

Energy Efficiency Advisory

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DOE Reorganizes and Presses Ahead on Energy Efficiency

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The Department of Energy (DOE) continues its blistering pace on energy efficiency. In response to the bipartisan Infrastructure Protection Act¹ and the Energy Act of 2020,² DOE has reorganized to facilitate its ambitious agenda for energy efficiency and other energy priorities. This has entailed establishing Offices of two Under Secretaries and appointing a new Deputy General Counsel responsible for the appliance efficiency program. And we count at least 58 separate actions on efficiency standards and test procedures pursuant to the Energy Policy and Conservation Act (EPCA)³ since our advisory four months ago.⁴ This includes a high-profile reversal of a Trump-era rule on lightbulbs. Stakeholders should make their views known in such rulemaking proceedings—keeping in mind that filings are permissible even after the formal comment period has closed.

Two New Under Secretaries. First, DOE established the Office of the Under Secretary for Science and Innovation (formerly the Under Secretary for Science and Energy).⁵ This new position includes oversight of the appliance efficiency program run by the Office of Energy Efficiency and Renewable Energy (EERE), which fell within the Office of the Under Secretary for Energy. DOE says that this approach will continue to drive research and development of energy technologies, with connected demonstration and deployment activities. This fits with the forward-leaning technology characteristics of the appliance efficiency program and its connection with research and development.⁶ Dr. Geraldine (Geri) Richmond has been appointed Under Secretary; she previously was a professor of science and chemistry at the University of Oregon.⁷

Second, DOE established the Office of the Under Secretary for Infrastructure (formerly the Office of the Under Secretary of Energy).⁸ This new office focuses on deploying clean energy solutions, including infrastructure financing, project development, and project management. Kathleen Hogan, who has many years of experience with clean energy at DOE and EPA, serves as the Principal Deputy Under Secretary for Infrastructure.⁹

New Deputy General Counsel. DOE has also appointed a new Deputy General Counsel for Energy Efficiency and Clean Energy Demonstrations, whose responsibilities include the appliance efficiency program. The new Deputy General Counsel is Alexandra B. Klass, previously a professor at the University of Minnesota Law School focused on energy, environmental, and natural resources law.¹⁰

New DOE Regulatory Actions. DOE is continuing its race to update energy efficiency standards and test procedures—and to roll back Trump-era efficiency rules. We have covered activity on efficiency rules from Inauguration Day through March 7, 2022, in prior advisories.¹¹ The following is a list of DOE's efficiency rulemaking activity just since then.

- Ceiling Fan Light Kits. DOE has issued a notice of proposed rulemaking (NOPR) to amend the test procedure for CFLKs. DOE proposes to update references to industry standards to their latest versions and incorporate industry standards necessary for executing the test; to allow for the use of a goniophotometer; to revise definitions regarding CFLKs with solid-state lighting (SSL) light sources to clarify the scope and test methods for CFLKs; and to remove obsolete provisions. DOE held a webinar on April 11, 2022. Written comments were due by May 9, 2022.¹²
- **Commercial Prerinse Spray Valves.** DOE has issued a final rule incorporating by reference the current version of the industry testing standard for commercial prerinse spray valves. It has also amended the definition of commercial prerinse spray valve to codify existing guidance on how to apply the definition.¹³ DOE has also issued a determination that amended energy conservation standards for commercial prerinse spray valves are not needed.¹⁴
- Variable Refrigerant Flow Multi-Split Air Conditioners and Heat Pumps. Due to a preliminary injunction in litigation over monetization of benefits associated with greenhouse gas emissions,¹⁵ DOE has issued a clarification of its response to a public comment in a NOPR for standards for VRF multi-split systems. The clarification is to avoid any confusion or ambiguity in light of the court's preliminary injunction and to reiterate that no emissions analysis (or related monetization) was conducted for this proposed rulemaking.¹⁶
- **Consumer Boilers.** DOE has issued a NOPR to amend the test procedure for consumer boilers to incorporate by reference the latest version of the industry standards currently referenced in the Federal test procedure. It proposes to relocate the test procedure in a new appendix separate from the residential furnace test procedure. It also proposes to remove an extraneous definition from its regulatory definitions. DOE held a webinar on April 7, 2022. Written comments were due by May 16, 2022.¹⁷ DOE has also announced the availability of the preliminary analysis it conducted for purposes of evaluating the need for amended standards for consumer boilers, which is set forth in DOE's preliminary technical support document (TSD) for this rulemaking. DOE held a webinar on June 16, 2022. Written comments were due by July 5, 2022.¹⁸
- Water Closets and Urinals. DOE has issued a final rule amending the test procedures for water closets and urinals to reference the most recent update to the relevant industry standard, American Society of Mechanical Engineers (ASME) Standard A112.19.2–2018. DOE has also amended certain definitions and added definitions for certain terms that are used in the Federal test procedures but not defined.¹⁹

