**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric Company (U 39 M), San Diego Gas & Electric Company (U 902 E), and Southern California Edison Company (U 338 E) for Authority to Increase Electric Rates and Charges to Recover Costs of Research and Development Agreement with Lawrence Livermore National Laboratory for 21st Century Energy Systems	A.11-07-008 (Filed July 18, 2011)

REPLY BRIEF OF PACIFIC GAS AND ELECTRIC COMPANY (PG&E) (U 39 M), SAN DIEGO GAS & ELECTRIC COMPANY (SDG&E) ((U 902 E), AND SOUTHERN CALIFORNIA EDISON COMPANY (SCE) (U 338 E)

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Dated: August 7, 2012

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Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) (collectively,"Joint Utilities") provide their reply brief in support of the California Energy Systems for the 21st Century Project (CES-21). For the reasons discussed below, the Commission should reject the arguments of TURN and DRA in their opening briefs, and instead approve CES-21 as reasonable, in the public interest, and likely to provide unique and extraordinary benefits to customers in meeting California's 21st century energy and environmental policy goals and challenges.

I. INTRODUCTION AND EXECUTIVE SUMMARY

TURN and DRA filed opening briefs that make substantially the same argument against CES-21, the gist of which is that, no matter how detailed the scope of the CES-21 RD&D program and how detailed the governance process for approving CES-21 projects, the Commission should *not* and, indeed, *may not*, approve CES-21 without first reviewing and approving each and every individual RD&D project that results from the Commission-approved CES-21 program and governance process.[1/]

1/ TURN, Opening Brief, pp. 2- 3; DRA, Opening Brief, pp. 1- 3.

In TURN's and DRA's eyes, it does not matter that LLNL is a globally-renowned energy RD&D institution. Nor does it matter that CES-21 is endorsed by the California Energy Commission and California Independent System Operator and will include the CPUC, Energy Commission and CAISO as direct participants in reviewing and deciding the R&D priorities and projects funded by CES-21. Nor according to TURN and DRA is it relevant that the scope of CES-21 includes the exact same priorities for energy RD&D that the CPUC and the State of California have identified as critical to achieving California's energy and environmental goals, and that the amount of funding dedicated to CES-21 is well within the RD&D "funding gap" identified by the CPUC and other RD&D experts.

No, according to TURN and DRA, the deciding factor against CES-21 is that each specific, individual CES-21 project will not go through a separate, tedious, lengthy CPUC proceeding before being approved or disapproved for funding.

TURN's and DRA's arguments should be rejected as short-sighted, unworkable and unnecessary. As the Joint Utilities' opening brief demonstrated in detail, the scope of the CES-21 RD&D collaboration is innovative and extraordinary, and the governance of the CES-21 program will provide the Commission, utility customers and California policymakers with effective and extensive authority to ensure that CES-21 funding is spent wisely, prudently and for the clear benefit of utility customers and California.[2/] In fact, the CES-21 governance process for review and approval of RD&D projects and programs is remarkably similar to and consistent with the Electric Program Investment Charge (EPIC) investment plan process approved by the Commission two months ago in D.12-05-037.[3/]

2/ Joint Utilities, Opening Brief, pp. 6- 41.

3/ *Id.,* pp. 2- 5, 32- 41.

The Joint Utilities respond to each of TURN's and DRA's arguments in more detail below.

II. CONTRARY TO TURN AND DRA, THE CES-21 APPLICATION PROPOSES A DETAILED, COLLABORATIVE RD&D PROGRAM COMPARABLE TO OTHER COMMISSION-APPROVED RD&D PROGRAMS

TURN and DRA repeatedly argue that the Joint Utilities have provided little or no detail on the CES-21 RD&D program or on the specific projects that are likely to be funded by the program.[4/] Contrary to TURN and DRA, it is a positive virtue, not defect, of CES-21 that the Joint Utilities have provided details in this proceeding on potential and illustrative projects, but have deferred review and final approval of the actual projects to the collaborative and inclusive governing process proposed for CES-21. The whole purpose of CES-21 is to establish an unprecedented, extraordinary energy RD&D collaboration in California, instead of relying on 12- 18 month, project-by-project, approvals of RD&D expenditures.

If TURN and DRA's criticism is that CES-21 will bring a collaborative, programmatic approach to utility-funded energy RD&D, the Joint Utilities plead "guilty" – it is precisely this improvement that CES-21 is intended to promote.

