



Battery Truths & Myths

How to Evaluate Competing Claims about Battery-powered Restroom Fixtures

Q&A Summary

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Q: You showed us a slide with key battery terms. Can you repeat which ones are key and which can be used to make confusing marketing claims?

A: Yes. The terms from that slide are on the right. All of these are important to be aware of, but those that are most important to ensure the best customer experience are Power Capability and Service Life. The terms most likely to confuse are Power Capacity and Shelf Life.

Q: How can we receive a copy of this presentation?

A: All attendees will be sent links to a recording of the presentation, a copy of the slides, and a copy of this Q&A summary. These assets are also available in the [Training](#) section of the [Sloan Website](#).

Term	Definition
Power Capacity	The amount of energy stored in a battery
Power Capability	The amount of energy that can actually be drawn from the battery
Shelf Life	The length of time a battery can remain in storage without losing its capacity
Service Life	The time period for which the battery can deliver energy (power capability)
Self Discharge	Internal reactions that reduce the capacity of a battery in storage over time

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Q: If a “30 year battery” has a 5 year warranty, isn’t it really just a “5 year battery”?

A: We believe that calling something a “30 year battery” because it has a shelf life of up to 30 years is misleading and bears little relation to the actual battery capability or service life. The term should not be used to set performance expectations regardless of the warranty period.

Q: Have either of you encountered issues with solar energy harvesting where the restroom lights shut off shortly after leaving the restroom?

A: The solar energy harvesting cells on Sloan faucets and flushometers are very efficient - even when used in facilities with motion sensing lighting controls. Enough energy can be collected by a faucet in minutes to power a handwashing, but in high use applications, we would recommend turbine power harvesting to extend battery life because more usage generates more hybrid power that way.

Q: Is there a minimum amount of light required for SOLIS flushometers to function satisfactorily?

A: Yes, approximately 200 lumens. For reference, a single 60 watt light bulb generates more than 4 times as much. If there is not enough light to convert to energy, power is drawn from the battery instead. Sloan solar cells work with incandescent, fluorescent, halogen, LED, and natural lighting. More information about SOLIS can be found [HERE](#).

Q: Why go with solar power over turbine? Price?

A: The adder for Sloan solar or turbine energy harvesting technologies on faucets is the same. The difference between the two is that solar cells are a passive technology with no moving parts and do not come into contact with the water supply. Turbines are an active technology that does have a moving part and does come into contact with the water supply. If a customer has water supplies with high levels of sediment, turbidity, iron, hardness, or other conditions without adequate pretreatment, they may want to select solar to be conservative.

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Q: Are lithium batteries less likely to leak when installed in an electronic device?

A: Yes. By the nature of their chemistry and design, disposable lithium batteries are unlikely to leak. It's very important to note that alkaline batteries that have been properly used and stored are also unlikely to leak. Changing alkaline batteries before they become exhausted is key, as is ensuring that batteries with different remaining strengths and of different brands are not mixed together. One of the most common ways to cause alkaline battery leakage is by mixing new batteries with exhausted batteries in the same device.

Q: Where can we find touch-free commercial kitchen faucets?

A: Sloan's touch-free sensor faucets are frequently used in commercial kitchen and food service applications. We recommend using the Sloan faucet selection tool located [HERE](#) to pick the designs, features, and regulatory compliance listings that are important to your customer.

Q: One of your competitors claims that with turbine energy harvesting, no external power is needed. Is this true?

A: This type of statement highlights the potential for misleading or false claims that are very difficult for the average person to evaluate. If that manufacturer is stating that with hydropower "no external power is needed," they could be saying that no connection to a building electrical supply is required. That statement would be true for any battery powered restroom product from any manufacturer and not just those with turbine energy harvesting. If they are trying to infer that a product with turbine energy harvesting requires no batteries, that would be false. All energy harvesting products require batteries.

Q: Do you have sales literature focused on manual to electronic conversion?

A: Yes. See our [Sloan Retrofit Brochure](#).

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Q: Can alkaline and lithium batteries be used interchangeably?

A: Yes, but with four key considerations:

- They must be of the same size (AA, C, D, etc.)
- The same voltage (1.5V in the case of AA batteries)
- The application should match the battery type selected (very efficient devices can last longer using alkalines)
- If a lithium is selected to replace an alkaline, it should be a disposable lithium and not a rechargeable lithium-ion. The rechargeable has lower power capability and service life before needing to be recharged

Q: Is there a way to know how long batteries have been on a shelf?

A: The high quality Duracell branded batteries that Sloan includes in its products and recommends for the best user experience have the date of manufacture written on the batteries themselves. We can't speak for other brands.

Q: Which is a better option – hardwired with battery back-up or solar power harvesting with battery back-up?

A: We believe that hardwired with battery back-up is the most sustainable option and has a lower “total cost of ownership” (TCO) than a power harvesting device. If hardwiring is not an option, we believe that an energy harvesting device is better than one that operates on batteries alone.

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Q: Can we share copies of this presentation with our customers?

A: Yes. You can also direct them towards the Sloan Website where they can access this presentation and other training materials. The website is constantly updated with new resources.

Additional Questions? Please feel free to contact Sloan Customer Service or Technical Support.

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