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Accelerating the Adoption of e-Generators in California by Portable Electric

Additional submitted attachment is included below.

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Accelerating the Adoption of e-Generators

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In October this year, Portable Electric, a North America-based technology company, joined forces with Pacific Gas and Electric Company (PG&E) to make Public Safety Power Shutoff (PSPS) events smarter and enhance the safety and preparedness of local communities in connection with the 2020 wildfire season. Besides being able to help and serve communities, the partnership provided Portable Electric with unique insights into the critical requirements of all those having to come to terms with rolling blackouts in the 21st century.

Even with all the possible precautions in place, having a fossil fuel generator in and amongst a family home can be fatal. Backup battery stations that can be moved and deployed to affected regions offer a unique, sustainable solution to vulnerable and at-risk residents that rely on power for medical and food needs. Some critical factors that Portable Electric has learned from its work in emergency preparedness and during PSPS events are:

- Safety certification is critical to avoid further risk to human lives (VOLTstacks are UL-certified to the highest standard)
- Ease-of-use for any user that may require power, such as seniors or medically vulnerable residents
- With power shutting off for a number of days, the ability to solar charge backup generators is what helps customers feel safe. The VOLTstack's solar charging capability proved invaluable to the medically vulnerable. It made them feel like they were taken care of.
- Residents have a variety of space constraints, therefore size and portability that allows users to move it in and out of homes is needed
- Any assets that support clean energy need to have a long operating life with end-of-use recycling strategies to avoid exacerbating the climate change emergency

Research shows that one 5kw fossil fuel generator emits as much carbon monoxide as approximately 450 cars

70

Since 2005, fossil fuel generators have killed an average 70 people a year

During the VOLTstack deployment with PG&E, Portable Electric learned that consumers found the VOLTStack's mobility and quick recharge features to be a blessing as they dealt with the power outages. All these advantages were again highlighted when Portable Electric deployed a VOLTstack 20k e-Generator to the Food Bank of Nevada County in Grass Valley during a PSPS event. The electric generator powered the food bank's refrigeration, lighting and communication devices, in turn helping the food bank process and deliver 1,153 boxes of food during the week of an outage.

PG&E has already announced that it would be implementing rolling blackouts for the next decade to protect against wildfires, plunging residents into darkness for hours at a time and driving a boom in backup generators. Portable Electric's VOLTstack units have already shown how useful and versatile they can be to the economic well-being and health of Californians. Already replacing gas and diesel generators in industries like film production and construction, Portable Electric's VOLTstack e-Generators have also supported the healthcare industry by powering vaccine fridges/freezers and off-grid Covid testing clinics. Unlike diesel generators, the VOLTstack units even have a sustainable end of life strategy. Portable Electric teamed up with Li-Cycle to recycle the lithium-ion batteries from its VOLTstack electric generators once the batteries reach end-of-life and return the recovered materials back into the battery supply chain.

Based on Portable Electric's work with utilities and other organizations in California, we are proposing the following initiatives to further the discussion and commercialization opportunities to help combat climate change:

- Residents would benefit from SGIP and other incentives to include portable units, especially those living in multi-unit and multi-family homes

- Additional support and incentives to increase adoption of alternatives to gas and diesel generators in a variety of industries, such as construction, utilities and film production

Portable Electric believes that a truly resilient, clean alternative to a diesel generator abatement strategy that reduces GHG emissions in California must include portable and mobile battery stations. Moreover, these stations should be easy to deploy at a moment's notice throughout any region and in multiple use cases beyond data centres or PSPS events. PSPS events represent a unique opportunity. The events can act as a catalyst for the adoption of clean energy into other industries thereby significantly reducing emissions to help combat climate change locally and globally.

References:
Portable Generators and Carbon Monoxide poisoning - U.S. Consumer Product Safety Commission
Generator Safety Tips That Will Get You Through a Storm, and Maybe Save Your Life - Generator Reports
Avoid Carbon Monoxide Poisoning During and After Hurricane Dorian - North Carolina Health and Human Services
Majority Of Hurricane Laura Deaths Linked To Improper Use Of Portable Generators - NPR
Louisiana Department of Health