

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U39M), San Diego Gas & Electric Company (U902E), and Southern California Edison Company (U338E) for Authority to Increase Electric Rates and Charges to Recover Costs of Research and Development Agreement with Lawrence Livermore National Laboratory for the 21st Century Energy Systems.

A.11-07-008
(Filed July 18, 2011)

**OPENING BRIEF
OF THE DIVISION OF RATEPAYER ADVOCATES**

ROBERT W. HAGA
Staff Counsel

Attorney for the Division of Ratepayer
Advocates
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Phone: (415) 703-2538
E-mail: robert.haga@cpuc.ca.gov

July 20, 2012

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I. INTRODUCTION

The Division of Ratepayer Advocates (DRA) submits this Opening Brief on the joint utilities' (IOUs') proposal to increase electric rates to fund a Research and Development Agreement with Lawrence Livermore National Laboratory submitted on July 18, 2011. This brief is timely submitted in accordance with the schedule set forth in Administrative Law Judge Sullivan's ruling modifying the procedural schedule during the Evidentiary Hearing.¹

The IOUs' application is insufficient and does not actually define any research projects. It instead offers illustrative cases that might possibly be pursued. The applicants fail to demonstrate that the proposed research is not duplicative of other ongoing research. The applicants fail to define deliverables, timing, milestones, decision-making authority and structures to ensure quality control and accountability, or any detailed information on costs. And despite requests from the ALJ and assigned

¹ RT vol. 2, p. 314:18-23.

Commissioner, the applicants failed to supplement their application to provide information that could put parameters around their open-ended request to spend \$150 million in ratepayer funds.²

For the reasons explained herein DRA requests the Commission deny the application to increase electric rates to recover the costs of a Research and Development Agreement with Lawrence Livermore National Laboratory (LLNL).

II. ARGUMENT

A. The Commission lacks the authority to require ratepayers to fund R&D in the manner proposed in this application.

1. The Joint Application is not reasonable and should be dismissed.

The IOUs have failed to meet any of the guidelines listed in Public Utilities Code Section 740.1 that the Commission must use “in evaluating research, development, and demonstration programs proposed by electric and gas corporations.”³ The amended application fails to provide

² Assigned Commissioner Ruling and Scoping Memo (ACR) in A.11-07-008, October 18, 2011, (“The inclusion of more detail would allow a clearer determination of both the merits of the research proposal and the authority of the Commission to fund it.”).

³ Pub. Utils. Code §740.1 states:

The commission shall consider the following guidelines in evaluating the research, development, and demonstration programs proposed by electrical and gas corporations:

- (a) Projects should offer a reasonable probability of providing benefits to ratepayers.
- (b) Expenditures on projects which have a low probability for success should be minimized.
- (c) Projects should be consistent with the corporation's resource plan.
- (d) Projects should not unnecessarily duplicate research currently, previously, or imminently undertaken by other electrical or gas corporations or research organizations.
- (e) Each project should also support one or more of the following objectives:
 - (1) Environmental improvement.
 - (2) Public and employee safety.
 - (3) Conservation by efficient resource use or by reducing or shifting system load.

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sufficient information for the Commission to find any reasonable probability of a benefit to ratepayers.⁴ The amended application does not provide a basis for allocating \$150 million in ratepayer funds to LLNL which results in the entire application having a low probability of success.⁵ The request fails to explain how it would be consistent with the IOUs' resource plan.⁶ While the IOUs do present illustrative cases (that appear duplicative with other ongoing research) DRA noted in its Protest on November 2, 2011, that the "applicants fail to define deliverables, timing, milestones, decision-making authority and structures to ensure quality control and accountability, or any detailed information on costs. And the applicants failed to provide any of the supplemental information requested by the ALJ and the assigned Commissioner."⁷ Though the IOUs attempt to fit their ideas into the objectives required under PU Code §740.1(e), the blank check requested by the IOUs would not limit their research to those objectives.⁸

Public Utilities Code Section 740.1 provides guidelines for Commission approval of applications for ratepayer funding of research, development and demonstration projects. While it might be possible for the Commission to approve a project that fails to meet one or even two of the guidelines, here the proposed Research and Development Agreement with Lawrence Livermore National Laboratory fails all of the guidelines of the statute and should be rejected by the Commission.

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(4) Development of new resources and processes, particularly renewable resources and processes which further supply technologies.

(5) Improve operating efficiency and reliability or otherwise reduce operating costs.

⁴ PU Code § 740.1(a), RT vol. 2, p. 297:6 – p. 298:18.

⁵ PU Code § 740.1(b), RT vol. 2, p. 261:20 – p. 262:20.

⁶ PU Code § 740.1(b), RT vol. 2, pp. 173:27 – 174:6, 174:13-17, 177:3-11, 181:23-25.

⁷ Protest of DRA filed November 2, 2012; RT vol. 2, p. 282:7 – p. 283:3.

