Company: Southern California Gas Company (U 904 G)
Proceeding: 2024 General Rate Case
Application: A.22-05-015/-016 (cons.)
Exhibit: SCG-229-E

REBUTTAL TESTIMONY

OF SARA P. MIJARES

(ADMINISTRATIVE AND GENERAL)

ERRATA

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

June 2023

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REBUTTAL TESTIMONY OF
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(ADMINISTRATIVE AND GENERAL)

I. SUMMARY OF DIFFERENCES

TOTAL O&M - Constant 2021 ($000)				
	Base Year 2021	**Test Year 2024**	**Change**	**Change from SoCalGas**
SOCALGAS[1]	39,365	47,178	7,759	-
CAL ADVOCATES	39,365	27,234	(12,131)[2]	(19,944)
CEJA	39,365	45,239	5,820	(1,993)

Represents total Administrative and General (A&G) proposed Operating and Maintenance (O&M) reductions. Also refer to the Rebuttal Testimony of SoCalGas Exhibit (Ex.) SCG-245.

TOTAL CAPITAL – Constant 2021 ($000)					
	2022	**2023**	**2024**	**Total**	**Change from SoCalGas**
SOCALGAS	7,954	51,757	32,415	92,126	**-**
CAL ADVOCATES	2,786	8,875	9,853	21,514	(70,612)

Also refer to SoCalGas Rebuttal Testimony of William J. Exon Ex. SCG-221.

TOTAL FRANCHISE FEES - Constant 2021 ($000)					
	2022	**2023**	**2024**	**Total**	**Change from SoCalGas**
SOCALGAS	43,939	47,140	52,684	92,126	-
CAL ADVOCATES	43,939	47,140	52,684	92,126	-

[1] Due to errors discovered when responding to various data requests and in the course of review, SoCalGas corrects its Base Year (BY) 2021 recorded amount from $39,419 to $39,365 and its Test Year (TY) 2024 O&M forecasted value from $47,249 to $47,178 to reflect these corrections. Additionally, SoCalGas has adjusted the values for Cal Advocates and CEJA accordingly.

[2] Cal Advocates submitted two chapters of testimony relevant to Administrative and General, by Refat Amin (Exhibit (Ex.) CA-14), and Stephen Castello (Ex. CA-23C). Cal Advocates does not specify their total recommended TY 2024 forecast for Administrative and General. Ex. CA-23C (at 2 and 27) requests a blanket 35% reduction to the overall Administrative and General Costs. To reflect the totality of Cal Advocates' proposal, SoCalGas has first applied the 35% reduction recommended in CA-23C, which it seeks to have applied first, before applying Cal Advocates' other adjustments. Calculation: $47.178 million x 65% = $30.666 million; $30.666 - $3.432 million = $27.234 million.

II. INTRODUCTION

This rebuttal testimony regarding Southern California Gas Company's (SoCalGas or SCG) request for Administrative and General (A&G) addresses the following testimony from other parties:

- The Public Advocates Office of the California Public Utilities Commission (Cal Advocates) as submitted by Rafat Amin (Ex. CA-14) and Mark Waterworth (Ex. CA-11), dated March 27, 2023.
- California Environmental Justice Alliance (CEJA), as submitted by Matthew Vespa, Sara Gersen, Sasan Saadat, Rebecca Barker (Ex. CEJA-01), dated March 27, 2023.

As a preliminary matter, the absence of a response to any particular issue in this rebuttal testimony does not imply or constitute agreement by SoCalGas with the proposal or contention made by these or other parties. The forecasts contained in SoCalGas's direct testimony, performed at the project level, are based on sound estimates of its revenue requirements at the time of testimony preparation.

The position of parties is as follows:

A. Cal Advocates

The following is a summary of Cal Advocates' positions on A&G expenses:[3]

- Cal Advocates recommends a disallowance of $1.492 million for Business Strategy & Energy Policy (BSEP).
- Cal Advocates recommends an additional disallowance of $1.940 million for Claim Payments and Recovery (Claims).
- Cal Advocates does not oppose SoCalGas's methodology for forecasting its Franchise Fees expenses.
- Cal Advocates recommends the removal of the $70.612 million SAP Transformation Information Technology (IT) capital project but does not

[3] Ex. CA-14 (Amin) at 2. The positions taken by Cal Advocates in Mr. Castello's testimony, which relate exclusively to Cal Advocates' assertion that SoCalGas should have its revenue requirement reduced due to political advocacy activities, are addressed in the Rebuttal Testimony of SoCalGas, Ex. SCG-245 (Mijares). As noted above in Note 2, however, the impacts of Mr. Castello's proposal as it relates to Administrative and General are reflected in my Summary of Differences Table on SPM-1.

oppose the business rationale for the remaining proposed capital IT projects.[4]

B. CEJA

The following is a summary of CEJA's position on A&G O&M expenses:[5]

- CEJA recommends a downward adjustment of $1.993 million to the BSEP department from SoCalGas's proposal of $4.815 million.

CEJA's testimony disputing the facts or accuracy of BSEP is based on numerous policy arguments and contentions throughout its testimony about SoCalGas's activities "promot[ing] the use of methane and hydrogen equipment and oppos[ing] measures that favored electric options."[6] SoCalGas disagrees with CEJA's policy contentions, however, these issues are not appropriate for this venue and accordingly, I will not be addressing these policy claims in my testimony as this is not the appropriate venue for that discussion.[7]

SoCalGas is not aware – and CEJA does not point to any decision - that the Commission has predetermined that electrification is the singular pathway to decarbonize the State's complex and changing energy needs now and in the future. Notwithstanding, there must be a transparent formalized procedural process to identify and address the consequences of any predetermination that electrifying all end uses is the sole and best way to achieve decarbonization. Any process should include whether limiting energy resource diversity to the exclusion of other potential, beneficial pathways is the optimal approach to provide Californians with safe, reliable, resilient, and affordable service in the midst of significant impacts from climate change. Such consideration should include, among other things, customer impacts, costs, how switching fuel sources will be paid for (who will pay them), and effects on energy system stability.

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4 March 27, 2023, Public Advocates Office Report of L. Mark Waterworth on SCG and SDG&E Supply Management/Logistics & Supplier Diversity, Fleet Services, Real Estate & Facility Operations, Environmental Services, Information Technology, Cybersecurity; and SDG&E Clean Transportation Expenditures, Ex. CA-11 (Waterworth) at 3.

5 March 27, 2023, Prepared Direct Testimony of Matthew Vespa, Sara Gersen, Sasan Saadat, and Rebecca Barker, on behalf of California Environmental Justice Alliance (CEJA), Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 7.

6 Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 124.

7 *See* Overall Policy testimony Ex. SCG-01 (Brown) and Ex. SCG-201 (Brown). Also *see* Climate and Sustainability Policy testimony, Ex. SCG-02 (Peress/Sim) and Ex. SCG-202 (Niehaus/Arazi). Further, CEJA's legal arguments and conclusions will later be addressed in briefing.

Moreover, SoCalGas has an obligation to provide safe and reliable gas service to its core customers found in statute.[8] SoCalGas shares the goal to decarbonize the integrated electric and gas grids in a comprehensive manner that can result in thoughtful, fact-based determinations within these legal bounds. Such a planning process can provide the right venue where the complexity of these significant issues can be worked through rather than ignored.[9] If addressed in this venue, since these are procedural and legal issues, they will be addressed, if needed, in appropriate legal briefing or other pleadings.

Instead, this testimony will address the inadequacies of evidentiary support for CEJA's recommended adjustment.

III. GENERAL REBUTTAL

As shown in direct testimony, SoCalGas's forecasts in the BSEP, Claims and the SAP IT Capital Project sections are based on sound estimates of its revenue requirements at the time of testimony preparation and reflect the exclusion of Political Activities or activities otherwise not appropriate for ratepayer funding.[10]

Although Cal Advocates' own auditors found "no recommended adjustments to SoCalGas's O&M Expense" as a result of their examination of Administrative and General expenses,[11] Cal Advocates takes exception to the BSEP forecast as well as the accuracy of costs and the methodology used to forecast Claims Payment and Recovery (Claims). Exception was taken to the Claims forecast even though the five-year adjusted average (2017-2021) used in this TY 2024 General Rate Case (GRC) is consistent with the forecast methodology adopted for this workpaper in the 2019 and 2016 GRCs.

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8 *See* Pub. Util. Code §§ 451, 328.2, and 963.

9 *See* e.g., R.20-01-007.

10 For the purposes of this testimony, "Political Activities" refers to those expenditures for certain civic, political and related activities as defined by Federal Energy Regulatory Commission (FERC) account 426.4. See 18 CFR § 367.4264.

11 March 27, 2023, Report on the Results of Operations for…Southern California Gas Company Test Year 2024 General Rate Case of Sophie Chia and Joyce Lee, Ex. CA-19 (Chia/Lee) the "examination addresses: (1) SCG's and SDG&E's recorded historical data used in connection with forecasting the revenue requirement in their current applications; (2) recommended adjustments related to forecast years; and (3) compliance issues."

CEJA takes exception to the entire request for BSEP based on the unsubstantiated premise that any costs related to political activities incurred by BSEP are (1) a significant portion of the work done by the entire BSEP organization and (2) included in the GRC. As described below, CEJA incorrectly (1) applied the wrong standard and approach to identify comment letters it contends are related to "advocacy"[12] by selectively extracting language from the comment letter without acknowledging the full context; (2) included letters in their testimony that were already excluded from the GRC by SoCalGas;[13] (3) assumed that 100% of the Energy Policy's team activities are spent on comment letters; and (4) applied an unsubstantiated and unsupported 60% reduction across the entire BSEP organization, which includes groups that did not work on the comment letters.

Finally, Cal Advocates recommends the removal of the entire SAP Transformation Capital project on the basis that "the SAP Transformation project completion date will occur in the post test year, the project cost is quantitatively unsupported, and the business justification is inadequate."[14] As explained in this testimony, removal of the project is uninformed and short-sighted. Specifically, **"**Technology obsolescence is a natural part of the technology cycle, and it is important for utilities to have a plan in place to manage it effectively.**"**[15] SAP, the Company's financial system of record, serves as the backbone for SoCalGas's financial record repository and accounting and reporting functions, is over 20 years old and will no longer be supported by the vendor in 2027. Failure to update SAP prior to the date the vendor stops supporting the platform would compromise the utility and potentially delay important regulatory filings and requirements if a system error occurs.

Additionally, since implementing the SAP system, 20 years ago, regulatory reporting requirements have become more comprehensive and significantly more granular. SoCalGas has

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12 The appropriate standard is defined by FERC USofA Account 426.4 governing Certain Civic, Political and Related Activities.

13 As shown in Appendix I, 7 comment letters had already been identified by SoCalGas as related to Political Activities or otherwise not appropriate for ratepayer funding, and thus the expenses related to them were already excluded from the GRC. They were accounted for as BTL in accordance with CPUC Decision (D.) 22-03-010, Issued March 21, 2022 and D.22-04-034, Issued April 18, 2022.

14 Ex. CA-11 (Waterworth) at 3:26-29.

15 *See* Ex. SCG-221 (Exon) at Section III.A.1. (citing Gartner, "Technology Investment and Innovation in Utilities," 2020.

had to rely on manual processes to comply with evolving regulations, including risk-based decision making, and it can be difficult to quickly adapt to new changes within the current system. For example, in the recent CPUC decision D.22-10-002, the Commission states, "We acknowledge Sempra companies' statement that peculiarities in their accounting methods make it infeasible for them to implement."[16] Updating this fundamental system will allow for automation and streamlined reporting. Cal Advocates' assertions to the contrary are unsupported and speculative.

IV. REBUTTAL TO PARTIES' O&M PROPOSALS

A. Non-Shared Services O&M

TABLE SM-1

NON-SHARED O&M - Constant 2021 ($000)			
	Base Year 2021	**Test Year 2024**	**Change**
SOCALGAS[17]	33,915	41,232	7,317
CAL ADVOCATES	33,915	37,800	3,885*
CEJA	33,915	39,239	5,324

* Represents a $1.492 million reduction in BSEP and $1.940 million in Claims Payment & Recovery Ex. CA-14 (Amin) at 34.

1. Cal Advocates Disputed Cost

a. Business Strategy & Energy Policy (BSEP)

Cal Advocates takes issue with the Test Year 2024 O&M forecast of $4.815 million included in the BSEP workpaper. Cal Advocates' recommendation is $1.492 million less than SoCalGas's forecast, which is based on SoCalGas's 2021 adjusted recorded expense and SoCalGas's 2024 forecast with adjustments for proposed activities. Specifically, Cal Advocates normalized SoCalGas's incremental Test Year (TY) 2024 labor and non-labor request over the four-year GRC cycle to account for additional TY activities.[18]

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16 D.22-10-002 at 25.

17 Due to errors discovered when responding to various data requests and in the course of review, SoCalGas corrects its BY 2021 recorded amount from $33,969 to $33,915 and its TY 2024 O&M forecasted value from $41,303 to $41,232 to reflect these corrections. The values for Cal Advocates and CEJA were then adjusted accordingly.

18 Ex. CA-14 (Amin) at 35:10-13 and n.103.

Cal Advocates further states that SoCalGas did not provide documentation demonstrating that its 2021 adjusted-recorded expenses would not be sufficient to address its TY activities or to justify the need for eight new full-time equivalents (FTEs) in the TY. Table SM-2 details the BSEP sub-groups that are requesting incremental FTEs that are further justified below.

TABLE SM-2
Incremental BSEP FTE Request

	FTE
Business Strategy	3
Energy System Integration and Planning (ESIP)	5
Add back FTE for partial year vacancies during 2021	1.7
Total Incremental FTE Forecasted above 2021 Recorded	9.7

SoCalGas disagrees with the conclusion Cal Advocates' reached that an estimate of $3.377 million provides adequate funding for the TY. This position fails to take into account incremental work being required of SoCalGas that necessitates incremental FTEs. In addition, Cal Advocates' proposed reduction in non-labor to $0.590 million fails to acknowledge the fact that SoCalGas's ~$0.700 million increase to $1.133 million request is attributable to incremental consulting services related to the Gas System Planning Order Instituting Rulemaking (OIR) (Rulemaking 20-01-007) proceedings.[19]

Cal Advocates' testimony is unfounded and does not acknowledge the justification supporting the incremental work clearly outlined in SoCalGas's testimony. Specifically, with respect to the 3 incremental FTEs requested in Business Strategy, SoCalGas stated "[t]he scope and complexity of the Gas System OIR and other proceedings concerning/related to energy system decarbonization, reliability and resiliency necessitate the addition of three incremental employees with a background in electric and gas market coordination, decarbonization modeling, and assessing and designing new cost allocation and rate design strategies to ensure an equitable and affordable energy transition. The FTEs would provide strategic oversight and analysis to

19 *See* Ex. SCG-29-R at 39: 9-11.

assist in creating an optimal planning framework and reorienting data collection and synthesis of this information to comport with the new planning framework."[20]

In regard to the 5 incremental Energy System Integration and Planning (ESIP) FTEs, my testimony explained that these employees would be responsible for "[i]ssues involved with optimizing gas/electric coordination and optimization of the integrated energy system as it continues to transform and achieve climate policy goals while maintaining energy customer access to affordable and reliable energy,"[21] and for "[d]ecarbonization and integrated reliability and resiliency planning efforts at California Independent System Operator (CAISO), CEC, CPUC and FERC, including development and implementation of a system planning framework as envisioned by the Gas System Planning OIR, for which periodic and comprehensive system planning dockets before the CPUC are a presumed outcome, as well as other comprehensive planning proceedings, such as the CPUC's electric Integrated Resource Plan and Long-Term Procurement Plan and the California Independent System Operator's system planning. This would involve management and participation in ongoing system planning, gas and electric market coordination, decarbonization impacts on system planning and optimization efforts including framework development around non-pipeline alternatives including scenario analysis around demand forecasting as well as strategic and operational implications to the Company. To effectively execute these activities on behalf of our customers, the ESIP group requires five incremental employees."[22]

b. Claims Payments and Recovery

Cal Advocates also takes issue with the TY O&M forecast for the Claims Payments and Recovery workpaper, which consists solely of non-labor costs and is based on a 5-year adjusted average forecasting methodology. Cal Advocates states that "SCG has not adequately supported or justified its TY forecast and the requested increase in expense relative to historical expenses."[23] Cal Advocates then developed its own TY 2024 recommendation by utilizing a three-year adjusted average (2019-2021) forecasting methodology.