- Central Air Conditioners and Heat Pumps. DOE has issued a NOPR to amend the test procedures for central air conditioners and heat pumps that will be required for certification of compliance with applicable energy conservation standards starting January 1, 2023, to address a limited number of specific issues. DOE held a webinar on April 18, 2022. Written comments were due by June 6, 2022.²⁰
- Automatic Commercial Ice Makers. DOE has announced the availability of the preliminary analysis it has conducted for purposes of evaluating the need for amended standards for automatic commercial ice makers. DOE held a webinar on May 5, 2022. Written comments were due by June 7, 2022.²¹
- **Microwave Ovens.** DOE has issued a final rule amending its test procedure for microwave oven standby mode and off mode to provide additional specifications for the test conditions related to clock displays and network functions.²²
- Commercial Air Conditioners and Heat Pumps. DOE has issued a NOPR for standards for air cooled, three-phase, small commercial air conditioners and heat pumps with a cooling capacity of less than 65,000 Btu/h and air cooled, three-phase, variable refrigerant flow air conditioners and heat pumps with a cooling capacity of less than 65,000 Btu/h. DOE is proposing amended standards that rely on new efficiency metrics and align with amended efficiency levels in the industry standard. DOE says it has preliminarily determined that it lacks clear and convincing evidence required by EPCA to adopt standards more stringent than the levels specified in the industry standard. DOE held a webinar on May 16, 2022. Written comments on the NOPR were due by May 31, 2022. Comments regarding the likely competitive impact of the proposed standard were to be sent to the Department of Justice by April 29, 2022.²³
- **Refrigerated Bottled or Canned Beverage Vending Machines.** DOE has issued a NOPR to amend the test procedure for BVMs to reference the latest version of the industry standard. DOE also proposes to provide setup instructions for non-beverage shelves; update the lowest application product temperature definition and instructions; require testing of coin and bill payment mechanisms if shipped with the BVM (but not until the compliance date of any amended energy conservation standards); specify setup instructions for leak mitigation controls; and remove an obsolete version of the test procedure. DOE held a webinar on May 2, 2022. Written comments were due by May 31, 2022.²⁴ DOE has also announced the availability of the preliminary analysis it has conducted for purposes of evaluating the need for amended standards for BVMs, which is set forth in DOE's preliminary TSD for this rulemaking. DOE held a webinar on May 23, 2022. Written comments were due by June 27, 2022.²⁵
- Federal Low-Rise Residential Buildings. DOE has issued a final rule updating the baseline Federal energy efficiency performance standards for the construction of new Federal low-rise residential buildings to the International Code Council (ICC) 2021 International Energy Conservation Code (IECC).²⁶

