

# Federal Energy Efficiency Policy Prospects

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# Jobs Bill



- Proposed new legislation to address high unemployment
- Initial bill just passed House and Senate
- Second bill mostly tax based, passed Senate
- Third bill may include several efficiency provisions
- Key question is how to pay for it (ARRA, TARP, deficit??)

# Potential Efficiency Provisions in a Jobs Bill

- Home Star / “Cash for Caulkers”
- Additional funds for oversubscribed ARRA programs:
  - Advanced Energy Investment Credits for manufacturers (mostly renewable energy)
  - Industrial grants and Manufacturing Extension Partnership
- Other new ideas
  - “Building Star” program – prescriptive rebates
  - Replacement of old manufactured homes (Tester)
  - Rural loans through electric co-ops (Third Way)



# Home Star / Cash for Caulkers

- 2010 focused
- “Gold Star” performance based –
  - Savings of at least 20%, plus additional incentives for higher savings
  - Based on Home Performance with Energy Star
- “Silver Star” prescriptive based –
  - Fixed incentives for specific measures
  - Air and duct sealing
  - Attic, wall and crawl space insulation
  - Replacement windows, heating & cooling systems, appliances
  - Need to meet specified efficiency criteria
- Quality control component



# Industrial Grants

- Competitive grant program for CHP and industrial efficiency upgrades.
- Had \$156 million but over \$3 billion of proposals.
- New legislative proposal is to add \$4B
  - Fund additional projects from prior RFP
  - Do a second RFP
- Also may provide extra money for Manufacturing Extension Partnership



# Building Star

- Prescriptive incentives for many EE measures -- \$6 billion
  - Insulation
  - HVAC, VSDs, EMSs, transformers
  - Audits, commissioning studies, O&M
- To be run by DOE and operate for 1 yr.
- Introduced by Senators Merkley and Pryor

