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Buy Now, Pay Later

New financing programs help homes and businesses become more energy-efficient—without shelling out big money upfront

By LIAM PLEVEN

Champions of energy efficiency argue that upgrading homes and businesses saves billions in the long run.

Journal Report

Read the full [Innovations in Energy report](#).

But who will pay for it now?

The upfront cost of energy efficiency can be a stumbling block to more efficient lighting, insulation, air conditioning and other equipment. Entrepreneurs, utilities and governments are experimenting fervently with financing arrangements that attempt to show property owners that some energy upgrades are not only feasible but economically smart.

Currently, 221 energy-efficiency loan programs are offered in 48 states by utilities and federal, state and local governments, according to the [Database of State Incentives for Renewables and Efficiency](#), funded by the Department of Energy. Meanwhile, utilities and start-up companies are expanding financing programs and rolling out their own new models.

Here's a look at some of the methods being tried nationwide:

Efficiency-Services Agreements

For some commercial building owners, the problem isn't finding the money to pay for upgrades—it's losing the opportunity to use that cash for their core business.



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Energy Trust of Oregon

An insulation contractor works on a Portland, Ore., home getting energy-efficiency upgrades under a municipal loan program.

Metrus Energy Inc. is road-testing a new vehicle, known as an efficiency-services agreement, that gets around that issue. For the life of the deal, Metrus owns the new energy-efficiency equipment, not the building owner.

Metrus, a San Francisco energy-efficiency company started in 2009, has struck two such deals in the past year with BAE Systems PLC, for facilities BAE owns in New Hampshire and New York. Metrus pays particular attention to big-ticket items, such as boilers and furnaces.

Under the agreements, BAE continues to pay the utility bills. But as the facilities become more energy-efficient and the bills shrink, BAE will pay Metrus an upwards-sliding fee slightly less than the energy savings.

"It becomes very much like their utility bill," Bob Hinkle, Metrus's founder and chief executive, says of the impact on building owners.

Metrus contracts with a third party to install the equipment; in the BAE buildings, its partner has been [Siemens AG](#), the German electrical services giant. And Siemens promises to pay Metrus if the energy savings don't materialize as expected.

The deals are in their infancy, but the annual energy savings at BAE's Merrimack, N.H., facility are projected to exceed one

million kilowatt-hours—reducing greenhouse-gas emissions by an equivalent of taking 137 cars off the road for a year, according to the Environmental Protection Agency.

Other companies are rolling out similar deals. Green Campus Partners LLC, has four projects under development, says Jim Thoma, a managing director.

Managed Energy-Services Agreements

In a similar type of deal, an energy-efficiency company pays a building owner's energy bill and charges the owner a fee pegged to current energy use. The company pays to upgrade or retrofit the building itself, and if the utility bills go down, it pockets the difference.

The building owners don't share directly in the energy savings during the deals, which typically last for 10 years. But they still can come out ahead.

"The upside for the deal is that we have new equipment," says Roger Waesche, chief operating officer for [Corporate Office Properties Trust](#), a real-estate investment trust based in Columbia, Md., that has signed deals involving 24 of its roughly 200 buildings. New equipment means better service for tenants, he says. Plus, after the deal expires, the savings can flow directly to the owner.

The company has struck its deals with Transcend Equity Development Corp., which pioneered the structure. So far, Transcend has put about \$30 million into roughly 30 projects, according to Steve Gossett Jr., the company's vice president.

Mr. Gossett says Transcend has cut Corporate Office Properties Trust's energy use by 25% in the buildings under contract, and eliminated 6,000 tons of carbon-dioxide emissions—about the equivalent of burning more than 612,000 gallons of gasoline.

On-Bill Financing

For some businesses, the main hurdle to energy-efficiency upgrades is the risk that the work won't pay for itself.

Thus, some utilities try to sell customers on the benefits of borrowing: The companies include the monthly loan payment on the utility bill, and structure the loan so that the energy savings are often more than enough to cover the payments.

United Illuminating Co., a utility serving New Haven and Bridgeport, Conn., started such a program for commercial customers in the 1990s. The utility makes hundreds of loans a year, and has deals with close to 10,000 customers so far—about one-third of its commercial base. United focuses on commercial customers in part because it's relatively simple to save significant energy and money with lighting, which businesses tend to have lots of, says Michael West, a spokesman for UIL Holdings Corp., the parent of United Illuminating. But the company is planning a residential program in the spring.

San Diego Gas & Electric and Southern California Gas Co.—both owned by San Diego-based [Sempra Energy](#)—have followed United's example. They have made \$13 million in loans to fund efficiency upgrades for close to 600 commercial and government customers since late 2006. According to the company, the upgrades have saved an estimated 45 million kilowatt-hours—equivalent to eliminating carbon-dioxide emissions from nearly 4,000 homes for a year.

The Sempra utilities structure their loans to make the payments equal to or below what customers save in energy use. Loan payments are included on regular monthly bills.

The utilities charge no interest on the loans, which can range as high as \$100,000 for commercial buildings and \$1 million for state facilities, says Mark Gaines, director of customer programs for the utilities. But they manage to benefit, too. The program helps them meet California's energy-efficiency targets. Moreover, Mr. Gaines says, the utilities can charge more to customers who don't make the upgrades.

On-bill financing is still relatively uncommon in the residential market, says a December report from the National Home Performance Council, which found that of 126 programs offering comprehensive retrofit programs for homeowners, only seven offered on-bill financing.

Municipal Programs

For years, homeowners paid for energy-efficiency improvements by using local-government funding collectively known as Property Assessed Clean Energy, or PACE, loans.

Loan repayments were attached to property tax bills, thus ensuring repayment even if the borrower were to sell the property. By September 2009, 17 states had PACE programs, according to a February 2010 report by an arm of the California Clean Energy Fund.

Many PACE programs came under a cloud last summer because they often use liens that give local governments priority in getting repaid. The Federal Housing Finance Agency, which oversees Fannie Mae, Freddie Mac and the Federal Home Loan banks, said in July that PACE loans with priority liens over outstanding mortgages "present significant risk to lenders." Fannie and Freddie, government-sponsored entities that purchase mortgages from private lenders, said they would stop buying new mortgages with first-lien PACE loans.

But not all municipal loan programs operate the same way, so some have been largely unaffected. The state of Maine plans to start making loans soon under a new PACE program that will feature loans secured by a subordinate lien.

Also, through a Federal Housing Administration pilot program called PowerSaver, homeowners with qualifying credit soon will be able to borrow up to \$25,000 to finance selected energy-related improvements.

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