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20 Ex. SCG-29-R (Mijares) at SPM-37:3-10.

21 *Id.* at SPM-38: 1-3.

22 *Id.* at SPM-38:4-16.

23 Ex. CA-14 (Amin) at 38:14-15

SoCalGas disagrees with Cal Advocates' use of a three-year adjusted average methodology and its claim that SoCalGas is seeking an incremental request that is not supported or justified. Specifically, SoCalGas points to (1) the previous TY 2019 GRC approval of the five-year adjusted average methodology used for Claims Payments and Recovery,[24] and (2) the results of the Cal Advocates Financial Examination,[25] as evidence for the accuracy of historical costs used for the TY 2024 GRC forecast.

i. Forecast Methodology

The five-year adjusted average has been consistently applied for this workpaper in prior SoCalGas GRCs. Refer to Decision (D.)19-09-051 in section 34.1.6 (relating to A&G), which states "Many of the activities that are included in the forecasts are activities that have been approved in prior GRCs and we find these to be reasonable and necessary. We have no objection to the forecast methodology which utilized the five-year historical average as the basis for the forecast because many of the divisions and activities have been in existence for a long period of time and costs are subject to year-to-year fluctuations because of new programs or because of certain activities such as the GRC application filing which occurs every three years."

As SoCalGas outlined in testimony,[26] and stated in response to Cal Advocates' data requests,[27] "The five-year average best represents a reasonable estimate of annual costs when considering year to year variability, including the cyclical nature of certain costs, which provides essential compliance governance, oversight, and other support for SoCalGas." SoCalGas further states "To predict and plan for claim payments to third parties for TY 2024 is challenging, given the nature, unpredictability and volatility of events that could occur that would cause the Company to incur additional unanticipated costs. Historically, SoCalGas has seen the claims expense vary significantly from one year to the next…. As such, it is important that any forecast

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24 D.19-09-051 at 589.

25 Ex. CA-19 (Chia/Lee), as noted on page 1, the "examination addresses: (1) SCG's and SDG&E's recorded historical data used in connection with forecasting the revenue requirement in their current applications; (2) recommended adjustments related to forecast years; and (3) compliance issues."

26 Ex. SCG-29-R (Mijares) at SPM-13.

27 *See* Appendices B, C and D for SoCalGas's responses to Cal Advocates data requests PAO-SCG-046-RA6, Q.4, PAO-SCG-079-RA6, Q.3 and PAO-SCG-083-RA6, Q.1j.

of claims captures a period that is long enough to reflect the highs and lows of activity that cannot be easily predicted or controlled."[28]

Cal Advocates focuses on a decrease in claim expenses from 2018-2020, but the claim expenses increased from 2020-2021. In addition, SoCalGas explained to Cal Advocates[29] a key and non-recurring contributing factor to the decrease from 2018 to 2020 is the COVID-19 pandemic. The COVID-19 pandemic, which began in 2020 and continued to the date of the data response, had a nationwide impact that resulted in the temporary closing of the court systems. As a result, for most of 2020, there were significant delays in the resolution of outstanding claims. SoCalGas continued to see delays well into 2021. The variability in the timing and payment of claims that resulted from the COVID-19 pandemic further justifies use of a methodology that captures a longer average period, rather than a shorter period that does not account for abnormalities in the ordinary course of claims resolution.

Although Cal Advocates acknowledges in its own testimony that there is some variability associated with Claims Payment and Recovery expenses,[30] it then selectively cherry-picked information that would result in the lowest forecast. This approach does not accurately reflect the inherent variability of claims or the impact of COVID-19 and should be rejected.

ii. Support of Historical Costs

Cal Advocates makes a series of unfounded and misleading assertions that SoCalGas "has not adequately supported or justified its TY forecast," or "did not provide any documentation," and that Cal Advocates was "not able to review, evaluate or analyze SCG's historical cost increases or decrease or compare the associated activities and costs to its TY proposals."[31] To the contrary, SoCalGas' testimony and responses to data requests provided the support necessary to justify its TY forecast and any incremental increase in expense relative to historical expenses. For the Claims Payment and Recovery forecast, Cal Advocates fails to recognize that the historical expenses reflect actual claims payments made, offset by any

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[28] Ex. SCG-29-R (Mijares), at 27:4-12.

[29] *See* Appendices E and F for SoCalGas's responses to Cal Advocates data request PAO-SCG-083-RA6, Q.2c and PAO-SCG-083-RA6, Q.2d.

[30] Ex. CA-14 (Amin) at 40:22-23.

[31] *Id.* at 38:14-15, 40:4, 40:12-14.

recoveries. Specifically, the items included in the Claims Payments and Recovery workpaper are primarily comprised of payments to third parties for claims associated with property damage, business income losses, and bodily injury claims. The remaining costs are for expenses SoCalGas incurs when it seeks recovery for damages the Company suffered from at-fault responsible third parties. Recovery claim expenses represent a small portion of the overall workpaper expenses. The recorded expenses in this workpaper fluctuate year-over-year based on volume and size of the claims.[32]

Cal Advocates also misleadingly states that SoCalGas "did not provide any documentation."[33] Yet, Cal Advocates elsewhere acknowledges,[34] that SoCalGas provided Cal Advocates with "the 10-year historical data from 2012-2021 for the Claims and Recovery workpaper."[35] In addition, SoCalGas provided the Cal Advocates' auditor with a detailed listing of claims for various historical periods and provided support for specific claims payments selected by the auditor. As outlined in its Report on the Results of Operations for…Southern California Gas Company Test Year 2024 General Rate Case,[36] "from the list of transaction entries for the recorded A&G expenses, Cal Advocates selected transactions to review the associated supporting documents (i.e., invoices, timesheets, and other source data) to determine the accuracy of SCG's recorded transaction entries," which included claims payments. "Cal Advocates also review[ed] the transaction to determine if it is a recurring expense or a one-time expense." Upon its review, the Cal Advocates auditor concluded that there was "no recommended adjustment to SCG's O&M expenses."[37]

Similarly, Cal Advocates' claims that it was "not able to review, evaluate or analyze SCG's historical cost increases or decrease or compare the associated activities and costs to its TY proposals"[38] is inaccurate. As noted above, the information was readily available and

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32 Ex. CA-14 (Amin) at 39 (Table 14-19).

33 *Id.* at 40:4.

34 *Id.* at 38:16-17.

35 *See* Appendix G for Cal Advocates' data request PubAdv-SCG-RA6-083, Q.2i.

36 Ex. CA-19 (Chia/Lee) at 7.

37 *Id.* at 1.

38 Ex. CA-14 (Amin) at 40:12-14.

provided to the Cal Advocates' auditor. If Cal Advocates wanted to test the Claims Payments again all they needed to do was ask SoCalGas for the detailed listing supporting the historical balances or check with their own auditors, rather than duplicate efforts. SoCalGas responded to data request PAO-SCG-092-RA6 on January 31, 2023, and no subsequent data requests on this matter were received.

2. CEJA Disputed Cost

a. Business Strategy & Energy Policy Labor

CEJA takes issue with the Test Year O&M forecast for the BSEP workpaper. CEJA recommends "a downward adjustment in the revenue for the BSEP department of $1.993 million, which is about 41% of the 2024 forecast."[39] CEJA recommends this adjustment, asserting that amount represents 60% of the $2.880[40] "million in 2021 recorded-adjusted costs plus the $265,000 in incremental labor costs for 1.7 FTE positions that were vacant during the base year that SoCalGas has not explained or justified."[41] SoCalGas disagrees with this recommendation for the following reasons:

i. CEJA's proposed reduction of $1.993 million was incorrectly calculated and based on faulty assumptions.

CEJA recommends a 60% reduction to the BSEP organization in its entirety.[42] However, to justify this reduction, CEJA points solely to portions of comment letters that SoCalGas provided to state and local agencies, such as CARB, CEC, and SCAQMD that were prepared by the Energy Policy group within the BSEP organization.[43] Taking it a step further, CEJA then

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[39] Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 121:24-25.

[40] As noted on SPM-1, SoCalGas identified errors when responding to various data requests and in the course of review. $54,000 should have been removed from the 2021 recorded costs of $2.880 million thus SoCalGas corrects its Test Year (TY) 2024 O&M forecasted value from $4.869 to $4.815 to reflect this correction. SoCalGas has not corrected CEJA's numbers; they remain as originally stated in CEJA-01.

[41] Ex. CEJA-01(Vespa/Gersen/Saadat/Barker) at 121:26-27, 122:1-2.

[42] *Id.* at 121:24-27.

[43] *Id.* at 121:17-19. In its Data Request, CEJA-SEU-009, Question 9, CEJA requested *all* of the comment letters that SoCalGas had submitted to local air districts, CARB, CEC, and US EPA Region 9 from January 1, 2020 to the present. SoCalGas provided the letters requested and did not distinguish between letters that did or did not meet the definition of Political Activities in FERC 426.4.

parses the letters and reaches its 60% reduction figure by claiming that 60% of the pages contained within the 57 letters it reviewed contained language that appeared to be "advocacy" that should not be charged to ratepayers.[44] CEJA confirmed this methodology when asked to provide its workpapers in support of its testimony.[45] CEJA's recommendation and analysis is flawed on numerous levels as described more fully below.

ii. CEJA's methodology is unreasonable and leads to a faulty conclusion (*e.g.*, 60% reduction)

In the testimony of Sara Gerson ("Gerson"), CEJA posits that, after reviewing all of the 57 letters EP submitted to regulatory agencies in 2021, CEJA calculated that 60% of the pages (274 pages out of a total of 453 pages) from those letters contained some language CEJA believes constitutes advocacy that should not be a ratepayer cost.[46] As noted in Table SM-3, SoCalGas reviewed the letters CEJA included in Attachment 6 to its testimony[47] and confirmed that only 7 of the comment letters CEJA attached were related to below-the-line activities (either as defined by D.22-03-010 or because SoCalGas otherwise determined not to seek ratepayer funding). The associated costs relating to those 7 letters had already been excluded from the GRC before the Application was filed, rendering CEJA's argument moot. Following CEJA's logic, the corrected recommended reduction would be 0%.

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[44] Attachment 6 to CEJA's testimony contains the analysis used to derive the 60% recommendation.

[45] Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 121: 20-21. *See also* attached Appendix H: CEJA's response to data request SCG-SDGE-CEJA-002, Question 1 (stating, "Attachment 6 [containing an analysis of SoCalGas's agency letters] as the only workpaper prepared in support of their testimony.").

[46] Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 124.

[47] *Id.* at Attachment 6 (Gersen Review of SoCalGas' 2021 Energy Policy Comments to Regulatory Agencies.pdf).

TABLE SM-3
Summary of CEJA-01 Attachment 6

Comment Letters[48]	CEJA[49] (Number of Pages)	SoCalGas (Number of Pages)	Notes
Above-the-line	179	378	(50 comment letters)
Below-the-line	274	77	(7 comment letters) Costs were either recorded to below-the-line internal orders and/or manually removed, as shown in SoCalGas workpapers, therefore excluded from this GRC[50]
Total	453	455	

<u>Results of Comment Letter Review:</u>

CEJA asserts that all or part of the Energy Policy team's comment letters represented efforts to influence the decisions of public officials because they were unrelated to SoCalGas's operations. This is flawed as it is based on a narrow definition of political activities that is not in line with the FERC USofA, specifically that anything that does not directly impact the business is considered lobbying, regardless of the audience, message and intent. As stated in the climate policy testimony, "California has set a goal of carbon neutrality by 2045 as it accelerates its response to climate change. SoCalGas and other state utilities play an essential role in the collective effort to address climate change challenges and to achieve California's carbon neutrality goals."[51] The comments CEJA has reviewed, where labor dollars were booked above-the-line, align with state policy to reach carbon neutrality by 2045, and furthermore, a number of these comments do address impacts to SoCalGas's operations. For example, in SoCalGas's comments regarding the 2021 Summer Reliability Study, SoCalGas notes the need for long-

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48 Attachment 6 to CEJA's Testimony reflected 453 total pages, however, as SoCalGas Appendix I shows there were 455 pages of comment letters submitted in 2021.

49 *Id.*

50 Ex. SCG-29-WP-R (Mijares) at 76.

51 Ex. SCG-02-R, Ch. 1 (Peress) at NJP-1:19-21.

duration storage during peak periods when the Company expects peak day gas takes by the electric generators to increase as the system is decarbonized and overall throughput decreases.[52] While CEJA may not agree with some pathways to reach carbon neutrality, that viewpoint does not determine that all state agency comment letters should be excluded from the GRC.

Indeed, in the last GRC decision, the CPUC found that: "… we reviewed the various comment-letters sent by SoCalGas to state and local government agencies that were identified by Sierra Club and UCS as constituting lobbying activities aimed at promoting natural gas use over electric options as a means of reducing fossil fuel reliance. We reviewed each letter and find that each letter, as a whole, and when read in its entirety, does not constitute a means to block measures to replace natural gas with electric options. Instead, the comment-letters in question contain or provide SoCalGas' input and opinion with regards to the topics being addressed in the comment-letters. Some of the letters include information on the benefits of natural and renewable gas options or suggest consideration of these options but we find that these are generally informational as opposed to what Sierra Club and UCS suggest."[53]

Similarly, many of SoCalGas's letters include information on the benefits of natural and renewable gas, as well as hydrogen, to meet California's goal of carbon neutrality by 2045. Some of SoCalGas's comments focus on reliability and utilizing alternatives to diesel backup generators to maintain the electric grid. Overall SoCalGas's comments directly support Greenhouse Gas (GHG) and air pollutant emission reductions with an emphasis on urgency and cost-effectiveness. SoCalGas's comments align not only with the carbon neutrality goal of 2045, but also with Senate Bill (SB) 32's goal to reduce GHG emissions by 40 percent by 2030. SoCalGas has been a key contributor to GHG reductions thus far[54] and will continue to play an

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52 *See* Appendix J for 2021-05-18 SCG Comments on CEC IEPR Joint Agency Workshop on Summer 2021 Reliability.

53 D.19-09-051 at 380.

54 Specifically, SoCalGas has reduced fugitive methane emissions by 37 percent. *See* SoCalGas Newsroom, *SoCalGas Surpasses California's 2025 Methane Emissions Reduction Goals, Nears 2030 Goal* (June 16, 2022), *available at:* https://newsroom.socalgas.com/press-release/socalgas-surpasses-californias-2025-methane-emissions-reduction-goals-nears-2030-goal.
SoCalGas has also been a leader in energy efficiency and reduced 1.3 MMT of CO2e in the last 5 years through our energy efficiency programs. *See* SoCalGas Newsroom, *SoCalGas Earns the U.S. Environmental Protection Agency's 2023 ENERGY STAR Partner of the Year Award* (April 3, 2023), *available at:* https://newsroom.socalgas.com/press-release/socalgas-earns-the-us-environmental-protection-agencys-2023-energy-star-partner-of.

important role in the state's decarbonization efforts going forward as gas continues to be an enabler of renewable electricity capacity additions.

iii. CEJA references comment letters in their Attachment 6 that SoCalGas had already identified as below-the-line and excluded from the GRC.

