ENERGY

2020–2021 Legislative Energy Trends

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Introduction

Although 2020 may have been a year like no other, energy policy discussions across state legislatures were similar to 2018 and only slightly less frequent than during the boom of 2019. State legislatures considered more than 2,500 energy-related measures in 2020 covering a wide range of policies—from transportation electrification and other efforts to reduce emissions economy-wide, to support for clean energy and new energy storage technologies. Even though less than one-fifth of the bills introduced were enacted, the many energy-related bills considered this legislative session indicate the direction in which state energy policies are headed.

In 2020, state legislatures considered a variety of energy measures—from transportation electrification and other efforts to reduce emissions economy-wide, to support for clean energy and new energy storage technologies. State legislatures also passed a variety of bills related to fossil fuels, including pipeline safety initiatives and state preemption for municipal natural gas bans, while continuing to examine the future of coal. Workforce development has also emerged as a critical issue as the energy sector modernizes and manages an aging workforce. Lawmakers have also begun to focus on policies that create additional safeguards for disadvantaged communities in decision-making surrounding energy development and policy formation.

The COVID-19 pandemic came to dominate 2020 in every imaginable way—with state legislatures and the energy sector heavily affected by the virus. By mid-March, much of the momentum behind a variety of policies in statehouses across the nation was stymied by the pandemic and by early April, at least 26 legislative sessions had been suspended or postponed. While every session eventually resumed, some were cut short, and much of the anticipated legislation on energy issues was sidelined as legislators focused their efforts on pandemic response.

As we enter 2021, questions remain whether state energy policies will experience a resurgence or whether lawmakers will remain focused on the COVID-19 response. As states begin their legislative sessions, lawmakers are filing bills that continue the energy trends of 2020 and in some cases reintroducing energy measures that failed to
be enacted in the last legislative session. Following the November 2020 elections, 2021 also brings in more than 1,500 new legislators to statehouses around the country and new appointments to energy and utility committees which will shape energy trends in the coming year.

This white paper examines state legislative action in 2020, highlighting trends in state energy policy and identifying topics that are likely to take priority in 2021 and beyond.

Addressing the Coronavirus Pandemic

The coronavirus pandemic has affected many sectors, including energy. The same workforce concerns shifted how the energy industry operates, while policymakers and advocates considered the negative impacts of cutting off vital utility services to people whose finances had been affected by the pandemic. All the while, the energy industry and critical infrastructure operators sought policy recognition regarding their essential role in providing and maintaining services that are foundational to the economy and the nation’s healthcare response to the pandemic. Looking ahead to 2021, state policymakers will likely continue to explore the types of bills highlighted below, while also considering measures related to legislative oversight of governors’ emergency powers. The sweeping actions taken by many governors in response to the pandemic were criticized as executive overreach by some legislators. In response, legislators in several states—including Indiana, Kentucky, Maryland and Rhode Island—have introduced measures to increase legislative oversight during emergencies.

ESSENTIAL WORKFORCE

The energy sector worked alongside government partners to insulate itself and its operations from the pandemic. One of the most pressing concerns initially revolved around how states defined the essential workforce. At least 43 states issued guidance on essential workers—mostly through governors’ orders—all of which included the energy sector and related industries. These orders granted critical energy workers clearance to perform their jobs and, in some cases, helped them gain access to vital medical and sanitary equipment. Minnesota lawmakers included energy workers as part of the essential workforce during the COVID-19 emergency with the passage of HB 4531, while New York intro-
duced AB 10430, which would have established tiers of essential workers—including energy sector workers—for future emergencies.

More recently, this discussion has evolved to include vaccine prioritization. Former Energy Secretary Dan Brouillette urged states to grant critical infrastructure mission-essential workers priority access to the vaccine, while the Federal Energy Regulatory Commission (FERC) sent letters to the Centers for Disease Control and Prevention (CDC) asking that future guidance to states on vaccine distribution reflect the important role of mission-critical electric and natural gas workers.

DISCONNECTION MORATORIA

Many states recognized the importance of energy services throughout the pandemic and worked to prevent individuals and families from losing utility service. At least 33 states and the District of Columbia moved to temporarily suspend utility disconnections for nonpayment due to financial hardship experienced as a result of the pandemic, while most of the remaining states asked utilities to voluntarily suspend disconnections.

While many of these actions were taken by state public utility commissions (PUCs), at least 10 state legislatures, the District of Columbia and Puerto Rico passed measures to address the issue. Alaska was one of the first states to address disconnections through legislation with the passage of SB 241, which prohibited electric, natural gas, water and telecommunications companies from disconnecting service to customers affected by the economic slowdown, and required utilities to negotiate repayment plans with customers. Several other states—including Colorado, Florida, Georgia, Ohio, South Carolina and Virginia—set aside special funding to help customers pay utility bills, among other expenses.

UTILITY LOSSES

However, disconnection moratoria, while addressing an immediate crisis may be exacerbating another problem: lost utility revenues. The drop in energy consumption over the past year, coupled with an increase in unpaid utility bills, has led to revenue shortfalls for many utilities and questions remain over how best to address these issues. To date, most of the work on lost utility revenue has taken place within PUCs, with many utilities seeking approval to track and recover losses. The California legislature became the first to act on the issue when it passed AB 913, which allows utilities to apply to use fixed charges to recover verified revenue shortfalls experienced as a result of the pandemic’s impact on the economy and electricity usage. By securitizing these losses, lawmakers believe they can avoid initial rate shocks and smooth rate increases over a longer time period. The law requires the state PUC to assess and verify the lost revenue claims, and to ensure that costs are just and reasonable.

