PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

COMMISSION ADVISORY AND
COMPLIANCE DIVISION
Energy Branch

RESOLUTION E-3376
April 6, 1994

R E S O L U T I O N

RESOLUTION E-3376. PACIFIC GAS AND ELECTRIC COMPANY REQUESTS AUTHORIZATION TO REDIRECT FUNDING WITHIN ITS 1993 THROUGH 1995 RESEARCH, DEVELOPMENT AND DEMONSTRATION PROGRAM.

BY ADVICE LETTER 1456-E, FILED ON DECEMBER 22, 1993.

SUMMARY

1. In Advice Letter 1456-E, Pacific Gas and Electric Company (PG&E) requests authorization to redirect funding within its 1993-1995 Research, Development and Demonstration (RD&D) program.

2. A protest was filed by the Division of Ratepayer Advocates (DRA).

3. This Resolution approves Advice Letter 1456-E as filed.

BACKGROUND

1. The Commission first adopted RD&D fund shifting guidelines for San Diego Gas and Electric Company (SDG&E) in D.91-10-046. Shortly thereafter, fund shifting guidelines were also adopted for Southern California Edison Company (Edison) in D.91-12-076[1]. Guidelines, similar to those adopted for Edison, were later adopted for PG&E and Southern California Gas Company (SoCalGas) in D.92-12-057 and D.93-12-043, respectively.

2. In Ordering Paragraph 17 of D.92-12-057, the Commission stated:

> PG&E is authorized to shift RD&D program funding by 20% without further Commission [authority], 20% to 50% if the Commission grants an advice letter request, and above 50% if the Commission grants a request by application.

1 These guidelines were clarified in D.92-08-042.

3. In this same decision, the Commission authorized funding levels for each of PG&E's program areas for the 1993 through 1995 General Rate Case (GRC) cycle. PG&E has since revised its RD&D program as follows:

Program Area	1993-1995 GRC	1993-1995 Planned	Variance	% Change
	(nominal $ x 1,000)			
Advanced Energy Systems	18,365	9,404	(8,961)	(49)
Power Plant Systems	11,631	13,790	2,159	18
Energy Delivery & Control	22,579	21,461	(1,118)	(5)
Customer Systems	24,529	24,844	315	1
Environment, Health & Safety	12,658	11,970	(688)	(6)
Research, Policy & Planning	72,990	73,778	788	1
Total	162,752	155,247	(7,505)	(4)

4. Pursuant to the fund shifting guidelines adopted in D.92-12-057, PG&E filed Advice Letter 1456-E requesting Commission approval to reduce the three-year authorized Advanced Energy Systems (AES) RD&D program area from $18.4 million to $9.4 million, or by approximately 49%. PG&E has reallocated a portion of these funds (about $2.2 million) to increase the GRC authorization for Power Plant Systems (PPS) program area by approximately 18%, but has not reallocated the remaining funds to other RD&D program areas. Any unspent funds at the end of the GRC cycle will be returned to ratepayers in 1996.

NOTICE

1. Advice Letter 1456-E was served on other utilities, government agencies, and to all interested parties who requested such notification, in accordance with the requirements of General Order 96-A.

PROTESTS

1. January 11, 1994 was the last day to file protests to Advice Letter 1456-E. Due to outstanding data inquires, DRA requested an extension. PG&E completed its data responses on January 31, 1994. On February 10, 1994, DRA filed a protest. On February 17, 1994, PG&E responded to DRA's protest. The

Commission Advisory and Compliance Division (CACD) has considered both DRA's protest and PG&E's response to the protest.

DISCUSSION

1. In D.92-12-057, the Commission adopted RD&D fund shifting guidelines for PG&E but did not specify whether the guidelines should apply on a GRC or on an annual basis.

2. It is PG&E's position that the Commission's fund shifting guidelines should apply on a GRC cycle basis. PG&E states that its 1993 GRC request for RD&D was based upon a three-year (1993 through 1995) funding projection, and was averaged to determine the annual amount for each program area. Since the basis for its GRC request was a three-year total, PG&E believes that it is appropriate to apply the fund shifting guidelines to the three-year totals for each RD&D program area. Given this interpretation, PG&E believes that it has the discretion to make changes within these RD&D program areas, as long as the total amount in each RD&D program area does not change by more than 20%.