As noted above, SoCalGas prepared five comment letters that it submitted to the CEC in its Title 24 Building Standards dockets, as well as one comment letter on building decarbonization efforts that was submitted to the CEC in its Docket 19-DECARB-01 and one comment letter to the SCAQMD. SoCalGas recorded the costs associated with researching and writing these comments as below-the-line and excluded them from the GRC as noted in Table SM-5 below.[55]

iv. CEJA incorrectly assumes that all personnel within the BSEP organization work on comment letters and applied the 60% reduction to the entire organization.

The Energy Policy (EP) is the only group in BSEP responsible for comment letters, in addition to various other responsibilities discussed below. Table SM-4 reflects the four separate groups that comprise BSEP, as outlined in my testimony (Ex. SCG-29-R, at SPM-28: 10-12 and SPM-7: 11-29).

TABLE SM-4
BSEP Sub-Groups

BSEP Sub-Group:	Worked on Comment Letters:	CEJA Proposed 60% Reduction
Energy Policy (EP)	**X**	X
Planning & Legislative Analysis (P&LA)		X
Business Strategy		X
Energy System Integration and Planning (ESIP)		X

SoCalGas disagrees with CEJA's narrow characterization of the scope of work the Energy Policy group covers. The EP group's activities are not entirely comprised of submitting

55 Costs associated with SoCalGas's engagement in the CEC's Title 24 docket have been excluded consistent with D.22-03-010. For the other two letters, SoCalGas made the determination to not seek ratepayer funding.

comment letters to these agencies. As described in my direct testimony,[56] SoCalGas's Energy Policy group supports the enterprise's decarbonization planning and sustainability efforts, including state and federal policies that impact SoCalGas's operations. These include monitoring rules, regulations, and compliance obligations at the local air districts to support SoCalGas's Environmental Services group. Responsibilities also include assessing potential federal or state funding opportunities that SoCalGas may apply for on behalf of ratepayers, performing research and analytics to stay up-to-date on pertinent information related to the energy system, and providing comments regarding policy decisions linked to the public interest. The EP group looks across multiple agencies and emission reduction strategies to identify opportunities for advances in natural gas and clean fuels technologies to facilitate the energy transition.

Therefore, CEJA's recommendation to cut BSEP spending by 60 percent, based on their review of comment letters prepared as a subset of work performed by the Energy Policy group should be disregarded because:

- BSEP consists of more than just the Energy Policy group (refer to Table SM-4 above);
- the Energy Policy group conducts other work in addition to comment letters;
- the comments associated with proposed codes and standards were appropriately excluded from the GRC; and
- the other policy comment letters' positions are consistent with the state's carbon neutrality goals.

v. CEJA's concerns over BSEP's involvement in political activities in 2024 and beyond are speculative and moot

CEJA also raises concerns related to SoCalGas indicating that it will continue to engage in political activities in the future. If SoCalGas chooses to engage in political activities, as outlined in FERC USofA, it will appropriately identify and record such labor and non-labor costs to FERC 426.4 and exclude it from future GRC forecasts. As such, CEJA's concern that the costs would be inappropriately borne by the ratepayers (*see* Ex. CEJA-01 at 128) is moot and

[56] Ex. SCG-29-R (Mijares) at 28-29.

speculative. In addition, as Table SM-5 demonstrates, the total Energy Policy labor hours that have been excluded from the GRC 2021 Base Year as below-the-line are negligible.

TABLE SM-5
Total 2021 Energy Policy Labor Hours Removed From the GRC

	Automatic Exclusions	**Manual Exclusions**	**Total BTL Exclusions**
Total EP Excluded Hours	174	871	1,045
CPUC Order to Show Cause (D.22-03-010	168	472	640
Other Political Activities	6	399	405

For reference, the 1,045 hours incurred, by 8 employees, reflect approximately 50% of one FTE or $63,000. In addition, the Energy Policy group utilized a consultant and recorded the $121,976 in associated costs to 426.4 and excluded them from the GRC. These costs are significantly lower than CEJA's proposed adjustments.

Similarly, although CEJA is unclear on where the "line between 'educating policymakers' and legislative lobbying,"[57] is drawn, SoCalGas is not. SoCalGas has made a concerted and good faith effort to accurately track costs associated with political activities as defined by the FERC USofA in internal orders that settle to FERC 426.4 and/or exclude the costs from the GRC manually if an error is identified as part of GRC controls. SoCalGas believes that CEJA's concerns are mitigated given the controls in place throughout 2021, and the fact that BSEP is using a base year forecast.

Finally, CEJA asserts that, "the analysis and labor performed by these BSEP employees in service of the Regulatory and State Government Affairs groups supports those groups' lobbying activities."[58] SoCalGas disagrees. The Legislative Analysis group records time to 426.4 for any lobbying or political activities, consistent with the FERC USofA. Also, the CPUC has referenced the below-the-line FERC Account 426.4 in numerous ratemaking decisions, such

[57] Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 128:20-21.

[58] *Id.* at 128:20-23.

as in a 1993 SoCalGas rate case decision (D.93-12-043), noting that "SoCalGas and DRA [Public Advocates Office's predecessor] agree that Account 426.4 is the authority for defining lobbying activities that should not be funded by ratepayers." [59]

vi. CEJA's claim that the Business Strategy group does not benefit ratepayers is false and SoCalGas' request for BSEP funding and incremental FTEs is reasonable and in the public interest

The BSEP team is primarily focused on matters related to the energy transition, taking into consideration scenario analysis to capture a range of potential decarbonization futures and implications to the utility business model consistent with the scope of the Gas System OIR. This work is set to not only continue but expand to capture and thoughtfully respond and engage in policies and frameworks that are being advanced in the Gas System OIR, resulting in the need for the additional FTEs requested in my direct testimony. [60] The most recent example being the Commission Staff Proposal on Distribution Decommissioning. The scope of the potential framework considered in just that proposal alone is incredibly broad, fundamentally re-orienting the way distribution system infrastructure investments are planned and executed. To do this appropriate system optimization planning that takes into consideration climate goals and system configurations more than two decades out requires a range of expertise as well as incremental human capital to absorb the broad scope of work contemplated by the Commission.

SoCalGas disagrees with CEJA's erroneous claims[61] that "... Sempra's shareholders are likely the prime beneficiaries of..." a Clean Fuels Study[62] that was conducted by the Business Strategy group and recommend[ation] that shareholders bear the costs of the study.[63] The suggestion that the white paper is self-serving and poorly documented is misguided, and furthermore, the issue has no connection to future department spending. However, the

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59 *See also* Cal. Pub. Util. Code § 793.

60 SoCalGas also addresses the need for incremental FTEs in its response to Cal Advocates above (*see* Section IV.A.1. above).

61 Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 128:28-29.

62 SoCalGas, *The Role of Clean Fuels and Gas Infrastructure in Achieving California's Net Zero Climate Goal* (October 2021), *available at:* https://www.socalgas.com/sites/default/files/2021-10/Roles_Clean_Fuels_Full_Report.pdf.

63 Ex. CEJA-01 (Vespa/Gersen/Saadat/Barker) at 129:6-7.

department time spent supporting the white paper served the public good and forecasted department spend is reasonable because it is driven by regulatory needs, which is further described below.

The clean fuels white paper, and the Business Strategy group's time spent developing it, was aligned with California policy goals. The Clean Fuels Study analyzes various economy-wide pathways to decarbonization out to 2050, including corner cases assuming high degrees of electrification. Analyzing implications of decarbonization is directly aligned and consistent with issues within the scope of the Gas System OIR, which seeks to examine the implications of decarbonization on the gas system from both a system impact and infrastructure perspective, as well as a customer perspective.

With regard to the Business Strategies group, SoCalGas enumerated a series of concrete Business Strategy activities related to a key focus area for the group during the rate case period: supporting SoCalGas in R.20-01-007, the Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and perform Long-Term Gas System Planning. R.20-01-007 is, perhaps, the single largest and most complex gas system proceeding that the CPUC has undertaken, and it will have far-reaching implications for SoCalGas's customers and operations. As reflected in my direct testimony:

> "Consistent with the direction of the Gas System Order Instituting Rulemaking (OIR), during the rate case period, Business Strategy will be responsible for developing, adapting and evolving SoCalGas' business model so the utility can continue to fulfill its obligations to serve customers in a safe, reliable, equitable and affordable manner during the energy transition. This will necessitate the group developing analytical tools and conducting financial and technical analyses to support the long-term capital planning process, such that it aligns with decarbonization objectives, and that capital is optimally deployed to benefit customers. In addition, Business Strategy will need to develop and maintain collaboration tools to effectively manage considerations ranging from gas acquisition to workforce transition and impacts."[64]

These activities are concrete, help build a robust record in the Gas System OIR and are critical to SoCalGas planning for and continuing to fulfill its obligation to serve customers in a safe, reliable, equitable and affordable manner during the energy transition.

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[64] Ex. SCG-29-R (Mijares) at 36-37.

Consequently, the Business Strategy group's funding request is reasonable, aligned with State policy goals, necessary and justified. Both the historical and forecasted labor and consulting spend primarily support the Long-Term Gas Planning Rulemaking (R.20-01-007) and related needs like the Distribution Decommissioning Framework Staff Proposal (DDSP) that is part of the Gas System OIR.[65] As such, these Business Strategy activities included in the BSEP forecast should be funded by ratepayers.

V. REBUTTAL TO CAL ADVOCATES' IT CAPITAL PROPOSALS

TOTAL CAPITAL - Constant 2021 ($000)					
	2022	**2023**	**2024**	**Total**	**Difference**
SOCALGAS*	7,954	51,757	32,415	92,126	
CAL ADVOCATES	2,786	8,875	9,853	21,514	**(70,612)**

*Also refer to SoCalGas Rebuttal Testimony of William J. Exon Ex. SCG-221.

A. Systems Applications and Products (SAP) Transformation Project

SAP, the financial accounting system, was implemented in 1999 and is utilized by SoCalGas to help generate our financial statements and regulatory reports. As described below in greater detail, this system is critical to SoCalGas's operations. Upgrades and implementations are necessary to maintain a very complex and customized system that handles large volume of highly sensitive data. There is a new version of SAP that was created and SoCalGas's existing version will no longer be supported by the vendor, rendering the current version obsolete and opening the Company to unacceptable cybersecurity and reporting risk if the SAP Transformation Project is not executed.

Cal Advocates recommends the removal of the SAP Transformation project on the basis that "the SAP Transformation project completion date will occur in the post test year, the project cost is quantitatively unsupported, and the business justification is inadequate."[66] The costs for this project are justified in the direct and rebuttal testimonies of William J. Exon,[67] while my rebuttal testimony expands upon the business justification I previously provided in my testimony.[68]

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65 *Id*. at 36:3-25.

66 Ex. CA-11 (Waterworth) at 3:26-29

67 *See* Ex. SCG-21-R (Mijares) and Ex. SCG-221 (Gordon and Exon).

68 Ex. SCG-29-R (Mijares) at 60:13-25.

The current SAP platform is 23 years old and the vendor has notified SoCalGas and its other customers, including Southern California Edison (SCE) and Pacific Gas and Electric Company (PG&E), that it is discontinuing vendor support for the current platform in 2027. For SoCalGas to prudently and accurately manage its business, a replacement solution is necessary, and these efforts take years to plan and implement so we must start now. Cal Advocates' assertions to the contrary are unsupported and speculative.

1. Cal Advocates wrongly contends that the business justification supporting SAP Transformation Project is inadequate

Cal Advocates claims that SoCalGas has not provided information to justify the SAP IT Transformation project.[69] In addition to the justification in my direct testimony, the following reasons justify the need for the SAP Transformation during this GRC cycle:

- SAP is a critical Enterprise Resource Planning (ERP) system

SAP has been our ERP system since 1999 and it is a shared system between SoCalGas, SDG&E and Sempra Corporate Center. Our current version of SAP helps to manage our finance, work management, supply chain, asset management, services, and procurement business processes in an integrated system. As an example, SAP facilitates the transfer of materials from warehouse inventory to job site, documents usage for specific projects, tracks labor and non-labor costs, and captures completion of field work. We utilize SAP to help generate our financial statements and regulatory reports (*e.g.*, Federal Energy Regulatory Commission (FERC) Form 2, Risk Spending Accountability Report (RSAR), Risk Assessment Mitigation Phase (RAMP), General Order-77M, etc.).

- Our SAP ERP has become complex

Since 1999, additional SAP modules were added to the Company's SAP platform to address evolving business processes and additional reporting requirements. Over a hundred system integrations requiring over 400 interfaces have been created to facilitate the communication and transfer of data and transactions from non-SAP systems into SAP. Over the last two decades, our SAP system has become increasingly complex and difficult to support due to customizations and the need to increase functionality to meet business requirements as well as improve performance for complex business processes. SoCalGas, SDG&E and Sempra Corporate Center are not unique in

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69 Ex. CA-11 (Waterworth) at 62:13-17.

this regard – SCE and PG&E are also SAP ERP Central Component (ECC) customers and all of us have customized versions of SAP. The Company's complex SAP landscape is further discussed in William Exon's rebuttal testimony (*see* Ex. SCG-221).

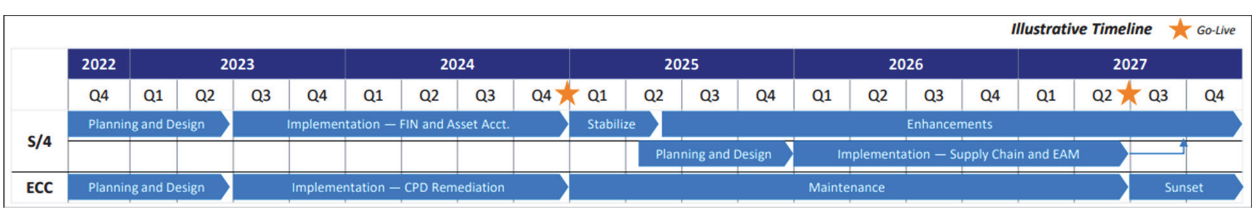
- SAP created a new ERP version (S/4) and is ceasing support for our current version, which increases risk if no action is taken by SoCalGas

SAP released a completely redesigned version (S/4) of their ERP software and announced in February 2020 that by 2027[70] there would no longer be full vendor support for the SoCalGas's current ERP version (*i.e.*, SAP ECC 6.0). Although there is an option to extend our use of SAP ECC after 2027, we would be subject to higher extended maintenance fees and key components would not be supported. Without the SAP Transformation Project, SoCalGas would be exposed to an unacceptable level of risk. For example, we would not be able to update the current version for software patching, and security updates and would lose the ability to address potential system issues.

- The SAP Transformation is not discretionary and will require multiple phases, in addition to the initial phase requested in this GRC

For the reasons discussed above, the SAP Transformation project is not discretionary. The $71M request would allow SoCalGas to upgrade our core ERP to the current generation SAP platform by Q4 2024 as documented in William Exon's rebuttal testimony (see Ex. SCG-221), which is the initial phase of the SAP Transformation. Figure SM-1 is an illustrative timeline depicting the initial phase to enable the replacement SAP platform by 2024 and highlights an ongoing series of phases in future years to completely migrate off SAP ECC before our full vendor support runs out.

FIGURE SM-1
Illustrative SAP Project Timeline Overview



70 *See* Appendix K for the February 4, 2020 SAP Press Release (SAP Extends Its Innovation Commitment for SAP S/4 HANA, Provides Clarity and Choice on SAP Business Suite 7).