Just as importantly, the CES-21 governance process is consistent with and remarkably similar to the governance process the Commission recently adopted in D. 12-05-037 for energy RD&D programs and projects funded by the Electric Program Investment Charge (EPIC).[5/] In its EPIC decision, the Commission instituted a process for reviewing and approving triennial RD&D "investment plans" to be presented by the Energy Commission and the individual utilities and which must include certain information about the scope of the RD&D plan and program.[6/] In particular, once the Commission has reviewed and approved

4/ TURN, Opening Brief, pp. 1- 2, 4, 10- 11, 14, 24- 25; DRA, Opening Brief, pp. 1- 2, 5- 13.

5/ D.12-05-037, pp. 22- 32, 63- 79; Ordering Paragraph 12, pp. 102- 104.

6/ *Id.*

the "investment plan," the Commission has delegated to the Energy Commission and the individual utilities the authority and responsibility to solicit, approve and fund specific RD&D projects consistent with the approved plan.[7/] Once the Commission has approved the three-year investment plan, no further approvals of individual projects funded under the approved investment plan are required.[8/]

As the Joint Utilities' opening brief demonstrated, the CES-21 governance process is remarkably similar.[9/] For example, CES-21, like EPIC, includes an overall strategic investment plan outlined in the CES-21 application, an annual budgeting and planning process approved by the collaborative board of directors, and an opportunity for public and stakeholder input.[10/] CES-21 includes formal criteria for approval of specific projects similar to the criteria adopted by the Commission for investment plans under EPIC.[11/] CES-21 includes open and transparent reporting to the Commission on an annual basis, just like EPIC.[12/] Finally, CES-21, like EPIC, includes an up-front stable stream of revenues available for the RD&D projects to be funded.[13/]

7/ D.12-05-037, p. 28; Ordering Paragraphs 5, 12- 16, pp. 100-- 106.

8/ *Id.* However, annual consultation with stakeholders and annual reports are required to the Commission. (See D.12-05-037, Ordering Paragraphs 15 and 16, pp. 104- 106). The Joint Utilities intend to provide similar annual reporting and consultation with stakeholders on CES-21.

9/ Joint Utilities, Opening Brief, pp. 3-5, 33- 40.

10/ *Id.,* pp. 4, 34- 35.

11/ *Id.,* pp. 3-4, 34, 36. Notwithstanding DRA's argument that CES-21 fails to comply with the statutory criteria of Public Utilities Code Section 740.1, DRA agrees that if the CES-21 criteria is similar to the EPIC criteria, DRA would support the CES-21 criteria. Tr. Vol. 2, p. 312 (DRA, Myers) (May 11, 2012). The CES-21 criteria also meets and exceeds the Section 740.1 criteria, including requirements that CES-21 projects demonstrate a reasonable probability of success, avoid duplication, and be consistent with the Joint Utilities' resource plans and California energy and environmental goals.

12/ *Id.,* pp. 33, 35, 40.

13/ *Id.*, pp. 41- 43.

TURN's and DRA's arguments that the CES-21 governance process is an inadequate and unprecedented substitute for project-by-project Commission approvals should be rejected.

III. CONTRARY TO TURN AND DRA, THE CRITERIA AND INITIAL "USE CASES" FOR CES-21 PROJECTS MEET AND EXCEED THE COMMISSION'S PRIORITIES AND CRITERIA FOR UTILITY RD&D PROGRAMS UNDER THE COMMISSION'S EPIC DECISION

TURN and DRA argue that the Joint Utilities' level of detail on specific and potential CES-21 projects is inadequate and unreasonable.[14/] TURN and DRA are incorrect. As the Joint Utilities' opening brief demonstrated at length, the Joint Utilities provided extensive details and multiple sets of testimony, on actual RD&D projects and areas that they intend to consider for CES-21.[15/] Tellingly, not one sentence in TURN's opening brief rebuts or even discusses the technical details of the potential CES-21 projects described by the Joint Utilities. Likewise, DRA's opening brief contains only one reference to the technical details of the potential CES-21 projects, and that reference is solely to an argument by DRA that the CES-21 resource planning project will duplicate "Commission initiatives" on renewable integration in the Long-Term Procurement Planning proceeding and in any event are unnecessary (arguments the Joint Utilities fully refuted in their rebuttal testimony).[16/]

In contrast to TURN and DRA, the ALJ in the hearings engaged the witnesses for the Joint Utilities in a discussion of the detailed examples of the specific types of projects they would request for initial consideration and evaluation by the CES-21 board.[17/] For example, the ALJ engaged witness Alvarez for the Joint Utilities in the following detailed, technical discussion of how LLNL's high-performance computing facilities might be used to improve utility electricity resource planning as proposed in the Joint Utilities' testimony:

14/ TURN, Opening Brief, pp. 1- 2, 4, 10- 11, 14, 24- 25; DRA, Opening Brief, pp. 1- 2, 5- 13.