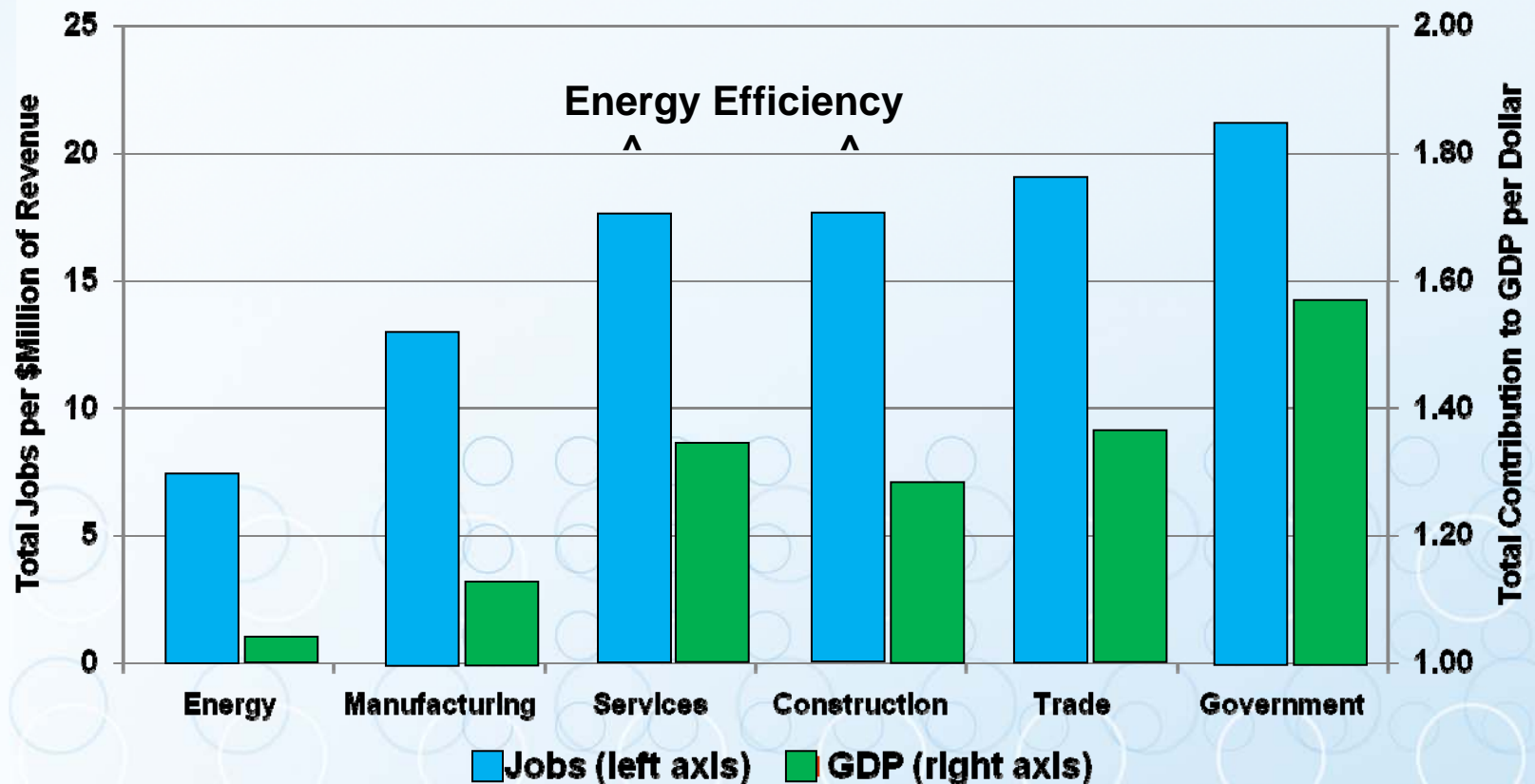


# Federal Energy and Climate Legislation Status

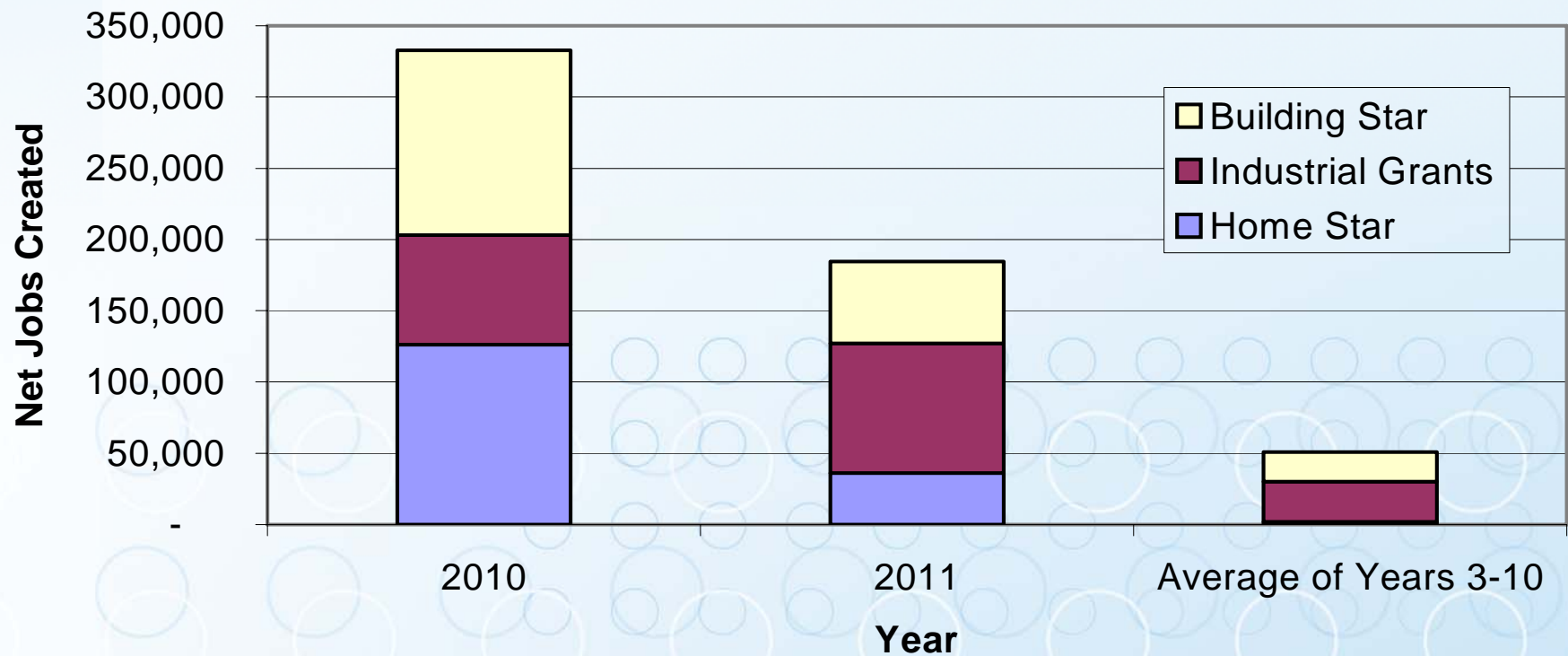


- House passed combined energy & climate change bill (ACES)
- Senate Energy reported out energy-only bill (ACELA)
- Senate EPW reported out a cap and trade bill
- Plan was to combine these, along with other provisions, into a more comprehensive bill
- But there are not 60 votes.

# Energy Productivity Shifts Spending To Greater Labor and GDP Impacts



# Projected Net Job Creation for Energy Efficiency Provisions Being Considered for a Federal Jobs Bill



Source: ACEEE analysis.

