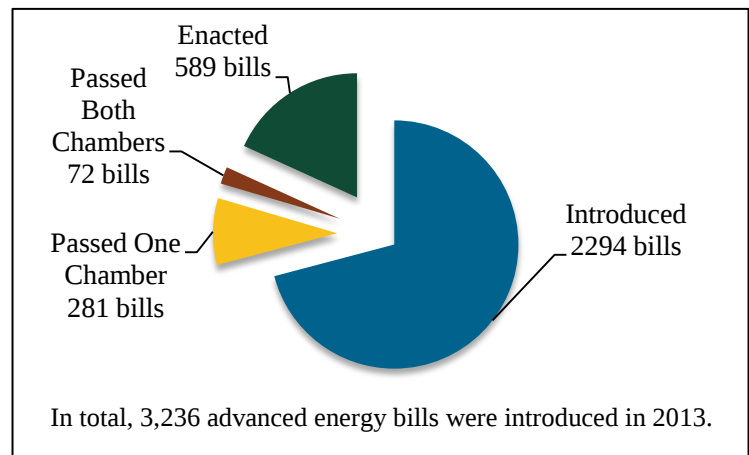


## 2013 Year in Review – State Advanced Energy Legislation

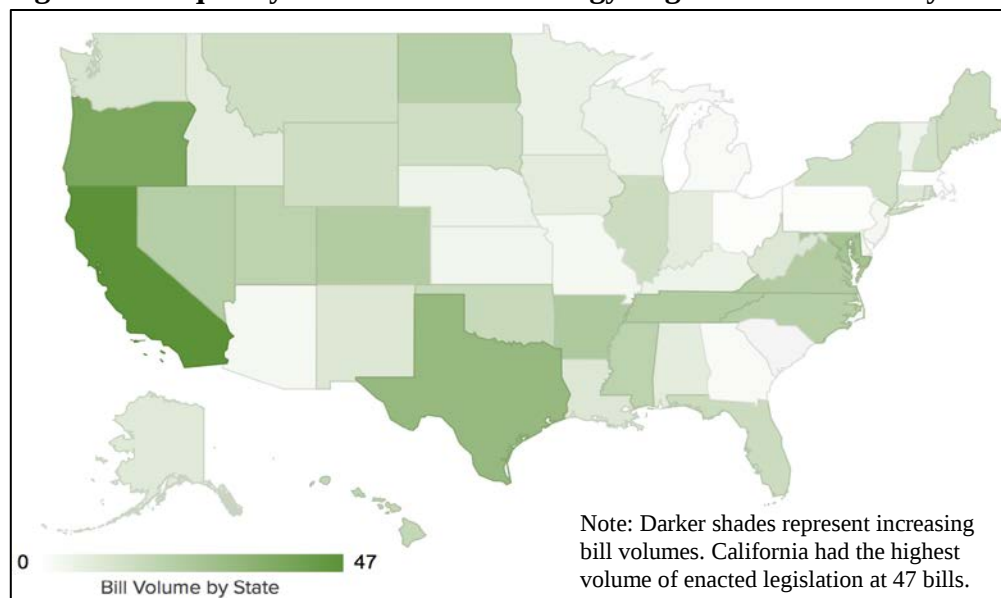
U.S. states are the laboratories of innovation for advanced energy policy. Tracking national trends in advanced energy therefore requires proficiency in 50 state legislative websites. The [Advanced Energy Legislation Tracker](#), created by the [Center for the New Energy Economy](#) (CNEE) and [Advanced Energy Economy](#) (AEE), is designed to solve this challenge by consolidating all advanced energy legislation (3,236<sup>1</sup> energy-related bills in 2013) introduced in all 50 states and the District of Columbia. The AEL Tracker database assigns each bill to one of ten policy categories<sup>2</sup> in a searchable, visual database complete with trend analysis and reporting.

This paper outlines CNEE's analysis of the [589 advanced energy bills that have been enacted](#)<sup>3</sup> this year.

**Figure 1: 2013 Advanced Energy Bills by Year End Status**



**Figure 2: Frequency of All Advanced Energy Legislation Enacted by State**



<sup>1</sup> All data used in this paper is as of December 6<sup>th</sup>, 2013.

<sup>2</sup> AEL Tracker's 10 policy categories are: Economic Development, Electricity Generation, Emissions, Energy Efficiency, Financing and Financial Incentives, Infrastructure, Natural Gas Development, Other Energy, Regulatory, and Transportation.

