Program Design & Implementation

Residential Energy Efficiency

Evolving Utility Cost Effectiveness Test Criteria

Brian Gitt - Principal

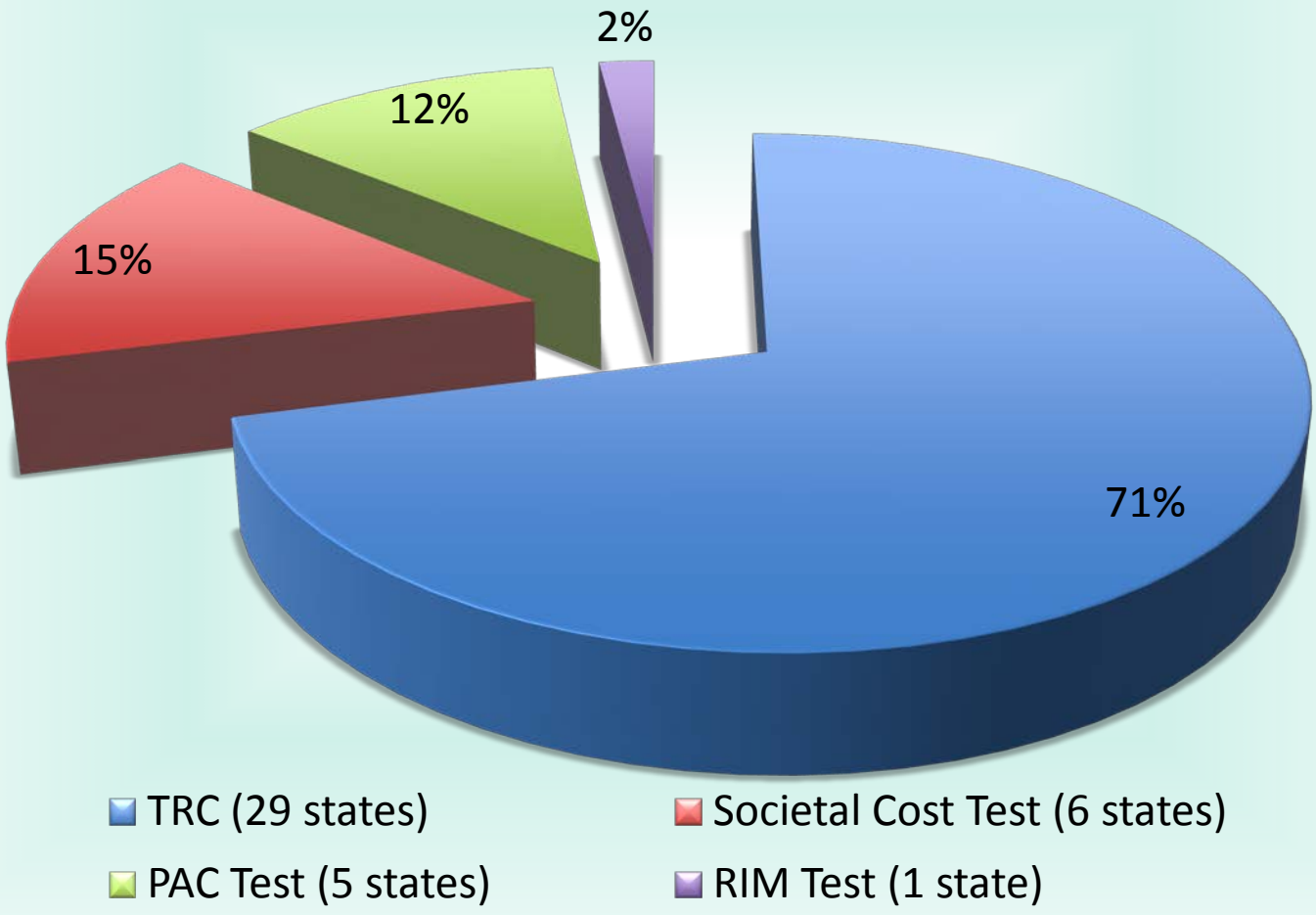
July 11, 2012

BKi Overview & Innovative Services

Energy Efficiency Cost-Effectiveness Tests

	Participant Test	RIM Test	PAC Test	TRC Test	Societal Cost Test
Energy Efficiency Program Benefits:					
Customer Bill Savings	X	---	---	---	---
Avoided Generation Costs	---	X	X	X	X
Avoided Transmission and Distribution Costs	---	X	X	X	X
Avoided Cost of Environmental Compliance	---	X	X	X	X
Non-Energy Benefits (utility perspective)	---	---	X	X	X
Non-Energy Benefits (participant perspective)	X	---	---	X	X
Non-Energy Benefits (societal perspective)	---	---	---	---	X
Energy Efficiency Program Costs:					
Program Administrator Costs	---	X	X	X	X
EE Measure Cost: Program Financial Incentive	---	X	X	X	X
EE Measure Cost: Participation Contribution	X	---	---	X	X
Non-Energy Costs	X	---	X	X	X
Lost Revenues to the Utility	---	X	---	---	---

Primary Methodology Usage



What's Wrong with the TRC?

