

Decision 82 12 005 DEC 1 1982

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Rulemaking on the Commission's own)
Motion to Adopt Evaluation Guidelines)
for Research, Development and)
Demonstration (RD&D) Projects for)
Rate-making Purposes.)

OII 82-08-01
(Filed August 4, 1982)

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respondents.
Gregg Wheatland, Attorney at Law, for
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party.
Alvin S. Pak, Attorney at Law, for the
Commission staff.

O P I N I O N

This proceeding is an investigation conducted under the Commission's rulemaking procedures as defined in Article 3.5 of the Commission's Rules of Practice and Procedure for the purpose of establishing evaluation guidelines for research and development

and demonstration (RD&D) projects for ratemaking purposes. The following energy utilities are respondents:

- Pacific Gas and Electric Company (PG&E)
- CP National
- San Diego Gas & Electric Company (SDG&E)
- Southern California Edison Company (Edison)
- Sierra Pacific Power Company (Sierra Pacific)
- Southwest Gas Corporation (SoWest Gas)
- Pacific Power & Light (PPL)
- Southern California Gas Company (SoCal Gas)

The Order Instituting Investigation (OII) states that in its decision in PG&E's last general rate proceeding (Decision (D.) 93887 in Application (A.) 60153), the Commission directed the staff, PG&E, and other energy utilities to participate in a workshop for the purpose of developing an appropriate definition of RD&D and method of setting RD&D priorities.^{1/}

^{1/} "...we will require staff, PG&E, and other utilities to participate in a workshop to which the Energy Commission staff is invited. After the workshop, participants will recommend to the Commission appropriate revisions to the definition of RD&D and a system setting RD&D priorities..."

We also commented in the PG&E decision that RD&D projects which pertain to development of renewable energy resources should be encouraged and, that those RD&D projects which are tied to its resource plan should have a high priority. We did not indicate that other types of RD&D projects would not be funded.

The OII further states that the staff conducted workshops which were attended by PG&E, Edison, SoCal Gas, Sierra Pacific, SDG&E, PPL, SoWest Gas, CP National, the California Energy Commission (CEC), and representatives from the office of the Governor.

Attached to the OII is a staff report prepared following the workshops, which contains a recommended definition of RD&D and a proposed system for setting RD&D priorities. The staff recommended in its report that the utilities:

1. Use the Federal Energy Regulatory Commission (FERC) accounting definition of RD&D with modifications;
2. List their RD&D projects in order of priority; and
3. Show the relationship between their RD&D projects and their resource plans.

The OII states that any adopted guidelines should provide the basis for analysis of RD&D programs in general rate proceedings.

The OII provided for written proposals, comments, or exceptions to the staff's proposed guidelines, followed by a public hearing at which all parties would have the opportunity to make oral comments on the staff's proposed guidelines, and the comments and proposals of other parties. Written comments were received from PG&E, Edison, Sierra Pacific, SDG&E, SoCal Gas, and CEC. CEC also filed written proposals which would require coordination and documentation of the ties between the utility's RD&D program, its resource plan, and the state energy policy as enunciated in CEC's biennial report.

At the public hearing held on October 25, 1982 in San Francisco before Administrative Law Judge John W. Mallory, argument and further comments were received from the staff, Edison, PG&E, SDG&E, Sierra Pacific, SoCal Gas, and CEC. Respondents were also permitted to file additional written comments with respect to CEC proposals.

Purpose of Proceeding

To analyze the staff proposals, a clear idea of our purposes in this proceeding is required. This proceeding stemmed from our inability to review PG&E's RD&D programs for funding in its last general rate case. The rate case time limits did not permit us to fully explore that issue because PG&E apparently had not isolated its RD&D programs so that they could be identified by the staff, resulting in our perceived need for an explicit definition of RD&D applicable to gas and electric utilities. With such a definition in place before PG&E's next general rate increase proceeding, arguments as to what programs are truly RD&D projects would be eliminated.

