

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

I.D. # 10416

ENERGY DIVISION

RESOLUTION G-3459

June 23, 2011

**R E S O L U T I O N**

Resolution G-3459. The California Energy Commission (“CEC”) requests approval of its Fiscal Year (“FY”) 2011-2012 Proposed Program Plan and Funding Request for the Natural Gas Public Interest Research Program.

PROPOSED OUTCOME: The CEC’s request is approved, pursuant to California Public Utilities Commission (“CPUC”) Decision (D.) 04-08-010.

ESTIMATED COST: \$24 million for Fiscal Year 2011-2012

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**SUMMARY**

**This Resolution approves the CEC report, *Proposed Program Plan and Funding Request for Fiscal Year 2011-2012, Natural Gas Public Interest Research Program*, established pursuant to D. 04-08-010. The CPUC approves the CEC’s proposed \$24 million budget proposal.**

**BACKGROUND**

**D. 04-08-010 (the “Decision”) implemented Assembly Bill (AB) 1002, establishing a natural gas surcharge to fund gas public purpose programs, including public interest research and development (R&D).**

The CPUC instituted Rulemaking 02-10-001 to implement AB 1002. In this proceeding the Commission addressed various issues related to the design and

implementation of a surcharge to fund gas public purpose programs, resulting in D.04-08-010.

**D. 04-08-010 established certain criteria for gas R&D projects to be approved under this program.**

The Decision defines public interest gas R&D activities as those which “are directed towards developing science or technology, 1) the benefits of which accrue to California citizens and 2) are not adequately addressed by competitive or regulated entities.” (p.25).

The CPUC established the following criteria for public interest gas R&D projects:

- 1) Focus on energy efficiency, renewable technologies, conservation and environmental issues,
- 2) Support State Energy policy,
- 3) Offer a reasonable probability of providing benefits to the general public, and
- 4) Consider opportunities for collaboration and co-funding opportunities with other entities.

**D. 04-08-010 designated the CEC as administrator of the R&D program.**

The CEC administers the Public Interest Energy Research (PIER) program and is publicly accountable, being subject to the Bagley-Keene Open Meeting Act and the Public Records Act (p.31). Projects are selected by the CEC and reviewed and approved by the CPUC.

**D. 04-08-010 reserved ultimate oversight for the CPUC.**

The CPUC is responsible for adopting the R&D program, and for setting the surcharge to fund the R&D program. The Decision made it clear that the CPUC has final responsibility to “approve and resolve administration, funding, project approval, or other matters, and make a final decision” (p.32). The Decision

further designated the CPUC's Energy Division to serve as this Commission's advisor.

**The CEC's R&D program plans and budgets have been approved by the CPUC from 2005 to FY 2010-2011.**

D. 04-08-010 established a zero-based budget for the Gas R&D program, starting at \$12 million for 2005, with maximum annual increases of up to \$3 million per year, subject to CPUC approval, up to \$24 million per year (p.38). Historically, each year the CEC has requested, and the CPUC has approved, the maximum budget increase over the past year. Thus the budget ceiling reached \$24 million in FY2009-2010. CPUC approved a \$24 million budget for FY2010-2011 as well.

**The CEC has submitted its Program Plan and Funding Request for Fiscal Year 2011-2012.**

In addition to providing its research plan and budget for FY2011-2012, the CEC also provided information on prior program activities and expenditures.

## **DISCUSSION**

**D. 04-08-010 provides that the Commission "will assess the reasonableness of the funding level, and the overall R&D program" after four years.**

D.04-08-010 provided for CPUC review of the "reasonableness of the funding level, and the overall R&D program" after four years, i.e., sometime after FY2009-2010. The CPUC has not yet scheduled a firm timeline for such a review but is in the process of gathering information leading up to such a review.

**Pending an assessment of the reasonableness of the overall R&D program, it is reasonable to keep the maximum limit for program funding at \$24 million.**

In the interim, we elect to maintain the same administrator (i.e., the CEC) and maximum funding level at \$24 million per year. We approve the CEC's proposed budget of \$24 million for FY2011-2012. This funding level has no precedential value regarding the overall program review or funding levels

beyond FY2011-2012, as the CEC is required to propose a zero based budget for each fiscal year.

