

## Re: Politicians and energy policy

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- *From:* rickman <[gnuarm@xxxxxxxxxx](mailto:gnuarm@xxxxxxxxxx)>
  - *Date:* Sun, 25 May 2008 23:37:32 -0700 (PDT)
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Ok Mike, although I have spent significant time in Florida, I don't want to argue this point endlessly. Besides, you seem to be rather sleep deprived and I am sure you have better things to do. So I will grant you that what I am saying does not apply to people living alone in Florida. Ok?

However, I stand by my statements for the rest of us. I have spent some significant time living without AC and I have a pretty good feel for how a house responds to external weather. Humidity simply does not enter the house easily unless the wind is blowing hard and even in Florida, the wind does not blow hard all the time.

Regardless, my point about the lack of usefulness of controlling the AC is valid. Someone else mentioned that they control the water heaters. That is useful because a water heater can go without power for hours and still provide usefully warm water. But the utility is limited. Unless you are drawing hot water, the water heater cycles on very infrequently. So by cutting off *\*all\** water heaters during peak loads saves only a *\*very\** small amount of peak power.

The real power sink is the AC. An AC that is off for more than a half an hour on a hot day will let the house get much warmer. Peak loads are a lot longer than a half an hour. The result is that you have simply made the AC draw no power for a little while and then draw a lot more power for the rest of the time. On the average, this provides *\*NO\** reduction in peak power. Actually that is not correct; there is a small savings in power because the house is warmer and less heat enters a warmer house.

Maybe the fridge can be cut off during peak loads, like the water heater. But if it is turned back on during the peak period, like the AC, it is going to run continuously and consume the same amount of energy on the average while letting your food get warmer. It may only be a couple of degrees, but the milk will not keep as long at 40C as it does at 35C and that is sort of the point of a fridge, keeping things cold, no?

What other appliances can be cycled during peak loads, in a useful way that won't impact their operation?

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I understand the concept. I am saying that other than the water heater, there is no point in this sort of control to reduce the peak loads seen during the summer, and the water heater is not a significant load during peak hours. So the entire idea is much ado about nothing.

Rather than trying to be superior and cute with your little digs, why don't you come up with something useful to say? I am happy to discuss this, but you just seem to want to express an attitude.

Michael A. Terrell wrote:

rickman wrote:

On May 24, 12:04 pm, "Tim Williams" <tmoran...@xxxxxxxxxxxx> wrote:

"Michael A. Terrell" <mike.terr...@xxxxxxxxxxxx> wrote  
in

messagenews: IGdnWTL4tjngKXVnZ2dnUVZ\_u2dnZ2d@xxxxxxxxxxxxxxxxxxxx

Someone said you have to  
"dehumidify" during the  
day... maybe you do  
to some degree, but if you  
aren't in the house, there is  
very little  
moisture entering it.

Then you've never lived in FLorida.

Or an old house. This house was built in 1898 and leaks like  
a sieve!

I live in an old house (ca 1962 with plenty of unintended ventilation)  
near Washington, DC with summer humidity of nearly 100 % and temps  
above 90F. Unless you are in the middle of the Everglades, you got  
nothing on us.

Yawn. Like I said, you have never lived in Florida. There are  
insects that make holes in concrete, chew vinyl or aluminum siding, and  
critters like alligators and bears coming into heavily populated areas

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damaging homes, and attacking people.

The bottom line is that even leaky houses don't leak unless something is pushing the air.

Hot, wet winds are enough. Unless you want to calk every door and window shut, there WILL be ingresion of humid air. If you seal it up that tight, the humidity will rise from human breath, and sweat. If you think 90 is bad, smpend some time down here after ahurricane when it's over 100 degrees, with no electricity.

Humid weather seldom has significant winds and if you aren't home, no one is opening the doors.

Once again you don't live in Floria. It is a penensula with lots of water on both sides, and a lot of humid wind that you won't get in DC.

I have left my house closed up and the AC off for hours during the day. Other than the first hour that it takes to get the temp down to anything remotely reasonable, it is then fine.

That is the point. If the house is allowed to heat up during the day, it then takes less work to cool it down than it would to keep it cool all day. But no one wants to come home to a house that is 90F inside and wait for it to cool down. But if the AC is smart enough to actually "know" when you will be home, then it can cool it down to match your needs.

Yawn. I had my AC in a timer to come on one hour before I normally got home from work. It usually took two more hours to bring it down to 78 degrees. It trned off the AC an hour before the alarm went off in the morning.

The idea of using a "smart" electric meter to achieve the same power reducing effect as rolling blackouts is bogus.

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Only if you don't understand how it works. I live alone right now. The water heater comes on after midnight for about 1.5 hours, and gives me usable hot water for the full 24 hour day. That takes that load off any likely peak demand point in the 24 hour cycle. Actually, the heaviest usage around here is when people first get home from work and turn on the TV, fire up their electric stoves, along with their A/C. For two years you could almost set your watch to 5:00 PM on Fridays during the summer, because the demand would blow a fuse in the 7200 volt line powering this subdivision. Peak shaving that would turn your A/C off for five minutes, then the one next door, etc would lower the average, and reduce the chances of multiple compressors kicking in at the same time.

AC, the primary power consumption, is duty cycle driven. The thermostat in your house is actually a duty cycle modulator to maintain a temperature. If the power company has control over it to cut it out for periods at peak usage, all that does is to make the AC run at a \*higher\* duty cycle the rest of the time. The only way they can actually save power is to reduce the periods that your AC is enabled to the point where the duty cycle is below where it can maintain the set temperature. Then the temperature inside will rise, because the power company is now regulating it, not your thermostat.

The whole idea is to average out the usage to eliminate or delay the need for new power plants and upgrades to the distribution system.