Secondly, the PG&E management report prepared by Cresap, McCormick and Paget (CMP) was critical of PG&E's management of RD&D projects, principally because RD&D projects were managed by different groups, and no one manager had full responsibility over all RD&D projects. Thus, PG&E and our staff had no means of evaluating the efficacy of any project in relationship to other projects. In the event that ratepayer funding was not provided for all projects, we could not readily determine which projects should be eliminated or postponed. PG&E has indicated in its current Notice of Intent (NOI) that it has corrected many of the deficiencies pointed out in the CMP report. PG&E also has instituted a matrix form of analysis for establishing priorities of its RD&D projects similar to the systems used by SDG&E and Edison.

Determination of which RD&D projects should be discontinued or postponed for lack of funding has been difficult to resolve in other energy utility general rate cases. For that reason our staff has proposed that the respondent utilities furnish a priority list of the projects to be considered for funding in a general rate proceeding. To this end, the staff also proposed that the respondent utilities furnish cost/benefit analyses of their proposed projects so that those unlikely to produce results which are beneficial from a monetary standpoint will not be funded.

We also commented in the PG&E decision that RD&D projects which pertain to development of renewable energy resources should be encouraged and, that those RD&D projects which are tied to its resource plan should have a high priority. We did not indicate that other types of RD&D projects would not be funded.

Based on the foregoing, our purposes in this proceeding are to establish:

1. A definition of RD&D projects which utilities will be required to follow in filing requests for ratepayer funding of proposed or current RD&D projects in their general rate increase applications.

2. The criteria for determining whether a proposed RD&D project is worthy of rate-payer funding.
3. A means for determining those approved RD&D projects which should continue to be funded and those which should be dropped or postponed in the event rate-payer funding is curtailed for any reason.

Staff Proposals

The staff filed at the hearing its comments in reply to respondents and interested parties (Exhibit 1). The staff exhibit contains revised proposed guidelines which it requests that the Commission adopt. Exhibit 1 states that the proposed guidelines are not intended to be incorporated into the Commission's rules of practice or the Regulatory Lag Plan (now retitled the Rate Case Processing Plan) nor enacted as a new General Order. Rather, these guidelines should be endorsed by the Commission for immediate publication and use by the staff as a standard practice report to assist staff personnel in analyzing and determining a proper RD&D component for general rates in the rate proceedings of utilities engaged in RD&D activities. As such, the guidelines assertedly will promote the fair evaluation of a utility's RD&D efforts under discernible and consistent principles.

In Exhibit 1, the staff amended its proposed "final guidelines" found at Chapter 3 of the Evaluation Guidelines appended to the OII. The changes embodied in the amendments assertedly do not reflect substantive changes; the changes are intended to clarify and more succinctly state the meaning of the guidelines.

RD&D Definition

Staff has recommended that the basic FERC definitions^{2/} be used with added language identifying two classes of exclusions.

^{2/} The FERC definitions for RD&D projects for electric utilities and for gas utilities are set forth in Appendix A.

In order to clarify the exceptions provision to the exclusion, staff submitted the following revised paragraph:

MAJOR EXCLUSIONS TO FERC DEFINITION

The term "research, development and demonstration" does not include environmental, siting or seismic studies and assessments performed in conjunction with the design, construction or operation of plant or facilities utilized for the commercial production, transmission or distribution of natural gas and or electricity, nor does it encompass the development of business or engineering data processing materials, software or hardware, provided that nothing herein shall limit such studies, assessments or development which are an integral part of an otherwise qualified RD&D project.

The staff proposed that should it and a utility have differing interpretations of the FERC definition, the utility would be required to provide, as part of its general rate case filing, an explanation and justification of its interpretation.

