



Southern
California
Gas Company



California Energy Efficiency Strategic Plan

“Innovation, Integration and Collaboration”

National Association of Regulatory Utility Commissioners

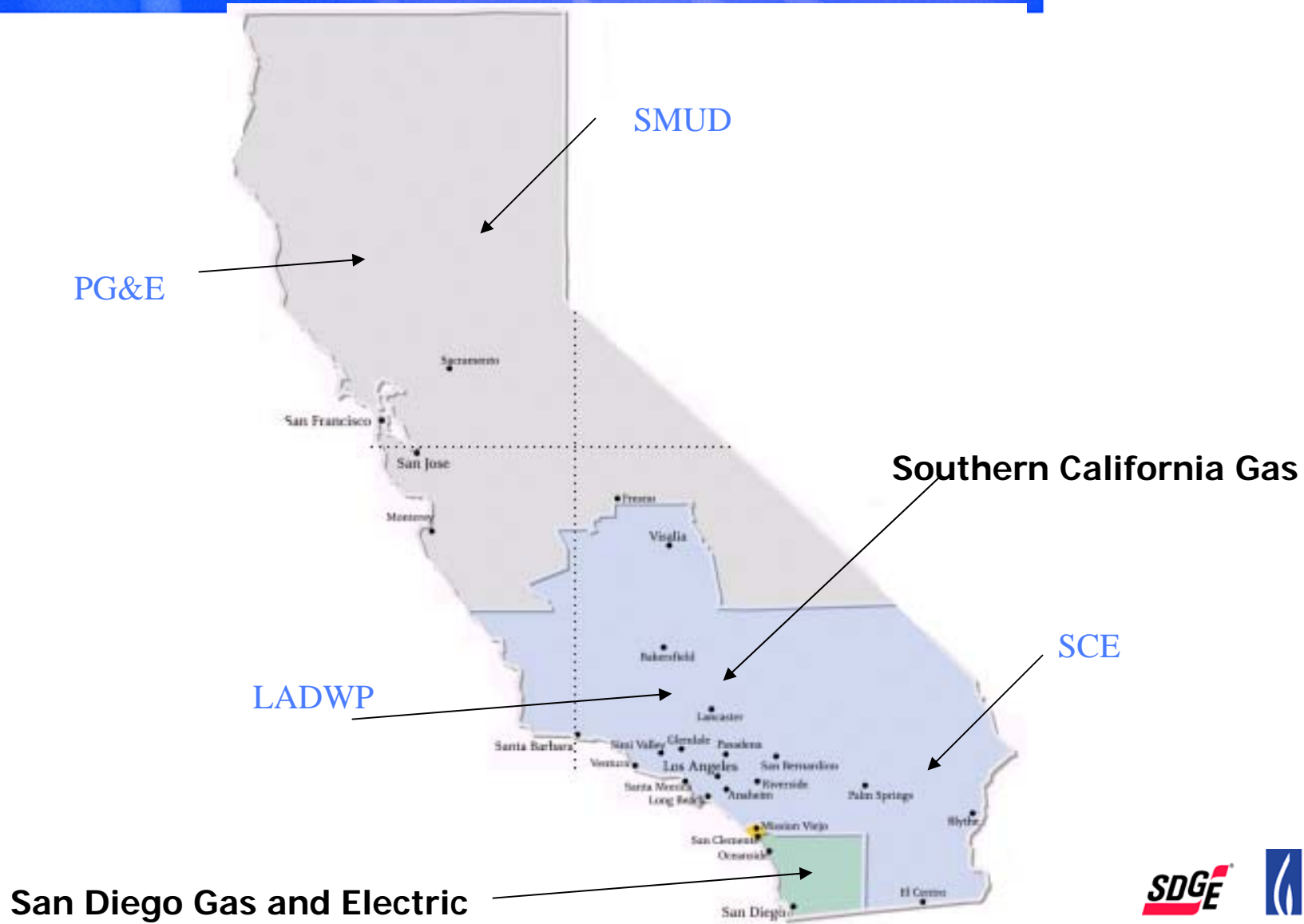
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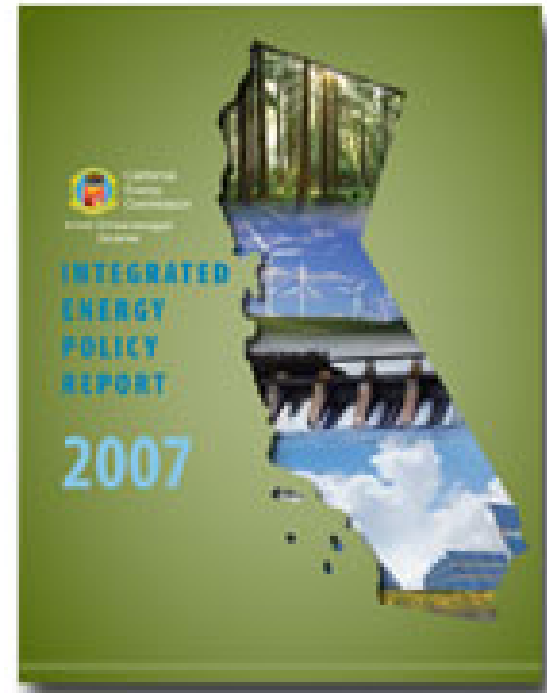
State Energy Utilities



