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**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA**

NATURAL RESOURCES DEFENSE COUNCIL,
INC.; SIERRA CLUB; CONSUMER FEDERATION
OF AMERICA; and TEXAS RATEPAYERS'
ORGANIZATION TO SAVE ENERGY,

Plaintiffs,

v.

RICK PERRY, in his official capacity as Secretary of
the United States Department of Energy; and the
UNITED STATES DEPARTMENT OF ENERGY,

Defendants,

and

Lead Case

Case No. 17-cv-03404-VC

**Declaration of Lauren Urbanek in
Support of Citizen Plaintiffs'
Motion for Summary Judgment**

Date: January 18, 2018

Time: 10:00 a.m.

Judge: Hon. Vince Chhabria

Courtroom: 4, 17th Floor

AIR-CONDITIONING, HEATING, AND
REFRIGERATION INSTITUTE,

Defendant-Intervenor.

THE PEOPLE OF THE STATE OF CALIFORNIA,
BY AND THROUGH ATTORNEY GENERAL
XAVIER BECERRA, THE CALIFORNIA ENERGY
COMMISSION, STATE OF NEW YORK, STATE OF
CONNECTICUT, STATE OF ILLINOIS, STATE OF
MAINE, STATE OF MARYLAND,
COMMONWEALTH OF MASSACHUSETTS,
STATE OF MINNESOTA, BY AND THROUGH ITS
MINNESOTA DEPARTMENT OF COMMERCE
AND MINNESOTA POLLUTION CONTROL
AGENCY, STATE OF OREGON,
COMMONWEALTH OF PENNSYLVANIA, STATE
OF VERMONT, STATE OF WASHINGTON, THE
DISTRICT OF COLUMBIA, and CITY OF NEW
YORK,

Plaintiffs,

v.

JAMES R. PERRY, AS SECRETARY OF UNITED
STATES DEPARTMENT OF ENERGY, and THE
UNITED STATES DEPARTMENT OF ENERGY,

Defendants,

and

AIR-CONDITIONING, HEATING, AND
REFRIGERATION INSTITUTE,

Defendant-Intervenor.

Consolidated with

Case No. 17-cv-03406-VC

DECLARATION OF LAUREN URBANEK

I, Lauren Urbanek, declare as follows:

1. I am the Senior Energy Policy Advocate in the Center for Energy Efficiency Standards, part of the Energy Program at the Natural Resources Defense Council (NRDC). I have been employed by NRDC for more than two years, in NRDC's Washington, D.C. office. Prior to my employment with NRDC, I was employed by the Maryland Energy Administration as an Energy Policy Manager. I have a Bachelor of Science degree in Civil and Environmental Engineering from the University of Maryland and a Master of City and Regional Planning from the University of Pennsylvania.

2. NRDC is a national, nonprofit environmental and public health advocacy organization with several hundred thousand members.

3. Energy generation in the United States causes a wide range of adverse environmental impacts, including air pollution that threatens public health, contributes to worldwide climate change, and causes acid rain. Energy generation also results in water pollution, including toxic mercury pollution and disruption of fish and other aquatic ecosystems.

4. The mining of coal and the production and distribution of natural gas used to provide fuel for electric power plants and natural gas-powered equipment cause adverse environmental impacts, including water pollution, disruption of wildlife, industrialization of wilderness areas, destruction of wetlands, and air pollution. Both wasteful use of natural gas and leakage of gas from pipelines contribute to global climate change.

5. NRDC's Energy Program seeks to reduce the environmental impacts of energy generation and usage, including air and water pollution, and to promote cleaner forms of energy generation, with a special focus on energy efficiency because it is the cleanest and most cost-effective energy resource.

6. In my work at NRDC, I focus on promoting greater energy efficiency in buildings and appliances primarily through energy efficiency standards, building energy

1 codes, energy efficiency incentives, and voluntary labels. Federal energy efficiency
 2 standards are cost-effective, technically feasible minimum efficiency standards that must
 3 be met by appliance and equipment manufacturers for products distributed for commerce
 4 in the United States.

5 7. Strong energy efficiency standards for appliances and equipment are the
 6 single most effective tool for reducing energy usage while still providing consumers with
 7 reliable and affordable energy services.

8 8. The Department of Energy (DOE) estimates that, by 2030, the federal energy
 9 efficiency standards completed through 2016 will save more energy than the entire nation
 10 consumes in one year, and will save consumers more than \$2 trillion on their utility bills.¹
 11 Reduced energy use also avoids emissions of harmful air pollutants: through 2030,
 12 standards completed through 2016 will cut emissions of more than 7.9 billion metric tons
 13 of carbon dioxide,² more greenhouse gas emissions than the entire United States generates
 14 in a year.³

15 9. As part of the effort to develop strong energy efficiency standards for
 16 appliances and commercial equipment, NRDC has engaged in legislative, regulatory, and
 17 legal actions. NRDC staff members have testified before Congress, federal agencies, state
 18 legislatures, and state agencies.