Nothing was wrong with the original idea… <u>but it changed:</u>

ALL costs are counted…but only ONE benefit (ΔkWh)

Integrated Upgrades: Participant Benefits

It's not just bill savings: The customer buys a whole BUNDLE!

…but all the non-energy benefits are typically ignored in evaluations

Big Benefits for Broader Society Too

But these benefits are typically not considered either.

The Cost-Effectiveness Barrier

- **Current goals are hard to reach**
- **Conventional "widget" programs inadequate**
- **Strategic Plan seeks innovative/comprehensive programs**
- **New emphasis on "market transformation" approaches for much deeper energy savings and market reach**

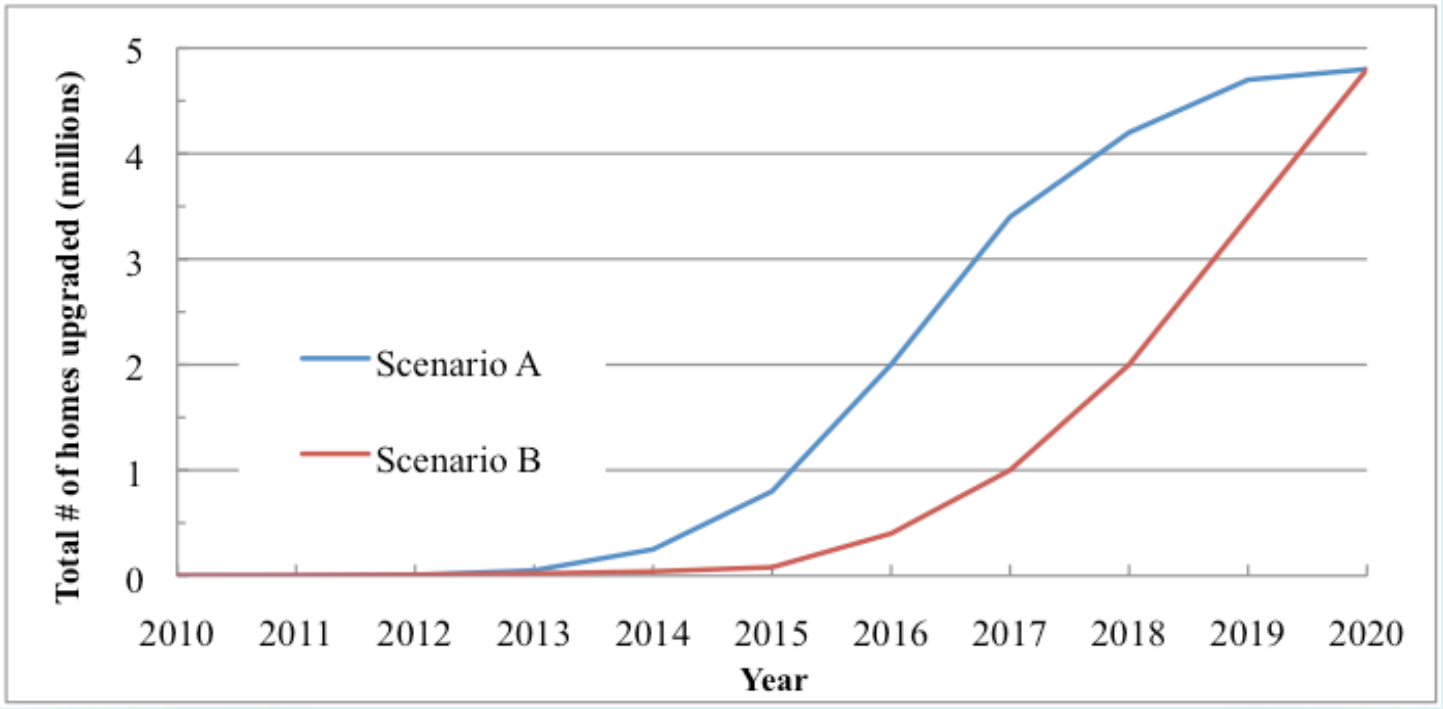
BUT…

Utility program portfolios must be "cost-effective"

…and new approaches tend to fail the test

CPUC BIG BOLD GOALS

- Cumulative market penetration scenarios



	2010-2012	2013-2014	2015-2016	2017-2018	2019-2020
Scenario A	7,500	250,000	1.7 million	2.2 million	600,000
Scenario B	7,500	35,000	350,000	1.6 million	2.8 million

