

PROPANE PRESS

An Informative Newsletter for Delta Liquid Energy Customers

Summer 2020

What Goes Into Making a Solar Back Up Battery?

There are Human Rights Concerns With How Some Raw Materials are Mined

Solar is the hot, green energy source right now. Solar panels are designed to use the sun's energy to power homes, buildings, and cars. But when the sun isn't shining no electricity is produced. While solar paneled homes are hooked to a power grid that supplies power when the home isn't producing enough, if the power goes out or is shut off there's no source of electricity. Some experts suggest that a battery to store extra energy produced by solar panels is necessary to ensure you have power when you need it.



These batteries might not be as environmentally friendly as one might think. Lithium-ion batteries are available in utility-scale and residential energy storage systems to store excess solar power. The majority of the world's lithium comes from the "Lithium Triangle" in Chile, Argentina and Bolivia. Though that area has supplied almost 12,000 tons of lithium, that's still not enough to meet the demand for the chemical necessary to make the batteries.

In South America, the material is produced using brines in which salty water pools for months at a time. The lithium will become more concentrated as the sun evaporates the water then it's extracted to be processed into lithium chloride for use in batteries. In some cases, half a million gallons of water per ton of lithium is needed for these brines. The water use raises concerns for the people living in the areas where the brines are located because these areas experience drought often. Using the limited water sources for the brines could leave the residents without water to drink.

Though lithium is the major part of the battery, there are other components that go into making the battery: graphite, cobalt, and nickel. The mining practices that go along with obtaining the lithium and cobalt for EV batteries can be harmful to the people living in the countries that produce these materials. One major concern is how the mining of cobalt affects the people in the Democratic Republic of the Congo (DRC). The process for how cobalt is produced puts many locals at risk. The miners don't wear face masks or gloves and are often under the age of 18. Mine collapses are also common, causing injury and death. It is estimated that 35,000 children work to extract cobalt from the ground in the DRC.

Approximately 60 percent of the world's cobalt is mined in the DRC and demand is set to increase because it is a key component of electric car batteries. It is already used for cell phones, laptops and tablets.

Nickel is predominantly mined in Australia, Canada, Indonesia, Russia and the Philippines. This raw material also comes at an environmental and health cost with plumes of sulfur dioxide choking the skies, the ground covered in cancerous dust and more. While Tesla has claimed that the nickel used in its vehicles is 100 percent reusable at the end of life, it has not disclosed where the nickel is sourced from.

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WARNING

Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986

To comply with Proposition 65 & the Safe Drinking Water and Toxic Enforcement Act of 1986, we are obliged to issue the following warning:

PROPANE contains chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. State law requires us to warn you of the presence of these chemicals. Benzene, soot and formaldehyde are such chemicals. A trace amount of benzene may occur in propane, but will normally be consumed during combustion. Exposure can occur in and around oil fields, refineries, chemical plants, transport and storage operations, such as pipelines, marine terminals, tank trucks, and other facilities or equipment.

Exposure through leaking gas is possible. Soot and formaldehyde, byproducts of burning gas, are minimized by proper combustion. Delta Liquid Energy encourages all its customers to use propane safely. You should read and follow all use, care, and manufacturer instructions for propane appliances and equipment. Proper ventilation and frequent inspection of propane appliances and equipment are highly recommended.

Our service technicians are available to check and adjust your propane gas appliances. A warning odor is added to propane so that leaks of unburned gas can be quickly detected. If gas odor is detected, call us immediately.

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There is one lawsuit that was filed against Apple, Dell, Google, Microsoft and Tesla in December 2019 for human rights violations on behalf of 14 parents and children from the DRC. Human rights activists don't suggest that the companies that use cobalt exclude it from areas where child labor is used, but rather that the companies work to change these conditions.

At the end of the battery's life, less than five percent of the lithium-ion batteries are recycled. It is evident that recycling is possible because there are companies in Finland and Belgium successfully recycling the batteries already. Fortum, in Finland, claims to be able to reuse 80 percent of an old battery after material processing.

In the United States, Tesla announced that it developed a unique battery recycling system at its Nevada factory that can maximize the recovery of battery minerals such as lithium and cobalt. However, it is unclear how much of the raw materials will be salvaged and then reused in the manufacturing of new batteries. Tesla has not reported how many batteries have been successfully recycled, how much of the materials are being reused and how Tesla will mitigate human rights concerns for some of the minerals it gets from mines around the globe.

Solar batteries do harness energy to be used when the panels are not producing electricity, but they are not sustainable or environmentally friendly. One option for being ready for power outages is a standby propane generator. Learn more about standby generators on Page 3.

Sources: solar.com; theconversation.com; Raconteur.net, The Guardian, IPIResearch.be, oilprice.com, Greeenoptimistic.com

Utility Assistance & Savings Opportunities Available

Find Out How You Can Get Help With Expenses



This year has brought struggles that many didn't see coming with the economic shutdown surrounding COVID-19. If you're looking for ways to save money or are having difficulty paying your utility bills, there's help. At Delta Liquid Energy, we know that a fluctuating bill every month can be difficult on your budget and pocket book.

