Update on Utility Energy Efficiency Programs in the United States

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Southwest Energy Efficiency Project

- Non-profit public interest organization, founded 2001
- Advances policies and programs to stimulate greater energy efficiency in six western U.S. states
- Advances energy efficiency in the buildings, transportation, industrial and utility sectors

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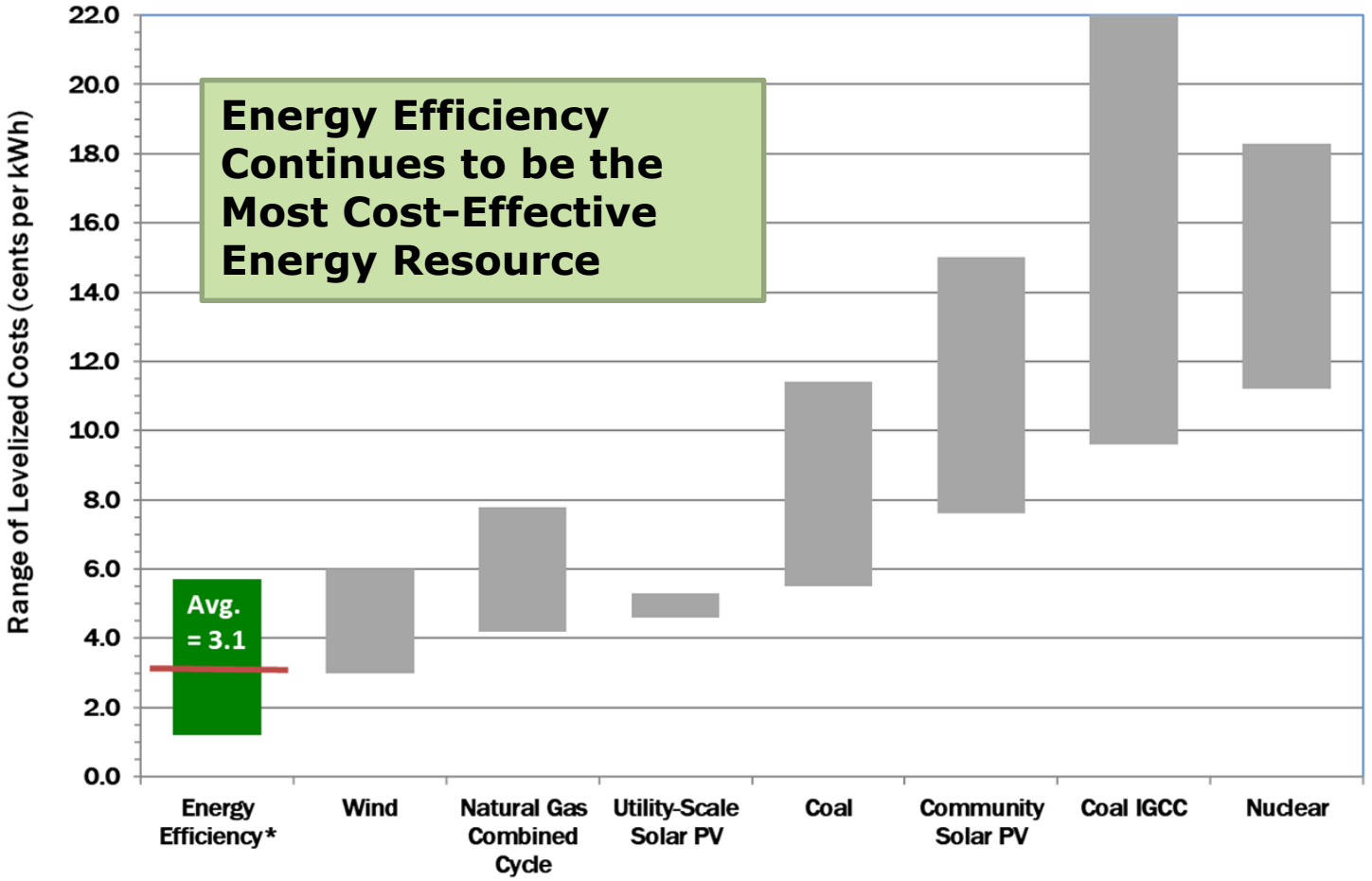
Energy Efficiency Policies and Programs in the U.S.