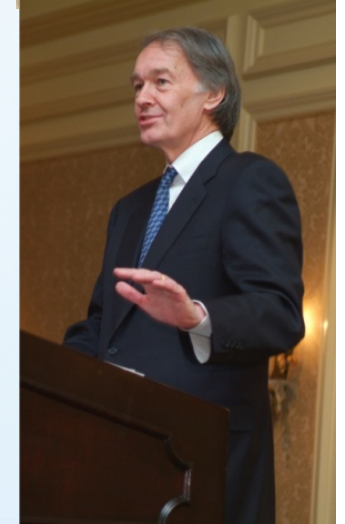
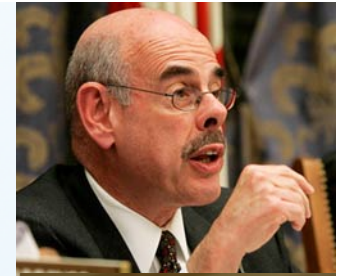
# Kerry, Graham and Lieberman

- Trying to fashion compromise bill that could get 60 votes
- Likely to include:
  - Cap and trade for utilities
  - Carbon fee on transportation fuels
  - Regulations on large industrial, ~2016
  - Significant sections on nuclear, clean coal, oil and gas
- Could include CERES and efficiency provisions in ACELA
- Will rebate some allowance proceeds to consumers, allocation of rest unclear



# Efficiency Elements in House and Senate Energy Bills

- Energy efficiency resource standards
- Appliance and equipment standards
- Improved building codes
- Residential and commercial retrofits
- Building labeling
- Appliance incentives (House only so far)
- Industrial & building job training & TA – IAC, BTAC
- Programs for industry (Senate only so far)
- Demand response (House only so far)
- Energy Star (Senate only so far)



# Energy Efficiency Resource Standards

Analogous to a Renewable Portfolio Standard

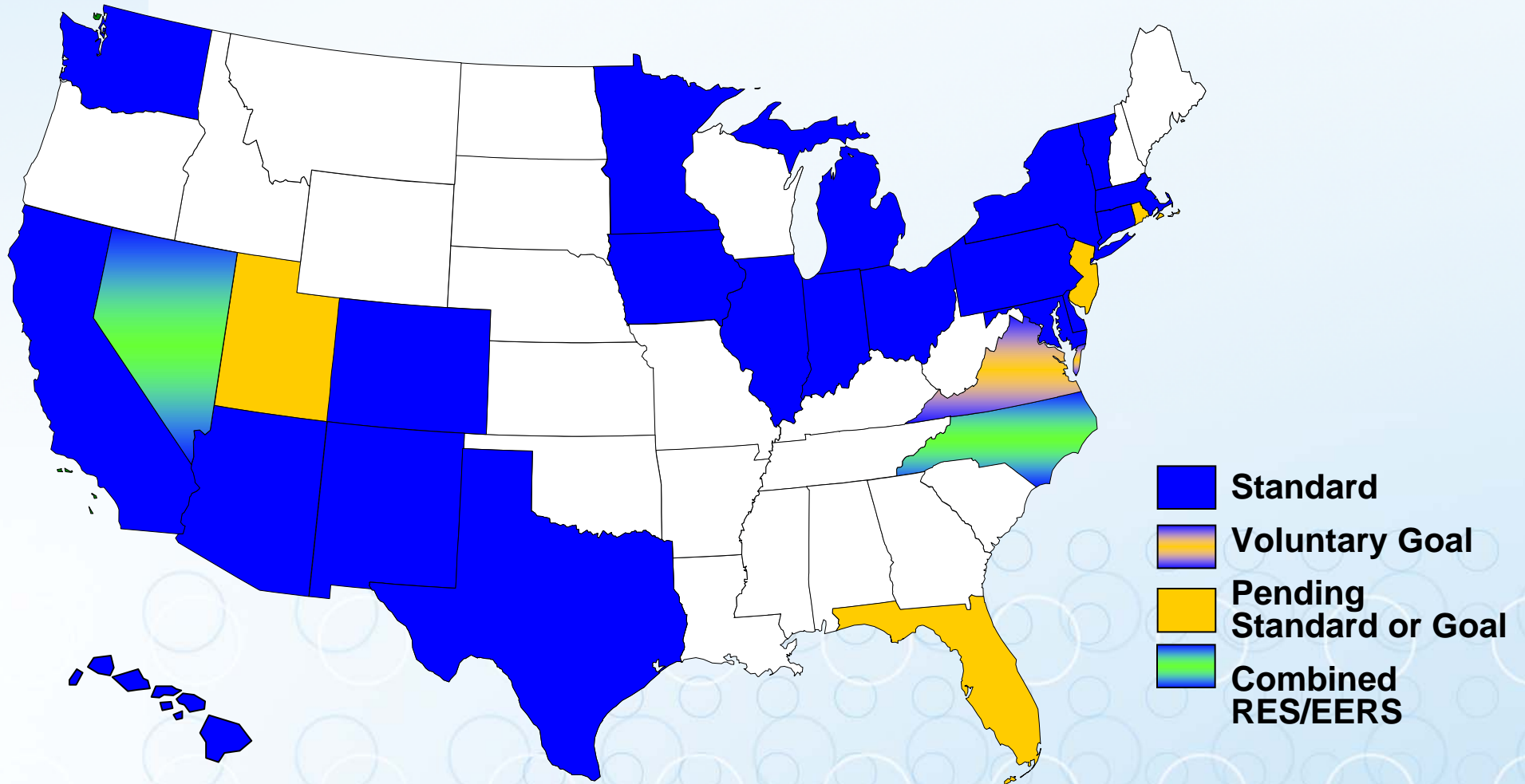
Electric and/or gas savings targets for utilities

- Includes end-use efficiency and sometimes combined heat & power (CHP) and codes/standards
- Targets generally start low and increase over time

Savings must be documented in accordance with evaluation rules established by regulators

# Energy Efficiency Resource Standards

## 22 States –December 2009



# Savings Grow Over Time

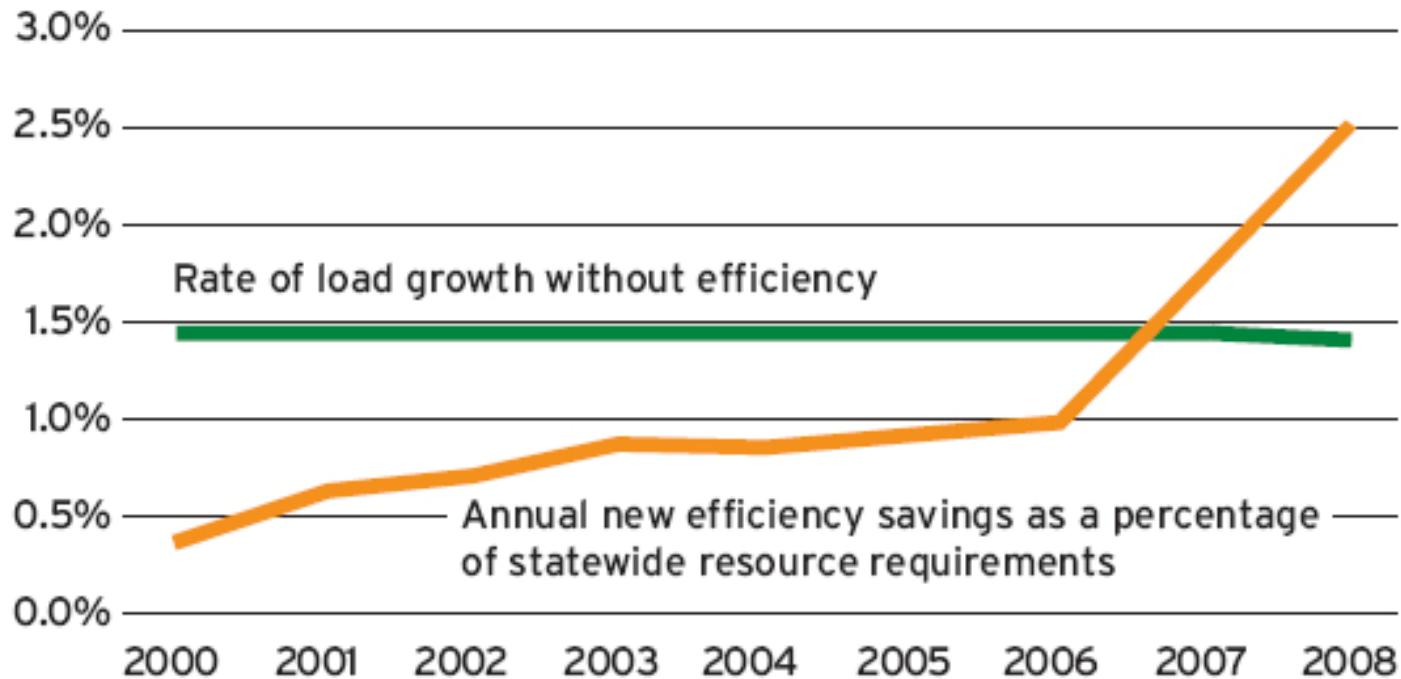
	<u>Electric</u>		<u>Natural Gas</u>	
	Annual	Cumulative	Annual	Cumulative
2011	0.33%	0.3%	0.25%	0.3%
2012	0.67%	1.0%	0.50%	0.8%
2013	1.00%	2.0%	0.75%	1.5%
2014	1.25%	3.3%	1.00%	2.5%
2015	1.25%	4.5%	1.00%	3.5%
2016	1.50%	6.0%	1.25%	4.8%
2017	1.50%	7.5%	1.25%	6.0%
2018	2.50%	10.0%	1.25%	7.3%
2019	2.50%	12.5%	1.25%	8.5%
2020	2.50%	15.0%	1.50%	10.0%

***Note: Savings count from date of passage***

# Vermont – Raising Efficiency to a New Level



Energy Savings vs. Projected Load Growth



# Federal EERS Activities

- Markey (H.R. 549) and Schumer (S. 548)
  - 15% electric, 10% gas EERS by 2020
  - States lead implementation
- Waxman-Markey as passed House
  - Includes 20% RES with 5-8% EE
- Senate Energy Committee bill
  - 15% RES with efficiency up to 4% EE
  - Proposals to increase this likely on Senate floor

# Appliance and Equipment Standards

- Adopt consensus agreements on new standards:
  - Portable lighting fixtures
  - Outdoor lighting fixtures
  - Residential AC and furnaces
  - More minor products
- Some clarifications and reforms to standards program



# Building Codes



- Likely to be in House and Senate bills
- IECC and ASHRAE to revise codes to achieve:
  - 30% savings by 2010 (IECC on track, ASHRAE trying)
  - 50% savings by 2014-2016 (varies by sector, bill)
  - House bill raises this by 5% every 3 years
- If don't, DOE to develop model codes
- States encouraged to implement and achieve 90% compliance within 8 years
  - Grants to states to help pay for this

# Incentives for Building Retrofits

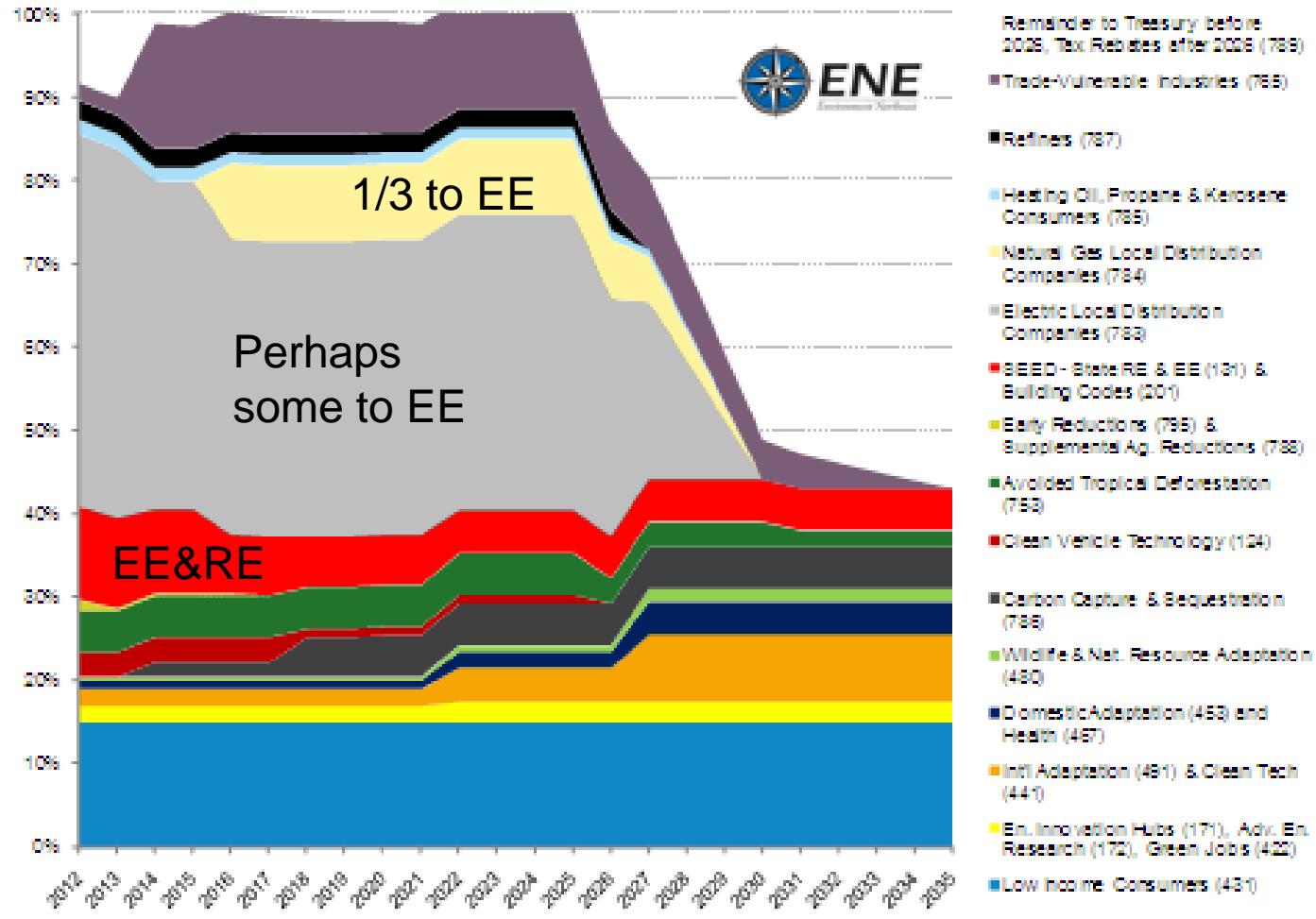
- Performance-based incentives for comprehensive retrofits – in both House and Senate bills
- Both residential (like Home Star Gold) and commercial
- Targeting savings of 20% or more
- EPA/DOE provide technical program guidance
- DOE provides funds to states to run programs
- Funding to come from emissions allowances

