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Off The Grid

By Lisa Readie Mayer

Sustainable grilling and outdoor living products offer a niche profit center, as well as a positive impact on the planet.

Every year, North Americans use an estimated 40 million one-lb. disposable propane cylinders to fuel portable grills, camp stoves, lanterns, and patio heaters. While the cylinders are a convenient and inexpensive way to fuel outdoor living gear, they create disposal and environmental challenges for municipalities and park systems.

With extremely limited recycling options available, consumers have little choice but to discard the cylinders after a single use. Complicating the issue is the fact that the cylinders are considered hazardous waste, because any remaining gas in them could explode or catch fire during waste processing, posing a risk to sanitation workers.

However, some sanitation departments and local hazardous waste collection facilities refuse to accept them, so the cylinders are often improperly discarded in regular household trash, dumpsters, and standard recycling bins, or left behind at stadiums,

parks and campsites.

It's estimated these discarded cylinders take up approximately 3.3 million cu. ft. of landfill space every year. Those captured from the waste stream cost parks and municipalities between \$2 and \$4 per cylinder to dispose of as hazardous waste. Given that an estimated four million one-lb. propane cylinders are discarded annually in the state of California; 23,000 in Yosemite National Park; 4,000 in Yellowstone National Park; and 50,000 in Ontario Provincial Parks, it adds up to a significant expense for taxpayers and a squandering of park fees that could be spent on programs to benefit visitors and wildlife.

Consider this: A filled one-lb. propane cylinder holds about 30 cents worth of fuel, is used only once, and costs more to dispose of than it does to make. Some argue it's the epitome of inefficiency and wastefulness.

Communities and companies are getting behind alternatives, and the barbecue industry should do likewise. A few national parks and recreation areas in the U.S. and Canada have been working with a propane bottle recycler that uses patented equipment to extract leftover propane from cylinders and crush and recycle the steel.

While this program recycled an estimated 127,500 cylinders and more than 63 tons of steel between 2005 and 2014, the equipment is expensive and it takes years for the effort to be self-sustaining, according to the National Park Service.

"As an industry, we should and can do better," says Sam Newman, CEO of California-based Flame King. The propane cylinder manufacturer recently introduced a line of refillable one-lb. propane cylinders that can be continually refilled or exchanged for up to 12 years. They can be used just as a disposable cylinder would be used, and fit all openings on existing portable grills, heaters, lanterns and other products.

The Flame King 1 lb. refillable cylinder.

Flame King's refillable one-lb. propane cylinders are sold through specialty retailers, independent hardware stores and propane retailers. According to Newman, most retailers sell the filled cylinders for between \$12 and \$15, with subsequent refills priced between \$2 and \$4.

This past June, Flame King also partnered with U-Haul on a one-lb. refillable cylinder program in California, with plans to roll it out nationally. U-Haul retails the initial filled one-pound cylinder for \$11.95, with refills at \$1.95.

Flame King and U-Haul collaborated with the California Product Stewardship Council (CPSC), an agency that encourages manufacturers to improve the sustainability of their products to reduce the disposal burden and environmental impact on government- and taxpayer-financed waste management systems. The joint refillable propane cylinder program just earned the Industrial Environmental Association's 2016 Environmental Excellence Award.

"It's a great recognition of our partners' efforts," says Heidi Sanborn, executive director, CPSC. "We are changing the paradigm from disposables to refillables."

"One-lb. disposable cylinders have been a disaster for the national parks," says Newman. "(Discarded cylinders) are littering our natural resources and it's expensive for the parks to dispose of dumpster loads of them every year. Why would you throw out something you could reuse for 10 or 12 years? We wanted to offer a more environmentally responsible alternative, but we knew it had to make economic sense for consumers, too. We think we've done that and now we must educate people about the concept."

According to CalRecycle, consumers start saving money after just five uses, versus buying disposables that typically retail for between \$4 and \$7. Newman says refillable one-lb. propane cylinders are an untapped profit center for retailers of barbecues, outdoor living products and propane fuel, too. Flame King offers retailers a refilling system to help establish their own one-lb. cylinder refill or exchange service. According to Newman, the \$120 set-up works off a forklift tank and pays for itself quickly, thanks to high margins.





Representatives of Flame King, California Product Stewardship Council, and U-Haul accepting the 2016 Environmental Excellence Award from the Industrial Environmental Association.

The company also offers a home refill kit that enables DIY consumers to refill Flame King's reusable one-lb. cylinders from their own 20-lb. propane tank. The kit comes with a gravity-feed stand, incorporates numerous safety features, and is supported by an instructional video, all designed to ensure safe and proper at-home refilling. The kit retails for between \$39.99 and \$44.99, and has been popular with outdoor enthusiasts and tradespeople such as plumbers who frequently go through multiple one-lb. gas canisters, according to Newman.

Manchester Tank and a few smaller, regional propane companies also offer refillable one-lb. cylinders. Municipalities are also getting on board. California has recently implemented a "ReFuel Your Fun" campaign, designed to educate consumers about the issue and promote the use of reusable, refillable one-lb. cylinders. The program also targets retailers in the state, encouraging them to carry refillable one-lb. propane cylinders, and offer refill and exchange services.