15/ Joint Utilities, Opening Brief, pp. 10- 26.

16/ DRA Opening Brief, pp. 16- 17, 21; Exhibit U-3, Joint Utilities' Rebuttal Testimony, pp. 3-1- 3-7.

17/ Tr., Vol.2, pp. 200- 202, 204- 207, 237- 259 (CPUC, ALJ Sullivan) (May 11, 2012).

BY ALJ SULLIVAN: Mr. Alvarez, I had a follow-up question. In your answer, you said you're working to not only to be faster, but to have better models.

WITNESS ALVAREZ: A Right.

ALJ SULLIVAN: What is a better model? Is it more granular, different solutions that work better? What makes a model better? I don't -- that's something which I assume most of the experts know, but is something that it's helpful for us to know.

A Right. In today's operating environment, the ISO makes commitment decisions every 15 minutes and dispatches resources every 5 minutes. So potentially you would -- or you will have different prices for very small time intervals. Today, we're using a model that has a one hour granularity. And that is -- given the time that we have to prepare for our filings and our analysis, we're only able to run a few limited scenarios. So in addition to speed, we also need to be able to have a different approach to break the -- the resolution – to get a better resolution. Also, there are –

ALJ SULLIVAN: I have a question. Now, the next question. That's one thing. Okay. Why is that better? Do you save money? Do you have a sense of how much money you can save by having better resolution or shorter time planning horizons? Do you have any idea how much?

A Yes, and we -- I put together an estimate.

ALJ SULLIVAN: I'm sorry. I forgot.

A -- in the rebuttal testimony. The idea is today we define operating requirements like load following. Load following is a new service that the ISO needs in order to manage the forecast uncertainty within the hour. And right now we're making assumptions based on a single weather year and some statistical analysis. A potential new model would enable us to simulate different weather patterns as you go through the day and have a better resolution on that load following service requirement, which may reduce or may increase the current need that we are estimating with the tools we have.

ALJ SULLIVAN: Okay. Could you point in your testimony to where that estimate is? I'm sorry. I just can't remember.

A Yeah. That's in Chapter 3, pages 3-4 through 3 –

ALJ SULLIVAN: Oh, here it is. Okay. Thank you.

***

ALJ SULLIVAN: I'm going to ask a follow-up question, Mr. Alvarez. Basically it is to make sure I understood what you said. What you're talking about is that you basically run a model as to how to meet the day's forecast demand, is that the idea? And then that gives you a dispatch and a set of controls for your available technology? Is that how that works?

WITNESS ALVAREZ: Well –

ALJ SULLIVAN: Then if you have a more granular model, you get a different set? Is that what you're talking about here? I didn't understand the answer.

WITNESS ALVAREZ: Generally, the process is that the IOUs is simulate the system. So they use a production simulation model. The model has details as to the hourly load, the pattern of wind and solar generation. And we have kind of a deterministic pattern for load, wind and solar, which we know all those three are not deterministic. So in order to account for the uncertainty associated with load, wind and solar, we are adding regulation, load following requirements, as I mentioned, in addition to contingency reserve requirements.

ALJ SULLIVAN: When you say regulation, you mean power regulation, is that what you mean? You don't mean a rule; is that right?

WITNESS ALVAREZ: It means flexible capacity that can move up and down in order to capture the deviations between your short term forecast for load, wind and solar and your actual. So you have to have safety margin to be able to match your load. The objective is to match load and resources all the time.

ALJ SULLIVAN: Right.

WITNESS ALVAREZ: So with all those inputs, we have transmission constraints, and in a very simplified model, because the whole Western U.S. is representative of the model, and we have a few areas, not all the congestion that potentially occurs because of transmission limitations. Then we run the model. So we are saying, okay, find the solution. And what the model produces typically is prices, and it also gives us a sense for whether all those requirements are met, meaning in the set of resources that I gave it, was I able to satisfy the load, was I able to satisfy my operating requirements, the flexibility requirements. So what we are finding is deficiencies of capacity. And then the solution we currently use is kind of a trial and error solution to add resources until the violations are satisfied or met.

ALJ SULLIVAN: So basically you don't have an optimization algorithm?

WITNESS ALVAREZ: Right.

ALJ SULLIVAN: So you just basically do a feasible set and find out when the constraints are not met, and then you manually make interventions in your model?

