



January 31, 2013

Mr. Christopher Kent
United States Environmental Protection Agency
Climate Protection Partnerships Division
ENERGY STAR - MS 6202J
1200 Pennsylvania Ave NW
Washington, DC 20460

Subject: Comments regarding Version 1.0 Final Draft Pool Pump Specification

Dear Mr. Kent:

This letter comprises the comments of the Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas Company (SCGC), and San Diego Gas and Electric (SDG&E), in response to the Environmental Protection Agency (EPA) ENERGY STAR Pool Pump Specification Version 1.0 Final Draft. The comments cover a recommendation to include a test-and-list requirement for motor efficiency of pool pump motors.

The signatories of this letter collectively referred to herein as the California Investor Owned Utilities (CA IOUs), represent some of the largest utility companies in the Western United States, serving millions of customers. As energy companies, we understand the potential of appliance efficiency voluntary standards to cut costs and reduce consumption while maintaining or increasing consumer utility of the products.

A weakness of ENERGY STAR's proposed Energy Factor metric (gal/Wh) is that Energy Factor can only be tested and applied to pool pump and motor combinations, but the metric does not consider the efficiency of *replacement* pool pump motors. ENERGY STAR has noted their intention to include a metric for replacement pool pump motors in a future version of the specification. We are working with the pool industry and the California Energy Commission (CEC) to develop a pool pump motor efficiency performance standard in California.

Establishing a standard around pool pump motor efficiency expands the scope of products covered to include a wider range of products beyond just residential pool pump and motor combinations, such as motors used in commercial pool applications, motors used in non-filtration booster pumps, and motors intended to be used as a replacement to an existing motor in a pool pump and motor combination. Requiring that motor efficiency be tested and listed for all single-phase pool pump motors under 5 horsepower is the first step in establishing these standards, or future ENERGY STAR specifications. Both ENERGY STAR and the Consortium for Energy Efficiency (CEE) have expressed interest in eventually adding pool pump motors to their

programs, since replacing only the motor is an attractive alternative to whole pump replacement for many consumers.

The proposed California Title 20 standard under development establishes minimum efficiency levels for each of the following categories:

- Variable-Speed motor efficiency at full speed.
- Variable-Speed motor efficiency at low speed.
- Dual-Speed motor efficiency at full speed.
- Dual-Speed motor efficiency at low speed.
- Single-Speed motor efficiency.

Current motor efficiency testing, reporting, and listing with the CEC is limited to residential, filtration pump motors, sold with integral pump heads. While pump regulations may be most appropriate for residential pools due to health code regulations, pool pump motor efficiency programs can be very cost-effectively extended to the small commercial market and other than filtration pumping applications.

In order to have a national dataset of reported motor efficiencies for pool pump motors to help inform the Title 20 standard and future versions of the ENERGY STAR specification, ENERGY STAR should include reporting requirements for:

- Motor efficiency of dedicated purpose pool pump motors of single phase design, less than 5 horsepower, which are sold on an OEM basis for new pumps or for replacement purposes.
- Motor efficiency should be reported at the highest speed, lowest speed, half speed, and the speed at which the greatest efficiency occurs. These operating points coincide with enhanced reporting we would like to see for motors sold with integral pump heads (generally referred to as pool pumps).

Both ENERGY STAR and CEE have expressed interest in eventually adding pool pump motors to their programs, since replacing only the motor is an attractive alternative to whole pump replacement. Having a robust motor efficiency dataset of ENERGY STAR qualified products will help inform future incentive programs.

It should be noted that the recommendation outlined above requests four points at which multi-speed and variable-speed motors shall be tested. These four points (highest, lowest, half, and most efficient speeds) coincide with the APSP voluntary pool pump standard (ANSI/APSP/ICC-154 2011 Section 4.1.2.1.4) as well as the proposed standard under development in the State of California. The current ENERGY STAR test procedure states that multi-speed pumps shall be tested at all rated speeds and variable-speed pumps shall be tested at three speeds (minimum, maximum, and most efficient speed). Therefore, in order to better align with industry standards, we further recommend that ENERGY STAR update the Test Speeds in Section 5.1 of the Pool Pump Final Test Method to align with the four test speeds outlined in the APSP-15 standard. As these would only be test and report requirements and not performance requirements, we do not

see this as a substantial change to the test method. We acknowledge that updating the number of test points at this stage in the ENERGY STAR specification development may not be feasible, if this is the case than we would recommend the reporting of motor efficiency at the speeds currently defined by ENERGY STAR. Furthermore, we do not believe that adding this requirement will create an undue burden on pool pump and motor manufacturers as they are currently required to test and report this information to the CEC for products that are intended for sale in California and voluntarily report this information the APSP.

CA Title 20 states that motor efficiency shall be verifiable by test method IEEE 114-2010. It is recommended that ENERGY STAR reference this test method when referring to any requirements on reporting motor efficiency in future version of the ENERGY STAR V.1 Pool Pump Specification and Testing Procedures.

In conclusion, we would like to reiterate our support to EPA for establishing a voluntary specification for pool pumps. We thank you for the opportunity to be involved in this process and encourage EPA to carefully consider data collected and the recommendations outlined in this letter.

Sincerely,



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