3. PG&E further supports its argument by citing a part of D.92-12-057 in which the Commission granted PG&E additional budgeting flexibility with respect to its RD&D one-way balancing account. The Commission, for the first time, allowed PG&E to reconcile its RD&D one-way balancing account over the GRC cycle instead of annually. To date, SoCalGas is the only other energy utility that has obtained this additional budgeting flexibility for its respective RD&D one-way balancing account.

4. DRA believes that the fund shifting guidelines should be applied on an annual basis. DRA argues that this is consistent with the fund shifting rules which were adopted by the Commission for Edison and SDG&E. Using this interpretation, DRA believes that PG&E should have submitted an application rather than an advice letter requesting authorization for the decrease to its AES program area because the projected annual change for 1994 is 60% Using this same argument, DRA asserts that Commission approval through an advice letter is required for PG&E's increase to its PPS program area because the projected annual change for 1994 is 30%.

5. Recognizing the uncertainty regarding the time period over which the fund shifting guidelines apply, DRA has accepted the advice letter as the proper forum to address PG&E's proposed fund shifting in this instance. However, DRA has requested that the Commission clarify the appropriate time frame applicable to PG&E for any future fund shifting.

6. Although the Commission's guiding language for RD&D fund shifting rules is similar for all the energy utilities, certain differences do exist. One such difference is that the Commission explicitly indicated that the fund shifting guidelines are applicable on an annual basis for Edison and SDG&E, but did not adopt explicit language for PG&E. The relevant excerpts are cited below.

7. Pursuant to a settlement agreement approved by the Commission in D.91-10-046, SDG&E must comply with the following:

> SDG&E should be limited to annual shifts between programs, without prior Commission approval, to no more than $200,000 or 20%, whichever is greater....The Advice Letter procedure will be used by SDG&E to request funding shifts in excess of the above limits for any program. SDG&E should file an application if it wishes to change the funding level for any program by more than 50% or $300,000, whichever is greater. (emphasis added)

8. Edison must adhere to the following, per D.91-12-076, as modified by D.92-08-042:

> Edison and DRA have agreed that, on an annual basis, any shifting of RD&D funds among authorized or new programs should be done by application if more than 50% of the funds are redirected, by advice letter if more than 20% but less than 50% of program funds are redirected and at Edison's discretion if shifted funds are less than 20% of authorized program expense levels. We accept these limitations, but clarify that the percentages apply to both funding source and funding target programs... According to this guideline an application would be required for any entirely new RD&D program. (emphasis added)

9. In PG&E's 1993 GRC, DRA recommended that PG&E be subject to the same rules regarding limitations on shifting funds within its RD&D budget that the Commission required of Edison and SDG&E. In D.92-12-057, the Commission stated that:

> The program guidelines regarding [RD&D fund] shifting are as follows: PG&E could redirect 20% of its program funding without further Commission authority, 20 to 50% if the Commission grants an advice letter request, and above 50% if the Commission grants a request by application. These are the same restrictions placed on the other utilities... For now, we will adopt DRA's recommendation to apply the same shifting of funds requirement for PG&E that is currently applicable to Edison and SDG&E. Although somewhat restrictive these guidelines still give the utilities the flexibility and management discretion to redirect funds to meet overall strategy and RD&D program needs.

In Finding of Fact 112 of this same decision, the Commission found that:

> It is appropriate that each utility be dealt with consistently regarding shifting of funds in their RD&D programs.

10. Policies on RD&D fund shifting and the one-way balancing accounts are meant to provide utilities with a degree of flexibility while maintaining assurance that RD&D funds are either spent on approved RD&D or returned to ratepayers. For SDG&E and Edison, the Commission has established RD&D fund

shifting and one-way balancing account rules which apply on an annual basis. For PG&E and SoCalGas, however, the Commission adopted RD&D one-way balancing account rules which apply on a GRC cycle basis, but did not clearly specify the time period applicable to fund shifting.

11. On January 18, 1994, the California Utility Research Council (CURC) sponsored a workshop to discuss the Commission's RD&D fund shifting guidelines. Each energy utility identified problems that they have experienced to date with regard to interpretation of the Commission's fund shifting rules. PG&E pointed out its situation with respect to its additional RD&D one-way balancing account flexibility, and the fact that no time frame was specified for its fund shifting.