⁸ RT vol. 1, p. 30:26 – p. 31:5.

a) *Asserted Benefits to Ratepayers Are Too Uncertain To Meet the Ratepayer Benefit Requirement of Section 740.1*

There is no basis upon which the Commission can find the application presents “a reasonable probability of providing benefits to ratepayers.” As explained by DRA witness Hieta at the hearing:

In my view, the first thing you would need to determine a reasonable probability would be the actual research that you are proposing to do. It is my understanding that the utilities they have provided illustrative cases in their testimony, and we heard from their witnesses this morning for quite some time, and they have had a lot to say about illustrative cases. But we also heard yesterday that there is a certain probability that none of those will be done. So I don't think you can make any determination of probability without having an actual research proposal.

In the application as it is written, that determination would be handed over to board of directors. I haven't seen anywhere that they are proposing the board of directors ensure compliance with 740.1, to my knowledge. I could check on that. But they said the board of directors will determine reasonableness and do a cost-benefit analysis and things like that, but that doesn't necessarily ensure compliance with 740.1 which is the Commission's duty.

In terms of reasonable probability, I think you would need an actual cost-benefit analysis looking at what the research is going to do and some kind of analysis, probably mathematical, to determine the actual probability.

I question the utilities where they reference a probability of certain benefits that were provided in Chapter 3 of their rebuttal testimony. I didn't get much of an answer, just that there is a probability there. That the probability has increased by having the utilities work together is their claim. But that still doesn't provide any kind of parameter whether that probability is reasonable or not.²

The utilities' entire claim is based on a promise that they are more likely to do better collectively than individually. The IOUs' claim is a fallacy built upon the misleading notion that utility-led research always succeeds in producing benefits. The fact is that the IOUs' application

² RT vol. 2, p. 297:6 – p. 298:18.

is nothing more than an idea to build a joint research subsidiary. But such a subsidiary would have no greater chance of choosing successful projects than would an individual utility, and this selection process would be conducted without accountability to and oversight from the Commission.

The claim that contracting with a large research institution will provide benefits to ratepayers has not been supported in the record. If ratepayers could benefit simply by supplying funds to research institutions in California then the Legislature long ago would have stepped in and directed such collection and expenditure of ratepayer funds to the many of the esteemed institutions in California. The fact is that without specific Commission approved plans for research and expenditure of funds it is not reasonable to expect ratepayer benefits.¹⁰

Thus, the IOUs' application should be rejected for not presenting detailed evaluation of specific research projects that the Commission can find have a reasonable probability of providing benefits to ratepayers.

b) *There is No Assurance that Giving \$150 Million to LLNL Will Result in Projects that Have Any Probability for Success*

The applicants admitted at the hearing that there was no certainty that the proposed areas of research would be pursued:

Q [Mr. Haga] And then yesterday, Dr. Friedmann said the ideas that they actually initially proposed were not what ended up in the application, that your different ideas came in. Can you be certain that the ideas that you're talking about will actually result in actual research being done in these areas?

[WITNESS MIKOVITZ:] No.

Q Mr. Wong, can you be certain?

WITNESS WONG: Can you repeat the question, please?

¹⁰ See, Phase 2 Decision Establishing Purposes and Governance for Electric Program Investment Charge and Establishing Funding Collections For 2013-2020, D.12-05-037 (issued May 31, 2012 in R.11-10-003 (Order Instituting Rulemaking on the Commission's own motion to determine the impact on public benefits associated with the expiration of ratepayer charges pursuant to Public Utilities Code Section 399.8.)) *mimeo* pp. 21-31.

Q Can you be certain the ideas that you are presenting in your testimony will actually result in actual research being conducted in this project?

A I think it's difficult to have that level of certainty until you do more detailed evaluation of the specific projects.

Q Thank you. Mr. Alvarez?

WITNESS ALVAREZ: If I remember the process, we will be scoping out the problem and presenting it to the board, and it's a function of what the board decides. That will be how the process will go.

Q And Mr. Sherick?

WITNESS SHERICK: No guarantee. I'm fairly certain that the process – we'll have a very good opportunity to get good projects done and completed.¹¹

Thus, the applicants' own testimony shows the Commission has no evidence to support a finding that the proposed allocation of \$150 million in ratepayer funds has a probability of success. The IOUs failed to present the Commission with a "detailed evaluation of the specific projects"¹² upon which the Commission could determine a probability of success. Without such a detailed evaluation the Commission must find that the probability of success is non-existent, and well below that required by the statute.¹³

c) The Commission Cannot Find the Application Consistent with the IOUs' Resource Plans

The idea for this proposal originated with LLNL, not the utilities.¹⁴ It did not originate with the identification by the utilities of gaps in their resource plans, and the ideas proposed do not meet critical needs of the utilities. Rather, they simply propose areas the utilities believe may best fit LLNL's research capabilities. This approach is highly unusual and should be closely

¹¹ RT vol. 2, p. 261:20 – p. 262:20.

¹² RT vol. 2, p.262:8-9.

¹³ PU Code § 740.1(b).

¹⁴ RT vol 1, p. 5:18-23.

scrutinized by the Commission. The lack of detail regarding a specific project is notable compared to what the Commission requires the utilities to show in their rate case applications:

Q [Mr. Finkelstein:]...The questions about what happens with rate case funding. It's correct, is it not, that the utility in its rate case application and supporting testimony is presenting testimony explaining the programs that it has in mind for its research and development as part of its forecast of the costs?