- Federal Commercial and Multi-Family High-Rise Residential Buildings. DOE has issued a final rule updating the baseline Federal energy efficiency performance standards for the construction of new Federal commercial and multi-family high-rise residential buildings to American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1–2019.²⁷
- **Room Air Conditioners.** DOE has issued a NOPR to amend the standards for room air conditioners. DOE held a webinar on May 3, 2022. Written comments on the NOPR were due by June 6, 2022. Comments regarding the likely competitive impact of the proposed standard were to be sent to the Department of Justice by May 9, 2022.²⁸
- **Commercial and Industrial Pumps.** DOE has issued a NOPR to amend the test procedure for commercial and industrial pumps (pumps) to harmonize with updated industry standards; to expand the scope of clean water pumps covered by this test procedure; and to revise calculation methods for pumps sold with motors and controls to better represent field energy use. DOE held a webinar on April 26, 2022. Written comments were due by June 10, 2022.²⁹
- Commercial Refrigerators, Freezers, and Refrigerator-Freezers. DOE has granted two sets of waiver relief to AHT Cooling Systems GmbH and AHT Cooling Systems USA Inc. (AHT) from specified portions of the DOE commercial refrigeration equipment (CRE) test procedure for determining the energy consumption of specified AHT CRE basic models. Under an extension of an existing interim waiver, AHT is required to test and rate specified basic models in accordance with the alternate test procedure specified in the interim waiver.³⁰ Also, under an extension of an existing waiver, AHT is required to test and rate specified basic models in accordance with the alternate test procedure specified in the interim waiver.³¹
- **Residential and Commercial Clothes Washers.** DOE has published the results of additional testing conducted in furtherance of the development of translations of energy and water metrics between the current test procedure for residential clothes washers and a proposed new test procedure. Written comments were due by May 27, 2022.³² DOE has also issued a final rule amending its test procedures for residential and commercial clothes washers to further specify test conditions, instrument specifications, and test settings; address large clothes container capacities; add product-specific enforcement provisions; delete obsolete provisions; and consolidate all test cloth-related provisions and codify additional test cloth material verification procedures used by industry. The final rule also establishes a new test procedure for residential and commercial clothes washers with additional modifications for certain test conditions, measurement of average cycle time, required test cycles, tested load sizes, semi-automatic clothes washer provisions, new performance metrics, and updated usage factors.³³
- **Consumer Pool Heaters.** DOE has issued a NOPR proposing definitions for the different classes of pool heaters; amended standards for gas-fired pool heaters; and new standards for electric pool heaters. DOE held a webinar on May 4, 2022. Written comments were due by June 14, 2022. Comments regarding the likely competitive

impact of the proposed standard were to be sent to the Department of Justice by May 16, 2022.³⁴

- Appliance Standards and Rulemaking Federal Advisory Committee. DOE has issued a notice that ASRAC's charter is being renewed. ASRAC will provide advice and recommendations to DOE on matters concerning the DOE appliance and commercial equipment standards program's test procedures and rulemaking process.³⁵ ASRAC held a meeting on June 9, 2022.³⁶
- **Commercial Packaged Boilers.** On January 18, 2022, the Court of Appeals for the District of Columbia Circuit determined that DOE's January 2020 final rule on CPBs was unlawful and remanded the rule to DOE to take appropriate remedial action to fix the deficiencies within 90 days.³⁷ On April 20, 2022, DOE issued its response to the remand. Without seeking additional comment, it supplemented the January 2020 final rule's explanation of and response to comments regarding the assignment of boiler efficiencies to buildings; forecasted fuel prices; and estimated burner operating hours.³⁸
- Small Electric Motors. DOE has issued a notice that it is undertaking a review to determine whether to amend applicable standards for small electric motors. DOE is seeking data and information to evaluate whether amended standards would result in significant savings of energy; be technologically feasible; and be economically justified. Written comments were due by June 20, 2022.³⁹
- Walk-In Coolers and Walk-In Freezers. DOE has issued a NOPR to amend the test procedures for WICFs to harmonize with updated industry standards; revise the test methods to more fully represent field energy use; and better account for the range of WICF component equipment designs. DOE also proposes to revise certain definitions applicable to WICFs. DOE held a webinar on May 9, 2022. Written comments were due by June 21, 2022.⁴⁰ DOE has also announced the availability of the preliminary analysis it has conducted for purposes of evaluating the need for amending the current standards for WICFs. The analysis is set forth in DOE's TSD for this rulemaking. DOE will hold a webinar on July 22, 2022. Written comments are due by August 29, 2022.⁴¹
- **Commercial Warm Air Furnaces.** DOE has issued a notice of proposed determination (NOPD) that it lacks clear and convincing evidence that amended energy conservation standards for CWAFs would be economically justified. DOE held a webinar on June 7, 2022. Written comments were due by June 27, 2022.⁴²
- General Service Lamps and General Service Incandescent Lamps. DOE has issued two new rules for lightbulbs. One provides revised definitions of GSLs, GSILs, and associated supplemental definitions.⁴³ The second implements a more stringent minimum standard of 45 lumens per watt for lightbulbs that meet the revised definition of GSL.⁴⁴ These new rules represent the latest chapter in a back-and-forth saga stretching across the George W. Bush, Obama, Trump, and Biden Administrations. The new rules rescind Trump-era action that blocked an Obama-era standards increase implementing the Energy Independence and Security Act of 2007⁴⁵ signed by President

