# REPORT OF THE LEGISLATIVE PRACTICE COMMITTEE

This report provides a summary of select federal energy legislative activities occurring during the First Session of the 116th Congress, from January through December 2019.*


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## I. CYBERSECURITY

During the 116th Congress, both the House and the Senate moved several pieces of legislation to address cybersecurity issues. On June 27, 2019, the United States Senate passed a bipartisan cybersecurity bill that required the U.S. Department of Energy (DOE) to research ways to replace automated systems with low-

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tech redundancies to protect the country's electric grid from hackers.[1] The Securing Energy Infrastructure Act (SEIA) would establish a two-year pilot program to identify new classes of security vulnerabilities and to research and test solutions, including analog and non-digital control systems.[2] The bill identified covered infrastructure entities and other critical areas in the energy sector where a cybersecurity incident may result in catastrophic regional or national impacts on public health or safety and on economic or national security.[3] The pilot program would conduct research and test technologies to separate critical systems from cyber-attacks.[4] Additionally, the legislation creates a working group of government, industry, and other stakeholders to review the solutions proposed by the national laboratories and establish a national strategy to protect the electric grid from cyberattacks.[5] The Energy Secretary would submit a report to Congress on the outcomes and the recommendations of the working group.[6] The SEIA was included in the National Defense Authorization Act for Fiscal Year 2020.[7] Bipartisan supporters introduced a similar bill in the House of Representatives.[8] This bill, introduced by lawmakers in previous Congresses, came during advocacy to protect against cyber intrusions by nation states and other actors against an increasingly digitized U.S. bulk power system.[9]

On July 17, 2019, the House Energy and Commerce Committee approved four bills by voice vote to strengthen the cybersecurity of the power grid, natural gas pipelines, and other energy systems.[10] First, the committee approved H.R. 359, the Enhancing Grid Security through Public-Private Partnerships Act.[11] This bill would direct the Secretary of Energy to facilitate public-private partnerships focused on utility cybersecurity, provide utilities with cybersecurity training, and promote sharing of best practices.[12] Additionally, the legislation would require DOE to coordinate with other federal agencies to update an interruption cost estimate calculator at least every two years that power sector reliability planners use to gauge the cost or benefits to reliability improvements.[13] Second, the committee

1. Molly Christian, *US Senate Passes Bill to Make DOE Study Non-Automated Grid Systems for Grid Security*, S&P GLOB. MKT. INTELLIGENCE (July 1, 2019), https://www.spglobal.com/marketintelligence/en/news-insights/trending/M2xf-kh5nx-lFuOPmGrJdQ2.

2. Securing Energy Infrastructure Act, S. 174, 116th Cong. § 3 (2019).

3. Christian, *supra* note 1.

4. *Id.*

5. *Id.*

6. *Id.*

7. *Id.*

8. Christian, *supra* note 1; Securing Energy Infrastructure Act, H.R. 680, 116th Cong. (2019).

9. Christian, *supra* note 1.

10. Press Release, House Comm. on Energy & Commerce, *E&C Chairman Pallone Applauds Passage of 10 Bills to Improve Energy Efficiency, Energy Sector Jobs and Infrastructure Security* (July 17, 2019), https://energycommerce.house.gov/newsroom/press-releases/ec-chairman-pallone-applauds-passage-of-10-bills-to-improve-energy.

11. Enhancing Grid Security through Public-Private Partnerships Act, H.R. 359, 116th Cong. (2019).

12. *Id.* § 2(a)(1)-(3).

13. *Id.* § 4(a).

advanced H.R. 360[14], the Cyber Sense Act of 2019. This bill would require the Secretary of Energy to establish a testing and verification program to identify cyber-secure products for the bulk power system.[15]

Third, the committee passed H.R. 362, the Energy Emergency Leadership Act.[16] This bill would codify a recently created DOE position to manage energy sector security and emergency response.[17] Specifically, it would create a new DOE assistant secretary position in charge of all energy emergency and security functions related to infrastructure, cybersecurity, and energy supply.[18] The proposal followed the Trump administration's decision in February 2018 to create the DOE's Office of Cybersecurity, Energy Security, and Emergency Response, which now has its own assistant secretary whose duties align with those in this legislation.[19]

Last, the committee approved H.R. 370, the Pipeline and LNG Facility Cybersecurity Preparedness Act.[20] The bill would require the DOE to coordinate with other federal agencies and states on the security and resilience of LNG facilities and pipelines carrying natural gas and hazardous liquids.[21] Moreover, the bill would authorize the DOE to manage response and recovery efforts related to physical and cyber incidents affecting that infrastructure and to form cybersecurity workforce development curricula.[22]

The Senate Energy and Natural Resources Committee introduced legislation that would direct the Federal Energy Regulatory Commission (FERC) to issue a rulemaking providing rate incentives to electric utilities to invest in technologies strengthening the cybersecurity of their grids.[23] The Protecting Resources on the Electric Grid with Cybersecurity Technology (PROTECT) Act would also authorize $50 million a year for the next five fiscal years for DOE to establish a grant program to help cybersecurity protections at electric cooperatives and municipal utilities, among other non-FERC-regulated utilities.[24] The legislation follows the report from the Government Accountability Office outlining the need for more electric cybersecurity across federal agencies to match the growing and evolving

14. Cyber Sense Act of 2019, H.R. 360, 116th Cong. (2019).

15. Press Release, *supra* note 10.

16. Energy Emergency Leadership Act, H.R. 362, 116th Cong. (2019).

17. *Id.*

18. Press Release, *supra* note 10.

19. U.S. DEP'T OF ENERGY, SECRETARY OF ENERGY RICK PERRY FORMS NEW OFFICE OF CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE (Feb. 14, 2018), https://www.energy.gov/articles/secretary-energy-rick-perry-forms-new-office-cybersecurity-energy-security-and-emergency.

