

QUESTIONS FROM REPRESENTATIVE HUDSON

Under Secretary of Energy Mark Menezes

- Q1. As you may know, I have worked in a bipartisan matter with my good friend Mr. Rush on legislation to promote a 21st century energy and manufacturing workforce. In that legislation we establish a clearinghouse for information and guidance on job training and other workforce development programs for energy and manufacturing jobs.
- Q1a. Are there current programs within the Department of Energy that we can point our constituents to who are looking for jobs, internships, fellowships and the like?
- A1a. The Department of Energy (DOE) actively promotes access to careers in energy and recruits for jobs in a variety of occupations in support of DOE's missions. Federal opportunities within DOE can be found on USAJobs at www.usajobs.gov or on the DOE jobs site www.energy.gov/jobs. In addition to federal employment or internship opportunities, there are a variety of other programs available throughout the Department for the public and your constituents looking for jobs, internships, and fellowships, including experiential learning and job training programs available through DOE funded grants. Specifically:
- Grant/contract funded job training programs: Job training programs provide opportunities for specialized training in existing, and emerging, jobs in the energy industry. DOE sponsors these programs through grants and contracts with private companies. Examples of the types of job training programs funded by the Department include:
 - The Power for Vets Program – Smart Grid Workforce Training Program: Training program designed to prepare veterans for careers in the utility and electrical manufacturing industries for Smart Grid related jobs.
<http://www.incsys.com/power-applications/doe-projects/>
 - Advanced Manufacturing Office Traineeship Program: Implements masters-level training programs designed to train a new generation of advanced manufacturing engineers to fill workforce needs across industry, national labs, and universities.

- Round 1: <https://energy.gov/eere/articles/energy-department-awards-6-million-universities-tennessee-and-virginia-advance-masters>
 - Round 2: <https://energy.gov/eere/articles/department-energy-selects-georgia-tech-and-uconn-train-next-generation-manufacturing>

- **Graduate and Postdoctoral Programs:** DOE sponsors many research training and fellowship programs to provide graduate and post-graduate students opportunities to gain first-hand research experience in particular energy and energy sciences related fields, to provide training in science and engineering critical to the DOE mission and to address workforce needs at the DOE national laboratories and energy industries that will further advance the DOE mission and national energy goals. Examples of the types of opportunities sponsored by the Department include:
 - DOE Computational Sciences Graduate Fellowship Program: Supports, for up to four years, graduate students in fields of study that utilize DOE's high performance computing (HPC) capabilities to solve problems in science and engineering essential to address DOE mission needs. The program, supported by the DOE Office of Science and the National Nuclear Security Administration (NNSA), requires students do a HPC-focused research practicum at a DOE national laboratory as part of their graduate studies. Skilled scientists and engineers in the HPC industry are essential to advancing all aspects of national science and energy innovation in the U.S.
<https://www.krellinst.org/csgf/>
 - The DOE Office of Science Graduate Student Research Program: Supports supplemental research awards to graduates students to conduct part of their graduate thesis research at a DOE National Laboratory for 3 to 12 months, in collaboration with a DOE laboratory scientist or engineer. The program offers access to world-leading capabilities at the DOE labs and exposure to DOE mission critical science and energy challenges.
<https://science.energy.gov/wdts/scgsr>

- **Stipend-based Internship Programs:** Through sponsorship of stipend-based internship programs, DOE provides experiential learning opportunities at the DOE Federal sites and its national laboratories to expose undergraduate students and recent

graduates to national science and energy challenges and prepare them for career opportunities in a broad range of sectors, including the energy industry. Through these programs, students receive a stipend allowance while they gain exposure to jobs related to their academic area of study within the DOE complex. Many graduates of these stipend-based programs go on to accept jobs with DOE, DOE national laboratories, or energy-related jobs in the private sector. Examples of the types of stipend-based internship programs sponsored by the Department include:

