



Aligning the Incentives for Utility Conservation: Decoupling Approaches

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Key Messages



Potential for energy efficiency is enormous, but barriers exist to capturing this efficiency.

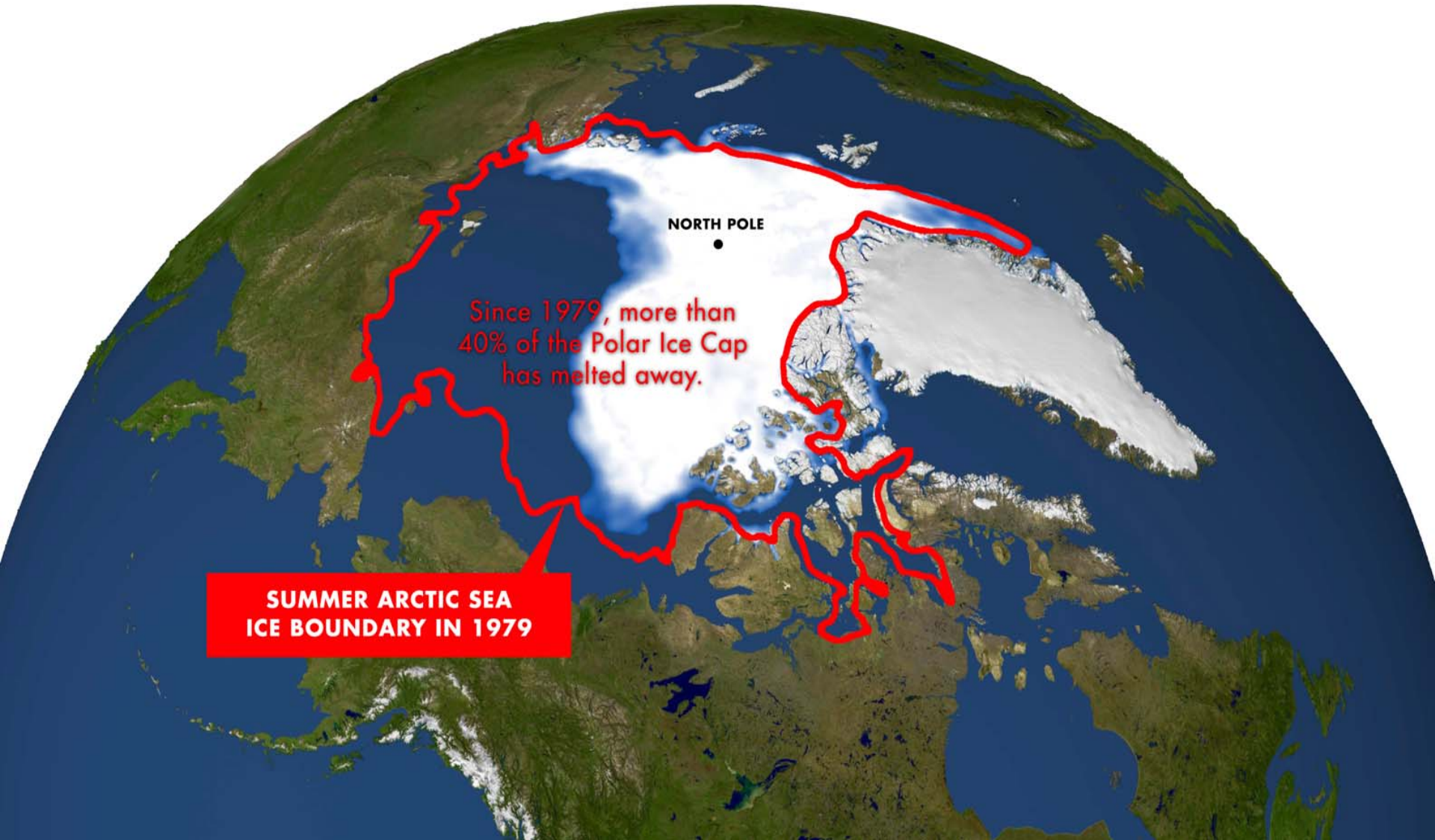


Utilities must play a significant role to scale up energy efficiency.

