Investing in Energy Efficiency

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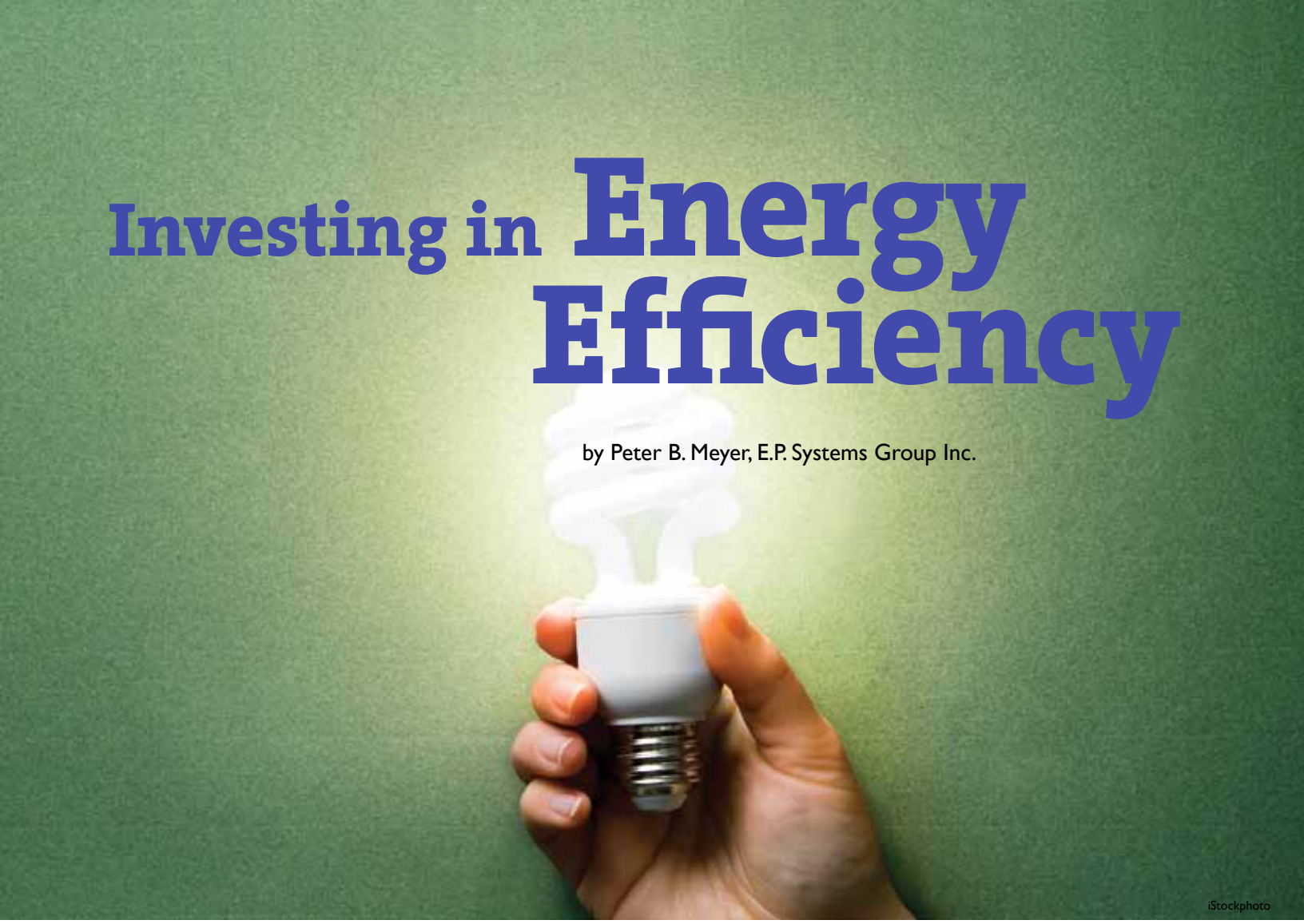

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As more homeowners lose jobs and fall behind on mortgages, high energy costs become increasingly burdensome, especially for low-income households. The Low Income Home Energy Assistance Program (LIHEAP) has not kept up with fuel oil prices and in any case treats only a symptom (unaffordable energy bills), not the cause (household energy consumption). Municipalities looking into helping low-income households through energy efficiency investments, meanwhile, are finding that reduced property values have given them less tax revenue to work with.