12. With the exception of DRA, there was a general consensus that the movement towards GRC cycle fund shifting guidelines would mitigate many of the problems experienced to date. The purpose of the Commission's fund shifting guidelines is to prevent the utilities from spending substantial portions of their GRC-authorized RD&D funds on RD&D which has not had appropriate review by the Commission. CACD believes that the administrative burden associated with numerous annual advice letter filings and/or applications could be reduced by explaining budget variances in the utilities' Annual RD&D reports.

13. To implement the fund shifting rules for a GRC cycle on a prospective basis, utilities need to first have authorization to record RD&D expenditures in the one-way balancing account on a GRC cycle basis. To date, only PG&E and SoCalGas have this flexibility.

14. Given the linkage between the Commission's rules on the one-way balancing account and fund shifting, and recognizing that PG&E is allowed to apply the one-way balancing account rules on a GRC cycle basis, CACD recommends that the Commission clarify its fund shifting rules to allow PG&E to apply the fund shifting guidelines over the GRC cycle, as well. This is consistent with the Commission's intent to allow the utility to maintain flexibility in the timing of its RD&D expenditures.

15. Instead of requiring PG&E to file advice letters and/or applications on an annual basis, CACD recommends that PG&E be required to provide in its RD&D Annual Report, fund shifting status tables indicating any variance(s) at that point in time from the authorized program area levels .

16. With the clarification that PG&E can apply fund shifting guidelines on a GRC cycle basis, CACD finds that PG&E has appropriately filed Advice Letter 1456-E requesting authorization for the funding changes made to its AES program area.

17. In 1993, PG&E reorganized its RD&D department. As part of this reorganization, PG&E merged its AES and PPS program areas into one program area now called Generation and Storage and reduced the total three-year (1993-1995) RD&D program funding that had been authorized in the GRC by approximately $8 million, or 4%. PG&E claims that while the planned three-year funding for

the other four RD&D program areas has also changed, the AES program area is the only one that changed by more that 20% (i.e. the only program area change requiring an advice letter filing).

18. As outlined in Advice Letter 1456-E, PG&E's reduction in the AES program area reflects PG&E's conditional offer to exit the new generation business. PG&E offers to exit the new generation business in exchange for the ability to plan for and acquire new resources on a flexible basis, at market prices, terms, and conditions. If this offer is accepted by the Commission, PG&E's future supply-side resource needs will be met by power purchases from Independent Power Producers or other utilities. PG&E does not consider efforts in fuel cells, wind, solar thermal, and advanced gas turbines to be of sufficient value in light of this strategy. Consistent with the offer to exit the new generation business, PG&E believes that RD&D efforts on these technologies are best coordinated and funded by the market players that PG&E would look to for its future generation supplies.

19. DRA supports PG&E's proposal to exit the new generation business and generally supports PG&E's refocus of the AES program area. DRA states that is has advocated a ban on utility participation in the wholesale generation market to further a viable generation market and thereby reduce California's high electricity rates.

20. The Commission authorized $18.4 million for the AES program area for the 1993-1995 GRC cycle. PG&E is now planning to spend approximately $9.4 million, or 51% of that authorization. DRA recommends that PG&E spend approximately $8.8 million. The following table provides a project level breakdown of PG&E's funding changes and DRA's funding recommendations:

Project	GRC	PG&E	DRA
	(nominal $ x 1,000)		
Solar Thermal Development & Testing	2,173	175	175
Wind Development & Analysis	342	300	100
System Storage Development	171	150	150
Photovoltaic Development & Testing	171	875	875
PVUSA	3,421	1,725	1,725
Hybrid Energy Systems	3,307	100	34
Advanced Thermal Generation	3,481	750	750
Strategic Studies	171	100	100
Fuel Cell R&D at PG&E Test Facility	1,710	650	350
Distributed Utility: Customer Sited PV	0	415	415
Distributed Utility: Modular Gen-Sets	1,710	1,380	1,380
Distributed Utility: Batteries	1,710	2,784	2,784
Total Advanced Energy Systems	18,367	9,404	8,838

21. DRA either supports or does not dispute the funding levels for all but three of PG&E's research projects. DRA recommends that PG&E's (reduced) funding for wind, hybrid energy systems and fuel cell research projects be further reduced. DRA contends that the amount PG&E is retaining to scan and monitor the

development of these technologies is unreasonable. DRA believes that PG&E does not need to monitor technologies that it has no intention of building and cites PG&E's strategy that RD&D efforts on these technologies are best coordinated and funded by the market players.