- DOE Scholars Program: Provides seasonal or year-round stipend-based student internship opportunities in a variety of disciplines. Students are placed in offices at DOE headquarters and at DOE federal offices across the U.S. <https://orise.ornl.gov/doescholars/>
- Minority Educational Institution Student Partnership Program: Offers seasonal internship opportunities in DOE federal offices that provide practical experience related to a variety of academic majors, including Engineering, Science, Social Sciences, and Business. <https://doemeispp.org/>
- EERE Robotics Internship Program: Offers seasonal internship opportunities to students of robotics within the private industry or a DOE National laboratory. <https://orise.ornl.gov/roboticsinternship/about-appointment/index.html>
- Mickey Leland Energy Fellowship Program: Offers hands-on research experience with the Office of Fossil Energy for under-represented students in science, technology, engineering, and mathematics. Students in other fields may apply. <https://orise.ornl.gov/mlef/>
- Science Undergraduate Laboratory Internship Program: Places undergraduate students in 10 week or 16 week research intensive internships within the DOE National Laboratories under the mentorship of DOE laboratory scientists and engineers. Research opportunities are available at all 17 DOE national laboratories and include scientific and engineering areas that span the DOE/NNSA missions. <https://science.energy.gov/wdts/suli/>
- Community College Internships Program: Places community college students in technical training internship opportunities across the DOE national

laboratories. With a more regional focus, community college students are trained in technical areas both unique to the DOE national laboratories and to the industries that support the DOE

mission. <https://science.energy.gov/wdts/cii/>

- DOE Florida International University Science and Technology Workforce Initiative: A partnership between the Office of Environmental Management and Florida International University that offers seasonal fellowships in research and development pertaining to next-generation technology development for environmental cleanup, and robotics and remote sensing. <https://fellows.fiu.edu/apply/>

Q1b. Can you tell us about programs within the labs complex that work with universities or community colleges to help with this endeavor?

A1b. DOE and its National Laboratories oversee several programs that work with universities or community colleges to promote a 21st century energy and manufacturing workforce. While the list below is not exhaustive, it does provide examples of workforce development programs within the DOE National Laboratory complex:

- The Office of Electricity Delivery and Energy Reliability's Grid School and Conference, supported by Los Alamos National Laboratory (LANL), convenes graduate students and postdocs from across applied mathematics, physics, operations research, computation, complex systems, control theory, and electrical/systems engineering with academic researchers to help nucleate a new interdisciplinary, collaborative, and enduring R&D community on future electrical grid and infrastructure challenges.
- The National Energy Technology Laboratory (NETL) engages in a variety of educational outreach programs to prepare the Nation's students for careers in science and technology. Additionally, NETL, through the Oak Ridge Institute for Sciences and Education (ORISE), offers a range of college and postgraduate internship programs that allow students to work in a laboratory setting.
- LANL's National Security Education Center provides internships and specialized training programs to attract potential full-time employees. The Center includes a

- variety of part- to full-time internships, often targeting diverse or under-represented populations in areas related to STEM, including programs for technicians.
- The Berkeley Lab Undergraduate Research (BLUR) program places students from two- and four-year institutions in paid internships in science, engineering, technical areas, and public administration. Participants work with scientists, engineers, technicians, and STEM professionals on projects related to the Lab's research program.
 - The Office of Indian Energy Policy and Programs offers a college student internship program for undergraduate and graduate students who are familiar with Native American culture and tribal issues. Interns provide support on Office of Indian Energy-funded projects and assist a cross-disciplinary team to perform specific technical tasks in the field and at DOE's Sandia National Laboratories.
 - The Minority Educational Institution Student Partnership Program offers talented high school, undergraduate and graduate students summer internship positions with the DOE and its National Labs. Positions involve scientific research or a focus on policy, business, and government relations.

The Department recently hired a senior advisor that will work with the programs to assess and address the following: 1) future workforce and skills needs of the DOE enterprise; 2) workforce hiring challenges and best practices across the DOE enterprise.

Finally, in 2015, DOE created an online database to track energy and manufacturing workforce training programs: <https://energy.gov/eere/education/federal-energy-and-manufacturing-workforce-training-programs>.

QUESTION FROM REPRESENTATIVE PETER WELCH

Thank you for your participation and insight as part of our committee's recent DOE Modernization hearing. I was very glad to hear that the Department is committed to meeting statutory deadlines in the appliance and equipment standards program. However, I am concerned that this support is not reflected in the Fall 2017 Unified Agenda of Regulatory and Deregulatory Actions, which moved 20 standards and 17 test procedures to "Long-Term Actions," for which the Department expects no regulatory action over the next twelve months.

As of this month, the Department has missed statutory or court deadlines for nine products, including six that the agency has now moved to the "Long-Term Action" category. The regulatory agenda appears to put the agency on track to miss even more legal deadlines in 2018. Some later deadlines would also seem impossible to meet unless work is started now.

I would like to request more details on how the Department plans to meet these statutory deadlines.

