

COP28 Agreement on Doubling Rate of Energy Efficiency Improvement by the End of this Decade; DOE Presses Forward on Efficiency Rules

Sean A. Lev and John A. Hodges

Energy efficiency was front and center at the just-concluded United Nations Climate Change Conference (COP28) in Dubai. A historic and wide-ranging “stocktake” consensus agreement hammered out by nearly 200 nations calls on the Parties to the Paris Agreement on climate change to contribute to “doubling the global average annual rate of energy efficiency improvements by 2030.”¹ A related “pledge” by many of the participants provides details on the way forward. In the meantime, the Department of Energy (DOE) continues its ambitious energy efficiency program. Industry should continue to take these developments into account in planning its products and strategies.

COP28. The COP28 agreement adopts doubling the global average rate of energy efficiency improvements by 2030 as an important mitigation measure. The agreement calls on the Parties to contribute to this global effort “in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches.”² While reaching agreement on fossil fuels was contentious,³ the participants broadly supported the need for increased energy efficiency. DOE Deputy Secretary David Turk’s statement that “[e]nergy efficiency is the biggest no brainer out there”⁴ reflected the consensus on this point. Similarly, Vice President Harris specifically highlighted the U.S. government’s efforts to support Americans in “install[ing] energy upgrades in their homes and their business” and emphasized the role of American innovation in making progress more efficient and affordable world-wide.⁵

Earlier in the Conference, the United States, along with the European Union and the United Arab Emirates, spearheaded the effort to get 123 nations to agree to the highly detailed COP28 Global Renewables and Energy Efficiency Pledge. The signatories to the Pledge declared their intent to “[c]ommit to work together in order to collectively double the global average annual rate of efficiency improvements from around 2% to over 4% every year until 2030.”⁶ They further agreed to “[c]ommit to put the principle of energy efficiency as the ‘first fuel’ at the core of policymaking, planning, and major investment decisions.”⁷

The Pledge recognizes that translation of these policies into actions will be crucial. To that end, the participants in the Pledge “[c]ommit[ed] to take comprehensive domestic actions” to contribute to the achievement of the Pledge. Those actions include adopting “ambitious national policies on renewable energy and energy efficiency and reflecting this ambition in NDCs [Nationally Determined Contributions].”⁸ The NDCs are national climate action plans designed to contribute

to achieving the targets set out in the Paris Agreement. Participants in the Paris Agreement must report periodically on their NDCs. NDCs are kept in a UN registry.⁹ Improved energy efficiency is a major component of many NDCs,¹⁰ and industry should expect a ramping up of efficiency rules.

The Pledge states that its signatories recognize the need to strengthen international collaboration on renewables and energy efficiency, for which the following cooperative actions are key:

- Collaborate on resilient value chains and technology development, including through voluntary transfer under mutually agreed terms and conditions;
- Expand financial support for scaling renewable energy and energy efficiency programs in emerging markets and developing economies, including multi-source investment from private sector, multilateral development banks, and philanthropy;
- Collaborate on accessible financing mechanisms to reduce the cost of capital in emerging markets and developing economies;
- Enhance technical support and capacity building for renewables and energy efficiency in developing economies; and
- Accelerate cross-border grid interconnections.¹¹

The Pledge recognizes that, to support the achievement of these targets, the following “enablers” also are key:

- Accelerate permitting of renewable projects and related infrastructure;
- Develop and expand grid connections and improve energy system integration;
- Provide clarity on market design and incentive schemes and strengthen market conditions and investment frameworks to facilitate investments in renewables and energy efficiency;
- Promote energy efficiency, electrification, and energy demand management in all relevant sectors;
- Raise public awareness and encourage behavioral change;
- Encourage increased and meaningful multiple-source private and public investments, particularly for developing countries; and
- Enhance and scale new technological solutions, including through support in research, development, and innovation.¹²

The Pledge also commits the participants to agree on a way forward to review progress toward the Pledge on an annual basis until 2030. Participants may do so, for example, through dedicated ministerial meetings and annual reports on the global progress toward the targets of the Pledge. In so doing, they may make use of existing flagship reports of the International Energy Agency (IEA) and International Renewable Energy Agency (IRENA),¹³ including IEA’s *World Energy Outlook 2023*¹⁴ and IRENA’s *Global Renewables Outlook: Energy Transformation 2050*.¹⁵

Within the energy discussions at COP28 there was also a major focus on cooling technologies. In particular, sixty-three countries, including the United States, signed the Global Cooling Pledge, which commits them to reduce their cooling-related emissions by at least sixty-eight percent by 2050.¹⁶

