

Finally! A Simple Way of Getting Measures with More Than 3 Year Paybacks Installed!

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ABSTRACT

The innovative concept of using existing municipal and county loan fund programs as voluntary financing mechanisms for both residential and commercial energy efficiency and renewable energy measures is the focus of this paper. These programs allow current owners to install long term payback energy efficiency measures and equipment, and/or renewables, and repay the loan through the property taxes on that building. The debt stays with that property through the property tax assessment and, when sold, transfers to the new owner. Current owners would no longer need to limit their thinking to investing only in measures that would pay back within their potentially short – and usually uncertain – residency in the home or business. The current (and each succeeding) owner would pay toward the loan repayment only during their ownership of the home (through property taxes), and would also receive the associated energy savings over the same period. This financing mechanism is one of the most effective ways to get investment in existing buildings, eliminating key barriers to retrofit measures. Four early, but differing, programs are used as examples: Boulder County, Sonoma County, Palm Desert, and Berkeley. These programs are catching on and spreading. The author undertook research and conducted interviews with program managers across the country to identify their effectiveness and how well they work, to assess pros and cons, and to gather suggestions for communities considering implementing similar programs. A generic term for these programs is PACE – Property Assessed Clean Energy Programs.

Introduction

The Federal Government is looking to local governments to help push the national agenda of reducing our dependence on fossil fuels. Over 900 mayors have signed the U.S. Conference of Mayors Climate Protection Agreement. More and more local governments are setting long term carbon neutrality goals and this is a way to enable residents to invest in long-term payback measures – without taxing already-strained local government budgets.

Greenhouse gas (GHG) inventories show that existing buildings are responsible for anywhere from one third to one half of all emissions. A significant number that can't be overlooked by any community considering sustainability and GHG programs, or when looking for ways to get energy efficiency (EE) into homes and businesses as a way to help meet climate change, job creation, and other goals. Incentives are expensive and don't remove some of the key barriers – like how to get investment in long-term measures as well as quick payback items.

Nearly 40 million people move annually and about 75% of the US population moves an average of once every five years. Rather than having an occupant, or owner, be responsible for the loan, or financing for the equipment, Boulder County, CO, Sonoma County, Palm Desert, and Berkeley, CA are using property tax loans to fund the energy efficient measure installation. The loan is paid back by the “property” through the property taxes associated with the building, regardless of who the owner is. These property tax payments can be recovered throughout the

tenures of multiple owners, each of whom receives a share of the energy savings or benefits from that initial investment. This can open the door for homes or businesses to invest in equipment that might not pay back for 10 or 20 years. The debt stays with the property and is paid back through property taxes over decades by each subsequent owner – each of whom also receives the benefit of the energy savings during the period they occupy the building. The owners essentially pay the debt out of the energy savings they receive from the invested measures. Further, it is almost free to the City or County sponsoring the program, as loan repayments come with every property tax bill. The financing pool is raised from voter-approved bonds, general funds or other sources.

The authors conducted research and completed interviews with program managers across the country to uncover commonalities and lessons learned in property tax based energy efficiency loans. A few of the successful aspects of the programs uncovered in the research include:

- *Removes barriers-* particularly pay-back and initial costs
- *Accelerates implementation-* gathers participants that might otherwise have waited to install measures
- *Serves as an alternate or augmentation to private funds-* some of the programs studied used to loan program to diversify their city investments
- *Encourages investment in long payback measures-* participants are looking beyond simple and inexpensive measures
- *Provides economic stimulus-* the program money can be a job multiplier in the contracting sector
- *Leads to savings on water and other bills-* measured installed go beyond just energy savings, and, of course,
- *Improves emissions and the environment.*

The programs studied vary. Some identified the money from general funds, others borrow from the market, and other arrangements also exist. The steps to implement the program are complex – from changes to state law in some cases to the intricate dance of timing a bond issue, consumer education, and selection of eligible measures. This paper describes how these programs have been implemented, their impacts, and lessons learned from the leading programs in the country.

Property tax based loans show excellent potential for putting millions of dollars on the street and into measures beyond the usual lighting and other short payback measures – including renewables. These programs represent a real change from the traditional efficiency program mix, and are of great interest to communities with climate change goals.