1. What action is the Department taking on, and when do you expect to complete each stage for, each of the standards that is already overdue:
 - a. Small electric motors NOPR (due March 2016)
 - b. Furnaces final rule (court settlement target of April 2016)
 - c. Pool heaters NOPR (April 2016)
 - d. Water heaters NOPR (April 2016)
 - e. Clothes dryers NOPR (April 2017)
 - f. Room air conditioners NOPR (April 2017)
 - g. Cooking products final rule (June 2017)
 - h. Refrigerators and freezers NOPR (September 2017)
 - i. Fluorescent lamp ballasts NOPR (November 2017)
2. What action is the Department taking on, and when do you expect to complete each stage for, each of the standards due in 2018:
 - a. Commercial packaged boilers final rule (due March 2018)
 - b. Clothes washers NOPR (May 2018)
 - c. Commercial water heaters final rule (May 2018)

- d. Specialized classes of commercial air conditioners (including computer room, water-cooled, evaporatively-cooled, and variable refrigerant flow air conditioners) (April-May 2018)
3. What action is the Department taking on, and when do you expect to complete each stage for, each of the other standards with statutory deadlines in the coming years:
- a. Metal halide lamp fixtures final rule (due January 2019)
 - b. Distribution transformers NOPR (April 2019)
 - c. Microwave ovens NOPR (June 2019)
 - d. Walk-in coolers and freezers final rule (January 2020)
 - e. External power supplies NOPR (February 2020)
 - f. Commercial refrigeration equipment final rule (March 2020)
4. The Department is also behind on test procedures. What action is the Department taking on, and when do you expect to complete each stage for, each of the test procedures with statutory deadlines:
- a. Water source heat pump test procedure (due December 2014)
 - b. Room air conditioners test procedure (January 2018)
 - c. Fluorescent lamp ballasts test procedure (May 2018)
 - d. Automatic commercial ice makers test procedure (January 2019)
 - e. General service fluorescent lamps, general service incandescent lamps, and incandescent reflector lamps test procedure (January 2019)
 - f. Clothes washers test procedure (March 2019)
 - g. Commercial air conditioning and heating equipment test procedure (May 2019)
 - h. Single-package vertical air conditioners and heat pumps test procedure (May 2019)
 - i. Three-phase commercial air conditioners and heat pumps test procedure (May 2019)
 - j. Dishwashers test procedure (October 2019)

- k. Microwave ovens test procedure (January 2020)
- l. Clothes dryers test procedure (August 2020)
- m. Plumbing products test procedure (October 2020)
- n. Televisions test procedure (October 2020)

ANSWERS TO QUESTIONS 1-4

The Department of Energy's (DOE or The Department) mission is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions.

The *Unified Agenda of Federal Regulatory and Deregulatory Actions (Agenda)* is a semi-annual, government-wide publication that provides important public notice and transparency about proposed regulatory and deregulatory actions within the Executive Branch. The document highlights agency priorities, promotes planning and coordination and encourages public participation in the regulatory process. The *Agenda* provides a "snapshot" of the various regulatory and deregulatory activities underway at each agency at the time of its publication.

Agencies compile information for their entries in the *Agenda* based on defined rulemaking stages. One of those stages is called "Long-Term Actions." For purposes of the *Agenda*, Long-Term Actions are those items under development but for which the agency does not expect to have a regulatory action within the 12 months after publication of the particular edition of the *Agenda*. Some of the entries in this section may contain abbreviated information. That an item is listed in the Long-Term Action category does not mean that no work is underway. Often, it is quite the opposite. This is particularly true of rulemakings under the Energy Policy and Conservation Act of 1975 (Pub. L. 94-163, 42 U.S.C. 6291, *et seq.* "EPCA") (EPCA). These rulemakings are typically multi-year activities that require extensive data gathering and analysis to prepare documents for public review and comment.

As the *Agenda* is prepared on a semi-annual basis, it is continually updated to provide accurate information for the time at which it is released. Information in the Fall 2017 *Agenda* was accurate at the time it was made public. The Department is currently engaged in preparation of the Spring 2018 *Agenda*. When that edition of the *Agenda* is published it will update information about DOE rulemakings accurate for the time of its release. Each subsequent edition of the *Agenda* will likewise be updated to provide information as each DOE rulemaking moves through the various stages of the required process.

