for eligible clean energy projects. See: <https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/>. The longer-term status of the ITC remains uncertain. See e.g., The Nevada Independent, *Tax credits helped boost Nevada's solar industry. Now it's on Trump's chopping block*, April 22, 2025. Available at: <https://thenevadaindependent.com/article/tax-credits-helped-boost-nevadas-solar-industry-now-its-on-trumps-chopping-block>.

Table 1-4 Project NMVs Under Alternative ITC Scenarios

	Normalized ITC	Flow-through ITC	No ITC
Solar Project			
Standalone Battery Project			

The evidence demonstrates that flow-through accounting treatment provides significant ratepayer benefits, while normalized accounting and the loss of the ITC pose the risk of [REDACTED]. If the Commission approves the Projects, the Commission should require BVES to use flow-through accounting to maximize the benefits of the ITC to ratepayers if the full ITC is achieved.

F. BVES’ proposal to increase the MRC in a Tier 2 advice letter is not reasonable (Worhach)

BVES requests that the Commission authorize BVES to submit a Tier 2 advice letter if the amount of BVES’ capital investment exceeds the established MRC of the Solar Project or the Battery Project.²⁰ Pursuant to Public Utilities Code Section 399.14(c), BVES would need to demonstrate “the cost has in fact increased, that the cost increase is determined to be reasonable and prudent, and that the present or future public convenience or necessity require construction of the project at the increased cost.”²¹

BVES’ proposal to recover costs in excess of the Commission’s established MRC through a Tier 2 advice letter is particularly concerning because the Project’s EPC agreement contains provisions under which [REDACTED].²² Moreover, the [REDACTED]

²⁰ Application (Public Version) at 28.

²¹ Public Utilities Code Section 399.14(c). While the Battery Project does not qualify under Public Utilities Code 399.14, it is reasonable to apply this MRC provision to the Battery Project as well as the Solar Project.

²² Application (Confidential Version), Confidential Exhibit BVES-2, Solar EPC Agreement (Solar EPC Agreement), Section 10.5.1(c) and Section 10.5.3, and Exhibit BVES-3, Battery EPC

(continued on next page)

1 increase in BVES' forecasted costs for the Solar Project between the time of the EPC
2 agreement execution in March 2024 and BVES's Supplement Testimony in March 2025
3 indicates that BVES is exposed to ongoing cost increases under the executed agreements.
4 The current uncertainty surrounding changes in import tariff laws and changes in the ITC
5 law pose significant risks to ratepayers who would bear the additional Project costs and
6 will be exposed to degraded Project value and higher rates.

7 Cal Advocates performed an NMV sensitivity analysis of the Solar Project and the
8 Battery Project for the case of a 10 percent increase in capital costs for each of the ITC
9 scenarios presented in Section II.D of this chapter. The results of the sensitivity analysis
10 are presented in Table 1-5.

11 **Table 1-5 Project NMVs with 10 percent MRC Increase**

	Normalized ITC with 10 percent MRC Increase	Flow-through ITC with 10 percent MRC Increase	No ITC with 10 percent MRC Increase
Solar Project			
Standalone Battery Project			

12
13 An increase in the Battery Project MRC

14
15 . The Commission should establish a hard cap on the MRC to protect
16 ratepayers from an unreasonable cost increase. In place of BVES' proposed Tier 2
17 advice letter process to increase the MRC, the Commission should require BVES to seek
18 recovery of costs above the MRC in its general rate case or a separate application.

Agreement, Section 10.5.1(c) and Section 10.5.3.

III. CONCLUSIONS AND RECOMMENDATIONS (Worhach)

BVES overstates the net benefits of the Solar Project and the Battery Project. BVES fails to demonstrate that its calculations of reliability benefits are accurate. Thus, the Commission should exclude BVES' calculation of reliability benefits [REDACTED]. Overall, BVES fails to demonstrate that the net benefits of the Solar Project and the Battery Project are reasonable with respect to its costs. Moreover, as Cal Advocates demonstrates in Chapter 2, the Solar Project is not needed for RPS compliance because BVES can meet its unmet RPS requirements more cost-effectively through Portfolio Content Category (PCC) 3 RECs. The Commission should reject the Solar Project and the Battery Project as standalone projects.

1 **CHAPTER 2 : SOLAR AND BATTERY PROJECT EVALUATION**
2 **AND PROJECT NEED**

3 (Witnesses: Paul Worhach, Bret Weinberger, Kayla Lutes, Chris Myers)

4 **I. INTRODUCTION (Worhach)**

5 This chapter considers the need for the Solar Project and the Battery Project with
6 respect to RPS compliance and local reliability needs. The evidence demonstrates that
7 BVES does not need the standalone version of the Solar Project to meet its RPS
8 requirements and that BVES has not demonstrated that the individual Projects will be
9 useful to address local reliability needs, as detailed below.