This issue is unlikely to disappear anytime soon. By some estimates, utilities may be dealing with up to $40 billion in unpaid bills by March 2021. While many PUCs have statutory authority to address utility losses, the uncertainty and scale of the crisis wrought by the pandemic means that PUCs are navigating uncharted waters. Clear guidance from the legislature could help address outstanding questions, such as: which expenses are reasonable and recoverable; how should those debts be structured; who should pay for them, and how?
Transportation Electrification

Support for transportation electrification continued to increase during the 2020 legislative session. A majority of the bills considered over the past year focus on incentives for electric vehicles or support for electric vehicle charging infrastructure but the addition of special registration fees for certain electric or hybrid vehicles also remained popular. State legislatures introduced or amended more than 350 measures related to alternative fuels and transportation electrification in 2020.

Several states enacted measures promoting increased adoption of plug-in electric vehicles or supporting additional infrastructure. In January 2020, New Jersey enacted SB 2252, which establishes goals and incentives for increased adoption of plug-in electric vehicles and provides a rebate of up to $5,000 for plug-in electric vehicles and up to $500 toward the installation of a residential charging station. Florida enacted SB 7018, designed to expand the electric vehicle charging infrastructure along the state’s highways. The bill also encourages the use of charging infrastructure to help serve evacuation routes in the event of hurricanes or other emergency events. And in Utah, HB 259 requires the state Department of Transportation, in consultation with relevant private entities, to develop a statewide electric vehicle charging network plan.

Several states also considered measures to increase access to electric vehicle charging stations, especially as it relates to new construction. Colorado enacted HB 1155, requiring a homebuilder to offer a buyer of a new home one of the following: an electric vehicle charging system; prewiring for the future installation of a system; or a plug-in receptacle in an area accessible to where the vehicle parks. Similarly, New Jersey passed SB 349, which requires developers to offer electric vehicle charging stations as an option in certain new home construction, while New Jersey’s AB 3367 supports the installation of charging stations within “common interest communities,” such as a homeowners association. Similarly, Virginia enacted SB 630, preventing an association from prohibiting an owner from installing an electric vehicle charging station for the lot owner’s personal use.

Another growing trend is a separate registration fee for certain hybrid or electric vehicles. Twenty-eight states have laws requiring a special registration fee for plug-in electric vehicles. Of those, 14 states also assess a fee on plug-in hybrid vehicles. These fees are typically in addition to traditional motor vehicle registration fees. Ten states enacted laws in 2019 amending or adding new fees for electric and certain hybrid vehicles, more than in any previous year. Michigan HB 5313—which amends the definitions of plug-in electric and hybrid vehicles for the purpose of the fees—is the only measure that passed in 2020. However, at least 13 states considered bills that would have amended or created additional special fees for electric or plug-in hybrid vehicles.

And who should be allowed to sell vehicles directly to consumers? Dealer franchise and licensing laws are often barriers to electric vehicle manufacturers, Tesla being the most prominent, who want to sell their vehicles directly to consumers. Currently, 17 states ban direct sales, while 18 states allow them. Some states, like Colorado, banned the direct sale of cars but allowed manufacturers with preestablished dealerships to continue to engage in direct sales. This effectively allowed Tesla to continue to sell cars at a limited number of locations in the state but prevented new market participants from doing the same. Colorado enacted SB 167 in 2020, which changed that by authorizing all electric vehicle manufacturers to sell directly to consumers in the state. The bill language is also broad enough to allow for manufacturers that produce vehicles that run on a range of fuels (internal combustion engine, hybrid and electric) to sell their electric-only vehicles through a direct-sales model. Other states are likely to consider dealer franchise and licensing laws in 2021. Connecticut HB 5205 (2021), for example, would direct sales to consumers without going through existing dealerships.

The electrification of the transportation sector will continue to be a topic of interest for state legislatures in 2021. As of February 2021, 22 states have introduced new measures in the 2021 legislative session. Some bills focus on studies or investments in an electrified mass transit system and medium- and heavy-duty fleets. States are also considering policies that support expanding charging networks and how to regulate electric vehicle service providers. At least 23 states and the District of Columbia have enacted laws exempting non-utility electric vehicle service providers from regulation as public utilities and that number may grow as more states consider similar measures this year.
Energy Storage

Energy storage installations are rapidly expanding across the U.S., creating a more dynamic, reliable and adaptable grid. Storage can cost-effectively meet peak demand when power prices are high, provide back-up power during power outages, assist in integrating renewable energy and provide many other services. State lawmakers are exploring ways to integrate energy storage into their grid modernization efforts, with legislatures considering nearly 200 energy storage bills in 2020 and enacting 33 measures—just a few less bills than last year’s 36, despite the challenges of COVID. These policies addressed energy storage in a variety of ways, such as incorporating storage into integrated resources resource plans, setting energy storage installation targets and creating tax incentives.

Mandates and targets can be significant drivers of energy storage deployment. In 2020, Virginia became the seventh state to create such a policy by enacting the Clean Economy Act, a comprehensive energy bill that includes requirements that utilities acquire or construct a combined 3,100 MW of new energy storage resources by the end of 2035. It requires 35% of this new storage capacity be owned by third parties.

Some states have implemented policies to encourage or require utilities to include energy storage in their resource planning. Virginia enacted SB 632, which changes the state’s utility integrated resource planning requirements to recommend utilities consider integrating energy storage at both the generation and distribution level as part of grid transformation efforts. Virginia also enacted HB 1183 requiring an evaluation of the regulatory, market, and local barriers to the deployment of bulk energy storage resources to integrate renewable energy, reduce costs, open the door for behind-the-meter storage, and expand market access.