WITNESS ALVAREZ: We just add more generation and run it again. And if we satisfy all the constraints of the operating requirements –

ALJ SULLIVAN: Is that a function of the lack of an algorithm that can optimize over so many variables, or is it a function of the lack of computing speed, or both?

WITNESS ALVAREZ: It's both, actually. It takes us a day to simulate a model currently.

ALJ SULLIVAN: Thank you very much. I apologize to Mr. Haga. The testimony is very complex. And I think the best way for me to understand it is to follow up when you ask a technical question rather than for me to come back at the end and do this. And I apologize if I'm messing up your flow of questioning.

MR. HAGA (DRA): No problem, your Honor. I get a lot of benefit from the dialogue that occurs, actually. So, thank you.[18/]

The CES-21 potential savings from using LLNL computing referenced by the Joint Utilities in this exchange with the ALJ are estimated by witness Alvarez to be as much as $552 million.[19/] Similarly, the ALJ engaged in the following detailed, technical discussion with Joint Utilities' witness Wong on the potential benefits of CES-21 in improving gas system modeling:

WITNESS WONG: A I think on the gas side in my area of work, gas operations is pretty broad. And my examples are in the gas modeling area. And from my perspective the benefits would have an impact in my area, but there may be other areas in gas that is outside of my area of expertise that may benefit from these, I guess, funds. But it is outside my particular area of expertise.

ALJ SULLIVAN: Okay. And the follow-up question would be: Would you -- with the liaison for Lawrence Livermore National Lab do you anticipate that what they would do at least for sure is improve the modeling of the gas flow systems in some way?

A Yes, that is something we definitely want to pursue.

ALJ SULLIVAN: Okay. And based on what – your experience with existing models, what are the expectations of the specific benefits that you would get?

A Definitely hoping for more stable optimization routine, and that will allow to do our work more efficiently. Right now there is manual intervention that is required a lot of times. If the answer is very far off from the starting point, it would not come to a solution and you would have to adjust the inputs and coach the model to a solution. And that really does have some issues when you are trying to batch runs, because you have to

18/ Tr., Vol.2, pp. 200- 202, 204- 207 (Joint Utilities, Alvarez) (May 11, 2012).

19/ Exhibit U-3, Joint Utilities' Rebuttal Testimony, pp. 3-4- 3-5.

be there to address any issues that the program might have. So that is one issue I would like to address. And the other one is more robust optimization. For example, taking into account those open and close valves, that is another area. And online simulation, that is another area that we are very interested in pursuing. We want to be able to take in real-time data from the field and run that in the background so that it is always doing computations on things like amount of gas going into a system versus amount of gas going out of a system. And if those numbers don't balance, it might mean you have a leak somewhere on that system. So that is something we are very much interested in pursuing. So those are the main areas that we are interested in. I believe most of that is in the testimony.

ALJ SULLIVAN: It was. And I was afraid that – I think the gas system I actually understood more of than most of the other systems. And so it seemed to me that -- but a lot of the testimony went to a certain point and then stopped. And the question was -- and it seemed to me that reading it between the lines you felt, okay, we've shown that this is a beneficial thing. But the question - but at the particular point I wasn't sure it was beneficial, because I'm not sufficiently familiar with the operations. The gas I was more familiar with. It seemed to me that the types of outcomes you would get is you would need less gas to operate a system to maintain pressures. You would -- and you could potentially reduce the pressures in the transmission and still meet your needs, and therefore, that would both be safer and more efficient. And that is sort of what I guessed, but you didn't really say that, as far as I could tell. But is that what I was supposed to jump to?

A Yes, that is correct. And also we talked about a little bit with the reduced costs that are more accurate for investment plans.

ALJ SULLIVAN: And one of the other things which I heard you just say you could detect leaks if the operations don't follow the metrics that you have in your forecast model, because the only explanation would be well, the gas is going somewhere else. Is that the idea?

A Right. If you use meters to figure out what is going into a system, it is going out. You could have some issues in that area.

ALJ SULLIVAN: That was very helpful.[20/]

Like witness Alvarez, witness Wong testified that the potential savings from CES-21 support for improved gas system modeling could be in the range of $8.75 million over 5 years, in addition to the improvements in safe and efficient gas system operations.[21/]

20/ Tr., Vol.2, pp. 240- 243 (Joint Utilities, Wong) (May 11, 2012).

21/ Exhibit U-3, Joint Utilities' Rebuttal Testimony, pp. 3-14- 3-15.

