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## Better calculators to estimate bill savings and accelerate heat pump adoption

Additional submitted attachment is included below.





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November 16, 2023

Subject: Better calculators to estimate bill savings and accelerate heat pump adoption

Dear California Energy Commission,

A major obstacle to accelerating building electrification is low awareness of homeowners, renters, building managers, and even HVAC installers of the pros and cons of electrification and weatherization options. They find it hard to figure out installation costs, available rebates and incentives, and utility bill impacts for heat pumps. It is especially challenging to estimate the effect on energy bills of switching from natural gas to heat pumps for space and water heating. Key factors include building types, local climate, equipment performance, and tiered and time-of-use rates.

There is an opportunity for the Climate Innovation Program to jump start the creation of a new generation of online calculators that combine accuracy and ease of use. They should be educational and engaging for a wide variety of users, evaluate switching from all common types of equipment (central- and room-located), assess weatherization measures that can improve space heating and cooling needs, and contain up-to-date performance information on widely available equipment, local energy rates and climate. Accurate calculators for utility bill impacts are especially useful for disadvantaged communities, where it's of utmost importance that building electrification must not exacerbate energy cost burdens.

Sincerely,

Max Henrion, Ph.D. Chief Executive Officer solutions@lumina.com

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