States often see energy storage as integral to their grid modernization plans. New Mexico, for example, enacted HB 233, authorizing utilities to submit grid modernization project applications to the Public Regulation Commission that include energy storage projects supporting “grid stability, power quality, reliability or resiliency or provide temporary backup energy supply.”

Tax incentives and streamlined, affordable financing can encourage residents and businesses to install renewable energy and energy storage. Seven states—Hawaii, Maryland, Nebraska, New Mexico, New York, Utah, and Washington—enacted legislation in this category in 2020. Maryland enacted HB 980, which defines taxpayers eligible for the state’s energy storage tax credit to include individuals and businesses and increased the maximum allowable credit amount for systems installed on commercial properties from $75,000 to $150,000 or 30% of the total installed cost, whichever is less. Washington enacted HB 2405 authorizing localities to implement a Commercial Property Assessed Clean Energy (C-PACE) financing structure that allows owners of commercial and industrial properties to obtain low-cost, long-term financing for energy efficiency, renewable energy and resiliency upgrades, which can include energy storage.

Energy storage bills will likely continue to take priority in 2021 legislative sessions. As of February 2021, 11 states have introduced 28 measures. For example, Illinois passed SB 1792, now on the governor’s desk, which aims to produce a report analyzing the costs and benefits to ratepayers of energy storage systems. Also, California recently introduced AB 64 that would require regulators to consider short-term and seasonal storage in achieving the state’s zero-carbon goals.
Energy Resilience

Coming off a banner year for energy resilience legislation, some expected that momentum to carry lawmakers through the 2020 legislative session with additional success. And while several states did enact new laws that enhance planning and response requirements, most states backed off the type of sweeping grid hardening measures passed by California and Florida in 2019.

There is one primary exception: Utah HB 66, a wildfire planning and cost-recovery policy that passed before COVID-19 disrupted other legislative priorities. The new law grants the state PUC authority to enact rules and requirements around wildfire protection planning for electric utilities, while also allowing utilities to recover costs associated with implementing their plans.

Virginia also enacted two policies to place certain electric lines underground, but these were limited in their scope and cost. HB 576 funds two pilot projects for undergrounding electric lines, while HB 1030 establishes that, if the state PUC approves an underground transmission line project, future projects in the same right of way should also be placed underground, so long as it’s technically feasible and meets cost requirements.

These policies are often difficult to pass under normal circumstances. First and foremost, they tend to require costly investments in infrastructure. Secondly, the return on investment is difficult to quantify—there is no widely accepted metric for valuing the damage that isn’t done, or energy services that aren’t interrupted as a result of resiliency spending. However, states still enacted smaller resiliency measures in 2020—a year the U.S. experienced the most billion-dollar disasters since 1980.

2020 Billion-dollar Weather and Climate Disasters

By approximate location.

Several states enacted new laws to promote or require backup power generators. In some cases, these laws required certain facilities—such as licensed assisted living facilities, daycares or emergency shelters—to be outfitted with on-site emergency backup power. Examples from 2020 include: California SB 1207, Virginia SB 1077, Virginia SB 350 and Puerto Rico SB 657. In other cases, the policy was designed to assist individuals or families with accessing backup power resources. California enacted SB 167 to authorize utilities to provide...
financial assistance for the purchase of backup power to customers who use medically essential equipment. The state also considered offering a tax credit to residents for the purchase of backup power generators. California, Hawaii and New York all considered establishing databases to identify existing backup power resources, along with critical circuits or locations where backup power resources would prove beneficial.

Policymakers are also increasingly considering the role that microgrids can play in enhancing resiliency during grid outages while also providing services during normal grid conditions. Microgrids have largely been sited on military installations, critical infrastructure, college or healthcare campuses and industrial facilities to allow them to operate independently of the larger grid if necessary. Microgrids can generate, manage and store energy to provide reliable electricity when the larger grid goes down. Three states, Illinois, New York and Pennsylvania, passed bills to fund the creation of specific microgrid projects in 2020. In addition lawmakers in Minnesota and New Hampshire considered studies to evaluate microgrid potential and ways to promote microgrids. Maine and Michigan also considered legislation that would allow non-utilities to develop microgrids.

Some state legislatures have also placed electric utilities on alert after services were deemed inadequate. California enacted SB 350, which authorizes the state PUC to petition a court to dissolve Pacific Gas & Electric and appoint one or multiple successors to assume possession of PG&E’s electric and gas system. This comes after PG&E’s equipment has been blamed for sparking a number of wildfires due in part to inadequate investment and system management practices. On the East Coast, state legislators expressed their dissatisfaction with service restoration times after a hurricane. Connecticut updated and enhanced its emergency response requirements for electric utilities with the passage of HB 7006. Connecticut and New Jersey also considered forcing utilities to reimburse customers for spoiled food or medicine that results from extended outages, while Michigan considered a similar measure that would have required utilities to credit customer bills if customers remained without power for extended periods of time.

Cybersecurity

States took fairly limited action on cybersecurity in relation to energy systems in 2020—a surprise, given that the topic had seen growing interest in prior years. States considered over 35 measures on energy-related cybersecurity, representing a 30% drop from 2019. However, there were several notable policies adopted, and it seems likely that this topic area will continue to grow as adversaries continue to test U.S. critical infrastructure.

Alaska and Colorado each enacted new requirements for electric utilities. Alaska SB 123 established reliability requirements for interconnected electric utilities, which included cybersecurity protection requirements. Colorado SB 236 required utilities to develop a distribution system plan, including a high-level summary of how they plan for and address risks associated with cyber and physical security threats. The bill exempted any information that could decrease the utility’s ability to prevent, mitigate or respond to those potential threats.

