

BACKGROUND

The Public Interest Energy Research (PIER) program, administered by the California Energy Commission California (CEC), was established in 1996 for the purpose of ensuring continuation of public interest energy research after deregulation of the state's wholesale electricity markets. The PIER program is one of several programs funded by electricity ratepayers through the "Public Goods Charge," an end-user surcharge that sunsets on January 1, 2012. This committee is conducting a series of hearings to review whether PIER and other programs funded by the PGC are operating successfully and achieving the intended public benefits. The Legislature will consider in 2011 whether to renew the PGC and, if it is renewed, what modifications to PIER and other PGC programs are warranted.

The Public Goods Charge was established by AB 1890 (Brulte) of 1996, which deregulated electricity markets. The bill directed the three large independently owned utilities (IOUs) -- San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company -- to collect the following funds for public interest energy activities:

\$228 million per year for energy efficiency and conservation activities;
\$65.5 million per year for renewable energy; and
\$62.5 million per year for research, development and demonstration.¹

The \$62.5 million to be collected for the PIER program represents about 18 percent of the total Public Goods Charge collected annually from ratepayers. Statutory provisions governing the PIER program specify that it is to fund research projects that "advance science or technology" and that are "not adequately provided for by competitive and regulated energy markets."² The rationale for PIER was that IOUs in a newly deregulated electricity market would no longer fund this research and that overall energy research by the private sector and federal government was in decline.

The general goal of the PIER program is to develop, and help bring to market, energy technologies that provide increased environmental benefits, greater system reliability,

¹ The Public Goods Charge, also known as a "system benefits charge" is established in Public Utilities Code Section 399.8.

² The PIER program is governed by Public Resources Code Sections 25620 through 25620.15.

lower system costs, and tangible benefits to electric utility customers through the following investments:

- Advanced transportation technologies that reduce air pollution and greenhouse gas emissions beyond applicable standards, and that benefit electricity and natural gas ratepayers.
- Increased energy efficiency in buildings, appliances, lighting, and other applications beyond applicable standards, and that benefit electric utility customers.
- Advanced electricity generation technologies that exceed applicable standards to increase reductions in greenhouse gas emissions from electricity generation, and that benefit electric utility customers.
- Advanced electricity technologies that reduce or eliminate consumption of water or other finite resources, increase use of renewable energy resources, or improve transmission or distribution of electricity generated from renewable energy resources.

The statute directs that, to achieve these goals, the CEC shall adopt a portfolio approach for the program that does all of the following:

- Effectively balances the risks, benefits, and time horizons for various activities and investments that will provide tangible energy or environmental benefits for California electricity customers.
- Emphasizes innovative energy supply and end use technologies, focusing on their reliability, affordability, and environmental attributes.
- Includes projects that have the potential to enhance transmission and distribution capabilities.
- Includes projects that have the potential to enhance the reliability, peaking power, and storage capabilities of renewable energy.
- Demonstrates a balance of benefits to all sectors that contribute to the funding under Section 399.8 of the Public Utilities Code (references the three IOUs).
- Addresses key technical and scientific barriers.
- Demonstrates a balance between short-term, mid-term, and long-term potential.

- Ensures that prior, current, and future research not be unnecessarily duplicated.
- Provides for the future market utilization of projects funded through the program.
- Ensures an open project selection process and encourages the awarding of research funding for a diverse type of research as well as a diverse award recipient base and equally considers research proposals from the public and private sectors.
- Coordinates with other related research programs.

Among other provisions, the statute requires the CEC to give preference to “California-based entities” in making awards. It also authorizes the CEC to negotiate with PIER grant recipients for the state to collect an equitable share of rights in any intellectual property derived as a result of PIER-funded research.

Review of the PIER program and recommendations for improvement were made by the Department of Finance in 2009, the Assembly Utilities and Commerce Committee in 2008, and the California Council on Science and Technology in 2004 and 2005. This committee submitted questions about the PIER program to the CEC in April 2010, and the CEC responded in June 2010. All of these documents are available on the committee’s web site at www.sen.ca.gov.