

Smart Water Meter: A Secret Weapon For Climate Adaptation That Should Not Be Secret

I felt at least decently about myself when I paid my water bill recently, because I was told that my usage was somewhat better than other people in my neighborhood (which is a low bar, but you take what you can get). But when I tried to figure out ***why*** it was better, I got no information whatsoever. That's a huge problem. Michael E. Webber, in his fantastic book *Thirst for Power: Energy, Water, and Human Survival*, puts it well. Imagine, Webber suggests, if you were

> shopping for groceries, but with no prices on any of the food items. With no price signal to steer our behavior, we would load up our carts with whatever looks appealing – steaks, specialty chocolates, and other high-priced items – leave the store, and take the groceries home, repeating that cycle twice weekly. We might even buy more than we need, throwing away the rest since for all we know it's free. At the end of the month, the grocery store would send us for all the food we had purchased. Imagine our sticker shock when we see the tally. If we had price information for each individual food item, then we could shop in a more intelligent way, buying only what we need, wasting less, and prioritizing the more affordable items.



Thirst For Power: Must Reading

Webber notes that such a scenario is “preposterous,” but it is what we do with water (and really with gas and electricity as well). You can’t argue for pricing utilities unless people get the price signal, but that is what we do.

So why do we do it? For a long time, I suppose that the answer was technical: we simply lacked the technology to provide real-time usage and pricing of water use. Or perhaps we had it but it was so cumbersome and difficult to use that we could do it.

That is no longer the case. Smart water meter technology exists that can measure on a real-time basis a home’s water use.

My original version of this post was a castigation of the Los Angeles Department of Water of Power for not installing these things in every home in the city: we are in a long-term water crisis, and we can’t even tell people whether they are wasting water?

Using cutting-edge research, however, I surfed the web, and discovered that LA DWP is moving in that direction already:

> Los Angeles Department of Water and Power officials on Thursday offered to pick up much of the cost for outfitting single-family homes in the city

> with monitoring devices that could help customers find ways to save more water in their daily lives….
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> Officials said customers can sign up to receive a device called a “flume,” which straps onto a house’s water meter and feeds data on a customer’s water use to a smartphone app.
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> The hourly readouts offer users information about their own water use that would never show up on a bimonthly bill.
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> “It’s helped us sometimes if a toilet handle is stuck and you don’t know that for a couple days,” said *[then-Mayor Eric]* Garcetti, whose official residence is outfitted with a similar device. “It’ll tell you, ‘Something’s off and you’re using a little too much water.’ It’ll let you know if a pipe’s leaking.”

A leaky pipe might not seem like a lot, but according to EPA, “[h]ousehold leaks can waste more than 1 trillion gallons annually nationwide. That’s equal to the annual household water use of more than 11 million homes.” We cannot afford to waste that water.

Usually these devices run about $199, but DWP will sell them to single-family home consumers for $49, plus a $25 rebate. So I bought one.

I still think it is inadequate: smart meter systems should be installed in every home everywhere, with real-time information being made available to the water department. That is the way it is done in Israel, and it saves billions of gallons of water there each year.

As always, the problem is politics: given that the Right has decided that the mildest suggestions about gas stoves represent the coming of tyranny, the idea that even the local water department would know when you are wasting water might be a bridge too far.

But it is coming. Water is a public resource and public property: we cannot allow conspiracy theorists in the fever swamps to dry up our ability to save water and adapt to climate change.