PG&E, SDG&E, and Edison agree to the adoption of the FERC definitions but oppose the staff's proposed exclusions. The utilities believe that the FERC definitions are widely known and accepted and that further exclusions are unnecessary refinements of the FERC definitions. The staff believes the exclusions are necessary to clearly provide that plant siting and data processing activities are excluded from RD&D accounts, but may be included in appropriate conservation-related or data processing-related accounts. Utilities may request, explain, and justify inclusion of unusual projects in RD&D accounts in connection with general rate increase filings. By its late-filed Exhibit 3, CEC concurs in the definition proposed in staff Exhibit 1.

We have carefully reviewed the oral and written comments of the parties and conclude that the FERC definitions as modified

by the staff exclusions provide reasonable definitions of RD&D projects of electric and gas utilities to be used in evaluation and funding of RD&D projects in major rate cases.

RD&D Priority System

Staff would require every utility requesting RD&D funding through general rates to submit a point evaluation or listing of individual projects in order of their respective priorities. PG&E and Edison agreed to do so using their matrix approach.

Staff emphasized the importance of providing the listing to the closest degree of accuracy possible. By capturing the relative importance of individual projects as against others, the Commission and all parties interested in RD&D issues may more fully evaluate the design, scope, and intentions of the utility's overall RD&D program. The staff states that although a matrix system accomplishes this to a great extent, it leaves too great a level of ambiguity.

The utilities point out that a certain degree of ambiguity is desirable, considering the nature of RD&D projects. The priority system proposed by the staff fixes the relative importance of each project at the time that the priority list is adopted. Factors unknown at that time cannot be taken into consideration in determining which projects should be delayed or discontinued if funding is not available. The matrix system permits evaluation of all factors relevant at the time a funding decision must be made. Many of these factors may not be known when the priority list is developed in the course of the general rate proceeding. The matrix system assertedly permits factors other than the initial concept of the importance of a project to be evaluated when curtailments are made in RD&D projects.

The staff contends that the matrix systems do not permit a level of evaluation which would establish whether the importance of any project would justify its funding over other projects. However, as an alternative to a points system, staff suggests that the utilities provide six matrixes using various funding scenarios, viz., at 100% of proposed funding, at 90%, at 80%, at 70%, at 60%, and at 50%. That distillation of projects assertedly provides the same information staff seeks through its listing system.

We have reviewed the contentions of the staff and the utilities and conclude that the matrix approach to establishing priorities should be adopted as an alternative to the staff method. That approach has been used by Edison and SDG&E for some time and has proven to be adequate for evaluating RD&D projects at different times in relationship to other projects and overall goals. For the purpose of setting priorities for establishing funding in a general rate increase proceeding, utilities will be required to furnish six matrixes as suggested by the staff for different levels of funding.

Guidelines to Evaluate
Individual RD&D Projects

Staff also proposed in Exhibit 1 seven guidelines to be followed in evaluating the priority of individual projects, as follows:

STAFF'S FINAL GUIDELINES

The project should offer a reasonable probability of providing benefits to the ratepayers. The utility's priority-setting process should minimize expenditures on those concepts which have a low probability of success. Every project, except those which are the subject of a governmental

mandate, should be subject to a cost-benefit analysis at the time of its origination, at regular intervals during its development, and upon its completion. The project should also support one or more of the following RD&D objectives of the Commission:

1. The project should be consistent with the utility's resource plan.
2. The utility must comply with existing environmental regulations. The project should lead to environmental improvement.
3. The project should enhance public or employee safety.
4. The project should support the Commission's conservation objectives and promote conservation by efficient resource use or by reducing and/or shifting system load.
5. The project should develop new resources, particularly those resources which are renewable, and/or processes or otherwise further supply technology. The project should reduce reliance on finite, nonrenewable resources.
6. The project should improve operating efficiency and/or reliability or otherwise reduce operating costs.
7. The project should not duplicate research currently, previously, or imminently undertaken by other utilities or a research organization.

