



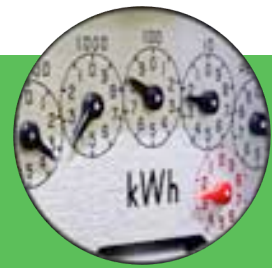
**Sustainable Environments**

# **EPIC OBT for Cities – A Solution for the Energy Efficiency Retrofit Market**



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# How On Bill Financing Can Revitalize the Energy Efficiency Retrofit Market



**America's buildings waste huge amounts of energy for no good reason.** They are not more comfortable, safer or more durable; in most cases, just the opposite. The energy is simply squandered due to inefficient systems and antiquated construction practices.

Unfortunately, even when property owners understand the benefits of making their buildings more efficient, many don't have the funds to make the necessary improvements, so the buildings continue to waste valuable energy year after year. A new funding concept called the **EPIC OBT Program** offers a workable solution.

The **EPIC OBT Program** makes it possible to pay for energy efficiency upgrades to existing buildings without burdening property owners with additional costs. In an **EPIC OBT Program**, the resulting energy savings will at least cover the cost of monthly improvement payments. Utility customers will wind up paying the same monthly amount, or less, than they would have if no improvements were ever made.

Many communities are now considering tax or utility service on bill finance programs. The benefits to customers are obvious, but utilities and cities are reluctant to expand their services into such uncharted waters. An alternative is needed to make programs safe, simple and practical for communities to implement and operate.

Sustainable Environments Inc. has developed the **EPIC OBT Program (Efficiency Paid Improvement Costs On Bill Tariff)** with that goal in mind. **EPIC OBT** is a standardized and packaged program designed to be easy for a sponsor to set up and operate. The program differs from most energy efficiency program models in several significant ways.

- Tariff, not a loan program
- Can be sponsored by cities as well as utilities
- Standardized and packaged program, with all start-up materials and training
- Savings always equal or exceed the tariff payment
- Minimal liability for the sponsor
- Certified auditor directed and guided
- Serves all types of properties
- Specific benefits directed at low income families
- Uses most local contractors
- Limited to proven, high impact improvements
- Quality Control verified work

# 1. On Bill Tariffs vs On Bill Repayments



It is important to understand that any on bill financing mechanism is separate and independent from the program used to make the improvements.

The improvements program evaluates deficiencies and specifies and implements cost effective measures. The on bill financing mechanism is a way to pay for the work.

The EPIC OBT Program is tariff based. It applies to all utility service customers, electrical, gas or water.

**Best of all it is designed to make utility savings equal to the improvement tariff costs.** The monthly charge to the customer will be approximately the same whether the improvements are made or not.

Traditional on bill finance programs have been offered by electrical utilities as home improvement loan programs, offered by the utility or by a lender that the utility has made an arrangement with. Traditional on bill finance programs have similar credit underwriting criteria to a bank loan, are generally registered as a lien on a property, and are the legal obligation of the property owner. They must be satisfied when a property is sold. This is often called “on bill repayment” (OBR).

There are several limitations to on bill repayment programs: they are directed at only those with good credit scores; they incur similar market rates for origination and debt service costs; and they are subject to relatively short terms. They also apply only to property owner accounts, not tenants. Rarely will utility savings even come close to covering monthly repayment costs in these programs.

Another alternative of current interest is PACE financing; a municipal or state program that collects improvement costs as a special tax assessment on improved properties. PACE can be more affordable than OBR because it usually carries a longer payback term and a lower finance rate, but it has significant legal costs and hurdles for the program sponsor. More importantly it doesn't resolve the split incentive problem and can lead to tax liens and foreclosure if not paid on time.

A new, and growing, alternative is called an “on bill tariff” program. Tariffs are additional fees added to a utility bill to pay for some additional product or service provided by the utility. Tariffs are authorized by, and made part of, a utilities rate structure by the “terms of service agreement” signed by the party requesting utility service.

Tariffs are charges made against a meter, not an individual or company. Whoever contracts for service from a meter with a tariff in force will be obligated to pay that tariff as part of the monthly bill until the tariff is satisfied. If the tariff is not paid the entire service can be terminated until the outstanding bill and credit penalties are brought up to date. Tariff programs service tenants as well as property owners.

In tariff programs the obligation stays with the meter, not the consumer. No liens are filed against properties and property owners incur no additional debt. Properties can change hands many times with no consequence to the tariff; the meter maintains the obligation to repay the cost of work performed.

Origination and debt service costs are much lower in tariff programs, as are defaults. In tariff programs credit qualification is usually the same as it would be to establish basic utility service.

The **EPIC OBT Program** is tariff based. It applies to all utility service customers, electrical, gas or water. Best of all it is designed to make utility savings equal to the improvement tariff costs. The monthly charge to the customer will be the same or less whether the improvements are made or not.

