BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

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Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.	R.14-10-003 (Filed October 2, 2014)

JOINT REPLY COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39-E), SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M), AND SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) ON THE ASSIGNED COMMISSIONER'S RULING INTRODUCING A DRAFT REGULATORY INCENTIVES PROPOSAL

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JOINT REPLY COMMENTS ON THE ACR INTRODUCING A DRAFT REGULATORY INCENTIVES PROPOSAL

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I.

INTRODUCTION

In compliance with the Rules of Practice and Procedure of the California Public Utilities Commission ("CPUC" or "Commission"), the April 4, 2016 Assigned Commissioner's Ruling Introducing a Draft Regulatory Incentives Proposal for Discussion and Comment ("ACR"), and the April 28, 2016 Email Ruling Extending Deadline to Submit Comments, Pacific Gas and Electric Company ("PG&E"), San Diego Gas & Electric Company ("SDG&E"), and Southern California Edison Company ("SCE") (hereinafter "Joint Utilities"[1]) submit this joint reply to comments that were due on May 9, 2016.[2] In Section II, we explain why earnings incentives should be considered

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1 Pursuant to Rule 1.8(d), counsel for PG&E and SDG&E have authorized SCE to file these comments on their behalf.

2 In addition to the Joint Utilities, the following parties filed opening comments responding the ACR: Southern California Gas Company ("SoCalGas"); the Office of Ratepayer Advocates ("ORA"); the Utility Reform Network ("TURN"); the California Energy Storage Alliance ("CESA"); the California Solar Energy Industries Association ("CALSEIA"); Consumer Federation of California ("CFC"); the Environmental Defense Fund ("EDF"); the Interstate Renewable Energy Council, Inc. ("IREC"); the Natural Resources Defense Council ("NRDC") and the Sierra Club (collectively "NRDC/Sierra Club"); the Clean Coalition; Comverge, Inc. ("Comverge"); the Advanced Energy Economy ("AEE"); the Coalition of California Utility Employees ("CUE"); Marin Clean Energy ("MCE"); NRG Energy, Inc. ("NRG"); Robert Bosch LLC ("Bosch"), SolarCity Corporation ("SolarCity") and the Solar Energy Industries Association ("SEIA")

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holistically within the larger context of industry change. In Section III, we address parties' misconceptions of the ACR's proposed value engine and provide an appendix with more details. In Section IV, we respond to other parties' concerns with the earnings pilot proposed in the ACR and encourage the Commission to instead approve the Joint Utilities' alternate pilot proposal.

II.

IT IS PREMATURE TO ESTABLISH AN EARNINGS INCENTIVE PILOT FOR THE DEPLOYMENT OF DISTRIBUTED ENERGY RESOURCES AT THIS TIME

In our opening comments, the Joint Utilities affirmed our support for the Commission's effort to align utility decision-making with the potential for distributed energy resources (DERs) to provide grid services. However, it is premature to pilot a regulatory incentive structure for DER deployment until initial findings come from DER technical and market demonstration pilots.[3]

The Joint Utilities' goal has been and continues to be providing safe, reliable, affordable, and clean energy to our customers under the supervision of the Commission and in compliance with our obligation to serve. As stated by CUE, "The Proposal does not analyze the effects of deregulating future critical distribution infrastructure" and "says nothing about the resulting risks to safety and reliability."[4] The Joint Utilities proposed pilot projects will provide will provide data to inform conversations on fundamental changes to the utility business model and alternative earnings mechanism.

The alternate pilots we proposed (in conjunction with other pilots in the Distribution Resources Plan (DRP) proceeding or under the Electric Program Investment Charge (EPIC) program) will allow for a more robust analysis by providing additional, incremental cost, safety and reliability performance data. NRDC/Sierra Club agree, recommending "that the Commission do additional analysis to get a

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(collectively the "Joint Parties"); Shell Energy North America (US), L.P. ("Shell Energy"); the Southern California Regional Energy Network ("SoCalREN"); and Vote Solar.

[3] Joint Utilities Opening Comments, pp. 2-3.

