



Tariff-based On-Bill Financing: Assessing the Risks for Low-Income Consumers

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More than a quarter of households struggle to meet their energy needs.¹ These households frequently face the risk of having their utility service terminated.² Low-income families, in particular, spend a substantial portion of their income on electricity and heating. The average low-income household spends around 14% of their annual income on energy bills, compared to 3% for higher income households.³ Because of high energy costs, low-income families often sacrifice spending on other important needs, including groceries, childcare, and medicine, or reduce their energy usage in ways that decrease home comfort and harm their health.

On-bill financing allows a utility customer to pay for energy efficiency improvements and renewable energy by adding a payment onto the customer's monthly utility bill.

Renewable energy and energy efficiency technologies provide opportunities to reduce energy bills and broaden access to clean energy, but affordability is particularly challenging for low-income customers.⁴ The equitable distribution of these technologies helps mitigate energy poverty and climate change impacts. As a result, some clean energy advocates support on-bill financing loans⁵ to increase access to these technologies. But unlike long-standing zero-cost public programs,⁶ on-bill financing

loans can cause financial harm when not designed specifically to protect the interests and financial well-being of low-income households.

This brief will address consumer protection concerns with tariff-based on-bill financing loans (sometimes referred to as tariff on-bill, PAYS®, on-bill financing, or inclusive utility investment), discuss guardrails needed to protect consumers who participate in this type of financing, and suggest safer alternatives for low-income families.

What is Tariff-Based On-Bill Financing (OBF)?

Because energy efficiency and renewable improvements are expensive, some clean energy advocates believe on-bill financing loans are a solution for making these improvements more accessible for low-income families. Supporters of OBF also believe such programs can overcome the “split incentive,” a major barrier to investment in home energy efficiency for renters.⁷ The split incentive arises because tenants have an incentive to reduce their utility bills, but landlords, who own the property but do not live there or pay the utility bills, have little incentive to make energy improvements that can significantly reduce utility bills (such as upgrading central heating and cooling systems, furnaces, etc.). OBF allows customers to repay efficiency and renewable upgrades through their utility bills, with the loan tied to the customer (traditional model) or to the home meter (tariff-based model). These financing programs have been implemented by utilities around the country, mostly at rural electric membership cooperatives.⁸

PAYS® (Pay As You Save®), one popular tariff-based OBF model, helps solve the split incentive problem for renters and promises customers bill savings for making energy efficiency

improvements. PAYS® enables interested customers to make those improvements by opting into a tariff that links payment responsibility to the meter. Because tariffed OBF is tied to the meter, the obligation to repay the loan transfers to the new tenant or homeowner in the property. Proponents argue that tariffed OBF is accessible for low-income customers because it is not a personal debt the customer assumes, requires no upfront payment or credit checks, and allows customers to enjoy net annual savings that are at least 25% above the charges they pay to participate in the program.⁹ Utility regulators in a few states have already approved PAYS® tariffs, while some individual utilities in a handful of other states have implemented their own versions of the program.¹⁰ For example, utilities in Arkansas¹¹ and North Carolina¹² have implemented tariffed OBF programs, and Illinois recently passed a law directing electric utilities to adopt tariffed OBF programs.¹³

What Are the Risks of Tariffed OBF Financing?

Financing energy efficiency and renewable energy projects through lending to low-income consumers has been fraught with problems, including the deceptive marketing of PACE (Property Assessed Clean Energy) loans.¹⁴ Likewise, on-bill loans for energy improvements pose significant risks to vulnerable customers,¹⁵ and tariffed OBF like PAYS® are no exception. While these programs claim to have built-in consumer protections,¹⁶ the programs carry many of the same risks of non-tariffed OBF by worsening energy affordability for some low-income customers, increasing the risk of disconnection, and contributing to housing displacement. NCLC has identified the following risks associated with tariffed OBF financing:

“National Grid strongly supports providing energy efficiency programs to low-income households at no cost, like WAP and many utility programs do. These programs are a lifeline for low-income customers. Targeting low-income customers for tariffed on-bill financing may create a perverse incentive to reduce funding for zero-cost programs. However, in states where funding for zero-cost energy efficiency programs is extremely limited and tariffed on-bill financing is adopted, rigorous consumer protections must be included.”
—Chris Porter, *National Grid*