[WITNESS CHERRY:] That's correct.¹⁵

Unlike the case at hand, the Commission usually identifies areas outside the general rate case process that should receive research and development funding. As explained by PG&E witness Cherry, other than projects approved in the general rate case process, research and development is conducted in discrete areas:

Q [ALJ Sullivan:] Also when research is funded by a general rate case, I think you have some testimony at different places, what would basically happen? You know. What sort of oversight was there? Was it the next general rate case was reviewed, or was it just, okay, we think that so much research should be done, it's in the general rate case, and then you guys went and funded things?

[WITNESS CHERRY:] Well, typically we would receive RD&D funding in a general rate case for a discrete type of project. And once we received approval in the general rate case, or it could be in a separate application. So for example, there is RD&D in energy efficiency. There's CSI. There's demand response RD&D. And typically once that gets approved by the Commission, it's the utilities' responsibility to go ahead and carry out that research. And while the Commission has jurisdictional authority to go back and look at it, sometimes it's brought up and sometimes it isn't.¹⁶

However, unlike those areas identified by the Commission as meritorious of additional research funding outside the general rate case, the ideas pitched by the utilities in this application are not those with the greatest need. Nor are they those with the greatest probability of success. Rather, they are simply those that seem to fit within LLNL's resource capabilities. In fact, there is little or no need for the services of LLNL as the utilities admitted that they would just continue working on those areas within established frameworks if the application were not approved:

¹⁵ RT vol. 1, p. 95:20-28.

¹⁶ RT vol. 1, p. 85:17 – p. 86:11.

WITNESS SHERICK: Sure. We have outlined our plans in the smart grid deployment plan. So we extensively described that process there. If we were not to go forward with the Lawrence Livermore work, we would simply continue to pursue the efforts that we are pursuing on sort of a one-off basis or case-by-case basis.¹⁷

WITNESS ALVAREZ: Yes. Without the additional collaborative research that we are proposing in this Application, we do the best we can with what we have....¹⁸

WITNESS MIKOVITS: One of the reasons we appreciated Lawrence Livermore bringing the idea forward is that the idea of using high performance computing was not on our radar screen. As I talked with my colleagues at the other utilities, it is [sic] became clear that there were some potential use cases that we thought might be uniquely solvable in this particular context.¹⁹

WITNESS WONG: Yes. We will continue working with our software vendor to try and improve the software.²⁰

The utilities try to obfuscate their lack of showing by claiming that the mere fact of their proposed cooperation in evaluating proposed research somehow makes their request more viable, but as shown below, any one utility has the ability to fund a project of its choosing even if the project is rejected by the full Board. Further, the act of working together should mean that the utilities have shared and compared their resource plans in order to find common areas, but there is no evidence that they have coordinated their proposals with their resource plans either individually or collectively.

Given there was no detailed evaluation of a specific project, but just a general recognition of the merits of high performance computing as applied to “some potential use cases,” the Commission cannot find the speculated research areas to be consistent with the utilities resource plans.

¹⁷ RT vol. 2, p. 173:27 – 174:6.

¹⁸ RT vol. 2, p. 174:13-17.

¹⁹ RT vol. 2, p. 177:3-11.

²⁰ RT vol. 2, p. 181:23-25.

B. The application does not define the purpose of the R&D or the research that will be undertaken.

1. The Application requests ratepayer funding without proposing any actual projects.

The application provides no certainty that the proposed areas of research would be pursued. In fact, the applicants admit that there is no guarantee that the illustrative ideas in the application would actually be areas where research is conducted:

Q [Mr. Haga] And then yesterday, Dr. Friedmann said the ideas that they actually initially proposed were not what ended up in the application, that your different ideas came in. Can you be certain that the ideas that you're talking about will actually result in actual research being done in these areas?

[WITNESS MIKOVITZ:] No.

Q Mr. Wong, can you be certain?

WITNESS WONG: Can you repeat the question, please?

Q Can you be certain the ideas that you are presenting in your testimony will actually result in actual research being conducted in this project?

A I think it's difficult to have that level of certainty until you do more detailed evaluation of the specific projects.

Q Thank you. Mr. Alvarez?

WITNESS ALVAREZ: If I remember the process, we will be scoping out the problem and presenting it to the board, and it's a function of what the board decides. That will be how the process will go.

Q And Mr. Sherick?

WITNESS SHERICK: No guarantee. I'm fairly certain that the process – we'll have a very good opportunity to get good projects done and completed.²¹

The lack of specific projects to consider is not only a statutory failure as explained above. But it also is a policy failure that the applicants should have corrected before seeking Commission approval. It even could have corrected after filing the application. In fact, at the PHC, the ALJ recognized that the application provided insufficient information on which to

grant ratepayer funding. Accordingly, the ALJ instructed the IOUs to file an amended application, including testimony, instructing:

. . . submit an amended application with actually some of the very sorts of evidentiary statements that Mr. Warner has made on behalf of PG&E’s application, explaining how they compared it to other things, how it is incremental, it’s not repetitive, the types of issues that I think I have identified earlier as well as TURN and DRA.²²

The ACR confirmed the requirement for supplemental information in the amended application, stating “[t]he inclusion of more detail would allow a clearer determination of both the merits of the research proposal and the authority of the Commission to fund it.”²³

The IOUs filed an amended application on October 19, 2011. However, the IOUs did not submit the required information. Instead, as further explained in Section II.B.3 below, they submitted the same application, almost verbatim, and retitled what was previously Attachment A as “testimony.”²⁴ This is clearly not what the ALJ intended when requiring submission of an amended application with supporting testimony.

a) The Utilities Are Asking for a Blank Check.

