Electricity Sales Anemic for Seventh Year in a Row

Wall Street Journal

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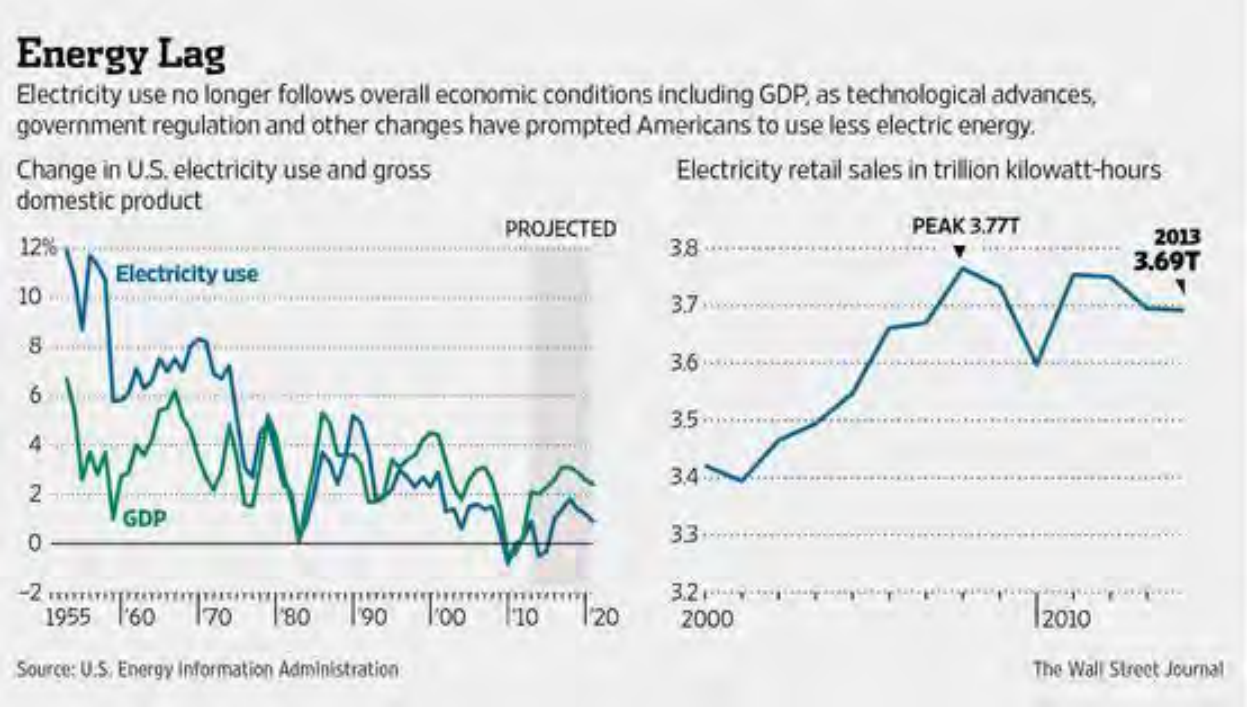
July 28, 2014

http://online.wsj.com/articles/electric-utilities-get-no-jolt-from-gadgets-improving-economy-1406593548

When customers of American Electric Power Co. (AEP) started dialing back on power consumption in early 2009, company executives figured consumers and businesses were just pinching pennies because of the recession. Five years and an economic recovery later, electricity sales at the Columbus, Ohio-based power company still haven't rebounded to the peak reached in 2008. As a result, executives have had to abandon their century-old assumption that the use of electricity tracks overall economic conditions. **"It's a new world for us," says Chief Executive Nick Akins.**



Utility executives across the country are reaching the same conclusion. Even though Americans are plugging in more gadgets than ever and the unemployment rate had dropped at one point to a level last reported in 2008, electricity sales are looking anemic for the seventh year in a row.

Sluggish electricity demand

Sluggish electricity demand reflects broad changes in the overall economy, the effects of government regulation and technological changes that have made it easier for Americans to trim their power consumption. But the confluence of these trends presents utilities with an almost unprecedented challenge: how to cope with rising costs when sales of their main product have stopped growing.

