



Joint Stakeholder Recommendations for Standards for Dedicated-Purpose Pool Pump Motors



Outline

- Introduction to pools in the U.S. and pool pumps and motors
- Pool pump energy use and benefits of variable-speed technology
- 2017 DPPP rule and replacement motor loophole
- What would happen if we don't close the loophole
- What's happened since the 2017 DPPP rule
- Our Recommended Action Plan/the Petition
- Next steps

Pools in the U.S.

>5 million in-ground pools



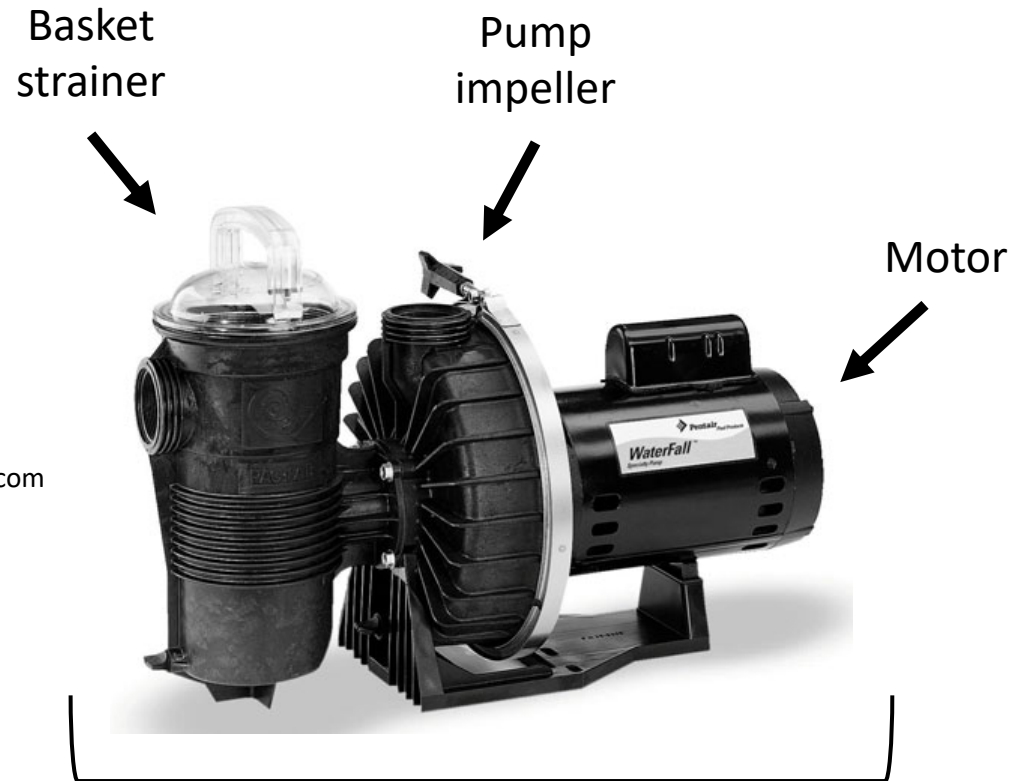
Source: SwimmingPool.com

>3 million above-ground pools



Source: royalswimmingpools.com

Pool pumps and motors



Source:
poolexpress.com

Pool pump/motor combination

In-ground



Larger horsepower

Above-ground



Smaller horsepower

Pressure cleaner



Sources: Hayward, Waterway, Pentair

Pool pump energy use and benefits of variable-speed technology

- Typical pool pumps can use as much as **6,000 kWh/year**
 - **\$780** in electricity costs (at \$0.13/kWh)
- Variable-speed motors can provide very large energy savings as well as other benefits

Filtration =
low speed
pumping



Source: INYOPOOLS.com

Cleaning/mixing =
high speed
pumping



Source: Hayward

2017 DPPP Rule Published by DOE

- For most in-ground pools, the DPPP standards reflect variable-speed technology
- For in-ground pools, about 30% of pool pumps sold today have variable-speed motors
- Market barriers impede variable-speed motors from gaining greater market share such as lack of information to consumers.

Replacement motor loophole

- The 2017 DPPP rule did not address replacement motors, creating a loophole with dire consequences for US manufacturers.



Source: Hayward

Regulated pump/motor
combinations

VS.