**Consistent with D. 04-08-010, the CEC's Public Interest Energy Research Program for Natural Gas focuses on research and development directed towards maximizing energy efficiency and mitigating environmental effects of gas consumption.**

Consistent with the state's Energy Action Plan loading order, the CEC's proposed budget for FY2011-2012 allocates the bulk of a \$24 million budget to the following research areas: Industrial, Commercial, Residential, and Transportation Energy Efficiency (\$8.75 million); Acceleration of the Adoption of Clean Alternatives to Conventional Natural Gas Resources and Technologies (\$7.25 million); Reduction of the Environmental Footprint of California's Natural Gas System (\$3 million); and Natural Gas System Infrastructure Performance, Reliability, and Safety (\$1 million). The CEC also allocates \$2.50 million to administration and \$1.50 million to small grants. The CEC's proposed budget allocations are delineated in the appended tables of this resolution.

The following is a breakdown of specific areas within the three major categories:

1. Industrial, Commercial, Residential, and Transportation Energy Efficiency (\$8.75 million) includes:
  - a. Improved efficiency of industrial natural gas usage
  - b. Improved efficiency of residential and commercial natural gas usage
  - c. Improved efficiency of natural gas engines
  
2. Acceleration of the Adoption of Clean Alternatives to Conventional Natural Gas Resources and Technologies (\$7.25 million) includes:
  - a. Hybrid generation, fuel-flexible systems, and other energy-efficient and low-emission technologies for distributed generation and combined heat (and/or cooling) and power in industrial and commercial applications
  - b. Distributed generation and combined heat and power integrated in energy-efficient and net zero energy buildings and industries

- c. Low-cost and thermally-efficient renewable industrial heating and cooling
  - d. Solar hot water heating
  - e. Researching and developing alternative fuels that reduce petroleum and transportation-related GHG emissions while assisting California state economic development
3. Reduction of the Environmental Footprint of California's Natural Gas System (\$3 million) includes:
    - a. Air quality (including pollutant research regarding unvented natural gas cooking appliances)
    - b. Water and natural gas (including water-conserving cooling technologies and studying water-gas consumption relationships in residential buildings)
    - c. Climate science (including reduction of fugitive methane emissions)
  4. Natural Gas System Infrastructure Performance, Reliability, and Safety (\$1 million) includes:
    - a. Natural gas pipeline integrity research

**The Energy Innovations Small Grants Program is intended to complement ongoing core research for natural gas.**

This program is modeled on a well-established electricity research program known as the Energy Innovations Small Grant Program (EISG). It is primarily intended to fund feasibility studies, which will assess proofs of concepts, and as a new mechanism for identifying emerging and promising natural gas technologies. The program will be administered by the San Diego State University Research Foundation. The CEC requests \$1.50 million for the Small Grants program.

**We caution the CEC on raising its administrative costs and encourage more efficient use of program R&D and administrative funds in the future.**

The CEC's request for administrative expenses is somewhat higher for FY2011-2012 (\$2.50 million, or 10.42% of the total proposed budget) than FY2010-2011 (\$2.16 million, or 9% of the total budget). We understand that in the normal course of events, staffing needs, hires, and departures may result in small changes in program administration costs. Therefore this 1.42% increase is not necessarily unreasonable or indicative of an upward trend in overhead. Nevertheless, we are concerned about CEC program administration costs *increasing*, rather than *decreasing* and will continue to closely monitor CEC program administration costs in any future PIER NG budget proposals.

**We adopt a mechanism for the return of unspent PIER Natural Gas R&D funds.**

Currently, the CEC requests funding from the legislature prior to sending the CEC's proposed budget to the CPUC in late March for authorization. This out-of-order sequence causes problems if the CPUC does not authorize the entire requested budget or if the CEC does not use the entire requested budget. Henceforth, until further direction by the CPUC, each time that the CEC requests funding from the legislature for a proposed PIER Natural Gas R&D program budget, the CEC shall also request authority to return any portion of the requested funding to the Gas Consumption Surcharge Fund, up to and including the entire proposed budget.

