









Enabling Investments in Energy Efficiency: On-Bill Repayment Programs

Merrian Fuller
Lawrence Berkeley National Laboratory (LBNL)
Retrofit Ramp-Up Implementation Workshop
July 8, 2010

Key Financing Lessons



#1 People have to WANT what you're financing

- → Creating a financing option is never enough on its own
- → Many EE financing programs are severely underutilized



EE Financing Report: www.veic.org/ResourceLibrary.aspx

Key Financing Lessons



#2 Make it EASY, appropriate to the job & target audience, and competitive

- → Easy for both participants & contractors
- → One product may not work for comprehensive retrofits AND emergency replacements
- → Need to consider WHO will have access
- → Interest rates need to be reasonable (but not necessarily 0%)



Key Financing Lessons



#3

Engage contractors in the design & deployment of financing programs

- → The existing programs with a higher volume of projects ACTIVELY engage contractors as partners:
 - NYSERDA
 - Keystone HELP
 - Sacramento Municipal Utility District (SMUD)
 - Manitoba Hydro



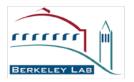
2 Types of On Bill Repayment



On Bill Repayment = The utility or some other entity (such as a third party financial institution) incurs the cost of the upgrade and the customer repays the investment through a charge on their utility bill.

- 1. On Bill Loan
- 2. On Bill Tariff

On Bill Loan





\$\$ Upfront

\$\$ Repaid on utility bill



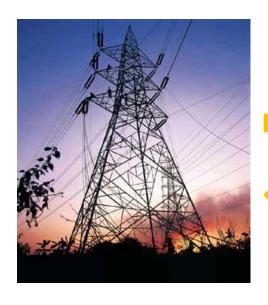
- Utility or 3rd party provides upfront capital
- Adds repayment to existing utility bill

- Identifies work & contractor based on utility criteria
- Repays financing on utility bill
- Remaining balance must be repaid when the tenant moves

Examples: Manitoba Hydro, Dixie Electric Coop, Clean Energy Works Portland

On Bill Tariff





\$\$ Upfront

\$\$ Repaid on utility bill



- Creates approval process and project criteria
- Provides upfront capital
- Attaches repayment obligation to the meter

- Identifies work & contractor based on utility criteria
- Repays financing on utility bill
- Repayment obligation transfers with tenancy

Residential Example: Midwest Energy

Advantages & Disadvantages



- + Savings paired directly with repayment on the same bill
- + Can use capital from a variety of sources
- + Can be structured to meet the needs of different markets
- + Provides a secure revenue stream since failure to pay is often tied to disconnection
- + Can use past bill repayment as a proxy for credit
- + Allows for longer term investments and can address rental units (on-bill tariff)

- Utilities are often reluctant to take on role of financing entity; potential exposure to consumer lending laws and alterations to billing systems are required.
- Can be extremely complicated to setup (on bill tariff especially)
- Limited to shorter term financing (on bill loan only)
- Participants must pay off entire loan upon sale of property, which could result in not all of the energy savings being realized (on bill loan only)

Key Issues to Consider



- Changing billing system appears to be difficult for some utilities
- Repayment allocation (i.e., who gets paid first) is an issue when customers partially pay their bills
- Using On Bill Repayment for improvements that save fuels not included on the bill may be confusing (e.g. if bill is electricity-only and the improvements save gas)
- The commitment of the utility to the On Bill Repayment program is critical

R2 Grantees Exploring On bill



- Portland has an existing program Clean Energy Works
- Michigan
- New York
- Indianapolis
- New Hampshire
- Seattle
- Sonoma County (a sub-grantee of LA County's R2 proposal) is exploring an on water bill program

Existing DOE Resources



DOE's Solution Center page on On Bill Repayment:

http://www1.eere.energy.gov/wip/solutioncenter/financial products/OnbillRepayment.html

Portland Clean Energy Works webinar from Feb 11, 2010:

http://www1.eere.energy.gov/wip/solutioncenter/webcasts/default.html

Contact Info











Merrian Fuller

Lawrence Berkeley National Laboratory

Email: MCFuller@LBL.gov

Phone: 510-486-4482