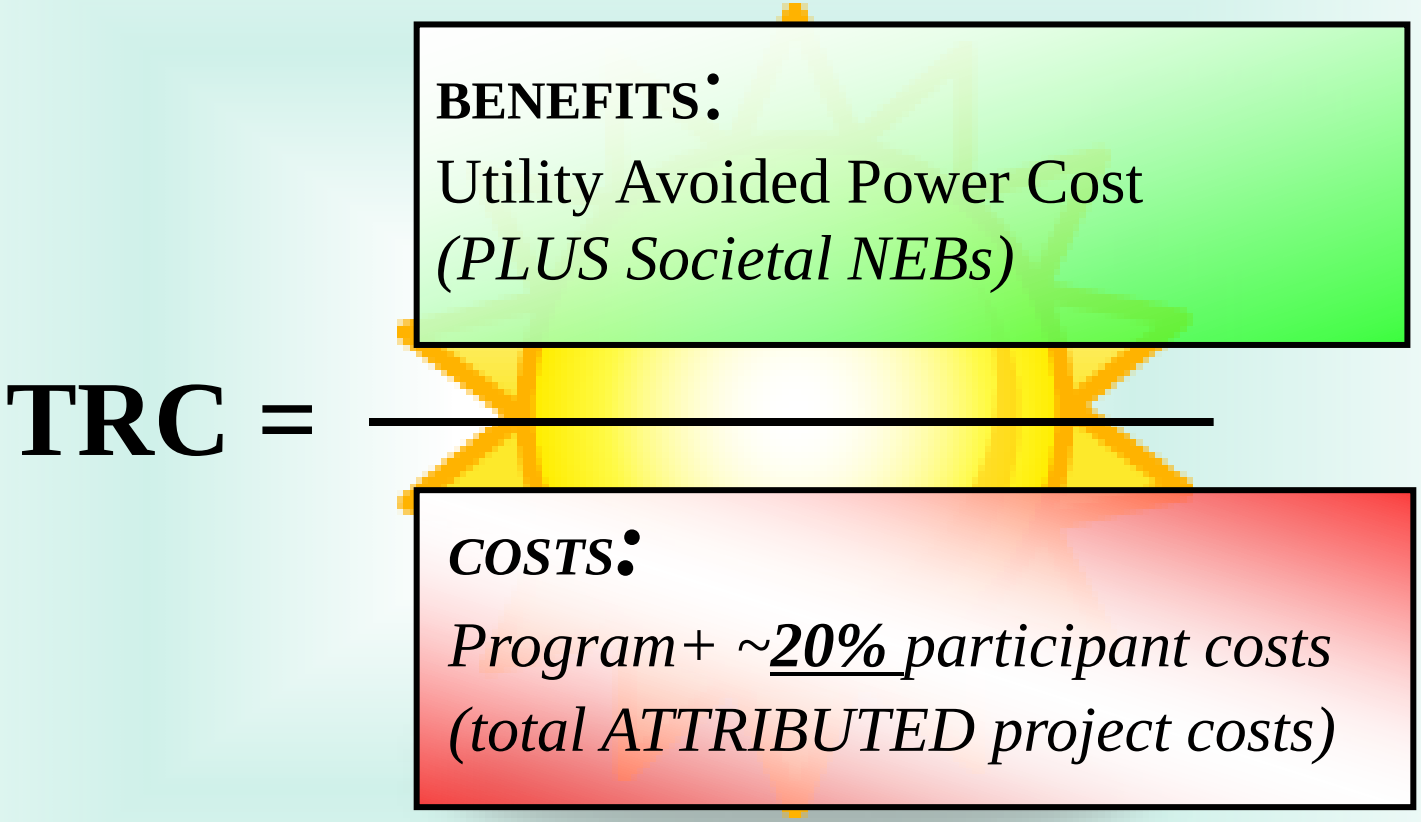
A Strategic Dilemma

Catch-22: Big Needs, Outmoded Tools

- Huge energy savings goals
- Conventional “widget” programs don’t go deep
- Comprehensive approaches needed but expensive
- Current C-E tests disqualify such approaches

SOLUTION: Broaden the C-E Tests

A Total Resource Cost Test Fix



Use only participant cost share for energy savings and expand benefits to include all societal NEBs

But that's not enough…

- **New innovative program designs are needed:**
  - **Deliver savings at lower costs**
  - **Engage consumers and provide on-ramp to higher savings over time**
  - **Integrate behavior and improvement measure programs**
  - **Align with contractor existing business models & reduce admin barriers**
  - **Harness reach of all EE programs & eliminate silos**
  - **Achieve economies of scale**

Contact

BKi

Brian Gitt, Principal

brian@bki.com

510.444.8707

www.bki.com