10 **II. SOLAR PROJECT (Weinberger)**

11 BVES requests that the Commission approve a certificate of public convenience
12 and necessity (CPCN) to acquire, finance, own, operate, and maintain the Solar Project
13 pursuant to Public Utilities Code Section 399.14.²³ The evidence shows that, as a
14 standalone Project, the Solar Project does not provide sufficient ratepayer value to justify
15 its costs. Furthermore, the Solar Project is not needed for BVES to meet its unmet RPS
16 requirements. The following sections present Cal Advocates' analysis of the Solar
17 Project under the conditions set forth in Public Utilities Code Section 399.14 and the
18 standalone Solar Project's ratepayer value.

19 **A. Compliance with Public Utilities Code Section 399.14**
20 **(Lutes and Myers)**

21 Public Utilities Code Section 399.14 outlines the process for electrical
22 corporations to seek Commission approval to build, own, and operate renewable energy
23 resources to meet unmet RPS requirements.²⁴ Public Utilities Code Section 399.14(b)
24 lists the following two conditions that must be met for Commission approval:

- 25 1. The eligible renewable resource utilizes a viable technology at a
26 reasonable cost.

²³ Application (Public Version) at 20-21.

²⁴ Public Utilities Code Section 399.14(a)(1).

1 2. The eligible renewable resource provides comparable or superior
2 value to ratepayers when compared to then recent contracts for
3 generations provided by eligible renewable energy resources.²⁵

4 Because BVES asks the Commission to approve the Solar Project under Public Utilities
5 Code Section 399.14, Cal Advocates analyzed the Solar Project based on the two
6 conditions stated above.

7 First, pursuant to Public Utilities Code Section 399.14(b)(1), the Solar Project
8 must be an eligible renewable energy resource that utilizes a viable technology at a
9 reasonable cost.²⁶ This condition includes three elements: (1) is the Solar Project an
10 eligible renewable energy resource; (2) does it utilizes a viable technology, and (3), if so,
11 is it at a reasonable cost? The following subsections provide Cal Advocates' analysis for
12 each element of the first condition.

13 **i. Cal Advocates analyzed whether the Solar Project**
14 **is an eligible renewable resource**

15 The Solar Project is an eligible renewable energy resource. To determine whether
16 the Solar Project qualifies as an eligible renewable energy resource, Cal Advocates
17 reviewed the CEC's RPS Guidebook. The CEC developed the RPS Guidebook "to
18 implement and administer portions of California's Renewables Portfolio Standard (RPS)
19 in accordance with applicable statutory requirements."²⁷ The RPS Guidebook, in part,
20 provides "the resource-specific requirements for a facility to qualify" as an eligible
21 renewable energy resource for the RPS.²⁸

22 The RPS Guidebook states "a facility may qualify for RPS certification if it
23 generates electricity using either a photovoltaic or solar thermal process to produce
24 electricity."²⁹ The RPS Guidebook further defines photovoltaic (PV) as "a technology

²⁵ Public Utilities Code Section 399.14(b).

²⁶ Public Utilities Code Section 399.14(b).

²⁷ RPS Guidebook at 1.

²⁸ RPS Guidebook at 4.

²⁹ RPS Guidebook at 21.

1 that uses a semiconductor to convert sunlight directly into electricity via the photoelectric
2 effect.”¹⁰⁰ Cal Advocates reviewed the Solar Project EPC Agreement between BVES
3 and EDF, [REDACTED]
4 [REDACTED].¹⁰¹ Therefore, the Solar Project qualifies as an eligible renewable energy resource
5 under the RPS Guidebook’s eligibility requirements.

6 **ii. Cal Advocates analyzed whether the Solar Project**
7 **utilizes a viable technology**

8 The Solar Project appears to utilize a viable technology. The Solar Project will
9 use Bi-Facial Solar Modules, a Single Axis Tracking System, and Chint Power Systems
10 inverters (or equivalent technologies).¹⁰² BVES cites Commission Resolution E-4501 to
11 show that the Solar Project utilizes a viable technology.¹⁰³ In Resolution E-4501, the
12 Commission found that a commercialized photovoltaic technology with single tracking is
13 a viable technology.¹⁰⁴ BVES also provides evidence that EDF is a seasoned and
14 experienced developer.¹⁰⁵ Assuming that the Solar Project’s technology does not deviate
15 from the technology currently identified, it appears that the Solar Project utilizes a viable
16 technology.

17 **iii. Cal Advocates analyzed whether the Solar Project**
18 **is at a reasonable cost**

19 The Solar Project’s costs are unreasonable because BVES does not demonstrate
20 that it needs the Solar Project to fulfill unmet RPS needs when more cost-effective
21 options are available. To determine whether the Solar Project is at a reasonable cost, Cal

¹⁰⁰ The RPS Guidebook defines photovoltaic as “a technology that uses a semiconductor to convert sunlight directly into electricity via the photoelectric effect.” See RPS Guidebook at 83.