COP28 featured a strong industry presence on the issues. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) came out in support of net zero greenhouse gas emissions in all new buildings by 2030, and across the life cycles of all new and existing buildings by 2050, with a particular focus on energy-efficient retrofits.¹⁷

DOE Presses Forward. As discussed in prior advisories,¹⁸ DOE continues with its high-priority energy efficiency program pursuant to the Energy Policy and Conservation Act (EPCA).¹⁹ Fifty-six out of seventy-eight DOE rules in the 2023 regulatory agenda recently released by the White House relate to energy efficiency.²⁰ That includes five rules in the pre-rule stage, twenty in the proposed rule stage, and thirty-one in the final rule stage.²¹

The following is a list of DOE's efficiency rulemaking actions since our September 29, 2023, advisory. Industry should consider participating in these DOE rulemakings as warranted (filings are permissible even after the formal comment period has closed) to ensure that relevant perspectives are considered. Actions where formal comment periods are open are listed first.

- **Expanded Scope Electric Motors.** DOE has issued a proposal for new standards for "expanded scope electric motors," expressed in terms of average full-load efficiency. It will hold a webinar on January 17, 2024. Comments are due by February 13, 2024. Comments regarding the likely competitive impact of the proposed standard should be sent to the Department of Justice (DOJ) by January 16, 2024.²²
- **Dehumidifiers.** DOE has proposed amended standards for dehumidifiers. The proposed standards are expressed in terms of an Integrated Energy Factor (IEF), or the volume of water in liters (L) removed by a kilowatt hour (kWh) of energy. DOE held a webinar on December 14, 2023. Comments to DOE are due by January 5, 2024.²³
- **Double-Duct Air Conditioners and Heat Pumps.** DOE has announced receipt of a petition for waiver and interim waiver from United CoolAir Corporation. The petition seeks a waiver for specified basic models of double-duct air conditioners and heat pumps from the relevant DOE test procedures. DOE has announced that it is declining to grant the request for an interim waiver. Comments are due by December 22, 2023.²⁴
- **Non-Weatherized Oil-Fired Furnaces, Mobile Home Oil-Fired Furnaces, Weatherized Gas Furnaces, Weatherized Oil-Fired Furnaces, and Electric Furnaces.** DOE has issued a

notification of proposed determination (NOPD) that standards for non-weatherized oil-fired furnaces, mobile home oil-fired furnaces, weatherized gas furnaces, weatherized oil-fired furnaces, and electric furnaces do not need to be amended. Comments are due by January 29, 2024. DOE will hold a public meeting webinar upon request.²⁵

- **Metal Halide Lamp Fixtures.** DOE has issued a NOPD initially determining that amended energy conservation standards for metal halide lamp fixtures would not be cost effective. Comments were due by December 4, 2023.²⁶
- **Commercial Water Heating Equipment.** DOE has issued a final rule adopting amended standards for commercial water heating (CWH) equipment. The adopted standards are expressed in terms of thermal efficiency, standby loss, and uniform energy factor (UEF). DOE is also codifying standards for electric instantaneous CWH equipment from the EPCA into the Code of Federal Regulations. Finally, DOE is amending footnotes to tables of standards to clarify existing regulations for CWH equipment.²⁷
- **Consumer Furnace Fans.** DOE has issued a NOPD initially determining that it could not conclude that amended standards for consumer furnace fans would be cost effective; thus, DOE is not proposing to amend its standards for these products. Comments were due by December 5, 2023.²⁸
- **Commercial Refrigerators, Freezers, and Refrigerator-Freezers.** DOE has proposed amended standards for commercial refrigerators, freezers, and refrigerator-freezers (commercial refrigeration equipment). The proposed standards are expressed in maximum daily energy consumption (MDEC). It held a public meeting on November 7, 2023. Comments to DOE were due by December 11, 2023.²⁹
- **Dedicated Purpose Pool Pump Motors.** DOE has made corrections in the rule document appearing in the September 28, 2023, Federal Register.³⁰
- **Electric Motors.** DOE published on June 1, 2023, a direct final rule to establish new and amended standards for electric motors in the Federal Register. DOE has determined that the comments received in response to the direct final rule do not provide a reasonable basis for withdrawing the direct final rule. Therefore, DOE has confirmed the effective date (September 29, 2023) and compliance date (June 1, 2027) of those standards.³¹
- **Central Air Conditioners and Central Air Conditioning Heat Pumps.** DOE has received a petition for waiver and interim waiver from Johnson Controls Inc. (JCI). The petition seeks a waiver for specified basic models of central air conditioners (CACs) and central air conditioning heat pumps (HPs) (collectively, CAC/HPs) from DOE's test procedure. JCI is

seeking a waiver from the 20-hour break-in period for CAC/HP basic models that use variable-speed, oil-injected scroll compressors. DOE has granted an interim waiver. Comments were due by November 20, 2023.³²