## 2. Who Operates a Program?



It's generally assumed that electric utilities are the logical sponsors of energy efficiency improvement programs. Many have risen to the challenge, but many more are hesitant for numerous valid reasons.

A number of cities and towns have become frustrated with their utilities lack of involvement with comprehensive energy savings programs and have decided to pursue programs of their own. The issue isn't whether these programs provide both individual and community benefit. Everyone agrees they do. The decision becomes who should sponsor, initiate, and run them.

If possible and practical, sponsorship of energy efficiency improvement programs belongs with the real beneficiaries of the programs: local economies. Cities gain jobs, and their building owners realize increased efficiency and added value.

- Cities have experience with delivering social services to their communities.
- Cities have varied social services that can coordinate additional benefits.
- Cities have access to more options for funding than utilities.
- Many cities already have working relationships with the strategic partners needed to put an on bill financing program together.
- Some cities even have a type of EEM program that can be rolled into an **EPIC OBT** initiative.

In the **EPIC OBT Program**, cities are able to provide improvement contracts with multiple utility partners. Gas suppliers as well as several electric utilities can be strategic partners in the same program. Even water and sewer providers will be able to offer OBF improvements.

The **EPIC OBT Program** works with a city or county to set up, implement, and run a program. The first step is to identify 3 groups of strategic partners: 1) utility providers, 2) a Community Development Financial Institution (CDFI) and 3) one or more Energy Services Companies (ESCOs), organized and overseen under the direction of the program sponsor. The ESCOs run the programs, the CDFI handles the money, and the utilities collect the tariffs. The sponsor manages the strategic partnership.

Community governments are the appropriate parties to organize and implement an on bill tariff initiative. The **EPIC OBT Program** is built on this strategy and guides that process.

### 3. Priority Properties



Programs subsidizing property owners who make energy efficiency improvements historically have targeted single-family residences. Tax credits, rebates, discounts, WAP improvements, and other ARRA fund incentives have been used by governments and utilities to incentivize residential single-family homeowners to cut energy consumption. Most on bill financing programs target the same building segment. While single-family residential properties remain a focus for **EPIC OBT Program** improvements, they wouldn't be the primary one.

Because of a split incentive for renters, residential and small commercial tenants are by far the most egregious energy wasters in the built environment and provide the best opportunity for cost effective improvement. They represent, by far, the greatest potential savings for the lowest investment. If energy savings per dollar invested is the goal, it is best achieved with these groups.

- **Multifamily Opportunity**

Multifamily apartment properties are the fastest-trading sector in the real estate world. Thousands of these properties are now sold monthly and nearly all of them go through a renovation process before being re-leased. Unfortunately, because of a split incentive problem, these improvements rarely include badly needed energy efficiency upgrades.

Multifamily property owners who would like to make these additional improvements are unlikely to invest their capital in costs that don't have compensating rent returns. Being able to make energy efficiency improvements and pass the cost on to tenants through their utility bills would be very appealing to these owners. These properties will be the first solicited by the **EPIC OBT Program**.

- **Small Commercial**

Another priority target for **EPIC OBT** improvements should be small commercial spaces, especially the thousands of smaller strip mall complexes built in the 1970s and 1980s. These properties typically waste excessive energy and can benefit from several easy improvements. Commercial space tenants are rarely aware of the energy consumption profiles of their spaces and are generally shocked when they find out how much they will save through efficiency improvements. Small commercial properties are the second priority target in the **EPIC OBT Program**.

- **Municipal Property**

Municipal properties are another high priority target for **EPIC OBT** improvements for the same reasons. Local governments often realize the need for efficiency improvements but struggle to find ways to pay for them. The **EPIC OBT Program** would benefit cities, towns or counties in the same manner as other utility customers.

Neither small commercial nor apartment complexes have been the beneficiaries of the major federal tax incentive programs offered during the past 15 years. Owners of these rental properties are a much easier and less expensive group to target for **EPIC OBT** improvements. They would be more inclined to make use of the programs, which provide improvements to their properties and savings to their tenants at no cost to themselves.

- **Low-Income Benefit**

More than 60% of low-income people in this country live in rental properties. To the extent that low-income customers are a priority for OBF improvements, rental apartments are the place where the most benefit can be realized. These are the customers who can least afford excessive energy bills and, because of the split incentive, they are the ones most likely to have them.

Municipalities can couple the **EPIC OBT Program** with other local low-income resident assistance services to make tariff charges significantly less than energy savings costs. This can provide immediate improvement in net income while at the same time creating a safer and more comfortable home.

## 4. Critical Mass and Program Efficiency



Any business start-up needs an initial critical mass of business to justify start-up costs and provide enough work to keep a staff efficiently busy. The best way to do this is to size a program, even a pilot program, so the program partner's employees are working productively full time. This has been a major stumbling block for most EEM programs.

The **EPIC OBT Program** splits the initial available improvement funding into four portions—one for multifamily residential, one for municipal, one for small commercial and one for single family residential—in order to solve this problem.