[4] CUE Opening Comments, p. 2.

better sense of the total value to utilities of the DER investments as compared to the alternative traditional investments."[5] This analysis should come before any incentive mechanism is tested.[6]

The utility's role in deploying DERs was noted by the ACR as a potential complicating factor in the proposed pilot.[7] The Joint Utilities disagree; the costs and benefits of utility-owned DERs should and must be considered as part of any program to replace traditional utility grid investments with third-party contracts.[8] The demonstration projects being pursued in the Distribution Resources Plan (DRP) proceeding, which include utility-owned DERs, will provide useful information that the Commission can take into account before deciding on the merits of utility-owned DERs. Competitive solicitations for DER pilot projects should include all cost-effective, safe and reliable options, including proposals for utility-owned DERs.

Rather than looking at discrete issues such as utility incentives, utility participation in DERs, or the role of a distribution system operator on a piecemeal basis,[9] the Joint Utilities recommend that the Commission initiate a comprehensive discussion at a later stage in the DRP proceeding focused on changes to the electricity industry, and the utility's role, utility business model options, and financial interests, including alternative earnings mechanisms. Parties acknowledge the potentially vast changes to utility operation contemplated both within and outside this proceeding. For example, Clean Coalition states "The incentive program described is only one piece of the much broader policy framework that is required to promote the widespread utilization of cost-effective DERs."[10] EDF "recommends a more expansive approach to this inquiry (the consideration of utility role and business model) before committing to a pilot."[11] In light of the potential foundational utility industry changes, the Joint Utilities question the usefulness of the ACR's proposed DER incentive pilot without concurrently considering

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5 NRDC/Sierra Club Opening Comments, p. 9.
6 Joint Utilities Opening Comments, pp. 4-6.
7 ACR Question 9, p. 15. *See e.g.* Joint Parties Opening Comments, p. 18 (stating that they "oppose allowing the regulated utilities to directly participate in the deployment of DERs").
8 Joint Utilities Opening Comments, pp. 19-20.
9 See Part IV (E) below.
10 Clean Coalition Opening Comments, p. 3.
11 EDF Opening Comments, p. 1.

these broader changes. It is imperative that these discussions be informed by real-world DER demonstrations and pilots.

III.

THE R MINUS K VALUE ENGINE CONCEPT IS FLAWED AND SHOULD NOT BE RELIED UPON

Most parties indicating their support for the ACR's financial premises do so based on the ACR's Appendices, which make claims regarding how utilities create shareholder value and that the allowed rate of return is substantially higher than the market returns shareholders need to buy utility stock (the "*r-k* value engine").[12] As described below and in the attached Appendix A, this is based on a misunderstanding of the *r-k* value engine, the difference between the earned rate of return and the authorized rate of return, and an erroneous assumption that utilities are not sufficiently motivated to procure DERs.

A. The Correct Understanding of *r-k*

Many parties have incorrectly described in their comments how the *r-k* premise and ratemaking work. Some parties have said that the *r-k* premise seems reasonable but offer no substantial analysis or justification.[13] Some intervenors claim that utilities are only motivated to build a large rate base.[14] Several parties argue that regulated utilities only earn based on the size of their rate base and thus have an incentive to build as large a rate base as possible.[15] These comments are incorrect and ignore how forecast ratemaking works. While a utility's revenue includes a component equal to the rate base

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[12] AEE, CESA, Clean Coalition, NRDC/Sierra Club, ORA, TURN, Vote Solar, NRG, and SoCalREN all stated support in response to the ACR's Question 1.

[13] *See e.g.,* Vote Solar Opening Comments, p. 9 ("From our understanding of utility shareholder value, the description appears accurate….")

[14] *See e.g.,* Comverge Opening Comments, p. 8 ("The main premise is the utilities value is based on a rate of return of costs included in rate base.").

[15] TURN Opening Comments, pp. 1-3, 5, & 7-8; NRDC/Sierra Club Opening Comments, p. 8; Clean Coalition Opening Comments, p. 5; Comverge Opening Comments, p. 8; and SoCalREN Opening Comments, pp. 5-6.

multiplied by the authorized rate of return, earnings depend on the utility's ability to effectively manage the business, which include managing expenses and capital investment costs.