Energy Efficiency Challenges & Opportunities



- The combination of growing population-driven energy consumption, and rising energy prices poses significant economic and social risks to California and the nation
- This provides both an opportunity and a challenge—to make energy efficiency an integral part of “business as usual.”
- In 2007, California - Integrated Energy Policy Report places energy efficiency **first** in the “loading order” of new utility resources



California Energy Action Plan



California Energy Action Plan (updated in 2008) declared: “[The] goal is for California’s energy to be:

- *Adequate*
- *Affordable*
- *Technologically Advanced , and*
- *Environmentally-sound*

To meet its energy efficiency, environmental and economic goals for 2020 and beyond, the plan is based on three “pillars”

Innovation



Integration



Collaboration



“Big Bold Strategies”



- All new residential construction in California will be zero net energy by 2020
- All new commercial construction in California will be zero net energy by 2030
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to develop products for “hot/dry” climates and to provide education & training to ensure quality new construction



The California *Plan*



This *Plan* is organized around vertical market sectors:

- Residential, Commercial, Industrial and Agricultural and targets specific strategies for the needs of California's

And six cross-cutting areas:

- Heating, Ventilation and Air Conditioning (HVAC)
- Workforce Education and Training
- Marketing, Education & Outreach
- Codes and Standards
- Demand-Side Management Coordination and Integration
- Research and Technology



Three objectives shape the strategies for research and technology:

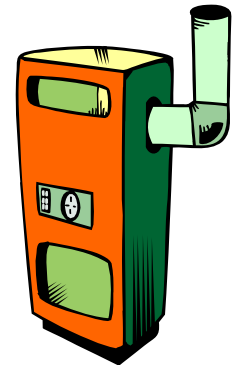
- Expand research efforts to target Big Bold Goals
- Expand market intelligence activities and include social science research on the role of human factors in technology adoption and use
- Faster feedback will be required to and from the entire technology advancement continuum



New Gas Technologies



- Industrial Process and Systems Improvements
- Building Systems - Commissioning & Controls
- Residential water & space heating systems and products
- New Distributed Generation Products
- Gas-Fired Cooling for Demand Response & Electric Peak Load Management
- Renewables



