

**Report on the Activities
of the
Emerging Technologies
Coordinating Council**

Submitted by

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DISCLAIMER

This document is a summary produced by the Southern California Gas Company, one of four participating California publicly owned energy utilities, in accordance with its milestone SCGNC7 recorded in Decision 00-07-017 July 6, 2000. The report attempts to reflect the activities of the Council accurately and objectively, but we acknowledge the possibility of inadvertent omissions due to the fact that this is not the work product of the entire Council.

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Introduction

The following is a report on the formation and activities of the Emerging Technologies Coordinating Council [ETCC]. The members of this council are: San Diego Gas and Electric Company [SDG&E] and Southern California Gas Company [SCG]; Southern California Edison Company [SCE]; Pacific Gas and Electric Company [PG&E]; and the California Energy Commission [CEC].

Mission

The Emerging Technologies Coordinating Council coordinates among its members to facilitate the application of energy efficient emerging technologies that will transform the market and benefit California ratepayers.

The term *emerging technologies* can be defined in a number of ways. Each utility and the CEC reviewed their own activities and members agreed on a working definition:

“Emerging technologies” occur in the latter stages of the new product development cycle, from early prototypes and demonstrations through to commercially available equipment. Emerging technologies include individual products as well as systems and services. They always have public interest benefits including energy efficiency improvements. However, they have not yet achieved adequate market penetration or acceptance to sustain themselves.

NOTE: Related to emerging technologies, utilities focus on commercial products with low market penetration. As part of their public interest RD&D program, the CEC is testing and demonstrating products that are nearing the end of the research and development cycle.

Background

The Applications of each of the four utilities for PY-2000 and 2001 were uniformly responsive to the recommendations of the CPUC through D.99-08-021 to address the role of emerging technologies within their programs. They filed very similar descriptions of cross-cutting activities within which each called for the others to join in the formation of a council whose focus would be the area of emerging technologies. An earlier decision (D.97-02-014) after the enactment of AB 1890 provided the CEC with public interest energy research [PIER] funds, and moved the tactics of energy efficiency implementation from “resource acquisition” to “market transformation.”

CPUC Resolution E-3592 promulgated 8 overarching principles to be followed in the administration of DSM programs (see Appendix C). Principle #6 directly charges the utilities to support the commercialization of emerging technologies. Several others are important in forming the main objectives of the ETCC. No.’s 1 and 5 emphasize the need

to coordinate among ourselves and reach out toward other resources on the national level. No.7 stresses the importance of connecting programs with customer values; this is clearly a key screen for emerging technologies.

Finally, in D.00-07-017 (Finding of Fact #94, p.227) ALJ Bytof confirmed the role utilities should have in supporting emerging technologies as much as possible together and with the CEC “coordinating with the ETCC.”

Objectives

The ETCC members have concentrated on three main objectives during PY-2000.

1. Create a database for exchanging information concerning emerging technologies projects extracted from the Energy Efficiency programs of each utility and CEC’s PIER program to ensure we can take full advantage of that R&D pipeline.
2. Avoid duplication of effort.
3. Coordinate activities to the extent possible.

Summary

The ETCC commenced on Feb. 2 with an inaugural meeting at SCE’s CTAC facility in Irwindale, CA. Minutes from that and subsequent meetings can be found on the ETCC website < <http://www.ca-etcc.com> > and in Appendix A of this report.

At this first meeting discussion of mission and purpose and initial planning of the database consumed most of the agenda. The Council decided to meet monthly due to the amount of work it would take to establish a direction and make progress toward our individual and common milestones.

The meeting in March was held at SCG’s Energy Resource Center and concentrated on development of the database and how to report information. Security and confidentiality concerns were also discussed at that meeting. Members suggested we invite outside speakers from other organizations and the issue of general attendance was reviewed.

By April all organizations had contributed to the database. The meeting was held in PG&E’s Pacific Energy Center. Mr. Larry Kinney from E-Source presented the capabilities of his organization and possible opportunities for the Council’s consideration on a variety of emerging technologies. E-source is a well respected harvester of competitive intelligence. CIEE/LBNL representative Carl Blumstein also asked to address the Council and provided a review of CIEE capabilities and desire to play a role in the process of managing emerging technologies efforts. CIEE currently supports utility programs and CEC projects on an individual contract basis where a match of need and

capability could be identified and CIEE can add value. The Council felt comfortable with a continuation of that practice.