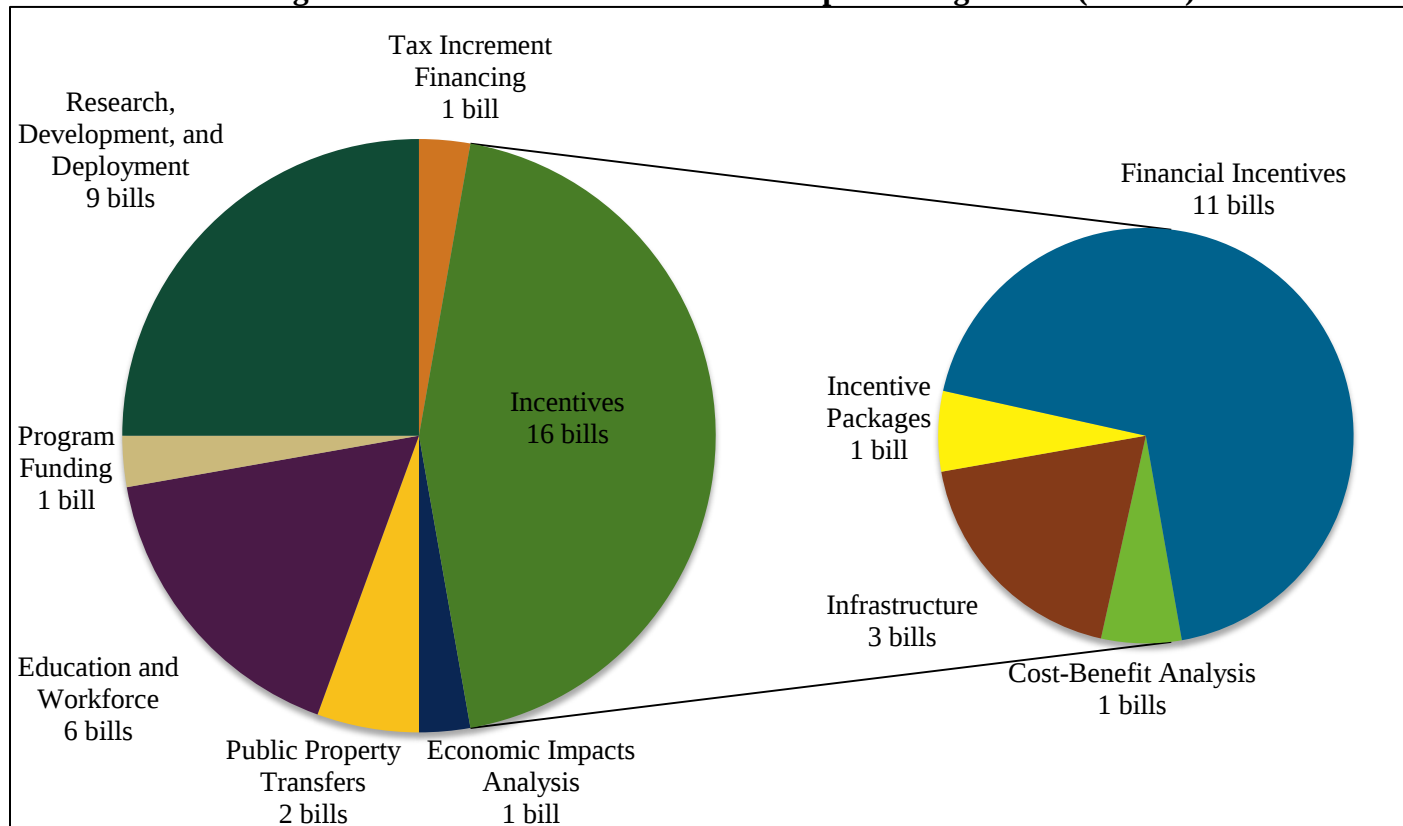
<sup>3</sup> This paper does not include the 'Other Energy' category, and therefore the enacted legislation total may not match search results provided by the AELTracker.



## Economic Development

As states compete to attract and retain companies associated with the advanced energy industry, leaders recognize the importance of providing an attractive business environment. Of the [176 economic development-related proposals](#) introduced this year, [36 were enacted](#)<sup>4</sup>.

**Figure 3. 2013 Enacted Economic Development Legislation (36 bills)**



### Key takeaways:

1. The most successful type of bills was related to the provision of incentives aimed at business retention and attraction. These included financial incentives for business as well as financing programs to ensure necessary infrastructure upgrades and extensions to support research and industrial parks.
2. For emerging technology businesses, access to research centers and a highly educated, skilled, and trained workforce is likely to enhance the attractiveness of a state's business climate. Bills supporting research, development, and deployment through the provision of funding and by incentivizing knowledge sharing, networking, and workforce development were successful.
3. An interesting bill to note this session relates to economic development cost-benefit analysis (CBA). In [Nevada](#), newly enacted legislation requires all agencies providing economic development incentives to periodically perform a CBA of those incentives.

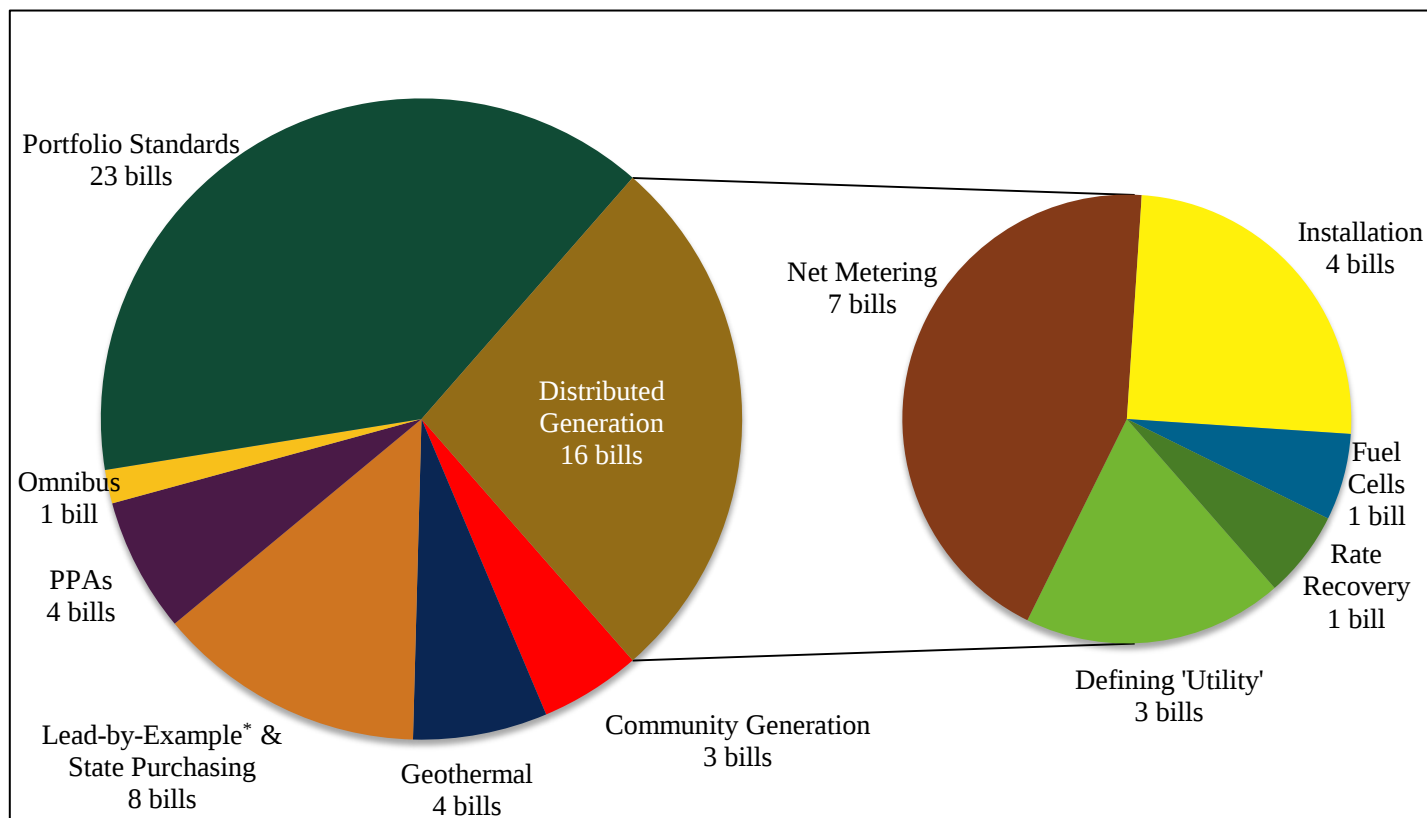
<sup>4</sup> CNEE considers "companion bills", similar or identical legislation introduced in both chambers, to be a single piece of legislation. For this reason, the bill totals referenced here may not directly match search results provided in the AELTracker.