The IOUs’ reliance on speculation and faith provides no basis for the Commission to find that there will be benefits. Instead of speculating about what might happen the IOUs should have done their due diligence to provide an estimate of benefits, create a process for measuring those benefits, and specify project off-ramps if benefits are not being achieved. Increasing rates by \$150 million and hoping the utilities spend it wisely is a real test of faith. When the utilities are only at the problem identification stage of the process, \$150 million is one leap of faith the Commission should not take—especially when there are no milestones or off-ramps that would

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²¹ RT vol. 2, p. 261:20 – p. 262:20.

²² PHC, RT at 41.

²³ ACR at 5.

²⁴ The IOUs also provided a short list of decisions granting RD&D funding, with little to no description of the funding purposes or parameters. No information is provided regarding potentially similar research being done by other entities. This list is not inclusive of all decisions granting RD&D funding similar to the examples provided in the application.

cause research to cease if benefits fail to accrue. This is demonstrated in the following testimony:

Q [Mr. Haga:] And you would agree with me that the Joint Utilities have not presented anywhere in this record a business case for any project or any proposal for the CES-21?

[WITNESS CHERRY:] They haven't proposed a business case proposal that would be voted on by the board of directors. But we have proposed illustrative cases, depending upon what the board wants to do. And depending upon how the process goes, I could see some if not all of these illustrative cases being fleshed out. But there may be that these illustrative cases are not what the board ultimately approves.

Q So the illustrative cases that you've included in this testimony, looking at this graphic, where do they fit? Are they still at the identified problem stage?

A Yes, identified problem stage.²⁵

The utility witnesses continually use “may,” “could,” or “should” to qualify the potential research and potential benefits that possibly exist for illustrative examples. Instead, they should have presented definitively an actual research project that has defined parameters. These would include the proposed research, associated costs and benefits forecasts, goals, milestones, deliverables, off-ramps, or other guidelines and protections that will ensure ratepayer funds are being spent in a just and reasonable manner.

b) None of the projects are certain - all could happen or none of them could.

The Application is nothing more than a request by the utilities to raise rates and a promise, without any evidence to substantiate that promise, that they will do the right thing by ratepayers in spending the money. This is illustrated in the following testimony:

Q [Mr. Haga:] Just is it possible that none of the funds will be spent with Lawrence Livermore?

[WITNESS CHERRY:] That is a possibility. I wouldn't say it's not likely. But once the funding is approved, the board of directors is going to look at projects in territories, and some of those projects, maybe all, could involve Lawrence Livermore, or some of

²⁵ RT, vol. 1, p.60:18 – p. 61:8.

those projects or maybe none could involve Lawrence Livermore. Ultimately the board is going to have to look at each and every individual project that is before the board and make a determination as to whether that project warrants funding and whether or not Lawrence Livermore will be a partner to it.

Q So there's a probability that all of the money will go to Livermore. There's a probability that none of the money will go to Livermore?

A I think it will probably be somewhere in between, but I would be speaking for the board of directors. I think the board of directors has to make that determination.²⁶

As explained below, such a delegation of Commission oversight is not allowable under the statutes authorizing research, development and deployment. It is also bad policy. A better approach would be consistent with the recent Electric Program Investment Charge (“EPIC”) decision, D.12-05-037. In that decision, the Commission adopted an oversight and administrative process for research, development and deployment activities that use ratepayer funds. The Commission conceived of the entire EPIC program as a set of activities to be administered by the CEC and the utilities, under Commission oversight, for the benefit of electric ratepayers. IOU research, development and deployment projects and expenditures will be considered in parallel, with the objective of close coordination.²⁷

The Commission also decided that the oversight structure and funding guidelines adopted by the Commission in the EPIC proceeding should be applied to all research, development and deployment applications filed by the utilities. Specifically, the Commission stated, “In addition, as suggested by DRA in its reply comments on the proposed decision, we will require that any RD&D proposals outside of the EPIC triennial investment plan process address how it meets the objectives and metrics of the EPIC program.”²⁸ The Commission thus contemplated that the illustrative cases set forth in this application would have to meet EPIC’s triennial investment plan elements in order to be approved. While the Commission decided EPIC will not replace or

²⁶ RT vol. 1, p. 6:12 – p. 7:8.

²⁷ D.12-05-037.

²⁸ D.12-05-37, *mimeo* at p. 29.

terminate any pending research, development and deployment applications/requests,²⁹ the Commission will require the IOUs show how their pending requests meet the criteria set forth in EPIC. In contrast, this Application only contains vague ideas and is devoid of any specific projects, making it difficult to apply the EPIC criteria adopted for research, development and deployment activities. However, to the extent the Commission can apply its adopted research, development and deployment criteria to the project ideas presented in this Application it is clear that the Application falls short of the standards required to merit ratepayer funding. Accordingly, it should be denied.