¹⁰¹ Application (Confidential Version), Exhibit BVES-2 (Confidential) at 10.

¹⁰² Application (Public Version) at 8.

¹⁰³ BVES Supplemental Testimony (Public Version) at 1-2, fn. 5.

¹⁰⁴ Resolution E-4501, Southern California Edison Company requests approval of a power purchase agreement with McCoy Solar, LLC a subsidiary of NextEra Resources, LLC, June 7, 2012 at 9. Available at: https://docs.cpuc.ca.gov/word_pdf/FINAL_RESOLUTION/168462.pdf.

¹⁰⁵ BVES Supplemental Testimony (Public Version) at 1-6.

1 Advocates analyzed whether the Solar Project is needed to meet BVES' unmet RPS
2 requirements.¹⁰⁶ Under the RPS Program, BVES is designated as a Small Multi-
3 Jurisdictional Utility (SMJU).¹⁰⁷ As a SMJU, BVES is exempt from the Portfolio
4 Balancing Requirement (PBR), which requires retail sellers to procure 75 percent of their
5 RPS requirements from PCC 1 RECs.¹⁰⁸ PCC 1 RECs are RECs that come bundled with
6 energy that is provided directly to the California Balancing Authority (CBA).¹⁰⁹
7 However, BVES is allowed to meet its RPS obligations without satisfying the PBR and
8 may satisfy its RPS procurement obligations through pure compliance instruments such
9 as unbundled REC, or PCC3 RECs.¹¹⁰ Unbundled RECs, or PCC 3 RECs, are defined as
10 RECs that do not include the physical delivery of the energy attached to the REC.¹¹¹
11 Unbundled RECs are much less costly than PCC 1 RECs.¹¹²

12 In BVES' 2024 RPS Plan,¹¹³ BVES states that it has historically met a majority of
13 its RPS procurement requirements through unbundled RECs.¹¹⁴ BVES also states that it

¹⁰⁶ See Public Utilities Code Section 399.14(a)(1).

¹⁰⁷ D.24-12-035, Decision on 2024 Renewables Portfolio Standard Procurement Plans, December 19, 2024 at 2, 7 and 46; issued in R.24-01-017, Order Instituting Rulemaking to Continue Implementation and Administration, and Consider Further Development, of California Renewables Portfolio Standard Program.

¹⁰⁸ Commission, *2024 California Renewables Portfolio Standard: Annual Report*, December 2024 (2024 RPS Annual Report to the Legislature) at 43. Available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2024-california-renewables-portfolio-standard-rps-annual-report.pdf>.

¹⁰⁹ PCC1 RECs are RECs "with associated energy from facilities with a first point of interconnection within a California Balancing Authority (CBA), or facilities that schedule electricity into a CBA on an hourly or sub-hourly basis." See 2024 RPS Annual Report to the Legislature at 115.

¹¹⁰ D.24-12-035 at 46-47, internal citation omitted.

¹¹¹ 2024 RPS Annual Report to the Legislature at 115.

¹¹² BVES, Renewables Portfolio Standard Procurement Plan of Bear Valley Electric Service, Inc. (U 913-E) [Public Version], July 22, 2024 (BVES 2024 RPS Plan) at 20; filed in R.24-01-017, Order Instituting Rulemaking to Continue Implementation and Administration, and Consider Further Development, of California Renewables Portfolio Standard Program. Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M537/K482/537482285.PDF>.

¹¹³ In D.24-12-035, the Commission adopted BVES' 2024 RPS Plan without modification. (See D.24-12-035 at 47.)

¹¹⁴ BVES 2024 RPS Plan at 2-3.

1 more recently entered a “long-term PCC 1 contract that is anticipated to meet the bulk of
2 BVES’ RPS needs through 2035 through its Power Purchase Agreement (“PPA”) with
3 Shell Energy North America (“Shell”).¹¹⁵ BVES states that it meets its remaining RPS
4 needs through the procurement of unbundled RECs.¹¹⁶ BVES states that:

5 Going forward, BVES plans to primarily rely upon a long-term PCC
6 1 contract in combination with unbundled REC contracts to meet its
7 current and the bulk of its future RPS requirements . . . BVES
8 strongly believes that utilizing a diverse portfolio of long-term and
9 short-term unbundled RPS contract [sic] is good for its ratepayers.
10 Not only will unbundled REC contracts provide cost savings to
11 customers because RECs are still much less costly than bundled RPS
12 energy, but they also will keep administrative costs to a minimum.¹¹⁷

13 BVES states that it “intends to supplement its existing RPS portfolio with
14 additional generation from the Solar Project that will add RECs into its portfolio to
15 ensure that future RPS procurement targets will be satisfied.”¹¹⁸ However, from a cost
16 perspective, BVES has not shown that it is reasonable to supplement its existing portfolio
17 with the Solar Project. The following table provides a cost comparison between BVES’
18 PCC 1 contract with Shell, BVES’s most recent unbundled REC contract, and the
19 Levelized Cost of Energy (LCOE) for the Solar Project:

¹¹⁵ BVES 2024 RPS Plan at 3, citing Resolution E-5275, Bear Valley Electric Service, Inc. Power Purchase Agreement with Shell for Procurement of Bundled Energy and Renewable Energy Credits, June 29, 2023.