By the June meeting (held at CEC headquarters in Sacramento) SCE provided a website structure for review and agreed to modify and maintain it for the Council. This was accepted with a large degree of appreciation. LBNL Research Manager Mike Siminovitch presented a PIER project for the Council to consider related to energy efficient lighting. A product called “high tech table lamp” has impressive performance characteristics and could provide the electric utilities an interesting opportunity. Mike Messenger also spoke to the Council on his thoughts on emerging technologies, market barriers, and strategies to overcome them. SCE also presented to the Council an evaluation plan for emerging technologies programs. Tactics and metrics SCE is using were reviewed and offered for consideration.

The most recent meeting was held on Sept. 6 at SDG&E headquarters. Council members discussed program results to date, status of milestones and additions to the database. No guest speakers attended this meeting. The next meeting is scheduled in November.

Results-to-Date

- ◆ The ETC Council was formally established on Feb. 2 the date of our first meeting.
- ◆ The portfolios of utility DSM programs were reviewed and qualifying emerging technologies were identified and compared to ensure minimum duplication and maximum cooperation. A database of emerging technologies projects and programs has been created and will be maintained and expanded.
- ◆ The CEC PIER R&D pipeline has been reviewed; and opportunities for hand off will continue to be explored. The best opportunities for SCG may be connected with the Industrial area. SCE, PG&E, and SDG&E will continue to assist many different technologies as reported in APPENDIX B (also located on the website).
- ◆ In addition to increasing cooperation among the utilities and CEC, there has been a more concerted look at national opportunities especially with DOE Buildings Programs.
- ◆ SCE and PG&E will work together on the high efficiency table lamp product.
- ◆ SCG and SDG&E are coordinating more closely their efforts to deploy and evaluate microturbine distributed generation [DG] technologies.

Future Plans

The utilities have found benefit in meeting to discuss strategies for supporting emerging technologies and potential methods of measuring the effectiveness of market transforming strategies. The Council expects to continue to expand the technology database and use it as a means of identifying potential areas for inter-utility cooperation. Members will monitor the development of the “state master energy efficiency website” [O.P.#16; D.00-17-017] and will consider linking this database to it. The Council is still evolving and exploring means of more effective exchange. The overall goal is to become a more effective platform from which to cooperatively support emerging advanced energy technologies.

The Council will continue to expand its outreach to other organizations such as GTI, EPRI, DOE and CIEE for ideas and assistance in optimizing our efforts in market transformation.

An important consideration for the Council will be support of technologies that target electric peak load reductions for the next few years during the expected period of constrained capacity. The best prospects lie in the greater adoption of conservation and energy reduction connected with building technologies and control processes as well as lighting equipment and controls improvements. The benefits of distributed generation technologies will also be explored.

Clearly SCG has the least in common with the programs of the other utilities that are heavily weighted in electro-technologies. SCG struggles to find opportunities in the CEC PIER program created from electric utilities’ R&D funds, meant for electro-technologies. SCG intends to continue to participate on the Council and look for the generic market transforming strategies that are found to be successful. For instance, SCG will be introducing various distributed generation and hybrid technologies that are beneficial for both electric and gas customers.

That energy customers in many different market segments want more options is becoming much more evident. These options include a variety of energy forms (gas and electric power) to take advantage of economic as well as energy savings.

Appendix A

- Emerging Technologies Coordinating Council Internet Web page
- ETCC Meeting Minutes (approved)
 - February 2, 2000
 - March 15, 2000
 - April 26, 2000
 - June 7, 2000

Appendix B

Emerging Technologies Coordinating Council **DATABASE**

[This data is primarily for Council use. Each page represents a file for a project or project group being supported by the organization noted. Each attempts to convey sufficient information to the other members of the Council to fulfill the need to communicate the substance of the technologies being deployed and supported in order that duplication is avoided and cooperation is maximized.]

Appendix C

Eight Energy Efficiency Program Design and Implementation Principles

Program Design & Implementation Principles

1. Continue movement toward uniform statewide program designs and implementation.
2. Continue transfer of program implementation away from administrators
3. Rely on competitive processes when outsourcing activities
4. Continue Third Party Initiatives, defer a second General Solicitation and use Targeted Solicitations
5. Coordinate Program activities with regional and national entities where appropriate
6. Support commercialization of emerging technologies
7. Seek broad input from customers on the design of Programs
8. Ensure Program offerings are available to under-served communities and customer groups.

Resolution E-3592, p. 60
(and D.99-08-021, p.5)