The ALJ also engaged in similar detailed discussions with each of the other witnesses for the Joint Utilities on the other potential RD&D projects identified in the testimony, including projects addressing Electric System Monitoring & Control and Cyber-Security.[22/] These discussions, along with the extensive testimony submitted by the Joint Utilities, totally refute TURN's and DRA's assertions that the Joint Utilities did not present any detailed, specific potential projects or areas for collaborative CES-21 RD&D. In fact, the Joint Utilities provided highly expert, specific, technical testimony and evidence demonstrating that the potential CES-21 projects are likely to provide direct benefits, cost-savings and safety and reliability benefits to the utilities' systems and operations.

IV. CONTRARY TO TURN, CES-21 WILL ENSURE THAT OTHER RD&D PROVIDERS WILL BE CONSIDERED FOR INDIVIDUAL PROJECTS, AND THAT LLNL WILL NOT BE AN EXCLUSIVE, "SOLE SOURCE" PROVIDER

TURN argues that CES-21 would treat LLNL as a "sole source" provider of RD&D services, and that it is unreasonable for the Joint Utilities to propose a relationship with LLNL without engaging in a competitive solicitation with other RD&D institutions and providers.[23/]

TURN's argument is fully mooted by the CES-21 governance structure, under which the Joint Utilities and LLNL have agreed that LLNL will not be treated as a "sole source" provider of RD&D services under CES-21, but instead the Joint Utilities and CES-21 governing board will consider services from RD&D providers other than LLNL.[24/]

However, TURN's argument goes one step further, and asserts that the Joint Utilities should not even have proposed and filed CES-21 at the Commission without competitively soliciting other RD&D institutions and providers that may have been interested in joining the

22/ Tr., Vol.2, pp. 239, 243- 250, 253- 259 (Joint Utilities, Mikovits, Sherick) (May 11, 2012).

23/ TURN, Opening Brief, pp. 6- 10.

24/ Joint Utilities, Opening Brief, pp. 4, 36, 38.

collaboration proposed by the Joint Utilities and LLNL.[25/] On closer scrutiny, this argument is meaningless, because the Joint Utilities are already committed to considering proposals by other RD&D institutions and providers to not only provide RD&D services, but also to join with the Joint Utilities and LLNL in the overall collaboration. This is exactly the open approach that the Joint Utilities took with the Energy Commission and CAISO after filing the CES-21 application – the Joint Utilities invited the Energy Commission and CAISO to participate more formally in the overall collaboration, and they readily agreed. The Joint Utilities welcome participation and formal collaboration by other energy RD&D institutions and providers similar to LLNL.

TURN also argues that somehow, because the Joint Utilities did not formally solicit other RD&D institutions before filing this application, that therefore the "unique skill set and capabilities" that LLNL presents are phony or false.[26/] This argument borders on the frivolous, given the publicly-recognized, world-renowned capabilities and resources of LLNL. Dr. Julio Friedmann of LLNL provided a detailed summary of LLNL's unique facilities, skills and resources in his testimony.[27/] But the Joint Utilities need not – and, indeed did not – rely on LLNL to come to the conclusion that LLNL presents unique and valuable resources and tools that could provide immense value to the utilities and their customers. LLNL's expertise and leadership on RD&D, particularly high-performance computing, is recognized globally as well as by California leaders and policy-makers.[28/] TURN's assertion to the contrary should be rejected.

25/ TURN, Opening Brief, pp. 7- 9.

26/ *Id.*, pp. 7, 9.

27/ Exhibit U-3, Joint Utilities' Rebuttal Testimony, Chapter 3.

28/ Exhibit U-3, Joint Utilities' Rebuttal Testimony, Chapter 1, Attachments A, B and C (letters from U.S. Senator Dianne Feinstein; California Independent System Operator, and California Energy Commission); Joint Utilities, Opening Brief, p. 9, fn.31.

V. THE COMMISSION'S ROLE IN THE GOVERNANCE PROCESS ENSURES THAT THE $150 MILLION, 5-YEAR BUDGET FOR CES-21 IS REASONABLE AND NOT A "BLANK CHECK"

TURN and DRA argue that the CES-21 governance process is inadequate, and that the $150 million in funding requested for CES-21 over 5 years is an unreasonable "blank check."[29/]

The Joint Utilities' opening brief fully responds to both these issues, demonstrating that the CES-21 governance process will ensure that CES-21 expenditures are subject to prior review in detail by the CES-21 Board of Directors (including a director representing the CPUC) and that the expenditures are prudent, reasonable and beneficial.[30/] In addition, the Joint Utilities' opening brief demonstrated that the $150 million cap on CES-21 expenditures is reasonable and modest in light of the Commission's policy findings and recommendations in the EPIC proceeding regarding California's energy RD&D "funding gap."[31/]

More specifically, however, TURN and DRA argue that the CES-21 governance process, including the role of the CPUC as a member of the CES-21 board of directors, is an unreasonable and unlawful delegation of the Commission's fundamental authority to review and approve utility expenditures and rates.[32/] The Joint Utilities respond to TURN's and DRA's policy argument in this section of the brief, and respond to their legal argument in the next section.