2. The proposed governance arrangement is an illegal delegation of the Commission's responsibilities, has no structure or limits and it is unclear how it would function.

a) *The utilities' proposal would usurp the Commission's responsibilities.*

There are no limits on the Board of Directors' ability to fund research projects.³⁰ While the utilities propose that a Commission representative on the Board could vote on projects brought before the Board, and that other outside entities may participate in some unspecified fashion, the reality is that the utilities will maintain control over the decision making process and outvote the Commission representative at any time. This would result in an unchecked delegation to the utilities of authority for spending ratepayer funds. In the limitless process envisioned by the utilities, they could fund any research project they chose, whether in California or elsewhere and there would be nothing the Commission could do afterward.

The governance process described in the Application will grant the Board of Directors near autonomous authority over the process. As DRA stated in its November 2, 2011 Protest, "the 'governance tasks' proposed in the application are tasks typically under Commission purview."³¹ If the Application is approved, the Commission would be surrender to the Board of

²⁹ *Id.* at pp. 28-29. *See also*, Demand Response Decision, D.12-05-037, Ordering Paragraph 17, at p. 106 (adopting RD&D criteria).

³⁰ RT vol. 1, p. 30:26 – p. 31:5.

³¹ DRA Protest, filed 11/02/11, at 4

Directors the authority entrusted to the Commission by the Legislature and the public. Essentially, the IOUs are asking for the Commission to forego its discretionary oversight, and to simply provide ratepayer funding to perform research that will be determined at a later time by the IOUs, with no reasonableness review before, or after, the fact.³² The Commission must not surrender its authority in this manner.

b) *The proposed governance structure allows each utility to act independently of the Board.*

The utilities try to take assuage concern by pointing to the unique approach the application proposes to get the utilities to work together in overseeing this process. However, even that concept is flawed as the utilities do not need to agree on a project in order for it to receive funding. The application proposes that a single utility could decide to fund a project out of its own share of the \$150 million if the other utilities did not want to contribute to the project:

Q [Mr. Finkelstein:] Okay. Then the judge was asking you about the circumstances under which a utility could excuse itself from funding a part of the CES-21 activities. Do you remember that?

[MR. CHERRY:] A Yes, I remember that.

Q And you said, the example you used was, well, if it's a gas-based or a gas-focused project, the electric utilities might opt out; is that correct?

A That's correct.

Q But it's not limited to that. A utility could opt out for sort of any reason; is that correct?

A That's correct.

As the structure of the proposal makes clear, a utility can opt out of a specific project for any reason,³³ and the remaining utility(ies) can still choose to pursue that project. What is still not clear is how the proposed Board of Directors, comprised primarily of IOU representatives,

³² The Commission has previously found such delegation of authority to be impermissible. See "Interim Order Adopting Policies and Funding for the California Solar Initiative," 2006 Cal. PUC LEXIS 529, D.06-01-024, Conclusion of Law 1.

³³ RT vol. 1, p. 96:12-15.

would adequately review a project that at least one of those participating IOUs had opted out. Thus, it is entirely plausible that each utility decides to fund a different project (projects that are not yet defined), each of which is not supported by non-voting members of the Board, and not even supported by a majority of the voting members of the Board. The Commission cannot delegate its authority to a utility to determine at a later date the expenditure of ratepayer funds. Yet the proposed structure and opt-out allowance produces just such a delegation. Approving such a decision-making structure would directly contradict the statutory requirements that the Commission must approve a utility's use of ratepayer funds to conduct research and development.

3. The Application provides “illustrative cases” for areas of research that may or may not be undertaken

On September 2, 2011, the Administrative Law Judge (ALJ) acknowledged the insufficiency of the Application, stating at the Prehearing Conference (PHC) that the “application lacked detail and ruled that the application should be amended to include testimony supporting the application.”³⁴ The ALJ then instructed the IOUs to file an amended application, including testimony. The ALJ stated the IOUs must “[S]ubmit an amended application with actually some of the very sorts of evidentiary statements that Mr. Warner has made on behalf of PG&E’s application, explaining how they compared it to other things, how it is incremental, it’s not repetitive, the types of issues that I think identified earlier as well as TURN and DRA.”³⁵

On October 18, 2011, the assigned Commissioner issued an Assigned Commissioner Ruling and Scoping Memo (ACR) confirming such need, stating that “[t]he inclusion of more detail would allow a clearer determination of both the merits of the research proposal and the authority of the Commission to fund it.”³⁶

The IOUs did not submit the required information. Instead, they submitted the same application, nearly verbatim, and retitled what was previously Attachment A as “testimony.” The IOUs met neither the ALJ’s directives nor those in the ACR.

³⁴ Assigned Commissioner Ruling and Scoping Memo, October 18, 2011, at p. 5, citing PHC RT at p. 48.

³⁵ *Id.*

³⁶ ACR at p. 5

In January, two Rulings were issued that directed the applicants to submit supplemental testimony that “describes the governance structure in greater detail and discusses the strategies that the California Energy Systems for the 21st Century Project will use to build on and/or partner with existing centers of expertise pertaining to the research topics in this project.” The applicants accordingly filed supplemental testimony on January 31, 2012, that further described the governance process. However, the supplemental testimony did not include the types of information discussed at the PHC or in the October 18 ACR.