# Electricity Generation

Generation-related technology developments drive policy innovation at the state-level. This section examines changes made to the policies and key to advancing electricity generation. Of the [516 generation-related proposals](#) introduced this year, [56 were enacted](#).

**Figure 4. 2013 Enacted Electricity Generation Legislation (56 bills)**



## Key takeaways:

1. [As noted in a previous analysis on this subject by CNEE](#), there was a flurry of state RPS activity this session, with over 120 individual proposals introduced, predominantly in states with existing RPS standards. However, only nine states enacted changes, and all have been changes we categorized as either an increase or a modification. States where rollback bills were proposed in the end did not, or have yet to, enact such legislation.
2. The overall impact of the 2013 legislative session is that the state RPS market is larger, particularly in the four states, [Nevada](#), [Colorado](#), [Minnesota](#), and [Maryland](#)<sup>5</sup>, that enacted legislation to increase renewable requirements. In addition to this, [Rhode Island](#)'s policymakers enacted a bill creating a biodiesel standard for heating oil.
3. Bills not tied to RPS distributed generation (DG) carve-outs and renewable energy credits amended provisions relating to carrying over and allocating excess generation credits, allowing program cost recovery, amending the definition of utility to exclude property owners, and enacting provisions related to contractor licensing requirements and community association or other local restrictions governing the installation of DG technologies. Bills related to shared or community-owned generation amended and expanded programs in [Illinois](#), [New Hampshire](#), and [California](#).

<sup>5</sup> Maryland lawmakers also enacted two bills to modify the state's RPS.

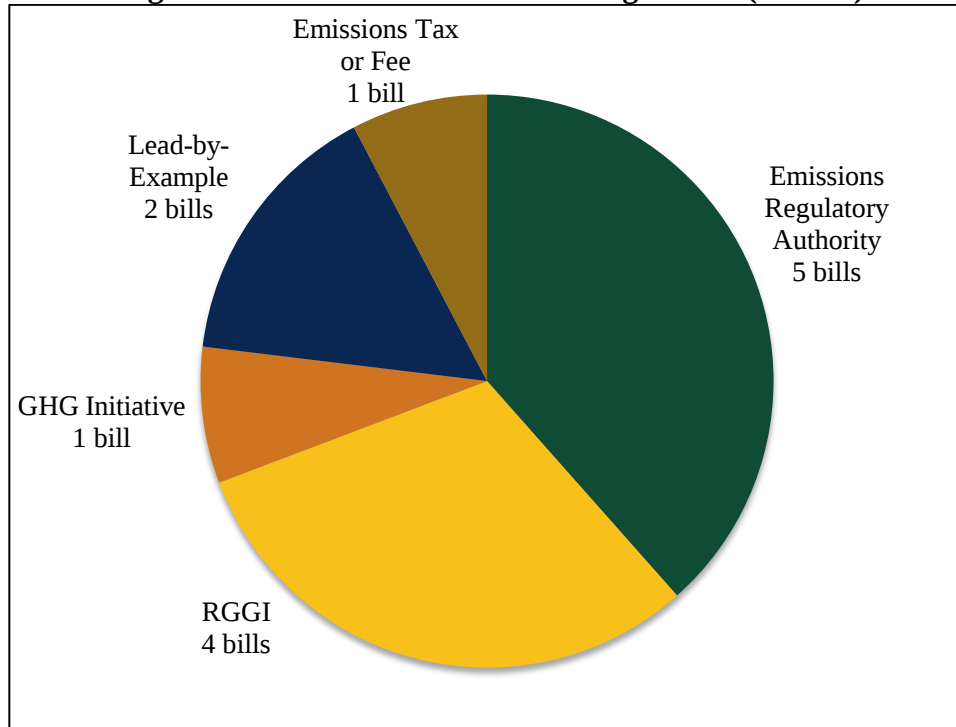
\* 'Lead-by-example' refers specifically to state government programs that demonstrate leadership in areas related to energy, greenhouse gas emissions, and transportation.



# Emissions

President Obama has highlighted the importance of addressing greenhouse gas (GHG) emissions and other air pollutants in his speech at Georgetown University and in his [Climate Action Plan](#). Internationally, the recent [Warsaw agreement](#) to reduce GHG emissions reflects continued concern with human impacts to air quality and the Earth's climate. U.S. States have been leaders in addressing emissions. This year, of the [82 emissions-related proposals](#) introduced, [13 were enacted](#).