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Nevertheless, opportunities to tackle such challenges are emerging, and forward-looking policymakers are starting to plan for the future.

Striking at Causes

Investing in energy efficiency and reducing consumption can help low- and moderate-income households more than LIHEAP, producing a return over time and promoting stability of residential tenure for homeowners and renters alike.

Without cost reduction, some properties end up vacant or abandoned. The National Vacant Property Campaign cites a 2000 estimate that such properties occupy about 15 percent of a typical large city.[1] They generate four serious costs: the cost of municipal services to keep properties from becoming threats, the cost of decreased property values and tax revenues, the costs to nearby homeowners, and the cost of blight creep.[2]

The loss of tax revenue often causes governments to tax occupied properties at higher rates, a vicious cycle that can lead to additional foreclosed and abandoned properties. One way to break the cycle is to make energy-efficiency investments in low- and moderate-income communities for both occupied and vacant properties. Doing so can lower total housing costs for existing residents and benefit municipalities, too. The reason: communities stand a better chance of attracting taxpayers when they can offer new affordable housing in the convenient, walkable, and mass-transit-served locations. Although future purchasers of improved vacant properties may want to rehab them for new purposes, the reason they are not currently usable is often that they have obsolete or broken heating and cooling systems, or because faulty insulation, windows, and the like are generating high energy costs. Investment in energy efficiency could bring such buildings back into use more quickly.

The push for energy efficiency and jobs such as weatherization in the American Recovery and Reinvestment Act, or ARRA, should have a positive effect on the supply of energy-efficient low- and moderate-income households.[3] Moreover, energy-efficiency improvements to existing buildings are low-hanging fruit, tasks can be pursued quickly and may provide investment-grade financial returns. Although large corporations have routinely harvested such fruit, lack of scale has held back smaller entities. Nevertheless, numerous studies demonstrate that when states invest in energy efficiency, they reduce usage and costs and generate efficiency-related jobs.[4]

Energy Services Companies

The continued expansion of "energy services" as an economic sector is a testament to energy efficiency's return on investment. Energy service companies (ESCOs) guarantee property owners that operating-cost savings will at least equal the costs of debt service on the funds borrowed to finance the improvements.[5] In effect, ESCOs guarantee that *the combined cost of clients' future utility bills and ESCO payment will be lower than their previous utility bills.*

It should be noted, however, that ESCOs are providing assurances of minimum future savings over a baseline utility-service consumption level that *assumes no ncrease in utility bills.* They are not providing efficiency that matches the steady upward trends in annual energy costs. Despite the recession and tight budgets, governments should consider that taking a longer view—for example, by replacing heating or cooling systems or a building's windows—could be beneficial.[6] With energy costs increasing at an accelerating rate, the number of years before payback is decreasing.

How might energy improvements work for low- and moderate-income people, given that the large engineering firms that predominate in the ESCO industry generally service large clients, not small commercial buildings or individuals? State and local governments should think about structuring a program that could enable individual building owners—including low- and moderate-income households and those renting to them—to enjoy the same efficiency gains.

Investment in the rehabilitation of centrally located and underutilized buildings—and in energy retrofits for economically distressed homeowners—can make sense long-term. Today's stricter private-lending requirements have meant that small businesses, small residential and commercial landlords, and ordinary homeowners cannot fund the investments that will save them money over time. But a state or local government's use of public sector capital for ESCO-type energy projects in a portfolio of smaller buildings could work well.

A Possible Approach

The recession's hardest hit locales, perhaps unable to float bonds now, might nevertheless want to consider energy-efficiency investment down the road.

Tax-exempt bonds could keep down the carrying costs by providing funds at a lower interest rate and with a longer term than otherwise available. Publicly owned abandoned buildings and small local government premises could be included in a program along with privately owned structures, enabling savings similar to a larger-scale job. Private building owners who opted to participate could be required to let the government entity assess them for their expected utility cost savings or the share of the total contract cost at the end of each year, obviating any complex new debt collection system.