The Application suffers from a lack of specificity in its project proposals. Before the Commission appropriates funds for research, development and deployment projects it should first identify exactly what it is funding and the purported benefits that may follow. As previously mentioned, the applicants have not yet identified specific projects and will leave that determination to the Board of Directors. However, as explained at the Hearing, there is no limitation on what the Board of Directors may fund:

Q [Mr. Haga:] I’m just trying to understand the limitation on projects that may be undertaken through this funding source.

[WITNESS CHERRY:] I don’t believe there will be any limitations per se. The board will be free to review any type of project that would provide benefits through applied RD&D that would help and benefit customers.³⁷

The applicants thus ask the Commission to increase rates charged to ratepayers without any limitation on how, where, or with whom the funds would be spent. Such charges are not just and reasonable and should not be approved by the Commission.

C. The utilities have failed to show that there is a need for the exceptional high-performance computing capability at LLNL

One of the proposed uses of the high performance computing center would be to replicate at LLNL a process that takes mere minutes to run their renewable integration model on a single computer using an Excel spreadsheet.³⁸ Putting aside the lack of any showing that the current computing capability is not fast enough, and that the algorithms and inputs should be determined

³⁷ RT vol. 1, p. 30:26 – p. 31:5.

³⁸ RT vol. 2, p. 259:6-24.

through a collaborative process led by the CAISO, the use of the high performance computing center could generate results that could not be usefully employed by the utility personnel currently assigned to the project. If the IOUs really want to improve the current renewable integration modeling process there are off-the-shelf solutions available that would cost a fraction of the proposed high performance computing expense.³⁹ The Application is simply asking ratepayers to fund a really expensive new sports car when a simple tune-up to the Chevy they already own would more than do the job.

The applicants' justification for not seeking research grants and private contributions to fund the project exemplifies the reasons why the Application is insufficient.⁴⁰ If the proposed Application is not sufficiently adequate to seek private funding and research grants, then why would it be adequate enough for the California ratepayers to fund it? While there may be worthwhile research that private funding would not pursue, such as research that furthers a critical state interest. However, that is not the case here. The applicants have not explained how the research proposed would further a critical state interest. In fact, the applicants have not actually proposed any research projects, but instead proposed a governance structure designed to remove oversight and control over research, development and deployment from the Commission. The Commission should not allow ratepayer funds to be expended on projects the utilities deem "premature" for consideration by granters and private investors.⁴¹

D. The application does not explain why the research should not be funded through the EPIC program or why the LLNL is the appropriate entity to perform the research.

1. The applicants did not make a meaningful effort to seek additional funding from other outside sources.

The applicants speculate that relying on ratepayer funding "may be a more cost-effective and efficient way to conduct R&D for the benefit of utility customers." The Application provides no basis for this statement. The applicants do not provide any workpapers, analysis or

³⁹ RT vol. 2, p. 259:25 – p. 260:11; RT vol. 1, p. 19:22 – p. 20:5 (\$52 million of the \$150 million is allocated for supercomputer costs).

⁴⁰ Cf., RT vol. 2, p. 310:26 – p. 311:12.

justification as to why ratepayers must independently shoulder the full cost of the Project. Applicants' responses to data requests indicate that the IOUs are relying solely on ratepayer funds for the Project, and private funding may be considered by the Board of Directors at a later time, and only after the Commission approves their proposal. In response to DRA Data Request DRA_001-04, Question 4(c), the IOUs state:

The Joint Utilities have not yet sought private contributions for project contemplated under the CES-21 Partnership project . . . the Board of Directors may consider private contributions as part of the governance process. It is premature to seek private contributions since the IOUs have not yet proposed specific projects to the Board of Directors for approval.⁴²

However, in the same breath the applicants argue:

[T]he Joint Utilities have presented real projects to solve real problems that would provide real customer benefits. This reality should not be diminished by the fact that these projects have not completed the detail project development and governance approval process envisioned for CES-21 . . . These CES-21 illustrative priorities are not hypothetical or theoretical.⁴³

The applicants' statements highlight key problems with their proposal. First, the assertion that the applicants have presented real projects is at best misleading. The applicants admit that their proposal is "premature" and lacks basic information and detail. The applicants state this as fact and acknowledge that they would have difficulties finding outside funding because they have not yet specified any projects.

Second, the Application demonstrates the gross double standard by which the applicants view ratepayer versus shareholder or other private funds. On one hand, the applicants argue that their proposal is just and reasonable, and expect the Commission to grant ratepayer funds for "real projects to solve real problems," while on the other hand state that it is premature to elicit private contributions "since the IOUs have not yet proposed specific projects." The applicants

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⁴¹ RT vol. 1, pp. 5:2-15, 6:7-11.

⁴² DRA-1, DRA Testimony filed March 1, 2012 at p. 2-5, *citing*, DRA Data Request DRA_001-04, Question 4(c).