**Figure 5. 2013 Enacted Emissions Legislation (13 bills)**



## Key takeaways:

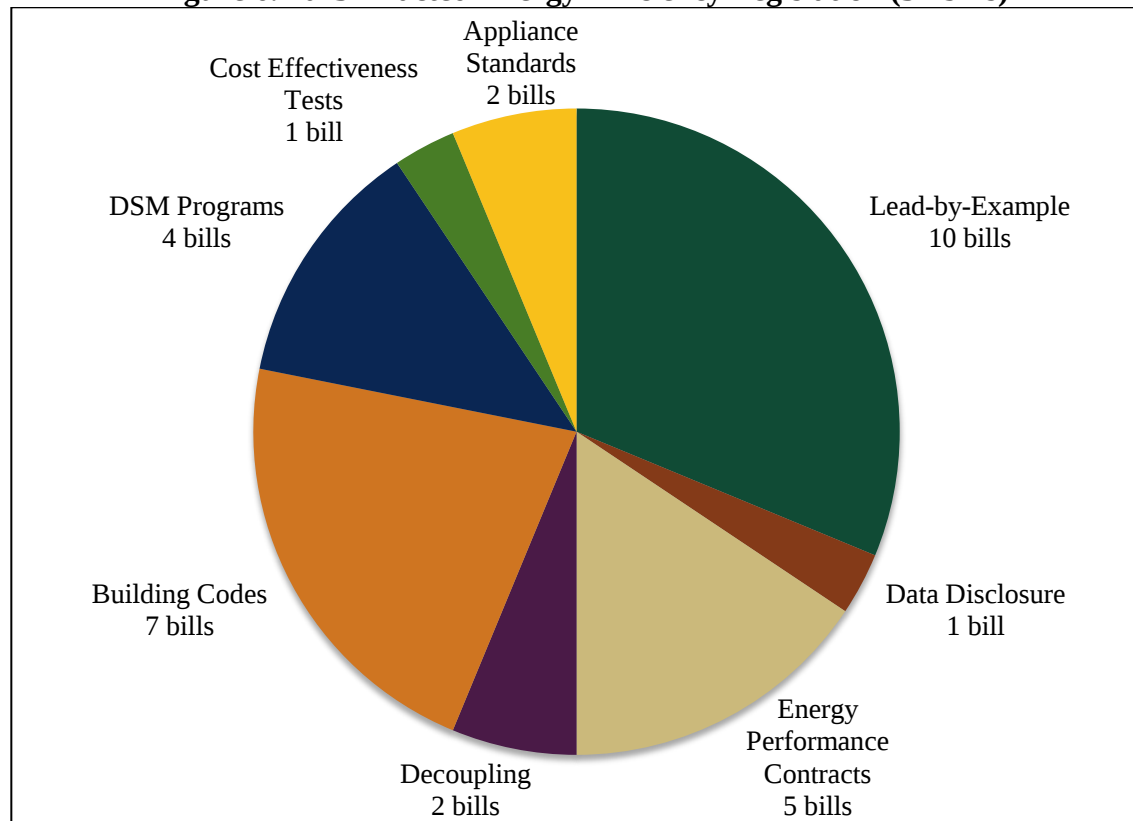
1. The development of GHG emissions-related legislation, as passed this year in [Wyoming](#), [Texas](#), and [Oregon](#) is likely to increase across the states as the Environmental Protection Agency works to finalize GHG rules for existing facilities under Section 111(d) of the Clean Air Act.
2. Regional Greenhouse Gas Initiative (RGGI) participant states were active this year. [Rhode Island](#) and New Hampshire ([HB 630](#); [SB 123](#)) enacted legislation to earmark RGGI auction credits for energy efficiency improvements. New Hampshire also [enacted](#) additional changes related to the state's participation in RGGI.
3. Other interesting bills of note include lead by example bills in Colorado, Oregon, and Utah. Colorado's [HB 1293](#) develops a new position in the Executive branch that deals specifically with climate change mitigation and the development of a statewide climate action plan. Utah's [HB 168](#) requires state agencies and school districts to evaluate their air emissions and produce plans to mitigate those emissions. Oregon's [SB 306](#) requires the Legislative Revenue Officer to prepare a final report regarding the feasibility of a statewide clean air tax.



## Energy Efficiency

Widely viewed as the least expensive, lowest-risk investment for the nation's electric and gas utilities, efficiency returned to the national spotlight in the 2013 [State of the Union](#) address in which President Obama called for a doubling of the nation's energy productivity. States continue to recognize the advantages of our 'First Fuel'. Of the [221 energy efficiency-related bills](#) introduced this year, [32 were enacted](#).