Cost Benefit Analysis

The preamble to the staff's proposed guidelines requires that utilities submit cost/benefit analyses of proposed and present projects. PG&E, Edison, and SoCal Gas object to this requirement. The utilities point out that the potential ramifications of any research project are unknown when the project starts; and if the eventual outcome of the project was known, research would not be undertaken. SoCal Gas stated that it conducts cost-effectiveness analyses on its total research program, which is a component of its research project evaluation and selection system known as Multiple Option Ranking Technique (MORT). Those analyses allow SoCal Gas to maximize the effectiveness of its overall program.

As the staff initially had not proposed a methodology for preparing cost/benefit analyses, such methodology was submitted in late-filed Exhibit 4, as follows:

- "a. An estimate of total project costs to be borne by ratepayers, inclusive of all capital and ordinary expenses, and, if different from such estimate, an estimate of total project costs which are expected to be incurred by the utility;
- "b. An estimate of quantifiable project benefits, e.g., potential cost savings to the utility or its ratepayers accruing as a result of increased systemic efficiencies, demand reductions, the development of new energy technologies, etc.;
- "c. A description of qualitative project benefits not subject to quantification under (b), hereinabove, e.g., environmental improvement, including (i) a discussion of the potential effects of the planned research, development and demonstration upon the utility's operations, and (ii) the enumeration of the data required to reduce qualitative benefits and potential effects to quantitative terms, together with information pertaining to whether such data will be developed during the course of the project and, if so, when; and,

"d. A discussion of the changes as to any information previously provided with respect to an ongoing project, e.g., the updating of cost or benefit estimates occurring as a result of project development, achievements or failures to date or technological development or research not conducted by the utility.

"To the extent the utility possesses additional information upon which it has relied in making its decision to request funding for a project, that information should also be included in its cost-benefit analysis."

The above methodology does not weigh proposed projects solely on the project's ability to produce cost-effective technology but recognizes that unquantifiable benefits may ensue. This type of analysis is proposed to be used as another tool to evaluate the worthiness of ratepayers' funding of proposed RD&D projects.

The proposed staff cost/benefit methodology mitigates many of the objections raised by respondents, and such analyses should provide a useful tool to the parties and to the Commission in evaluating both ongoing projects and proposed projects. The staff proposal will be adopted.

We point out here that we do not expect all projects to be cost-effective upon completion. Development-level demonstration plants generally are small-scale plants designed to test the technology for much larger commercial demonstration plants. As the test facility does not have the operating economics of scale of the larger commercial plants, and as development and research costs are folded

into the development plant's construction costs, development plants are not likely to be cost competitive with existing commercial facilities. However, in some cases such development has long-run benefits for the ratepayers and may merit ratepayer support.

Compatibility of RD&D Projects
With Utility Resource Plans

The staff proposes that each utility be required to provide a clear showing of how each generation or nongeneration resource project relates to the utility's resource plan. The staff acknowledges that the inclusion of RD&D projects in resource plans is not required.

The utilities point out that not all RD&D projects are related to resource plan activities. For example, Edison has no objection to providing a showing of how RD&D programs involving power generation technologies or conservation and load management relate to the utility's future resource plan. Edison's RD&D program addresses additional areas, such as energy transport, hazardous wastes, NO_x reduction, and water conservation; none of which relates to its resource plan. Assertedly the projects will produce substantial benefits to Edison's ratepayers and to society, even though the projects do not involve generation or conservation load management.

CEC proposed the following additional guideline:

"The project should be designed to provide information necessary to the logical developmental sequence for a technology or technologies. The project description should include a clear tie to the utility resource plan, and to state policy as articulated in the most recent Biennial Report."

The utilities and the staff disagree with this guideline. They point out, as above, that their RD&D projects concern broader interests than those addressed in CEC's Biennial Report. The utilities believe that the CEC proposal to link a utility's RD&D efforts to CEC's Biennial Report would create jurisdictional uncertainty because the responsibility for evaluation of the reasonableness of ratepayer funding of RD&D projects lies with this Commission. The utilities urge that we consider state energy policy when evaluating RD&D proposals but that our evaluation be unencumbered by a direct linkage between RD&D programs and the Biennial Report.