Moreover, as noted in question 5 below, and as DOE agrees, it is important that DOE has test procedures in place prior to engaging in rulemaking to revise or establish an energy conservation standard. This is necessary to ensure parties understand the technical parameters that will be assessed in considering whether more stringent standards are justified for a particular product. However, the statutory timelines for completing both test procedure and standards rulemakings do not always coincide with such a step-wise approach. For example, in the questions above there is requested information about both energy conservation standard and test procedure rulemakings for fluorescent lamp ballasts, for which the statutory deadlines arguably prevent completing the test procedure rulemaking before undertaking the standards rulemaking. The same may also be true for microwave ovens. As a result, while DOE is committed to meeting its legal obligations, the Department is also committed to undertaking the necessary steps to ensure that its regulatory actions are well informed and appropriately analyzed. Therefore, as DOE works to complete legally mandated regulatory proceedings it will engage in test procedure actions first. This timing will be reflected in the Department's portion of the Spring 2018 *Agenda*.

That said, as outlined in the February 2018 "Energy Conservation Standards Activities: Report to Congress," DOE in this Administration has made progress in meeting its legal obligations with respect to the appliance and equipment standards rulemakings. The report is posted at: <https://www.energy.gov/sites/prod/files/2018/02/f49/report-to-congress-on-energy-conservation-standards-activities-appliances.pdf>.

Please note that some dates could change as the regulatory agenda is updated. DOE is also working hard to meet its upcoming legal obligations.

Q5. Some manufacturers have told this committee that it is important to complete test procedures before rulemakings on standards to enable more informed consideration of proposed standards. Will the delays in any of the test procedure rulemakings listed above delay setting standards for those products?

A5. In the mid-1990s, the Department published a document entitled “Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards for Consumer Products,” codified at 10 CFR part 430, subpart C, appendix A. DOE generally has used the procedures in this document to prescribe energy conservation standards and test procedures for both consumer products and commercial equipment pursuant to EPCA. These procedures are commonly referred to as the “Process Rule.” DOE’s objectives in establishing these procedures include: (1) providing for early input from stakeholders; (2) increasing predictability of the rulemaking timetable; (3) increasing the use of outside technical expertise; (4) eliminating problematic design options early in the process; (5) fully considering non-regulatory approaches; (6) conducting a thorough analysis of impacts; (7) using transparent and robust analytical methods; (8) articulating policies to guide selection of standards; and (9) supporting efforts to build consensus on standards. The Process Rule provides that final, modified test procedures will be issued prior to issuance of a notice of proposed rulemaking on proposed energy conservation standards.

DOE has heard from numerous parties that, consistent with the Process Rule, it should apply the resources needed to gather necessary technical information and develop appropriate test procedures before commencing a rulemaking to consider new or amended energy conservation standards. Interested parties have asserted that it is necessary to finalize the test procedures before beginning work on a standards rulemaking to ensure that the effects of the test procedure on compliance with the standard can be analyzed, and to ensure that commenters can provide effective comments on both proposed test procedures and standards rules.

DOE is committed to following the Process Rule to ensure its rulemaking decisions are well-informed and appropriately vetted before publication, even if that means taking additional time. In DOE's view, engaging stakeholders in the rulemaking process is time well spent. In fact, DOE recently published a Request for Information seeking comments and information from interested parties to assist DOE in identifying potential modifications to its Process Rule, as a way to achieve meaningful burden reduction while continuing to achieve the Department's statutory obligations in the development of energy conservation standards and test procedures. DOE also held a public meeting to receive input from interested parties on potential improvements to the Process Rule. The comment period on the RFI closed recently. DOE is currently reviewing the comments received. To be clear, DOE wants to ensure that it has the process right when it engages in energy conservation standards and test procedure rulemakings. As such, reviewing and updating the Process Rule is DOE's top priority for the Appliance Standards Program at this time.

- Q6. The Department has not completed a report to Congress on appliance energy efficiency rulemakings since the 20th report in August 2016, although one is required every six months. When will the Department submit the next report?
- Q6. DOE submitted its most recent "Energy Conservation Standards Activities: Report to Congress" in February, 2018. The report is posted at:
<https://www.energy.gov/sites/prod/files/2018/02/f49/report-to-congress-on-energy-conservation-standards-activities-appliances.pdf>.
- Q7. Another five standards were finalized in December 2016 but were subject to an error correction process. According to the Department's procedures (10 CFR 430 and 431), these should have been published in the Federal Register after a 45-day review period, but four of them still have not been published. When will the Department publish the final rules for portable air conditioners, air compressors, uninterruptable power supplies, and commercial packaged boilers, and what has delayed the final publication?
- A7. The subject matter of this question is the subject of current litigation. The Department does not comment on issues that are the subject of litigation.