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[6450-01-P]

DEPARTMENT OF ENERGY

[Case Number 2018-007; EERE-2018-BT-WAV-0011]

Energy Conservation Program: Decision and Order Granting a Waiver to Beghelli from the Department of Energy Illuminated Exit Sign Test Procedure

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of decision and order.

SUMMARY: The U.S. Department of Energy (“DOE”) gives notice of a Decision and Order (Case Number 2018-007) that grants to Beghelli North America (“Beghelli”) a waiver from specified portions of the DOE test procedure for determining the energy consumption of specified basic models of illuminated exit signs. Beghelli is required to test and rate the specified basic models in accordance with the alternate test procedure set forth in the Decision and Order.

DATES: The Decision and Order is effective on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. The Decision and Order will terminate upon the compliance date of any future amendment to the test procedure for illuminated exit signs located at 10 CFR 431.204 that addresses the issues presented in this waiver. At such time, Beghelli must use the relevant test procedure for this equipment for any testing to demonstrate compliance with the applicable standards, and any other representations of energy use.

FOR FURTHER INFORMATION CONTACT:

Ms. Lucy deButts, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC 20585-0121. E-mail: *AS_Waiver_Requests@ee.doe.gov*.

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-33, Forrestal Building, 1000 Independence Avenue SW., Washington, DC 20585-0103. Telephone: (202) 586-8145. Email: *Michael.Kido@hq.doe.gov*.

SUPPLEMENTARY INFORMATION:

In accordance with Title 10 of the Code of Federal Regulations (10 CFR 431.401(f)(2)), DOE gives notice of the issuance of its Decision and Order as set forth below. The Decision and Order grants Beghelli a waiver from the applicable test procedure at 10 CFR 431.204 for specified basic models of illuminated exit signs, and requires that Beghelli test and rate such equipment using the alternate test procedure specified in the Decision and Order. Beghelli's representations concerning the energy consumption of the specified basic models must be based on testing according to the provisions and restrictions in the alternate test procedure set forth in the Decision and Order, and the representations must fairly disclose the test results. Distributors, retailers, and private labelers are held to the same requirements when making representations regarding the energy consumption of this equipment. (42 U.S.C. 6293(c))

Consistent with 10 CFR 431.401(j), not later than **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, any manufacturer currently distributing in commerce in the United States equipment employing a technology or characteristic that results in the same need for a waiver from the applicable test procedure must submit a petition for waiver. Manufacturers not currently distributing such equipment in commerce in the United States must petition for and be granted a waiver prior to the distribution

in commerce of that equipment in the United States. Manufacturers may also submit a request for interim waiver pursuant to the requirements of 10 CFR 431.401.

Signed in Washington, DC, on June 7, 2019.

A handwritten signature in blue ink, appearing to read 'Alex Fitzsimmons', is written over a horizontal line.

Alexander Fitzsimmons
Acting Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy

Case Number 2018-007
Decision and Order

I. Background and Authority

The Energy Policy and Conservation Act of 1975, as amended (“EPCA”),¹ authorizes the U.S. Department of Energy (“DOE”) to regulate the energy efficiency of a number of consumer products and industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B² of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain types of consumer products. These products include illuminated exit signs, the focus of this document. (42 U.S.C. 6291(37); 42 U.S.C. 6295(w))

Under EPCA, DOE’s energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6291), energy conservation standards (42 U.S.C. 6295), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the

¹ All references to EPCA in this document refer to the statute as amended through America’s Water Infrastructure Act of 2018, Public Law 115-270 (October 23, 2018).

² For editorial reasons, upon codification in the U.S. Code, Part B was redesignated as Part A.

applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2) making representations about the efficiency of that product (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the product complies with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE is required to follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section must be reasonably designed to produce test results which reflect energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3)) The test procedure for illuminated exit signs is contained in the Code of Federal Regulations (“CFR”) at 10 CFR 431.204, “Uniform test method for the measurement of energy consumption of illuminated exit signs.”³

Under 10 CFR 431.401, any interested person may submit a petition for waiver from DOE’s test procedure requirements. DOE will grant a waiver from the test procedure requirements if DOE determines either that the basic model for which the waiver was requested contains a design characteristic that prevents testing of the basic model according to the prescribed test procedures, or that the prescribed test procedures evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide

³ Although illuminated exit signs are covered products pursuant to EPCA, as a matter of administrative convenience and to minimize confusion among interested parties, DOE adopted illuminated exit sign provisions into subpart L of 10 CFR part 431 (the portion of DOE's regulations dealing with commercial and industrial equipment) because typically businesses, rather than individuals, purchase them. 70 FR 60407, 60409 (Oct. 18, 2005).

materially inaccurate comparative data. 10 CFR 431.401(f)(2). DOE may grant the waiver subject to conditions, including adherence to alternate test procedures. *Id.*

II. Beghelli's Petition for Waiver: Assertions and Determinations

By letter with attachment dated June 26, 2018, Beghelli filed a petition for waiver from the illuminated exit sign test procedure set forth in 10 CFR 431.204. (Beghelli, No. 1 at pp. 1-6⁴) Beghelli requested a waiver for basic models that provide the dual function of exit signage and lighting for emergency egress (combination illuminated exit signs⁵), stating that the battery used in combination illuminated exit signs requires a substantially larger capacity to provide a minimum of 90 minutes of egress lighting, as required by safety codes. Beghelli further stated that it is not feasible to separate the power measurement associated with the exit signage and the egress lighting because a single battery and charging circuit supplies power for both functions.

As an alternate to the test procedure currently in place at 10 CFR 431.204, Beghelli requested that it be permitted to determine the power consumption for its combination illuminated exit signs using the following procedure:

1. Measure AC input power of the complete unit of combination illuminated exit sign with a fully charged battery.

⁴ A notation in this form provides a reference for information that is in the docket for this test procedure waiver (Docket No. EERE-2018-BT-WAV-0011) (available at <https://www.regulations.gov/document?D=EERE-2018-BT-WAV-0011-0001>) This notation indicates that the statement preceding the reference is document number 1 in the docket and appears at pages 2-4 of that document.

⁵ DOE uses the term "combination illuminated exit sign" in this notice to mean an illuminated exit sign that includes or is packaged with (1) at least one auxiliary feature and (2) a battery electrically connected to the illumination source for the face.

2. Measure the DC output voltage and current to the light source of the unit.
3. Calculate the AC power consumption of the light source of the unit by applying a power factor correction of 30 percent as worst-case scenario. (Beghelli asserted that it arrived at this value based on its view that the circuitry design would not produce a loss exceeding 30 percent.)
4. If needed, calculate the stand-by power for the unit when the battery is fully charged using the following equation: $\text{Stand-by Power} = \text{Input Power (from Item 1)} - \text{Power of Basic Exit Sign Light Source (from Item 3)}$.

On February 6, 2019, DOE published a notice announcing its receipt of the petition for waiver. 84 FR 2194 (“Notice of Petition for Waiver”). In the Notice of Petition for Waiver, DOE reviewed the alternate test procedure suggested by Beghelli. The suggested alternate procedure would measure the output power of the exit sign and apply conversion losses to back-calculate the input power to the exit sign. This approach would require assumptions that would likely result in an uncertainty of measured values. Beghelli contended that the input to output power conversion losses of all basic models under consideration would not exceed 30 percent. However, Beghelli's petition did not provide a sufficient basis for the 30-percent value. With the differences in battery types and sizes used in the various basic models addressed by the waiver request, it was not evident from the petition that the 30-percent value would apply across all the basic models of illuminated exit sign models identified in Beghelli's petition. Additionally, as DOE explained in the Notice of Petition for Waiver, it was unclear from the limited information provided by Beghelli in its petition whether the measurement of the DC output voltage and current measurement in Beghelli's suggested alternative testing method would result in a power

measurement that could only be attributable to the light sources of the exit sign, without resorting to additional steps such as cutting wires or otherwise modifying the equipment's circuitry. 84 FR 2194, 2195. Accordingly, in light of the uncertainty regarding the basis for Beghelli's assumptions and the absence of any clarifying supplemental information from the company in support of those assumptions, DOE initially determined in its Notice of Petition for Waiver that the alternative test procedure suggested by Beghelli (*i.e.*, to use the estimated conversion losses in conjunction with a measurement for which it is uncertain whether the power consumption of the light source(s) of the exit sign is isolated) would not likely accurately calculate the combination illuminated exit sign input power demand of the affected basic models. 84 FR 2194, 2195-2196.