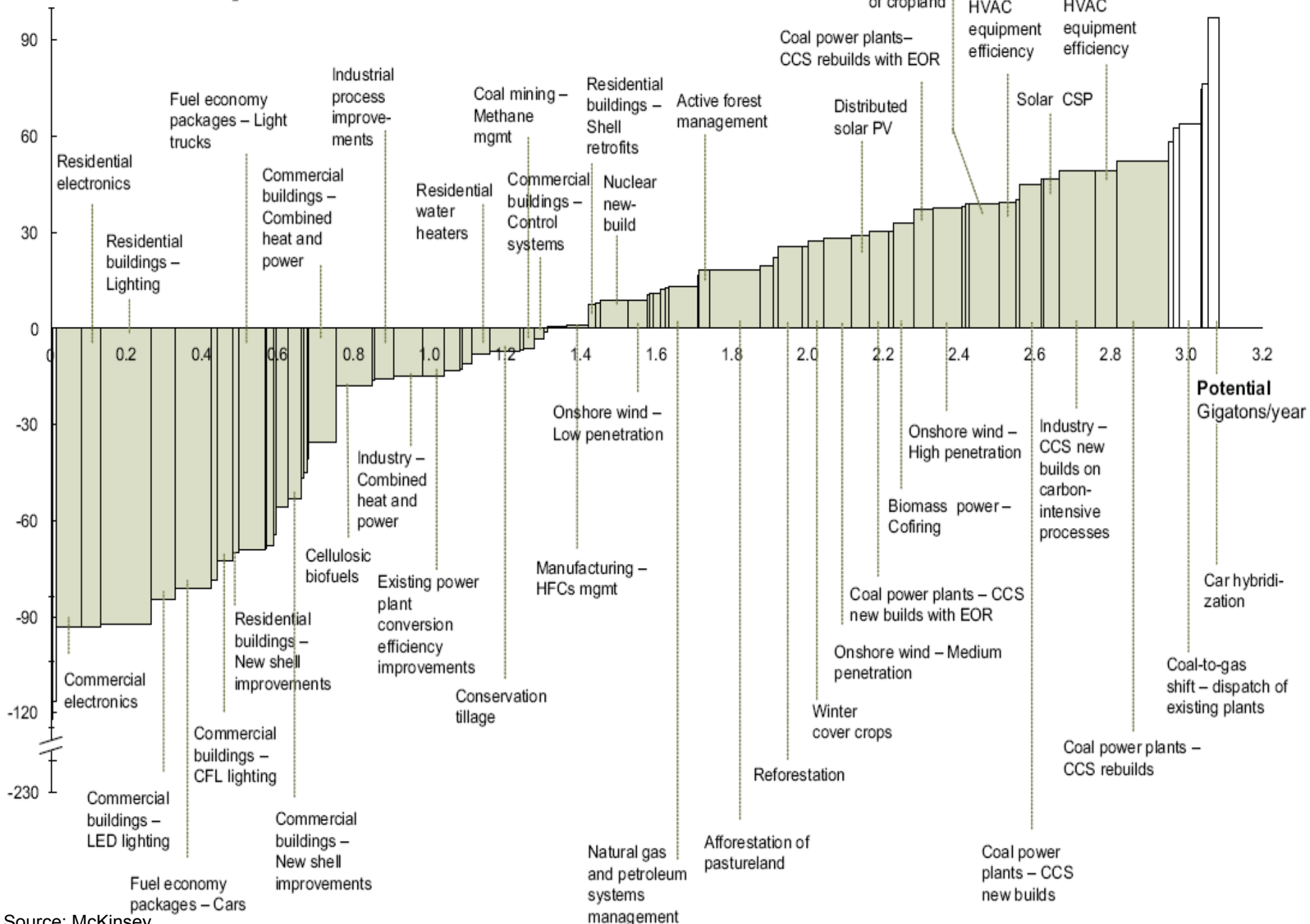


Better regulatory policies are needed to drive investment in energy efficiency.