Source: Regal Beloit

Unregulated
replacement motors

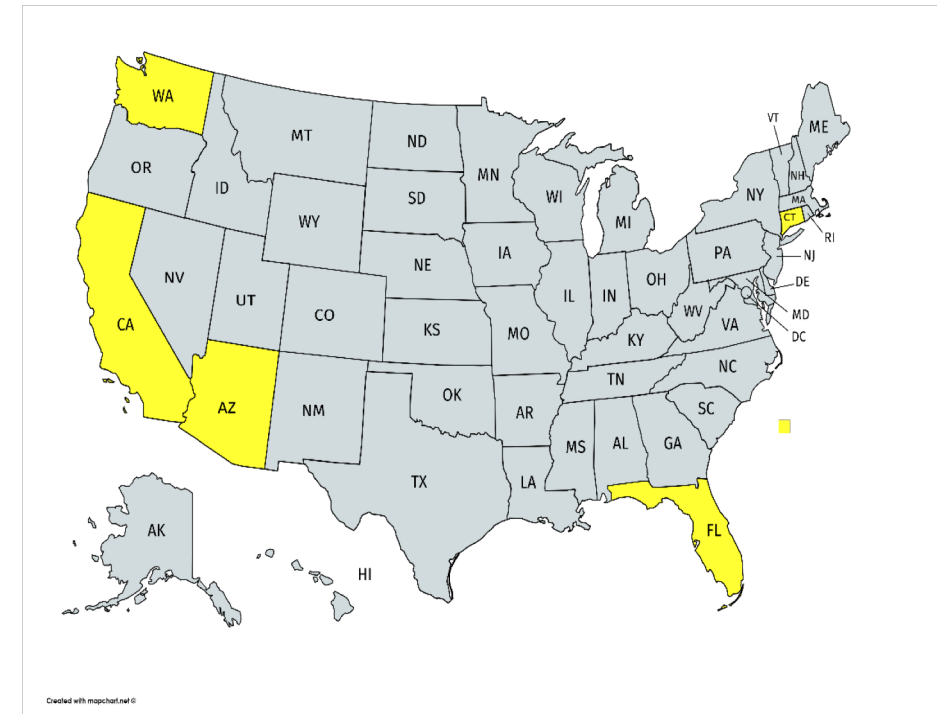
What would happen if we don't close this loophole?

- There will be an inconsistency in the market between regulated pumps and unregulated replacement motors
- Lower sales of regulated pumps would undercut manufacturer investments and put American manufacturing jobs at risk
- Consumers may unknowingly purchase inefficient, wasteful products that increase their electric bills and don't provide the same features and functionality



No DOE action = patchwork of state standards

- We currently have a patchwork of state standards for pool pumps that will be eliminated with the DPPP rule.
- If the replacement motor loophole is not addressed, states will take action, CEC has already begun the process.
- A single national standard is much preferred
 - Reduces burdens on manufacturers avoiding unnecessary costs to the consumer
 - Provides a platform for DOE enforcement
 - Ensures that all consumers benefit, regardless of where they live



Timeline since DPPP was published

- January 18, 2017: publication of DPPP rule
- May 2017: APSP reached out to DOE to raise concern about the replacement motor loophole, and multiple stakeholders commented to DOE on the DFR supporting a complementary motor standard
- May 26, 2017: Publication of confirmation of effective date and compliance date
 - “DOE plans to hold a public meeting in the near future with the interested parties to gather data and information that could lead to the consideration of energy conservation standards for replacement pool pump motors”

Timeline Cont.

- August 10, 2017: DOE public meeting
- December 2017-June 2018: Negotiations between pool pump and motor manufacturers and energy efficiency advocates
- July 24, 2018: Stakeholder meeting with DOE
- August 14, 2018: Submission of Joint Petition
- October 26, 2018: 31 comments received in response to DOE Notice of Request for DFR; 30 in support of the petition with one response not relevant to the petition.

Recommendations for pool pump motor standards

- Standards

- Align pool pump motor standards with the pool pump standards
- Require larger motors to provide the choice of a variety of speeds
- For smaller motors, align the motor types with those in the pool pumps rule

- Labeling

- Include similar labeling requirements as the pool pumps rule to avoid confusion in the market and support national enforcement standards

- Compliance date

- Align compliance date with the pool pumps compliance date (July 19, 2021) to avoid manufacturers having to convert product lines twice, reducing their cost

There are no costs associated with our recommendations

- Product development costs have already been accounted for in the pool pumps rulemaking
- Our proposal would not be subject to Executive Orders 12866 and 13771

Takeaways – Why we need to close the loophole

- If loophole remains it will hurt US jobs
- Consumers will be stuck with inefficient, imported motors
- Consumer electric bills will increase by hundreds of dollars each year