⁴³ Joint Applicants' Rebuttal Testimony, p. 1-2 at lines 17- 21, and p. 1-3 at line 14.

cannot have it both ways. As previously noted, what is good for the goose must be good for the gander. It is entirely inappropriate to hold public investments to a lower standard than what would be expected from private investors. The Commission needs to ask itself – if the applicants consider their proposal premature and insufficient for shareholders or other private entities, then why do they consider it ripe and reasonable for the public?

The applicants’ proposal demonstrates the significance of the Commission adopted EPIC program. The EPIC program resulted from a constructive collaboration between the utilities and stakeholders, which yielded a comprehensive framework with specific RD&D criteria and threshold requirements. The EPIC program ensures that RD&D proposals maximize the benefits and minimize the costs to ratepayers.⁴⁴ It also allows the Commission to avoid wasteful and unsupervised uses of public funds on activities such as what is proposed in this application. In part, this is why DRA recommended,⁴⁵ and the Commission agreed, that pending RD&D requests must address how they meet the objectives and metrics of the EPIC program.⁴⁶

2. This project originated with LLNL and the objective appears to be to further the interests of the laboratory, not to meet any identified need of the utilities.

As noted above, the idea for this proposal originated with LLNL, not the utilities.⁴⁷ The utilities did not undertake a process to identify gaps in their technology; areas with the greatest potential for technological advance, economic benefit, or even processes that could easily be improved (“low hanging fruit”) by outside consultants. The Application simply does not explain whether and how the ideas proposed would not meet critical needs of the utilities. The ideas proposed are just those the utilities believe may best fit LLNL’s research capabilities. At the hearing the origination of this Application was explained:

Q [Mr. Haga:] How was Lawrence Livermore National Laboratory chosen to be the partner for this?

⁴⁴ See, e.g., Pub. Util. Code §8366

⁴⁵ DRA Reply Comments on the EPIC Phase II Proposed Decision, at p.1.

⁴⁶ D.12-05-037, *mimeo* at p. 29.

⁴⁷ RT vol 1, p. 5:18-23.

[WITNESS CHERRY:] Lawrence Livermore Labs approached PG&E some time early in 2010 and made a proposal. And over an 18-month timeframe there were a variety of negotiations between PG&E, Lawrence Livermore, and the three utilities.

Q Were other national laboratories, laboratories in California, research institutions considered?

A This proposal was unique to Lawrence Livermore. But I do want to emphasize that once this proposal reaches fruition, it will certainly include other national labs, other academic research institutions. It isn't specific to Lawrence Livermore. They just happen to be the public agency that we are going to partner with.⁴⁸

We also learned at the hearing that the original ideas proposed by LLNL to the utilities are not those that are discussed in the application.⁴⁹ Thus, we are left with an application based on the unsolicited proposal from a third party vendor.⁵⁰ While it is not clear that those unsolicited proposals from LLNL had actual defined research projects, it is less clear why the utilities didn't conduct a more thorough solicitation after rejecting the LLNL ideas. Instead of seeking the best fit and least cost option for this joint research project, the utilities appear to have sought to find areas in their companies that fit with LLNL's skill set, and simply proposed those without defining their own research needs. Of course, as explained above, since the Board can choose to do whatever it wants if the application is approved, why should the utilities have to identify the projects and work out the details now? The Commission should reject this recipe for failure and maintain the more robust and established processes that it has adopted for other ratepayer funded research, development and deployment.

⁴⁸ RT vol. 1, p. 5:16 – p. 6:6.

⁴⁹ RT vol. 1, p. 133:5 – p. 134:22.

⁵⁰ RT vol 1, p. 5:18-23.

E. The requested funding would duplicate funding authorized in other proceedings.

1. The proposal to model renewable integration would duplicate the Commission's initiatives in the LTPP proceeding.

Part of the requested funding would be used for renewable integration. Yet, the Commission's Long Term Procurement Plan (LTPP) Rulemaking will consider renewable integration as part of Track 2 of the proceeding, with workshops in 2012 and further modeling based on the 2012 LTPP adopted scenarios in 2013. In fact, one workshop was already held in June and there should be one in July, and perhaps another in September. The schedule shows that renewable integration is moving forward in the LTPP proceeding, which is where it belongs, an open process with input from all stakeholders. *See, May 17 Scoping Ruling in R.12-03-014.* There is no need to spend ratepayer funds to duplicate the efforts in R.12-03-014 at LLNL with an effort open only to the utilities.⁵¹

F. There is no legal basis for the creation of the Joint Partnership as proposed.

The Commission does not have the legal authority to approve ratepayer funding for the research, development and deployment described in the Application.

1. The lack of controls or limits on research that can be funded directly conflicts with the Legislative prohibition of funding for climate change research.

In 2008, the Commission sought to create a ratepayer-funded "California Institute for Climate Change Solutions" (CICS) to perform research related to climate change.⁵² DRA, TURN, and the Utility Consumers' Action Network (UCAN) sought rehearing of that decision on the ground that the Commission had exceeded its authority by creating a new agency and funding its research with ratepayer funds.⁵³ They attached to their rehearing application an April

⁵¹ *See generally*, RT vol. 2, p. 228:17-28, pp. 230:2 – 232:21.

⁵² D.08-04-039, modified by D.08-04-054.

⁵³ "Application for Rehearing of the Utility Reform Network, the Division of Ratepayer Advocates, and Utility Action Network for Rehearing of Decision 08-04-039," as Modified by Decision 08-04-056 (filed May 21, 2008 in R.07-09-008). A copy of the application for Rehearing can be found at

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28, 2008 legal opinion by the Legislative Counsel concluding that the Commission had indeed exceeded its authority in ordering ratepayer funding for the CICS. The Legislature subsequently passed, and the Governor signed, legislation ordering the Commission not to create or authorize ratepayer funding for a “research program for climate change unless expressly authorized to do so by statute.”⁵⁴ Consequently, the Commission vacated its decision that would have created the CICS and dismissed the pending applications for rehearing as moot.⁵⁵

The Legislative Counsel makes the important point that “the Commission’s constitutional authority to fix the rates of public utilities empowers the commission to determine the compensation to be paid to public utilities *only for providing utility service.*”⁵⁶ Research of the type proposed in the Application does not constitute the provision of utility service.

While there are differences between the CICS and the LLNL proposal presented in this Application, the applicants themselves point out similarities in an email correspondence with CPUC Commissioners stating, “[t]he concept is similar to but distinct from the proposed Climate Change Institute.”⁵⁷ Further, “[t]he board will be free to review any type of project that would provide benefits through applied RD&D that would help and benefit customers.”⁵⁸ As the Application places no limits on the type of research the Board can approve research projects “for climate change” could be conducted by LLNL contrary to the Legislative prohibition against such research with ratepayer funds. Given the claimed similarity, the lack of control the Commission has over the research projects, as well as Legislative Counsel’s legal opinion, the CPUC lacks legal authority to approve the LLNL proposal.

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<http://docs.cpuc.ca.gov/published/proceedings/R0709008.htm>.

⁵⁴ The pertinent provision was included in the bill authorizing the state budget, Assembly Bill (AB) 1338 (Stats. 2008, ch. 760. See Sec.27(a)). The Governor signed the bill on September 23, 2008 and it became effective immediately.

⁵⁵ D.08-11-060.

⁵⁶ Legislative Counsel Memo of April 28, 2008, at 6 (emphasis added).

⁵⁷ DRA-1, DRA Testimony filed March 1, 2012 at p.5-2, *citing*, Data Request TURN_003-Q02, Answer 2, Attachment 1. Email correspondence dated June 7, 2010.

⁵⁸ RT vol. 1, p. 30:26 – p. 31:5.

2. The proposed structure would subject the Board to specific reporting requirements and certain state restrictions under Public Utilities Code Section 326.5.

In September 2008, the Legislature passed AB 1338, which included a rider creating P.U. Code Section 326.5. Among other things, Section 326.5 requires the Commission to report to the Legislature certain information concerning entities or programs created by order of the Commission:

326.5 By January 10, 2009, and by January 10 of each year thereafter, the commission shall report to the Joint Legislative Budget Committee and appropriate fiscal and policy committees of the Legislature, on all sources and amounts of funding and actual and proposed expenditures, both in the two prior fiscal years and for the proposed fiscal year, including any costs to ratepayers, related to both of the following:

(a) Entities or programs established by the commission by order, decision, motion, settlement, or other action, including, but not limited to, the California Clean Energy Fund, the California Emerging Technology Fund, and the Pacific Forest and Watershed Lands Stewardship Council. The report shall contain descriptions of relevant issues including, but not limited to, all of the following:

- (1) Any governance structure established for an entity or program.
- (2) Any staff or employees hired by or for the entity or program and their salaries and expenses.
- (3) Any staff or employees transferred or loaned internally or interdepartmentally for the entity or program and their salaries and expenses.
- (4) Any contracts entered into by the entity or program, the funding sources for those contracts, and the legislative authority under which the commission entered into the contract.
- (5) The public process and oversight governing the entity or program's activities.

(b) Entities or programs established by the commission, other than those expressly authorized by statute, under the following sections:

- (1) Section 379.6.
- (2) Section 399.8.
- (3) Section 739.1.

(4) Section 2790.

(5) Section 2851.

As the legal structure and authority of the Board have not been explained,⁵⁹ it is not clear if the reporting requirements of P.U. Code Section 326.5 would apply to LLNL, all the IOUs, and the joint entity or some subset thereof. Without more information about the legal structure of the governing Board it is impossible to know at this point. However, given the broad scope of P.U. Code 326.5, it appears that all three IOUs and LLNL would be subject to specific reporting requirements, and, as a quasi-state entity, subject to certain state restrictions.

3. It is against the law for the Commission to approve a blank check!

As explained above, the Application has not provided enough information for the Commission to make a determination of reasonableness based on P.U. Code 740.1. Instead, they basically ask the Commission to hand over its responsibility in this regard to a governing Board, comprised primarily of IOU representatives. The Commission does not have the legal authority to do so.

III. CONCLUSION

For the reasons stated above, the Commission should deny the application.

Respectfully submitted,

/s/ ROBERT W. HAGA

Robert W. Haga

Attorney for the Division of Ratepayer
Advocates

California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Phone: (415) 703-2538
Fax: (415) 703-2262

July 20, 2012

⁵⁹ RT vol.1, p. 4:4 – p. 5:1.