Bush. These rules are an important part of President Biden's climate goals. DOE has concurrently announced an enforcement policy that allows for delayed and progressive enforcement for addressing noncompliance with the GSL standards.⁴⁶ DOE says that the enforcement policy is to help entities all along the distribution chain adjust their production and inventory. DOE held a webinar on May 4, 2022, on the enforcement policy.

- Compressors. DOE has issued a request for information (RFI) to consider whether to amend DOE's test procedure for air compressors. DOE says that it is interested in receiving comment mainly on the scope of coverage; updated industry test procedures; and the accuracy, representativeness, and cost of existing test requirements. Written comments on the RFI were due by June 20, 2022.⁴⁷ DOE also held a "Compressors Regulations 101" webinar on May 24, 2022.⁴⁸ DOE has pulled down the enforcement policy regarding the test procedure for air compressors and removed the policy from the DOE enforcement website as of May 2, 2022. DOE says that it expects regulated entities to begin transitioning in accordance with the current DOE regulations.⁴⁹
- Consumer Water Heaters. DOE reopened the public comment period to May 16, 2022, pertaining to standards for consumer water heaters.⁵⁰ DOE has also issued a prepublication Federal Register supplemental notice of proposed rulemaking (SNOPR) to amend the test procedure for consumer water heaters and residential-duty commercial water heaters. This SNOPR updates the proposals presented in a NOPR published in the Federal Register on January 11, 2022. In this SNOPR, DOE proposes additional amendments that would provide additional specificity regarding flow rate tolerances for water heaters with a rated storage volume of less than 2 gallons; allow for voluntary representations at certain additionally specified test conditions for heat pump water heaters; revise the proposed specifications regarding separate storage tank requirements for certain types of water heaters; provide instructions for testing certain water heaters that store water at a temperature higher than the delivery setpoint; establish a metric and method for determining the effective storage volume of certain storage-type water heaters; and update the proposed methodology for estimating the internal tank temperature of water heaters which cannot be directly measured. Comments are due by 21 days after date of publication in the Federal Register.⁵¹
- **Commercial Water Heating Equipment.** DOE has issued a NOPR to amend the standards for certain classes of CWH equipment for which DOE has tentatively determined there is clear and convincing evidence to support more-stringent standards. Additionally, DOE is proposing to codify standards for electric instantaneous CWH equipment from EPCA into the Code of Federal Regulations. DOE held a webinar on June 23, 2022. Comments are due by July 18, 2022. Comments regarding the likely competitive impact of the proposed standard should be sent to the Department of Justice by July 18, 2022.⁵²
- **Furnace Fans.** DOE has issued a NOPR to amend the test procedure for consumer furnace fans. The proposal is to clarify the scope of applicability; incorporate by reference the most recent version of industry test methods; establish a test method for