¹¹⁶ BVES 2024 RPS Plan at 3 and 20.

¹¹⁷ BVES 2024 RPS Plan at 20.

¹¹⁸ BVES 2024 RPS Plan at 21.

Table 2-1

Cost Comparison Between BVES Contracts and Solar Project

Procurement Source	Cost
Shell PCC 1 REC Contract	[REDACTED] ¹¹⁹
3Degrees Group, INC Unbundled REC Contract	\$5.45/REC ¹²⁰
Solar Project LCOE	[REDACTED] ¹²¹

Table 2-1 shows that the current Shell PCC 1 REC contract cost is [REDACTED] and meets the bulk of BVES' RPS requirements through 2035. As described above, BVES can meet its remaining RPS requirements through unbundled RECs because BVES is exempt from the PBR. BVES recently signed a contract with 3Degrees Group to purchase 15,000 unbundled RECs at \$5.45/REC to meet help satisfy its RPS requirements in 2026. ¹²²

Given its existing contract with Shell and BVES' ability to satisfy its remaining RPS requirements through much less costly unbundled RECs, the Solar Project is not needed to meet BVES' RPS requirements. Further, comparing the Solar Project's LCOE of [REDACTED] ¹²³ to the unbundled REC price of \$5.45/REC set forth in BVES' contract with 3Degrees Group, INC. ¹²⁴ reveals a cost discrepancy. The cost of the Solar Project is unreasonable since BVES has more cost-effective options available.

¹¹⁹ [REDACTED]. See Resolution E-5275 (issued July 3, 2023), available at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M513/K138/513138185.PDF>.

¹²⁰ See BVES Advice Letter 506 (Public), *Bear Valley Service, Inc. (U 913 E) Notification of Purchase of Renewable Energy Credits from 3Degress* (AL 506), filed February 2025, Attachment, Exhibit B. Available at: <https://www.bvesinc.com/assets/documents/advice-letters/al506.pdf>.

¹²¹ BVES Supplemental Testimony, Confidential Appendix A - BVES Solar Facility Analysis, [REDACTED].

¹²² See BVES AL 506, Attachment, Exhibit B.

¹²³ BVES Supplemental Testimony (Confidential Version), Confidential Appendix A, [REDACTED].

¹²⁴ See BVES AL 506, Attachment, Exhibit B.

1 **B. The Commission should not approve the standalone**
2 **Solar Project (Weinberger)**

3 The evidence shows that BVES does not need the Solar Project to meet unmet
4 RPS needs. Furthermore, as demonstrated in Chapter 1, [REDACTED]
5 [REDACTED]. This is an unreasonable risk for
6 ratepayers to bear. While BVES has attributed additional benefits to the Solar Project
7 that purportedly add significant ratepayer value, BVES does not reasonably quantify the
8 benefits. Therefore, the Commission should not approve the standalone Solar Project.

9 As shown in Chapter 1, [REDACTED],¹²⁵
10 While Cal Advocates does not dispute that the Solar Project will likely provide some
11 reliability benefits, BVES has not provided an accurate quantification of those reliability
12 benefits, as detailed in Chapter 1. [REDACTED]

13 [REDACTED]
14 [REDACTED],¹²⁶
15 BVES' 2022 IRP shows that BVES needs to expand its supply capacity as BVES expects
16 load to grow significantly.¹²⁷ BVES further details its need to expand its system capacity
17 in its Supplemental Testimony.¹²⁸ The Solar Project could alleviate *some* of the
18 increased demand by providing local power that would not be limited by transmission
19 capacity or subject to SCE deliveries.¹²⁹ However, BVES' load peaks on winter
20 evenings,¹³⁰ and BVES has not demonstrated that the Solar Project is capable of
21 generating during those winter evening periods. Therefore, BVES has not demonstrated
22 that the standalone Solar Project would be able to provide service to its customers at
23 times of greatest need.

¹²⁵ BVES Supplemental Testimony (Confidential Version) at 1-4.

¹²⁶ Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 4.b at 4.

¹²⁷ BVES 2022 IRP (Public Version) at 12-13.

¹²⁸ BVES Supplemental Testimony (Public Version) at 1-9, fn. 32.

¹²⁹ BVES 2022 IRP (Public Version) at 45.