- U.S. Department of Energy R&D and deployment programs
- Federal appliance and equipment minimum efficiency standards
- "CAFE" vehicle fuel efficiency standards
- Federal ENERGY STAR certification and labeling programs
- Utility energy efficiency and DSM programs
- Building energy codes

Energy Efficiency in the Trump Era

- Trump trying to support fossil fuels and nuclear power, but not much real impact
- Market reality and technological innovation overcome Trump ideology and rhetoric
- Trump not able to influence utility EE policy
- Trump not issuing new appliance and equipment efficiency standards, but rollback is illegal and not supported by industry
- Progress to reduce GHG emissions continues at state/local levels and in private sector

Cost of Different Electric Resources

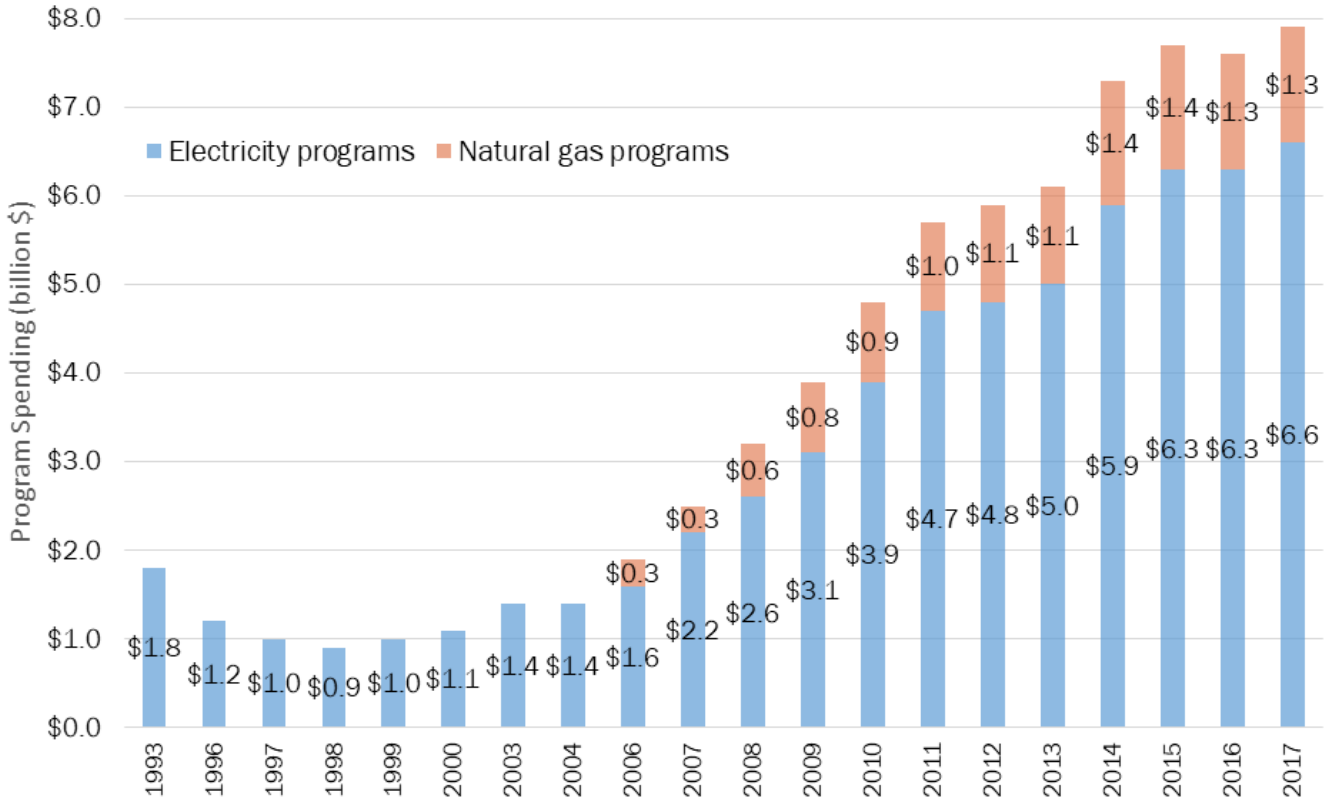


Source: American Council for an Energy-Efficient Economy

Policies Supporting Utility Energy Efficiency Programs

- Policies adopted and programs approved by state regulators, not federal government
- Many states have adopted energy savings goals or requirements that apply to utilities
- Utilities are allowed to recover costs of EE programs in electric rates
- Many states allow utilities to earn a profit on EE program expenditures
- Policies make EE programs “win-win” for utilities and their consumers

Utility Expenditures on Energy Efficiency Programs in the U.S.