furnace fans incapable of operating at the required external static pressure; clarify testing of certain products, including furnace fans with modulating controls, furnace fans and modular blowers tested with electric heat kits, certain two-stage furnaces that operate at reduced input only for a preset period of time, dual-fuel furnaces, and certain oil-fired furnaces; and make updates to improve test procedure repeatability and reproducibility. DOE held a webinar on May 19, 2022. Written comments are due by July 12, 2022.⁵³

- Uninterruptible Power Supplies. DOE has issued an amendment to the test procedure for UPSs. DOE says that it corrects an error in the text of the test procedure adopted in 2016.⁵⁴
- Direct Heating Equipment. DOE has issued a notice to amend the test procedure for DHE to incorporate by reference the most recent versions of the industry consensus test standards previously referenced in the Federal test procedure, while maintaining the existing oil pressure measurement error value. DOE is also updating definitions regarding unvented heaters, accounting for multiple operational modes, specifying the input rate for conducting the cyclic condensate collection test, specifying the use of manufacturer values for gas supply pressure in certain circumstances, specifying the allowable range of regulator outlet pressure and specific gravity, providing an option to use fewer thermocouples in the thermocouple grid for models with small-diameter flues, clarifying instructions for calculations regarding condensate mass measurements, and specifying the methods to appropriately shield thermocouples from radiation.⁵⁵ DOE has also issued an RFI to evaluate whether to establish standards for a category of DHE, specifically consumer hearth heaters. This RFI solicits information to help DOE determine whether potential standards for consumer hearth heaters would result in significant energy savings and whether such standards would be technologically feasible and economically justified. Written comments are due by July 18, 2022.⁵⁶
- Unfired Hot Water Storage Tanks. DOE has issued a determination that the standards for UFHWSTs do not need to be amended. DOE has determined that it lacks clear and convincing evidence that more-stringent standards for UFHWSTs would save a significant additional amount of energy and would be economically justified.⁵⁷
- Commercial Package Air Conditioners and Heat Pumps. DOE has issued an RFI regarding issues pertinent to whether amended test procedures for commercial package air conditioners and heat pumps would more accurately or fully comply with the requirement that the test procedure produces results that measure energy use during a representative average use cycle for the equipment without being unduly burdensome to conduct, or reduce testing burden. DOE is also seeking information on whether to amend the current energy conservation standards for air-cooled commercial package air conditioners and heat pumps with a rated cooling capacity greater than or equal to 65,000 Btu/h. Written comments were due by June 24, 2022.⁵⁸
- Manufactured Housing. DOE has issued a final rule to establish standards for manufactured housing. The standards would provide a set of "tiered" standards based

on size that would apply the 2021 International Energy Conservation Code (IECC)based standards to manufactured homes, except that single-section manufactured homes would be subject to less stringent building thermal envelope requirements compared to multi-section manufactured homes.⁵⁹