We offer a **Level Monthly Payment Plan**, allowing equal monthly installments for your annual propane use. Sign ups for this program are offered each year from April 1 to Aug. 31. Simply contact your local Delta Liquid Energy office and together we will estimate your annual propane expense.

The Low Income Home Energy Assistance Program is a federal program that aims to assist low-income households in meeting their immediate home energy needs.

The Salvation Army offers bill pay support to those in need. To find the office closest to you, go to westernusa.salvationarmy.org.

Community Action Partnership in the below listed counties offers utility payment assistance and weatherization services:

- San Luis Obispo County: 805-541-4122 or go to CAPSLO.org.
- Kern County: 661-336-5200 or go to capk.org.
- Santa Barbara County: 805-964-8857 or go to cacs.org.
- Ventura County: 805-436-4021 or go to ca-vc.org.

Assistance programs in Tulare County

- Community Services & Employment Training Inc., offers utility payment assistance and weatherization services. To find out more: 559-732-4194 or cset.org.

Assistance programs in Clark County/Las Vegas

- Clark County Social Services offers financial assistance. To find out more: 702-455-4270.
- Lutheran Social Services of Nevada provides utility assistance to people of all religions and faiths. To find out more: 702-639-1730.



Service Locations

San Luis Obispo County
1960 Ramada Drive
Paso Robles, CA 93446
(805) 239-0616

Santa Barbara County
755 S. Blosser Road
Santa Maria, CA 93458
(805) 925-6050

Ventura County
1620 Lemonwood Drive
Santa Paula, CA 93060
(805) 525-3311

Antelope Valley
42165 North Sierra Hwy.
Lancaster, CA 93535
(661) 940-3120

Kern County - Bakersfield
3400 Buck Owens Blvd.
Bakersfield, CA 93308
(661) 323-2700

Kern County - Lake Isabella
5100 Lake Isabella Blvd.
Lake Isabella, CA 93240
(760) 379-2050

Kern County - Tehachapi
1582 Goodrick Drive #6B
Tehachapi, CA 93561
(661) 771-0101

North Las Vegas
13995 Grand Valley Pkwy.
North Las Vegas, NV 89124
(702) 333-2502

Tulare County
321 E. Noble Ave., Bldg. A
Farmersville, CA 93223
(559) 592-9681

Summer Grilling Safety Tips

Reduce The Heat Inside by Taking Your Cooking Outside

It's summer, the weather is warm, and life is different than it has been in the past. You are likely spending much more time at home and perhaps using your grill more than ever. To keep you and your family safe, we are sharing some tips on staying safe while using your propane grill.

- ✓ Follow the manufacturer's instructions that came with your grill. Don't have the instructions? You can find those instructions online by searching the model of your grill plus the words "instructions." These instructions will include how to assemble, use, maintain, clean and store your grill.
- ✓ Position your grill in a safe location. This means it should be at least five feet from the house or other structures on a level surface that is clear of outdoor furniture, overhead trees and other potential fire hazards. Do not use it under any kind of overhead structure.
- ✓ Check your propane cylinder for leaks everytime you replace a cylinder. Use a soapy water solution to check connections for leaks. Expanding bubbles indicate a leak.



Remain present; don't leave your grill unattended.

- ✓ Follow proper lighting procedures according to your grill's manufacturer; and keep the lid open and don't lean over it as you are lighting it.

- ✓ Follow proper relighting procedures if the flame goes out. The first thing you should do if the flame goes out is turn off the gas and refer to your owner's manual. At a minimum, you should keep the lid open at least 15 minutes before relighting the grill.

- ✓ Stay close and never leave your grill unattended while it is in use.



Keep your grill a safe distance from all structures.

Source: Propane Education and Research Council

When the Power Goes Out, Keep the Lights on with a Stand by Generator

Although PG&E has pledged to limit the number of planned power outages during the stay-at-home order, planned outages will still continue this year as the power companies aim to reduce the risk of wildfires.

Keep life moving closer to normal during those outages by getting a **propane powered standby generator** so you're covered when the power goes out -- expectedly or unexpectedly.

Benefits of a propane standby generator:

- Starts automatically, as soon as the power goes out.
- Supplies supplemental electricity in as little as 10 seconds after an outage.
- Propane doesn't degrade over time, unlike other fuels, making it an ideal standby power fuel.
- Most units produce as little as 60 decibels of noise, comparable to normal conversation (which is between 50 and 65 decibels).
- Available in a variety of capacities to fit the needs of any size home.
- Can handle an entire home's energy needs for days.



Enjoy worry-free, family fun with propane standby power.


Interested in learning more about standby generators? Visit our website to contact us for more information: www.deltaliquidenergy.com/contact-us.

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Are Solar Batteries Good For the Environment?

LOOK INSIDE to learn about a propane addition that will keep the lights on 



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