Much of the transformation during the 2023-2024 time frame will involve configuring the new base system only. The SAP Transformation project allows SoCalGas, SDG&E and Sempra to more seamlessly transition our configurations and master data from the current version, saving us time and considerable effort in the long run and minimize costs to the ratepayers when compared to implementing a different ERP system (*e.g.*, Oracle or Salesforce). In addition to the ~$71 million requested in the TY 2024 GRC, there will be future forecasts in the next GRC proceeding or a separate application for the multi-year approach envisioned to fully adopt the new SAP S/4 platform. As illustrated in Figure SM-3 above, after 2024, we anticipate the ability to leverage the enhanced business capabilities of the S/4 platform to complete a full implementation. Anticipated business benefits of SAP S/4 include the ability to capture and derive information in a manner that facilitates ease of reporting across multiple dimensions, which is crucial given the ever-increasing reporting requirements. Although some of the customizations in our current SAP ECC platform can be eliminated by upgrading to SAP S/4, this is merely the first phase as a significant amount of business processes (e.g., Project Planning & Execution, Field Work Management, Asset Management) will need to migrate post-test year as part of our risk management strategy and to reduce the total business impact of this upgrade on our operations.

2. Cal Advocates speculates that the SAP Transformation project will not meet its execution timeline

Cal Advocates recommends the removal of the SAP Transformation project on the basis that "the SAP Transformation project completion date will occur in the post test year…"[71] The Rebuttal Testimony of Mr. Exon, (Ex. SCG-221) provides the anticipated timeline for this project, which includes meeting the deadline of completing this phase of the project in the last quarter of 2024.

VI. CONCLUSION

My revised direct testimony, workpapers and SoCalGas's response to numerous data requests provide substantial justification for the Commission to authorize SoCalGas's A&G O&M and IT Capital request. As described in this rebuttal testimony, the proposals of the intervenors to reduce and or eliminate funding are based on inappropriate forecasting

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[71] Ex. CA-11 (Waterworth), at 3:26-29.

methodology, inaccurate assumptions, incomplete understanding of SoCalGas's A&G operations and/or discounting of information presented by SoCalGas.

It is important to note the following overall observations:

- SoCalGas's 2024 TY forecast was determined after a careful analysis of the past, current and future cost drivers. The incremental work activities not reflected in the base forecast were added to adequately fund future operations and conditions, and to support the state's decarbonization goals and the regulators' additional reporting requirements.
- CEJA and Cal Advocates' forecasts include some calculation errors and data omissions (*e.g.*, number of pages of comment letters).
- CEJA's review of the 57 comment letters issued by Energy Policy is inconsistent and selective.
- CEJA and Cal Advocates' reductions are based on incorrect assumptions and a misunderstanding of the ratemaking process.

These observations are discussed in more detail in the specific related rebuttal sections above.

SoCalGas faces a number of challenges affecting both the physical operation of the Company and the cost management aspects of working towards the state's decarbonization efforts in addition to managing the day-to-day operations. These challenges contribute to the forecast methodologies and incremental activities of the Business Strategy and Energy Policy group and the SAP Capital IT project presented in my revised direct testimony. These challenges include:

- Trained and Qualified Workforce/Consultants – Maintaining a skilled workforce is critical to SoCalGas's continued success. It is only through the efforts of these employees that SoCalGas is able to continue to meet California's aggressive decarbonization goals and the regulators' increased reporting requirements. SoCalGas is experiencing increased pressures associated with maintaining a specialized workforce and at times consultants are used to contribute information and analysis.
- Aging Infrastructure – In addition to SoCalGas's history of delivering safe and reliable natural gas service for over 150 years, we also have a history

of full and accurate compliance with financial and regulatory reporting requirements. System maintenance practices have allowed SoCalGas to maintain the integrity of its data and reporting through the use of SAP for the past 23 years, but this will not continue forever. As SAP reaches obsolescence, higher levels of maintenance are required and result in higher costs. The vendor has also announced that it will no longer support the existing SAP platform after 2027 and time is needed to build and upgrade to the latest version of SAP.

- Regulatory Changes – SoCalGas must continue to comply with increasing legal and regulatory requirements that are anticipated to impact SoCalGas's processes, costs and work during this GRC cycle.

The Commission should adopt the forecasted expenditures discussed in my direct revised testimony because they are prudent and reasonable estimates of future requirements.

This concludes my prepared rebuttal testimony.

APPENDIX A

GLOSSARY OF TERMS

ACRONYM	DEFINITION
A&G	Administrative and General
BY	Base Year
BESP	Business Strategy & Energy Policy
CARB	California Air Resources Board
CAISO	California Independent System Operator
CEC	California Energy Commission
DDSP	Distribution Decommissioning Framework Staff Proposal
EP	Energy Policy
ERP	Enterprise Resource Planning
ECC	ERP Central Component
ESIP	Energy System Integration and Planning
FERC	Federal Energy Regulatory Commission
FTE	Full-Time Equivalent
GRC	General Rate Case
GHG	Greenhouse Gas
IT	Information Technology
NOx	Nitrogen Oxide
O&M	Operations and Maintenance
OIR	Order Instituting Rulemaking
PG&E	Pacific Gas & Electric
P&LA	Planning & Legislative Analysis
RAMP	Risk Assessment Mitigation Phase
RSAR	Risk Spending Accountability Report
SAP	System Application and Products
SB	Senate Bill
SCE	Southern California Edison
SCQAMD	South Coast Air Quality Management District
TY	Test Year
USofA	Uniform System of Accounts

APPENDIX B

SoCalGas Response to Data Request - PAO-SCG-046-RA6, Q.4

Data Request Number: PAO-SCG- 046-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDGE 2024 GRC

Publish To: Public Advocates Office

Date Received: 9/9/2022

Date Responded: 9/23/2022

4. For Subcategory Claims Payments and Recovery, explain how the five-year average method produces "the most representative forecast" rather than a four-year, three-year, two-year, or base-year forecast method. Provide supporting documentation or a cost-benefit analysis that can support the method SCG used to estimate the forecasts.

SoCalGas Response 4:

As described in Revised Prepared Direct Testimony Ex. SCG-29-R, Administrative & General, on page SPM-27, the Claims Payments and Recovery department is using a five-year adjusted average (2017-2021) to forecast the amount of labor, non-labor and claims payments for TY 2024. The five-year average best represents a reasonable estimate of annual costs when considering year to year variability, including the cyclical nature of certain costs, which provides essential compliance governance, oversight, and other support for SoCalGas. The Company's trend of litigation and claims does not necessarily predict the future. To predict and plan for claim payments to third parties for TY 2024 is challenging, given the nature, unpredictability and volatility of events that could occur that would cause the Company to incur additional unanticipated costs. Historically, SoCalGas has seen the claims expense vary significantly from one year to the next. While SoCalGas manages its operations to mitigate the impact of third-party claims as much as possible, the exposure to claims will always be a genuine risk to the Company given its large presence of property, assets, and resources across a wide geographic region. As such, it is important that any forecast of claims captures a period that is long enough to reflect the highs and lows of activity that cannot be easily predicted or controlled. Accordingly, a five-year historical average is appropriate to capture a reasonable cycle of Claims Payments and Recovery activity. This methodology has been consistently applied for this department in prior SoCalGas GRCs. Refer to D.19-09-051 in section 34.1.6.(relating to A&G), stating "Many of the activities that are included in the forecasts are activities that have been approved in prior GRCs and we find these to be reasonable and necessary. We have no objection to the forecast methodology which utilized the five-year historical average as the basis for the forecast because many of the divisions and activities have been in existence for a long period of time and costs are subject to year-to-year fluctuations because of new programs or because of certain activities such as the GRC application filing which occurs every three years."

The adjusted-recorded costs for 2017-2021 are included on page 61 of Ex. SCG-29-WP-R.

5. Please identify legal and claims costs for each year from 2017 to 2021 that were removed from the recorded data provided in this GRC for the purposes of SCG forecasting its GRC request. Provide an explanation and SCG's calculations that

APPENDIX C

SoCalGas Response to Data Request – PAO-SCG-079-RA6, Q.3

3. If SCG cannot provide year-to-date 2022 recorded expenses, provide supporting calculation demonstrating SCG's current estimates of its 2022 expenses for its 21 Administrative and General cost categories that it relies on for internal cost monitoring.

SoCalGas Response 3:

SoCalGas objects to this request on the grounds that it is vague and ambiguous. SoCalGas also objects to this request to the extent it seeks the continual update of data. As recognized by the Commission, "it is not feasible to constantly update data for the entire application. It is also not practical to update all data in the GRC because of the vast amounts of data included in the application." (D.19-09-051 at 59-60) ("we find that selectively updating only certain data or in this case applying 2017 recorded costs in some instances but not in others may lead to inconsistent results.").

Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

SoCalGas's GRC application and accompanying forecasts are necessarily presented as a snapshot in time. It would not be practicable, nor is it SoCalGas's practice to continually update the GRC forecasts as actual costs are recorded. In addition, please see the response to Question 2 above.

APPENDIX D

SoCalGas Response to Data Request - PAO-SCG-083-RA6, Q.1J

Data Request Number: PAO-SCG-083-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDGE 2024 GRC

Proceeding Number: A2205015_016 2024 GRC

Publish To: Public Advocates Office

Date Received: 12/22/2022

Date Responded:01/06/2023

Question 1-Continued

j. If SCG cannot or is unable provide year-to-date 2022 recorded expenses, provide supporting calculation demonstrating SCG's current estimates of its 2022 expenses for its Legal section in Administrative and General department that it relies on for internal cost monitoring.

SoCalGas Response 1j:

Please see response to Question 3 in PAO-SCG-079-RA6.

APPENDIX E

SoCalGas Response to Data Request - PAO-SCG-083-RA6, Q.2C

Data Request Number: PAO-SCG-083-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDGE 2024 GRC

Proceeding Number: A2205015_016 2024 GRC

Publish To: Public Advocates Office

Date Received: 12/22/2022

Date Responded:01/06/2023

Question 2-Continued

c. SCG's recorded expenses increased by $10.66 million between 2017 and 2018, from $6.04 million to $16.71 million. Provide documentation that explains the increase and that identifies the line-item detail associated with the increase in expenses related to the $10.66 million.

SoCalGas Response 2c:

SoCalGas objects to this request on the grounds that it is vague and ambiguous, particularly with respect to the phrase "provide documentation" as it pertains to the requested information.

Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

The line items included in the Claims Payments and Recovery workpaper are primarily comprised of payments to third parties for claims associated with property damage, business income losses, and bodily injury claims. The remaining costs are for recovery expenses to seek recovery for SoCalGas's damage claims from at-fault responsible third parties and represent a small portion of the overall workpaper expenses. The recorded expenses in this workpaper fluctuate year over year based on volume and size of the claims.

In addition, the primary driver for cost fluctuation from 2017 to 2018 is due to a single bodily injury-related claim, net of insurance reimbursements received. Please refer to the table below.

2017-2021 Claims Payment History

Dollars in nominal thousands

Payments	2017	2018	2019	2020	2021
Bodily Injury	2,326	47,001	14,664	6,648	1,732
Property Damage Payment	2,502	2,246	2,022	1,925	3,516
Loss of Business or Income	160	338	153	321	64
Auto Bodily Injury	-	165	-	8	-
Subtotal	**4,988**	**49,749**	**16,838**	**8,902**	**5,313**
Reimbursements					
Reimbursement	-	(35,000)	(7,000)	(6,384)	-
Total Paid Claims	**4,988**	**14,749**	**9,838**	**2,518**	**5,313**

APPENDIX F

SoCalGas Response to Data Request - PAO-SCG-083-RA6, Q.2D

Data Request Number: PAO-SCG-083-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDGE 2024 GRC

Proceeding Number: A2205015_016 2024 GRC

Publish To: Public Advocates Office

Date Received: 12/22/2022

Date Responded:01/06/2023

Question 2-Continued

d. SCG's recorded expenses continuously decreased from 2018 to 2020. SCG's recorded expenses decreased by $5.78 million between 2018 and 2019, from $16.71 million to $10.93 million. SCG's recorded expenses further decreased by $7.92 million between 2019 and 2020, from $10.93 million to $3.01 million. Provide documentation that explains the continuous decrease and that identifies the line-item detail associated with the decrease in expenses related to the $5.78 million and $7.92 million.

SoCalGas Response 2d:

Please refer to response to Question 2c.

In addition, a key and non-recurring contributing factor to the decrease from 2018 to 2020 is the COVID-19 pandemic. The COVID-19 pandemic, which began in 2020 and continues to the date of this data response, had a nationwide impact that resulted in the temporary closing of the court systems. For most of 2020, the court system was closed, causing significant delays in resolution of outstanding claims. SoCalGas continued to see delays well into 2021.

APPENDIX G

SoCalGas Response to Data Request - PAO-SCG-RA6-083, Q.2i

Data Request Number: PAO-SCG-083-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDGE 2024 GRC

Proceeding Number: A2205015_016 2024 GRC

Publish To: Public Advocates Office

Date Received: 12/22/2022

Date Responded:01/06/2023

Question 2-Continued

i. Provide the 10-year historical data from 2012-2021 for the Claims Payments and Recovery section in Administrative and General department.

SoCalGas Response 2i:

The table below provides 10-year historical data from 2012-2021 for the Claims Payment and Recovery section in Administrative and General area.

2012-2021 Claims Payments and Recovery Totals

Dollars are in nominal thousands

Year	Claims Payments	Recovery Expense	Claims Payments and Recovery Total
2012	4,642	83	4,724
2013	7,403	63	7,466
2014	2,584	99	2,683
2015	7,358	97	7,455
2016	14,176	258	14,434
2017	4,988	382	5,370
2018	14,749	568	15,317
2019	9,838	354	10,192
2020	2,518	275	2,793
2021	5,313	337	5,650

APPENDIX H

CEJA's Response to Data Request - SCG-SDGE-CEJA-002, Question 1

California Public Utilities Commission Docket No. A.22-05-015/A.22-05-016

Application of Southern California Gas Company (U 904 G) for Authority, Among Other Things, to Update its Gas Revenue Requirement and Base Rates Effective January 1, 2024, and Related Matter.

CEJA Response to Data Request SCG-SDGE-CEJA-002

To:	Jamie York, JYork@semprautilities.com, on behalf of SoCalGas and SDG&E Central Files, centralfiles@semprautilities.com
From:	Matthew Vespa, Earthjustice, on behalf of CEJA Sara Gersen, Earthjustice, on behalf of CEJA Rebecca Barker, Earthjustice, on behalf of CEJA
Date Request Sent:	April 7, 2023
Response Due:	April 14, 2023

QUESTION 1

Please provide the following:

1. Workpapers to support the reduction to the Business Strategy and Energy Policy department in Test Year 2024 by $1.993 million.

RESPONSE TO QUESTION 1

CEJA's testimony explains the process for calculating the $1.993 million figure on pages 121:22–122:2. The witness performed the calculation described in this portion of testimony on a calculator. The testimony on page 124:7–124:17 explains how the witness determined that more than 60% of the pages of comments SoCalGas' Energy Policy group submitted in 2021 reflect work that ratepayers should not have paid for. Attachment 6 is the only workpaper prepared in support of this analysis.