In fact, revenues of the California regulated utilities are the byproduct of a regulatory process across many different proceedings. In earlier discussions of the *r-k* value engine, the mistaken understanding appears to be that *r* is the authorized cost of capital and *k* is the actual cost of capital, which would mean that utilities have no incentive to invest unless $r > k$.[16] The correct assumption is that *k* is the authorized rate of return, and *r* is the earned rate of return. In other words, the return that utility investors require is the cost of capital, *k*, and this is the return that is authorized in the cost of capital proceeding for setting the utility's revenue requirement. Once the authorized rate of return, *k*, is set in the cost of capital proceeding, it is up to the utility to achieve an earned rate of return, *r*, that is greater than or equal to *k*. If the utility is not successful in managing its costs, *r* will be less than *k*. If this happens on a persistent basis, the utility will be unable to attract sufficient capital to serve its customers adequately.[17]

Earned rate of return is a function of how the utility manages its expenses and capital-related costs. If it spends or invests imprudently, it will not earn the rate of return that investors require. The utility's incentive is to provide safe, reliable service to customers within the parameters established by the Commission, and at the lowest costs. Critics of utility ratemaking often make the common, but incorrect, assumption that a utility's return is guaranteed. Rate base investments increase revenues and potential earnings if they are authorized in rates, but actual earnings depend on cost management between rate cases. It is important to recognize that if the utility does achieve $r > k$, the cost savings that account for $r > k$ will be incorporated in the forecast cost of service in the utility's next General Rate Case ("GRC") and benefit ratepayers from that point forward. The utility rate base is set on a forecast basis. Utilities need to justify forecast capital investments and must be conscientious in their

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[16] See Appendix A for an explanation of why, from the utilities perspective, the authorized cost of capital is set to k, and the assertion in the ACR Appendices that k = 7.5% is incorrect.

[17] In an extreme case, the utility will be forced out of business or reorganized.

efforts because investments can become "stranded," in which case the utility does not recover the cost of financing them because they are no longer "used and useful" or "reasonable." The Joint Utilities explain this further in Appendix A attached hereto, and look forward to discussing this with parties in further detail at the June workshop.

B. The Commission Authorized a Fair and Reasonable Return on Equity in the Most Recent Cost of Capital Proceeding

TURN states, "The Commission has historically set utility [return on equity ('ROE')] in the cost of capital proceeding by 1) adopting a base range relying on utility modeling, which produces a higher range than intervenor modeling, and then 2) adopting an ROE at the high end of the utility modeled range."[18] TURN also states that "[i]n the last cost of capital proceeding, Application 12-04-015, the result was an authorized ROE (10.45% for SCE) that was 2.25% above the lowest weighted average modeled result of 8.20%, and 2.85% above the lowest modeled result of 7.60%."[19]

TURN's statement regarding the modeled range of utility cost of capital is irrelevant because the Commission evaluates cost of capital, including return on equity, using all the evidence provided in the case and then determines what is just and reasonable. In the most recent cost of capital proceeding, the Commission did adopt authorized ROEs within the range of all the model estimates presented; that is what the Commission determined to be equitable and reasonable under its authority to review and approve an appropriate cost of capital.[20] In making its determinations the Commission evaluated "evidence on market conditions, trends, creditworthiness, interest rate forecasts, quantitative financial models, additional risk factors, and interest coverage presented by the parties and… [applied its]… informed judgement to derive a reasonable authorized return on equity."[21] This is not the place to re-litigate issues that are properly addressed in cost of capital proceedings for the Joint Utilities.

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[18] TURN Opening Comments, p. 4.
[19] TURN Opening Comments, p. 14.
[20] D.12-12-034, pp. 37-44
[21] D.12-12-034, p. 39.

C. Utilities Are Already Motivated to Acquire Least Cost Resources

Supporters of the *r-k* premise argue that utilities will always choose the solution in which they earn a return on equity, even if there are cheaper alternatives. This argument implicitly assumes that there are no internal or regulatory processes that influence utility decision-making or motivate utilities to act in their customers' interest. That assumption is wrong, as utility decision-making is influenced by regulatory policies governing cost recovery and by customer or market interests in an affordable electric system.

