MARCH 1, 2018 TESTIMONY FROM ROSS SOLAR GROUP'S STEPHAN HARTMANN TO THE CGA'S ENERGY & TECHNOLOGY COMMITTEE ON S.B. 9

The buy-all, sell-all provision of [the CES] Senate Bill 9 [Sec. 5. (3)] will stunt solar technology innovation and drastically limit its potential as a benefit to the grid and the average rate payer. At the very least, other markets will see the deployment of these innovations as Connecticut's use of solar is frozen in time, limited to its most basic functions.

Solar PV is not a static technology. The rapid deployment of solar as a mid-day peaking technology was initially welcomed with nearly unrestricted net metering provisions. A wise choice to kick-start a promising technology in a grid where there seemed to be an insatiable appetite for mid-day power. We understand that that dynamic can change.

We're told that solar is becoming a costly challenge for the EDCs to manage. That solar's power curve doesn't align with the demand curve of rate payers. The Comprehensive Energy Strategy reveals that this information is widely accepted as truth although there is no publicly available granular data for DEEP to study, as they revealed in their recent Distributed Generation Cost Analysis. Solar penetration in Connecticut is barely over 1%, and the publicly available studies in other states have shown that solar doesn't really create these issues until roughly 10%, or more, is reached *(re: Trahan testimony).*

If solar export *is*, in fact, a burden for the utility, then it's confusing to me to suggest that ALL solar production from here on out go to straight to the grid. If it's a problem then you would want the host site to use MORE of that solar power and export LESS of it. Therefore, its ongoing deployment MUST be paired with effective onsite storage. The buy-all, sell-all provision prohibits this natural pairing of technologies from emerging; at least for the building owner's use.

Battery technology is inching closer to feasibility than people realize. Costs are coming down, and the economic justification is getting closer and closer. **It's nearly ready for prime-time.** The technology exists today, and just as Solar PV did; its deployment will begin in areas where it brings the greatest value, and will gradually work its way into more and more sectors, **democratizing** the benefits of the technology as the cost decreases.

I theorize that this is the real motivation behind this buy-all, sell-all scheme: to set up the utilities with a monopoly on the emerging battery technology. By preventing private solar owners from pairing their systems with batteries, *locking them out forever*, this opens the potential deployment and use of battery storage systems in FRONT of the meter.

Infrastructure upgrades could be necessary to manage the "all-sold" exported solar PV. When complete, rate-payer funded, utility-owned batteries are rolled out as a billable *service*, exclusively for the benefit of the utility.

In summary: Buy-All/Sell-All, as it's written, does not allow for Solar+Storage for self-consumption, backup power, load shifting, nor demand management. If a building owner wants to create AND MANAGE their own electricity for self-consumption, that should be his or her right to invest and configure. Please do not implement the Buy-All/Sell-All provision. [END]

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