We will not adopt the CEC proposed guideline for the reasons stated above. We will adopt the staff-proposed guideline, modified to require linkage between the utility's resource plan and RD&D projects involving only electric generation and transmission, natural gas production and transmission, and electric and gas conservation and load management.

Cost Recovery Practice

The staff proposes that the utilities include discussion in their filings describing how expenditures are to be recovered for each RD&D program or project. The staff recommends that the basic ratemaking policy for recovery of RD&D expenditures should continue to be the expensing of RD&D in the various accounts in conformance with the FERC Uniform System of Accounts. RD&D expenditures resulting in the construction of tangible plant would be capitalized and recovered through depreciation and return on investment when such plant becomes used and useful. Exceptions should be handled on a case-by-case basis.

All parties agreed that the expensing of RD&D projects is preferred, and that the propriety of capitalizing individual projects or alternative treatment would be addressed on a case-by-case basis.

Coordination with Research
Organizations and Other Utilities

The staff recommends that an annual RD&D coordination meeting be held in January or February which would be attended by representatives from the Commission and the utilities. CEC and research organizations would be invited. The purpose of the meeting would be to allow exchange of information in an effort to better coordinate RD&D activities and avoid duplication.

PG&E, SDG&E, and Edison would all exclude nonutility participants, excepting the staff, from the annual RD&D meeting, unless otherwise required. Staff is unsure about the need to exclude these parties from the meeting. The broadest exchange of information and opinions, in staff's judgment, could only improve the usefulness of the meeting.

We see no need for exclusion of CEC and research organizations from these informal meetings.

Level of Effort--Budgeting

The staff recommends that no specific ceiling or floor be imposed for level of effort for any utility. All parties are in agreement that no specific level of spending should be imposed.

CEC proposes criteria for evaluating the propriety of proposed budgets for a given utility. Staff is unsure about how to translate CEC proposed criteria into budgetary guidelines and declines to do so. Based upon its past experience in rate proceedings, staff believes a case-by-case review of historical expense levels, new projects, economic conditions and inflation is the best procedure by which to determine a prudent and reasonable level of RD&D expenditures.

We concur in the staff's analysis, and we will not establish a specific ceiling or floor to be imposed upon a utility's level of funding of its RD&D projects.

Manner of Publication
Of Guidelines

Staff proposes the publication of the guidelines adopted in this proceeding as a Staff Standard Practice. The guidelines, as a Standard Practice, assertedly would permit staff to evaluate a utility's RD&D showing in a general rate case and provide the utility with notice as to the basis upon which the evaluation was made. Staff believes this will enhance the development of RD&D testimony and the potential for the settlement of issues prior to formal hearings. Staff points out utilities regularly follow the methods set forth in Staff Standard Practices in developing their evidence for general rate proceedings, or explain in detail the reasons why a different method is used.

The guidelines adopted here are to provide utilities with a uniform basis of presenting information on RD&D projects for which ratepayer funding is sought, and to reduce the staff's and other parties' efforts in evaluating such projects in general rate proceedings. Respondents' general rate proceedings (except CP National, PPL, Southwest Gas, and Sierra Pacific) are subject to the Commission's revised Rate Case Processing Plan (RCPP) adopted October 20, 1982.

The RCPP was adopted to replace the Regulatory Lag Plan for major utilities' general rate cases which, in turn, superseded conflicting provisions of Rule 87 of the Commission's Rules of Practice and Procedure.

The RCPP provides for the manner in which an NOI should be prepared, including the data to be submitted by the utility. The guidelines adopted in this proceeding supplement the specific rules contained in the RCPP and, in effect, become part of that plan. Therefore, the guidelines adopted here will supplement and amend the RCPP. The RCPP does not apply to CP National, PPL, Southwest Gas, and Sierra Pacific. We see no need for the RD&D guidelines to apply to those

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utilities as they primarily operate in other states and as their RD&D programs relate more to their out-of-state operations than to their operations conducted in California.