As a matter of Commission authority, policy and precedents, TURN's and DRA's arguments claim too much and fall flat.

First, the CES-21 governance process actually provides the Commission with a greater, more direct oversight role than it has played in the past on utility RD&D expenditures. In both the EPIC proceeding and in the utilities' General Rate Cases, the Commission has approved budgets for energy RD&D that are subject to broad guidance and principles on utility-funded

29/ TURN, Opening Brief, pp. 3- 5; DRA, Opening Brief, pp. 10- 11.

30/ Joint Utilities, Opening Brief, pp. 32- 41.

31/ *Id.*, pp. 41- 42.

32/ TURN, Opening Brief, pp. 17- 28; DRA, Opening Brief, pp. 13- 15.

RD&D programs, while leaving the project-by-project decisions and expenditures to the individual utilities or providers (such as the Energy Commission). In these traditional RD&D programs, the Commission's oversight and supervision has been the same as for other utility forecast ratemaking cases – the utilities report periodically to the Commission on their activities and expenditures, and the Commission retains the right to audit and review the expenditures on as-needed basis, and to "re-set" the program budgets on a prospective basis in the next General Rate Case or program budget filing.[33/]

In contrast, the Commission's oversight role in CES-21 will be much more "hands-on" and current – it will serve on the CES-21 Board of Directors and will participate in all key decisions implementing the CES-21 program, from project-by-project review, to hiring decisions, to strategic planning and budgeting. This is a much more active form of "oversight" and "supervision" than most other Commission-approved programs.

TURN and DRA make much of the fact that the Commission will have only one vote on the CES-21 Board of Directors, and argue that CES-21 decision-making will not be "consensus-building" because the Commission will not have a veto over CES-21 decisions.[34/] This is simply not the way the CES-21 governance process will work, nor does it reflect the reality of the Commission's "greater-among-equals" role in any oversight of utility activities, expenditures and programs. The reality is that, vote or no vote, the Commission will have a "de facto" veto over CES-21 decisions and expenditures, because it always retains the ability to audit, investigate or directly modify the utilities' rates and funding for CES-21. If that were not so, why would the Joint Utilities have proposed a more active role by the Commission in CES-21 expenditures than the Commission currently exercises in overseeing current utility expenditures for RD&D and non-RD&D purposes?

33/ See, e.g., D.12-05-037, pp. 100- 106, Ordering Paragraphs 5- 16; Exhibit U-1, Joint Utilities' Direct Testimony, Chapter 1, Attachment A, Individual Utility Research and Development Funding (Excludes Public Goods Charge Research & Development Funding).

34/ TURN, Opening Brief, pp. 18- 19; DRA, Opening Brief, p. 13.

As discussed above, the role of the Commission in the CES-21 governance process will be similar and in fact more robust than the Commission has adopted for itself in the EPIC proceeding. In the EPIC process, the Commission will review and approve "investment plans" filed by the Energy Commission and utilities, but once the investment plans have been approved, the Commission will not require that individual projects funded under the investment plans be submitted and approved on a project-by-project basis.[35/] CES-21 is wholly consistent with the EPIC process – the Joint Utilities have submitted their CES-21 overall investment plan and budget to the Commission in this application, just like the EPIC investment plans. If the Commission approves the CES-21 plan, the Joint Utilities will move forward to implement it through specific projects—again, just like EPIC.

TURN cites the Stewardship Council established by PG&E's bankruptcy settlement as an example of "consensus decision-making."[36/] The Joint Utilities agree with TURN that the Stewardship Council governance process requires unanimous votes by the board of directors on key decisions, thus giving the Commission an effective veto over Stewardship Council decisions. From a practical perspective, this is analogous to the Joint Utilities' expectation that the Commission would have a "de facto" veto on significant CES-21 matters.

TURN's and DRA's "blank check" arguments should be rejected, because in fact the Commission's role in the CES-21 governance process will be more robust and effective than its traditional role in overseeing utility expenditures, and the CES-21 governance process is consistent with the process adopted by the Commission for approving RD&D funding and investment plans in its recent EPIC decision, D.12-05-037.

35/ D.12-05-037, pp. 100- 106, Ordering Paragraphs 5- 16.

36/ TURN, Opening Brief, p. 23.