- **Reliance on service disconnection.** Most current proposals for tariffed OBF rely on the threat of service disconnection to significantly reduce risks to capital providers,¹⁷ while failing to adequately shield consumers from the risk of service disconnection.¹⁸ Service disconnection harms occupant health and also renders homes uninhabitable, leads to eviction and displacement, affects credit scores, and impacts employment.¹⁹
- **No guarantee of savings.** Although tariffed OBF programs are often intended to help customers save money (through increased efficiency and thus reduced overall bills), this outcome is not guaranteed. It is possible that some participating low-income households will see higher bills due to underperformance of installed measures, putting them at greater risk of utility disconnection.
- **A loan by another name.** While program advocates assert that tariffed-OBF is not a loan because no underwriting, credit check, or ability to pay analysis is necessary, the general format of these programs requires participants to repay the costs of installed energy improvements through a surcharge on their utility bills. In effect, the utility or administrator of the tariffed OBF program acts as a “creditor.”²⁰ Additionally, tariffed OBF, like any other

lending, comes with consequences for late- or non-payment, such as late fees that can increase the size of the debt.

- **Risks fall on the consumer.** Tariffed OBF programs shifts risk to the consumer. These risks include improper or faulty installation, ongoing maintenance costs, and lack of or insufficient warranties. In the event of occupancy turnover, the tariffed OBF obligation to repay remains with the meter rather than with the occupant who incurs the initial obligation, further complicating savings and risk calculations for subsequent occupants, who will likely have different energy usage patterns, and possibly increasing the cost of housing.
- **Potential for predatory and aggressive marketing of PAYS®, rather than utility zero-cost programs.** Tariffed OBF programs may incentivize predatory marketing by contractors, which can be aggravated where there are utility financial incentives but a lack of rigorous oversight of contractors. For example, the Illinois Climate and Equitable Jobs Act provides for the possibility of shareholder incentives (i.e. increased profits) for promoting PAYS®, which could drive marketing efforts to favor PAYS-like programs over zero-cost weatherization offerings.²¹
- **Displacement of free low-income programs.** Tariffed OBF programs may hinder political support for funding for broader zero-cost programs, such as the Low Income Home Energy Assistance Program (LIHEAP), the Weatherization Assistance Program (WAP), and state or utility-run zero-cost programs that are better suited for the needs of low-income families.

NCLC's Recommendations to Reduce Risks for Low-Income Consumers

NCLC recognizes that low-income households, as much as other households, need access to energy efficiency and cleaner energy systems. An equitable transition to cleaner energy, however, requires that low-income households receive access to the benefits of new technologies in a way that is specifically tailored to their needs and holds them harmless when forecasted energy savings don't materialize. It is also imperative that policy-makers, advocates, and other stakeholders reviewing proposals to implement tariffed OBF identify risks for consumers; examine and critique the roles of contractors, vendors and private capital; and implement program protections and controls that ensure and enhance home energy and financial security for all households.

We highlight several recommendations to minimize risks for low-income households:

- **Screen low-income customers for zero-cost programs first.** Before enrolling consumers in an OBF program, utilities should screen them to determine eligibility for WAP and other free programs that pay for energy efficiency upgrades for low-income consumers. Tariffed OBF should not be marketed under any circumstances to customers who qualify for these free programs. To protect bill affordability for consumers enrolled in an OBF program, utilities should make sure these consumers are also enrolled in energy affordability programs for which they qualify, such as LIHEAP and state-specific or utility-sponsored discount rates and percentage of income payment plans.
- **Eliminate disconnection as a remedy for nonpayment.** Disconnection should not be allowed for unpaid OBF charges. Utilities should separate out the regular utility bill and OBF charge and apply all payments to the regular bill first to ensure utility service. This includes applying partial bill payments²² to the utility bill first.

- **Hold low-income households harmless for savings shortfalls.** Utilities should guarantee energy savings from installed measures and, if they do not materialize, hold low-income households harmless if savings fall short. To achieve this, utilities should require program administrators to conduct audits which verify that promised savings have been achieved and that assure net bill neutrality. Claims of savings require proof of lower monthly bills. A hold harmless guarantee should be backed up by establishing a reserve fund that will reimburse participants for costs incurred due to under-performance. If a household initially selects measures that will increase home health and safety but may increase bills (such as home cooling from air source heat pumps, or lower indoor air pollution from electric appliances),²³ then a pre-installation audit should be accompanied by a reasonable and transparent projection of likely energy costs associated with the new functions of the selected measures.
- **Exclude solar measures.** Solar arrays and battery storage should be excluded from the list of measures that can be financed. Not only are the up-front partial costs high and the payback periods therefore longer for such measures, but it is unfair to require a subsequent tenant to bear the cost of a solar array that typically degrades in performance over time.
- **Reduce the incentive for predatory marketing.** Tariffed OBF programs should be administered by entities completely independent of the installation contractors. In no case should the marketing of tariffed OBF programs be conducted by contractors or others with a financial interest in maximizing sales. To ensure full transparency, program administrators should provide potential participants with clear and informative disclosure documents that have been subject to consumer testing, translated into applicable languages within utility service territories, and list program information, bill savings expectations, and other relevant information. To promote accountability, utilities should be held accountable for the actions of the original seller.
- **Ensure quality control to prevent risks from falling on the customer.** Allow only screened and certified contractors to install the measures. Provide ongoing maintenance and post-installation quality control for low-income consumers. For issues that may arise during or post-installation, establish a clear process for complaints and redress, including allowing the customer to be released from the contract if there is a failure to repair or correct the problem.
- **Protect subsequent home occupants and housing costs.** Protections noted above concerning disconnection, savings, and quality control should flow to subsequent home occupants for as long as the tariffed OBF debt is on the meter. Where there is a vacancy, the OBF debt should be put on hold and not allowed to accrue for the unit, to protect the cost of housing.
- **Establish a complaint and dispute resolution process for customers.** Utilities should establish oversight mechanisms to increase transparency and accountability, including the creation of a complaint and dispute resolution process with a centralized, accessible platform for reporting. A consumer-friendly reporting platform would enable utilities to identify and resolve problems when they occur, and monitor and analyze program performance.

Conclusion

Keeping the lights on and indoor temperatures at safe and healthy levels are the primary functions of utility service, and there are existing programs and rules designed to help low-income consumers maintain their service. Tariff-based on-bill financing and similar financing programs should not displace existing free programs or exacerbate utility disconnection activity.

We recognize that many free programs have lean budgets. State and federal funding for low-income home energy improvements is best spent on existing free programs to broaden the number of consumers and measures covered by those programs. And any use of tariffed OBF programs should include robust consumer protections. For further discussion, see [NCLC's resources](#).

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Endnotes

¹ U.S. Energy Information Administration, April 11, 2022.

² Moreover, low-income households have the least ability to mitigate the growing harms of climate change, as they are less likely to have adequate insurance or the cash needed to relocate or make repairs after major weather events. Low-income households and racial minorities are also more likely to live in areas projected to have significant increases in asthma and heat-related deaths caused by climate change. See [“EPA Report Shows Disproportionate Impacts of Climate Change on Socially Vulnerable Populations in the United States,” EPA \(Sept. 2022\)](#).

³ U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, June 2022.

⁴ Durkay, Jocelyn. [“Energy Efficiency and Renewables in Low-Income Homes,” National Conference of State Legislatures \(Feb. 2017\)](#).

⁵ Durkay, Jocelyn. [“Energy Efficiency and Renewables in Low-Income Homes,” National Conference of State Legislatures \(Feb. 2017\)](#).

⁶ Zero-cost public programs like Weatherization Assistance (“WAP”) and the Low Income Home Energy Assistance Program (“LIHEAP”) help millions of families access important energy improvements and lower their energy burden. See Perl, Libby. [“LIHEAP: Program and Funding,” Congressional Research Service \(June 22, 2018\)](#).

⁷ See [“Toolkit: On-Bill Energy Efficiency,” ACEEE \(Feb. 2017\)](#).

⁸ [Interactive Map of Utilities with On-Bill Financing Programs, EESI](#).

⁹ Neal, David, [“Review of National Consumer Law Center’s Tariff On-Bill Recommendations in Context of the Pay as You Save® System’s Built-In Consumer Protections,” Southern Environmental Law Center \(December 2020\)](#).