- General Service Fluorescent Lamps. DOE has issued a NOPD with an initial determination that amended standards for GSFLs do not need to be amended. DOE will hold a webinar on July 11, 2022. Written comments are due by August 1, 2022.⁶⁰
- Faucets and Showerheads. DOE has issued a NOPR to amend the test procedures for faucets and showerheads to incorporate the current version of the referenced industry standard, American Society of Mechanical Engineers Standard A112.18.1–2018, "Plumbing Fixture Fittings." DOE also proposes to add definitions for low-pressure water dispensers and pot fillers, and exclude them from the faucet definition. Finally, DOE proposes to provide further detail for conducting the flow rate measurement. DOE held a webinar on June 22, 2022. Written comments are due by August 1, 2022.⁶¹
- **Portable Air Conditioners.** DOE has issued a NOPR to amend the test procedure for portable ACs to incorporate a measure of variable-speed portable AC performance and make minor clarifying edits. DOE also proposes a new test procedure to improve representativeness for all configurations of portable ACs, which relies on a substantively different measure of cooling capacity and energy consumption compared to the current portable AC test procedure. DOE will hold a webinar on July 13, 2022. Written comments are due by August 8, 2022.⁶²
- **Dehumidifiers.** DOE has issued a NOPR to amend the test procedure for dehumidifiers. The proposed amendments would reference the current version of an applicable industry standard; allow the rating test period to be 2 or 6 hours; permit the use of a sampling tree in conjunction with an aspirating psychrometer for testing a dehumidifier with a single process air intake grille; and specify for dehumidifiers with network capabilities that all network functions must be disabled throughout testing. DOE will hold a webinar on July 12, 2022. Written comments are due by August 8, 2022.⁶³ DOE has also announced the availability of a preliminary TSD for evaluating the need for amended standards for dehumidifiers. DOE will hold a webinar on July 19, 2022. Written
- Consumer Refrigeration and Miscellaneous Refrigeration Products. On July 18, 2016, DOE published a final rule that amended the test procedure for refrigerators and refrigerator-freezers and established both coverage and procedures for testing miscellaneous refrigeration products (MREFs). That final rule also established provisions within DOE's certification requirements to provide instructions regarding product category determinations, which were intended to be consistent with the definitions established for MREFs and refrigerators, refrigerator-freezers, and freezers.

DOE has now issued a proposal to correct certain inconsistencies between the instructions for determining product categories and the corresponding product definitions to avoid confusion regarding the application of those definitions. Written comments are due by July 13, 2022.⁶⁵

- **Miscellaneous Gas Products.** DOE has issued an RFI to help it determine whether potential standards for miscellaneous gas products would result in significant energy savings and whether such standards would be technologically feasible and economically justified. DOE says that this information will prove useful in the event it moves forward with a final coverage determination that these products are "covered" under EPCA. Written comments are due by July 14, 2022.⁶⁶
- Electric Vehicles. DOE and the Department of Transportation (DOT) have announced the establishment of the Electric Vehicle Working Group (EV Working Group). The EV Working Group is established by the Joint Office of Energy and Transportation to make recommendations to the Secretary of Energy and the Secretary of Transportation regarding the development, adoption, and integration of light-, medium-, and heavy-duty electric vehicles into the transportation and energy systems of the United States. The EV Working Group shall also develop three reports submitted to the Secretaries, the Committees on Commerce, Science, and Transportation and Appropriations of the Senate, and the Committees on Transportation and Infrastructure and Appropriations of the House of Representatives describing the status of electric vehicle adoption.⁶⁷ DOE also issued a notice soliciting candidates to fill vacancies on the EV Working Group.⁶⁸
- **Dedicated-Purpose Pool Pump Motors.** DOE has issued a NOPR to establish standards for dedicated-purpose pool pump motors. DOE will hold webinar on July 26, 2022. Written comments are due by August 22, 2022. Comments regarding the likely competitive impact of the proposed standard should be sent to the Department of Justice by July 21, 2022.⁶⁹
- Metal Halide Lamp Fixtures. DOE has issued a final rule adopting amendments to its test procedure for MHLFs to incorporate by reference new relevant industry standards as well as update to latest versions of existing references; clarify the selection of reference lamps used for testing; specify the light output level at which to test dimming ballasts; revise definitions and reorganize the content of the test procedure for better readability and clarity; and revise the standby mode test method for MHLFs.⁷⁰
- Packaged Terminal Air Conditioners and Packaged Terminal Heat Pumps. DOE has issued a preliminary determination that it lacks clear and convincing evidence that more-stringent standards for PTACs and PTHPs would be economically justified. As such, DOE has preliminarily determined that energy conservation standards for PTACs and PHTPs do not need to be amended. DOE will hold a webinar on July 20, 2022. Written comments are due by August 23, 2022.⁷¹