Berkeley

Berkeley First!, a pilot program, began operations in November 2008, and was focused on renewable measures. This program pioneered property-tax based financing, and tested it as an energy efficiency concept. They note that since their initial activities in the area, the concept has gained acceptance throughout the State and region, and Vice President Biden has endorsed the concept for a national retrofit program.

Berkeley's program does not require up front workshops, and doesn't have approved lists of contractors. The program did require homes to comply with the City's RECO ordinance that mandates all buildings to be brought to a minimum level of energy efficiency at point of sale or large rehabs. Berkeley's program involves a \$25 application fee, and eligibility was determined by reviewing property tax records (to assure they were "paid up") and utility bills.

The program issued a total of \$200K to 13 applicants for solar measures, each with a 20 year payback. A total of 27 applicants withdrew from the program after application (and the City had not collected backup applications). When the drop-outs were interviewed to evaluate the program, more than 80% said they planned to install the equipment anyway, and two-thirds said they have already installed the measures using home equity loans for the financing (at potentially a lower interest rate).

Lessons Learned.

Berkeley isn't a large city, and they have found it difficult to arrange for financing and raising money in the bond market at a favorable rate. The City had originally planned to go out for a Phase 2, but is holding off and working with Alameda County and Association of Bay Area Governments (ABAG) on broader efforts that will help spread the administrative costs.

The Boulder Example – Large-Scale County-Wide Residential and Commercial Program

Boulder County's county commissioners and staff have been aggressive about designing, implementing, and supporting a sustainable energy plan (SEP). Boulder County has a long "environmental ethic", was an early signatory to the Kyoto targets, and had adopted a long-term carbon neutrality goal. The County's recent Greenhouse Gas (GHG) inventory results showed that there were large increases in GHG emissions across the county and that the 2012 trajectory would put the County 85% above the 1990 Kyoto target. The results also showed that existing buildings are responsible for half the emissions in the community greenhouse gas inventory. As a consequence, the Climate Smart™ Loan Program became a cornerstone element of the SEP.

The Program

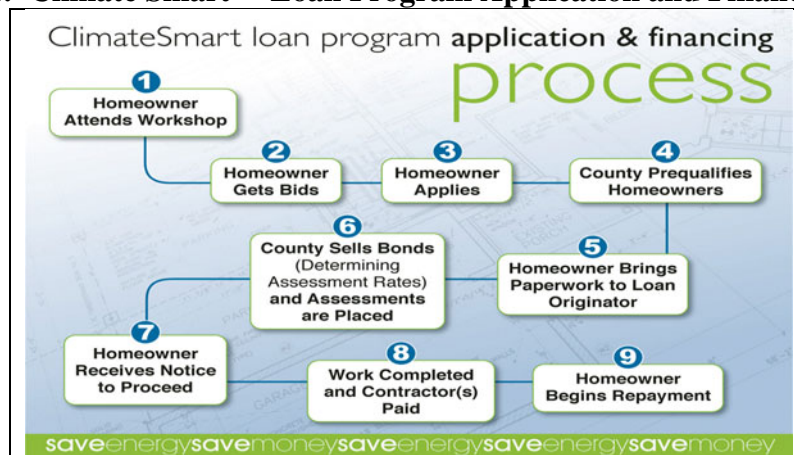
The funding for the program was authorized by County ballot, which allowed the County to go into the bond market and raise a pool of money to lend to residential and commercial property owners across the County (all 10 incorporated jurisdictions had passed ordinances to be part of the program). The County announced an eligibility period for the program, and solicited applications into the program. At the end of the application period, the County identified the total money to be borrowed, and went to the bond market to sell that dollar amount of bonds. Each of these times to the market is called a "tranche". The County achieved A+ rating for the bonds and achieved interest rates of 6.68% and 6.8% for the open loans, and 5.2% and 5.8% for the two rounds of income qualified loans issued in Spring and Fall 2009 and planned again for 2010. The County incorporated a "moral obligation clause", which in Colorado means that if there is a deficiency of repayment the county will consider making that whole. The county has

funds to provide one year of reserve (assuming no one pays) for Round 1, and round 2 has six months of reserves. The funds will likely not be dipped into as the repayment rate is about 99.9%.