VI. CONTRARY TO TURN AND DRA, THE CES-21 COLLABORATION IS NOT AN UNLAWFUL DELEGATION OF THE COMMISSION'S AUTHORITY, AND DOES NOT VIOLATE THE LEGISLATURE'S PROHIBITION ON FUNDING FOR CLIMATE CHANGE RESEARCH

TURN and DRA argue at some length that Commission approval of EPIC would constitute an "unlawful" delegation of the Commission's authority to the Joint Utilities. The proposed funding level for CES-21 is a maximum of $150 million over 5 years, spread among all three of the Joint Utilities.[37/] This legal argument already has been addressed and rejected by the Commission in the EPIC proceeding as well as other proceedings.[38/] Basically, the argument is that the Commission may not approve any RD&D program under the Public Utilities Code, if the program provides any discretion to the utilities to determine the scope of RD&D projects and activities under the program—even if the RD&D program otherwise meets the criteria for RD&D expenditures under Public Utilities Code Section 740.1.

In the EPIC Phase 2 decision, SCE argued that the EPIC process would grant discretionary power to the Energy Commission, limit the Commission's regulatory oversight, require infrequent Commission evaluation, and fail to provide for an authoritative governing board. Over SCE's objections, the Commission approved an EPIC process under which the Energy Commission and the individual utilities will submit RD&D "investment plans" to the Commission for review and approval, and if approved, will then proceed themselves to solicit, approve and implement specific RD&D projects consistent with the approved "investment plans."[39/]

Similarly, in the Commission's more traditional reviews of the individual utilities' General Rate Cases, the Commission has routinely approved the utilities' RD&D expenditures on a programmatic basis, leaving the utilities with discretion to implement specific projects

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37/ Exhibit U-1, Joint Utilities' Direct Testimony, pp. 3-1- 3-3.

38/ See discussion, D.12-05-037, pp. 22- 32.

39/ *Id.*, pp. 25- 32.

consistent with the Commission's guidance and criteria for the programs.[40/] More specifically, in the Phase 1 EPIC D.11-12-035, the Commission directly responded to an argument that its transfer of funds to the Energy Commission to administer an overall RD&D program would constitute an unlawful delegation of the Commission's authority. The Commission rejected the argument as follows:

> *…[W]hile the Commission cannot delegate its authority and responsibility to determine recoverable costs, program rules, regulations and policies, it does have authority to transfer the day to day administration of a program, as it does with a variety of programs. The Commission can and should accept the input of the Energy Commission in its oversight, planning, rule and policy making, but can and should maintain appropriate responsibility for final authority of the program, particularly in so far as policy and programmatic matters and final funding levels are concerned. We conclude that we have continued authority to provide funding for RD&D programs, which may be administered by the Energy Commission….*[41/]

TURN also argues that the "degree" of delegation proposed for CES-21 here exceeds that approved by the Commission in other proceedings, such as the Stewardship Council's governance of expenditures under PG&E's Commission-approved bankruptcy settlement.[42/] But the Stewardship Council example cited by TURN—Commission approval of the disposition of utility property under Public Utilities Commission Section 851—is irrelevant to the governance of RD&D expenditures. First of all, TURN's example applies to the disposition of utility land, not the program expenditures authorized by the Stewardship Council under the bankruptcy settlement. Second, the disposition of utility land is subject to a narrow statutory approval requirement under the Public Utilities Code, unlike the broad authority of the Commission to approve RD&D expenditures generally under Section 740.1 of the Code. And, of course, at the same time TURN is criticizing the Stewardship Council as an inappropriate example of

40/ Exhibit U-1, Joint Utilities' Direct Testimony, Chapter 1, Attachment A, Individual Utility Research and Development Funding (Excludes Public Goods Charge Research & Development Funding).

41/ D.11-12-035, p. 23. SCE has applied for rehearing of the Commission's transfer of funds to the Energy Commission, primarily on grounds other than unlawful delegation of authority.

42/ TURN, Opening Brief, pp. 22- 24.

Commission delegation, it is endorsing the "consensus-decision-making" governance process of the Council, which the Joint Utilities expect will apply to the decisions of the CES-21 board as well.