- Commercial Refrigerators, Freezers, and Refrigerator-Freezers. DOE has announced the availability of the preliminary analysis it has conducted for purposes of evaluating the need for amended standards for commercial refrigerators, freezers, and refrigerator-freezers (commercial refrigeration equipment or CRE), which is set forth in its preliminary TSD for this rulemaking. DOE will hold a webinar on August 8, 2022. Written comments are due by August 29, 2022.⁷² DOE has also issued a NOPR to amend the test procedures for CRE to reference the latest versions of the applicable industry standards. DOE also proposes to establish definitions and test procedures for new equipment categories, adopt test procedures consistent with recently published waivers and interim waivers, establish product-specific enforcement provisions, allow for volume and total display area, and adopt additional clarifying amendments. DOE will hold a webinar on August 1, 2022. Written comments are due by August 29, 2022.⁷³
- **Consumer Furnaces.** DOE has issued a NOPR to amend standards for nonweatherized gas furnaces and mobile home gas furnaces. DOE will hold a webinar on August 3, 2022. Written comments are due by September 6, 2022. Comments regarding the likely competitive impact of the proposed standards should be sent to the Department of Justice by August 22, 2022.⁷⁴

Conclusion. Energy efficiency has been a key component of U.S. energy policy for well over forty years (EPCA was signed into law in 1975). The push for energy efficiency has further accelerated in the Biden Administration, which has made it a high priority ever since Inauguration Day. All signs point to much more to come—as DOE adds more products to the efficiency program and makes standards more stringent. Civil penalties for violations are severe—currently \$503 per violation—and this rate will increase with inflation. Interested parties should take advantage of opportunities to participate in DOE efficiency rulemaking proceedings.

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For more information on this subject or Harris, Wiltshire & Grannis LLP's energy practice, please contact <u>Scott Blake Harris</u>, <u>Stephanie Weiner</u>, or John A. Hodges.

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¹ Infrastructure Protection Act of 2020, S.3688, 116th Cong. (2020).

² The Energy Act of 2020, Pub. L. No. 116-260, 134 Stat. 1182.

³ 42 U.S.C.A. § 6291 *et seq*.

- ⁴ Scott Blake Harris, John A. Hodges, and Stephanie S. Weiner, *DOE's Continued Push for Energy Efficiency*, HWG Law (March 7, 2022), http://www.hwglaw.com/wp-content/uploads/2022/03/DOEs-Continued-Push-for-Energy-Efficiency.pdf.
- ⁵ DOE, DOE Optimizes Structure to Implement \$62 Billion in Clean Energy Investments From Bipartisan Infrastructure Law (Feb. 9, 2022), https://www.energy.gov/articles/doe-optimizes-structure-implement-62-billion-clean-energy-investments-bipartisan.
- ⁶ Standards for many products under EPCA must be designed to achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified. See 42 U.S.C.A. §§ 6295(o)(2)(A), 6316(a).
- ⁷ DOE, *Dr. Geri Richmond, Under Secretary of Science and Innovation*, https://www.energy.gov/person/dr-geri-richmond.
- ⁸ See fn. 5 *supra*.
- ⁹ See DOE, Kathleen Hogan, Principal Deputy Under Secretary for Infrastructure, https://www.energy.gov/person/kathleen-hogan.
- ¹⁰ See DOE, Alexandra Klass, Deputy General Counsel for Energy Efficiency and Clean Energy Demonstrations, https://www.energy.gov/person/alexandra-klass.
- ¹¹ Harris, Wiltshire & Grannis, *HWG Energy Efficiency Updates*, HWG Law, https://www.hwglaw.com/practice/energy/energy-efficiency-update/.
- ¹² DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Ceiling Fan Light Kits, NOPR, 87 Fed. Reg. 13648 (March 10, 2022).
- ¹³ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Commercial Prerinse Spray Valves, Final Rule, *id*. 13901 (March 11, 2022).
- ¹⁴ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Commercial Prerinse Spray Valves, Final Determination, *id.* 34067 (June 6, 2022).
- ¹⁵ Louisiana v. Biden, No. 2:21-cv-01074-JDC-KK (W.D. La. Feb. 11, 2022).
- ¹⁶ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Variable Refrigerant Flow Multi-Split Air Conditioners and Heat Pumps, Clarification, 87 Fed. Reg. 14186 (March 14, 2022).
- ¹⁷ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Consumer Boilers, NOPR, *id.* 14622 (March 15, 2022).
- ¹⁸ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Consumer Boilers, Notification of Availability of Preliminary Technical Support Document, *id.* 26304 (May 4, 2022).
- ¹⁹ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedures for Water Closets and Urinals, Final Rule, *id.* 16375 (March 23, 2022).
- ²⁰ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Test Procedures for Central Air Conditioners and Heat Pumps, NOPR, *id.* 16830 (March 24, 2022); *id.* 31435 (May 24, 2022) (reopening of public comment period).