**Figure 6. 2013 Enacted Energy Efficiency Legislation (32 bills)**



### Key takeaways:

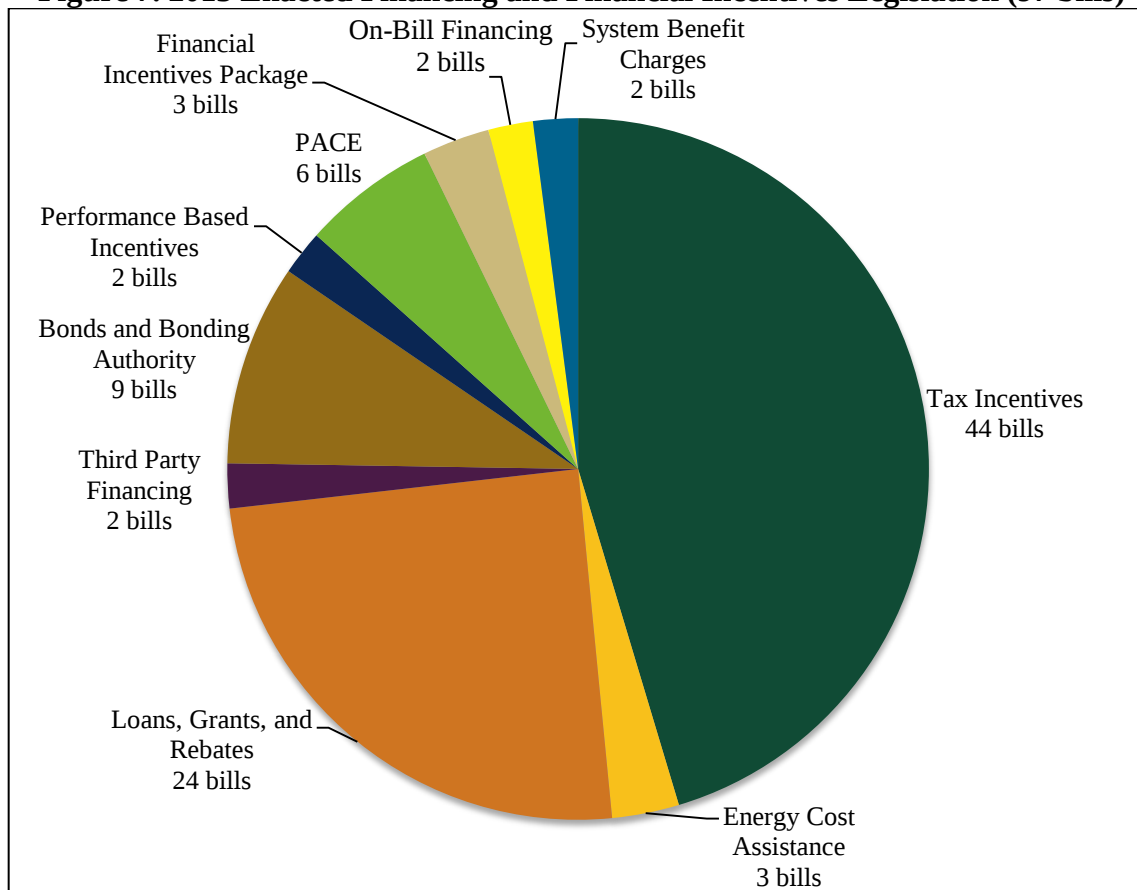
1. Early in the 2013 session, [an analysis by CNEE noted](#) that efficient states (as defined in [ACEEE's scorecard](#) rankings) appeared to be widening the gap over relatively inefficient states. While highly ranked states did enact efficiency-related legislation, lower-ranking states also appeared to get into the game. For example, multiple bills were enacted in [Tennessee](#), [North Carolina](#), and in ACEEE's 'Most Improved' state, [Mississippi](#).
2. Measures to improve the performance of buildings through revisions to lead-by-example programs and building codes accounted for nearly 50% of the enacted efficiency-related policy this session. Building code revisions are likely to remain common with successive International Energy Conservation Code updates every three years. Also, given the emerging federal role in appliance standards, the number of state-led proposals on appliances will likely dwindle.
3. Other important changes included revisions to decoupling, Demand Side Management, and Energy Savings Performance Contracting statutes. Notably, legislators in [New Mexico](#) modified the cost-effectiveness test for utility-administered DSM programs.



## Financing and Financial Incentives

There is little debate that increasing the market share for advanced energy will require greater access to high quality financing to overcome up-front cost barriers. The largest single category of advanced energy legislation this session was in financing. Of the [668 financing-related bills](#) introduced this year, [97 were enacted](#).

**Figure 7. 2013 Enacted Financing and Financial Incentives Legislation (97 bills)**



### Key takeaways:

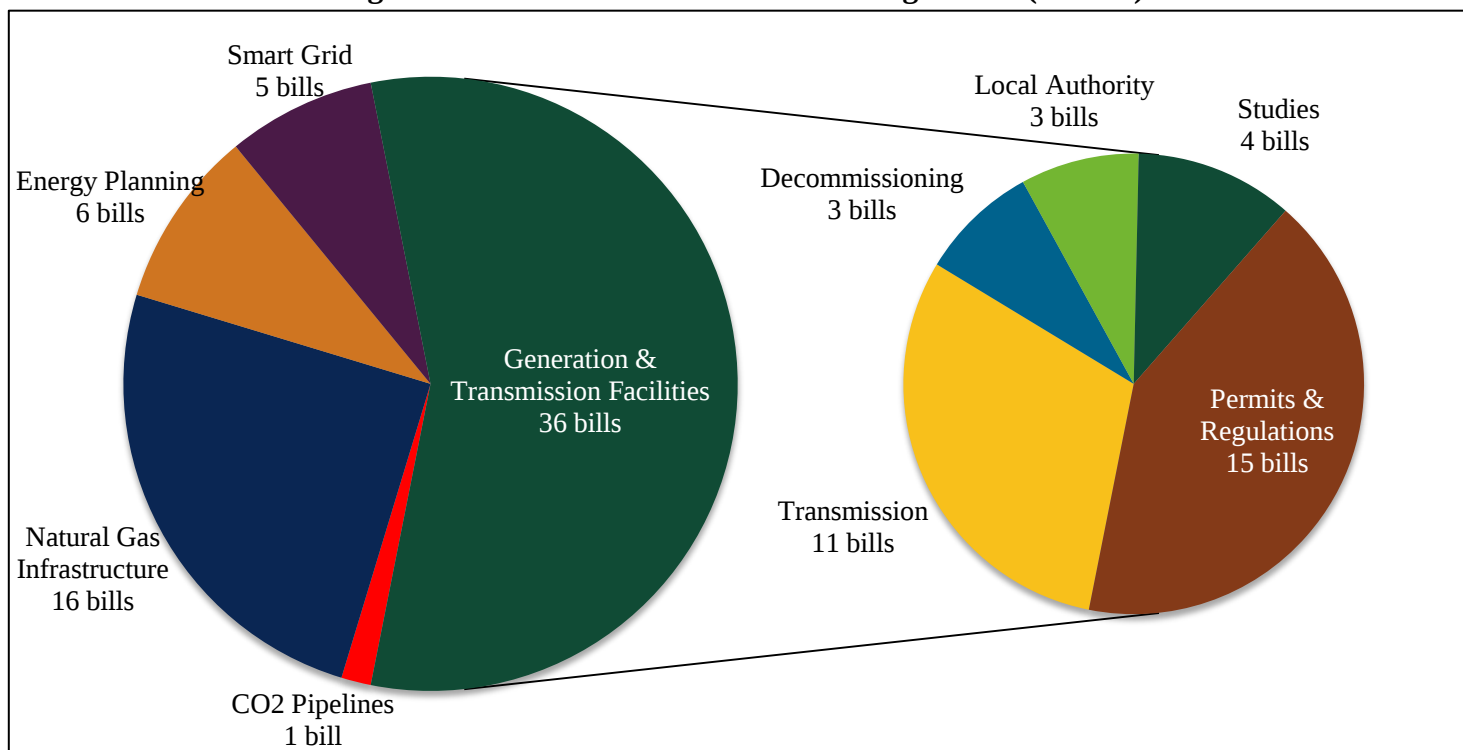
1. Tax incentives dominated the field of finance legislation with 44 bills signed into law. The majority of these bills provided incentives related to renewable energy and alternative transportation. While these measures reduce costs related to a given technology, it is important to note that tax incentives are not true financing solutions.
2. Legislation relating to loans, grants, rebates, performance-based incentives, and bonding authority were also successful in 2013. While these types of policies represent better financing mechanisms than tax incentives alone, most rely on periodic approval of public funding streams that can be unpredictable.
3. [As CNEE observed in a finance legislation analysis earlier this year](#), Property Assessed Clean Energy (PACE), on-bill financing, and third party leasing proposals were the least prevalent types of financing legislation enacted (though their individual bill success rate was quite high). These policies hold the greatest promise for revolutionizing our energy economy in that they tend to be revenue-neutral, leverage existing billing systems, and enable the greatest levels of consumer participation.