Sales volume

Sales volume matters because the power business ranks as the nation's most capital-intensive industry. When utilities are flush with cash, they buy lots of expensive equipment and raise dividends for investors. When they're selling less of their product, they look for ways to cut or defer spending. Regulators typically allow utilities to charge rates that are high enough to cover their basic expenses, but that doesn't guarantee them strong profits. Utilities typically need to expand sales volume by **1%** or more a year just to maintain their expensive, sprawling networks of power plants, transmission lines and substations, says Steven Piper, an energy analyst for SNL Energy, a research company. "That's where the existential crisis is coming from," he adds.

Historically, economic expansion meant expanding electricity sales. In fact, during the 1950s and 1960s, energy demand outpaced the growth in the gross domestic product. Then, from 1975 to 1995, GDP and electricity sales grew in tandem.

But the connection now appears to be broken. *The U.S. Energy Information Administration said recently that it no longer foresees any sustained period in which electricity sales will keep pace with GDP growth.*

Trends

Some of the trends affecting the electric industry have been building for decades. Among them: Americans have migrated to states with milder weather. And although it may seem counterintuitive, it takes less energy to keep houses cool in warm climates than to warm them in cold climates. According to federal data, less than half of all Americans now live in colder states, down from almost 60% in 1960.

Manufacturing changes

Demand from industry has also changed as *manufacturing* plants have moved overseas or even within the U.S. Edison International, for example, has lost most of its aerospace and defense customers in Southern California. Ted Craver, chief executive, says industrial customers consumed half of Southern California Edison's electricity in the 1980s but require only 10% today.

Local Solar Power Generation

Increasingly, both residential and business customers are making their own power rather than buying it from utilities. In Arizona, for example, solar companies are siphoning off utility customers. Sherry Pfister, a retiree who once worked at the Palo Verde nuclear power plant 45 miles west of Phoenix, says she didn't hesitate to lease solar panels for her home in Waddell, Ariz., and says *the panels have cut her utility bill by a third.* "Why isn't everybody doing it?" she wonders. Her supplier, Sunnova Inc., wooed her with

solar panels that cost **70 cents a watt**, a fifth of the cost in 2008. Solar energy "is the next shale gas," says Sunnova Chief Executive John Berger, predicting it will upend the utility business.

Energy efficiency

Energy efficiency blunts the impact of population and economic growth, because upgrades in lighting, appliances and heavy equipment reduce energy needs. In 2005, the average refrigerator consumed **840** kilowatt-hours of electricity a year, according to the U.S. Energy Information Administration. A typical 2010 replacement needed only **453** kilowatt-hours of electricity.

Higher rates

As their sales have lagged behind, utilities have raised prices, and that, too, is *discouraging* use. Most U.S. households pay 12 cents a kilowatt-hour today, up one-third from a decade ago, according to EIA data. A 2012 study from the California Public Utilities Commission found that customers have had a "strong response to price changes."

Consumers fight back

To fight rising costs, Washington, D.C., has hired a consultant to help cut its electricity use 20% by 2015—and to save $10 million a year. FirstFuel Software sniffs out **waste** at the district's 400 buildings with the help of smart meters and special software. "We're not going to win the grand innovation prize," says Sam Brooks, head of energy and sustainability for the District of Columbia, but he adds that just turning off the lights and shutting off furnaces when buildings are unoccupied turns out to be an easy way to save money.

The end of demand growth

Electricity demand is likely to be even more subdued in coming years. The U.S. Environmental Protection Agency wants to slash greenhouse-gas emissions from power plants, in part by trimming electricity use. Its goal is to offset any increases in energy use because of population growth by promoting energy-efficiency measures.

New utility business models

Utilities aren't waiting for better times. They're increasing spending on big solar projects and energy-efficiency programs for which they earn income as investors or managers. And many executives are searching for new services to offer. "The industry has been pretty resilient the past hundred years," says Bill Johnson, chief executive of the Tennessee Valley Authority, which furnishes electricity to nine million people in seven states. "I wouldn't count us out quite yet."

Electricity demand also isn't bleak everywhere. FirstEnergy Corp. based in Akron, Ohio, says demand is increasing from such industries as steel, auto, oil refining and chemical production. But that hasn't been enough to make up for losses elsewhere. Anthony Alexander, the company's chief executive, forecasts that it will take until 2016 at the earliest for its electricity sales to recover to prerecession levels. *"It's pretty much a lost decade,"* he says.