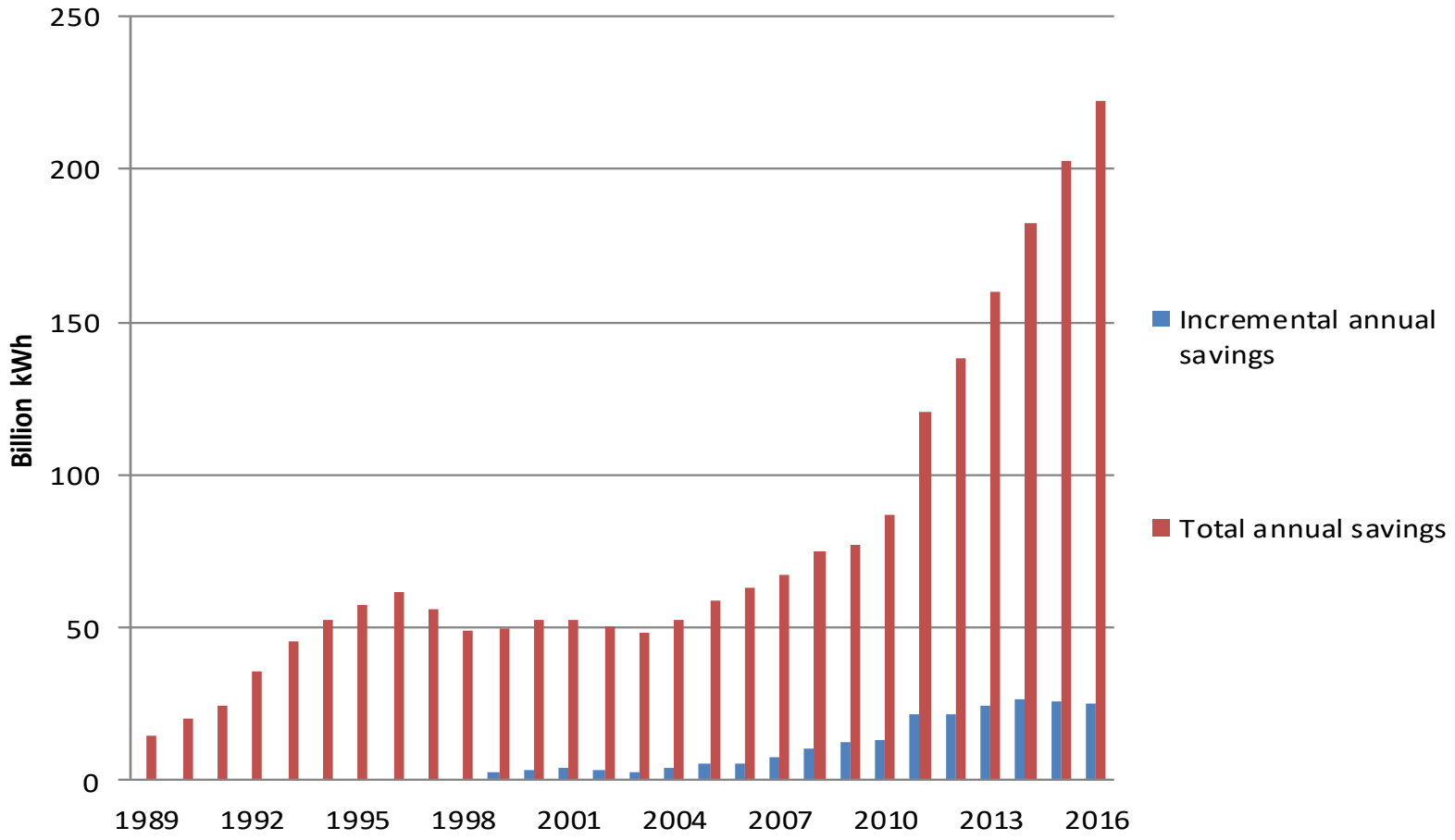


Source: ACEEE

Types of Utility Energy Efficiency Programs

- Rebates on high efficiency HVAC systems, ENERGY STAR appliances, lights, etc.
- Discounts in stores for CFLs, LED lamps and other simple EE measures
- Technical assistance and incentives to encourage energy-efficient new buildings
- Load control devices to reduce peak load
- Recycling programs for older appliances
- Financial support for energy efficiency projects implemented by ESCOs
- "One stop service" for small businesses
- Behavior change programs

Energy Savings from Electric Utility Energy Efficiency Programs in the U.S.