# Building Labeling

- In both House and Senate bills, *but House limited to new construction*
- DOE to develop program
- Includes both performance and design ratings
  - Performance = based on actual energy use
  - Design = based on building plans
- Encourage states and federal agencies to use
- Funding and TA for demonstration projects

# Spending of Emissions Allowance Revenue on Energy Efficiency in ACES

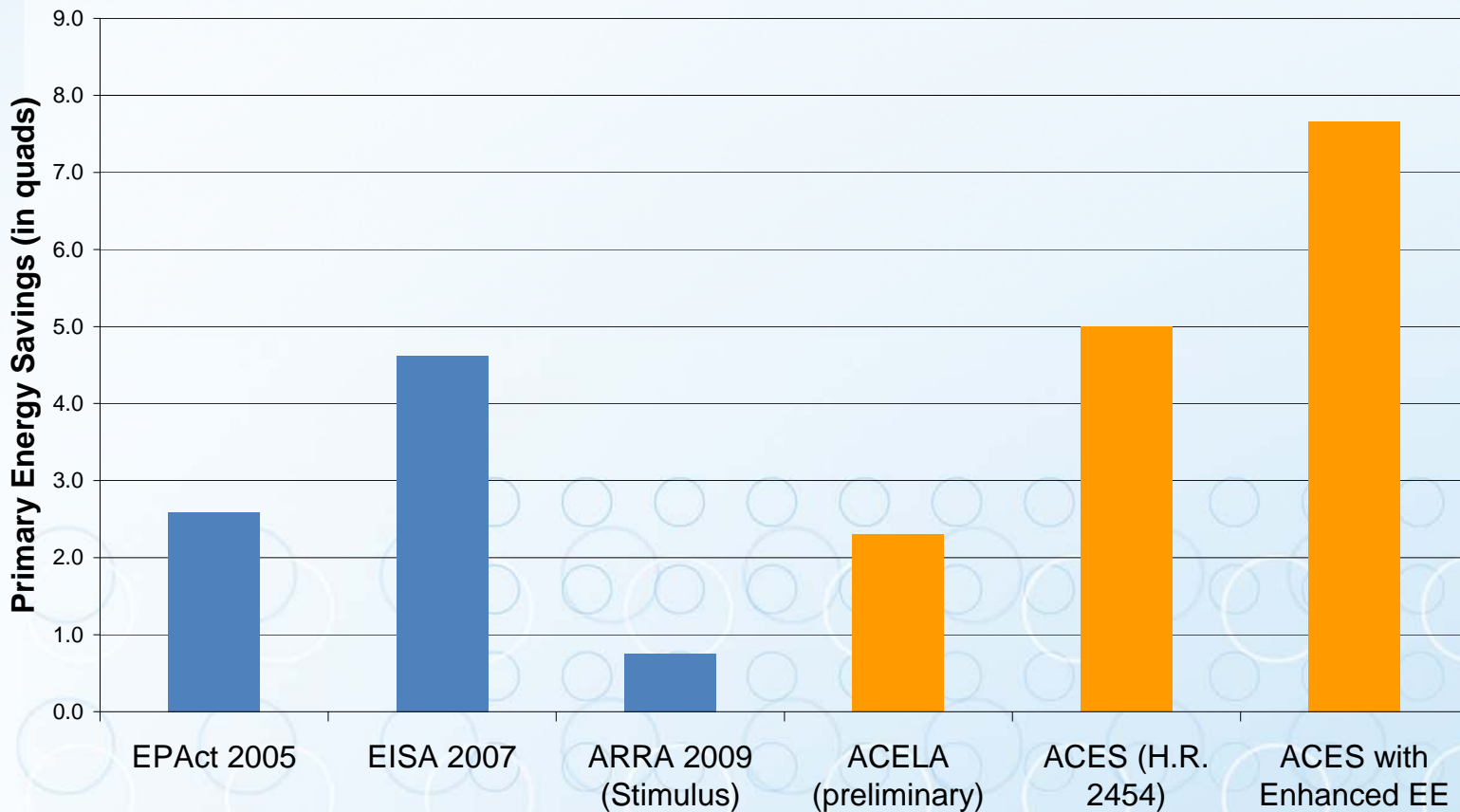
## The Starting Point: ACES Allocations



# Tax Incentives

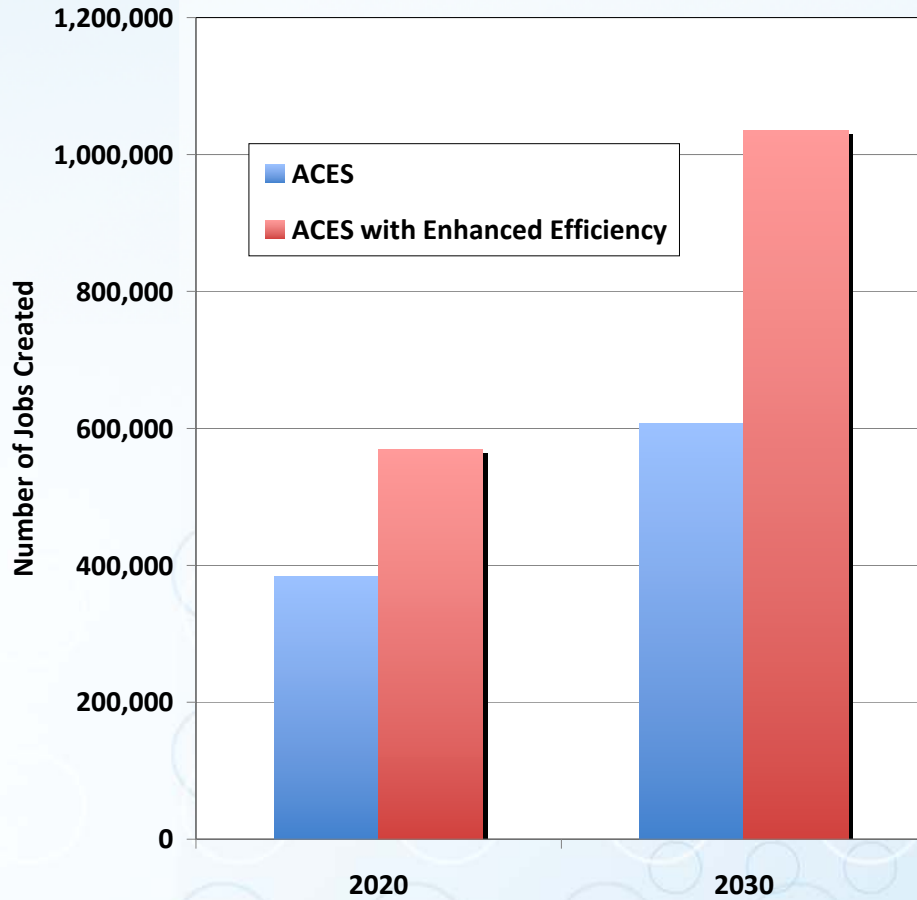
- Very unclear what will move forward
- New home and heavy-duty vehicle incentives need renewal; in 2<sup>nd</sup> jobs bill
- Some refinements to new home and commercial building incentives proposed by Senators Bingaman, Snowe & Feinstein
- These 3 Senators also proposed new incentives for industrial motors, replacing old CFC chillers, and upgrading water pumping systems.
- These last two are most likely to be included in an energy bill... if there is one