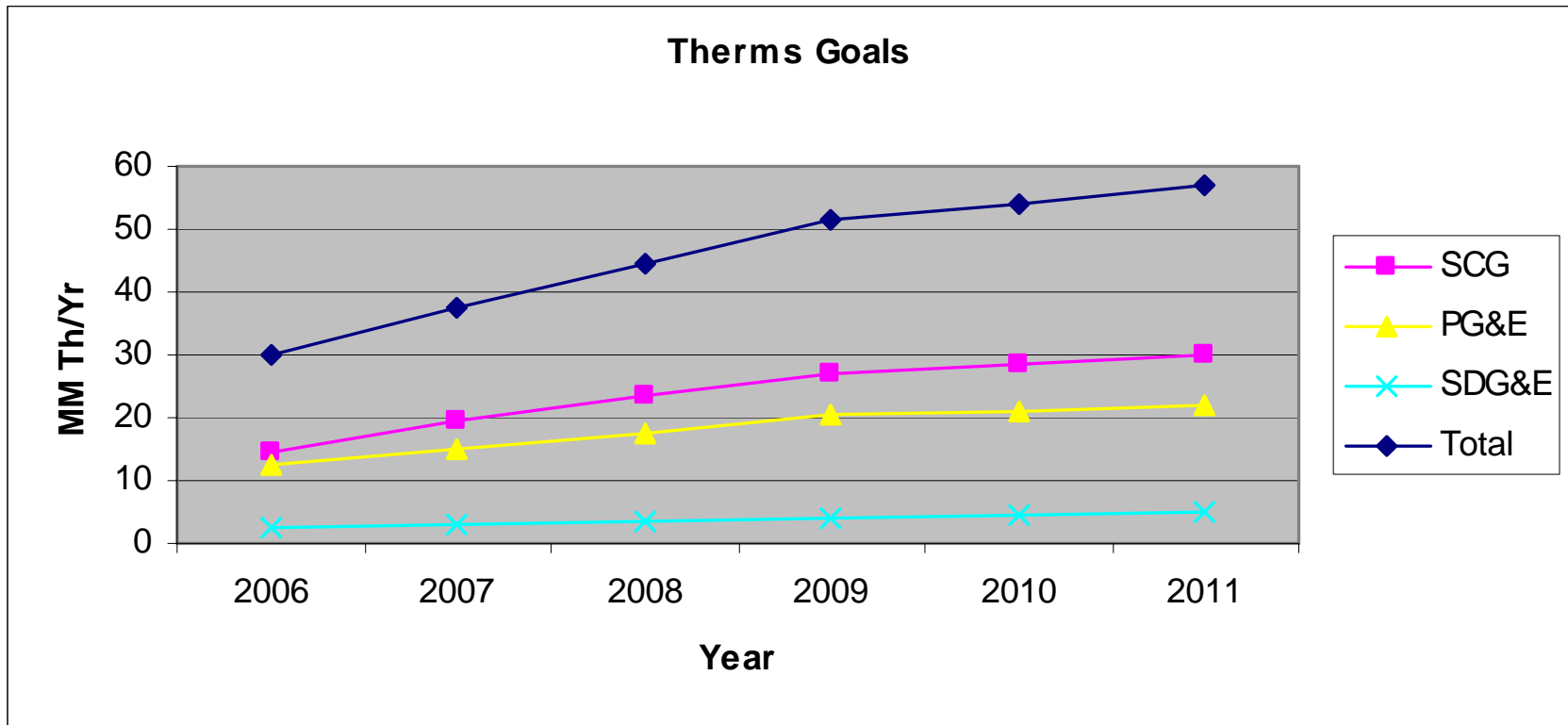
Conclusions



- Energy efficiency is the *least cost*, most reliable, and most environmentally-sensitive resource, and minimizes our contribution to climate change
- The challenge is to develop cost effective energy efficient technologies & transform the market to use it without any incentive or rebates
- The key is to rely on Innovation, Integration & Collaboration to achieve this goal