19
 20 ¹ U.S. Dep't of Energy, Energy Efficiency & Renewable Energy, *Saving Energy and*
 21 *Money with Appliance and Equipment Standards in the United States*, at 1 (Jan. 2017), available
 22 at https://energy.gov/sites/prod/files/2017/01/f34/Appliance%20and%20Equipment%20Standards%20Fact%20Sheet-011917_0.pdf.

23 ² U.S. Dep't of Energy, Energy Efficiency & Renewable Energy, *Saving Energy and*
 24 *Money with Appliance and Equipment Standards in the United States*, at 2 (Oct. 2016), available
 25 at <https://energy.gov/sites/prod/files/2016/10/f33/Appliance%20and%20Equipment%20Standards%20Fact%20Sheet-101416.pdf>.

26 ³ U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions*
 27 *and Sinks 1990-2015*, at ES-4 (Apr. 2017), available at https://www.epa.gov/sites/production/files/2017-02/documents/2017_complete_report.pdf.
 28

10. NRDC has participated in the majority of DOE's rulemakings to develop efficiency standards for appliances and commercial equipment. More specifically, NRDC participated in the rulemakings to develop efficiency standards for air compressors, uninterruptible power supplies, portable air conditioners, and commercial packaged boilers.

11. Air compressors, uninterruptible power supplies, and portable air conditioners are not currently subject to federal minimum efficiency standards, which means that these products use more energy than necessary and consumers have little insight into their energy consumption. DOE found that new efficiency standards for this equipment are technologically feasible and economically justified, as outlined in the respective final rules. Minimum efficiency standards for this equipment will ensure that products on the market do not unnecessarily waste energy.

12. Commercial packaged boilers are subject to federal minimum efficiency standards. DOE found that updated standards for this equipment are technologically feasible and economically justified, as outlined in the final rule.

13. DOE projected that the standards for air compressors would cut energy use by approximately 0.16 quadrillion BTUs (or "quads") of energy over a 30-year period, and would save businesses up to \$400 million.⁴ According to DOE, these energy savings will also avoid emissions of approximately 8.2 million metric tons of carbon dioxide, 6,500 tons of sulfur dioxide, and 11,000 tons of nitrogen oxides, as well as emissions of methane, nitrous oxide, and mercury.⁵

14. DOE projected that the standards for uninterruptible power supplies would cut energy use by approximately 0.94 quads of energy over a 30-year period, and would

⁴ Declaration of Jennifer A. Sorenson (Sorenson Decl.) Ex. B at 10. This estimate of consumer savings, and the estimates given for the rules discussed in the following paragraphs, represents the estimated total value of future utility bill savings minus the estimated costs of purchasing new products.

⁵ *Id.* Ex. B at 11, 297.

1 save consumers and businesses up to \$3 billion.⁶ By some estimates, those energy savings
 2 are enough to power 7 million U.S. homes for a year.⁷ According to DOE, these savings
 3 will also avoid emissions of approximately 49 million metric tons of carbon dioxide, 39,000
 4 tons of sulfur dioxide, and 63,000 tons of nitrogen oxides, as well as emissions of methane,
 5 nitrous oxide, and mercury.⁸

6 15. DOE projected that the standards for portable air conditioners would save
 7 approximately 0.49 quads of energy over a 30-year period, and would save consumers up
 8 to about \$3 billion.⁹ According to DOE, these savings will also avoid emissions of
 9 approximately 25.6 million metric tons of carbon dioxide¹⁰ – equivalent to the annual
 10 emissions of 5.4 million cars¹¹ – as well as 16,400 tons of sulfur dioxide, 32,200 tons of
 11 nitrogen oxides, and emissions of methane, nitrous oxide, and mercury.¹²

12 16. DOE projected that the standards for commercial packaged boilers would cut
 13 energy use by approximately 0.27 quads of energy over a 30-year period, and would save
 14 customers up to nearly \$2 billion.¹³ By some estimates, those energy savings are enough to
 15 heat all the natural gas-heated homes in New England for a year and a half.¹⁴ According to
 16

17 ⁶ *Id.* Ex. C at 10.

18 ⁷ Appliance Standards Awareness Project, *DOE Standards Improve Efficiency for*
 19 *Battery Backup Power* (Dec. 29, 2016), available at <https://appliance-standards.org/blog/doe-standards-improve-efficiency-battery-backup-power>.

20 ⁸ Sorenson Decl. Ex. C at 10-11.

21 ⁹ *Id.* Ex. A at 9-10.

22 ¹⁰ *Id.* Ex. A at 10.

23 ¹¹ U.S. Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*,
 24 available at <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

25 ¹² Sorenson Decl. Ex. A at 10, 218.

26 ¹³ *Id.* Ex. D at 11.

27 ¹⁴ Appliance Standards Awareness Project, *Building Owners Will Save with New*
 28 *Efficiency Standards* (Dec. 29, 2016), available at <https://appliance-standards.org/blog/building-owners-will-save-new-efficiency-standards>.