20. Pipeline and LNG Facility Cybersecurity Preparedness Act, H.R. 370, 116th Cong. (2019).

21. *Id.* § 2(1).

22. *Id.* §§ 2(2), 2(5).

23. U.S. SENATE COMM. ON ENERGY & NAT. RES., MURKOWSKI, MANCHIN, COLLEAGUES INTRODUCE BIPARTISAN LEGISLATION TO STRENGTHEN AMERICA'S CYBERSECURITY (Sept. 26, 2019), https://www.energy.senate.gov/public/index.cfm/republican-news?ID=2034E08C-E7DD-4F46-ACF9-1A8D82709D1F.

24. Protecting Resources on the Electric Grid with Cybersecurity Technology Act of 2019, S. 2556, 116th Cong. § 3(f) (2019).

threat.[25] With bipartisan support, the bill likely has a chance to be included in the broader energy package lawmakers atop the committee are looking to pull together this Congress.[26]

A list of other cybersecurity bills, all moved by voice vote, include:

1) H.R. 370, from United States Representatives Fred Upton (R-MI) and David Loebsack (D-IA), which would direct DOE to establish guidelines and procedures for the physical and cybersecurity of pipelines and liquefied natural gas export terminals.[27]
2) H.R. 359, from United States Representatives Jerry McNerney (D-CA) and Bob Latta (R-OH), which would create a DOE program to enhance cybersecurity at utilities.[28]
3) H.R. 360, also from Representatives McNerney and Latta, which would create Cyber Sense Program to identify cyber-secure products that could be used in the bulk-power system.[29]
4) H.R. 362, from House Energy and Commerce Subcommittee on Energy Chairman Bobby Rush (D-IL), which would codify the new DOE assistant secretary position related to cybersecurity.[30]
5) S. 2094 and S. 2095, from United States Senator Cory Gardner (R-CO), to bolster cyber and physical security of energy infrastructure by directing additional work with utilities and state governments.[31]
6) S. 2333, from United States Senator Maria Cantwell (D-Wash.), to authorize $100 million annually through fiscal 2028 for DOE programs related to testing the cyber protections of equipment used in the power grid.[32]

## II. PUBLIC UTILITIES REGULATORY POLICIES ACT

The Public Utility Regulatory Policies Act of 1978 (PURPA) was created to boost domestic energy and promote renewables by requiring power producers to purchase electricity from qualifying facilities (QF).[33] Enacted almost 40 years ago

25. *See generally* S. 2556; *see also* U.S. GOV'T ACCOUNTABILITY OFFICE, ENSURING THE CYBERSECURITY OF THE NATION (2018), https://www.gao.gov/highrisk/ensuring-cybersecurity-nation.

26. Todd Mullins, *Lexology: PROTECT Act Seeks to Bolster Democratic Electric Grid Cybersecurity*, LISA MURKOWSKI (Oct. 4, 2019), https://www.murkowski.senate.gov/press/article/lexology-protect-act-seeks-to-bolster-domestic-electric-grid-cybersecurity.

27. Pipeline and LNG Facility Cybersecurity Preparedness Act, H.R. 370, 116th Cong. § 2(1) (2019).

28. *See generally* Enhancing Grid Security through Public-Private Partnerships Act, H.R. 359, 116th Cong. (2019).

29. *See generally* Cyber Sense Act of 2019, H.R. 360, 116th Cong. (2019).

30. *See generally* Energy Emergency Leadership Act, H.R. 362, 116th Cong. (2019).

31. *See generally* Enhancing State Energy Security Planning and Emergency Preparedness Act of 2019, S. 2094, 116th Cong. (2019); *see also* Enhancing Grid Security through Public-Private Partnerships Act, S. 2095, 116th Cong. (2019).

32. Energy Cybersecurity Act of 2019, S. 2333, 116th Cong. §§ 3(a)(2), (b)(2), (c)(2), (d)(4) (2019).

33. Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (1978).

in response to the oil crisis, PURPA was written at a time when the energy landscape was vastly different than today. United States Representative Tim Walberg (R-MI) reintroduced the PURPA Modernization Act of 2019[34] to update the law and help lower utility bills for American families.

Among its provisions, the legislation:

- seeks to revise FERC's "one-mile rule" which provides an irrebuttable presumption that resources located more than a mile apart are separate QFs,[35]
- lowered the 20-Megawatt threshold mandatory purchase obligation to reflect increased competition in electricity markets since PURPA was enacted,[36] and
- empowered state public utility commissions to waive the mandatory purchase obligation on a case-by-case basis if additional power is not required to meet customers' electricity needs.[37]

Similar legislation was introduced last year, where the Energy and Commerce Committee held a hearing on PURPA, but did not move to vote on the proposal.[38] While it is unlikely this bill will move to a vote during the 116th Congress, FERC proposed to modernize its regulations governing small power producers and cogenerators under PURPA to better address consumer concerns and market changes in the energy landscape in recent decades.[39] The Notice of Proposed Rulemaking (NOPR) established FERC's first comprehensive review of its PURPA regulations.[40] The proposed changes are intended to continue encouraging QF development while addressing concerns regarding how the current regulations work in today's competitive wholesale power markets.[41]

The NOPR focused on providing flexibility to state regulatory authorities so they can accommodate recent wholesale power market developments and streamlines the Commission's policies and practices.[42] FERC proposed to allow states to incorporate market pricing into avoided cost energy rates, allow states to require energy rates (but not capacity rates) to vary during the life of QF contracts, modified the "one-mile rule," and lowered the threshold presumption for nondiscriminatory access to power markets from 20 megawatts to 1 megawatt for small power

34. PURPA Modernization Act of 2019, H.R. 1502, 116th Cong. (2019).

35. *See* 18 C.F.R. § 292.204 (a)(4) (2019); *see also* H.R. 1502 § 2(a)(1)-(2).