22. PG&E responded that although it has reevaluated its leadership role in these RD&D activities and reduced planned expenditures to about $1 million over the three-year period, PG&E believes that it is prudent to spend that amount to maintain minimal involvement with these technologies.

23. CACD agrees with PG&E that it is reasonable to scan and monitor these RD&D efforts through analysis, reports and data purchase, and technology transfer work. Accordingly, CACD recommends adopting PG&E's new AES program area funding level of $9,404,000 for 1993-1995.

24. In Advice Letter 1456-E, PG&E did not provide documentation to support its request to increase the PPS program area, presumably because the GRC cycle funding request for the program area is less than a 20% difference from that authorized in the GRC. Although CACD agrees that the PPS program area doesn't warrant review because the increase by itself does not trigger an advice letter filing, it does warrant review in this case because the increase is a result of the AES program area funding shift. PG&E proposed to cut its AES program area by $8,961,000. Of that amount, it redirected $2,159,000 (or 24%) to the PPS program area with the remaining $6,802,000 (or 76%) to be refunded to ratepayers in 1996.[2] CACD believes it is appropriate to review PG&E's proposed changes to its PPS program area in this Resolution.

25. DRA requested that PG&E provide project descriptions of all planned changes to its PPS program area. PG&E responded with project descriptions for the increased funding. While PG&E provided an overview of the new projects it would like to add to its PPS portfolio, DRA found no justification for an increase in funding. DRA recommends that PG&E work within the PPS program area funding level authorized by the Commission in the GRC and proceed with the most valuable PPS projects, whether new or old. PG&E has reduced and added projects within its Customer Systems and Environment, Health & Safety program areas, with the net impact resulting in relatively no change in the funding levels for these program areas. DRA recommends PG&E use the same management discretion within its PPS program area.

26. PG&E asserts that the reduction to the AES program area enabled increased funding for meaningful RD&D in the PPS program area that had originally been deferred due to lack of funding.

---

2 At this time, PG&E does not plan to redirect any of the funding targeted for refund. PG&E has acknowledged that any future redirection of these funds to other RD&D program areas will be done in accordance with the Commission's fund shifting guidelines.

CACD points out that as part of the company's overall effort to reduce costs, PG&E's management reduced the three-year (1993-1995) RD&D program funding by approximately $8 million. The corporate RD&D strategy was reviewed with PG&E's internal business units and operating department clients to determine where reductions should be made. CACD thinks PG&E should be commended for its corresponding RD&D budget reduction to reflect the company's redirection for procuring new generating resources, and allow PG&E to use the same management discretion regarding its redirection of funds to its PPS program area. CACD recommends that the Commission re-establish the PPS program area funding level at $13,790,000 for the 1993-1995 GRC cycle. Also, because the Commission needs to adopt funding levels for each program area in order to establish a benchmark for calculating future program area fund shifts, CACD recommends that the Commission adopt the unprotested amounts of $21,461,000 for Energy Delivery & Control, $24,844,000 for Customer Systems, $11,970,000 for Environment, Health & Safety, and $73,778,000 for Research, Policy & Planning program areas.

27. Both PG&E and DRA discussed another issue that should be addressed in this Resolution. In Advice Letter 1456-E, PG&E informed the Commission that as part of its overall reorganization of the RD&D department, it merged its AES and PPS program areas into one program area called Generation & Storage; however, none of the supporting workpapers to this advice letter reflect that change. PG&E stated that it is unaware of any requirement to seek approval from the Commission for this type of management decision.

28. CACD suggests that, under the fund shifting guidelines, Commission approval may be required to merge the two existing program areas because of the size of the resultant program area. Although the projects within each of the two existing program areas have been reviewed by the Commission, the creation of an unusually large program area may undermine the Commission's fund shifting authorization process. It would take a relatively large redirection of program area funds to trigger the filing of an advice letter and/or application. CACD believes that this issue should be addressed in the Commission's generic RD&D Rulemaking Proceeding (R.87-10-013).

FINDINGS

1. In Advice Letter 1456-E, PG&E requests authorization to redirect funding within its 1993-1995 RD&D program.

2. The RD&D fund shifting guidelines adopted in D.92-12-057 for PG&E did not specify whether the guidelines should be applied on a GRC or on an annual basis.

3. In D.92-12-057, the Commission granted PG&E additional budgeting flexibility by allowing it to reconcile its RD&D one-way balancing account over the GRC cycle instead of annually. To date, SoCalGas is the only other energy utility that has also obtained this budgeting flexibility for its respective RD&D one-way balancing account.