Finally, Kentucky decided to pursue an innovative approach to enhancing cybersecurity of critical infrastructure when it passed SB 55. The bill creates a Blockchain Technology Working Group to evaluate the feasibility and efficacy of using blockchain technology to enhance critical infrastructure protections for the electric grid and natural gas pipelines, among others.

Climate Emissions and Clean Energy

Legislatures across the country continued to introduce policies focused on promoting clean energy and reducing climate emissions. At least 44 states, the District of Columbia and Puerto Rico considered more than 1,000 measures related to renewable energy, and at least 37 states, the District of Columbia and Puerto Rico considered over 400 measures focused on reducing climate emissions in the power and transportation sectors. While states continue to consider targeted legislation aimed at reducing emissions from specific sectors or promoting particular clean energy technologies—such as solar and wind—a growing number of states are weighing sweeping climate and clean energy policies aimed at increasing clean energy technologies and reducing emissions across economic sectors.
An Active Year for Virginia

Virginia enacted more energy policy measures in 2020 than any other state. Examples of Virginia’s legislation are provided throughout this white paper, including several clean energy bills highlighted below.

The Clean Economy Act enacts the following: a mandatory renewable portfolio standard (RPS) of 100% renewables for Dominion Energy by 2045 and American Electric Power by 2050 with interim targets along the way (the state’s RPS had previously been voluntary); mandatory utility energy savings targets; requirements for retiring coal-fired facilities and other carbon-emitting generation; requirements regarding calculating the social cost of carbon and assessing impacts to disadvantaged communities in planning for new generation; an increased cap on net-metered customer-generation; a target of acquiring 5,200 MW of offshore wind; a target of procuring 3,100 MW of energy storage.

SB 94 adopts an energy policy designed to achieve net-zero emissions economy-wide by 2045 and net-zero carbon emissions in the power sector by 2040. Directs state regulators to engage with stakeholders to develop a 10-year Virginia Energy Plan identifying actions to achieve net-zero emissions across all economic sectors (transportation, electricity, building, industrial, and agricultural) by 2045.

HB 981 establishes the legal framework for the state’s participation in the Regional Greenhouse Gas Initiative and directs allowance proceeds toward flood preparedness and low-income energy efficiency programs.
In 2020, Virginia joined the growing number of states with clean energy targets after the passage of the Clean Economy Act (SB 851/HB 1526). Virginia also enacted economy-wide emissions reduction goals and legislation creating the legal framework for the state’s participation in the Regional Greenhouse Gas Initiative (RGGI), along with several other targeted clean energy measures.

Washington also enacted legislation bolstering its existing climate policies in 2020. SB 5811 directs state regulators to adopt California’s vehicle emissions standards, including the zero-emissions vehicle (ZEV) standards component of California’s Advanced Clean Car Program, which is considered a key policy tool for reducing emissions in the transportation sector. The ZEV standards require that a certain percentage of auto sales in the state be ZEVs. The state was already implementing the low-emission vehicle standards component of California’s clean car rules. Washington also enacted HB 2311 revamping its statewide GHG reduction and reporting requirements. The bill requires GHG reductions of:

- 45% below 1990 levels by 2030.
- 70% below 1990 levels by 2040.
- 95% below 1990 levels by 2050.

The state’s previous targets were 25% by 2035, and 50% by 2050. The bill also establishes a requirement that the state achieve a net-zero GHG economy by 2050 and requires reporting of emissions from crucial sectors, including agriculture, manufacturing, buildings, transportation, and electricity, in addition to statewide GHG levels. Additionally, it directs regulators to include GHGs from wildfires within its biennial emissions report to the governor and legislative committees.

**TENSION BETWEEN LEGISLATIVE & EXECUTIVE BRANCHES**

Although a few states enacted climate and clean energy policies in 2020, debate over how best to pursue climate action in other states revealed tensions between the legislative and executive branches of government. For example, in Massachusetts, the legislature enacted climate and clean energy legislation that was debated throughout 2020, but vetoed by the governor in early 2021. SB 2995 would have adopted numerous climate and clean energy provisions, including a target of a net-zero economy and emissions reductions of 85% by 2050; an enhanced RPS for 2025 through 2029; and other energy-related measures focused on efficiency, workforce development and environmental justice. After Governor Charlie Baker (R) vetoed the bill, lawmakers refiled the legislation as SB 9 in January 2021 and successfully passed the bill that same month. As of February 2021, the measure is on the governor’s desk for signature.

The Vermont legislature encountered a similar obstacle after passing HB 688. The bill establishes enhanced and enforceable statewide GHG reduction targets of 80% by the beginning of 2050. It also creates a climate council to develop a climate action plan with programs and initiatives to achieve GHG reduction targets. To address enforceability, the bill includes a citizen suit provision allowing any person to commence legal action for the state’s failure to adhere to the law’s implementation deadlines. Governor Phil Scott (R) vetoed the bill citing concerns over the climate council’s “structure and charge” and the cause of action provision. The legislature swiftly overrode the governor’s veto and the bill became law in September, the same month it was initially passed.

Also relevant is Pennsylvania’s HB 2025, which would have prevented state regulators from taking action to reduce carbon emissions without prior legislative approval. The bill passed both chambers and went to Governor Wolf’s (D) desk in September. Wolf vetoed the bill citing its disruptive impact on the state’s progress in pursuing policies that address climate change, including an ongoing rulemaking to join RGGI.

Disagreement between the legislature and the executive about how best to implement climate and clean energy goals is not unique to states where control is split, with Massachusetts and Vermont having a Democratic-controlled legislature and a Republican governor and Pennsylvania having a Republican-controlled legislature and a Democratic governor. Oregon, a Democrat-controlled state, has been considering comprehensive climate legislation, including the legal framework for a cap-and-trade program, for years. In 2020, after the legislature was not able to pass SB 1530, Governor Kate Brown (D) issued a sweeping executive order adopting the same GHG reduction targets outlined in the bill of 45% by 2035 and 80% by 2050, and directing state regulators to take actions aimed at reducing emissions and mitigating climate impacts.