Source: ACEEE

A Decade of Electric Utility EE Programs in the Southwest Region

- Over 20 billion kWh/yr of electric savings as of 2017
- Nine baseload power plants avoided (300 MW each)
- ~$7.5 billion in net economic benefits for households and businesses
- 80 million tons of avoided CO_2 emissions during 2008-17

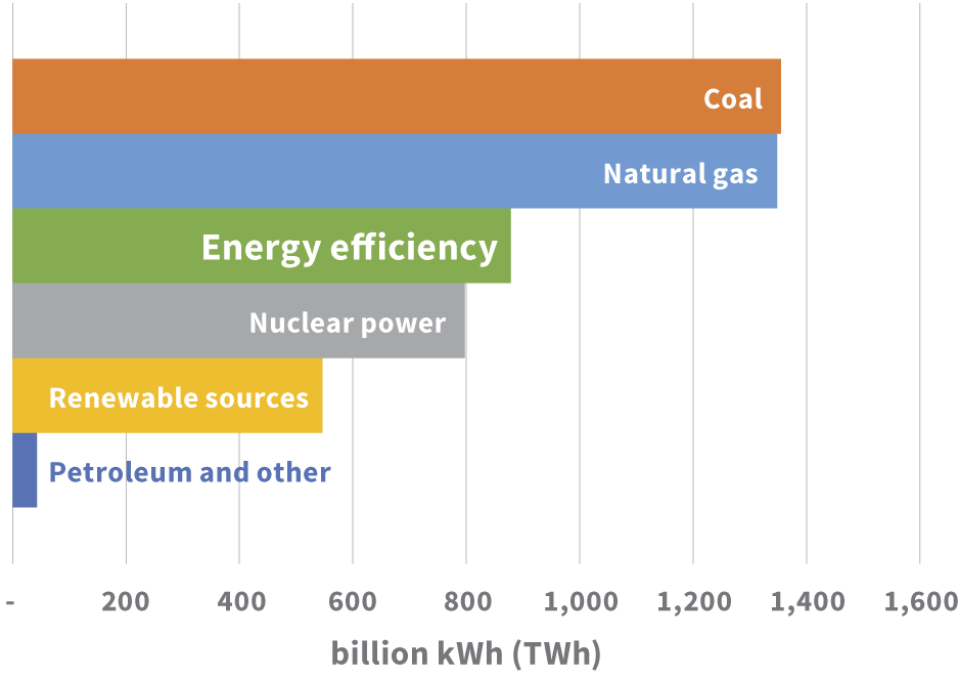
Innovative Program Strategies

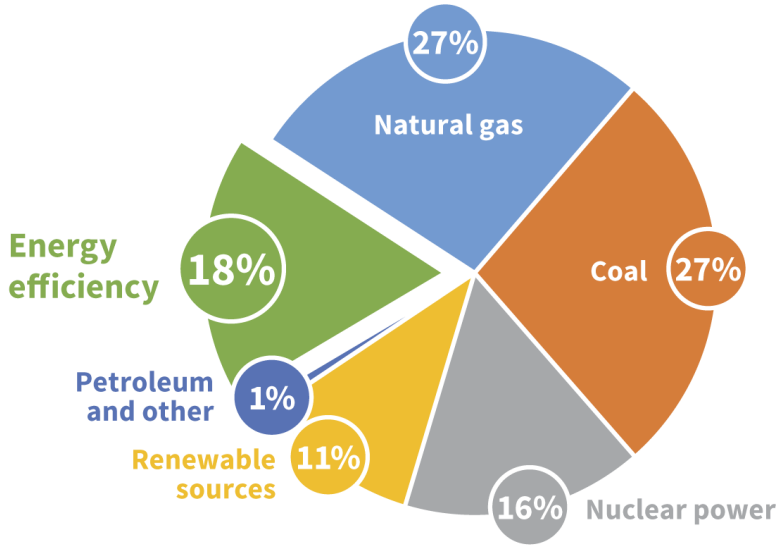
- Shift to incentives for equipment distributors or contractors
- Support for Strategic Energy Management by larger businesses and public sector
- Maximizing energy savings with LEDs and lighting controls in commercial buildings
- Smart thermostats, HVAC optimization, Internet of Things
- Utilizing smart meter data to enhance EE program design, delivery and EM&V

Status of ESCOs in the U.S.

- Market relatively stable: $7-8B per year in revenues (double value 10-12 years ago)
- Public buildings, schools and universities account for 80% of market
- Commercial, industrial and apartment buildings – 20% of market
- Performance-based contracts – 75% of revenues
- New financing mechanisms; expansion into renewable energy (solar PV), building automation and management

In the Electricity Sector, Energy Efficiency is Now our 3rd Largest Resource…





Source: ACEEE 2016. *Greatest Energy Story You Haven't Heard.* http://aceee.org/research-report/u1604

Conclusions

- Energy efficiency efforts remain strong in the U.S. in spite of Trump Administration
- Increasing energy efficiency is still the lowest cost “electricity resource”
- New technologies like LEDs, better controls and smart thermostats are expanding energy savings potential
- Utility EE programs remain well-supported by states, well-funded and effective
- ESCO industry continues to be healthy and focused on public buildings and schools

SWEEP:

Dedicated to More Efficient Energy Use in the Southwest

Resources available online at:

www.swenergy.org

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