Because the County goes to the bond market after applications are received, applicants can only be given an estimate of the applicable interest rate (bond markets can be volatile). Homes from the “open” pool (non-income-qualified) may borrow from \$3,000 to a maximum of 20% of the statutory actual value of the property or \$50,000. Income qualified loans may borrow up to \$15,000, but these households may combine with “open” loans up to a total of the open loan maximum. The funds are repaid through property tax assessments. Participants are required to sign a utility bill release during loan origination so the program impacts can be monitored.

The County’s program has a number of steps – and the program is designed to educate homeowners to make sure they invest in measures that make sense for their properties, that they understand building energy use, and that homeowners understand the progress they can make through complementary behavioral changes as well. Hence, the first step is attendance at a mandatory workshop. Figure 1 outlines the program’s application and financing process.

Figure 2: Climate Smart™ Loan Program Application and Financing Process



Program basics follow.

- Both energy efficiency and renewable energy measures may be acquired under the program; however the measures must be affixed to the property.
- All properties (residential and commercial) within Boulder County can participate
- The Countywide pool of funds is obtained through the sale of bonds
- Participants may borrow up to the full up-front cost of the improvements (no “match” is required).
- Special assessments are placed on property to initiate and sustain the payback of funds.
- The program complements rebate and incentive programs, and works to help participants take advantage of utility and state rebates, and local energy efficiency programs (CFL programs, neighborhood sweeps, residential audit program and other initiatives).
- There are approved contractors to help facilitate the program, but additional contractors may also be engaged.

More than 40 measures are allowed, based on different needs and desires of the home / homeowner. As mentioned they must be fixtures to the property. The useful life average across all the borrowers in a “traunch” must average 15 years or more under normal conditions (but that is not needed on a property by property basis). The eligible measures for the residential version of Boulder County’s program are shown below.

Table 1: Measures Eligible for Boulder County’s Climate Smart™ Loan Program

Energy Efficiency Measures	Renewable Energy Measures
<ul style="list-style-type: none"> • Air sealing and ventilation • Insulation • Space heating and cooling • Water heating • Lighting • Daylighting • Windows, doors, and skylights • Reflective roof • Pool equipment and landscaping (open only) 	<ul style="list-style-type: none"> • Solar water heating • Solar electric (PV) • Small wind • Wood or pellet stoves • If homeowners want renewable measures, they must also invest in some minimum energy efficiency as well.

Measures Installed

More than \$40 million was approved for this program by Boulder County voters. The County has apportioned \$28 million for residential properties and \$12 million for commercial installations. There have been two rounds of residential funding to date, resulting in more than \$10 million in investment in energy efficiency and renewable equipment throughout Boulder County. Beginning in the middle of March they will kickoff their 2010 workshops running through April and are expected to have similar results. A summary of the breakdown of measures installed follows:

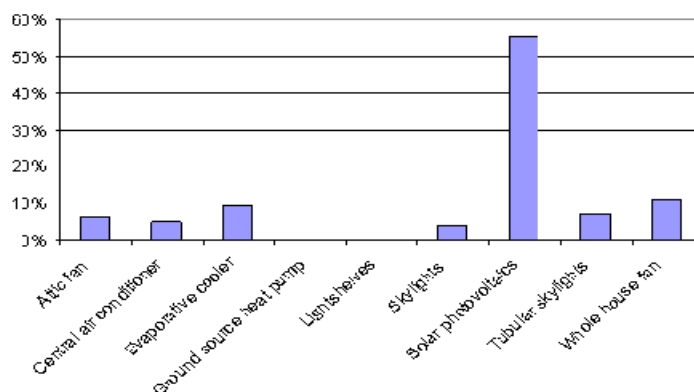
- The largest investment was in photovoltaics (renewables list)
- More than half the funds went into energy efficiency measures
- The most popular energy efficiency measures were windows (dollar-wise) and then insulation
- The most popular energy efficiency measures installed (number of installations) was insulation.

Note that initial research in program impacts indicates that there are strong “multipliers” associated with the program. During the recent economic downturn, a number of contractors indicated the “Climate Smart™ projects were a substantial part of their current workload.

The County’s costs for organizing and administering the program were approximately \$300K. The intention is to create a self-sustaining program, using several program-based sources for funds:

- Borrowers pay a non-refundable \$75 application fee
- County adds an “origination fee” of about 1-2 percent of the loan value
- Cost of issuance (about 3% of the bond amount)
- Small portion of assessment rate Reserve fund and surplus and deficiency fund.