It is likely that spirited debate as well as disagreement among branches of government will continue as more states consider comprehensive policies aimed at tackling climate change in 2021.
SOLAR

Policymakers in states across the U.S. continued to weigh policies designed to support solar energy, considering over 380 measures on the topic. Virginia enacted several bills focused on expanding solar energy to low-income communities, including multiple bills focused on community and shared solar. Virginia enacted SB 710, directing the state PUC to adopt regulations for a shared solar program for “multi-family customers of investor-owned utilities” and HB 1634, directing the commission to establish a shared solar program for Dominion Energy customers. Both programs cap project capacity at 5,000 kW and require at least three subscribers per project. The state PUC adopted final regulations for the multi-family shared solar and shared solar programs in December 2020.

Also relevant are Virginia’s HB 573, which amends the state’s community solar pilot program law to require that utilities ensure solar projects are in low-income communities, and SB 710, which increased the cap on net-metered renewable energy with a carve-out for low-income customers. Virginia HB 1656 allows Dominion energy and American Electric Power to recover costs associated with a three-year $25 million incentive program to directly install or make accessible solar energy for low-income, disabled, and elderly individuals.

Some western states were also successful in passing measures related to community solar. New Mexico adopted Senate Memorial 63 to form a working group tasked with reviewing community solar policies in the state and making recommendations for implementation. The working group includes representatives from Indian tribes, nations and pueblos, local governments, utilities and utility regulators, and environmental organizations, among other stakeholders. The Washington legislature also passed community solar legislation, HB 2248, that was ultimately vetoed by governor Jay Inslee (D). In vetoing the bill, Inslee cited the economic impacts of COVID-19 pandemic and the need to prepare for lost revenue. The bill would have authorized an incentive program to encourage broader participation in state community solar projects.

Virginia and West Virginia also passed legislation focused on supporting solar energy development broadly. Virginia enacted HB 1675 requiring solar facility developers to enter into a siting agreement with any locality qualifying as an opportunity zone prior to receiving necessary permits for construction. SB 504 prohibits community association restrictions on solar that increase the cost of installation by 5% above projected costs or reduce energy production by 10% below projected energy production. West Virginia’s SB 583 authorizes utilities to purchase, operate or own up to 200 MW of solar energy, including solar plus storage.
Energy Efficiency

States also continued to focus on policies designed to lower energy consumption, with a growing number of states focused on legislation that addresses energy affordability, energy burden and energy costs along with energy efficiency. Legislatures in 41 states, District of Columbia, Puerto Rico and Guam considered nearly 500 energy efficiency measures in 2020.

BUILDING EFFICIENCY

Several states enacted policies focused on boosting efficiency in schools, buildings and homes. California enacted AB 841, requiring utilities to invest in targeted energy efficiency programs designed to reduce energy and water consumption and improve air quality in schools. Colorado enacted SB 124, revising the state’s public school construction guidelines used to award funding to require consultation with the local utility on opportunities for energy efficiency, renewable distributed generation and beneficial electrification. Virginia’s SB 963 requires state agencies to monitor and assess energy and water usage in state buildings. Washington’s HB 2405 authorizes a commercial property assessed clean energy (PACE) and resiliency program for voluntary adoption by local governments. The program is designed to provide owners of agricultural, commercial, industrial, and multi-unit residential buildings with low-cost financing for clean energy improvements, including energy efficiency and resiliency projects.

Oklahoma enacted SB 1592, expanding the state’s PACE financing program to include certain residential buildings in addition to commercial buildings. South Carolina’s SB 76 extends the state’s energy efficient manufactured homes incentive program out to 2024. The program provides tax credits for individuals purchasing a home that meets or exceeds federal standards for efficiency. Utah’s House Bill 235 creates a Voluntary Home Energy Information Pilot Program and directs the state Office of Energy Development to “create a home energy performance score system.”

AFFORDABILITY

Some states are also considering energy burden and affordability as part of their energy efficiency and clean energy policies. Virginia’s SB 754 creates a mechanism for financing energy efficiency measures, including weatherization, by authorizing electric cooperatives to create a voluntary on-bill tariff program to facilitate installation of energy saving measures. The energy efficiency measures are paid for by the electric cooperative and then repaid by the customer through an energy savings charge on the customer’s bill. Additionally, SB 851 directs the state PUC to establish a non-bypassable universal service fee that would fund a Percentage of Income Payment Program designed to reduce a program participant’s energy burden to 6% or 10% of household income depending on the heating source, and reduce electricity use through weatherization, energy efficiency, and education on energy conservation. In New Jersey, SB 2484 is pending, which would establish installed solar and energy storage targets designed to reduce the energy burden experienced in low-income households and overburdened communities.

NCSL Resources

- Bolstering Federal Energy Assistance and Weatherization With State Clean Energy Program
Building the Energy Workforce

States across the U.S. are weighing innovative policies to support and train an energy workforce facing retirements and transitioning toward advanced technologies and clean energy sources. Minnesota enacted House File 1842, which in part created a “community energy transition grant program” to support communities following the closure of energy generation generation facilities. Grant recipients can use funding to support the local economy in various ways, including by training the energy facility workers and helping them find new employment. California enacted AB 639 to initiate a stakeholder process for developing policy and program recommendations to support workers and community members as the Port of Los Angeles and Port of Long Beach move toward automation and “low- and zero-emission operations.” Indiana also enacted HB 1066 which in part encourages state regulators to develop career clusters or pathways for education that supports jobs in the utility industry, including those jobs focused on generating, transmitting and distributing energy.