In issuing the adopted RD&D guidelines, we are amending the RCPP adopted October 20, 1982 by Resolution ALJ-149.

Findings of Fact

1. There is a need for uniform guidelines with respect to major energy utility requests for ratepayer-funded RD&D projects in general rate proceedings.

2. The definitions and guidelines proposed by the staff, modified as indicated in this opinion, will be reasonable and should be adopted to govern requests for funding of RD&D projects in major energy utility general rate proceedings.

Conclusions of Law

1. The adopted guidelines, in effect, modify the procedures for filings under the Commission's recently adopted RCPP.

2. The RCPP should be amended by incorporating the guidelines adopted in this proceeding.

3. The adopted guidelines should apply to the RD&D status reports required to be filed by the major energy utilities on or before April 15 of each year as required by prior Commission decisions.

4. This order should be effective today in order that the guidelines may be implemented immediately.

O R D E R

IT IS ORDERED that:-

1. The definitions and guidelines for the filing of requests for ratepayer-funded Research, Development and Demonstration (RD&D) projects, as set forth in Appendix A to this order, are adopted as a modification of Appendix B, paragraph 6, of the Standard Requirements List of Documents in Support of an NOI set forth in the Rate Case Processing Plan (RCPP) adopted by the Commission effective October 20, 1982.

2. The RD&D guidelines set forth in Appendix A to this order shall apply also to status reports of RD&D projects required to be filed by respondents on or before April 15 of each year.

3. The adopted guidelines in Appendix A are effective on the effective date of this order.

4. A copy of this order shall be served on all respondents and other interested parties in OII 82-08-01 and upon the parties listed in Appendix A of Resolution ALJ-149.

5. All motions not previously ruled on are denied.

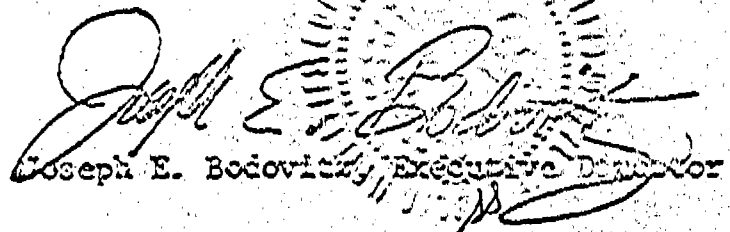
6. Appendix A to this order applies to Notices of Intent (NOIs) filed after the effective date of this order, except that PG&E and SDG&E, who currently have NOIs accepted for filing, shall make filings consistent with Appendix A within 60 days of the date of this order.

This order is effective today.

Dated DEC 1 1982, at San Francisco, California.

JOHN E. BRYSON
President
RICHARD D. GRAVELLE
LEONARD M. GRIMES, JR.
VICTOR CALVO
PRISCILLA C. CREW
Commissioners

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY.


Joseph E. Bodovitch, Executive Director

APPENDIX A TO DECISION
IN OII 82-08-01

Definitions and Guidelines for
The Filing of Request for Ratepayer-
Funded Major Energy Utility Research
Development and Demonstration Projects

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I. Definitions

- A. The definitions of Research, Development and Demonstration (RD&D) Projects are the definitions adopted by the Federal Energy Regulatory Commission (FERC), as set forth below, with the following additional exclusions:

EXCLUSIONS TO FERC DEFINITIONS

The term "research, development and demonstration" does not include environmental, siting or seismic studies and assessments performed in conjunction with the design, construction, or operation of plant or facilities used for the commercial production, transmission, or distribution of natural gas and/or electricity, nor does it encompass the development of business or engineering data processing materials, software or hardware, provided that nothing shall limit such studies, assessments, or development which are an integral part of an otherwise qualified RD&D project.