As an alternate to Beghelli's suggested approach, in the Notice of Petition for Waiver, DOE proposed that the company apply an alternate testing method that would not require application of conversion losses and, instead, would rely on a more direct measurement of the input power consumption attributable to the light source(s) of the exit sign. 84 FR 2194, 2195. Under this alternate test procedure, the manufacturer would determine the input power demand of a unit of the basic model by testing an equivalent⁶ unit of a non-combination illuminated exit sign. This approach is similar to an alternate test procedure approved by DOE for use in the waiver granted to Acuity Brands Lighting Inc. for similar equipment. 83 FR 11740 (March 16, 2018).

⁶ A unit of a non-combination illuminated exit sign is equivalent only if it consists entirely of electricity-consuming components identical to all of those of the unit of the combination illuminated exit sign basic model, but does not include any auxiliary features, and contains an electrically-connected battery.

In the Notice of Petition for Waiver, DOE also solicited comments from interested parties on all aspects of the petition and Beghelli's suggested alternate method as well as DOE's proposed alternate method. 84 FR 2194, 2196. DOE received no comments in response to the Notice of Petition for Waiver.

For the reasons explained here and in the Notice of Petition for Waiver, absent a waiver, the basic models identified by Beghelli in its petition cannot be tested and rated for energy consumption on a basis representative of their true energy consumption characteristics. DOE has reviewed the recommended procedure suggested by Beghelli and concludes that it will not allow for the accurate measurement of the energy use of the combination illuminated exit sign, while alleviating the testing problems associated with Beghelli's implementation of DOE's applicable illuminated exit sign test procedure for the specified basic models. No comment or additional information was received in response to the Notice of Petition for Waiver. As such, for the reasons discussed, the following main issues with Beghelli's alternative test procedure remain unresolved: 1) assumptions of conversion losses and 2) no non-destructive method of isolating the power consumption to the light source(s) of the exit sign.

Based on DOE's review of product specification sheets of the basic models for which Beghelli seeks a waiver, it appears that there are units of non-combination illuminated exit signs equivalent to units of these basic models. Thus, DOE is requiring that Beghelli test and rate specified combination illuminated exit sign basic models according to the alternate test procedure involving testing units of equivalent non-combination illuminated exit signs. Using this method, for each combination illuminated exit sign unit selected, Beghelli must assign the

measured input power demand of a separate corresponding equivalent non-combination unit.

For example, if DOE regulations require testing of two units, Beghelli must identify and measure the input power demand of two equivalent non-combination units, and assign the measured input power of each unit to each of the two combination units, respectively. In those instances where only a single, non-combination unit is available, Beghelli would be required to measure the input power demand of that single unit and assign the measured input power to the combination unit. See generally 10 CFR 429.48(a) and 10 CFR 429.11(b)(2).

The alternate test procedure provided by DOE and specified in this Decision and Order is substantively the same as that detailed in the Notice of Petition for Waiver.

This Decision and Order applies only to the basic models listed and does not extend to any other basic models. DOE evaluates and grants waivers for only those basic models specifically set out in the petition, not future models that may be manufactured by the petitioner.

Beghelli may request that the scope of this waiver be extended to include additional basic models that employ the same technology as those listed in this waiver. 10 CFR 431.401(g). Beghelli may also submit another petition for waiver from the test procedure for additional basic models that employ a different technology and meet the criteria for test procedure waivers. 10 CFR 431.401(a)(1).

DOE notes that it may modify or rescind the waiver at any time upon DOE's determination that the factual basis underlying the petition for waiver is incorrect, or upon a

determination that the results from the alternate test procedure are unrepresentative of the basic models' true energy consumption characteristics. 10 CFR 431.401(k)(1). Likewise, Beghelli may request that DOE rescind or modify the waiver if the company discovers an error in the information provided to DOE as part of its petition, determines that the waiver is no longer needed, or for other appropriate reasons. 10 CFR 431.401(k)(2). As set forth above, the test procedure specified in this Decision and Order is not the same as the test procedure offered by Beghelli. If Beghelli believes that the alternate test method it suggested provides representative results and is less burdensome than the test method required by this Decision and Order, Beghelli may submit a request for modification under 10 CFR 431.401(k)(2) that addresses the concerns that DOE has specified with that procedure. Beghelli may also submit another less burdensome alternative test procedure not expressly considered in this notice under the same provision.

III. Consultations with Other Agencies

DOE consulted with the Federal Trade Commission ("FTC") staff concerning Beghelli's petition for waiver. The FTC staff did not have any objections to DOE granting a waiver to Beghelli for the specified basic models.