In a similar vein, TURN argues that the Joint Utilities have proposed an unlawful delegation of authority because the CES-21 Board of Directors would have responsibility to "determine recoverable costs, program rules, [or] regulations and policies."[43/] Contrary to TURN's assertion, the Board of Directors would not have an inappropriate amount of discretion. The Joint Utilities have adequately described the scope of proposed research and the Application seeks approval of this scope of work (i.e., "program elements" per D.06-01-024). With respect to cost recovery, TURN acknowledges that the utilities have proposed approval of maximum funding levels. There is no legal prohibition on the Joint Utilities or the CES-21 Board of Directors deciding to spend less on an authorized research program, just like utilities may spend less than their authorized GRC revenue requirement. Furthermore, the Joint Utilities' proposal to establish a Board of Directors to administer the CES-21 program is legally no different than the Commission's decision to delegate authority to administer the CSI RD&D program to staff, consultants and the CEC.[44/] The Joint Utilities are simply requesting that a similar amount of discretion be delegated to a Board of Directors that includes a Director representing the CPUC. As described previously, such a governance approach will provide the Commission with more control and oversight than it normally exercises over RD&D programs,

As a secondary legal argument against CES-21, TURN and DRA also argue that the Commission lacks authority to approve any CES-21 RD&D because any such RD&D is legally barred by Assembly Bill (AB) 1338, which prohibits the Commission from adopting or executing "any similar order or decision establishing a research program for climate change

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43/ TURN, Opening Brief, p. 20.

44/ D.06-01-024, p. 37

unless expressly authorized to do so by statute."[45/] This legal argument by TURN and DRA should be rejected as well. When similar arguments were raised regarding the applicability of AB 1338 to the scope of RD&D activities proposed in the EPIC proceeding, the Commission expressly found that it had adequate and broad legal authority under other provisions of the Public Utilities Code to fund energy RD&D programs.[46/] In any event, the scope of RD&D proposed for CES-21 does not include "climate change research," and so the prohibition in AB 1338 is inapplicable to CES-21 on its facts.

VII. CONCLUSION – TURN'S AND DRA'S LEGAL AND POLICY ARGUMENTS AGAINST CES-21 SHOULD BE REJECTED, AND CES-21 SHOULD BE APPROVED

TURN's and DRA's legal and policy arguments attempt to shift the debate on CES-21 from an objective discussion of the detailed and collaborative energy RD&D program envisioned by CES-21, to simplistic and unsupported arguments about the Commission's authority to review and approve an RD&D program such as CES-21 that includes all three California IOUs, the world-renowned Lawrence Livermore National Laboratory, the Commission, the Energy Commission and the CAISO. TURN's and DRA's backward-looking objections to CES-21 should be rejected.

As the Joint Utilities demonstrated in their opening brief, CES-21 is a forward-looking, outwardly-focused public-private partnership that is needed to ensure the long-run success of California's electric and natural gas industries and the State's future economic growth, competitiveness, and quality of life. Moreover, as discussed in the governance section of their opening brief, the Joint Utilities have proposed an appropriate level of Commission oversight, consistent with Commission oversight of other RD&D programs, to ensure that the interests of utility customers are fully and openly protected and represented.

45/ TURN, Opening Brief, pp. 25- 28; DRA, Opening Brief, pp. 21- 22.

46/ D.11-12-035, pp. 12, 16- 19.

CES-21 is a sound investment in the future for the benefit of utility customers and California. The Commission should approve CES-21.

Respectfully Submitted this 7th day of August, 2012,

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Dated: August 7, 2012

CERTIFICATE OF SERVICE BY ELECTRONIC MAIL

I, the undersigned, state that I am a citizen of the United States and am employed in the City and County of San Francisco; that I am over the age of eighteen (18) years and not a party to the within cause; and that my business address is 77 Beale Street, San Francisco, California 94105.

I am readily familiar with the business practice of Pacific Gas and Electric Company for collection and processing of correspondence for mailing with the United States Postal Service. In the ordinary course of business, correspondence is deposited with the United States Postal Service the same day it is submitted for mailing.

On August 7, 2012, I served a true copy of:

REPLY BRIEF OF PACIFIC GAS AND ELECTRIC COMPANY (PG&E) (U 39 M), SAN DIEGO GAS & ELECTRIC COMPANY (SDG&E) (U 902 E), AND SOUTHERN CALIFORNIA EDISON COMPANY (SCE) (U 338 E)

[**XX**] By Electronic Mail – serving the enclosed via e-mail transmission to each of the parties listed on the official service list for **A.11-07-008** with an email address.

[**XX**] By U.S. Mail – by placing the enclosed for collection and mailing, in the course of ordinary business practice, with other correspondence of Pacific Gas and Electric Company, enclosed in a sealed envelope, with postage fully prepaid, addressed to those parties listed on the official service list for **A.11-07-008** without an e-mail address.

And the following individual by hand delivery:

ALJ Timothy J. Sullivan
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed in San Francisco, California on August 7, 2012.

/s/
MARTIE WAY