# Efficiency Savings in ACES Relative to Other Recent Energy Bills

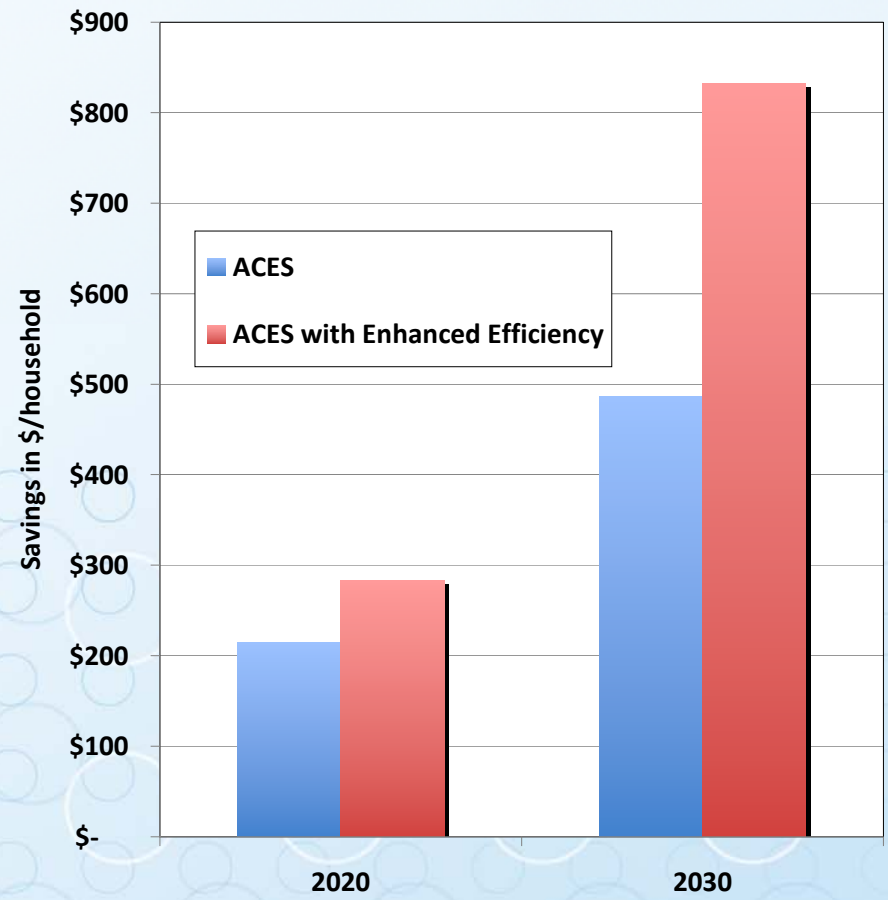


# Energy Efficiency Creates New Jobs & Consumer Savings from ACES

## Net Jobs Created

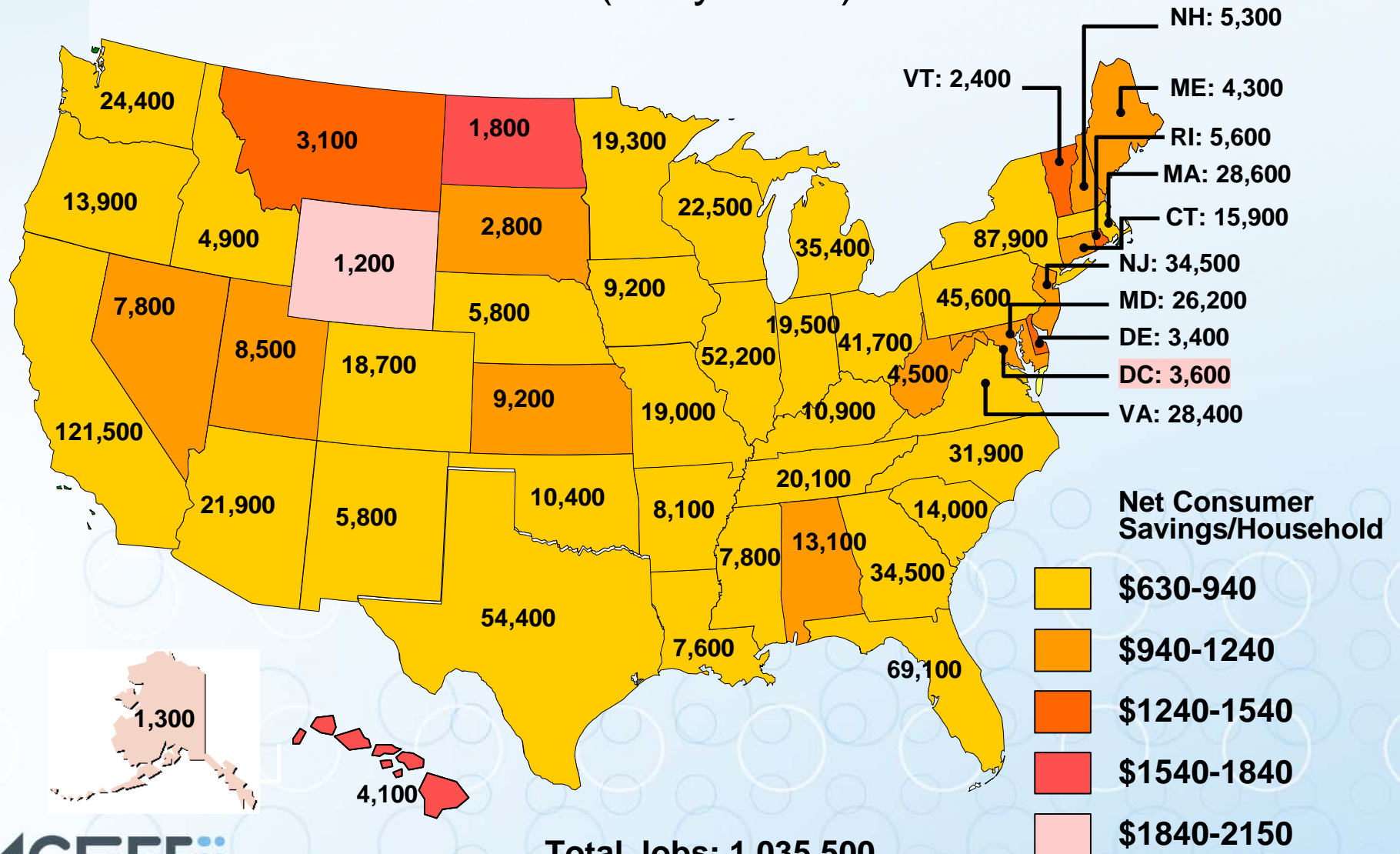


## Net Annual Consumer Savings



# Jobs & Savings from EE Provisions

(in/by 2030)



# Prognosis

- Home Star and manufacturing provision stand good chance in a jobs bill, Building Star could move later
- CC legislation complex; takes time to gestate
- Members reluctant to make difficult votes (election year; on top of health care)
- Need bipartisan approach
- May get K-G-L, just an Energy bill, or nothing



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