# Infrastructure

Our electricity and natural gas infrastructure is aging. Compounding this challenge, addressing integration of intermittent electric resources, along with increasing concern related to electric reliability, security, and environmental impacts are all demanding more from our grid infrastructure. Of the [303 infrastructure-related bills](#) introduced this year, [64 were enacted](#).

**Figure 8. 2013 Enacted Infrastructure Legislation (64 bills)**



## Key takeaways:

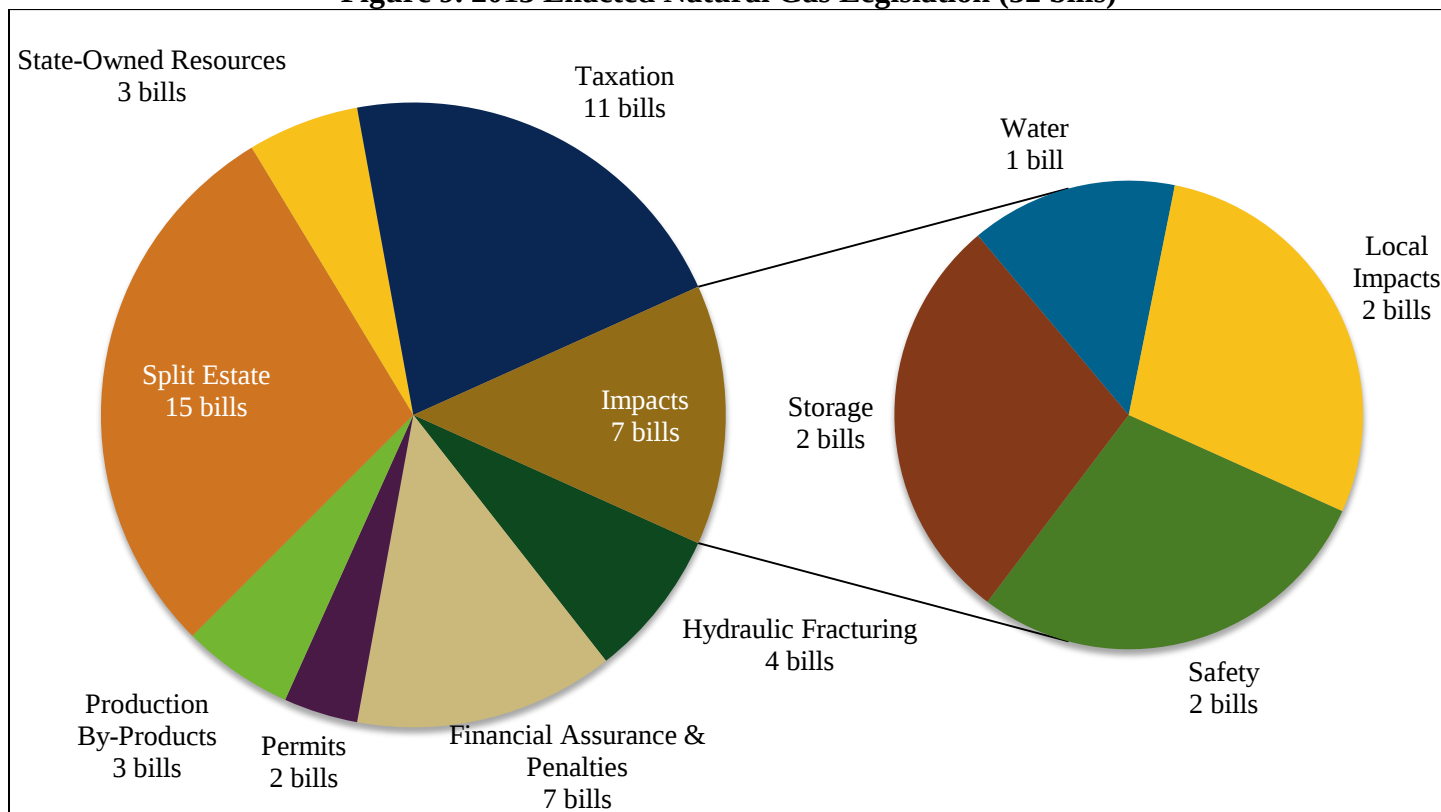
1. The majority of enacted legislation related to generation and transmission facilities, and to natural gas infrastructure. Most of the electric infrastructure bills revised permitting processes for new facilities and updated requirements related to existing facilities. A noteworthy example, Illinois enacted the [Lake Michigan Wind Energy Act](#), which provides several provisions relating to developing offshore wind. Most of the transmission specific legislation also amended existing requirements relating to permitting processes and transmission ownership. Natural gas infrastructure bills were split between general provisions relating to distribution siting and bills related specifically to pipeline safety standards.
2. Only a handful of new laws are promoting development of the smart grid. One example is the bill [Hawaii](#) enacted requiring the state's Public Utilities Commission to "consider the value of implementing advanced grid modernization technology".
3. [Maine](#), [New Hampshire](#), and [Arkansas](#) required the drafting of comprehensive state energy strategies on grid infrastructure, in some cases also providing input to a state Climate Action Plan. California enacted a bill that provides for [port district energy planning](#) related to reducing emissions and promoting economic development. [Utah](#)'s bill stands out as an effort to promote local, state, and federal collaboration in developing energy resources in the 'Green River Energy Zone'.