1. Utility Investment and Regulatory Processes

Utilities have internal processes that generally require spending and investment decisions be justified through various stages of analysis and management review. Decisions must demonstrate need and cost-effectiveness relative to other alternative solutions, while also considering safety, reliability, and environmental factors. The internal utility decision-making process results in the identification of the spending and investment requests that are included in utility GRC applications and subsequently evaluated by the Commission. Shareholder returns *per se* are not evaluated in the decision to choose one alternative over another. Instead, the utility seeks to devise the lowest-cost solution that is consistent with providing safe, reliable, and affordable service to customers. Investment decisions that fail to consistently choose the best-fit/least cost solutions will, in the long run, risk impairing shareholder returns and utility financial health. In the context of future distribution deferral projects, the DPRG and Deferral Framework will provide additional transparency in to, and comfort with, utility investment decisions.

In each GRC, and other proceedings in which utility capital investments are reviewed, the Commission authorizes a certain level of capital spending, within which each utility must then prioritize capital investments based on the same criteria used in their internal processes – not based on some uncontrolled ambition to maximize rate base. The Commission's review of the utility's capital investment proposals in public proceedings provides transparency into the decision-making process, allowing parties to better understand and scrutinize historical and projected spending. The level of

spending assumed in the parties' comments on the utility business model is identified and scrutinized during the ratemaking process where there is ample opportunity to examine and test the cost effectiveness of such proposals. The Commission can and does disallow costs proposed by the utilities. Once a GRC decision is rendered, a utility must provide service to customers while holding costs (both O&M and capital-related) within the revenue requirement level established in the GRC.[22] Thus, contrary to the implicit assumption of some parties in this proceeding, the GRCs and other regulatory proceedings provide a powerful tool to ensure that the utilities make prudent, cost-effective decisions.

Under the regulatory compact, utilities are offered a fair return for making investments that fulfill their legal obligation to provide safe and reliable service at just and reasonable rates to all customers. This allows the utilities an *opportunity* to earn a return on investments made to satisfy that obligation, but not a guarantee. Utilities must make prudent decisions under the regulatory compact or risk not earning their authorized return. The utilities must also maintain their financial health, without which they could not attract the capital necessary to fund utility operations. Contrary to the premise of the *r-k* value engine, utilities do not invest indiscriminately and without regard to customer costs. Such indiscriminate spending would be imprudent because it would lead to disallowances resulting in the failure of utilities to earn their authorized returns – returns which are not guaranteed – and, eventually, to customer dissatisfaction with high energy prices.

2. Utilities Must Align with Customer Interests Due to Market Pressures

An additional powerful incentive for utilities comes from the rapidly changing electric industry. Customers have expanded options of how to get power, including DERs and customer choice aggregation. In light of these customer choices, there is potential for stranded assets, whether contracted or owned. In addition, utilities are investing to create a bi-directional grid and enabling technologies because customers and regulators expect it and customer-sited generation needs it.

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[22] In this respect, California energy utility ratemaking differs from that of many other states: revenues are decoupled from energy sales. Thus, the O&M and capital-related revenue requirement set in the GRC is what the utility will actually receive from its customers.

Thus, it is in a utility's long-term interest to manage costs, including investments, and to deploy the most cost-effective strategies to remain cost competitive, including choosing to acquire cost effective DERs, whether through contract or ownership. This reality contradicts the faulty *r-k* value engine thesis that utilities always seek to maximize their investments without consideration of associated costs. To the extent that utilities want to maximize their earned returns *r* (to create more shareholder value), they will manage their spending (capital and expense) to gain the most efficiencies to increase *r* in between rate cases; those benefits will then be passed on to customers in the next rate case when a new revenue requirement is set. Choosing to always own conventional infrastructure as the *r-k* thesis suggests, when a DER solution could lower customer costs and provide the same or better service, simply is not in the utilities' interests. The goal is to develop cost-effective DERs that create a more resilient grid by satisfying distribution planning objectives, maximizing locational benefits, and minimizing the utilities' incremental costs to serve customers which, in turn, will yield net benefits to customers seeking to lower their bills.[23]

IV.

THE JOINT UTILITIES RESPOND TO PARTIES' SPECIFIC COMMENTS

In their opening comments, parties expressed concerns regarding the ACR's proposal and its implementation. These comments include how effective the proposed DER deployment process might turn out to be,[24] particularly in light of the nascent Deferral Framework and application of the Locational Net Benefit Methodology,[25] DER performance[26] and the DERs' ability to provide incremental benefits beyond other forecasted DER benefits,[27] safety and reliability impacts,[28] the

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[23] *See* Joint Assigned Commissioner and Administrative Law Judge Ruling and Amended Scoping Memo, February 26, 2016, pp. 3-4.
[24] ORA Opening Comments, pp. 4 & 7; TURN Opening Comments, p. 12; and CALSEIA Opening Comments at pp. 4-5.
[25] ORA Opening Comments, p. 3.
[26] ORA Opening Comments, p. 8; CUE Opening Comments, pp. 3-6.
[27] ORA Opening Comments, p. 12.
[28] ORA Opening Comments, p.8; CUE Opening Comments, pp. 3-6.

ultimate realization of distribution capacity deferral benefits,[29] and the need for broader discussions on evolving business models[30] and/or regulatory accounting.[31] These comments generally identify the complexity of issues and unknowns regarding DER performance. Such concerns support the need for the Joint Utility pilot proposal to further test and demonstrate real-world DER integration experience.

The Joint Utilities respond below to some of the parties' specific comments below.

A. Transparency of the Planning Process

Many parties have expressed concerns with the transparency of the process.[32] The Joint Utilities recognize the perceived need for transparency into the process of deferral project selection. Both the ACR and Joint Utilities suggest that the creation of a new group of non-market participant stakeholders, the Distribution Planning Review Group (DPRG), is a viable way to provide this level of transparency. The Joint Utilities further recommend using an Independent Professional Engineer (IPE) to provide another layer of transparency and oversight into this critical process. The DPRG and IPE concepts need to be developed and piloted. The model for the DPRG and IPE come from the use of a Procurement Review Group (PRG) and Independent Evaluator (IE) under the utilities' resource procurement plans. When the market for the competitive sourcing of bulk generation was being developed, it faced similar concerns with perceived transparency. Over time, the CPUC and other stakeholders have come to rely upon the PRG process and IE, which have alleviated the transparency concerns. The Joint Utilities believe that once created, the DPRG and IPE will address any transparency concerns related to the distribution planning process stated by parties in their opening comments in this proceeding.

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29 TURN Opening Comments, pp. 9-12.

30 NRDC/Sierra Club Opening Comments, p. 2; EDF Opening Comments, p. 2; Joint Parties Opening Comments, pp. 5-6; and Vote Solar Opening Comments, p. 2.

31 Comverge Opening Comments, p. 4.

32 *See e.g.,* TURN Opening Comments, p. 12 (stating that it is "extremely concerned about the efficacy of this [distribution system planning] process"); NRDC/Sierra Club Opening Comments, p. 6 (stating "the Commission must develop a more comprehensive policy framework that provides additional transparency, accountability, and direction to utilities"); Comverge Opening Comments, p. 3 (stating "there must be a transparent process which demonstrates where DERs can be identified and defer investment. Without first developing this process… the efforts to develop a DER incentive mechanism in this proceeding will be a vain attempt.").

B. Results of the Planning Process

TURN,[33] ORA,[34] NRDC/Sierra Club[35] and the Joint Parties[36] have noted their concerns with the outcome of the distribution planning process and the utility's ability to identify viable projects. The DPRG and IPE not only provide transparency into the process, but also ensure that projects identified for deferral by the Utilities, in consultation with the IPE and vetted through the DPRG, are robust and accurate.

In addition, the utilities have also suggested that the Commission adopt a Deferral Framework, which the utilities would follow in making distribution investment deferral decisions. Establishing these frameworks and processes should assuage parties of utilities' ability to successfully identify and transparently procure viable deferral projects.

The Joint Parties recommend that the Commission "should consider establishing a rebuttable presumption that for distribution projects of a certain size or greater, either in dollar amount or capacity, the utilities be required to explicitly consider DERs through some kind of competitive process, opt-in tariff, incentive program, or other sourcing mechanism."[37] The Deferral Framework, which is currently under development, would avoid any potential need for a rebuttable regulatory

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33 TURN Opening Comments, p. 12 (stating "[a]n inherent engineering bias towards conservative forecasts would not be surprising").

34 ORA Opening Comments, p. 5 (stating "[a]s the ACR notes, counterfactual determinations ('what would have happened otherwise') are at the heart of the proposed pilot. These determinations are notoriously difficult to make with accuracy and are often subject to considerable controversy," and "[t]he counterfactual nature of the pilot leads to a series of questions that parties and the Commission will ultimately be required to confront such as whether the distribution need assessment is accurate and properly prioritized and whether the cost estimates for traditional upgrades are sound.").

35 NRDC/Sierra Club Opening Comments, pp. 6-7 (stating that "[t]he LNBA can and should be the tool used to identify opportunities, but to do this effectively, the LNBA needs additional development beyond what the utilities have presented to date," and "[t]he Commission should expediently develop a grid investment framework (or 'deferral framework') to identify the grid needs that could be deferred or replaced.").

36 Joint Parties Opening Comments, pp. 6-7 (stating "[t]he proposed Distribution Planning Review Group (DPRG)… may prove insufficient for purposes of assessing the needs," and "[w]e are therefore concerned that absent an objective body with a high degree of technical expertise, including deep power system engineering knowledge and familiarity with both DER solutions and traditional utility investments, the DPRG process will not prove an effective means of ensuring the utilities are putting forward a sufficiently expansive or appropriate set of potentially deferrable projects.").

37 Joint Parties Opening Comments, p. 13.

presumption. Once in operation, this framework would ensure that the role of DERs in providing grid services is fairly and appropriately weighed against traditional options.

C. Concerns Regarding Distributed Energy Resource Performance, Impact to Safety and Reliability and the Ultimate Realization of Deferral Benefits

It is necessary to demonstrate the real-world operations of these DERs for the Commission, utilities, and the stakeholders to become comfortable with the important role DERs are envisioned to play in distribution planning, investment, and operations processes. ORA states, "[t]he risk of DER non-performance raises additional concerns related to accountability, safety, and system reliability," and adds, "[i]f a DER is deployed in place of a distribution system upgrade, non-performance could lead to outcomes such as poor voltage regulation, overloaded circuits, and damaged distribution equipment."[38] In addition to the potential for technical non-performance, CUE identifies concerns with third party's economic priorities and the potential risks of non-performance, stating "the third party will have other economic incentives that may outweigh those in the contract."[39] The Joint Utilities share these concerns. Paramount to any potential deferral project is the ability of the distribution grid to continue safe, reliable operation. The alternate pilots proposed in the Joint Utilities' opening comments would allow for relevant data to be collected and the foundational processes to be developed first.

In addition, another key concern was noted by TURN, CUE, and ORA:[40] What happens if the deferral benefits do not materialize? This can result from a variety of reasons such as modified planning assumptions in light of evolving circumstances, DER performance, DER providers' ability to provide multiple services and seek alternate revenue streams, or simply a delay in expected deployment of the DERs.[41] The parties' comments reflect the need for fact-based understanding and to address wide-ranging concerns with the overall concept of distribution deferral projects. The future state is complex

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[38] ORA Opening Comments, pp. 8-9.
[39] CUE Opening Comments, p. 3.
[40] TURN Opening Comments, p. 11; CUE Opening Comments, pp 3-6; and ORA Opening Comments, pp. 8-9.
[41] *Supra* Section IV (discussing parties' various concerns).

and the allocation of accountability will not be simple. The Joint Utilities believe this is a critical and complex issue that must be better understood. The alternate pilots proposed by the Joint Utilities in their opening comments allow for data to be collected on the DER procurement process and performance expectations and capabilities of DERs and utilities. Maintaining system safety and reliability is the cornerstone of any discussion around DERs for system benefits, and the utilities themselves remain obligated to ensure that safety and reliability. Understanding potential safety and reliability risks, and the relevant performance assurances will be the focus of any near-term pilot projects. The timing, cost, and potential solutions to mitigate risks to safety and reliability can only be developed through pilots.

Given the vital issue of maintaining safety and reliability if DERs do not perform, it is premature to discuss modifying the utility rate of return on the backstop investments. In particular, TURN is concerned that the Commission's proposal will cause utilities to double dip in incentives. Specifically, TURN states that there is "the potential for utility to maximize profits from both the incentive mechanism and the traditional investment."[42] As a result, TURN suggests, "if the utility's forecast is inaccurate and it actually proceeds with the conventional 'avoided' capacity project before the deferral period expires, the utility should earn no equity return on that capital spending, and only earn its cost of debt."[43] TURN's concerns with the realization of deferral benefits is exactly why the utilities propose a pilot program—the utilities are trying to ensure system reliability is not compromised, whether by the project selection or by DER performance. TURN's proposal goes directly against the purpose of the ACR and utility ratemaking principles, which is to "harmonize the utility's financial objectives with the Commission's desire to foster the cost-effective deployment of

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[42] TURN Opening Comments, p. 8.
[43] TURN Opening Comments, p. 16.