36. H.R. 1502 § 3(8)(A).

37. *Id.* § 4(9).

38. *See generally* HOUSE COMM. ON ENERGY & COMMERCE, HEARING ON "LEGISLATION ADDRESSING LNG EXPORTS AND PURPA MODERNIZATION" (Jan. 19, 2018), https://energycommerce.house.gov/committee-activity/hearings/hearing-on-legislation-addressing-lng-exports-and-purpa-modernization.

39. FED. ENERGY REG. COMM'N, FERC PROPOSES TO MODERNIZE PURPA REGULATIONS (Sept. 19, 2019), https://www.ferc.gov/media/news-releases/2019/2019-3/09-19-19-E-1.asp#.Xk8b5RNKgWp.

40. Notice of Proposed Rulemaking, *Implementation Issues Under the Public Utilities Regulatory Policies Act of 1978*, 168 F.E.R.C. ¶ 61,184 (2019).

41. *Id.* at P 4.

42. *See generally* 168 F.E.R.C. ¶ 61,184.

production, but not cogeneration, facilities.[43] It also required states to establish objective and reasonable standards for QFs to obtain legally enforceable obligations for the purchase of their power.[44] Finally, the proposal permitted protests of a QF's self-certification or self-recertification without the need to file and pay for a separate petition for declaratory order.[45] Commissioner Glick dissented in part, stating that while he agreed with certain aspects of the NOPR, adopting all of the proposals would "effectively gut" PURPA.[46] Commissioner Glick asserted that the decision to re-evaluate PURPA lies with Congress and not FERC.[47]

## III. PIPELINE SAFETY

Generally, pipeline safety legislation is part of a periodic congressional assessment of the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), in which the agency's role as the nation's pipeline safety regulator comes up for periodic congressional review.[48] This traditionally bipartisan, noncontroversial exercise has been anything but that for the 116th Congress.[49] The House Energy and Commerce Committee's Safer Pipelines Act of 2019 (H.R. 3432), proposes reauthorizations for PHMSA through 2023, and would require PHMSA to develop and implement a plan to eliminate direct assessments as a risk analysis method.[50] Direct assessment typically involves excavating pipeline infrastructure to do physical inspections and nondestructive testing of a pipe's surface to check for corrosion or other issues.[51] The legislation would also eliminate a $2 million maximum threshold on civil penalties for infractions such as unlawful excavation, demolition and construction, and failure to report damage.[52] The legislation also proposed to increase civil penalties for LNG facility operators that have not met minimum safety standards or other violations from $50,000 to $200,000 per violation and raise the penalty for punishing an employee whistleblower from $1,000 to $200,000.[53]

In June 2019, PHMSA itself sent Congress a proposal for the agency's reauthorization.[54] Among other things, that proposal included requiring gas distribution pipeline operators, mainly utilities, to install backup equipment to prevent

43. *Id.* at P 13.

44. *Id.* at P 11.

45. *Id.* at P 12.

46. 168 F.E.R.C. ¶ 61,184 at P 1 (Glick, Comm'r, dissenting).

47. *Id*. at P 2 (Glick, Comm'r, dissenting).

48. Paul W. Parfomak*, DOT's Federal Pipeline Safety Program: Background and Key Issues for Congress*, CONG. RESEARCH SERV. 1, 17 (2019).

49. *Id.* at 17 (discussing the key issues that the 116th Congress will focus on in its continuing oversight of federal pipeline safety).

50. Safer Pipelines Act of 2019, H.R. 3432, 116th Cong. § 4(a)(12)(A) (2019).

51. U.S. DEP'T OF TRANSP., FACT SHEET: EXTERNAL CORROSION (Sept. 24, 2018), https://primis.phmsa.dot.gov/Comm/FactSheets/FSExternalCorrosion.htm.

52. H.R. 3432 § 7(1).

53. H.R. 3432 § 7(2)-(3).

54. *See generally* U.S. DEP'T OF TRANSP., PROTECTING OUR INFRASTRUCTURE OF PIPELINES AND ENHANCING SAFETY ACT OF 2019 (2019), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/news/

high-pressure gas from flowing into low-pressure lines.[55] The agency's proposal did not include elements related to direct assessment or civil penalty increases.[56]

In October 2019, House Energy and Commerce Committee Ranking Member Fred Upton (R-MI) introduced his own legislation to reauthorize the agency.[57] The decision came after Congress reached an impasse over how to reauthorize PHMSA.[58] PHMSA's authorization expired October 1, 2019, but the agency can continue operations so long as it has appropriations.[59] Upton, a previous chairman of the Energy and Commerce Committee, oversaw the last two reauthorizations, both of which moved forward with bipartisan support.[60] Ranking Member Upton's bill, H.R. 4700, would reauthorize PHMSA for two years, setting overall budget levels at approximately $237 million in fiscal 2020 and $243 million for fiscal 2021.[61] The bill would also include a provision on workforce development training and hiring to enable PHMSA to hire additional field pipeline safety inspectors.[62]