Substantial Melting of Polar Ice Cap Since 1979

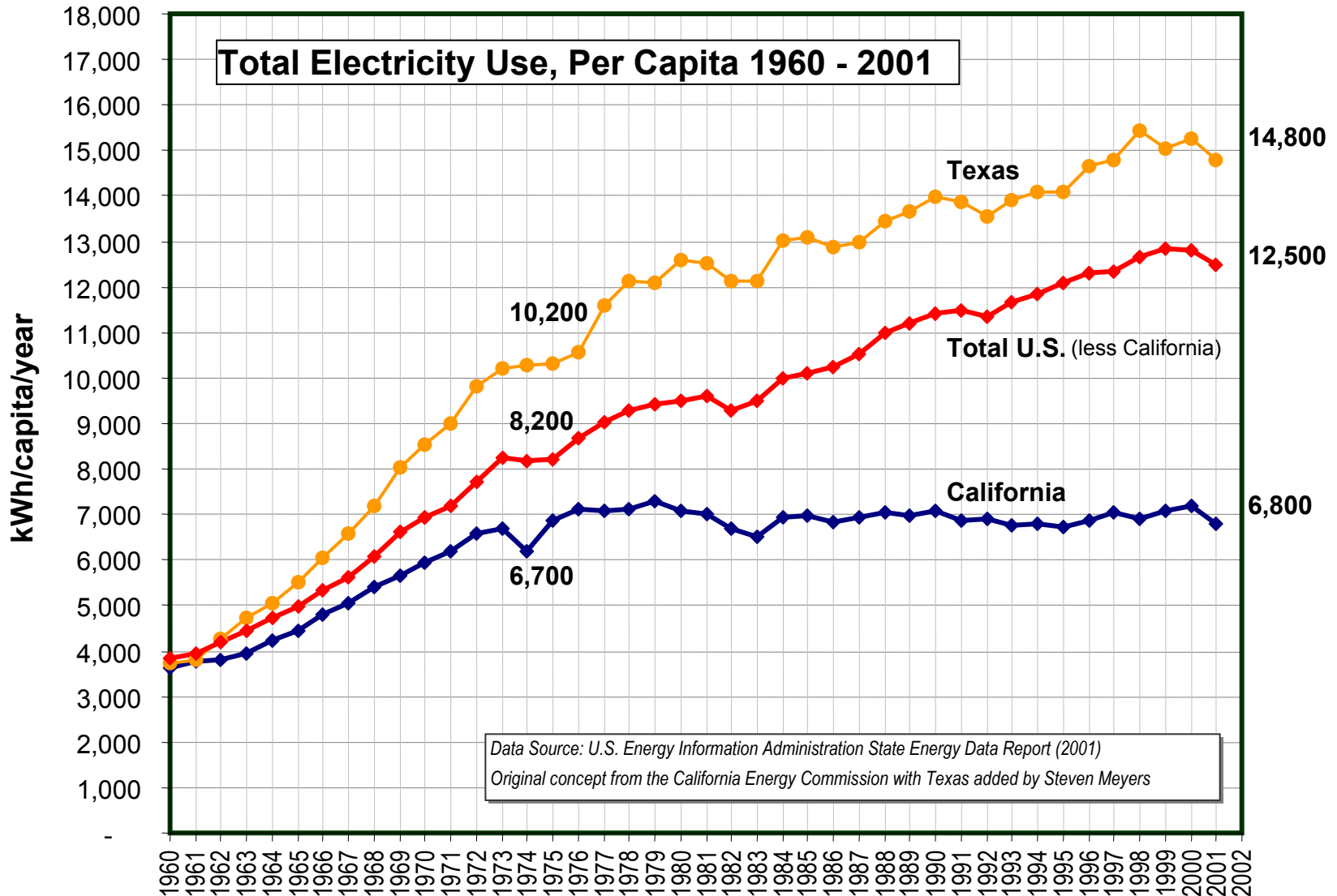


Cost
Real 2005 dollars per ton CO₂e



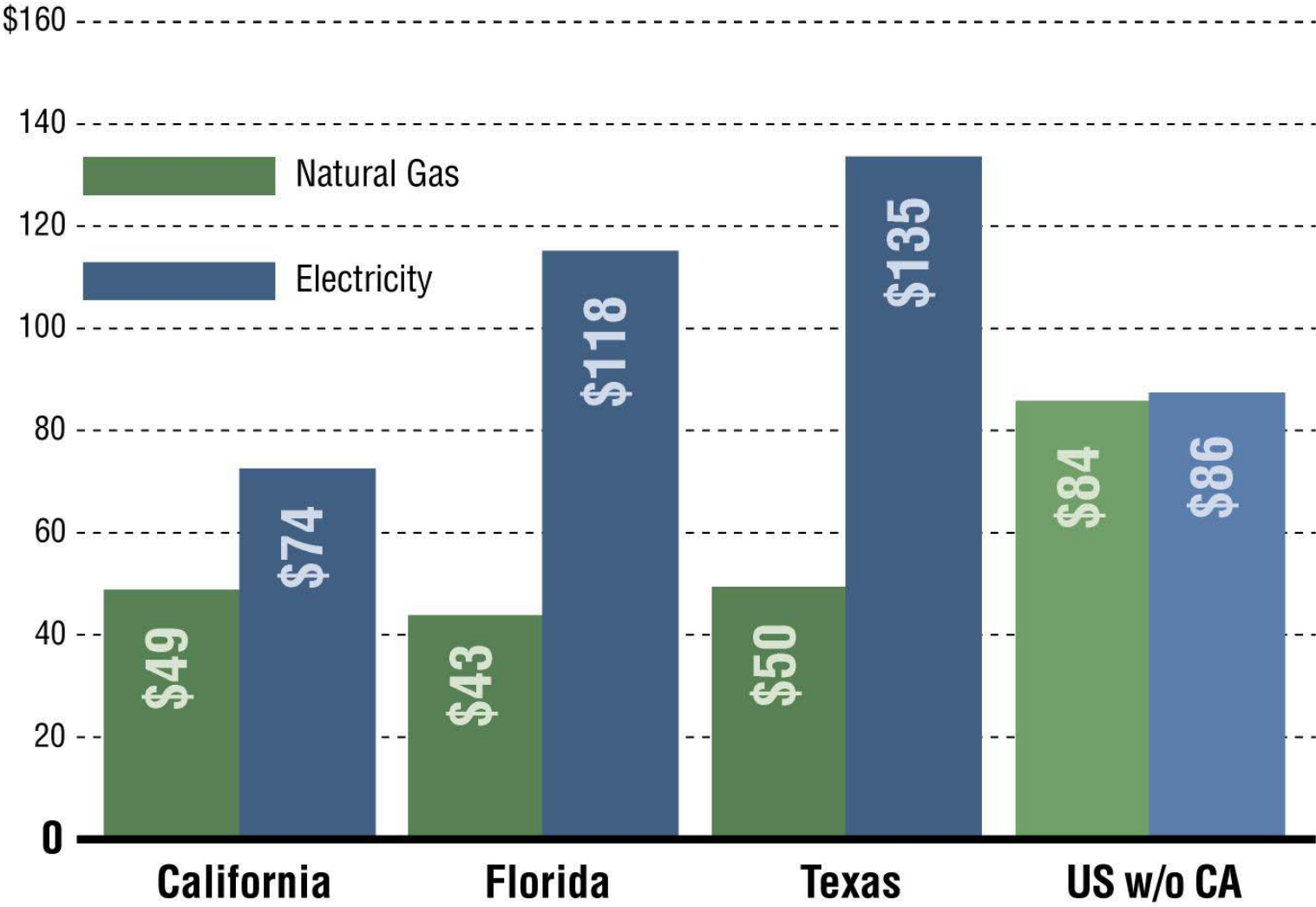
Source: McKinsey

California Energy Policy has Driven Impressive Efficiency Gains



Average Monthly Residential Gas & Electric Bills

2005



Source: Energy Information Agency, U.S. Department of Energy

State Efficiency Goals

- New York- 15 by 15
- New Jersey- 20 by 20
- California- All cost effective energy efficiency

“All Regulation is Incentive Regulation”

A. Khan

We should set up the right incentives



Overarching Goals

- Safe, reliable, affordable energy service
- Minimize environmental impacts
- Economic efficiency
 - Customers and utilities invest in all cost-effective energy efficiency

Energy Efficiency: Benefits & Barriers

- **Cost-effective efficiency investments**
 - 5:1 cost benefit ratio
 - likely to reduce load by 1%/ year
- **Market barriers**
 - Lack of knowledge, access to efficient products
 - Split incentives
 - Customers require 40-100% return, < 3 yr payback

Traditional Regulation

- Rate Case sets prices (RR/ F KWh)
- Utility's performance depends on:
 - Ability to manage costs
 - Electricity sales

Throughput Incentive

- Utility has very strong incentive to increase sales (even if economically wasteful)
- Utility has very strong incentive to protect against decreases in sales

