

2004-05 California Statewide Emerging Technologies Program

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2004-05 CA Emerging Technologies Program (ETP)

- The ETP program seeks to accelerate introduction of energy efficient technologies, applications and tools that are not yet widely adopted.
- May look to take technologies that are widely accepted in one market sector and have them introduced in another.
- Program operated statewide in California through PG&E, SCE, SDG&E, SoCal Gas, and the CEC PIER program.
- Technologies are beyond the R&D stage but not yet widely adopted.

2004-5 Technology Assessments

- Primary activity of the program is technology assessments:
 - Technologies are tested in a controlled environment to assess performance and savings
 - Attempt to conduct assessments at actual customer sites
- In this role, ETP acts like “Consumer Reports” - an independent source of credible information on these technologies.

2004-5 Technology Assessments

Assessments initiated in 2004-05

- PG&E = 29 assessments
- SCE = 26 assessments
- SDG&E = 5 assessments
- SoCal Gas = 12 assessments

Can be challenging to find customer sites for these assessments.

Information Transfer

- Goal is to get promising technologies to be accepted by EE programs - ETP is not marketing them directly to customers.
- The ETP disseminates information through multiple channels:
 - Publishing assessment reports
 - Fact sheets
 - Conferences
 - Workshops, seminars
 - ETCC website / database

2004-05 Emerging Technologies Program Evaluation Tasks

- Document program activities
- Process evaluation
- Help refine program logic and theory
- Develop metrics of program effectiveness
- Conduct case studies to test metrics