¹³⁰ BVES Supplemental Testimony (Public Version) at 1-9.

1 The evidence shows that BVES does not need the standalone Solar Project to satisfy
2 its RPS compliance requirements. BVES also fails to adequately demonstrate that the
3 standalone Solar Project provides sufficient benefits to ratepayers to justify its costs. The
4 Commission should therefore not approve the standalone Solar Project.

III. BATTERY PROJECT (Worhach)

A. The Commission should not approve the standalone Battery Project

8 [REDACTED]
9 [REDACTED].¹³¹ The Commission should not approve the standalone
10 Battery Project because it is not cost-effective, has uncertain reliability value, and may
11 increase GHG emissions.

12 BVES claims that the Battery Project is needed to reliably support local demand¹³²
13 and that the Battery Project is a cost-effective solution to provide reliability and
14 environmental benefits to its customers.¹³³ However, BVES acknowledges that the
15 Battery Project will enable the operation of only “a portion” of the system in an islanded
16 configuration when microgrid distribution control systems have been configured.¹³⁴
17 BVES further states that the microgrid would enable “some” BVES customers to retain
18 power during a PSPS event.¹³⁵ As Cal Advocates demonstrates in Chapter 1, BVES fails
19 to show that reliability benefits are reasonable [REDACTED]
20 [REDACTED] and fails to quantify how serving only a portion of the system for some
21 customers would impact BVES’ overestimated reliability value.

¹³¹ Confidential Attachment 3, Confidential BVES Response to Cal Advocates Data Request 003, Question 5.

¹³² BVES Supplemental Testimony (Public Version) at 1-9.

¹³³ BVES Supplemental Testimony (Public Version) at 1-8.

¹³⁴ BVES Testimony (Public Version) at 1-28:9-13.

¹³⁵ BVES Testimony (Public Version) at 1-28.

1 BVES states that the Battery Project will allow BVES to meet evening peak
2 demand and address reliability concerns by shifting daytime energy to peak periods.¹³⁶
3 BVES further states that the Battery Project will help fortify BVES' service territory
4 against outages resulting from PSPS or wildfires where SCE's transmission line is
5 offline.¹³⁷ However, a battery is only useful for reliability purposes if it has sufficient
6 stored energy to discharge to the system. A battery with a depleted state-of-charge
7 (SOC) is unable dispatch energy and thus provides no reliability benefit. According to
8 BVES, the Battery Project will be discharged during peak periods and will subsequently
9 be charged the following day before the next peak demand period.¹³⁸ As such, the
10 battery's SOC would typically be depleted after the peak demand period and will not be
11 able to provide any reliability benefits until it is recharged before the next day's peak
12 period, assuming that there is sufficient energy to recharge the battery during the day. As
13 such, the Battery Project would not be available for reliability purposes for a significant
14 portion of each day.

15 Moreover, to the extent that a standalone battery configuration provides any local
16 reliability benefits, BVES must charge a standalone battery with SCE-supplied grid
17 system power that includes purchases from GHG-emitting resources, or with the gas-fired
18 Bear Valley Power Plant, and thus would increase GHG emissions.¹³⁹ Because of round-
19 trip efficiency losses from the battery, additional energy is necessary to charge the battery
20 relative to its energy dispatch, which will further increase GHG emissions. An increase
21 in GHG emissions would also occur in a combined solar and battery configuration during
22 periods when the Solar Project is not producing electricity which would require BVES to
23 charge the battery from the grid or from the Bear Valley Power Plant.

¹³⁶ BVES Supplemental Testimony (Public Version) at 1-11.

¹³⁷ Application (Public Version) at 18.

¹³⁸ BVES Testimony (Public Version) at 1-26.

¹³⁹ BVES Testimony (Public Version) at 1-24.

1 BVES has not demonstrated that a standalone battery can provide reliability value
2 [REDACTED]. Moreover, a standalone
3 battery, if charged from the Bear Valley Power Plant, would likely increase GHG
4 emissions. BVES has not demonstrated that the Battery Project provides the best value to
5 BVES' customers for GHG reduction or reliability. The Commission should reject the
6 Battery Project without also approving the Solar Project, as discussed in the next chapter.

CHAPTER 3 : ALTERNATIVES AND RECOMMENDATIONS

(Witnesses: Paul Worhach, Bret Weinberger)

I. INTRODUCTION (Worhach)

The evidence demonstrates that the individual Solar Project and Battery Project are not likely to provide reasonable net benefits with respect to costs, particularly if: (1) the Commission authorizes BVES to recover costs that exceed BVES' forecasted MRC, and (2) the Projects fail to receive the forecasted 30 percent ITC benefit. The Commission should not approve either option as a standalone project.

However, Cal Advocates' analysis indicates that there may be reasonable net benefits with respect to Project costs if the Commission approves both Projects but imposes several conditions, as detailed in this chapter.

