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Dear Christopher Kent and Doug Frazee,

Please see the line item feedback from the Pool Energy Team concerning the Draft 2 ENERGY STAR Connected Criteria and Test Validation for Pool Pumps. We have submitted this input to [poolpumps@energystar.gov](mailto:poolpumps@energystar.gov) on **Friday, September 19, 2014**.

Line 80– Note

In addition, EPA recommends that devices be enabled to locally log data at X seconds intervals to support cloud diagnostics in the event of failure or emergency operations.

Line 118 – Table 2

**Pump Type**

**Single-speed Pump**

**Allowable Operation**

~~No pumping shall be performed.~~

Pump shall be allowed to operate for two hours in any sequence between 12 Noon and 6 PM

Multi-speed Pump

Allowable Operation

Pumping shall be limited to the lowest available speed. Where Low Set exists speed guidelines will be provided

Line 202

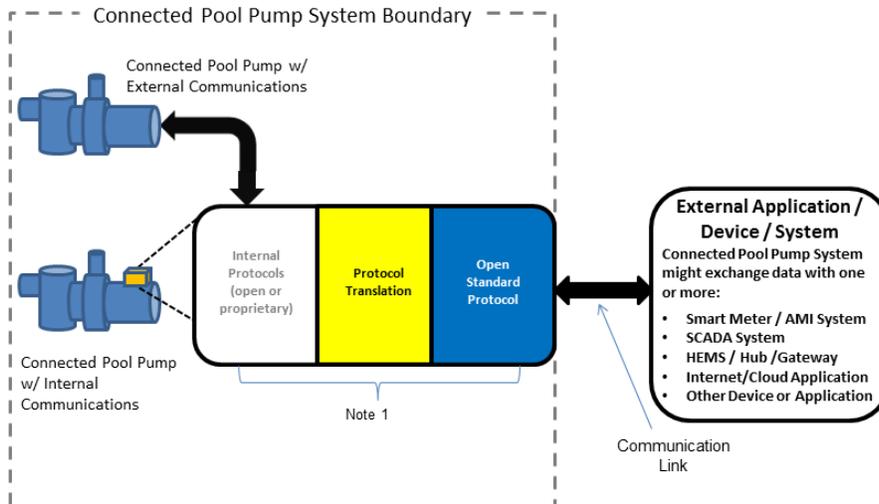
Discuss Security provisioning issues



ENERGY STAR\* is a U.S. Environmental Protection Agency voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency.

## PoolResponse Technical Innovation

Through its field work with Payan Pool Services and Pentair, the PoolResponse team has participated in both pilot testing and standards development submitted to the Environmental Protection Agency supporting the ENERGY STAR\* program. These specifications are forward looking to provide energy cloud standards for Connected Pool Pump Systems that can coordinate the needs of both manufacturers, utilities, and consumers for performance, features, and security in residential and relevant small commercial environments like multi-family units, home owner associations, motels, hotels, country clubs, and private communities. PoolResponse plans to continue to participate in this effort, and hopes to achieve the first ENERGY STAR certification for its pool energy controller.



**Figure Above: Connected Pool Pump System (CPPS) ENERGY STAR\***

Note: Communication device(s), link(s) and/or processing that enables Open Standards-based communication between the CPPS and external application / device / system(s). These elements, either individually or together, could be within the pump/controller, and/or an external communication module, a hub/gateway, or in the Internet/cloud.

**Consumer Authorized Third Party:** Any entity for which the consumer has provided explicit permission to access the CPPS connected functionality, in-whole or in-part, via a Communication Link.

**Open Standards:** Standards that are relevant to PoolResponse:

- Included in the Smart Grid Interoperability Panel (SGIP) Catalog of Standards,1 and/or
- Included in the National Institute of Standards and Technology (NIST) Smart Grid framework Tables 4.1 and 4.2.2 and/or
- Adopted by the American National Standards Institute (ANSI) or another well-established international standards organization such as the International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), International Telecommunication Union (ITU), Institute of Electrical and Electronics Engineers (IEEE), or Internet Engineering Task Force (IETF).

\* Source: ENERGY STAR Pool Pumps Connected Functionality – DRAFT 2 Criteria



## ~~Band Of Angels Q&A~~

**Premises:** Land and the improvements on it.

\* Source: ENERGY STAR Pool Pumps Connected Functionality – DRAFT 2 Criteria