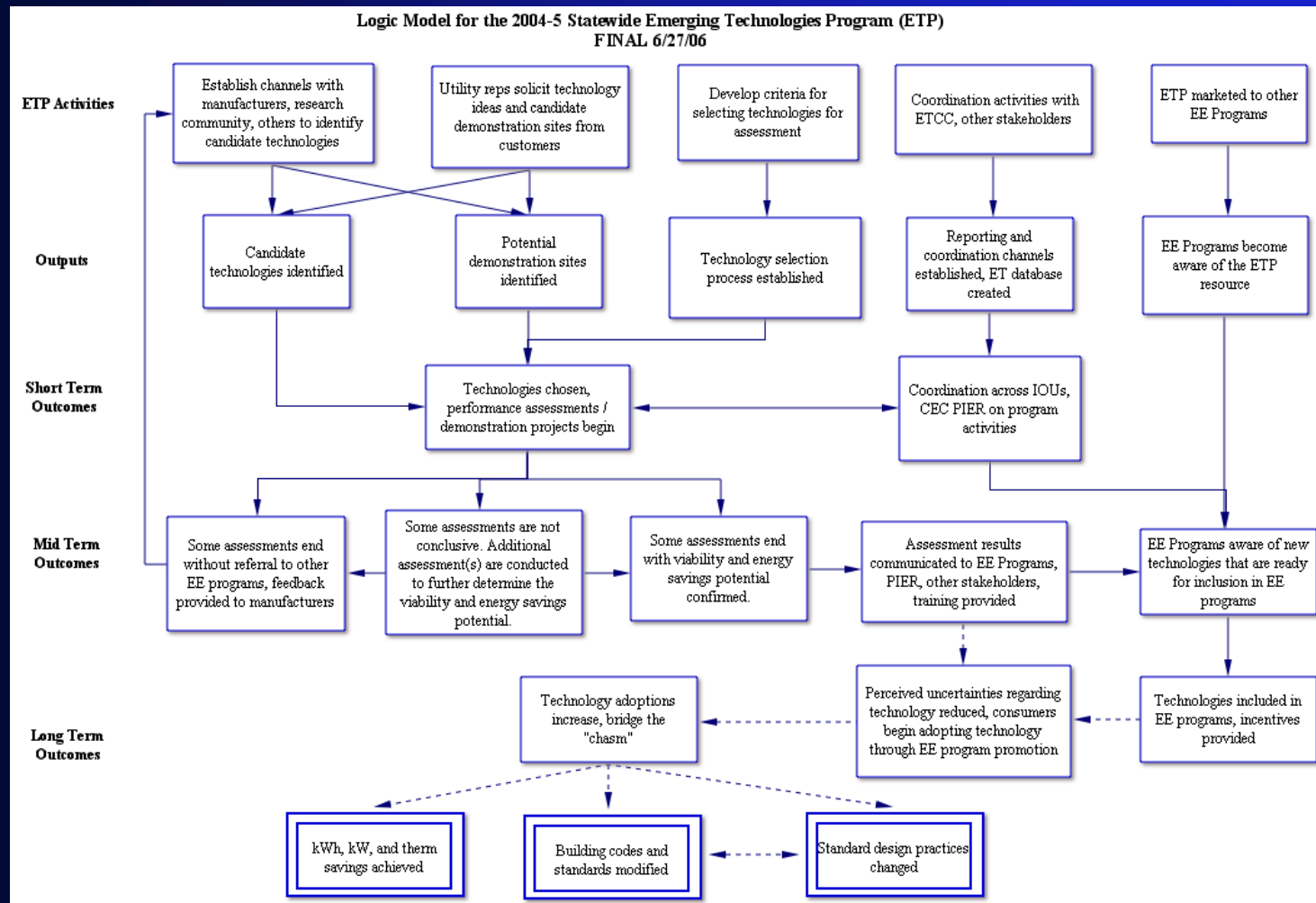
ETP Evaluation Challenges

Evaluation challenges include:

- ETP is not an R&D program nor a standard energy efficiency program - how should program effectiveness be measured?
- Changing evaluation protocols (04-05 vs. 06-08)
- Different implementation and tracking strategies across utilities

Solution: Identify key logic links and determine program metrics based on these links

ETP Logic Model



Key Logic Model Links

1. Technology identification
2. Technology selection
3. Assessment monitoring / performance data dissemination
4. Completed assessments
5. Promotion to energy efficiency programs
6. Acceptance by energy efficiency programs

Program Effectiveness Metrics

Metrics developed specific to 2004-05 program activities but also to conform to 2006-08 California evaluation protocols as much as possible.

Some 2006-08 ET metrics are not appropriate:

- R&D orientation (e.g, # of patents, articles, citations)
- Assumes consistent data tracking across utilities
- Number of assessment “failures”
- Assessment of risk

Key Link #1: Technology Identification

Candidate assessment technologies identified from several sources (EE program managers, account reps, ETP managers, manufacturers).

Metrics:

- # technologies identified thru each methods
- % of technologies chosen for assessments
- Mix of end uses and sectors
- # of manufacturers involved
- # of assessments started and completed

Key Link #2: Technology Selection

Process used to select candidate technologies for full assessments

Metrics:

- # of assessments started
- Mix of end uses and industries
- # of manufacturers involved
- # of technologies chosen at optimal development stage (post R&D, pre-commercialization)

Key Link #3: Assessment Monitoring and Information Dissemination

Monitoring and information dissemination of performance data while assessment is in progress

Metrics:

- # of information transfer events
- Mfrs / programs getting information they need
- Information provided is timely & in usable format
- Mfrs / programs act on information provided

Key Link #4: Completed Assessments (1)

Assessment ends and technology is promoted for inclusion in energy efficiency programs

Metrics:

- # of technologies promoted to programs
- # of adoptions through other programs
- Mfrs work on similar technologies
- Energy savings potential
- Performance concerns / market barriers reduced

Key Link #4: Completed Assessments (2)

Assessments end and more work is needed on technology prior to including in efficiency programs

Metrics:

- # and % of assessments referred back to manufacturer
- Manufacturer activity to address issues
- Repeated assessments on same technology

Key Link #5: Promotion to Energy Efficiency Programs

Process used to get assessment technologies considered by energy efficiency programs

Metrics:

- # of technologies promoted
- # of different promotion events
- Awareness of available technologies by program managers

Key Link #6: Technology Acceptance Into Energy Efficiency Programs

Technologies selected for inclusion in energy efficiency programs

Metrics:

- # of technologies selected from the ETP
- % of technologies promoted
- # of adoptions
- Customer awareness of technology option

Evaluation Conclusions and Recommendations

- Greater emphasis placed in 2004-5 on getting promising technologies into the EE programs (transition from past).
- Low but improving awareness of the ETP among EE program managers.
- ETP should increase outreach and formalize information sharing processes with EE programs
- EE program managers and account execs should be involved more in selecting technologies for assessments.
- ETP needs to guard against being used for short-term M&V tasks.

For More Information...

Complete 2004-5 ETP evaluation report available on CALMAC website www.calmac.org

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