- ²¹ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Automatic Commercial Ice Makers, Notification of Availability of Preliminary Technical Support Document, *id.* 17025 (March 25, 2022); *id.* 19810 (April 6, 2022) (notification of rescheduled public meeting); *id.* 31964 (May 26, 2022) (reopening of public comment period).
- ²² DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Microwave Ovens, Final Rule, *id.* 18261 (March 30, 2022).
- ²³ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Air Cooled, Three-Phase, Small Commercial Air Conditioners and Heat Pumps With a Cooling Capacity of Less Than 65,000 Btu/h and Air-Cooled, Three-Phase, Variable Refrigerant Flow Air Conditioners and Heat Pumps With a Cooling Capacity of Less Than 65,000 Btu/h, Final Rule, *id.* 18290 (March 30, 2022).
- ²⁴ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Refrigerated Bottled or Canned Beverage Vending Machines, NOPR, *id.* 18936 (March 31, 2022).
- ²⁵ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Refrigerated Bottled or Canned Beverage Vending Machines, Notification of Availability of Preliminary Technical Support Document, *id.* 24469 (April 26, 2022).
- ²⁶ DOE, Office of Energy Efficiency and Renewable Energy, Energy Efficiency Standards for the Design and Construction of New Federal Low-Rise Residential Buildings Baseline Standards Update, Final Rule, *id.* 19595 (April 5, 2022).
- ²⁷ DOE, Office of Energy Efficiency and Renewable Energy, Baseline Energy Efficiency Standards Update for New Federal Commercial and Multi-Family High-Rise Residential Buildings, Final Rule, *id.* 20267 (April 7, 2022).
- ²⁸ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Room Air Conditioners, NOPR, *id.* 20608 (April 7, 2022).
- ²⁹ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Commercial and Industrial Pumps, NOPR, *id.* 21268 (April 11, 2022).
- ³⁰ DOE, Office of Energy Efficiency and Renewable Energy, Extension of Interim Waiver to AHT Cooling Systems GmbH and AHT Cooling Systems USA Inc. From the Department of Energy Commercial Refrigerator, Freezer, and Refrigerator-Freezer Test Procedure, Notification of Extension of Interim Waiver, *id.* 21109 (April 11, 2022).
- ³¹ DOE, Office of Energy Efficiency and Renewable Energy, Extension of Waiver to AHT Cooling Systems GmbH and AHT Cooling Systems USA Inc. From the Department of Energy Commercial Refrigerator, Freezer, and Refrigerator-Freezer Test Procedure, Notice of Decision and Order: Extension of Waiver, *id.* 21111 (April 11, 2022).
- ³² DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Residential Clothes Washers, Notification of Data Availability (NODA), *id.* 21816 (April 13, 2022); *id.* 30433 (May 19, 2022) (reopening of comment period).
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