The Senate Commerce, Science, and Transportation Committee passed legislation to reauthorize the nation's pipeline safety regulator and the Coast Guard.[63] The bill, S. 2299, included multiple provisions to address liquefied natural gas facilities as the U.S. looks to expand its exporting capabilities.[64] The legislation includes a provision that would levy an imposition fee on LNG facilities for compliance reviews of projects costing more than $2.5 billion.[65] The fee would come in order to help offset activities related to FERC siting reviews.[66] The bill would also direct a review of the safety standards for LNG facilities.[67] That direction includes a mandate to update minimum operating and maintenance standards for much of the LNG shipping, storage, and exporting process within three years of

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71476/2019-pipeline-safety-reauthorization.pdf [hereinafter PHMSA Proposal]; *see also* U.S. DEP'T OF TRANSP., U.S. TRANSPORTATION SECRETARY ELAINE L. CHAO ANNOUNCES 2019 PIPELINE SAFETY LEGISLATIVE PROPOSAL (June 3, 2019), https://www.phmsa.dot.gov/news/pipeline-safety-reauthorization.

55. PHMSA Proposal, *supra* note 54, at § 14.

56. *See generally id.*

57. Pipeline Safety Act of 2019, H.R. 4700, 116th Cong. (2019).

58. Tiffany Stecker, *Lawmakers Point Fingers Across Aisle Over Stalled Pipeline Bill*, BLOOMBERG ENV'T (Oct. 16, 2019), https://news.bloombergenvironment.com/environment-and-energy/lawmakers-point-fingers-across-aisle-over-stalled-pipeline-bill.

59. Paul W. Parfomak, *PHMSA's Pipeline Safety Reauthorization: Funding Issues*, CONG. RESEARCH SERV. (Feb. 12, 2020), https://crsreports.congress.gov/product/pdf/IN/IN11162.

60. Josh Paciorek, *Upton Introduces Pipeline Safety Act of 2019 to Better Protect Nation's Pipeline Infrastructure*, CONGRESSMAN FRED UPTON (Oct. 17, 2019), https://upton.house.gov/ news/documentsingle.aspx?DocumentID=401277.

61. *See generally* H.R. 4700.

62. H.R. 4700 § 3.

63. *See generally* PIPES Act of 2019, S. 2299, 116th Cong. (2019); Coast Guard Authorization Act of 2019, S. 2297, 116th Cong. (2019).

64. *See generally* S. 2299.

65. *Id.* § 104(a)(1).

66. *Id.*

67. *Id.* § 105(d).

the bill's enactment.[68] Finally, the measure would direct the federal government to establish, within two years, a National Center of Excellence for Liquefied Natural Gas Safety and Training, located near the Gulf of Mexico.[69] Those provisions would align the Senate bill with the House counterpart, which takes strict stands on increasing civil penalties for operators failing to adhere to safety regulations.[70] Moreover, the main difference between the two bills is the Senate's focus on LNG export terminals, which is something new in the reauthorization exercise compared with previous Congresses.[71]

## IV. RENEWABLE ENERGY

In the United States Senate, a group of four legislative proposals were introduced to encourage the development of renewable energy sources.[72] The measures to promote wind, solar, and geothermal technologies were to enact policies to help carbon-free power sources to compete on the electric grid at lower costs.[73] Led by Senators Martha McSally (R-AZ) and Martin Heinrich (D-NM), S. 2666 would help streamline the renewable energy permitting process on public lands.[74] The bill would also direct revenue sharing with local communities hosting production facilities.[75] The bill would require more upfront planning to ensure impacts are prevented and reduced on biodiversity, habitats, and cultural resources.[76] The bill also recommends increases to permitting staff.[77] The plan proposes a revenue sharing mechanism that allocates 25% to the state, 25% to counties, 15% for permit processing and 35% for the protection fish and wildlife resources and for improved access for outdoor recreation.[78]

The other measures introduced would reform the federal wind, solar, and geothermal research and development activities.[79] The research bills included a new proposed geothermal research project, S. 2657, sponsored by Chairwoman Lisa Murkowski (R-AK) and ranking member Joe Manchin (D-WV) from the Senate Energy and Natural Resources Committee.[80] The measure would look to build on

68. *Id.*

69. S. 2299 § 113(d)(1).

70. Leonel Rondon Pipeline Safety Act, H.R. 2139, 116th Cong. § 7 (2019).

71. *Compare* PIPES Act of 2019, S. 2299, 116th Cong. § 113, *with* Leonel Rondon Pipeline Safety Act, H.R. 2139, 116th Cong.

72. Jeremy Dillon, *Senators Introduce Flurry of Renewable Bills*, E&E DAILY (Oct. 24, 2019), https://www.eenews.net/eedaily/stories/1061357809/search.

73. *Id.*

74. *See id.*; *see also* Public Land Renewable Energy Development Act of 2019, S. 2666, 116th Cong. (2019).