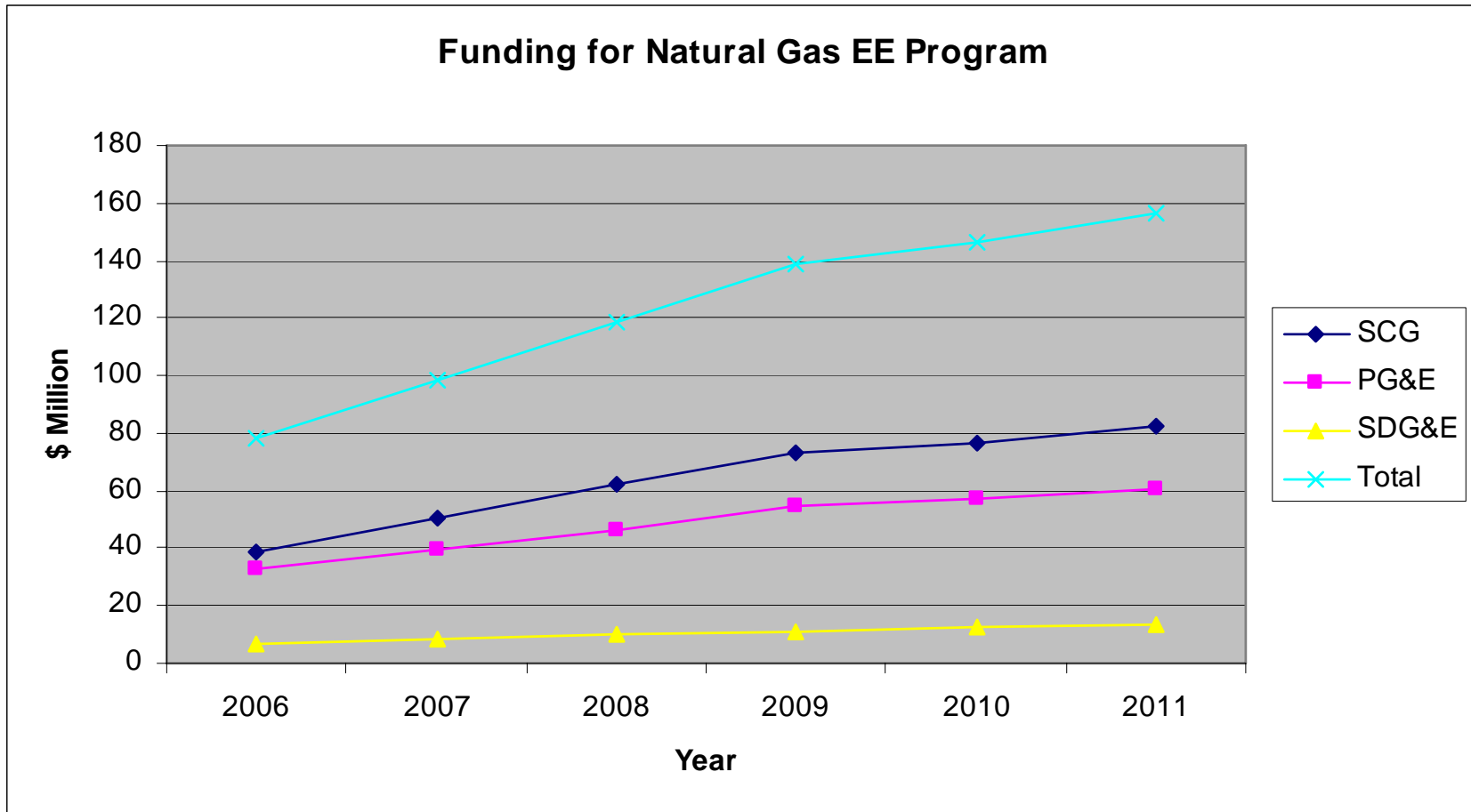
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Therms Reduction Goals