APPENDIX I

SoCalGas's 2021 Comment Letters Analysis

	A	B	C	D	E	F	G	H	I
1									
2	**CEJA Attachment 6** **Workpaper - Gersen Review of SoCalGas' 2021 Energy Policy Comments to Regulatory Agencies** **(copy reproduced by SoCalGas for comparison)**						**SoCalGas Analysis of CEJA Attachment 6**		
3	COMMENT LETTER	AGENCY	LENGTH						
4	File name	E.g., CEC or CARB? (Write agency names consistently for reliable sorting)	# of pages	Inappropriate for ratepayer recovery?	If so, why?	# of pages for regulatory advocacy ratepayers shouldn't pay for	SoCalGas Assessment	SoCalGas Notes	Doc Count
5	2021-02-26 SCG Comments on CARB Draft Report for GHG Emissions of Contemp Wildfire Prescribed Burns and Forest Mgmt Activities_8920	CARB	2	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	2	Appropriate for ratepayers to fund. SoCalGas's comments focus on conducting a thorough holistic analysis of emissions to reduce overall emissions.	SoCalGas' response centers around conducting a thorough analysis to reduce unintended emissions.	1
6	2021-03-31 SCG Comments on CARB Advanced Clean Fleets Wkshop March 3-4-2021_8920	CARB	4				Appropriate for ratepayers to fund. SoCalGas' comments focus on most cost-effective way to reduce overall emissions from MD/HD vehicles.		2
7	2021-05-14 SCG Comments on CARB Draft 2020 Mobile Source Strategy_8920	CARB	4	Yes	Regulatory advocacy unconnected to SoCalGas operations. Urges CARB to consider greater reliance on low-NOx vehicles (instead of focusing on zero- emission vehicles) in its Mobile Source Strategy.	4	Appropriate for ratepayers to fund. SoCalGas' comments focus on achieving near-term emissions.	SoCalGas's response focused on achieving near-term emission reductions in order to meet upcoming federal Clean Air Act Deadlines and protect public health.	3
8	2021-07-09 SCG Comments on CARB 2022 Scoping Plan Update FINAL_8920	CARB	7	Partly	Includes advocacy for greater reliance on methane-burning vehicles.	1	Appropriate for ratepayers to fund. SoCalGas' comments focus on achieving near-term emissions.	SoCalGas's comments with regard to RNG vehicles focused on international renown scientist Dr. Ram that urges a need to reduce SLCP immediately.	4
9	2021-08-16 Comments on Scoping Plan ECR Workshop Comments_8920	CARB	5	Yes	Advocacy for Engineered Carbon Removal as a decarbonization strategy, without discussion of SoCalGas' existing or proposed operations.	5	Appropriate for ratepayers to fund. ARB is a regulator of GHG emissions and the Scoping Plan is their roadmap. Engineered Carbon Removal is critical as a decarbonization strategy to meet carbon neutrality in 2045 and beyond.	SoCalGas and SDG&E comments center around the need for engineered carbon removal in order to meet carbon neutrality. Also, if ECR is part of the solutions, it will definitely change operations of the gas system.	5
10	2021-09-03 SCG Comments on CARB 2022 Scoping Plan Scenario Concepts Workshop_8920	CARB	13	Partly	Most of SoCalGas' comments question the feasibility of electric decarbonization strategies and not meaningfully related to its system operations.	10	Appropriate for ratepayers to fund. ARB is a regulator of GHG emissions and the Scoping Plan is their roadmap. SoCalGas' comments focus on developing a roadmap that is feasible to implement.	The comments focus around feasibility of options to reach carbon neutrality. These include the need for clean molecule solutions to reduce near-term GHG emissions in hard-to-abate sectors; extending cap-and-trade as a glide path to net zero; and a feasibility and achievability analysis of policy measures. The comments go outline what an analysis could look like with regards to reliability, decarbonization efficacy, practical achievability, cost equity, and leakage. The comments include looking at a number of measures one of which being residential and commercial electrification of all new buildings by 2026, all-electric appliances by 2030 and all buildings retrofitted by 2035.	6
11	2021-09-22 SCG Comments on CARB 2022 SP Update Short Lived Climate Pollutants Wrksp_8920	CARB	13	Partly	Includes advocacy for greater reliance on methane-burning vehicles.	5	Appropriate for ratepayers to fund. SoCalGas' comments focus on achieving near-term emissions.	As indicated previously, the scientific research states that we must combat SLCP ASAP if we want a chance at meeting our climate goals. Comments around utilizing and reducing SLCPs are in the publics interest. SCG requested the ARB also looking at meeting climate goals with emissions from fires.	7
12	2021-10-18 SCG Comments on CARB Mobile Source Strategy_8920	CARB	7	Yes	Advocates for greater reliance on methane-burning vehicles.	7	Appropriate for ratepayers to fund. SoCalGas' comments focus on most cost-effective way to reduce overall emissions from MD/HD vehicles.	Continuing to recommend RNG as a fuel source to help reduce diesel soot, NOx, and GHG emissions is in the public interest and our customers utilize our pipelines to delivery the product.	8
13	2021-11-19 Comments on CARB Nov 2 SP Update Electricity Sector Technical Workshop_8920	CARB	9	Yes	Advocacy related to the electric sector without discussion of SoCalGas' existing or proposed operations.	9	Appropriate for ratepayers to fund. ARB is a regulator of GHG emissions and the Scoping Plan is their roadmap. SoCalGas' comments focus on the electric system, which is highly integrated with the gas system.	All of the issues around electricity planning can and do have signifi8cant impacts around NG planning.	9
14	2021-01-20 SCG Comments on CEC Volume 1 Draft 2020 IEPR Update 20-IEPR-01 Comments -_8920	CEC	5	Yes	Advocacy for greater reliance on hydrogen vehicles, biomethane, and thermal power plants, with just one passing reference to SoCalGas' existing or proposed operations.	5	Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	10
15	2021-01-22 SCG Comments on CEC 2021 IEPR NG Demand Forecast Forms_8920	CEC	5				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process and SoCalGas submits data requests for the demand forecast.	IEPR and therefore allowable	11
16	2021-02-11 SCG Comments on CEC Proposed Change for Low-Rise Residential Heat Pump 2022 Energy Code_8920	CEC	5	Yes	The CPUC prohibited SoCalGas from charging ratepayers for its advocacy in energy efficiency codes and standards proceedings. This advocacy is also unrelated to SoCalGas' existing or proposed operations.	5	SoCalGas booked the activity associated with this comment letter below the line through the Title 24 adjustment.	Booked BTL	12
17	2021-02-12 SCG Comments on CEC Workshop to Discuss Research into Clean Energy Alternatives to Diesel Backup Gen Systems_8920	CEC	3	Yes	Advocacy not connected to SoCalGas' existing or proposed operations, aside from advocacy in favor of gas-fired power generation technologies to incidentally increase SoCalGas load.	3	Appropriate for ratepayers to fund. SoCalGas's comments focus on conducting a thorough holistic analysis of emissions to reduce overall emissions.	Comments focus on reducing air pollutant and GHG emissions from Diesel Backups and Fuel cells and gas generators as cleaner options.	13
18	2021-02-19 SCG Comments on CEC IEPR Energy Policy Report DRAFT Scoping Order_8920	CEC	2				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	14
19	2021-02-23 SCG Comments on CEC Transportation Future Workshop_8920	CEC	4	Partly	Advocacy for increased reliance on methane-burning vehicles	1	Appropriate for ratepayers to fund. SoCalGas' comments focus on most cost-effective way to reduce overall emissions from MD/HD vehicles.	RNG vehicles are the only zero or negative CI vehicles on the market today. SoCalGas comments recommend continuing to support these vehicles because they are achieving the greatest emission reductions.	15
20	2021-03-09 SCG Comments on 2022 Energy Code Pre- Rulemaking Express Terms_8920	CEC	11	Yes	The CPUC prohibited SoCalGas from charging ratepayers for its advocacy in energy efficiency codes and standards proceedings. This advocacy is also unrelated to SoCalGas' existing or proposec	11	SoCalGas booked the activity associated with this comment letter below the line through the Title 24 adjustment.	Booked BTL	16
21	2021-03-19 SCG Comments on CEC Staff Wkshop on Research to Support a Climate Resilient Transaction to be a Clean Electricity System_8920	CEC	4	Yes	Advocacy related to SoCalGas' preferences for spending electric sector research funds, with just one passing reference to SoCalGas' existing operations.	4	Appropriate for ratepayers to fund. SoCalGas' comments focus on the interdependency of the electricity and gas systems.	Focus of the comments is on explaining how the electricity system works and how gas can help with the long duration storage needs of the system.	17
22	2021-03-22 SCG Comments on CEC Micrograds 2020 IEPR Volume II_8920	CEC	6				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process. SoCalGas' comments focus on low-carbon solutions for reliable microgrids.	IEPR and therefore allowable	18
23	2021-03-26 SCG Comments on CEC Revised Staff Draft Guidelines for SRVEVR_8920	CEC	2	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	2	Appropriate for ratepayers to fund. SoCalGas' comments focus on ways to use ratepayer dollars to leverage additional federal dollars.	Comments support the CEC program and recommend leveraging federal dollars to be even more successful.	19
24	2021-04-02 SCG Comments on CEC Upcoming Solicitation Regarding Pilot Test and Demonstration of Hydrogen Blending into Existing C_8920	CEC	4				Appropriate for ratepayers to fund. SoCalGas' comments are on a CEC solicitation funded by NG ratepayers.	SCG interest in applying for the funding.	20
25	2021-04-09 SCG Comments on MORBUGs Pre-Application Wkshp 4-9-21_8920	CEC	4	Yes	Advocacy not connected to SoCalGas' existing or proposed operations, aside from advocacy in favor of gas-fired power generation technologies to incidentally increase SoCalGas load.	4	Appropriate for ratepayers to fund. SoCalGas's comments focus on conducting a thorough holistic analysis of emissions to reduce overall emissions.	SoCalGas comments align with mobile renewable backup generators. RNG is a renewable resource under the RPS.	21

	A	B	C	D	E	F	G	H	I
1									
2	**CEJA Attachment 6** **Workpaper - Gersen Review of SoCalGas' 2021 Energy Policy Comments to Regulatory Agencies** **(copy reproduced by SoCalGas for comparison)**						**SoCalGas Analysis of CEJA Attachment 6**		
3	COMMENT LETTER	AGENCY	LENGTH						
4	File name	E.g., CEC or CARB? (Write agency names consistently for reliable sorting)	# of pages	Inappropriate for ratepayer recovery?	If so, why?	# of pages for regulatory advocacy ratepayers shouldn't pay for	SoCalGas Assessment	SoCalGas Notes	Doc Count
26	2021-04-19 SCG Comments on CEC EIR Scope for Proposed 2022 Update Energy Code_8920	CEC	6	Yes	The CPUC prohibited SoCalGas from charging ratepayers for its advocacy in energy efficiency codes and standards proceedings. This advocacy is also unrelated to SoCalGas' existing or proposec	6	SoCalGas booked the activity associated with this comment letter below the line through the Title 24 adjustment and I/O 300813608.	Booked BTL	22
27	2021-05-03 SCG Comments on CEC Pre-Solicitation Wkshop for the CEC Recovery and Reinvestment Initiative_8920	CEC	5	Yes	Advocacy related to SoCalGas' preferences to use a spending program to fund the CEC's Clean Transportation Program because the program includes hydrogen vehicles	5	Appropriate for ratepayers to fund. SoCalGas' comments focus on infrastructure for zero emission vehicles.	Hydrogen fuel cell electric vehicles are considered ZEV and can ultimately be ruled by renewable H2. Recommending including funding for H2 vehicles is in the public interest.	23
28	2021-05-14 SCG Comments on CEC Draft 2021-2023 Investment Plan Update for the Clean Transportation Program_8920	CEC	7	Yes	Advocacy on CEC spending program, supporting spending related to hydrogen and methane-burning vehicles	7	Appropriate for ratepayers to fund. SoCalGas sits on the Clean Transportation Program Advisory Committee.	Matt Gregori sits on the CTP Advisory Committee. He is asked to participate and comment on the Investment plan.	24
29	2021-05-18 SCG Comments on CEC IEPR Joint Agency Workshop on Summer 2021 Reliability_8920	CEC	10	Partly	Advocacy related to electric-sector reliability, with brief discussion of SoCalGas' existing operations	8	Appropriate for ratepayers to fund. SoCalGas' comments focus on the interdependency of the electricity and gas systems.	IEPR and therefore allowable	25
30	2021-06-03 SCG Comments on CEC IEPR Natural Gas Infrastructure_8920	CEC	8				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	26
31	2021-06-08 SCG Comments on CEC IEPR Building Decarbonization_8920	CEC	3				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	27
32	2021-06-11 SCG Comments on CEC Draft Building Decarbonization Assessment_8920	CEC	10				SoCalGas booked the activity associated with this comment letter below the line through the Title 24 adjustment.	Booked as BTL	28
33	2021-06-21 SCG Comments on CEC Propose_8920	CEC	30	Yes	The CPUC prohibited SoCalGas from charging ratepayers for its advocacy in energy efficiency codes and standards proceedings. This advocacy is also unrelated to SoCalGas' existing or proposec	30	SoCalGas booked the activity associated with this comment letter below the line through the Title 24 adjustment.	Booked BTL	29
34	2021-07-07 SCG Comments on CEC IEPR Building Decarbonization Equipment_892(	CEC	15				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	30
35	2021-07-14 SCG Comments on CEC Initial Public Workshop on Long Duration Energy Storage_8920	CEC	4	Yes	Advocacy related to electric-sector policy, without discussing SoCalGas' existing or proposed operations	4	Appropriate for ratepayers to fund. SoCalGas' comments focus on the interdependency of the electricity and gas systems.	Comments focus on the changing needs (including less inherent LDS) and gas usage.	31
36	2021-07-15 SCG Comments on CEC EPIC 4 Investment Plan_8920	CEC	6	Partly	Advocacy related to CEC's plans for spending electricity ratepayers' EPIC funds, which contained one paragraph of information related to SoCalGas' existing operations in response to a question about challenges to delivering hydrogen to residential and commercial buildings.	5	Appropriate for ratepayers to fund. SoCalGas' comments focused on responding to CEC's questions pertaining to hydrogen, renewable natural gas, and fuel cell electric vehicles.	CEC questions pertained to H2, RNG, FCEVs. SoCalGas comments focused on answering these comments from stakeholders.	32
37	2021-07-23 SCG Comments on CEC Summer 2021 Reliability July Workshop_8920	CEC	17				Appropriate for ratepayers to fund. SoCalGas' comments focus on the interdependency of the electricity and gas systems.		33
38	2021-07-27 SCG Comments on CEC Building Decarbonization Consumers_ Financing_ Workforce_8920	CEC	7				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	34
39	2021-07-28 SCG Comments on CEC 15Day Changes_8920	CEC	4	Yes	The CPUC prohibited SoCalGas from charging ratepayers for its advocacy in energy efficiency codes and standards proceedings. This advocacy is also unrelated to SoCalGas' existing or proposec	4	SoCalGas booked the activity associated with this comment letter below the line through the Title 24 I/O 300813611.	Booked BTL	35
40	2021-07-29 SCG Comments on CEC EPIC 4 Bankability of New Clean Energy Technologies_8920	CEC	3	Yes	Advocacy related to spending in the EPIC program, which is unrelated to SoCalGas' existing or proposed operations.	3	Appropriate for ratepayers to fund. SoCalGas' comments focus on support for low emission technologies that provide electricity reliability and innovative financing models like Green Bonds.	SoCalGas supported projects like Mainspring which utilize the resiliency of the NG systema nd innovative financing models like Green bonds.	36
41	2021-07-30 SCG Comments on CEC EPIC 4 Technology Advancements for Energy Storage_8920	CEC	8	Yes	Advocacy related to spending in the EPIC program, which is unrelated to SoCalGas' existing or proposed operations.	8	Appropriate for ratepayers to fund. SoCalGas' comments focus on utilization of clean fuels for electricity storage.	SoCalGas comments focused on utilization of clean fuels for electricity storage.	37
42	2021-08-11 SCG Comments on CEC IEPR Commissioner Workshop on Hydrogen to Support California_8920	CEC	10				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process. CEC requested SoCalGas participate in the workshop as a leader on hydrogen activities.	IEPR and therefore allowable	38
43	2021-08-13 SCG Comments on CEC IEPR Commissioner Workshop on Benefits from the Clean Transportation Program_8920	CEC	7	Yes	Advocacy for methane-burning vehicles	7	Appropriate for ratepayers to fund. SoCalGas' comments focus on most cost-effective way to reduce overall emissions from MD/HD vehicles.	SCG comments on the benefits of reducing SLCP and turn over of diesel fleets as quickly as possible.	39
44	2021-08-17 SCG Comments on CEC Accelerating Industrial Decarbonization_8920	CEC	7				Appropriate for ratepayers to fund. SoCalGas' comments focus on opportunities to decarbonize the industrial sector.	SoCalGas offers the following comments in the spirit of collaboration and in pursuit of solutions based on decades of experience working with its industrial customers: (1) Gas utility partnerships and incentives can accelerate industrial decarbonization through energy efficiency programs; (2) Methane leak detection programs are crucial to mitigate climate change impacts and help decarbonize industry; (3) Gas-fueled microgrids support renewables and provide a resilient decarbonization pathway for businesses; (4) Gas utility hydrogen demonstration programs are needed today to inform and advance hydrogen injection standards; (5) State support for industrial hubs can help scale low- and zero-carbon renewable hydrogen and provide a decarbonization pathway for high heat and energy-intensive industries; and (6 California has abundant underground natural resources that have the potential to advance Carbon Capture Utilization and Storage (CCUS) technologies for industries reliant on traditional fuels.	40
45	2021-08-18 SCG Comments on CEC EPIC 4 Investment Draft_8920	CEC	15	Partly	Advocacy for CEC's EPIC investment plans to include hydrogen from polluting production processes and consider increased reliance on bioenergy and fuel cell vehicles.	7	Appropriate for ratepayers to fund. SoCalGas' comments on utilization of renewable and other clean fuels as eligible technologies for decarbonization.		41
46	2021-08-19 SCG Comments on CEC Data Inputs _ Assumptions for 2021 IEPR Modeling and Forecasting_8920	CEC	7	Partly	Includes advocacy for methane-burning vehicles.	2	Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	42
47	2021-09-07 SCG Comments on CEC IEPR Workshop on the Role of Energy Efficiency in Building Decarbonization_892(	CEC	6				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	43