75. Dillon, *supra* note 72.

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.*

80. Dillon, *supra* note 72; *see also* Advanced Geothermal Innovation Leadership Act of 2019, S. 2657, 116th Cong. (2019).

a series of recommendations from the DOE about how to better unleash geothermal over the coming decades, including a provision to better coordinate research access of DOE activities on oil and gas drilling for geothermal.[81] The legislation would also alter the definition of renewable energy to incorporate thermal resources like cogeneration facilities that use excess flaring from industrial process for energy use.[82]

For the final two bills:

1) S. 2668, introduced by Senator Kyrsten Sinema (D-AZ), would direct the development of an updated crosscutting solar energy technology program within DOE with an emphasis on delivering grants for all things solar research and demonstration. The bill would create a "next generation solar energy manufacturing initiative" to focus efforts on new solar manufacturing techniques and procedures.[83]
2) S. 2660, from Senator Tina Smith (D-MN) looks to achieve a similar research and development overhaul for wind energy. Smith's bill would set authorization levels for wind research and grants at $104 million in fiscal 2020, rising to $126 million by fiscal 2024.[84]

## V. ENERGY EFFICIENCY

The House Energy and Commerce Committee reported the following energy-related bills to the House floor, including legislation to reauthorize an energy efficiency and conservation block grant program to assist states, local governments, and Indian tribes, and a bill to reauthorize grants for improving the energy efficiency of public buildings.[85]

1) H.R. 2664, by United States Representative Buddy Carter (R-GA), seeks to reduce the government's energy bill by removing the current ban on fossil fuel use in government buildings while also requiring tighter efficiency standards.[86]
2) H.R. 2665, introduced by United States Representative Jerry McNerney (D-CA) and co-sponsored by United States Representative Adam Kinzinger (R-IL), would authorize a grant program for smart technology to increase the efficiency of water and energy programs.[87]

81. Dillon, *supra* note 72.
82. *Id.*
83. Solar Energy Research and Development Act of 2019, S. 2668, 116th Cong. (2019).
84. Wind Energy Research and Development Act of 2019, S. 2660, 116th Cong. (2019).
85. All-of-the-Above Federal Building Energy Conservation Act of 2019, H.R. 2664, 116th Cong. (2019); Smart Energy and Water Efficiency Act of 2019, H.R. 2665, 116th Cong. (2019); H.R. 2659, 116th Cong. (2019).
86. H.R. 2664.
87. Smart Energy and Water Efficiency Act of 2019, H.R. 2665, 116th Cong. (2019).

3) H.R. 2659, introduced by United States Representative Paul Tonko (D-NY) and co-sponsored by United States Representative David McKinley (R-WV), would require DOE to run a multiyear research program looking to increase the efficiency of gas turbines.[88] The bill would provide the program with $50 million a year from 2020 to 2024.[89]

The Senate Energy and Natural Resources Committee advanced the energy efficiency package S. 2137, from United States Senators Rob Portman (R-OH) and Jeanne Shaheen (D-NH), on a 14-6 vote.[90] The bill would bolster voluntary national building standards for homeowners, focus DOE attention on the development of efficient manufacturing technologies and improve efficiency goals for federal buildings, among other provisions. Additionally, the committee cleared by voice vote Senator Sheldon Whitehouse's (D-RI) S. 2300 to address greenhouse gas (GHG) emissions from industrial sources.[91]

## VI. BEST ENERGY STORAGE TECHNOLOGY ACT

With bipartisan support, the Senate Energy and Natural Resources Committee advanced a comprehensive energy storage package[92] entitled the Better Energy Storage Technology (BEST) Act.[93] The BEST Act would require the federal government to support energy storage research and demonstration projects, and it would open a standardized path for utilities to recover storage costs in federal rate proceedings.[94] Particularly, the legislation would require DOE to establish an energy storage system research and development program aimed at "reducing the cost and extending the duration of energy storage systems."[95] It would also require DOE to take on a minimum of five energy storage system demonstration projects, including at least one "designed to address seasonal variations in supply and demand."[96] It also establishes a program at DOE to help utilities navigate the process of developing energy storage systems.[97] Under the bill, FERC would need to develop a rule setting out "standard processes for utilities to recover energy storage system costs in FERC-regulated rates."[98]

The BEST Act, also included the following provisions:

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88. H.R. 2659.

89. To establish a research, development, and technology demonstration program to improve the efficiency of gas turbines used in combined cycle and simple cycle power generation systems. *Id.*

90. Energy Savings and Industrial Competitiveness Act of 2019, S. 2137, 116th Cong. (2019).

91. Clean Industrial Technology Act of 2019, S. 2300, 116th Cong. (2019).

92. SENATOR SUSAN COLLINS, SENATOR SUSAN COLLINS' BILL TO ADVANCE ENERGY STORAGE TECHNOLOGY CLEARS SENATE HURDLE (Sept. 25, 2019), https://www.collins.senate.gov/newsroom/senator-collins'-bill-advance-energy-storage-technology-clears-senate-hurdle.

93. BEST Act, S. 1602, 116th Cong. (2019).

94. COLLINS, *supra* note 92.

95. *Id.*

96. *Id.*

97. *Id.*

98. COLLINS, *supra* note 92.

1) *Joint Long-Duration Demonstration Initiative*: "Establishe[d] a joint program between DOE and the Department of Defense to demonstrate long-duration storage technologies."[99]

2) *Technical and Planning Assistance*: "Establishe[d] a program at DOE to assist electric utilities with identifying, evaluating, planning, designing, and developing processes to procure energy storage systems."[100]

3) *Recycling Prize*: "Establishe[d] a prize competition at DOE to advance the recycling of critical energy storage materials such as lithium, cobalt, nickel, and graphite."[101]

The companion bill[102] in the House, sponsored by Congressman Bill Foster (D-IL) is pending before the Energy Subcommittee of the U.S. House Committee on Science, Space, and Technology.