¹⁰ For example, Missouri, Georgia, and Arkansas utility regulators have approved PAYS® tariffs, and utilities in New Hampshire, North Carolina, California, and Tennessee have already implemented their own programs. See [“Status of PAYS & TOB Regulatory Proceedings and Legislation,” Liberty Homes \(Oct. 26, 2020\)](#). See also [Energy Efficiency Institute, Inc. \(March 29, 2022\)](#).

¹¹ [“HELP PAYS \(Pay As You Save – Energy Efficiency Program\),” Ouachita Electric Cooperation Corporation](#).

¹² [“Upgrade to \\$ave Program,” Roanoke Electric Cooperative](#).

¹³ Illinois recently passed and enacted the Clean Energy Jobs and Justice Fund Act. See 805 ILCS § 155 and 220 ILCS § 5/16-111.10

¹⁴ John Rao. “Residential Property Assessed Clean Energy (PACE) Loans: The Perils of Easy Money for Clean Energy Improvements,” *NCLC* (Sept. 2017). See also “Property Assessed Clean Energy (PACE) Loans: State and Local Consumer Protections,” *NCLC* (Nov. 2019).

¹⁵ The Massachusetts “HEAT” loan program provides a highly successful but lower-risk, alternative financing model that does not involve on-bill repayment. Loans are made by community-based lenders in amounts up to \$25,000, are interest-free, and can be paid back over a period up to seven years. “MassSAVE® HEAT Loan.” Moreover, because the MassSAVE® program offers substantial subsidies and incentives for installing energy efficiency measures, the principal amount of the loan is much smaller than the actual cost of the installed measures, further reducing risk to the consumer. “MassSAVE® Residential Rebates and Incentives.” During 2020, the HEAT Loan program made 33,000 loans totaling \$290 million, with the average loan exceeding \$7,500. [2020 HEAT Loan Measure Report](#). The HEAT loan program is far larger than any PAYS® program NCLC has found.

¹⁶ See “Introduction to Inclusive Investments,” *Clean Energy Works*.

¹⁷ Tariffed OBF programs in Vermont, where PAYS® was developed, differ from other implemented and proposed models tariffed OBF in that it disallows disconnection for nonpayment of the tariff charge. See “Introduction to Inclusive Investments,” *Clean Energy Works*.

¹⁸ Proponents claim that utilities with PAYS® programs have reported no disconnections for nonpayment of the tariff charge, but lack of reporting does not mean lack of disconnections. Furthermore, disconnections nearly always lead to required reconnection fees and full payment of arrearage before a customer can be reconnected, highlighting the dangers of using disconnection as a means to collect the loan.

¹⁹ Farley, Chandra and Howat, John, et. al. “Advancing Equity in Utility Regulation: Future Electric Utility Regulation Report No. 12,” *Future Electric Utility Regulation* (Nov. 2021), p. 71. The threat of disconnection also may lead customers to turn to predatory loans to pay their bills.

²⁰ The Truth in Lending Act defines “credit” as “the right granted by a creditor to a debtor to defer payment of debt or to incur debt and defer its payment.” See 15 U.S.C. § 1602(f); Reg. Z § 1026.2(a)(14). Importantly, credit can be extended separately from the creation of the debt, as has been held by the Third and Fourth Circuit courts. For example, in one case a private company purchased water and sewer liens from local governmental bodies and then offered payment plans with finance charges to the debtors. See *Pollice v. National Tax Funding*, 225 F.3d 379 (3d Cir. 2000).

²¹ See 220 ILCS 5/16-111.10(q). Section 16-111.10(q) provides: “An electric utility shall recover all of the prudently incurred costs of offering a program approved by the Commission under this Section. For investor-owned utilities, shareholder incentives will be proportional to meeting Commission approved thresholds for the number of customers served and the amount of its investments in those locations.”

²² Because low-income families struggle with energy insecurity, it can be expected that partial payments will occur with tariffed OBF programs.

²³ It is important to note that in cases where a home has no air conditioning at all, the costs of installing a heat pump may be less than the medical costs associated with heat-related health problems and respiratory problems. These households may choose to add new measures that may increase their utility bills but protect or improve safety and the family’s overall health.