II. DISCUSSION

A. Combined Project need and reliability (Weinberger)

As described in Chapter 1, BVES does not provide accurate estimates of the Solar and Battery Projects' reliability benefits. However, the Solar Project and the Battery Project are local resources that should successfully mitigate some SCE outages. In the scenario where both Projects are approved, the Battery Project may: (1) help with peak load demand, (2) be available to address some SCE outages assuming the battery is not depleted from peak demand use, and (3) result in lower GHGs emissions if charged during the day while the Solar Project is producing energy. Although Cal Advocates is not able to verify the Projects' reliability benefits, it may be the case that the reliability value is sufficient to [REDACTED] as discussed next.

B. The combined Projects may provide reasonable net benefits with respect to costs under certain conditions (Worhach)

Cal Advocates' review of the NMV of the combined Solar Project and Battery Project indicates that, if considered together, and subject to certain conditions, the Projects may provide net benefits that are reasonable with respect to costs. In response to

discovery, BVES provided an NMV calculation for the combined Projects, [REDACTED].¹⁴⁰ With respect to the NMV, the primary difference between the standalone Battery Project configuration and the combined configuration is that in the combined configuration, the Solar Project offsets CAISO power purchases and Bear Valley Power Plant generation that would otherwise be needed to charge the battery. As shown in Table 3-1, the combined Projects may [REDACTED] if the ITC is achieved and if BVES uses flow-through accounting to maximize the value of the ITC for ratepayers. However, if the MRC increases by 10 percent or more, [REDACTED] the [REDACTED] as shown in Table 3-2. Cal Advocates' analysis shows that the NMV of the combined Projects may range from [REDACTED] to [REDACTED] depending on the status of the ITC and the final Project costs that the Commission may authorize BVES to recover. There also may be some additional reliability benefits that could [REDACTED] to yield reasonable ratepayer net benefits. However, BVES fails to adequately quantify the reliability benefits, so the Commission should disregard BVES' calculations of the reliability benefits. Consequently, the Commission should impose certain conditions on the approval of the Projects to protect BVES' customers, as discussed in the final section.

Table 3-1 Combined Solar and Batter NMVs

	Normalized ITC	Flow-through ITC	No ITC
Solar Combined Project	[REDACTED]	[REDACTED]	[REDACTED]
Battery Combined Project	[REDACTED]	[REDACTED]	[REDACTED]
Total Combined Projects	[REDACTED]	[REDACTED]	[REDACTED]

¹⁴⁰ Confidential Attachment 5, Confidential BVES Response to Cal Advocates Data Request 005, Question 1.

¹⁴¹ BVES Supplemental Testimony (Confidential Version) at 1-8:9.

Table 3-2 Project NMVs with 10 percent MRC Increase

	Normalized ITC with 10 percent MRC Increase	Flow-through ITC with 10 percent MRC Increase	No ITC with 10 percent MRC Increase
Solar Combined Project			
Battery Combined Project			
Total Combined Project			

C. The Commission should conditionally approve the combined Solar Project and Battery Project (Worhach)

The evidence shows that BVES' current forecasted MRC for the Solar and Battery Projects may provide reasonable net benefits if BVES' cost recovery does not exceed the MRC, BVES receives the ITC benefit, and BVES uses flow-through ITC accounting that would effectively limit the incremental rate base for the Project to the MRC minus BVES' expected 30 percent ITC. However, if any of these outcomes are not achieved, ratepayers are at risk of bearing costs that are not reasonable in light of the net benefits of the Projects. To mitigate these ratepayer risks, the Commission should only approve the combined Solar and Battery Projects under the following conditions:

- The aggregate MRC for BVES to acquire and own the Solar Project and the Battery Project shall be capped at the sum of BVES' March 2025 forecasted Solar Project and Battery Project MRCs net of the expected 30 percent ITC.
- BVES is authorized to recover in rates the costs to own and acquire the Projects up to, but not to exceed, the aggregate MRC.
- BVES' recovery of Operating Expenses shall be capped at its forecasted Operating Expenses for the Solar Project¹⁴² and the Battery Project.¹⁴³
- If the Projects receive ITC benefits, BVES shall apply flow-through accounting treatment to the ITC benefits.

¹⁴² BVES Testimony (Confidential Version) at 3-9.

¹⁴³ BVES Testimony (Confidential Version) at 3-13.

- BVES is authorized to submit a separate application to recover any reasonable costs that exceed the MRC.

III. CONCLUSION (Worhach)

The evidence shows that BVES' proposal for the combined Solar Project and Battery Project may provide reasonable net benefits with respect to costs if the Commission approves the Projects under several conditions to protect ratepayers from unreasonable cost increases and unreasonable decreases in net benefits with respect to costs. However, the evidence also demonstrates that the Solar Project and Battery Project, if not combined, do not have reasonable net benefits with respect to costs, and thus the Commission should not approve one project without approving the other, subject to the ratepayer protections detailed in this chapter.