## VII. TIMELY REVIEW OF INFRASTRUCTURE ACT

The Senate Energy and Natural Resources Committee passed legislation authored by Senator Bill Cassidy (R-LA) that would reduce wait times for federal approval of energy infrastructure projects.[103] The bill, S. 607, attempts to address insufficient compensation of certain employees and personnel at FERC.[104] The bill would give FERC's chairman authority to increase salaries within a specific category if they determine employees are not being paid enough to carry out necessary functions after meeting certain certification requirements.[105] Furthermore, the FERC chairman can specify a maximum amount of compensation that would be valid for five years and can renew that period.[106]

House Energy and Commerce Committee members Pete Olson (R-TX) and Michael F. Doyle (D-PA) introduced similar legislation the same day.[107] H.R. 1426 would require that FERC consult with the U.S. Office of Personnel Management to determine appropriate salaries.[108] These could be offered for positions where FERC determines a critical need. Senate bill S. 607 has a similar provision.[109] Both bills require certifications of such positions to be reviewed ninety days before they expire every five years before they can be renewed.[110]

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99. *Id.*
100. *Id.*
101. *Id.*
102. BEST Act, H.R. 2986, 116th Cong. (2019).
103. Timely Review of Infrastructure Act, S. 607, 116th Cong. (2019).
104. *Id.*
105. *Id.*
106. *Id.*
107. Timely Review of Infrastructure Act, H.R. 1426, 116th Cong. (2019).
108. *Id.*
109. S. 607.
110. *Id.*; H.R. 1426.

## VIII. ENERGY STORAGE TAX INCENTIVE AND DEPLOYMENT ACT

The Energy Storage Tax Incentive and Deployment Act, introduced by United States Representative Mike Doyle (D-PA),[111] was the latest update to a bill first introduced in 2016 by United States Senator Martin Heinrich (D-NM).[112] The legislation would establish tax incentives for large, grid-connected energy storage systems and smaller battery systems used for residential power.[113] Its goal was to extend to batteries and other electric storage systems the same 30% investment tax credits (ITC) offered to solar photovoltaic (PV) systems.[114] The House version would grant full ITC eligibility to investments in commercial, residential and utility-scale energy storage, with the same ramp-down now set for solar — 30% through 2019, 26% in 2020, and 22% in 2021.[115]

Energy storage is not completely barred from benefitting from the ITC.[116] But this ITC status comes with significant limitations, including a requirement that the batteries be charged solely from electrons generated by the solar system, and limits on how much storage relative to solar can earn the credit.[117]

## IX. SMALL SCALE LNG ACCESS ACT OF 2019

The Small-Scale LNG Access Act would codify a DOE final rule issued in 2018 that mostly eliminated the need for a federal review of small-scale gas exports to countries that do not have a free trade agreement with the United States, putting that type of export in the same category as trade with countries that do hold a free trade agreement.[118] The bill[119], offered by Senators Bill Cassidy (R-LA), John Kennedy (R-LA), and Marco Rubio (R-FL), would expedite LNG exports equal to or less than 51.1 billion cubic feet per year by having them automatically qualify as meeting the public interest test that DOE must conduct before approving such shipments.[120] Senators Cassidy and Rubio offered the measure in the last Congress, where it passed the Senate Energy and Natural Resources Committee. Congressman Ted Yoho (R-FL) is the lead House sponsor of a companion bill.[121]

## X. STATE CLEAN, RENEWABLE, OR CARBON-NEUTRAL ENERGY GOALS

In recent years a number of states have moved to implement ambitious clean, renewable, or carbon-neutral energy goals, many seeking to supply 100% of their

111. Energy Storage Tax Incentive and Deployment Act of 2019, H.R. 2096, 116th Cong. (2019).
112. Energy Storage Tax Incentive and Deployment Act of 2019, S. 1142, 116th Cong. (2019).
113. H.R. 2096.
114. *Id.*
115. *Id.*
116. *Id.*
117. *Id.*
118. Small Scale LNG Access Act of 2019, S. 816, 116th Cong. (2019).
119. *Id.*
120. *Id.*
121. *Id.*

energy needs from clean, renewable, or carbon-neutral sources.[122] The avenues to achieving these goals range from amending a state's Renewable Portfolio Standard (RPS) to more nuanced approaches, providing utilities a range of compliance options to achieve a "cleaner" resource mix.[123] The first state to impose a 100% requirement, Hawaii, did so several years before the current swell began to develop.[124] Since 2015, seven states, the District of Columbia, and Puerto Rico have adopted 100% clean energy laws, and the overwhelming majority of those did so in 2019.[125]

### *A. Colorado*

S.B. 236, signed by Governor Polis on May 30, 2019, requires "qualifying retail utilities"[126] to reduce carbon dioxide emissions associated with the sale of electricity to 80% of 2005 levels and to provide all electricity from "clean energy resources"[127] by 2050, "if technologically and economically feasible."[128] Each qualifying utility must submit a "clean energy plan" to the Public Utilities Commission (PUC)[129] for approval, detailing how the acts' goals will be achieved, with the first resource plan it files after January 1, 2020. Rate increases resulting from a utilities implementation of its plans are limited. On the same day Governor Polis also signed H.B. 1261, setting statewide GHG emission reduction goals of 26% by 2025, 50% by 2030, and 90% by 2050, when compared to 2005 levels.[130]

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122. UCLA LUSKIN CTR. FOR INNOVATION, PROGRESS TOWARD 100% CLEAN ENERGY IN CITIES & STATES ACROSS THE U.S. (2019), https://innovation.luskin.ucla.edu/wp-content/uploads/2019/11/100-Clean-Energy-Progress-Report-UCLA-2.pdf.