**The CEC's proposed program budget and funding request for FY2011-2012 is approved.**

In accordance with D. 04-08-010, the annual proposed R&D program for FY2011-2012 was provided by the CEC to the Energy Division. The CEC has solicited R&D project proposal abstracts and incorporated them into the development of its plan. The Energy Division has reviewed the CEC report and found it to be submitted properly in compliance with D. 04-08-010. The basic program areas meet the criteria for public interest gas R&D projects laid out in the Decision, the CEC reasonably selected gas R&D program areas, and the CEC reasonably allocated the program's budget to the different program areas. We authorize the

CEC's proposed \$24 million budget as described in its *Proposed Program Plan and Funding Request for Fiscal Year 2011-2012, Natural Gas Public Interest Research Program*.

## **COMMENTS**

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

## **FINDINGS**

1. The CEC filed its Fiscal Year 2011-2012 public interest gas R&D report, per D. 04-08-010.
2. The CEC's proposed R&D project areas meet the criteria set forth in D. 04-08-010.
3. The CEC reasonably selected gas R&D project areas, and reasonably allocated the Fiscal Year 2011-2012 R&D budget to the different project areas.
4. The CEC's report, *Program Plan and Funding Request for Fiscal Year 2011-2012, Natural Gas Public Interest Research Program*, should be adopted.
5. There is a need for a mechanism by which the CEC may return unspent or unauthorized funds for the PIER Natural Gas R&D program.
6. The Commission has not yet determined the reasonableness of the overall PIER Natural Gas R&D Program or of the funding level beyond FY2011-2012.

**THEREFORE IT IS ORDERED THAT:**

1. The CEC remains the program administrator for the PIER Natural Gas R&D program for FY2011-2012.
2. The maximum PIER Natural Gas R&D program funding level for FY2011-2012 is \$24 million.
3. Until further direction by the CPUC, each time that the CEC requests funding from the legislature for a proposed PIER Natural Gas R&D program budget, the CEC shall also request authority to return any portion of the requested funding to the Gas Consumption Surcharge Fund, up to and including the entire proposed budget.
4. The FY2011-2012 public interest gas R&D plan submitted by the CEC in its report, *Program Plan and Funding Request for Fiscal Year 2011-2012, Natural Gas Public Interest Research Program*, is approved.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on June 23, 2011; the following Commissioners voting favorably thereon:

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Paul Clanon  
Executive Director

**Appendix (Numbering by CEC Proposed Program Plan and Funding Request  
for Fiscal Year 2011-2012)**

**Table 1: Natural Gas Budget Plan Summary FY 2010-2011 & FY 2011-2012**

<b>Budget Item</b>	<b>FY 2010-11 Budget</b>	<b>FY 2011-12 Budget (proposed)</b>
Improve Industrial, Commercial, Residential, and Transportation Energy Efficiency	\$10.84 million	\$8.75 million
Accelerate the Adoption of Clean Alternatives to Conventional Fossil Resources and Technologies	\$6.25 million	\$7.25 million
Improve Natural Gas System Infrastructure Performance and Reliability	\$0	\$1 million
Reduce the Environmental Footprint of California's Natural Gas System	\$3 million	\$3 million
Energy Innovation Small Grants	\$1.75 million	\$1.50 million
Program Administration	\$2.16 million	\$2.50 million
<b>TOTAL</b>	<b>\$24 million</b>	<b>\$24 million</b>

Source: California Energy Commission

**Table 4: Budget Breakdown for Improve Industrial, Commercial, Residential, and Transportation Energy Efficiency**

<b>Research Solution</b>	<b>Budget</b>
Natural Gas Efficiency Research for Industrial Use	\$2.25 million
Natural Gas Efficiency Research for Residential and Commercial Facilities	\$4 million
Research and Develop Advanced and Fuel-efficient Natural Gas Engines	\$2.5 million
<b>TOTAL</b>	<b>\$8.75 million</b>