Other states are considering policies that grow renewable energy industries and jobs. For example, as part of SB 7508B, New York authorized the energy research and development authority (NYSERDA) to adopt programs that support development of renewable energy projects at build-ready sites, including assessing the need for and funding of job training programs. Nebraska’s ImagiNE Nebraska Act (Legislative Bill 1107) aimed at modernizing the state’s “economic development platform” includes tax incentives for businesses engaged in producing energy storage and renewable energy. Maryland’s HB 436 creates a Task Force on the Economic Future of Western Maryland to study economic conditions and make recommendations. Cybersecurity, “energy and energy storage” are among those tech-based industries identified in the bill. Maryland also enacted SB 442 focused on labor requirements for the offshore wind industry and requires certain applicants for offshore wind projects to comply with minority business participation requirements, to the extent compliance is feasible. New Jersey enacted the New Jersey Economic Recovery Act of 2020 (AB 4), which includes tax credits for wind energy businesses, including businesses in offshore wind, that meet requirements for creating a certain number of new full-time jobs.

Some states also enacted legislation expanding or amending existing energy job programs. Virginia enacted HB 408, extending the state’s green job creation tax program, initially set to expire at the end of 2020, through 2024. Jobs in the renewable and alternative energy industries qualify for the credit. Maryland enacted SB 224 amending the requirements for job training and apprenticeship programs that receive funding from the state’s Clean Energy Workforce Account. Existing law required apprenticeship and job training programs to train workers in particular clean energy fields. This bill expressly includes energy efficiency and geothermal among the list of eligible career paths.

Environmental Justice and Equity

Equity and environmental justice considerations are starting to play a larger role in discussions surrounding how best to craft state energy policy. A growing number of states are considering legislation that creates safeguards for communities overburdened by pollution and ensures those same communities have a role in decision making surrounding energy development and policy formation. States are also crafting legislation to ensure the benefits of clean energy technologies and job opportunities reach low-income and underserved communities.

Connecticut enacted HB 7008, updating its environmental justice law to create enhanced requirements for engaging with environmental justice communities that are impacted by multiple sources of pollution. The bill also expands the list of potential mitigation projects to include funding for ongoing asthma screening, air quality monitoring, and EV charging construction, among other projects.

New Jersey signed into law SB 232, which requires the Department of Environmental Protection to evaluate environmental and human health impacts of overburdened communities when reviewing and approving permits for a number of polluting facilities. Those seeking a permit for a new facility or facility expansion in an overburdened community must prepare an “environmental justice impact statement” that includes an evaluation of adverse health and environmental impacts associated with the facility and those
health and environmental stressors already experienced by the community. Permit applicants must also organize a public hearing to solicit input from affected community members.

Virginia enacted a handful of bills related to establishing environmental justice policies. SB 883 creates a Council on Environmental Justice within the state’s executive branch to advise the governor on developing policies that ensure equity and environmental justice matters are addressed. The law requires the council to provide advice on addressing environmental justice issues in “stakeholder communication, local governments, climate change and resilience, transportation, clean energy, outdoor access, and cultural preservation.” It also directs the council to provide recommendations for executive, statutory, or regulatory action “to better address environmental justice issues.”

HB 704 enacts as a policy promoting environmental justice with a focus on fenceline communities—those communities comprised of low-income people and people of color that are at a greater health risk “due to ... proximity to a major source of pollution.” Virginia’s HB 1164 also modifies the Department of Environmental Quality’s statutory policy statement to include ensuring climate impacts and resilience are accounted for in programs and permitting and that environmental laws and policies are administered in a way that treats fairly and meaningfully involves “all people regardless of race, color, national origin, faith, disability, or income.”

Massachusetts’ SB 2995 (vetoed, 2021) and reintroduced as SB 9 (pending, 2021), includes several environmental justice provisions, including the creation of an environmental justice council to inform the policies and decision-making carried out by the secretary of energy and environmental affairs, and a requirement to conduct environmental impact reporting for any project likely to damage the environment and located near an environmental justice community.

Additionally, California’s AB 841, in part requires that at least 35% of utility transportation electrification investment spending and 25% of projects funded by certain utility school efficiency programs be located in underserved communities, including those that are disadvantaged or low-income. New Jersey’s SB 2484, introduced in 2020 and pending in 2021, would create an office of clean energy equity within the state’s Board of Public Utilities. The office would be tasked with ensuring that overburdened communities have access to and stand to benefit from clean energy technologies. Specifically, the bill would establish targets for deploying energy storage in overburdened communities and installing solar that benefits low-income households.
Grid Modernization

The grid is transforming at a rapid pace as dynamic “smart” energy management technologies quickly proliferate along with distributed energy resources, such as energy storage and rooftop solar. Since the electric grid was not developed to take advantage of the added flexibility and other benefits offered by these new technologies, state legislators are exploring how policy can help in modernizing an aging grid. In 2020, their efforts included comprehensive legislation addressing many aspects of grid modernization, including promoting planning and implementation of technology and infrastructure upgrades, and addressing the regulatory policies that drive electric industry planning and investment in the grid. States are also enacting legislation to explore the role that microgrids and new energy management technologies can play in modernizing the grid.

Early in 2020, New Mexico enacted HB 233, the Energy Grid Modernization Roadmap, which directs the Energy, Minerals, and Natural Resources Department to develop a grid modernization roadmap for the state. It also creates a grant program to support grid modernization projects and allows utilities to file applications for grid modernization projects and receive cost-recovery if approved by the state PUC. The aim of the Roadmap is to ensure the grid will be reliable, affordable and clean while integrating renewable and distributed energy resources.