Traditional Regulation

- **Rewards sales / encourages consumption**
- **Discourages utility support for efficiency**
- **Recovery of fixed costs uncertain**

Decoupling Objectives

- **Align consumer and shareholder interests**
- **Promote investment in least cost efficiency**
- **Assure recovery of rate case agreed revenues**
- **Reduce prices by reducing demand**

Decoupling

- **Severs link between profit and sales**
 - **Modest true-ups in both directions vs. rate cap**
 - **Assures recovery of fixed costs**
 - **Removes incentive to increase sales**
- **Rewards safe, reliable service; public goals**
 - **Customizable to reward/penalty based on performance**

Decoupling

- In the simplest form:
 - Insulates a utilities revenues from deviations in sales
 - It does this by adjusting collected utility revenues with allowed revenues ('true-ups')
- Common Variations:
 - Weather adjustments
 - Economic adjustments

Removes Disincentives

- Federal efficiency standards
- State building codes
- Behind-the-meter generation
- Rate design
- Utility DSM
- Third-party DSM
 - statewide public agency
 - independent administrator

Decoupling and Efficiency

- Decoupling Removes Throughput Incentive
- But does not provide an incentive for utility energy efficiency
 - Performances based requirements for efficiency still needed
 - Possibly with financial incentives for good performance



Thank
You

