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## **Stationary battery storage, rooftop & canopy solar PV plus energy mgmt systems can serve building + vehicles associated with it**

Have you considered building-integrated thin film PV? One non-framed, flexible (conformable) PV was announced this week. And we will be introducing a thin film printed directly on a building's sheathing materials, which converts efficiently at wide angles and from reflected and scattered light, making it ideal for building walls as well as roofs, which opens a path for high-rise buildings to be fully-solar-powered. A 23%-efficiency solar thin film was recently announced, and we intend to produce thin film that is close to or equal to 48% efficient. That will initiate a revolution in solar production on buildings. The companion to the rooftop is solar canopies over parking, driveways, and wherever shade and / or rain/snow protection is desired.

We also ask you to stretch to include building-integrated solar (and stationary battery storage) as required where needed to meet typical demand of both building and all associated vehicles under most conditions. We expect you would specify that it be cost-effective (as you appear to may already be doing with widely-used technologies today). But could you please specify that as new technologies (such as our and other companies'™) reach the market with higher performance-to-price ratios, they must be considered (as 'best available technology') when there is a shortfall under usual conditions, compared to the total required for both the building and the vehicles associated with it? We are talking with two companies about their retrofit kits (conversion kits) used for switching vehicles from fossil fuels to BEV, and one of them already offers conversions for trucks with the capability to drive Tehachapi Pass / the Grapevine uphill at speed with a full payload. This extends their useful life for their owners, and radically reduces time to convert the fleet versus waiting for vehicles to be replaced with new ones. Conversion kits are already on the market from more than one source, will become widely available using our batteries (so that class 8 trucks with full payloads can go 600 miles before charging, without exceeding their GVWR) by 2H2022. That will enable the State to meet and exceed its climate goals.

Our technologies are designed for high-volume manufacturing using existing, mature fabricating technologies. We are planning volume production of the battery in 2H2022, and the solar thin film by 2023. We want to be a strongly considered option when the code takes effect; it would be harmful to wait to 2025 or 2026 before our level of performance is recognized or included in best available technology language. We look for the market to be pushed to the 'best available technology' starting with this revision of the regulations.

We expect to match the lowest pricing on the market for both battery and solar, and to provide much higher levels of capacity and efficiency respectively.

We would like to support you with technology readiness level, performance and cost projections in more detail going forward, with the aim of maximizing the speed of decarbonizing in California and the states and nations which follow our lead or are

influenced by our actions as the fifth largest economy in the world. At this point in time we are confident that fossil fuels can be fully displaced in the market by 2030.