APPENDIX A

QUALIFICATIONS OF WITNESSES

1 **QUALIFICATIONS AND PREPARED TESTIMONY**

2 **OF**

3 **PAUL WORHACH**

4 **Q.1 Please state your name and business address.**

5 A.1 My name is Paul Worhach. My business address is 505 Van Ness Avenue, San
6 Francisco, CA 94102.

7
8 **Q.2 By whom are you employed and in what capacity?**

9 A.2 I am employed by the Public Advocates Office at the California Public Utilities
10 Commission (Cal Advocates) as a Senior Public Utilities Regulatory Analyst in
11 the Electricity Planning and Policy branch.

12
13 **Q.3 Briefly state your educational background and experience.**

14 A.3 I hold a Ph.D. in Operations Research from the University of California Berkeley,
15 and a Bachelor of Science in Engineering in Civil Engineering from Princeton
16 University. I completed regulatory training provided by the National Association
17 of Regulatory Utility Commissions ("NARUC") in 2023.

18 I joined Cal Advocates as the lead analyst on energy storage, including writing and
19 coordinating testimony for utility applications in the Commission's biennial
20 Energy Storage Procurement proceedings. I have provided testimony on behalf of
21 Cal Advocates in A.20-03-002, A.20-03-003, A.20-03-004, A.20-04-013, A.21-
22 04-006, A.23-05-010, A.23-12-014, and R.22-11-013. I have an additional 15
23 years of experience in consulting in California electricity and energy markets.

24
25 **Q.4 What is the scope of your responsibility in this proceeding?**

26 A.4 I am sponsoring testimony for the Executive Summary, Chapter 1, Sections I, II.A,
27 II.B, II.E, II.F, and III, Chapter 2, Sections I and III, and Chapter 3, Sections I, II.B,
28 II.C, and III.

29
30 **Q.5 Does this complete your testimony at this time?**

31 A.5 Yes, it does.

1 **QUALIFICATIONS AND PREPARED TESTIMONY**

2 **OF**

3 **BRET WEINBERGER**

4 **Q.1 Please state your name and business address.**

5 A.1 My name is Bret Weinberger. My business address is 320 West 4th Street, Suite
6 500, Los Angeles, CA 90013.
7

8 **Q.2 By whom are you employed and in what capacity?**

9 A.2 I am employed by the Public Advocates Office at the California Public Utilities
10 Commission (Cal Advocates) as a Public Utilities Regulatory Analyst in the
11 Electricity Planning and Policy branch.
12

13 **Q.3 Briefly state your educational background and experience.**

14 A.3 I hold a Master's degree of Public Policy from the University of California, Los
15 Angeles, and a Bachelor of Arts in Political Science and History from the
16 University of California, Los Angeles. I completed regulatory training provided
17 by the National Association of Regulatory Utility Commissions ("NARUC") in
18 2023.

19 I joined Cal Advocates as an analyst on the Climate Change Initiative team. I
20 have represented Cal Advocates in proceedings about the RPS program and
21 bioenergy. I have provided testimony on behalf of Cal Advocates in A.23-04-005.
22

23 **Q.4 What is the scope of your responsibility in this proceeding?**

24 A.4 I am sponsoring testimony for Chapter 1, Sections II.C and II.D, Chapter 2, Section
25 II.B, and Chapter 3, Section II.A.
26

27 **Q.5 Does this complete your testimony at this time?**

28 A.5 Yes, it does.
29

1 **QUALIFICATIONS AND PREPARED TESTIMONY**
2 **OF**
3 **KAYLA LUTES**

4 **Q.1 Please state your name and business address.**

5 A.1 My name is Kayla Lutes. My business address is 505 Van Ness Avenue, San
6 Francisco, CA 94102.

8 **Q.2 By whom are you employed and in what capacity?**

9 A.2 I am employed by the Public Advocates Office at the California Public Utilities
10 Commission (Cal Advocates) as a Public Utilities Regulatory Analyst I in the
11 Electricity Planning and Policy branch.

13 **Q.3 Briefly state your educational background and experience.**

14 A.3 I hold a Master's degree in Public Policy from the University of California San
15 Diego, specializing in Environmental Policy and Inequality and Social Policy. I
16 received my Bachelor of Arts in Political Science from California Polytechnic
17 State University San Luis Obispo.

18 **Q.4 What is the scope of your responsibility in this proceeding?**

19 A.4 I am cosponsoring testimony for Chapter 2, Section II.A.

21 **Q.5 Does this complete your testimony at this time?**

22 A.5 Yes, it does.

**QUALIFICATIONS AND PREPARED TESTIMONY
OF
CHRISTOPHER MYERS**

Q.1 Please state your name and address.

