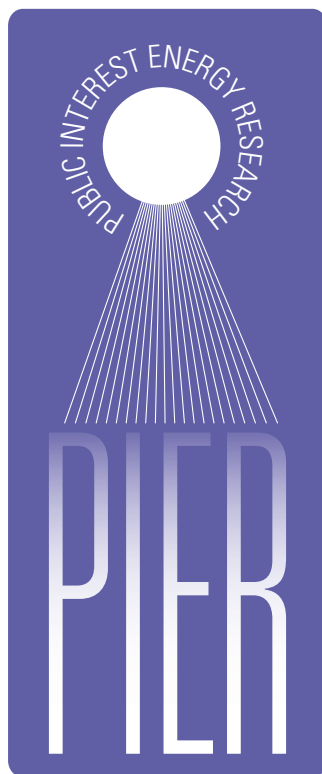




June 2005

**California Public Interest Energy Research
Independent PIER Review Panel Final Report**

CALIFORNIA COUNCIL ON SCIENCE AND TECHNOLOGY



CALIFORNIA
INDEPENDENT PIER REVIEW PANEL FINAL REPORT
JUNE 2005

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EXECUTIVE SUMMARY

This Independent Review Panel (IRP) was formed to evaluate the Public Interest Energy Research (PIER) program and to make recommendations to the Legislature and to the Governor about the PIER program's progress toward becoming a world class R&D effort. California leads the nation in fostering and implementing new sources of electricity to sustain its economy while preserving its natural environment. The contributions of PIER to this effort have been recognized by legislation extending its initial four-year charter through 2012, and by the prominent place of PIER in the new California Department of Energy (DOE) now being proposed by the Governor.

Since its inception, the PIER program has been managed by the California Energy Commission (CEC). In order for PIER to achieve its full potential, whether housed in the CEC or the proposed new California DOE, it must conform to the principles of successful R&D management, discussed in Appendix A of this report. Briefly:

1. Successful R&D management requires a strong leader, not simply a manager, of sufficient stature and authority to earn the respect of policymakers and researchers alike.
2. A successful R&D program is guided by well-established goals and objectives, in an environment that fosters innovation and minimizes bureaucratic interference.
3. A successful R&D program requires a high-quality team of managers and staff, with the knowledge to provide technical assessment of proposals and technical oversight of projects.

The PIER program is at an important point in its development. The program has been reorganized within a new division, there is a new director with a national reputation in energy research, the CEC has added a new Public Interest Natural Gas Research program to its portfolio, and the augmentation of program staff is underway. Furthermore, the proposed California DOE also includes PIER at the divisional level reporting directly to the Secretary of Energy. These are all positive changes for the program.

More challenges and opportunities await the program. Despite significant improvement in the PIER program since the first IRP review in 2001, continuing difficulties experienced in applying the principles of superior R&D management in an organization bound by civil service rules prompted a recommendation in our March 2004 interim report that the CEC undertake an analysis of the pros and cons of an internal or external organization such as a Joint Powers Authority (JPA) to administer PIER outside the CEC. This analysis has not yet been completed.

The IRP recommends that the CEC and PIER:

- 1. Continue the development of a much-needed overall strategic plan (supported by an operations and procedural manual) that integrates the Public Interest Natural Gas Research program and links and strengthens the PIER program both within the CEC, with other state agencies, and with innovative national energy research initiatives.**
- 2. Reconvene the long-dormant PIER Advisory Board as an independent body.**
- 3. Restore PIER's workforce to at least its former level of 63 staff and 14 consultants, and procure the additional staffing needed for the Public Interest Natural Gas Research program, and undertake a professional development program.**
- 4. Continue to analyze an external PIER program model or implement the needed flexibility in any proposed internal organization.**

A key issue is whether the management flexibility and risk taking that is required for a first class R&D program will be implemented in the new internal organizational structure, within the CEC or the envisioned California Department of Energy, or whether an external option will still be required. The CEC and PIER should increase efforts to implement needed flexibility in the program. This effort should continue through any proposed internal reorganization, and the CEC should diligently continue its analysis of the potential of an external PIER program model.

The PIER program is essential and since being established has demonstrated its importance to the state. Through the CEC, PIER is contributing to the State of California Energy Action Plan. In the future, PIER can and should provide the sophisticated planning tools and capabilities that must be available if the state is to set optimal energy policies for both gas and electricity supply, transmission and utilization. The promise of the PIER program is that it can cast its activities in the context of California's unique environmental, economic, and demographic forces. The PIER program can leverage collaborative work with other states through the Association of State Energy Research and Technology Transfer Institutions (ASERTTI), the U. S. Department of Energy, and other federal agencies, all in ways that provide California policymakers and administrators the data and information they need to develop well-informed solutions for addressing the state's energy, environmental, and economic needs. These are vital responsibilities and can be best accomplished by a first class energy R&D program. The road ahead presents some formidable challenges and we continue to encourage the CEC and PIER program staff to exercise the resolve, creativity, and flexibility that will be required to meet current and future organizational challenges head-on.



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