New energy management technologies can create a modern grid while saving on infrastructure costs. One approach, called nonwires solutions, uses distributed energy resources to delay or eliminate costly transmission upgrades. Maine enacted HB 855, which creates the position of Nonwires Alternative Coordinator in the Office of the Public Advocate, who is tasked with finding nonwires alternatives and evaluating their costs and benefits compared to alternative utility transmission and distribution system investments. States are considering nonwires policies to promote innovation among utilities and help them choose the least costly energy solutions.

Maine has also explored new efficiency technologies to modernize its grid, such as new air source heat pump technologies that may be cheaper, cleaner and more efficient. The state passed, HB 1071, which clarifies that conservation programs will define beneficial electrification as the electrification of a fossil fuel technology to benefit a utility, a ratepayer, or improve the efficiency of the electricity grid and reduce consumer costs. Maine also enacted SB 597, which sets a goal for installing new high performance air source heat pumps for heating.

Creating a modern grid requires adapting markets to incorporate new services that new technologies can provide. South Carolina enacted HB 4940 creating the Electricity Market Reform Measures Study Committee which is tasked with producing a study of different market reform options, such as creating a South Carolina Regional Transmission Organization (RTO), joining an existing RTO, implementing an energy imbalance market, and authorizing community choice aggregation. The study will also explore designing the distribution system operator role in the state to accommodate a modernized distribution grid with high levels of distributed energy resources, as well as establishing an independent distribution system operator and distribution-level electricity markets. It will evaluate the costs and benefits of reform measures based on a variety of factors including: electricity generation cost savings, fuel savings, transmission cost savings, battery storage, resiliency, the promotion and integration of demand response and energy efficiency, deployment of renewable resources, deferral of capital investments, the effect on economic development and retention of industry, and stranded costs.

New York recently introduced a new grid modernization bill, AB 535, which would address aging infrastructure and establish a grid modernization program—creating a smart grid advisory council and the New York transmission and distribution coordinating council. It requires the state PUC, within two years of the passage of the legislation, to work with the transmission and distribution coordinating council and the smart grid advisory council to adopt a grid modernization order approving a 10-year grid modernization program. Transmission and distribution companies will be required to submit plans that will comply and align with the plan.
Fossil Fuels

THE COAL CONUNDRUM

As coal experiences a precipitous decline in the U.S. due to environmental and economic issues, several states that have traditionally been reliant on the resource have moved to exert greater levels of control over the energy transitions taking place. Indiana enacted HB 1414 in early 2020 to slow coal closures. The law—which expires in May 2021 and followed the recommendations from a state energy task force—made it more difficult for utilities to retire coal plants in the state by requiring utilities provide the state PUC with at least three years advance notice to receive regulatory approval. With the law set to expire and the task force recommendations treading a middle ground that was both open to new energy resources while also carving out a place for its coal plants, it is likely the state will continue to debate this issue.

In Wyoming, state lawmakers took a two-pronged approach in 2020; they moved to both maintain the current coal fleet while also planning for its potential replacement. The state enacted HB 200, establishing a first-of-its-kind portfolio standard in the U.S. that requires the state’s utilities to generate a certain percentage of electricity from “dispatchable and reliable low-carbon” resources. The low-carbon portfolio standard eliminates utility cost-recovery and earnings on power plants built to replace coal-fired plants after 2023. It also authorizes financial incentives for utilities to retrofit existing coal plants with carbon capture and sequestration (CCS) technology. In effect, it aims to make it more cost-effective to retrofit coal plants with CCS technology than to replace the plants. However, in the event that utilities still opt to replace coal generation, the state enacted HB 74, which authorizes the permitting of small modular nuclear reactors (SMRs) in the state and would allow utilities to apply to replace coal or natural gas-fired plants with SMRs of the same or lesser capacity. The idea is that SMR developers would benefit from existing electric infrastructure at the site of a retired coal facility, and the state would replace dispatchable generation that sources its fuel in-state (coal) with dispatchable generation that also sources its fuel in-state (uranium).

In two other traditional coal states, lawmakers took different approaches. Lawmakers in West Virginia looked to soften the economic effects caused by reduced coal consumption by enacting a severance tax rebate (HB 4439) for capital investments in coal mining operations and by easing tax obligations on coal-fired power plants (SB 793). In Virginia, lawmakers moved decisively away from coal and fossil fuels with a sweeping clean energy agenda, which requires the closure of most coal-fired power by 2024. As part of that movement, lawmakers enacted HB 528, which directed the state PUC to determine when electric utilities should retire coal and natural gas-fired power plants.
CRITICAL INFRASTRUCTURE TRESPASSING

Since 2018, at least 14 states have passed laws that either criminalize unlawful entry to critical infrastructure facilities or enhance the penalties associated with those offenses. These laws aim to protect critical infrastructure from trespass, vandalism and otherwise unlawful entry that might impede operations or damage facilities by either creating or enhancing penalties associated with these acts. In 2020, at least six states enacted or amended this type of policy—Kentucky, Mississippi, Missouri, South Dakota, Virginia and West Virginia. So far in 2021, Ohio has already joined the ranks with the passage of SB 33.

Critical infrastructure facilities often include energy infrastructure that is vital to modern life, fundamental to maintaining public health and power the economy. While these laws primarily cover operating facilities, some explicitly include related construction projects, which has led several groups to complain that these laws have been designed and used to limit public demonstrations in opposition to those projects. These groups cite high monetary penalties and significant prison terms as having a chilling effect on their ability to organize civil demonstrations against new and proposed projects.