DERs."[44] The purpose of the rulemaking is to encourage utilities to develop cost-effective DER solutions and to align utility financial interests with public policy incentives.[45]

If the proposal by TURN is adopted and utilities are punished for failed deferral solutions, then utilities would have all the more reason to rely on proven, traditional grid investments rather than experiment with new, potentially complex technology solutions. DER performance and capabilities are relatively unknown and creating a premature incentive structure for DER deployment with punitive components undermines this goal.

The primary obligation of the utilities is safe, reliable, affordable, and clean power, but the ability of DERs to meet those goals is not well understood. Forecasts are fallible, as TURN acknowledges when it says that "utility load forecasts at the local level are inherently uncertain."[46] This is why the proposal by Vote Solar[47] is imprudent and contrary to the utilities' obligation to serve; it attempts to disincent traditional investments even if they are necessary to maintain the safe and reliable operation of the distribution grid.

D. The Joint Utilities' Pilot Proposal Addresses Many of the Concerns Raised By Parties

Based upon these concerns expressed by other parties, the most prudent path forward is the Joint Utilities alternate proposal.[48] The alternate pilots proposed would help establish the end-to-end process for utility decision-making, while collecting valuable data for future utility business model discussions.[49] The Joint Utility pilots are anticipated to be more comprehensive than the pilots envisioned under the DRP and should be allowed to occur without the added complexity of a regulatory incentive mechanism. The pilots will examine the feasibility of the paradigm shift that the Commission

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44 ACR, p. 3.

45 *Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Demand-Side Resource Programs*, October 2, 2014, p. 3.

46 *See* TURN Opening Comments, p. 10.

47 Vote Solar Opening Comments, p. 14 ("Commission could use the traditional rate of return for determining the incentive for the DER alternative, but authorize a lower *r*-value if the utility chooses to pursue the grid investment option.").

48 *See* Joint Utilities Opening Comments, pp. 4-6.

49 Joint Utilities Opening Comments, p. 11.

and stakeholders are looking for and allow a test of a complete, end-to-end transparent process. Once this baseline is established, it will be easier for the Commission to hold fact-based stakeholder discussions on a broad range of topics related to the utility role in the future and alternate compensation mechanisms.

E. Independent Distribution System Operator

In opening comments, the Joint Parties proposed another topic out of scope for this Ruling – the creation of an independent distribution system operator, stating "[t]he creation of an independent system operator is an approach that can also be used at the distribution level to create a more level playing field for the consideration of distributed energy resources to meet distribution system needs."[50] The determination of whether there is a need for an independent distribution system operator is also premature. The Deferral Framework and DPRG should be implemented before alternate models are contemplated. As stated previously, the integration of DERs may lead to consideration of broader changes in the utility compensation and business models. Any discussion of the independent system operator concept is premature until the results of the pilots are available for evaluation.

F. Regulatory Asset Treatment

The Joint Utilities are open to exploring other ideas such as capitalizing expenditures on DER procurement[51] or evaluating regulatory accounting mechanisms to categorize them as such.[52] These ideas can play a useful role in the stakeholder discussions on the business model options that the Commission may hold in a later phase of the DRP proceeding. It is premature for the Commission to either consider, or worse, categorically dismiss, such ideas.

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50 Joint Parties Opening Comments, p. 5.

51 AEE Opening Comments, p. 7 (stating that "expenditures for DER procurement (largely contracted services from third-party or customer-owned resources) will be capitalized as a regulatory asset").

52 Comverge Opening Comments, p. 4 (noting its concern "that the DER procurement pilot skips an evaluation of the regulatory accounting mechanisms to categorize DER investments as capital assets").

G. Distribution Marginal Costs

The Joint Utilities caution that much more needs to be understood before the Commission can properly address Vote Solar's suggestion to evolve "the California market to a DMC (Distribution Marginal Costs) framework."[53] For example, the Commission, stakeholders and the utilities need to better understand how DERs are likely to be deployed for distribution services, what services DERs will provide, how easily these services can be traded, the identify of market players (such as "prosumers") in buying/selling these services, DER performance and accountability, and how a market mechanism may ensure reliability. Joint Utilities once again repeat our caution that it is premature to consider or dismiss such suggestions.

