

Creating Financing Markets for Energy Efficiency Projects in Commercial Buildings

Energy efficiency is the fastest, most cost-effective way to reduce greenhouse gas (GHG) emissions in the United States. In many cases energy efficiency (“EE”) projects can provide extremely attractive financial returns. Using data from a 2008 McKinsey study, EDF estimates that there are at least \$40 billion of investment opportunities for EE projects in commercial buildings that will provide annual returns in excess of 20%. Despite this attractive potential, few EE projects are being funded in commercial buildings.

EDF has identified five primary market barriers that are preventing investment in EE projects for commercial buildings:

Limitation on additional indebtedness – Most commercial buildings have a first mortgage that includes a limitation on additional indebtedness that prevents incremental borrowing.

Poor credit quality of unsecured or subordinated obligation - Most commercial buildings are held in bankruptcy remote investment vehicles (i.e. a creditor only has recourse to the asset, not the owner(s)). Even if a loan was permitted by the first mortgage holder, the loan would be subordinated to the first mortgage and would often be perceived as having poor credit quality.

Split incentives – Under the terms of most commercial leases, tenants pay for many operating expenses including energy costs. Landlords, however, must absorb many capital expenses. For an EE project this may mean that landlord pays for the project but tenants capture the bulk of the savings.

Lack of confidence in projected energy savings – Many building owners and lenders are skeptical that EE projects will achieve projected energy savings.

Institutional investors and lenders require a scalable, proven investment strategy
To date, the market has been small and successful business models have not been fully demonstrated.

Energy Services Agreement – Part 1 of the Solution

EDF has been working closely with several entrepreneurs to develop and promulgate a financing structure that may solve the limitation on additional indebtedness, split incentive and projection

of savings barriers. The structure, known as an Energy Services Agreement (“ESA”) allows an investor to agree to provide energy to a building at a price based on the building’s historical costs. The investor pays for EE upgrades and then uses the savings to provide a return on investment.

For example, imagine a building that currently pays \$100,000 per month for electricity and an investor that spends \$1MM to reduce the monthly expense to \$60,000. The investor collects the \$40,000 in monthly savings for three years and at the end of that period turns the upgrades over to the building owner. From the building owner’s perspective, all payments are operating expense so they can be passed directly to tenants (solves split incentive) and the building incurs no additional debt. The investor takes the risk that the project does not generate expected savings.

Companies involved in the ESA market include Transcend Equity, Metrus Energy, Green Campus Partners, Groom Energy and Serious Energy. While each of these companies is having some initial success, one of their key barriers is raising debt capital to fund their investments in ESAs. Banks have taken the view that an ESA will be subordinate to the first mortgage and likely wiped out in the event of a foreclosure.

On-Bill Repayment: Part 2 of the Solution

As mentioned above, most investments in energy efficiency projects in a commercial building will be considered by the investor as likely subordinated to the first mortgage. This holds both for conventional loans and ESA investments. Subordination implies very low expected recoveries in the event of foreclosure. Many investors will either choose not to participate or will expect high rates of return to compensate for that risk.

The credit quality of loans and ESAs (as well as other financing mechanisms) can be substantially improved by repaying the investment through the utility bill. Once the project is finalized, the building owner would allow the local utility to include repayment in future utility bills as part of the rate tariff.

To establish an on-bill repayment mechanism, a state’s public utilities commission will likely need to direct the utilities to do so. In many cases, this may require enabling legislation.

Key features of a commercial on-bill repayment program include:

- Capital provided by third parties including banks and/or ESA companies. No taxpayer or ratepayer funding required. Program administration and utility costs may be recovered through fees charged to investors or developers.
- Obligation is a rate tariff that stays with the meter. In the event of change in ownership or tenancy, the new payer of the utility bill would enjoy the savings from the project and

effectively assume the obligation. The tariff would continue to apply in the event of foreclosure.

- Program design may include a requirement that expected savings exceed debt service. This would ensure fairness for future tenants, owners and current mortgage holder. Use of an ESA would guarantee that cost will not increase as ESA developer assumes project performance risk.
- Program structure should include flexibility to accommodate wide variety of financing structures including loans, leases, ESAs and Power Purchase Agreements.

EDF has received significant indications of interest in financing projects through an on-bill repayment program from banks and ESA project developers.

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