Focusing on multifamily and municipal sales first provides the critical mass of volume needed to create the necessary economy of scale. These sectors represent an underserved and hungry market. An **EPIC OBT** sale to a multifamily property or city will result in a contract covering hundreds of units over many months. Several of these contracts can keep a start-up organization busy for at least a year while allowing time to develop more difficult and less consistent single-family and small commercial sales.

Multifamily and municipal projects also have a 100% conversion rate that will substantially fund loan loss reserves, and auditing, financing, sales, and utility costs.

## 5. Certified Contractors



Most EEM programs set up a contractor training and certification process, and require property owners to use one of the certified contractors to do program work. This is a substantial upfront expense for the program implementer, creating work and worker liabilities that program partners want no part of. It is also a major objection for property owners who often want to use contractors they know and trust or prefer to do the work themselves.

There is a nuanced but critical distinction in the relationship between a property owner and an on bill finance program, specifically the responsibility for the work being done. From the property owner's standpoint, the one who does and pays for the work is the one perceived to be, and generally is, legally responsible for the work.

Most OBR programs suggest that a utility is making improvements to a property, and subsequently recovering the improvement costs from the savings generated. The structure of these projects, with program-guided work using program-certified contractors, creates a large and un-necessary liability for the program sponsor. If the sponsor requires certified contractors, the property owner will assume the sponsor is responsible for the quality of the service, the eventual savings from the work, and any warranties applicable, whether that is the intention or not.

Conventional OBR programs proudly claim to be providing and paying for improvement work, implying responsibility with the claim. In the **EPIC OBT Program**, the program enables the property owner to do or contract the work, while emphasizing by an agreement with the property owner that the program is only fronting the money to the owner for improvements. The property owner is actually hiring and directing the work. It is the property owner, and the contractors hired by the property owner, that are responsible.

The **EPIC OBT Program** allows anyone to perform program improvement work as long as four conditions are met:

- 1) If there is a contractor, it must be properly registered and properly insured.
- 2) Permits must be pulled where required.
- 3) The work must be done to the program specifications, provided to the property owner by the ESCO.
- 4) The improvement contracts need to be pre-approved by ESCO so they do not exceed life expectancy limits (SIR or PPV) or funding limits.

With those conditions met, the property owner can do the work themselves, or hire anyone they want to do the work for them. The responsibility for the work clearly rests with the owner and his contractors, not with the program.



## 6. Auditors and Modeling



In the **EPIC OBT Program**, certified and experienced auditors perform a professional audit, modeling the property and improvements, creating an appropriate scope of work, and insuring the improvement work is properly and completely done. Auditors are employed by the ESCO.

The only certifications that ensure this level of competence are the DOE Home Energy Professional Auditor and Home Energy Professional Quality Control Inspector certifications. **EPIC OBT Program** auditors will have one of these certifications. All work done will be specified, approved, overseen and tested-out by one of these auditors.

Improvement savings will be calculated by proven and dependable modeling software. The software will provide accurate utility savings projections for improvement packages in order to calculate realistic tariff charges.

## 7. Limited Improvements



The **EPIC OBT Program** specifies a limited range of eight proven energy efficiency improvements in its basic scope of work packages for all customers. All electric customers, or customers with electric air conditioning or heating systems, qualify for additional HVAC measures. Customers with gas heating qualify for upgraded systems if a gas company is a strategic partner in that specific program.

Basic energy efficiency measures (EEMs) are air sealing, attic insulation, duct sealing, duct insulation, EnergyStar appliances, light bulb upgrades, DHW efficiency improvements, and programmable thermostats. The auditor will specify and verify these improvements. Permits must be pulled where necessary.

When heating systems qualify they will require a Manual J load calculation for proper sizing, as well as permitting in order to require inspection and approval by an AHJ building department.

**EPIC OBT Program** contracts for water and sewer improvements will pay for low flow plumbing fixtures, irrigation controls, and high efficiency washing machines.

# CONCLUSION

On bill tariff programs will one day be responsible for making most American buildings resource efficient; it is only a matter of when and how. No one drives a car that gets five miles to the gallon anymore. For the same reason someday soon no one will occupy a building that squanders valuable resources.

The option now exists to create jobs, re-vitalize communities, reduce energy consumption, and make people safer and more comfortable—all at no additional cost to anyone. The billions of dollars it will take to do this shouldn't come from ratepayers or taxpayers when each building's utility savings can easily cover the costs. Instead, it should come from the property owners who benefit from the improvements.

The **EPIC OBT Program** is packaged and standardized, which means that employees, materials, recordkeeping, and contractor protocols are interchangeable between sponsors. Sustainable Environments can provide modeling, work-scope preparation, and recordkeeping as an outsourced service if desired.

The **EPIC OBT Program** provides the methods and tools necessary to make all this happen. Local communities can and should rise to this challenge.