	A	B	C	D	E	F	G	H	I
1									
2	**CEJA Attachment 6** **Workpaper - Gersen Review of SoCalGas' 2021 Energy Policy Comments to Regulatory Agencies** **(copy reproduced by SoCalGas for comparison)**						**SoCalGas Analysis of CEJA Attachment 6**		
3	COMMENT LETTER	AGENCY	LENGTH						
4	File name	E.g., CEC or CARB? (Write agency names consistently for reliable sorting)	# of pages	Inappropriate for ratepayer recovery?	If so, why?	# of pages for regulatory advocacy ratepayers shouldn't pay for	SoCalGas Assessment	SoCalGas Notes	Doc Count
48	2021-09-07 SCG Comments on CEC Midterm Reliability Natural Gas Power Plants Upgrades_8920	CEC	5	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	5	Appropriate for ratepayers to fund. SoCalGas' comments focus on the interdependency of the electricity and gas systems.	SCG comments focus on assumptions of where electricity is coming from and therefore impacts on gas-fired fleets.	44
49	2021-09-09 SCG Comments on CEC IEPR Workshop on Building Decarbonization Embodied_892(	CEC	2	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	2	Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	45
50	2021-09-13 SCG Comments on CEC IEPR Natural Gas Market and Demand Forecast Workshop_8920	CEC	4				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	46
51	2021-09-14 SCG Comments on CEC IEPR Renewable Natural Gas Workshop_8920	CEC	6				Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	47
52	2021-09-30 SCG Comments on CEC 2021-2023 Investment Plan Update for the Clean Transportation Program_8920	CEC	9	Yes	Advocacy for investments related to methane-burning vehicles.	9	Appropriate for ratepayers to fund. SoCalGas sits on the Clean Transportation Program Advisory Committee.	Matt Gregori sits on the CTP Advisory Committee and is therefore asked to provide comments on the Investment Plan.	48
53	2021-10-15 SCG Comments on CEC CPUC En Banc Meeting on the EPIC 4 Investment Plan_8920	CEC	8	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	8	Appropriate for ratepayers to fund. SoCalGas' comments focus on the interdependency of the electricity and gas systems.	Comments focused on the existing gas grid for electric reliability and resiliency.	49
54	2021-10-19 SCG Comments on CEC IEPR Commissioner Workshop on Grid-Interactive Efficient Buildings_892(	CEC	5	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	5	Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	50
55	2021-11-12 SCG Comments on CEC SB 100 Non-Energy Benefits Social Costs Reliability_8920	CEC	7				Appropriate for ratepayers to fund. SoCalGas' comments focus on resiliency as a critical non-energy benefit that could be monetized.		51
56	2021-11-19 SCG Comments on CEC Staff Workshop Regarding Research on Valuation of Investments in Electricity Sector Resilience_892(	CEC	5	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	5	Appropriate for ratepayers to fund. SoCalGas responded directly to questions posed by CEC to stakeholders.	SoCalGas responded directly to questions that CEC posed to stakeholders	52
57	2021-11-30 SCG Comments on CEC Decommissioning Workshop_8920	CEC	4				Appropriate for ratepayers to fund. SoCalGas is a CEC grant recipient.	SoCalGas participates as a grant recipient.	53
58	2021-12-07 SCG Comments on CEC Staff Workshop on St_8920	CEC	10				SoCalGas' comments focus on hydrogen transportation and storage, the potential to use depleted gas fields as storage, how hydroelectric changes can impact long duration storage.	Funding opportunities and helping shape the solicitations.	54
59	2021-12-17 SCG Comments on CEC IEPR Supply Side Demand Response Workshop_8920	CEC	7	Yes	Advocacy unrelated to SoCalGas' existing or proposed operations.	7	Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	55
60	2021-12-21 SCG Comments on CEC 2021 Draft IEPR_8920	CEC	58	Partly	While these comments touch briefly on issues related to SoCalGas' operations (such as gas system decommissioning and gas demand forecasting methodology), the bulk of the comments focus on advocacy for methane-burning trucks and topics that are unconnected to SoCalGas providing safe and reliable methane utility service.	50	Appropriate for ratepayers to fund. CEC is a regulator through the IEPR process.	IEPR and therefore allowable	56
61	2021-12-07 SCG Comments on SCAQMD Draft 2022 AQMP Measures_8920	South Coast Air Quality Management District ("SQAMD")	11	Yes	Advocacy against proposed measures for reducing NOx emissions from residential and commercial buildings, under which SoCalGas would not be the regulated entity.	11	SoCalGas booked the activity associated with this comment letter below the line through the Reach Code I/O for Government Official Communications.	Booked BTL	57
62	This row is as reported in Attachment 6, however, SoCalGas totals are different as shown in row below. CEJA may have missed row 5.	**Total pages:**	**453**	**60%**	**Total inappropriate for recovery:**	**274**			
63									
64		Total with correct formula	455		Total with correct formula	276			

APPENDIX J

2021-05-18 SoCalGas Comments

N. Jonathan Peress
Senior Director
Business Strategy & Policy
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May 18, 2021

The Honorable J. Andrew McAllister
The Honorable Siva Gunda
California Energy Commission
Docket Unit, MS-4
Docket No. 21-IEPR-04
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Comments on Summer 2021 Electric Reliability

Dear Commissioners McAllister and Gunda:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide public comments on the Integrated Energy Policy Report (IEPR) Summer 2021 Reliability Workshop. According to the California Energy Commission's (CEC's) electricity planning model showing average conditions in August, the electric grid will have more than enough electricity available to meet demand – about 15,000 MW of surplus in the afternoon and about 4,000 MW in the evening.[1] If this past summer is any indication, longer-term shifts and variability in weather patterns will, however, present ongoing and future risks to the electric grid and infrastructure. In fact, CEC Staff stated that if an extreme heat wave hits California in August, the electric grid could be about 1,200 MW short in the evening,[2] which would compel reliance on "contingency measures" to make up the difference. The situation could become dire should an extreme weather event hit the State in September, causing the electric grid to be ~ 2,340 MW short between 6PM and 7PM.[3]

In addition to the serious safety and public welfare implications that arise from disruption of service, the intensity, frequency, and duration of weather events, could cost utilities and customers

[1] *See* Session 1 – IEPR Joint Agency Workshop on Summer 2021 Reliability – Reliability Outlook, 4 May 2021. Available at *https://energy.zoom.us/rec/share/x6svmlU9gyXIKaljURlgtJa-ukxSKZbqQ3FybMBluovsTJ_tneWXPLsxbQ3s8kCX.EWQ67oUTeYMRWBjg*.
[2] Ibid.
[3] Ibid.

billions, including costly damage to critical infrastructure.[4] We roughly estimate the cost of an 8-hour outage for Los Angeles County to be in the range of $2.5 billion.[5] That said, what California experienced last summer should not be viewed as an anomaly but rather as a critical inflection point in the way the State must plan and operate the power grids to ensure the resiliency and reliability of the interdependent energy systems, as we pursue a decarbonized end state. Resiliency and reliability are increasingly important and valuable energy system attributes. It is vital to the public interest to ensure the reliability of the electric grid for Summer 2021, especially during peak hours when renewable generation is not readily available, and for addressing future reliability under more extreme weather conditions and with higher penetrations of intermittent renewable energy on the electric power grid.

Thus, our comments focus on (1) recent climate events, which should be viewed as a stress test of policies underpinning the current "preferred" electric resource mix; (2) advancing critical clean fuel and carbon management technologies to preserve reliability under projections of increasingly intermittent resource portfolios; (3) key takeaways and lessons learned that should drive innovation towards long-term solutions; (4) new and innovative long-term storage solutions; and (5) cleaner alternatives for backup power.

Recent climate events should be viewed as a stress test of policies underpinning the current "preferred" electric resource mix.

California has made incredible progress towards ambitious climate goals, specifically in the adoption and deployment of renewable energy technologies. With this progress, comes new challenges. To ensure grid reliability under changing conditions, the California Independent System Operator (CAISO) has expressed the need for ramping flexibility with the ability to start and stop multiple times a day. The CAISO has noted that to reliably manage a green grid, it needs flexible resources with the right operational characteristics at the right location.[6] In effect, for each increment of solar and wind capacity added to the grid, reliability requires a commensurate increment of flexibility and responsiveness capability. In this respect, CAISO cautioned for a measured approach to ensure these capabilities remain available, and that new technologies to provide them, such as battery storage, be appropriately demonstrated at scale before transitioning away from current technology. In a recent regulatory filing, CAISO stated:

> *The CAISO successfully integrated over 12,000 MW of large-scale solar and manages the system with over 8,000 MW of behind-the-meter solar that impacts the grid. During*

[4] The U.S. Government Accountability Office's (GAO's) 2021 Report found that more frequent droughts and changing rainfall patterns may adversely affect hydroelectricity while increasing wildfire activity due to warmer temperatures and drier conditions may reduce transmission capacity or damage distribution lines. *See* Statement of Frank Rusco, Director of U.S. Natural Resources and Environment, Before the Committee on Environment and Public Works, U.S. Senate on the U.S. Government Accountability Office's Report Electricity Grid Resilience: Climate Change Is Expected to Have Far-reaching Effects and DOE and FERC Should Take Actions, 10 March 2021. Available at *https://www.gao.gov/assets/gao-21-423t.pdf*.

[5] Based on the Los Angeles economy of approximately $730 billion in 2020.

[6] *See* California Independent System Operator, Fast Facts: What the duck curve tells us about managing a green grid, 2016, at 2. Available at *https://www.caiso.com/documents/flexibleresourceshelprenewables_fastfacts.pdf*.

this evolution, the CAISO has learned many operational lessons, made major market changes, and worked closely with market participants to change and influence resource behavior and participation. Even with these changes, the CAISO still relies heavily on current hydro, gas-fired, and import resources to manage daily ramping and flexibility needs. Hydro, gas, and import resources also provide the bulk of the essential grid services necessary to maintain grid reliability. This is even more pronounced under stressed conditions. As the grid transitions to new resources, such as short-duration battery storage or "hybridized" storage and intermittent renewable resources, the CAISO will need a period of testing to ensure they (1) can provide the necessary capabilities to maintain reliability and (2) have the appropriate incentives to make those capabilities available at scale.[7]

In the meantime, strategically maintain the natural gas-fired fleet and delivery infrastructure – During the transition to a cleaner grid, the state may need to retain portions of the current gas-fired fleet to provide both energy and reliability services. Specifically, reliability services include, but are not limited to regulation; frequency response; spinning and non-spinning reserves; inertia; fault current; and grid forming capability. Although other resources, including renewable resources, can provide a sub-set of these services, they cannot yet provide these services on a large scale. In addition, renewable resources often have policy and commercial incentives that run counter to providing grid services. The Joint Agencies should also consider how to appropriately maintain necessary gas delivery infrastructure, which may be used less overall but will be more heavily relied upon during shorter periods, such as during steep ramping events.[8]

The reliability services and capabilities provided by the gas grid are increasingly being called upon to complement renewable resource deployment. In 2020, most peak hour gas deliveries from SoCalGas' system were to serve dispatchable electric generators (DEGs) and electric system ramping needs; far greater than peak hours to serve Core customer thermal load. Of the 77 hours in 2020 when deliveries to either Core customers or DEGs exceeded 100,000 Dths/hr (equivalent to ~ 2.4 bcf/d of capacity), 62 hours were to serve DEGs and 15 hours for Core customers. In effect, prolific deployment of renewables on the electric grid is dramatically changing the way that the gas grid is used. This trendline is and will be amplified as more renewables are added; even more so as Core customer load is increasingly electrified in the future.[9]

[7] *See* California Independent System Operator Reply Comments on Senate Bill 100 Modeling Inputs and Assumptions Workshop held on February 24, 2020 by the CEC, CPUC, and CARB, 16 August 2019, at 6-7. Available at *http://www.caiso.com/Documents/Mar9-2020-Comments-ModelingInputs-AssumptionsWorkshop-SB-100-Path-CleanEnergyFuture-19-SB-100.pdf*.

[8] Ibid., at 8.

[9] While beyond the scope of this proceeding, it should be noted that much of the valuable complementary reliability (decarbonization-enabling) service provided by the gas grid to the electric grid is unpriced and largely uncompensated. An effect that must change for a reliable and resilient decarbonizing integrated energy system.

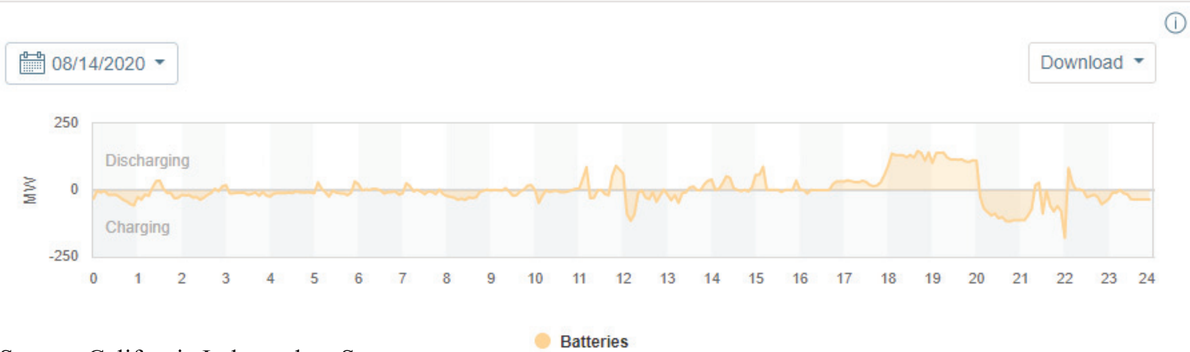
Advancement of critical clean fuel and carbon management technologies is needed to preserve reliability under projections of increasingly intermittent resource portfolios.
In examining resource portfolios, the 2021 Senate Bill (SB) 100 Joint Agency Report retains much of the existing gas-fired generation (GFG) fleet through 2045 to meet the system's resource adequacy requirements and provide long-term energy and responsiveness needed to reliably operate the system.[10] The SB 100 modeling scenarios project almost a tripling of the electric capacity.[11] As we look to solve the immediate problems of this summer, we must not lose sight of the immense challenges around the corner. To decarbonize California, electrification will be one of the primary means in reaching the State's climate goals. Further, to reliably support the magnitude of electrification, electric demand, and an increasingly intermittent energy supply envisioned in 2030 and beyond, the resiliency and reliability of the gas system, particularly the fuels network will be increasingly relied upon. The CAISO, California Public Utilities Commission (CPUC), and CEC (Joint Agencies) need to give serious consideration to viable long-term, clean molecule solutions that can deliver the operational characteristics provided today by the gas grid but with a cleaner profile.