A.1 My name is Christopher Myers. My business address is 505 Van Ness Avenue, San Francisco, California.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the Public Advocates Office at the California Public Utilities Commission as a Program and Project Supervisor in the Electric Planning and Policy Branch.

Q.3 Briefly describe your educational background and work experience.

A.3 I received a Bachelor of Arts Degree in Political Science and History from the University of California, Davis in 2007. I have over 16 years of experience at the California Public Utilities Commission working on regulatory issues in the telecommunications and energy industries. For the past 14years, I have worked on numerous proceedings related to Smart Grid, energy storage, customer privacy, research and development (R&D), energy resource recovery account (ERRA), transmission projects, renewable natural gas (RNG), distribution resource planning, energization, hydrogen, and the Renewable Portfolio Standard (RPS).

Q.4 What scope of your responsibility in this proceeding?

A.4 I am cosponsoring testimony for Chapter 2, Section II.A.

Q.5 Does that complete your testimony?

A.5 Yes, it does.

APPENDIX B

SUPPORTING ATTACHMENTS

LIST OF ATTACHMENTS FOR APPENDIX B

Attachment #	Attachment Title	Description
1	Confidential Attachment 1	Confidential BVES Response to Cal Advocates Data Request 001
2	Confidential Attachment 2	Confidential BVES Response to Cal Advocates Data Request 002
3	Confidential Attachment 3	Confidential BVES Response to Cal Advocates Data Request 003
3.a	Confidential Attachment 3.a	Confidential BVES Response to Cal Advocates Data Request 003, Question 2, Attachment “BESS MWH from Grid 030325 (Final)” (Excerpt)
3.b	Confidential Attachment 3.b	Confidential BVES Response to Cal Advocates Data Request 003, Question 3, Attachment “NMV Battery 030325 (Final)”
3.c	Confidential Attachment 3.c	Confidential BVES Response to Cal Advocates Data Request 003, Question 3, Attachment “NMV Solar 030325 (Final)”
4	Confidential Attachment 4	Confidential BVES Response to Cal Advocates Data Request 004
5	Confidential Attachment 5	Confidential BVES Response to Cal Advocates Data Request 005
5.a	Confidential Attachment 5.a	Confidential BVES Response to Cal Advocates Data Request 005, Question 3, Attachment “Battery Storage Facility

Attachment #	Attachment Title	Description
		Analysis_Standalone Confidential 032825” (Excerpt)
5.b	Confidential Attachment 5.b	Confidential BVES Response to Cal Advocates Data Request 005, Question 1, Attachment “NMV Battery & Solar Hybrid 032825_Confidential.” (Excerpt)
6	Confidential Attachment 6	Confidential BVES Response to Cal Advocates Data Request 006
6.a	Confidential Attachment 6.a	Confidential BVES Response to Cal Advocates Data Request 006, Question 1.c, Attachment “Reliability Generic Year SCE 041625.” (Excerpt)

CONFIDENTIAL ATTACHMENT 1

Confidential BVES Response to Cal Advocates Data Request 001

CONFIDENTIAL ATTACHMENT 2

Confidential BVES Response to Cal Advocates Data Request 002

CONFIDENTIAL ATTACHMENT 3

Confidential BVES Response to Cal Advocates Data Request 003

CONFIDENTIAL ATTACHMENT 3.a

**Confidential BVES Response to Cal Advocates Data Request 003,
Question 2, Attachment “BESS MWH from Grid 030325
(Final)” (Excerpt)**

CONFIDENTIAL ATTACHMENT 3.b

**Confidential BVES Response to Cal Advocates Data Request 003,
Question 3, Attachment “NMV Battery 030325 (Final)”**

CONFIDENTIAL ATTACHMENT 3.c

**Confidential BVES Response to Cal Advocates Data Request 003,
Question 3, Attachment “NMV Solar 030325 (Final)”**

CONFIDENTIAL ATTACHMENT 4

Confidential BVES Response to Cal Advocates Data Request 004

CONFIDENTIAL ATTACHMENT 5

Confidential BVES Response to Cal Advocates Data Request 005

CONFIDENTIAL ATTACHMENT 5.a

**Confidential BVES Response to Cal Advocates Data Request 005,
Question 3, Attachment “Battery Storage Facility
Analysis_Standalone Confidential 032825” (Excerpt)**

CONFIDENTIAL ATTACHMENT 5.b

**Confidential BVES Response to Cal Advocates Data Request 005,
Question 1, Attachment “NMV Battery & Solar Hybrid
032825_Confidential.” (Excerpt)**

CONFIDENTIAL ATTACHMENT 6

Confidential BVES Response to Cal Advocates Data Request 006

CONFIDENTIAL ATTACHMENT 6.a

**Confidential BVES Response to Cal Advocates Data Request 006,
Question 1.c, Attachment “Reliability Generic Year SCE 041625.”
(Excerpt)**