- **Walk-In Coolers and Walk-In Freezers.** DOE has issued corrections to its final rule adopting test procedures for walk-in coolers and walk-in freezers published in the May 4, 2023, Federal Register.³³ DOE has also issued a Decision and Order that grants to Norlake, Inc., dba Refrigerated Solutions Group (RSG), a waiver from specified portions of the DOE test procedure for specified walk-in cooler refrigeration systems. Under the Decision and Order, RSG is required to test and rate the specified basic models of its equipment in accordance with the alternate test procedure set forth in the Decision and Order.³⁴
- **Water-Source Heat Pumps.** DOE has amended its test procedure for water-source heat pumps to expand the scope of the procedure's applicability, incorporate by reference a new industry consensus test standard for water-source heat pumps, adopt a seasonal cooling efficiency metric, and specify more representative test conditions used for measuring heating performance. Additionally, DOE is adopting provisions governing public representations of efficiency for this equipment.³⁵
- **Consumer Furnaces.** DOE has issued amended standards for consumer furnaces, specifically non-weatherized gas furnaces and mobile home gas furnaces. The standards are expressed in terms of minimum annual fuel utilization efficiency (AFUE).³⁶

Conclusion. The centrality of energy efficiency at COP28 reflects enhanced efficiency's longstanding value to achieve environmental, economic, and strategic goals. Energy efficiency initiatives will continue to accelerate in the United States and abroad. Stakeholders should take advantage of opportunities to make their views known as to efficiency initiatives that affect them. In this regard, DOE is required to consider public input in EPCA rulemaking proceedings (and, as noted, filings are permissible even after the formal comment period has closed).

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For more information on HWG LLP's energy practice, please contact [Sean A. Lev](#) or [John A. Hodges](#).

Abigail T. Phillips, a Legal Analyst at HWG LLP, contributed to the preparation of this advisory under the supervision of Sean Lev and John Hodges.

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- ¹ United Nations Framework Convention on Climate Change, *Outcome of the First Global Stocktake: Revised Advance Version* (2023), https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf. United Nations Framework Convention on Climate Change, *Outcome of the First Global Stocktake: Revised Advance Version* (2023), Outcome of the first global stocktake. Draft decision -/CMA.5. Proposal by the President (unfccc.int)
- ² *Id.*
- ³ The agreement calls for “[t]ransitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science.” *Id.*
- ⁴ *Saving Energy, Saving Lives: Energy Efficiency as a Climate Unifier*, The Business Council for Sustainable Energy (Dec. 5, 2023), <https://bcse.org/event/cop28-saving-energy-saving-lives-energy-efficiency-climate-unifier/>.
- ⁵ *Remarks by Vice President Harris at COP28 Leaders’ Session, “Fast-Tracking the Just, Equitable, and Orderly Energy Transition,”* The White House (Dec. 2, 2023), <https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/12/02/remarks-by-vice-president-harris-at-cop28-leaders-session-fast-tracking-the-just-equitable-and-orderly-energy-transition/>.
- ⁶ *Global Renewables and Energy Efficiency Pledge*, COP28 UAE, <https://www.cop28.com/en/global-renewables-and-energy-efficiency-pledge>.
- ⁷ *Id.*
- ⁸ *Id.*
- ⁹ See *Nationally Determined Contributions (NDCs)*, UN Climate Change, <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs#NDC-Synthesis-Report>.
- ¹⁰ *Id.*
- ¹¹ *Global Renewables and Energy Efficiency Pledge*, COP28 UAE, <https://www.cop28.com/en/global-renewables-and-energy-efficiency-pledge>.
- ¹² *Id.*
- ¹³ *Id.*
- ¹⁴ IEA, *World Energy Outlook 2023* (2023), <https://www.iea.org/reports/world-energy-outlook-2023>.
- ¹⁵ IRENA, *Global Renewables Outlook: Energy Transformation 2050* (2020), <https://www.irena.org/publications/2020/Apr/Global-Renewables-Outlook-2020>.
- ¹⁶ Gloria Dickie, *COP28 Pledge to Curb Cooling Emissions Backed by 63 Countries* (Dec. 5, 2023), <https://www.reuters.com/sustainability/climate-energy/us-joins-dozens-countries-backing-cop28-pledge-slash-cooling-emissions-2023-12-05/>.
- ¹⁷ *ASHRAE to Present Integrative Building Decarbonization Solutions at COP 28*, ASHRAE (Nov. 27, 2023), <https://www.ashrae.org/about/news/2023/ashrae-to-present-integrative-building-decarbonization-solutions-at-cop-28>; Letter from AEC Science & Technology, LLC et al., to Government Representatives that are Parties to the UNFCCC Meeting at the COP28 (Nov. 27, 2023),