IV. Order

After careful consideration of all the material submitted by Beghelli, the various public-facing materials (*e.g.*, marketing materials, product specification sheets, and installation manuals) for the units identified in the petition, in this matter, it is **ORDERED** that:

(1) Beghelli must, as of the date of publication of this Order in the *Federal Register*, test and rate the following RBO-C combination illuminated exit sign basic models with the alternate test procedure as set forth in paragraph (2) of this Order:

Brand Name	Basic Model Number
Beghelli	RBO-C-6-36-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-42-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-54-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-60-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-72-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-90-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-100-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-120-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-6-36-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-42-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-54-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-60-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-72-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-90-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-100-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-120-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-36-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-42-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-60-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-90-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-120-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-130-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-140-LR1-U-W-2LRWP-9W
Beghelli	RBO-C-12-36-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-42-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-60-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-90-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-120-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-130-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-12-140-LG1-U-W-2LRWP-9W
Beghelli	RBO-C-6-36-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-42-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-54-LR1-U-W-2LRWP-18W

Beghelli	RBO-C-6-60-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-72-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-90-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-100-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-120-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-6-36-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-6-42-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-6-54-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-6-60-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-6-72-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-6-90-LG1-U-W-2LRWP-18W
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Beghelli	RBO-C-6-120-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-36-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-42-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-60-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-90-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-120-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-130-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-140-LR1-U-W-2LRWP-18W
Beghelli	RBO-C-12-36-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-42-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-60-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-90-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-120-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-130-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-12-140-LG1-U-W-2LRWP-18W
Beghelli	RBO-C-6-36-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-42-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-54-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-60-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-72-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-90-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-100-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-120-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-6-36-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-6-42-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-6-54-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-6-60-LG1-U-W-2LRWP-8W

Beghelli	RBO-C-6-72-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-6-90-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-6-100-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-6-120-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-36-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-42-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-60-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-90-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-120-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-130-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-140-LR1-U-W-2LRWP-8W
Beghelli	RBO-C-12-36-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-42-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-60-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-90-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-120-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-130-LG1-U-W-2LRWP-8W
Beghelli	RBO-C-12-140-LG1-U-W-2LRWP-8W

(2) The alternate test procedure for the Beghelli basic models referenced in paragraph (1) of this Order is the test procedure for illuminated exit signs prescribed by DOE at 10 CFR 431.204 except use the following instructions in place of 10 CFR 431.204(b):

Determine the energy efficiency of each combination illuminated exit sign unit under test (“combination unit”) by conducting the test procedure, as follows:

(i) Identify a unit of a non-combination illuminated exit sign (“non-combination unit”) equivalent to the combination unit. A non-combination unit is equivalent only if it consists entirely of electricity-consuming components identical to all of those of the combination unit, but does not include any auxiliary features, and contains an electrically connected battery. The equivalent non-combination unit must also have the same manufacturer and number of faces as the combination unit.

(ii) Test the equivalent non-combination unit using the DOE test procedure at 10 CFR, part 431, subpart L.

(iii) Assign the measured input power demand of the non-combination unit as the input power demand of the combination unit.


(3) *Representations.* Beghelli may not make representations about the energy use of the basic models referenced in paragraph (1) of this Order for compliance, marketing, or other purposes unless the basic model has been tested in accordance with the provisions set forth above and such representations fairly disclose the results of such testing.

(4) This waiver shall remain in effect according to the provisions of 10 CFR 431.401.

(5) This waiver is issued on the condition that the statements, representations, and documents provided by Beghelli are valid. If Beghelli makes any modifications to the controls or configurations of a basic model referenced in paragraph (1), the waiver will no longer be valid for that basic model and Beghelli will either be required to use the current Federal test method or submit a new application for a test procedure waiver. DOE may rescind or modify this waiver at any time if it determines that the factual basis underlying the petition for waiver is incorrect, or the results from the alternate test procedure are unrepresentative of the basic models' true energy consumption characteristics. 10 CFR 431.401(k)(1). Likewise, Beghelli may request that DOE rescind or modify the waiver if Beghelli discovers an error in the information provided to DOE as part of its petition, determines that the waiver is no longer needed, or for other appropriate reasons. 10 CFR 431.401(k)(2).

(6) Granting of this waiver does not release Beghelli from the certification requirements set forth at 10 CFR part 429.

Signed in Washington, DC, on June 7, 2019.



Alexander Fitzsimmons
Acting Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy