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Focus site on methods of power efficient electrification

I'm an energy engineer with 40 years of utility and building science related energy experience. I helped write the part of SB 68 that asks the CEC to develop the site to educate parties on power efficient methods of electrification, also called panel optimization.

Utilities are starting to see the need to encourage more efficient and more right-sized electrification that will get more customers' needs met without stressing the local parts of the grid like pole top transformers etc. This will also help the workforce keep up with the growing number of homes that need to electrify.

Thank you for looking at the benefits of developing a website for helping buildings electrify with a focus on power efficiency (also called power optimization) to provide multiple benefits.

The focus of the site should be as SB 68 intended to focus on electrification without triggering expensive electric panel (panel) upsizing.

This is what should make the CEC site different from other sites that simply show how to electrify in general with common, low efficiency, loosely controlled or uncontrolled equipment on leaky buildings.

Just like from its earliest days CEC efforts show how to build energy efficient buildings when we already knew how to build basic buildings. The new site will show how to electrify efficiently and how to right size equipment and how to find the power sipping equipment and how to find the types of controls that help fit full electrification plus car charging for 20,000-60,000 miles per year fit on existing 100 Amp electric panels.

The benefits of power optimization extend beyond the property and up to the service lines and to the pole top transformers. Power optimization will reduce loads on the pole top transformers and help more households fully electrify before they have to be paused for the utility to upsize the transformer and perhaps the feeder wires. and substations and the transmission lines and numbers of grid peaking resources.

For these reasons and because of the Energy Commission's unique position and history with showing the efficient ways of meeting our end use needs (comfort, hot water, lighting etc). The SB 68 site should focus intently on power optimization and full electrification without the need to upsize electric infrastructure on site, on the service wires, on the poles in the neighborhoods and on the high voltage grid.

The CEC has the potential to extend its expertise from just energy efficiency, to include

power efficiency. Power Efficiency or Power Optimization enables more buildings to electrify and more vehicles to be charged at buildings so that climate preservation can proceed at the rapid pace needed by the science.

Thank you for considering these comments.

Tom Kabat,
Energy Engineer