Source: California Energy Commission

**Table 5: Budget Breakdown for Accelerate the Adoption of Clean Alternatives to Conventional Fossil Resources and Technologies**

<b>Research Solution</b>	<b>Budget</b>
Hybrid generation, fuel-flexible systems and other energy efficient and low emission technologies for distributed generation/Combined Heat and Power/Combined Cooling, Heating and Power in industrial and commercial applications	\$2.25 million
Distributed generation/combined heat and power integrated in energy efficient and net zero energy buildings and industries	\$0.75 million
Develop Low-Cost and Thermally Efficient Renewable Industrial Heating and Cooling	\$0.75 million
Solar Hot Water Heating	\$1 million
Research, Develop, and Demonstrate Alternative Fuels that Reduce Petroleum Consumption and Transportation-related Greenhouse Gas Emissions, While Assisting Economic Development within California	\$2.5 million
<b>TOTAL</b>	<b>\$7.25 million</b>

Source: California Energy Commission

**Table 7: Budget Breakdown for Improve Natural Gas System and Infrastructure Performance and Reliability**

<b>Research Solution</b>	<b>Budget</b>
Natural Gas Pipelines	\$1 million
<b>TOTAL</b>	<b>\$1 million</b>

**Table 8: Budget Breakdown for Reduce the Environmental Footprint of California's Natural Gas System**

<b>Research Solution</b>	<b>Budget</b>
Air Quality	\$ 1 million
Water and Natural Gas	\$ 1 million
Climate Science	\$ 1 million
<b>TOTAL</b>	<b>\$ 3 million</b>

Source: California Energy Commission

**PUBLIC UTILITIES COMMISSION**

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SAN FRANCISCO, CA 94102-3298



I.D. # 10416

May 20, 2011

RESOLUTION G-3459

June 23, 2011 Commission Meeting

TO: Parties to Rulemaking 02-10-001.  
SUBJECT: California Energy Commission FY2011-2012 Natural  
Gas Public Interest Research Program

Enclosed is draft Resolution G-3459 of the Energy Division. It will be on the agenda at the next Commission meeting which is at least 30 days after the mailing date of this letter. The Commission may then vote on this Resolution or it may postpone a vote until later.

When the Commission votes on a draft Resolution, it may adopt all or part of it as written, amend, modify or set it aside and prepare a different Resolution. Only when the Commission acts does the Resolution become binding on the parties.

Parties may submit comments on the draft Resolution. An original and two copies of the comments, with a certificate of service, should be submitted to:

Honesto Gatchalian  
Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Fax: 415-703-2200

A copy of the comments should be submitted **in electronic format** to:

Franz Cheng and Richard Myers  
Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

**email: [fcc@cpuc.ca.gov](mailto:fcc@cpuc.ca.gov) and [ram@cpuc.ca.gov](mailto:ram@cpuc.ca.gov)**

Any comments on the draft Resolution must be received by the Energy Division by June 9, 2011. Those submitting comments must serve copies of their comments on 1) the entire service list attached to the draft Resolution, 2) all Commissioners, 3) the Director of the Energy Division, 4) the Chief Administrative Law Judge, and 5) the General Counsel on the same date that the comments are submitted to the Energy Division.

Comments shall be limited to fifteen (15) pages in length plus a listing of the recommended changes to the draft Resolution, and an appendix setting forth the proposed findings and ordering paragraphs.

Late submitted comments will not be considered. Reply comments will not be accepted.

**/s/ Richard A. Myers**  
**Richard A. Myers**  
**Program and Project Supervisor**  
**Energy Division**

**Certificate of Service**

**CERTIFICATE OF SERVICE**

I certify that I have by mail this day served a true copy of Draft Resolution G-3459 on all parties in R.02-10-001.

Dated May 20, 2011 at San Francisco, California.

/s/ Honesto Gatchalian

Honesto Gatchalian

**NOTICE**

Parties should notify the Energy Division, Public Utilities Commission, 505 Van Ness Avenue, Room 4002 San Francisco, CA 94102, of any change of address to insure that they continue to receive documents. You must indicate the Resolution number on the service list on which your name appears.