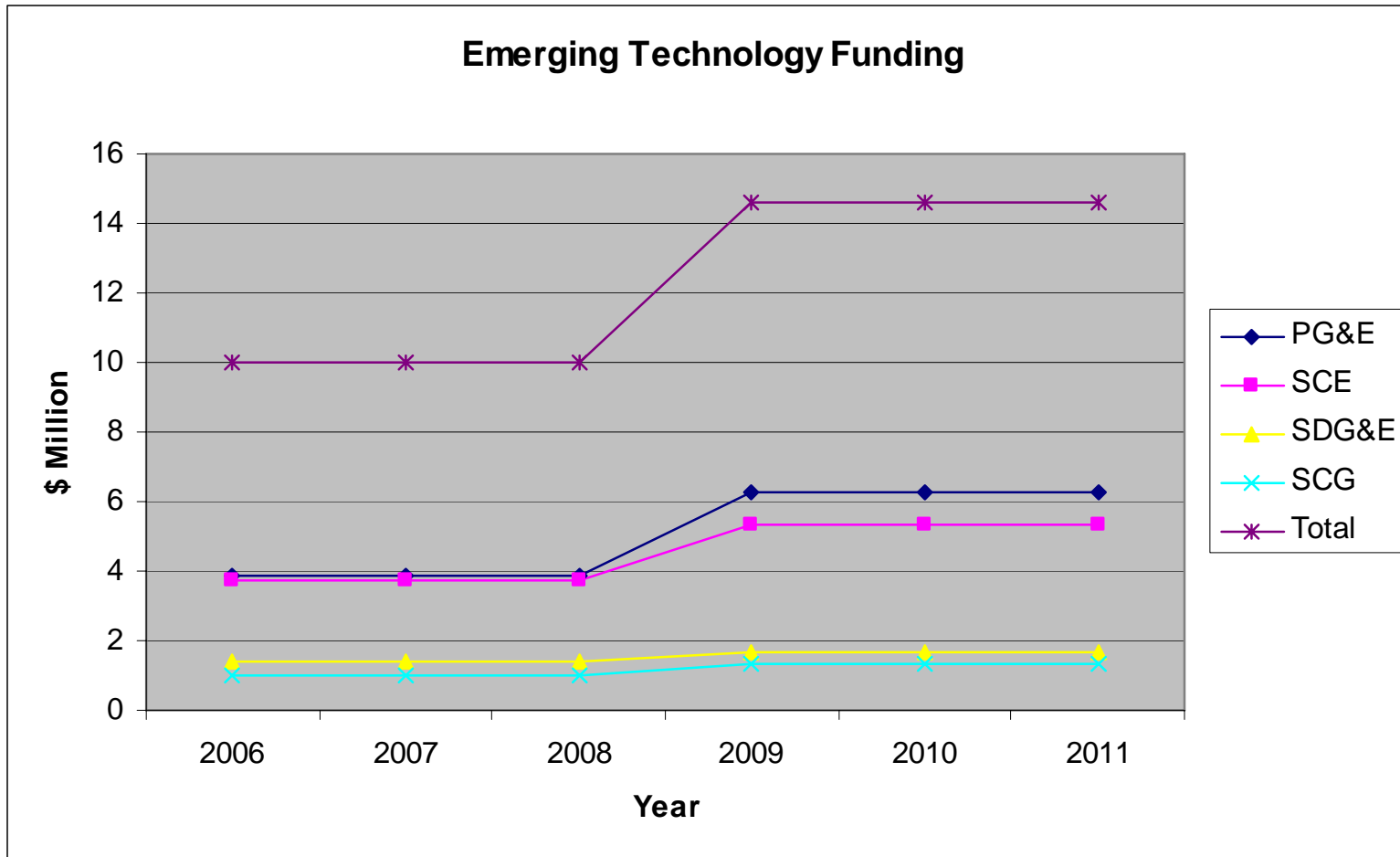
Cumulative Therms Savings > 275 Million Therms

EE Programs Funding



Cumulative Total > \$ 737 Million

Emerging Technology Funding (For Gas & Electric)



Cumulative Total is > \$74 Million



- THE California Energy Commission administers the Public Interest Energy Research (PIER) program
- Started in 1998 with \$62.5 MM funds from the Electric IOUs
- In 2005, added \$15 MM for the NG IOUs. Ramped up to \$24 MM in 2008
- Address the following Areas:
 - Building Energy Efficiency
 - Industrial/Agricultural/Water End-Use Energy Efficiency
 - Demand Response
 - Advanced Grid Technology
 - Clean Advanced Electric Generation
 - Renewables Energy Technology
 - System Integration Transmission & Distribution
 - Energy-Related Environmental Research
 - Transportation
 - Climate Science



DOE EE Programs (Administer by EERE)



DOE FY 09 Proposed Budget for EE