## Natural Gas

While the majority of natural gas regulation at the state level occurs through existing agency rulemaking authority, state legislatures were also active in the 2013 session in addressing a variety of issue areas related to the development of natural gas. Given the number of natural gas-related bills introduced this year, relatively few were enacted. Of the [351 natural gas-related bills](#) introduced this year, only [52 were enacted](#).

**Figure 9. 2013 Enacted Natural Gas Legislation (52 bills)**



### Key takeaways:

1. [As previously noted by CNEE in an analysis of natural gas legislation](#), state legislatures moved to regulate hydraulic fracturing in a number of ways, yet few of these proposed changes were passed. Bills that were enacted contain broad rulemaking guidance and authority that will likely to lead to substantial changes in [California](#), [Illinois](#), [Nevada](#), and [North Carolina](#).<sup>6</sup>
2. Local impact legislation was more successful, especially when including the 10 of 15 split estate bills addressing surface-owner rights. Bills in Colorado addressed safety by amending [spill reporting requirements](#) and [well inspections](#). Enacting [HB 1083](#) and [HB 1085](#), Florida lawmakers addressed underground storage. In Texas, provisions for funding to address local infrastructure impacts were amended by [HB 2300](#) and [SB 1747](#). Lastly, [North Dakota](#) enacted revisions to water rights policies that include consideration of water needs for mineral development.
3. As has historically been the case, severance tax rates and exemptions continue to be important considerations as states seek to strike a balance between attracting development and maintaining funding for a variety of state programs. Lawmakers in [North Dakota](#) enacted a unique incentive aimed at reducing waste associated with flaring gas.

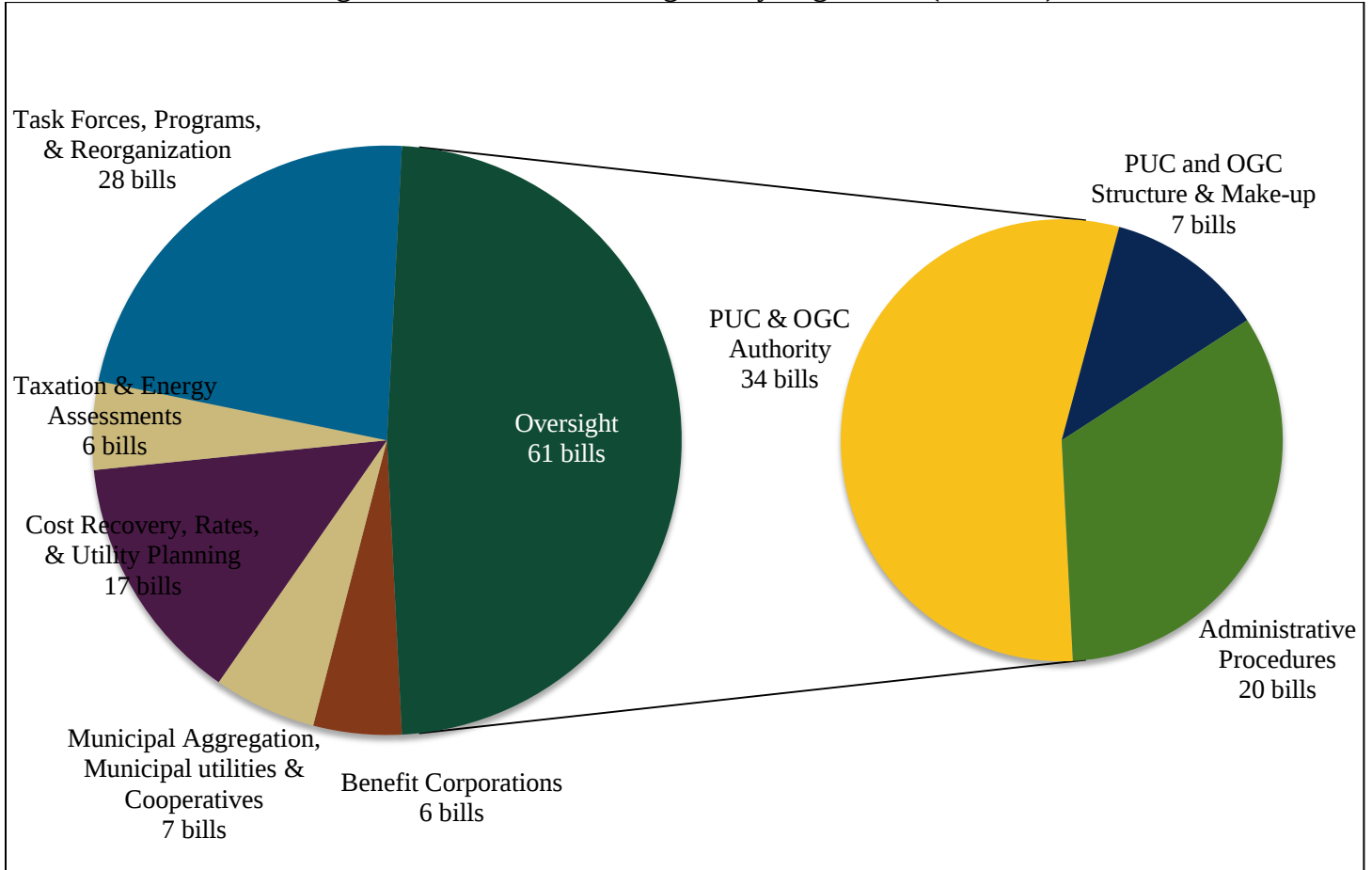
<sup>6</sup> North Carolina's omnibus legislation maintains the state's moratorium pending the development of final rules and contains provisions relating to offshore development.