123. *Compare* Legis. Doc. 1494, 129th Leg., First Reg. Sess. (Me. 2019) (amending RPS to require 100% of all energy to come from renewable sources), *with* S.B. 236, 72nd Gen. Assem., 1st Reg. Sess. (Colo. 2019) (imposing requirement to generate from 100% clean energy resources only if "technically and economically feasible.").

124. H.B. 623, 28th Leg., Reg. Sess. (Haw. 2015) (amending state's RPS to 100% of net electricity sales from renewables by 2045).

125. UCLA LUSKIN CTR. FOR INNOVATION, *supra* note 119.

126. Colo. S.B. 236 (defining "qualifying retail utility" as any "provider of retail electric service in the state of Colorado, other than municipally owned utilities that serve forty thousand customers or fewer," excluding cooperatives that have exempted themselves from PUC jurisdiction).

127. States vary in how "clean" or "carbon-free" is defined for purposes of achieving their goals. For example, Colorado's S.B. 236 defines "clean energy resource" as "any electricity-generating technology that generates or stores or stores electricity without emitting carbon dioxide into the atmosphere" – which could include resources using coal mine methane if deemed GHG neutral. Colo. S.B. 236. While New Mexico's S.B 489 defines "zero carbon resource" as "an electricity generation resource that emits no carbon dioxide into the atmosphere, or that reduces methane emitted into the atmosphere in an amount equal to no less than one-tenth of the tons of carbon dioxide emitted into the atmosphere, as a result of electricity production." S.B. 489 54th Leg., 1st Sess. (N.M. 2019).

128. S.B. 236, 72nd Gen. Assem., 1st Reg. Sess. (Colo. 2019).

129. Although not all state regulatory commissions are PUCs, this author uses the term for the remainder of this report to refer generically to a state's utility regulator.

130. H.B. 1261, 72nd Gen. Assemb., Reg. Sess. (Colo. 2019).

### *B. Maine*

By signing Legis. Doc. 1494 on June 26, 2019, Governor Mills revised the state's RPS program to require that 80% of all electricity be generated from renewable resources by 2030 and 100% by 2050.[131] The bill also revised the RPS' resource eligibility requirements – including lifting the 100 MW limit for solar facilities.[132] Also, on June 26, 2019, Governor Mills signed Legis. Doc. 1679, creating the Maine Climate Council and requiring statewide reductions in GHG emissions to 45% below 1990 levels by 2030 and 80% below 1990 levels by 2050.[133]

### *C. Maryland*

S.B. 516, enacted on May 25, 2019, extends the state's RPS program beyond 2020 and requires that 50% of all electricity is generated by Tier 1 renewable resources by 2030.[134] Under the bill 14.5% of the RPS must be satisfied through solar energy procurements.[135] The bill also requires that the PUC conduct additional, or "Round 2," solicitations for offshore wind projects and that the PUC approve a minimum of 1,200 MW of "Round 2" projects.[136] Finally, the PUC must determine the offshore wind energy component of the RPS, which may be no less than 1,200 MW.[137]

### *D. Nevada*

S.B. 358, signed by Governor Sisolak on April 22, 2019, increases the state's RPS to 50% by 2030 and announces the state's "goal of achieving by 2050 an amount of energy production from zero carbon dioxide emission resources equal to the total amount of electricity sold by providers of electric service in the State."[138]

### *E. New Mexico*

The Energy Transition Act, S.B. 489, signed by Governor Grisham on March 22, 2019, commits the state to achieving 100% zero-carbon electricity by 2045 and, in the interim, imposes an RPS of 50% by 2030 and 80% by 2040.[139] The act also encourages the retirement of coal-fired generation by allowing a utility abandoning a coal-fired plant to apply to the PUC to recover its full transition costs through the issuance of bonds.[140]

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131. Legis. Doc. 1494, 129th Leg., First Reg. Sess. (Me. 2019).
132. *Id*.
133. Legis. Doc. 1679, 129th Leg., 1st Reg. Sess. (Me. 2019).
134. S.B. 516, 2019 Leg., Reg. Sess. (Md. 2019).
135. *Id*.
136. *Id*.
137. *Id*.
138. S.B. 358, 2019 Leg., 80th Sess. (Nev. 2019).
139. S.B. 489, 54th Leg., First Sess. (N.M. 2019).
140. *Id*.