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With a change of ownership, the voluntary assessment could flow with the property so the seller would not have the sale's proceeds reduced by additional debt. Moving would be easier and the buyer would have an incentive to maintain the efficiency. Any savings on reduced energy and utility usage above those in the agreed-upon work plan and assessment would accrue to the

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property owner. The monthly savings—and the expected savings at year's end—might even help some property owners avoid foreclosure.

Additionally, a bidding process for serving a multimillion dollar project would likely draw project assessors and contractors with higher qualifications than small property owners could attract by themselves. Risk of construction problems would be spread across many installations, lowering total risk to contractors and compensating partly for the cost of planning and executing retrofits on many small buildings.

Even if companies bidding on the work were national, local governments could include requirements that local construction contractors and workers be used on-site. Landlords receiving the benefit of the program might be required to constrain rent increases or potential displacement of existing limited-income tenants.

Another option: the contracting government could move beyond the use of a constant historic price as the baseline for guaranteeing cost savings and instead factor in higher future energy prices. That could make the efforts even more affordable.

A variant of this financing structure was developed by Berkeley, California, for homeowners who wanted to put photovoltaic solar power generators on rooftops, and at least two states have passed measures to help local governments provide such funding to property owners. Similarly, the Environmental Protection Agency's Environmental Finance Advisory Board is preparing to recommend that the EPA promote a tool called *voluntary environmental improvement bonds*.[7]

Although the array of green jobs envisioned in the early 1970s have not materialized, weatherization and other energy-efficiency jobs have increased, as have attitudes more favorable to conservation. Today energy-efficiency improvements are helping to reduce consumption, lower the cost of owning buildings, improve buildings' investment possibilities, make homeownership more affordable, and hold down rental costs. It just takes local willingness to use existing tools in an innovative manner.

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Endnotes

[1] M.A. Pagano and A. Bowman, *Vacant Land in Cities: An Urban Resource* (Washington, DC: Brookings Institution Center on Urban and Metropolitan Policy, 2000). See also http://www.vacantproperties.org.

[2] *Vacant Properties: The True Costs to Communities* (Washington, DC: National Vacant Properties Campaign, 2005), http://www.vacantproperties.org/latestreports/True%20Costs_Aug05.pdf.

[3] Additionally, in an August 6, 2009, report on the Federal Housing Administration's 203(k) Home Rehabilitation Mortgage Insurance Program, the Office of the Comptroller of the Currency encouraged bankers to make loans for rehabilitation of foreclosed properties. See http://www.occ.gov/cdd/203k_Loan_Program_Insights_Jul09.pdf.

[4] Compare Roger Bezdek, http://www.ases.org/images/stories/ASES-JobsReport-Final.pdf; Howard Geller, John DeCicco, and John A. Laitner, http://www.aceee.org/pubs/ed922.htm; John A. Laitner and Martin Kushler, http://www.aceee.org/pubs/e07x.htm; and John A. Laitner, R. Neal Elliott, and Maggie Eldridge, http://www.aceee.org/pubs/e076.htm.

[5] See National Association of Energy Service Companies, http://www.naesco.org.

[6] See http://www.ClimateChangeEcon.net; and http://www.finehomebuilding.com/how-to/articles under standing-energy-efficient-windows.aspx.

[7] The author serves as an expert witness to the Environmental Protection Agency's Environmental Financial Advisory Board, which is debating whether to recommend that the EPA encourage state and local governments to float Voluntary Environmental Improvement Bonds for energy-efficiency initiatives. See http://www.epa.gov/efinpage/publications/VoluntaryEnviroImprovementBondsReports.pdf. See also http://www.dps.state.ny.us/07M0548/workgroups/WGVI-On_Bill_Financing_Final_Report.pdf; and Stacy Ho and Satya Rhodes-Conway, *A Short Guide to Setting Up a City-Scale Retrofit Program* (Oakland and Madison: Green for All and the Center on Wisconsin Strategy, 2009), http://www.cows.org/pdf/rp-retrofit.pdf.