## Regulatory

State-level energy policy implementation is heavily influenced by Public Utilities Commissions (PUCs) and Oil & Gas Commissions (OGCs). These regulatory agents tend to derive their authority from state statute. State legislatures were active this session in modifying regulatory authority for these agencies (mostly expanding authority) and their scope. Of the [565 regulatory-related bills](#) introduced this year, 125 unique pieces of legislation have been [enacted](#).

**Figure 10. 2013 Enacted Regulatory Legislation (125 bills)**



### Key takeaways:

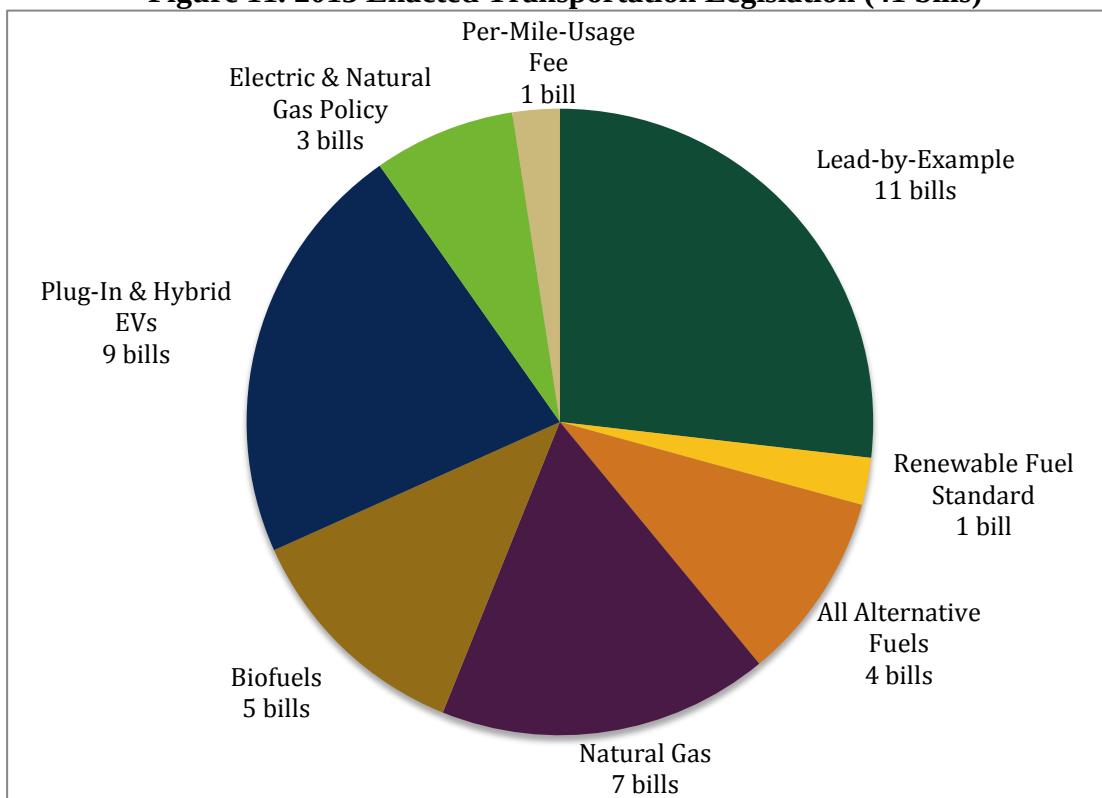
1. [CNEE's previous analysis of regulatory trends](#) found that enacted legislation relating to PUCs had the general net effect of increasing regulatory authority across the U.S. This general direction held through the year, with the majority of legislation (15 bills) expanding PUC authority. An assortment of minor and more significant revisions was made to cost recovery, rate design, and utility planning requirements.
2. Several states undertook significant administrative reorganizations, added and amended program responsibilities, adjusted task force memberships and created new programs and task forces to address a range of issues. We may see additional policy change emerging after newly created task forces release required recommendations or studies.
3. California's [AB 327](#) impacts rate design, net-metering, and establishes the RPS goal as a floor. Maine's omnibus bill, [HP 1128](#), makes several changes related to energy efficiency programs, RGGI participation, rate design, and transmission policy.



# Transportation

The Obama administration has taken significant steps to promote more efficient and alternative fueled vehicles (AFVs) through higher [CAFE](#) standards, research and development support, and elements of the President's [Climate Action Plan](#). States will also continue to play an important role in transforming the U.S. transportation sector. This year alone, nearly half of the states passed some sort of transportation-related legislation, [enacting 41 bills](#) out of the [233](#) introduced.

**Figure 11. 2013 Enacted Transportation Legislation (41 bills)**



## Key takeaways:

1. Greening state vehicle fleets through lead-by-example programs are relatively straightforward methods that can improve market penetration of AFVs. Enacted legislation dealt with a variety of topics including increased use of compressed natural gas and other AFVs in [Colorado](#), [Wyoming](#), and [Tennessee](#). Of particular interest, [Colorado](#) also enacted legislation allowing state agencies to enter into Fuel Cost Savings Contracts, which are modeled after Energy Performance Contracting programs.
2. State activity also involved legislation supportive of private ownership of AFVs including updates to building codes to address charging infrastructure in [California](#). Safety inspections related to natural gas vehicles and fueling infrastructure also appeared to be an area of focus with [Kentucky](#), [Oklahoma](#), and [Texas](#) addressing the topic this year. One additional bill of note, Oregon's [SB 810](#) creates a voluntary per-mile-usage fee program designed to reduce vehicle miles traveled.