In the event the staff and utility have differing interpretations of the FERC definition, the utility shall provide, explain, and justify its own interpretation.

B. FERC Definition - Electric Utilities

"Research, Development, and Demonstration" (RD&D) means expenditures incurred by public utilities and licensees either directly or through another person or organization (such as research institute, industry association, foundation, university, engineering company, or similar contractor) in pursuing research, development, and demonstration activities including experiment, design, installation, construction, or operation. This definition includes expenditures for the implementation or development of new and/or existing concepts until technically feasible and commercially feasible operations are verified. Such research,

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development, and demonstration costs should be reasonably related to the existing or future utility business, broadly defined, of the public utility or licensee or in the environment in which it operates or expects to operate. The term includes, but is not limited to: all such costs incidental to the design, development, or implementation of an experimental facility, a plant process, a product, a formula, an invention, a system, or similar items, and the improvement of already existing items of a like nature; amounts expended in connection with the proposed development and/or proposed delivery of alternate sources of electricity; and the costs of obtaining its own patent, such as attorney's fees expended in making and perfecting a patent application. The term includes preliminary investigations and detailed planning of specific projects for securing for customers nonconventional electric power supplies that rely on technology that has not been verified previously to be feasible. The term does not include expenditures for efficiency surveys; studies of management, management techniques, and organization; consumer surveys, advertising, promotions, or items of a like nature.

C. FERC Definition - Gas Utilities

"Research, Development, and Demonstration" (RD&D) means expenditures incurred by natural gas companies either directly or through another person or organization (such as research institute, industry association, foundation, university, engineering company, or similar contractor) in pursuing research, development, and demonstration activities including experiment, design, installation, construction, or operation. This definition includes expenditures for the implementation or development of new and/or existing

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concepts until technically feasible and commercially feasible operations are verified. Such research, development, and demonstration costs should be reasonably related to the existing or future utility business, broadly defined, of the public utility or licensee or in the environment in which it operates or expects to operate. The term includes, but is not limited to: all such costs incidental to the design, development, or implementation of an experimental facility, a plant process, a product, a formula, an invention, a system or similar items, and the improvement of already existing items of a like nature; amounts expended in connection with the proposed development and/or proposed delivery of substitute or synthetic gas supplies (alternate fuel sources, for example, an experimental coal gasification plant or an experimental plant synthetically producing gas from liquid hydrocarbons); and the costs of obtaining its own patent, such as attorney's fees expended in making and perfecting a patent application. The term includes preliminary investigations and detailed planning of specific projects for securing for customers nonconventional pipeline gas supplies that rely on technology that has not been verified previously to be feasible. The term does not include expenditures for efficiency surveys; studies of management, management techniques, and organization; consumer surveys, advertising, promotions, or items of a like nature.

D. As used here, cost-benefit analysis means an analytical presentation of projected costs and benefits associated with a proposed RD&D project including, but not limited to, the following information:

a. An estimate of total project costs to be borne by ratepayers, inclusive of all

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capital and ordinary expenses, and, if different from such estimate, an estimate of total project costs which are expected to be incurred by the utility;

- b. An estimate of quantifiable project benefits, e.g. potential cost savings to the utility or its ratepayers accruing as a result of increased systemic efficiencies, demand reductions, the development of new energy technologies, etc.;
- c. A description of qualitative project benefits not subject to quantification under (b) above, e.g. environmental improvement, including (i) a discussion of the potential effects of the planned research, development and demonstration upon the utility's operations, and (ii) the enumeration of the data required to reduce qualitative benefits and potential effects to quantitative terms, together with information pertaining to whether such data will be developed during the course of the project and, if so, when; and,
- d. A discussion of the changes as to any information previously provided with respect to an ongoing project, e.g. the updating of cost or benefit estimates occurring as a result of project development, achievements or failures to date or technological development or research not conducted by the utility.

To the extent the utility possesses additional information upon which it has relied in making its decision to request funding for a project, that information should also be included in its cost-benefit analysis.