DOE, these savings will also avoid emissions of approximately 16 million metric tons of carbon dioxide, 3,100 tons of sulfur dioxide, and 41,000 tons of nitrogen oxides, as well as emissions of methane, nitrous oxide, and mercury.¹⁵

17. Because the final standards for air compressors, uninterruptible power supplies, portable air conditioners, and commercial packaged boilers avoid wasteful use of energy, the standards will reduce the total demand for energy, and therefore the amount of energy that must be produced to meet demand. These energy savings will provide a direct financial benefit to NRDC's members, to NRDC as an energy consumer itself, and to other energy consumers in the following ways.

18. NRDC members and other energy consumers who use air compressors, uninterruptible power supplies, portable air conditioners, and commercial packaged boilers will directly save money on their energy bills when they purchase new equipment that meets the new or updated standard. Consumer net present value savings over 30 years of equipment shipments are estimated by DOE as follows:

- a. Air compressors: \$400 million¹⁶
- b. Uninterruptible power supplies: \$3 billion¹⁷
- c. Portable air conditioners: \$3.06 billion¹⁸
- d. Commercial packaged boilers: \$1.98 billion¹⁹

19. Reducing the demand for energy avoids the costs of procuring energy resources, resulting in lower electricity costs for all consumers.²⁰ Electricity resources are

¹⁵ Sorenson Decl. Ex. D at 11-12.

¹⁶ *Id.* Ex. B at 10.

¹⁷ *Id.* Ex. C at 10.

¹⁸ *Id.* Ex. A at 10.

¹⁹ *Id.* Ex. D at 11.

²⁰ Federal Energy Regulatory Commission, Division of Energy Market Oversight, *Energy Primer, A Handbook of Energy Market Basics*, at 35 (Nov. 2015), available at <https://www.ferc.gov/market-oversight/guide/energy-primer.pdf>.

generally procured in order of cost, with the lowest-cost resources being used first. As electricity demand increases, higher-cost resources must be tapped to meet that demand. The costs associated with procuring these more expensive resources are passed on to all electricity consumers. On the other hand, when demand is lower, this avoids the need to draw on higher-cost resources, which means fewer costs are incurred and passed on to consumers.²¹ Because the air compressor, uninterruptible power supply, and portable air conditioner standards would reduce electricity demand, they would decrease the need to tap higher-cost resources and avoid associated costs, thereby reducing consumers' total electricity costs. DOE's refusal to publish these standards denies these benefits to NRDC's members and electricity consumers.

20. Commercial boiler standards reduce natural gas usage and demand. When demand is lower, the cost of natural gas declines. Natural gas is the most prevalent fuel used to produce electricity in the U.S., responsible for more than 1/3 of the electricity generation in the country.²² Therefore, reducing natural gas usage through a commercial boiler efficiency standard also reduces the cost to generate electricity, which reduces all consumers' electricity costs.

21. Reduced demand and reduced generation also reduce the need to secure additional generating capacity by building new plants, and reduce wear and tear on existing power plants. This in turn avoids the need to build additional power plants and upgrade existing plants—the costs of which are ultimately borne by energy consumers.²³ Thus, by decreasing demand for both electricity and natural gas, the efficiency standards

²¹ *Id.* at 41-46.

²² U.S. Energy Information Administration, *Frequently Asked Questions, What Is U.S. Energy Generation by Energy Source?* (Apr. 18, 2017), available at <https://www.eia.gov/tools/faqs/faq.php?id=427&t=3>.

²³ American Council for an Energy-Efficient Economy, *The Greatest Energy Story You Haven't Heard: How Investing in Energy Efficiency Changed the US Power Sector and Gave Us a Tool to Tackle Climate Change*, at 5 (Oct. 2016), available at <http://www.ourenergypolicy.org/wp-content/uploads/2016/08/The-Greatest-Energy-Story.pdf>.

1 at issue avoid electrical system upkeep and maintenance costs that consumers would
2 otherwise bear.

3 22. Reducing demand for electricity through stronger appliance efficiency
4 standards for air compressors, uninterruptible power supplies, and portable air
5 conditioners also benefits all ratepayers by increasing the reliability of electrical service,
6 specifically by reducing the risk of brown-outs and black-outs. The greatest risk of brown-
7 outs and black-outs occurs during periods of peak demand. At those times, consumers
8 may make more demands for electricity than the amount of available energy resources can
9 support. To the extent that the equipment at issue runs during peak periods, everyone's
10 risk of an outage decreases when this equipment requires less electricity to run, and
11 therefore makes fewer demands on the electrical grid.

12 23. Additionally, by reducing demand for electricity and natural gas, these
13 standards would also decrease the amount of pollution to which NRDC members and
14 other members of the community are exposed.²⁴ Reducing demand means reducing the
15 amount of electricity generation and natural gas extraction that must occur in the future.
16 In turn, reducing generation means reducing the amount of air and water pollution caused
17 by generation.

18 24. DOE's failure to publish these rules means that American consumers and the
19 general public, including NRDC's members, do not realize these benefits.

20
21 I declare under penalty of perjury that the foregoing is true and correct.

22 Executed on this 25th day of October, 2017.

23
24
25 
26 Lauren Urbanek

27 ²⁴ Natural Resources Defense Council, *Air Pollution: Everything You Need to Know*
28 (Nov. 2016), available at <https://www.nrdc.org/stories/air-pollution-everything-you-need-know>.