V.

CONCLUSION

The Joint Utilities appreciate the opportunity to respond to the opening comments of other parties on the ACR. The alternate pilot proposed in the Joint Utilities opening comments is the best way to address the comments by parties, the complex issues of utility business model change, and how optimally to deploy DERs to benefit the distribution grid. The Joint Utilities look forward to continued engagement with the CPUC and other stakeholders on these pilots and to the upcoming workshop.

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[53] Vote Solar Opening Comments, p. 6.

Respectfully submitted,

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Appendix A

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The central theme of the ACR's appendices was that utility investors are allowed by regulators to earn long-term returns, "*r*," that exceed the return they *need*, "*k*," to purchase utility stock,[54] where *r* is the rate of return adopted by state and federal commissions. The authors of the two appendices describe this as the "*r-k* value engine" and claim utilities have no incentive to make infrastructure investments unless *r-k* is greater than zero. They further claim that *k* is around 7% to 8%, and that *r* is around 10%, meaning that regulatory commissions are adopting returns on equity far in excess of what investors actually need. The Joint Utilities agree that state and federal commission adopted returns are around 10% today. However, the Joint Utilities do not agree that *k*, the return investors actually need, is on the order of 7% to 8%.[55] The objective of the cost of capital proceedings is to determine *k*. In the last CPUC cost of capital proceeding, when interest rates were not much different than today, the utilities, using standard rate of return models, presented evidence that k was in the range of 10.7% to 11.1%. The CPUC-adopted returns for the Joint Utilities are within this range, so from the perspective of the utilities and Commission, *r-k* = 0.[56]

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[54] Although the authors of the two appendices appear to define *r* as the return investors expect to earn (or, more accurately, that they expect the utilities to earn and that they will receive in the form of dividends and stock appreciation), they often equate *r* to the cost of equity capital set by utility commissions. For the purposes of the discussion here, we'll assume that *r* equals commission authorized returns. This differs from some of the discussion in the main text of these comments, where *r* is earned return.

[55] The Ruling appears to claim that the current cost of equity for electric utilities is only 7.5 percent,
referencing Appendix B on page 4 and footnote 10 on that page. The data is based on a Morningstar methodology that is used for all the companies in the Standard and Poors' 500 index, which is too general to be used in determining the accurate cost of equity. Specifically, the methodology does not take into consideration company-specific risks. Moreover, the Morningstar analysis assumes an unusually low equity risk premium; data from the most recent cost of capital proceeding show that the Morningstar cost of equity is incorrect.

[56] In addition, the Joint Utilities are unaware of any recent state regulatory commission decision in the United States authorizing an energy utility return on equity that is below nine percent.

Parties have also supported the claim in the ACR's appendices that $r-k > 0$ today because the ratio of the market value per share of stock to the book value per share ("MB") exceeds 1.0. The authors of the appendices argue that an MB ratio > 1.0 is evidence that $r-k > 0$. The Joint Utilities agree that earning economic rents in excess of expected returns can be a factor that drives the MB > 1, but it is not the only factor that can contribute to a MB >1. As a result, the mere existence of MB > 1 does not lead to the conclusion that $r > k$. More generally, and as stated by prominent Harvard economist Andrei Sheifler:

> Despite considerable progress, and our knowledge of determination of security prices remains limited. Although Joint Utilities may reject the null hypothesis of market efficiency with more confidence than before, Joint Utilities still know relatively little about such key determinants of prices as expectations about fundamentals, discount rates, and simple movements of demand. Behavioral finance and the finance of the determination of valuations more generally, has many years to grow. [57]

There are many reasons that market values may differ from book values, including differences in accounting, investor optimism or pessimism, and "irrational" expectations. For example, two firms identical in every way except accounting policies could have the same market value (because they are expected to generate the same cash flows) but could have different book values because one expenses a particular type of activity while the other firm capitalizes the costs of that activity.

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[57] Andrei Shleifer (2000), *Inefficient Markets: An Introduction to Behavioral Finance*, Oxford University Press: Oxford, p. 177.