In fact, the National Renewable Energy Laboratory (NREL) and Los Angeles Department of Water and Power (LADWP) highlight the use of clean fuels like hydrogen and biofuels which provide a unique reliability and resiliency feature in the Los Angeles 100 percent Renewable Energy Study (LA100).[12] These clean fuels specifically maintain the critical operational characteristics that gas generation provides today (*i.e.,* ramping, long duration storage, and other grid reliability services); and preserve access to those services in-basin and locally, mitigating the risk of relying on transmission lines which could be affected by fire and de-energization protocols that would hinder the ability to transmit wind and solar power into the Los Angeles, for instance.[13] Within the broad rubric of system reliability, local reliability and related constraints drive greater emphasis on the need to have firm dispatchable generation in-basin that is not reliant or dependent upon transmission which could be constrained, thus compromising reliability. The need for local reliability and resiliency remains a critical open question, particularly in scenarios where no combustion or clean fuels alternatives are envisioned. Siting of renewables and storage, without commensurate amounts of firm dispatchable in-basin generation, presents serious challenges to maintaining reliability and resiliency in an increasingly decarbonized end state.

[10] *See* The 2021 SB 100 Joint Agency Report, Achieving 100 percent Clean Electricity in California: An Initial Assessment, March 2021. Available at *https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237167&DocumentContentId=70349*.
[11] *See* The 2021 SB 100 Joint Agency Report, Achieving 100 percent Clean Electricity in California: An Initial Assessment, March 2021. Available at *https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237167&DocumentContentId=70349*.
[12] *See* National Renewable Energy Laboratory and Los Angeles Department of Water & Power, *Final Report for the Los Angeles 100% Renewable Energy Study*, March 2021. Available at *https://maps.nrel.gov/la100/report*.
[13] *See* National Renewable Energy Laboratory and Los Angeles Department of Water & Power, *Key Findings from LA100,* March 2021. Available at *https://www.nrel.gov/docs/fy21osti/79445.pdf*.

Key takeaways and lessons learned should drive innovation towards long-term solutions. The power outages in August and September 2020 illuminate operational vulnerabilities presented by the transition towards an increasingly solar and wind-based energy system. A 2021 report by the Joint Agencies found that "[i]n transitioning to a reliable, clean, and affordable resource mix, resource planning targets have not kept pace to ensure sufficient resources that can be relied upon to meet demand in the early evening hours. This made balancing demand and supply more challenging during the extreme heat wave."[14] While batteries are undoubtedly a critical tool in the suite of decarbonized technologies, operational characteristics, especially considering resource owner commercial interests, must be recognized. For example, on August 14, 2020, five-minute data on utility-scale battery storage technologies shows that during critical evening hours energy storage was consuming electricity rather than providing it. As seen in Figure 1,[15] from 8PM to 9PM (*e.g.,* hours 20 and 21), the aggregated battery storage resources consumed electricity (*i.e.,* charging) rather than providing it (*i.e.,* discharging).

Figure 1: Utility Scale Battery Storage, August 14, 2020



Source: California Independent System

Wholesale market participants, including battery storage operators, generate profit by arbitraging temporal price differences. Energy price data from August 14, 2020 suggest that battery resource owners acted rationally, by garnering peak energy rents available within their respective discharge durations. In fact, this rational commercial interest may have been a contributing factor to reliability challenges. Prices dropped by more than 60 percent between hours 20 and 21.[16,17] As discussed above, CAISO has expressed the need for "appropriate incentives" for short duration battery storage, and noted during the workshop the need to "hold resource adequacy storage resources to their day-ahead market schedules only on tightest supply days, to meet reliability

[14] CAISO, CPUC, and CEC, *Final Report the Root Cause Analysis: Mid-August 2020 Extreme Heat Wave*, 13 January 2021, at 4. Available at *http://www.caiso.com/Documents/Final-Root-Cause-Analysis-Mid-August-2020-Extreme-Heat-Wave.pdf*.
[15] *See* CAISO Today's Outlook: Batteries trend for August 14, 2020. Available at *http://www.caiso.com/TodaysOutlook/Pages/supply.html*.
[16] Omer Karaduman, *Economics of Grid-Scale Energy Storage*, working paper, 1 January 2020. Available at *https://economics.mit.edu/files/18357*.
[17] Calculations are based on Locational Marginal Prices for August 14, 2020 from CAISO OASIS Database.

needs across critical evening peak hours."[18] Staff indicated the expectation of ~10 times more battery storage in the Summer of 2021 than the previous year. Market structures and targeted policies to optimize the system are essential to ensure resources, including wholesale battery storage providers, respond to appropriate market signals that align with system needs.

Beyond market reform, batteries are limited in providing multi-day and/or long-term storage, particularly during long periods of diminished renewable production. We respectfully suggest that as SB 100 goals are pursued, the Joint Agencies should address grid reliability challenges not in isolation per proceeding (*i.e.,* the Integrated Resource Plan, the Joint Agency SB 100, and the Root Cause Analysis Reports), but in a holistic fashion considering Summer 2021, and beyond towards 2045. For example, through the Integrated Resource Planning (IRP) proceeding, the CPUC's proposed Reference System Plan identifies a need of ~12 GW of solar and ~ 9 GW of battery storage by 2030.[19] This translates to roughly an 11 percent compound annual growth rate (CAGR) for solar deployment and 20 percent CAGR for battery storage deployment. Procurement, siting and operationalizing a resource mix of this level of market entry is unprecedented and highlights the foregoing reliability and resiliency needs, particularly as longstanding capacity resources such as Diablo Canyon are slated for retirement. Likewise, extensions of once-through cooling (OTC) units provide temporary relief but not the unavoidable long-term system needs around dispatchable energy.

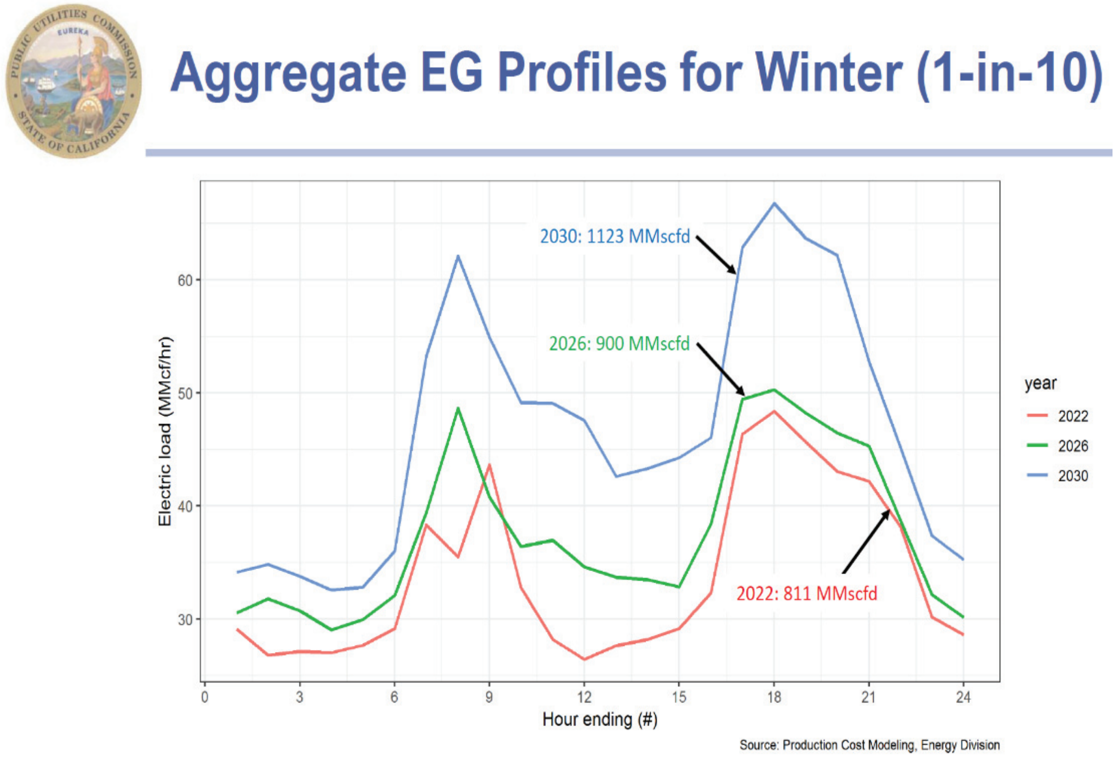
Long-term storage solutions are essential

Various ongoing proceedings among the Joint Agencies express the need for long-duration storage (*e.g.,* seasonal) to provide clean energy during peak and net hours of the day after the sun sets and during multi-day weather events. Numerous credible experts have, in effect, validated the projections of CPUC Staff in the Senate Bill (SB) 380 proceeding (Figure 2 below) that we should expect peak day gas takes by electric generators to increase as the system is decarbonized, while overall throughput is decreased.[20]

[18] *See* The 2021 SB 100 Joint Agency Report.
[19] *See* the CPUC Integrated Resource Plan Reference System Plan.
[20] See, *e.g.*, the statement of Dr. Arne Olson of E3 at the CPUC July 21, 2020 Workshop (Rulemaking 20-01-007):

> "The real question will be the average daily throughput being reduced, and the average gas generation being reduced by 2030. It doesn't necessarily mean that the peak use of natural gas for electric generation is going to decrease. And I would expect to see that as heating loads in California are electrified, that we might actually see increased gas use during wintertime peak. And since the infrastructure really needs to be sized based on peak use not based on average use, I think it does raise some important questions about how to make sure that infrastructure is funded and is in place when we really need it, even as we expect the average use of it to decline over time due to carbon policies."

Figure 2: Projected Electric Generation Load on SoCalGas System
(Considering 2030 IRP Reference Portfolio)



In fact, long-term (*i.e.,* seasonal) storage is not a new phenomenon in California's energy system. The backbone of the energy system has been hydroelectric systems and gas storage because of their ability to store energy for months at a time for use in the distant future. This unique capability of hydroelectricity and gas storage allows for costs hedging to keep costs affordable for end-users.

Hydroelectric generation is the longest running supply side resource in California. In the 1940s it made up about 60 percent of the electricity supply. Pondage hydro is recognized as long-term storage (*e.g.,* hourly or daily). However, climate change could have drastic impacts on the seasonal storage capacity of snowpack, which is invaluable to the hydroelectric system. The late Spring and Summer snowpack melt off generates carbon-free electricity and provides power as temperatures and demand rise. As average temperatures increase, it is projected that there will be considerably less snowpack because more precipitation will fall as rain rather than snow. This is important because if there is excess water that dams cannot hold, they will release the water early in the season. Therefore, the electricity is generated early (*i.e.,* winter months) rather than being continuously stored for summer months when demand is high. Climate change will reduce the amount of natural long-term storage that Californians have historically relied upon.

The gas grid's long-term storage infrastructure plays an essential role in preserving this energy system reliability and resilience. Without long-term storage, a catastrophic climatic event could potentially have a significant effect on the safety and wellbeing of Southern Californians. For instance, an event similar in gravity to that of the 2014 Polar Vortex in the Northeast United States[21] or the 2021 Texas Storm Uri[22] could foreseeably cause a curtailment in the availability of gas supply statewide. Such curtailments could put both electric and gas customers at risk,[23] which could in turn lead to significant injuries and/or loss of life (as experienced in Texas during the 2021 Storm Uri). Such potentially devastating impacts to Californians are mitigated by the characteristics of the existing gas system, which is comprised of both pipelines and storage facilities.

The recent experience in Texas demonstrates that customers could face a serious safety risk should similar conditions occur in California. Long-term storage facilities currently mitigate these risks while also supporting other mitigation technologies such as microgrids and fuel cells. For example, during Storm Uri, we utilized our Aliso Canyon, Honor Rancho, La Goleta, and Playa Del Rey storage fields to supply sufficient gas to customers, including to the electrical grid, without relying on out-of-state supply. This ability to operate long-term storage facilities "on-demand" enabled us to proactively respond to climatic events. Today, one of the most critical function of the gas grid infrastructure (*i.e.,* pipeline and storage) is its resilience and continued operation during climate induced energy supply disruptions.

The CAISO has expressed the need for between 1,000 MW to 4,000 MW of long-term storage for years 2026 and 2030 to maintain reliability.[24] At the same time, the CAISO estimates that the retirement of Diablo Canyon Power Plant and four gas plants along the California coast will cause a nearly 3,500 MW deficiency[25] in supply. The electricity system has always depended on long-term storage (*i.e.,* pondage hydro and snowpack), but those dependable carbon-free resources are diminishing because of climate change further tightening constraints on the system. Future energy system resiliency and reliability will depend on new and innovative long-duration carbon-free storage technologies, such as power-to-gas-to-power resources and/or carbon management strategies.

While the State works to optimize energy storage to be compatible with resource adequacy needs, an increasingly decarbonized gas grid will continue to support the electric grid during rapid

[21] *See* North American Electric Reliability Corporation, *Polar Vortex Review,* September 2014. Available at *https://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf*.

[22] *See* ERCOT Letter to the Members of the Texas Senate and the Texas House of Representatives, March 4, 2021. Available at *http://www.ercot.com/content/wcm/lists/226521/ERCOT_Letter_Re_Feb_2021_Generator_Outages.pdf*.

[23] *See* Wood Mackenzie Public Report, *Western Interconnection Gas-Electric Interface Study,* June 20118, at 15. Available at *https://www.wecc.org/Reliability/Western%20Interconnection%20Gas-Electric%20Interface%20Study%20Public%20Report.pdf*.

[24] *See* California State Legislators Letter to the California State Legislature on the Need for Urgent Action on Long Duration Energy Storage Procurement, 2 February 2021. Available at *https://static1.squarespace.com/static/5e3b69edfd4af10b189254b0/t/602c2b114fcd5f707072b101/1613507345595/Letter+to+CPUC%2C+Long+Duration+Energy+Storage+Letter%2C+2-5-21.pdf*.

[25] *See* California Independent System Operator Comments on the Order Instituting Rulemaking 20-05-003 to Continue Electric Integrated Resource Planning and Related Procurement Processes, 2020 October 23. Available at *http://www.caiso.com/Documents/Oct23-2020_Comments-on-Integrated-Resource-Planning-R20-05-003.pdf*.

fluctuations of an increasingly volatile energy system. For example, all of SoCalGas' storage assets were employed to fill the gap between abnormally high electric demand, driven by increased cooling loads, and low renewable energy generation, due to smoke from the wildfires.[26] The gas grid helped avert a crisis within a crisis this past Summer by providing an essential solution to intermittency, storability and dispatchability challenges. Diversity of fuel source becomes an important hedging strategy during moments of high strain on the electric power grid, delivering critical resiliency to the interdependent energy systems.

Cleaner alternatives are needed for Backup Power

Throughout California, Public Safety Power Shutoff (PSPS) events are increasing reliance on diesel backup generators (BUGs) for power. The table below provides a comparison of 2019 and 2020 PSPS events and the average duration a circuit was de-energized for all investor-owned utilities.[27] Though the average duration of PSPS events declined in 2020, the number of times a circuit de-energized has increased.[28] As such, BUG purchases are increasing. In fact, a 2020 survey found that 15 percent of people who experienced outages during a PSPS event purchased a BUG for power.[29] This is problematic as BUGs emit the toxic air contaminant (TAC) diesel particulate matter (DPM) or diesel "soot." In California, diesel soot emissions account for about 70 percent of known cancer risk from TAC emissions.[30]

Nearly one million people were affected by a PSPS event in October 2019 and utilized 125,000 diesel backup generators for electrical power.[31] The California Air Resources Board (CARB) estimated that diesel backup generators used during this time emitted 9 tons of diesel soot, which is the equivalent of about 29,000 heavy-duty diesel trucks driving on California roadways for one month.