PIPELINE SAFETY

Following several high-profile explosions involving natural gas distribution and transmission pipelines in recent years, a handful of states enacted new laws to strengthen regulations around pipeline safety practices and planning requirements, in addition to incentivizing investments to upgrade infrastructure.

At least five states enacted new pipeline safety laws in 2020. Georgia HB 972 and Virginia HB 646 each enhanced penalties for violating pipeline safety standards and regulations, while Virginia’s new law also makes changes to how the state issues new construction permits. Pennsylvania HB 2293 imposes emergency planning requirements for natural gas utilities, while Rhode Island SB 538 requires natural gas infrastructure located in areas that could pose a risk to public safety to be built to a set of design standards approved by a certified engineer.

Finally, Washington HB 2518 grants the state PUC and natural gas utilities greater flexibility in recovering costs for investments to replace older and riskier pipelines. The law also encourages investments that address gas leaks in the system and minimize the potential for risks to public safety.
OIL & GAS WASTEWATER REGULATION

Several states enacted laws in 2020 focusing on wastewater from oil and natural gas production. New York passed AB 2655, which classifies waste from oil and natural gas production as hazardous and requires it to be treated, stored and disposed of as such. The measure prevents out-of-state hydraulic fracturing waste from being disposed of in state landfills. And in Oklahoma, SB 1875 designates who owns and is responsible for wastewater resulting from oil and natural gas extraction. The law, known as the Produced Water and Waste Recycling Act, clarifies that produced water and wastewater and other chemicals brought to the surface as a result of oil and natural gas extraction—is the property of the oil and gas producer until it has officially been transferred to another person. The measure also shields from liability those who process wastewater into recycled water and/or transport this recycled water for further use in oil and gas production. According to the bill sponsors, the law will encourage produced water recycling and reuse in the state by alleviating uncertainty surrounding who owns the waste or produced water during oil and gas operations.

NATURAL GAS BANS

Do municipalities have the authority to prohibit or restrict the use of natural gas in new buildings? That topic gained attention in early 2020 when a wave of municipal natural gas bans—primarily in California and Massachusetts—were approved. Most often, the municipalities voted to ban natural gas hookups in newly-built multi-dwelling apartments and commercial buildings, putting an end to natural gas heating, as well as gas-powered stoves, water heaters and clothes dryers. Those in favor of these new natural gas bans are pushing for electrification, arguing that electric heating and appliances, for example, are more efficient and have less health and emissions concerns. However, those against the bans have argued the prohibitions unfairly burden low- and middle-income residents because natural gas tends to be cheaper. Legal questions quickly arose as to whether these outright bans are preempted by state or federal law.

Four states—Arizona, Louisiana, Oklahoma and Tennessee passed legislation in 2020 expressly preempting local regulation on the use of natural gas utility service, while Kansas and Utah have enacted measures so far in 2021 and at least 14 additional states have bills pending. Louisiana’s SB 492 clarifies that no code, ordinance or provision adopted by a parish or municipality “may prohibit or have the effect of restricting a person’s or entity’s ability to use the services of a utility provider.” Similarly, Utah’s HB 17 prohibits municipalities and counties from restricting the connection of certain energy utility services.

Other Measures Enacted in 2020

Several other energy-related measures were enacted across state legislatures in 2020. These topics may not have been considered legislative trends in 2020 but show the variety of energy measures enacted across the country.

- California AB 78 creates the Climate Catalyst Revolving Loan Fund to support climate catalyst projects that develop infrastructure advancing the state’s climate goals.

- Mississippi SB 2386 reauthorizes the state Public Service Commission and requires renewable energy power purchases to be treated like other power purchases.

- New Hampshire SB 166 amends the state’s net metering law to include municipal and county aggregators.

- New Jersey’s AB 741 establishes a Fuel Cell Task Force within the Board of Public Utilities to assist state regulators on fuel cell-related issues, help grow the fuel cell industry, increase fuel cell use, develop a fuel cell infrastructure strategy, and educate the public on the benefits of fuel cell technology. The task force is required to submit an annual report to the Governor.
• **Vermont** SB 337 authorizes energy efficiency utilities to spend part of their 2021-2023 budget on programs that are designed to reduce greenhouse gas emissions in the transportation and thermal energy sectors and that meet certain statutory requirements.

• **Virginia** HB 706 prohibits the granting of a lease, easement or permit that would allow any infrastructure for conveying oil or gas associated with offshore drilling along the coast of the Commonwealth.

• **Virginia** HB 234 creates a Division of Offshore Wind tasked with identifying measures to establish Hampton Roads as an offshore wind hub and coordinating agency efforts to grow the offshore wind industry, prepare the workforce to engage in the industry, and create opportunities for in-state businesses to engage in the industry supply chain, among other objectives.

• **Washington** SB 6135 requires representatives of utilities, regional planning organizations, transmission operators, and other stakeholders to discuss the current short term and long-term adequacy of energy resources to serve the state’s electric needs and to ensure system reliability as the state’s electric grid transforms.

• **Wyoming** Senate File 36 establishes statewide minimum setback requirements for commercial solar facilities. The law retains the authority of county commissions to vary requirements regarding location and setback “either on its own or by following its land use planning, zoning, or conditional use processes” provided such requirements are not less stringent than the statewide minimums.

**Looking Ahead**

Although it is still unclear what policy priorities will dominate the 2021 legislative sessions outside of the immediate needs of COVID-19, state policymakers are introducing a wide range of measures that impact the energy sector. From examining policies that help or hinder specific energy sources to establishing mandates or guiding principles that seek to modernize energy systems, state lawmakers play an important role in shaping the future of the U.S. energy sector. This white paper serves as a resource highlighting the many state policies and considerations that state legislatures have proposed in recent years and how these policies may help inform future trends.
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