<https://www.ashrae.org/file%20library/about/government%20affairs/public%20policy%20resources/building-industry-cop28-letter-to-governments.pdf>.

- ¹⁸ HWG LLP, *News & Insights: Energy Efficiency*, HWG Law, https://hwglaw.com/news-and-insights/?_sfm_related-practice=7803.
- ¹⁹ 42 U.S.C. § 6291 *et seq.*
- ²⁰ *Fall 2023 Unified Agenda of Regulatory and Deregulatory Actions*, Office of Information and Regulatory Affairs, <https://www.reginfo.gov/public/do/eAgendaMain..>
- ²¹ *Id.*
- ²² DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Expanded Scope Electric Motors, Notice of Proposed Rulemaking (NOPR) and Announcement of Public Meeting, 88 Fed. Reg. 87062 (Dec. 15, 2023).
- ²³ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Dehumidifiers, NOPR and Announcement of Public Meeting, *id.* 76510 (Nov. 6, 2023).
- ²⁴ DOE, Office of Energy Efficiency and Renewable Energy, Notification of Petition for Waiver of United CoolAir Corporation From the Department of Energy Commercial Air Conditioners and Heat Pumps Test Procedure and Notification of Denial of Interim Waiver, Notification of Petition for Waiver and Denial of Application for Interim Waiver, *id.* 81396 (Nov. 22, 2023).
- ²⁵ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Oil, Electric, and Weatherized Gas Consumer Furnaces, NOPD, *id.* 83426 (Nov. 29, 2023).
- ²⁶ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Metal Halide Lamp Fixtures, NOPD, *id.* 67989 (Oct. 3, 2023).
- ²⁷ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Commercial Water Heating Equipment, Final Rule, *id.* 69686 (Oct. 6, 2023).
- ²⁸ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Consumer Furnace Fans, NOPD, *id.* 69826 (Oct. 6, 2023).
- ²⁹ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Commercial Refrigerators, Freezers, and Refrigerator-Freezers, NOPR and Announcement of Public Meeting, *id.* 70196 (Oct. 10, 2023).
- ³⁰ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Dedicated Purpose Pool Pump Motors, Correction, *id.* 70580 (Oct. 12, 2023); DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Dedicated Purpose Pool Pump Motors, Correction, *id.* 71990 (Oct. 19, 2023).
- ³¹ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Electric Motors, Direct Final Rule and Confirmation of Effective and Compliance Dates, *id.* 72347 (Oct. 20, 2023).
- ³² DOE, Office of Energy Efficiency and Renewable Energy, Notification of Petition for Waiver of Johnson Controls Inc. From the Department of Energy Central Air Conditioners and Heat Pumps Test Procedure and Notification of Grant of Interim Waiver, Notification of Petition for Waiver and Grant of an Interim Waiver, *id.* 72449 (Oct. 20, 2023).

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- ³³ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Walk-In Coolers and Walk-In Freezers, Final Rule and Correcting Amendments, *id.* 73215 (Oct. 25, 2023).
- ³⁴ DOE, Office of Energy Efficiency and Renewable Energy, Decision and Order Granting a Waiver to Norlake, Inc., dba Refrigerated Solutions Group, From the Department of Energy Walk-In Coolers and Walk-In Freezers Test Procedure, Notification of Decision and Order, *id.* 81385 (Nov. 22, 2023).
- ³⁵ DOE, Office of Energy Efficiency and Renewable Energy, Test Procedure for Water-Source Heat Pumps, Final Rule, *id.* 84188 (Dec. 4, 2023).
- ³⁶ DOE, Office of Energy Efficiency and Renewable Energy, Energy Conservation Standards for Consumer Furnaces, Final Rule, *id.* 87502 (Dec. 18, 2023).