4. At the January 18, 1994 CURC-sponsored fund shifting guidelines workshop, there was a general consensus (with the exception of DRA) that the movement towards GRC cycle fund shifting guidelines would mitigate many of the problems experienced to date.

5. The purpose of the Commission's fund shifting guidelines is to prevent the utilities from spending substantial portions of their GRC-authorized RD&D funds on RD&D which has not had appropriate review by the Commission.

6. The administrative burden associated with numerous annual advice letter filings and/or applications could be reduced by explaining budget variances in the utilities' Annual RD&D reports.

7. To implement the fund shifting rules for a GRC cycle on a prospective basis, utilities need to first have authorization to record expenditures in their RD&D one-way balancing accounts on a GRC cycle basis.

8. In D.92-12-057, PG&E was authorized to reconcile its RD&D one-way balancing account on a GRC cycle basis.

9. It is reasonable to allow PG&E to apply the fund shifting guidelines over the GRC cycle basis to be consistent with the period over which PG&E is authorized to reconcile expenditures in its RD&D one-way balancing account.

10. It is reasonable to require PG&E to provide fund shifting status tables in its RD&D Annual Report indicating any variance(s) at that point in time from the authorized program area levels.

11. With the clarification that PG&E can apply fund shifting guidelines on a GRC cycle basis, PG&E has appropriately filed Advice Letter 1456-E requesting authorization for the funding changes made to its AES program area.

12. As outlined in Advice Letter 1456-E, PG&E's request to reduce its AES program area for the 1993-1995 GRC cycle is consistent with its conditional offer to exit the new generation business.

13. It is reasonable for PG&E to scan and monitor RD&D efforts in wind, hybrid energy systems, and fuel cells through analysis, reports and data purchase, and technology transfer work.

14. PG&E's requested AES program area funding level of $9,404,000 for 1993-1995 is reasonable.

15. The increase in funding for the PPS program area warrants review through Advice Letter 1456-E because it is the result of the AES program area funding shift.

16. Any future redirection of the funds which have been targeted to be returned to ratepayers in 1996 should be done in accordance with the Commission's fund shifting guidelines.

17. PG&E management believes that the reduction to the AES program area enabled increased funding for meaningful RD&D in the PPS program area that had originally been deferred due to lack of funding. It is reasonable to allow PG&E to use management discretion regarding redirection of funds to its PPS program area.

18. It is reasonable to establish the PPS program area funding level at $13,790,000 for the 1993-1995 GRC cycle.

19. The Commission needs to adopt funding levels for each program area in order to establish a benchmark for calculating future program area fund shifts. The following unprotested amounts are reasonable: $21,461,000 for Energy Delivery & Control, $24,844,000 for Customer Systems, $11,970,000 for Environment, Health & Safety, and $73,778,000 for Research, Policy & Planning program areas.

20. The creation of an unusually large RD&D program area may undermine the Commission's fund shifting authorization rules.

21. The issue of merging existing program areas under the Commission's fund-shifting guidelines should be addressed in the Commission's generic RD&D Rulemaking Proceeding (R.87-10-013).

THEREFORE, IT IS ORDERED that:

(1) Pacific Gas and Electric Company shall be allowed to apply the fund shifting guidelines adopted in Decision 92-12-057 on a General Rate Case cycle basis.

(2) Pacific Gas and Electric Company shall provide fund shifting status tables in its Research, Development and Demonstration Annual Report indicating any variance(s) at that point in time from the authorized program area levels.

(3) Pacific Gas and Electric Company shall adopt the following program area the funding levels in order to establish a benchmark for calculating future program area funding shifts:

Advanced Energy Systems	$ 9,404,000
Power Plant Systems	$13,790,000
Energy Delivery & Control	$21,461,000
Customer Systems	$24,844,000
Environment, Health & Safety	$11,970,000
Research, Policy & Planning	$73,778,000

(4) Advice Letter 1456-E shall be marked to show that it was approved by Commission Resolution E-3376.

I hereby certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting on April 6, 1994. The following Commissioners approved it:

Neal J. Shulman

NEAL J. SHULMAN
Executive Director

DANIEL Wm. FESSLER
President
PATRICIA M. ECKERT
NORMAN D. SHUMWAY
P. GREGORY CONLON
JESSIE J. KNIGHT, Jr.
Commissioners