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II. Guidelines

The project should offer a reasonable probability of providing benefits to the ratepayers. The utility's priority-setting process should minimize expenditures on those concepts which have a low probability of success. Every project, except those which are the subject of governmental mandates, should be subject to a cost-benefit analysis at the time of its origination, at regular intervals during its development and upon its completion. The project should be consistent with the utility's resource plan, if the project involves electric generation or transmission, or gas production or transmission. The project must comply with existing environmental regulations. The project should not duplicate research currently, previously, or imminently undertaken by another utility or a research organization. The project should also support one or more of the following RD&D objectives of the Commission:

- A. The project should lead to environmental improvement.
- B. The project should enhance public or employee safety.
- C. The project should support the Commission's conservation objectives and promote conservation by efficient resource use or by reducing and/or shifting system load.
- D. The project should develop new resources, particularly those resources which are renewable, and/or processes or otherwise further supply technology. The project should reduce reliance on finite, non-renewable resources.
- E. The project should improve operating efficiency and/or reliability or otherwise reduce operating costs.

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III. RD&D Priority System

The utility shall include in its filings the system it has used to arrive at the priorities given to its RD&D programs and projects. The system for setting RD&D priorities should facilitate evaluation and screening of RD&D in a clear and objective manner and should allow arrangement of programs and projects according to their priorities. This list ranking each program and project according to priorities should be included in each RD&D submission. A matrix system for evaluating priorities may be used in lieu of a list ranking system. If the matrix system is used, separate matrixes shall be submitted showing RD&D program funding levels of 100%, 90%, 80%, 70%, 60% and 50%.

IV. Cost Recovery Practice

The utilities shall include discussion in their filings describing how expenditures are recovered for each RD&D program or project. The basic ratemaking policy for recovery of RD&D expenditures shall be the expensing of RD&D in the various accounts in conformance with the FERC Uniform System of Accounts. RD&D expenditures resulting in the construction of tangible plant shall be capitalized and recovered through depreciation and return on investment when such plant becomes used and useful. Exceptions shall be handled on a case-by-case basis.

V. Coordination with Research Organizations
And Other Utilities

An annual RD&D coordination meeting shall be held in January or February and shall be attended by representatives from CPUC and the utilities. California Energy Commission (CEC) and research organizations may be invited. The purpose of the meeting shall be to allow exchange of information in an effort to better coordinate RD&D activities and avoid duplication of effort.

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VI. Level of Effort - Budgeting

No specific ceiling or floor shall be imposed for level of RD&D effort of any utility.

(END OF APPENDIX A)

utilities as they primarily operate in other states and as their RD&D programs relate more to their out-of-state operations than to their operations conducted in California.

In issuing the adopted RD&D guidelines, we are amending the RCPP adopted October 20, 1982 by Resolution ALJ-149.

Findings of Fact

1. There is a need for uniform guidelines with respect to major energy utility requests for ratepayer-funded RD&D projects in general rate proceedings.

2. The definitions and guidelines proposed by the staff, modified as indicated in this opinion, will be reasonable and should be adopted to govern requests for funding of RD&D projects in major energy utility general rate proceedings.

Conclusions of Law

1. The adopted guidelines, in effect, modify the procedures for filings under the Commission's recently adopted RCPP.

2. The RCPP should be amended by incorporating the guidelines adopted in this proceeding.

3. The adopted guidelines should apply to the RD&D status reports required to be filed by the major energy utilities on or before April 15 of each year as required by prior Commission decisions.

4. This order should be effective today in order that the guidelines may be implemented immediately.

O R D E R

IT IS ORDERED that:

1. The definitions and guidelines for the filing of requests for ratepayer-funded Research, Development and Demonstration (RD&D) projects, as set forth in Appendix A to this order, are adopted as a modification of the Rate Case Processing Plan (RCPP) adopted by the Commission effective October 20, 1982.