	Year 2019	Year 2020
Total # of times a circuit was de-energized from a PSPS event	2,290	3,847
Total # of hours circuits were de-energized from a PSPS events	105, 154	156,350
Average duration a circuit was de-energized from a PSPS event	46	41

To abate the usage of BUGs, gas fuel cells and generators can help mitigate current air pollution and public health impacts. Additionally, the South Coast Air Quality Management District (SCAQMD) found that "technologies such as natural gas/renewable natural gas/hydrogen fuel

[26] U.S. Energy Information Administration, *Today in Energy: Smoke from California wildfires decreases solar generation in CAISO,* 30 September 2020. Available at https://www.eia.gov/todayinenergy/detail.php?id=45336.
[27] These utilities are SCE, SDG&E, PG&E, and PacifiCorp.
[28] California Public Utilities Commission, *PSPS Rollup: October 2013 through December 31, 2020*. Available at https://www.cpuc.ca.gov/psps/.
[29] Energy Institute at HAAS. *Electricity Outages Lead to Substantial Backup Generator Purchases*, 26 May 2020. Available at https://energyathaas.wordpress.com/2020/05/26/electricity-outages-lead-to-substantial-backup-generator-purchases/.
[30] Ibid.
[31] California Air Resources Board, *Emission Impact: Additional Generator Usage Associated with Power Outage*, 30 January 2020. Available at https://ww2.arb.ca.gov/sites/default/files/2020-01/Emissions_Inventory_Generator_Demand%20Usage_During_Power_Outage_01_30_20.pdf

cells and natural gas-powered back-up generators can provide substantially cleaner forms of backup power, emitting far less NOx and diesel particulate matter than diesel-fueled options."[32] These technologies support the State's long-term decarbonization goals by using low or zero carbon fuels at scale in the future. As such, SoCalGas is advancing hydrogen innovations to help mitigate diesel generator use and to provide energy reliability and resiliency during PSPS and other emergency events.

In closing, it is incumbent upon policymakers, market participants, and stakeholders to collaborate on and prioritize the reliability and resiliency of the interdependent energy systems, as we collectively pursue California's imperative energy system decarbonization and public welfare goals. SoCalGas looks forward to contributing and advancing those efforts, working with the CEC and its sister agencies as a key partner in leveraging the fuel system to enable a future decarbonized energy system.

Respectfully,

/s/ N. Jonathan Peress

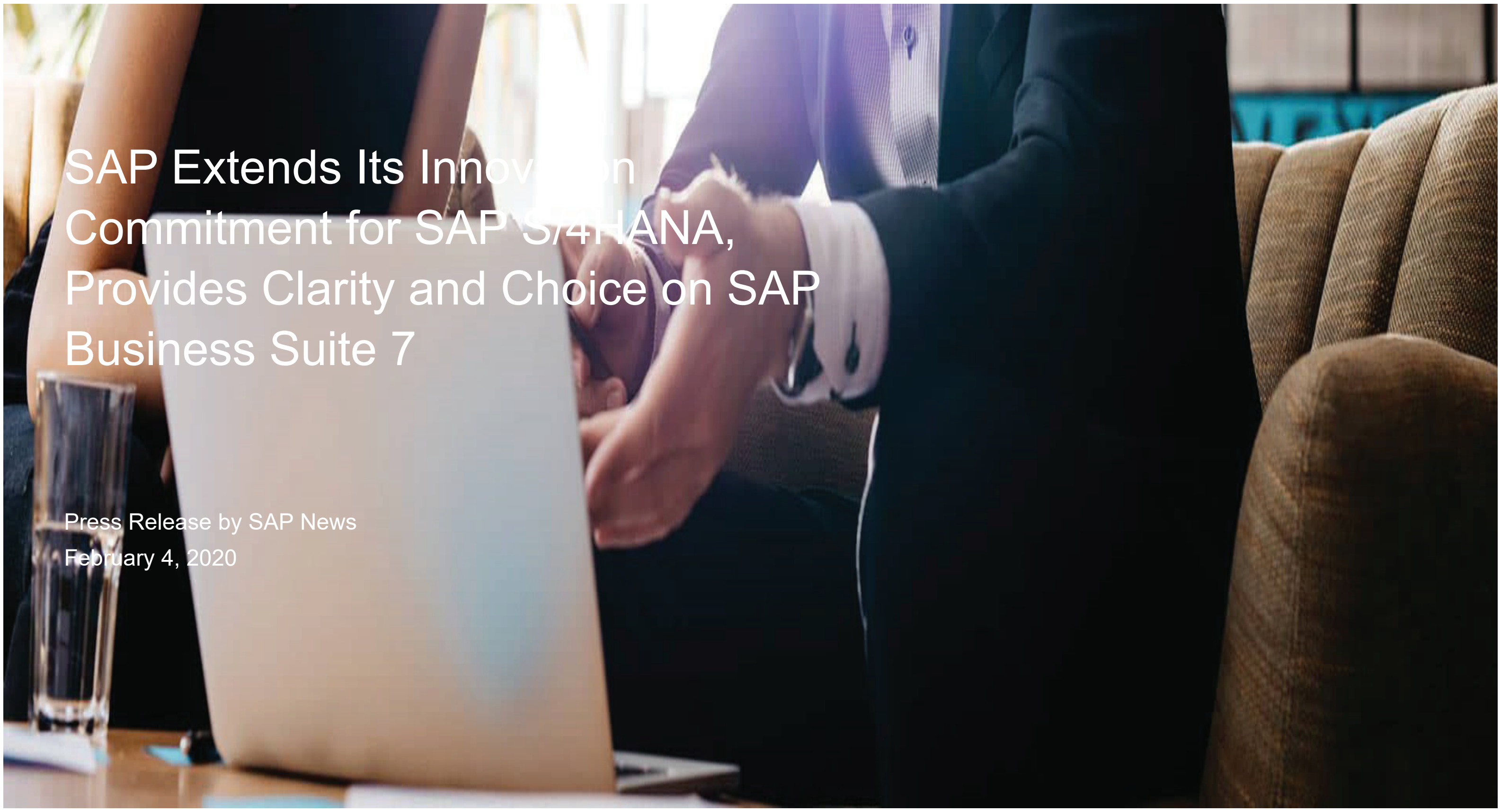
N. Jonathan Peress
Senior Director
Business Strategy & Energy Policy

cc: The Honorable David Hochschild, CEC Chair
The Honorable Karen Douglas, CEC Commissioner
The Honorable Patty Monahan, CEC Commissioner
The Honorable Marybel Batjer, CPUC President
The Honorable Clifford Rechtschaffen, CPUC Commissioner
The Honorable Elliot Mainzer, CAISO President and CEO
The Honorable Matthew Baker, CNRA Deputy Secretary, Energy
The Honorable Ted Craddock, DWR Deputy Director, State Water Project

[32] *See* California Public Utilities Commission. Public comment for D.15-10-049.

APPENDIX K

SAP Press Release



SAP Extends Its Innovation Commitment for SAP S/4HANA, Provides Clarity and Choice on SAP Business Suite 7

Press Release by SAP News
February 4, 2020

WALLDORF — SAP SE (NYSE: SAP) today announced a maintenance commitment for SAP S/4HANA until the end of 2040. At the same time, SAP will provide mainstream maintenance for core applications of SAP Business Suite 7 software* until the end of 2027 followed by optional extended maintenance until the end of 2030.

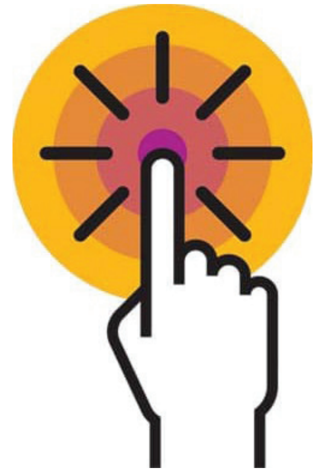
Interview: SAP Leaders Share the Inside Story

“Our customers show us that SAP S/4HANA is their future direction and that they expect a long-term commitment from SAP to this platform,” said Christian Klein, Co-CEO and Member of the Executive Board, SAP SE. “We know that our customers have deep business transformations underway using the unique capabilities of the solution. Our user groups confirm this. A recent survey from the Americas’ SAP Users’ Group did not show a single customer not planning to migrate to SAP S/4HANA. In addition, the German-Speaking User Group indicates in their lately published survey that customer investments in SAP S/4HANA are increasing significantly. In response to this and to our customers' demand for choice, SAP will provide additional flexibility to fully embrace the groundbreaking opportunities of SAP S/4HANA that reflects the individual pace and complexity of our customers' projects."

Thomas Saueressig, Member of the Executive Board, SAP Product Engineering, SAP SE, added: "SAP S/4HANA is the architecture and platform of the future for our customers. SAP is committed to our customers' success and choice. Offering these maintenance periods is further delivering on transparency and trust. The significant growth in 2019 confirms our SAP S/4HANA strategy and demand."

Strong Momentum and Flexibility

SAP S/4HANA is the next-generation intelligent suite, enabling the move to a digital intelligent enterprise based on next-generation best practices and artificial intelligence–enabled automation. At the same time, it is paving the way to the cloud and hybrid architectures, driving a substantial level of landscape simplification and TCO reduction. Over 13,800 customers have already chosen SAP S/4HANA, and thousands are actively deploying the solution to reshape their businesses and become intelligent enterprises. Recent surveys from both the Americas' SAP Users' Group (ASUG) and the German-Speaking User Group (DSAG) show a significant growth in investments from customers in SAP S/4HANA. DSAG reports that over 49 percent of customers plan to migrate to SAP S/4HANA within the next three years while the ASUG report shows that the number of customers who have no plans of moving to SAP S/4HANA has dropped to zero.



Get a free trial of SAP S/4HANA today

Sign up to get the latest SAP news delivered to your inbox weekly

SAP supports this move with a full program of offers, services and tools along with a vast ecosystem of IT service providers who represent over four decades of continuous success, innovation and growth in introducing SAP solutions.

As a result of collaboration with customers, user groups and partners, as well as with other industry stakeholders, SAP offers a commitment to SAP S/4HANA until 2040 combined with longer support for SAP Business Suite 7. This will help customers unlock the potential for innovation so they can revolutionize business processes with optimal flexibility while protecting their existing investments.

"Customers making the commitment to SAP S/4HANA for their digital transformations need a partner that is equally committed to supporting innovation across their businesses and processes. Providing maintenance for SAP S/4HANA until 2040 represents a commitment to SAP customers that should give them the confidence to plan for the future," said Joshua Greenbaum, principal, Enterprise Applications Consulting. "These customers also need the flexibility to plan their transformations carefully and with a minimum of disruption to their ongoing business processes. The additional maintenance timeframe for SAP Business Suite 7 is an important recognition from SAP that the pace of change will vary from customer to customer and that supporting existing SAP Business Suite software processes in sync with customers' business transformation is important for customer success."

Choice and Investment Protection

SAP gives final clarity on maintenance for SAP Business Suite 7. It will provide two more years of mainstream maintenance for core applications of SAP Business Suite 7. During this offboarding phase, SAP will continue to deliver the strong mainstream maintenance features that customers need. There will be no contractual change nor will any additional fees apply. Following this phase, SAP will offer customers a choice of how they would like to continue with the maintenance for core applications of SAP Business Suite 7 from 2028 onwards:

Customers needing support for their applications in longer conversion phases to SAP S/4HANA can leverage the proven extended maintenance offering. This comes with a premium of two percentage points on the existing maintenance basis for core applications of SAP Business Suite 7 for all support offerings. It will be available for three additional years beginning at the start of 2028 and ending at the close of 2030.

- Customers who do not decide for the extended maintenance level of support by the end of 2027 but choose to carry on with their SAP Business Suite 7 software systems will automatically be transferred to the customer-specific maintenance model. This includes problem solving for known issues at unchanged fees.

"At ASUG, we have maintained all along that if you're an SAP customer who wants to grow and accelerate your business, remove inefficiencies, reduce technical debt and take advantage of the latest capabilities of SAP software, then you need to move to SAP S/4HANA. With today's news, we still believe SAP customers should move forward as far in advance of any deadline as possible," said Geoff Scott, CEO, Americas' SAP Users' Group (ASUG). "The decision about a company's 'ERP of the future' should not just center on a technical upgrade to SAP S/4HANA. It should be about how best to prepare a company's business for the future. This announcement is not a signal to slow down. This is now the time to commence plans and move forward so that SAP customers can harness business value from what is the most significant technology change in SAP's recent history."

Michael Kleinemeier, Member of the Executive Board, SAP Digital Business Services, SAP, said: "We are determined to make our customers successful. The extended commitment to SAP Business Suite 7 and the long-lasting support for SAP S/4HANA is at the core of this, providing our customers choice and flexibility in planning for the right path to the future. We thank our customers and especially our user groups for the strong collaboration to make this happen."

To learn more, visit SAP Support Portal. Visit the SAP News Center. Follow SAP on Twitter at @SAPNews.

**Core applications of SAP Business Suite 7 software include SAP ERP 6.0, SAP Customer Relationship Management 7.0, SAP Supply Chain Management 7.0, and SAP Supplier Relationship Management 7.0 applications and SAP Business Suite powered by SAP HANA.*

About SAP

As the Experience Company powered by the Intelligent Enterprise, SAP is the market leader in enterprise application software, helping companies of all sizes and in all industries run at their best: 77% of the world's transaction revenue touches an SAP system. Our machine learning, Internet of Things (IoT), and advanced analytics technologies help turn customers' businesses into intelligent enterprises. SAP helps give people and organizations deep business insight and fosters collaboration that helps them stay ahead of their competition. We simplify technology for companies so they can consume our software the way they want – without disruption. Our end-to-end suite of applications and services enables more than 440,000 business and public customers to operate profitably, adapt continuously, and make a difference. With a global network of customers, partners, employees, and thought leaders, SAP helps the world run better and improve people's lives. For more information, visit www.sap.com.

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Tags: ASUG, DSAG, SAP S/4HANA

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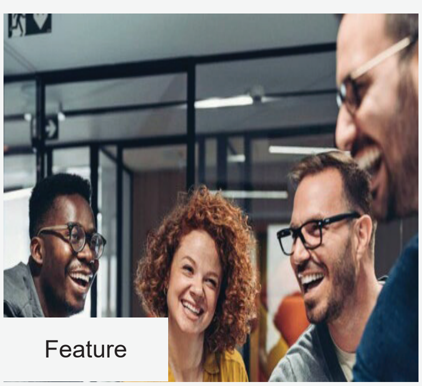
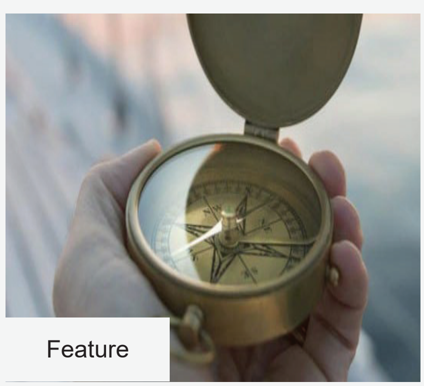


Feature

SAP Preferred Success:



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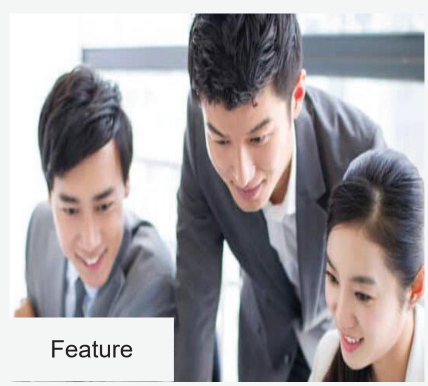
SAP for Me as the New,



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