

CEC Appliance Efficiency Regulations comments on 11-AAER-1
(2009 Rulemaking Proceeding on Appliance Efficiency Regulations Phase II)

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11-AAER-1

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While my remarks here are as a private citizen, I am on the board of directors of five California companies, including three California-based semiconductor companies that ship over 100 million chips/yr. for consumer products including PCs, DVRs, and Set-top boxes. I am also the author of *Addicted to Energy* and *The Silicon Valley Way*.

Commenting on the formal presentations on 8/31, I am **in agreement** with speakers who made the following points:

- All the NRDC “straw-man” proposals seemed reasonable.
- NRDC focus on **limiting standby power** is exactly correct. This is key for both STBs and PCs.
- Five watt target for DVRs is a good starting point.
- As the NRDC noted, PCs that have standby/low-power modes disabled are problematic.
- Increased labeling on hot tubs: Excellent idea. As the speaker noted many buyers have no idea how much energy their new spa will consume. There are many other products that could benefit from estimated cost labels. In my book I advocate for displaying the 5-year cost of energy (not the annual cost). Spa’s, pool pumps, PCs and set-top boxes could all benefit a ‘cost of energy label.’

All of the above would likely advantage California semiconductor companies and California labor.

Additional observations:

- Consider requiring a minimum filter efficiency for filters sold for use in forced air systems.
- Consider encouraging new appliances with internet connections to monitor and report their actual energy consumption to their owners. This would include: PCs, servers, DVRs, Set-top boxes, and internet connected TVs. This may be the only way to discover how the various low power (sleep) modes are performing in the real world.
- Consider encouraging large-load appliances to monitor and report their energy consumption to their owners (furnaces, air conditioners, spas, pool pumps, etc.)
- Consider requiring “automatic daylighting:” commercial lighting system installed near windows and skylights automatically dim when sunlight is present. This is particularly relevant to the ‘linear fluorescent’ discussion. However, I worry that if the rule only applies to T5s and T8s, that architects will specify MR16s or other alternative, less efficient bulbs, so it should probably apply to all commercial fixtures installed where daylight is present.

Here is what I recommended in *Addicted to Energy* (pg 46).

Discussing commercial lighting: You could create a complex law which specifies smart lighting systems and details all the network protocols they should use. But just requiring three things will give you most of the benefit:

1. LEDs or small diameter florescent tubes (T5 or T8)
2. Dimmable ceiling fixtures
3. Occupancy **and** daylight sensors

Let me know if I can help,

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