*F. New York*

The Climate Leadership and Community Protection Act (CLCPA),[141] was signed into law by Governor Cuomo on July 18, 2019.[142] The Act mandates that the PUC promulgate rules and regulations imposing statewide GHG emission limits aimed at reducing emissions of GHGs to 85% below 1990 emissions by 2050 and also mandates that 100% of the state's electricity come from emissions free resources by 2040.[143] The CLCPA explicitly excludes emitting sources in the electricity sector from participation in alternative compliance mechanisms (i.e., by utilizing emission offset projects such as sequestration).[144] The CLCPA also requires the PUC to establish programs requiring the procurement of 9,000 MW of offshore wind by 2035; 6,000 MW of solar by 2025; and 3,000 MW of storage capacity by 2030.[145]

*G. Puerto Rico*

The Puerto Rico Energy Public Policy Act, S.B. 1121, establishes an RPS of 40% by 2025, 60% by 2040, and 100% by 2050.[146] In the interim, the act mandates that any new or existing non-renewable generators be able to run on more than one fuel – one of the fuels must be natural gas and coal is excluded – and severely limits the ability to obtain permits for coal-fired plants.[147] The act also seeks to encourage the use of storage, the interconnection of distributed generation, and promotes demand response and efficiency programs.[148]

*H. Washington*

Washington's S.B. 5116, an integral part of Governor Inslee's climate plan and signed on May 7, 2019, introduced a multi-faceted approach aimed at eliminating GHG emissions from the state's power mix.[149] First, as an interim goal, the bill requires utilities to eliminate all coal-fired resources from their generation mix by December 31, 2025, and, in the event of noncompliance, requires the payment of an administrative penalty.[150] Second, by January 1, 2030, all retail sales within the state must be GHG neutral.[151] Compliance with the second goal is achievable, in part, through the use of "alternative compliance options" – including making "alternative compliance payments."[152] Finally, by January 1, 2045, 100% of all retail electricity in the state must be delivered from non-emitting and renewable

141. Assem. B. A8429, 2019-2020 Leg., Reg. Sess. (N.Y. 2019).
142. *Id.*
143. *Id*.
144. *Id*.
145. *Id.*
146. S.B. 1121, 18th Leg. Assem., 26th Sen. Sess. (P.R. 2019).
147. *Id*.
148. *Id.*
149. S.B. 5116, 66th Leg., Reg. Session (Wash. 2019).
150. *Id*.
151. *Id*.
152. *Id*.

resources by 2045, with no "alternative compliance options" available beyond the end of 2044.[153]

## XI. STATE GENERATION PORTFOLIOS

While some states have jumped headlong into promoting "clean energy" policies, other states – primarily those whose baseload is comprised primarily of coal and nuclear – have taken steps to protect existing generators or to convene studies to evaluate the impacts of diversifying or transitioning their resource mix away from traditional baseload generators.[154]

### *A. Indiana*

H.B. 1278, signed by Governor Holcomb on May 5, 2019, created a fifteen member "21st century energy policy development task force" (task force).[155] The task force is charged with examining possible shifts in the state's generation portfolio – such as transitions in fuel sources or the implementation of new and emerging technologies – that could impact reliability, resilience, and affordability and evaluating whether the PUC has the tools it needs to address potential shifts while still protecting ratepayers.[156] The task force is required to present its findings to the legislature in a final report no later than July 1, 2020.[157]

### *B. Ohio*

H.B. 6 creates a "clean air fund," capitalized by a rider on residential customers, and grants a significant portion of that fund to FirstEnergy Solutions to support two of their nuclear facilities in the state.[158] The bill, signed by Governor Mike DeWine in July, also imposes a monthly surcharge to help two older coal plants owned by Ohio Valley Electric Corporation and dials back the state's RPS to 8.5% by 2026, with no mandate beyond 2026 – effectively ending the RPS post 2026.[159]

### *C. Honorable Mentions*

Although neither bill reached the finish line, both Maryland and Pennsylvania introduced measures – H.B. 600 and H.B. 11, respectively – that would have rendered nuclear generation eligible under their RPS.[160] Notably, Pennsylvania's

153. *Id.*

154. *See generally* H.B. 1278, 2019 Leg., Reg. Sess. (Ind. 2019).

155. *Id.*

156. In October 2018, the Northern Indiana Public Service Company filed its 2018 Integrated Resource Plan, announcing that it would retire the majority of its coal-fired generation by 2023 and eliminating coal from its generation portfolio by 2028. NORTHERN INDIANA PUBLIC SERVICE COMPANY, LLC, *2018 Integrated Resource Plan Executive Summary* (2018), https://www.nipsco.com/docs/librariesprovider11/rates-and-tariffs/irp/irp-executive-summary.pdf?sfvrsn=9.

157. H.B. 1278, 2019 Leg., Reg. Sess. (Ind. 2019).

158. H.B. 6, 133rd Gen. Assem. (Ohio 2019).

159. *Id.*

160. H.B. 600, 2019 Leg., Reg. Sess. (Md. 2019) (amended to require only a study of the future of nuclear energy in Maryland); H.B. 11, 2019 Gen. Assem., Reg. Sess. (Pa. 2019).

H.B. 11 would have required utilities to purchase "alternative energy credits" from certain nuclear generators in order to satisfy their obligations under the RPS.[161]

## XII. GRID SECURITY

Texas passed several bills this session focusing on grid security. S.B. 475 creates the Texas Electric Grid Security Council (Council), an advisory body comprised of representatives of the PUC, ERCOT, and the office of the Governor, with the mission of "facilitat[ing] the creation, aggregation, coordination, and dissemination of best security practices for the electric industry."[162] S.B. 46 requires the PUC to establish a monitoring program for cybersecurity efforts among state utilities that shall provide guidance on cybersecurity best practices to utilities and allows for coordination with the Council established by S.B. 475 in the implementation of the program.[163] Both bills were signed by Governor Greg Abbott on June 7, 2019.[164]

161. Pa. H.B. 11.

162. S.B. 475, 86th Leg., Reg. Sess. (Tex. 2019).

163. S.B. 64, 86th Leg., Reg. Sess. (Tex. 2019).

164. *Id.*; Tex. S.B. 475.

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