# Energy Efficiency Evaluation in California: Back to the Future

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# California Energy Efficiency Programs – Recent History

- 1991-1997: Resource Acquisition
  - Development and use of the M&E Protocols

- 1998 – 2000: Market Transformation
  - Market assessment and tracking studies
  - Framework for Planning and Assessing Publicly Funded Energy Efficiency (RER)

- 2000 – 2003: Resource Acquisition plus Equity
  - CPUC's Energy Efficiency Policy Manual

Evolution of California Evaluation Guidelines

- The 1993 M&E Protocols
- First-year impact evaluation
  - Emphasized regression analysis and use of billing data
- Persistence studies
  - 4th and 9th year measure retention studies
  - Secondary-source study of relative technical degradation

Evolution of California Evaluation Guidelines

- Framework for Evaluation of Market Transformation Programs
- The role of MT in EE policy
- The need for program theory
- Summative and formative evaluation
- Incorporating market dynamics
- Prospective and retrospective cost-effectiveness analysis

## Evolution of California Evaluation Guidelines

- Energy Efficiency Policy Manual

  - Requirements for cost-effectiveness analysis
  - Measurement and verification using IPMVP
  - Other evaluation areas:
    - Process evaluation
    - Program theory testing and program effectiveness indicators

# Goals and Strategies

- Goals to be balanced:
  - Achieving reliable, long-term energy savings
  - Equity: broadening program participation among hard-to-reach segments

- Strategies or Objectives?
  - Resource acquisition
  - Market transformation
  - Achieving RA with MT programs and MT with RA programs

## Next Step: A New Framework for Evaluating EE Programs

- A practical roadmap for EE evaluation, measurement & verification and cost-effectiveness analysis
  - Decision system by type of program
  - Technical guidelines for impact/M&V, market assessment/effects, and process evaluation
  - Updating cost-effectiveness tests, including non-energy benefits, avoided costs and uncertainty

## Timeline and Process for the New Framework

- Schedule:
  - Project begins April 2003
  - Completion before year end

- Process:
  - Workshops to gain public input
  - Broad expertise on project team and advisory group
  - Literature review, analysis, final report