Figure 2: Electricity Related Measures



The County assessed the direct and indirect impacts of the program to date:

- Direct: \$9.8 million in investment
- Emissions: total GHG saved (CO2 tons) 2,325
- Job Creation / Economic Development: 370-520 job-years of employment.

Commercial Program

The design and eligibilities for the commercial program were established after the residential program. The kick off begins in 2010 with applications due the end of March. The bond sale will likely take place late spring or early summer. The list of eligible measures includes energy efficiency measures such as window and door replacement, insulation and air sealing, combined heating, ventilation and air conditioning, boiler and furnace replacement, high efficiency lighting and more. In addition, the renewable energy measures include solar hot water, biomass, geothermal, small wind and solar PV systems.

The County contracted with a consultant to conduct the market analysis, and a stakeholder group will be responsible for reviewing applications. The maximum amount for commercial property owners is \$210,000 or 20% of the statutory actual value of the property, whichever is less. Projects must meet minimum efficiency requirements. The program “minimums” stay fairly small (\$3,000) to provide options for small businesses. There is a desire to avoid too many large projects, which makes the bonds not ratable. For the commercial program, the funds are repaid through a special assessment on the property over a period of 5 or 10 years with *estimated* assessment rates between 5% and 6.5%. Assessment rates (rate paid by property owner) will be about 1% higher than the bond interest rates. They plan to market two types of bonds, taxable bonds (for commercial/institutional) and tax-exempt bonds (for multifamily/small manufacturing).

Lessons Learned

The success of the residential program can be considered highly successful in achieving the goals of moving longer-term payback energy measures into the existing market sector. The County learned several lessons as it has rolled out the program:

- The County’s design has an advantage in that the County does not have to “pony up” the money up-front. Bonding provides money and the property tax payments pay the loan back over time. However, the County’s program has to wait until it knows the amount needed before it can go to the bond market, so applications are received without a firm idea of the fees or interest rate. The lack of ability to guarantee an interest rate (or exact amount of fees) in advance makes borrowers uneasy.
- The program’s administrative costs would not be very different if more cities or counties were involved, and it would spread the costs among more borrowers. For this reason, the County included all cities within the County.¹ The County is examining legislative options to allow more counties and cities to band together for the program, and to support similar programs at the state and federal level where real economies of scale can be realized – and where many millions of dollars of investment in energy efficiency and renewables can result.
- Households and businesses in smaller (<2000 residents) communities and unincorporated areas made up a large portion of the participants. The program saw significant distribution throughout the rural and mountain areas of the County, not just the larger cities and more urban areas.
- New types of programs require significant amounts of contact with participants and staff time, leading to higher costs than anticipated.
- The “application period crunch” can have an effect on local companies, and this “crunch” wouldn’t exist for programs that have open or continuous enrollment periods; however, that requires a different funding system (see examples below).
- The application periods approach may be less convenient to borrowers than 24/7 availability, but on the other hand, the application rounds provide a natural focus and urgency about getting work estimated and completed, and lead to more news coverage. In addition, the County doesn’t need to have capital up-front to support the program, making it a feasible option for communities without much capital.
- Programs of this type can have strong positive economic multiplier or ripple effects on local firms.
- In several cases, homes that participated in the program have been sold. In most cases, the seller paid off the loan to make the title “clearer” for the buyer. This may change over time as households become more familiar with this kind of funding mechanism.
- The ability to link to other programs (incentives, audits, etc.) helps residents determine priority measures and help support the best decision-making about measures in their homes. The education components of the program, and the partnering with audit capabilities made it easier for household to get objective advice. Homeowners were familiar with how every measure worked, and were able to make rational choices for their homes. The County believes the best path to success is to integrate the loan program with education to support good equipment investment decision-making by homeowners and businesses.

⁴ Each community had to pass an ordinance to have its residents be eligible for the program.

Sonoma County

Sonoma County is located about 30 miles north of San Francisco and contains the City of Petaluma, Cloverdale, and Santa Rosa among others. The County has established aggressive climate goals to get to GHG emissions down to 25% below 1990 levels by 2015. The County estimates it would take about \$1-2 billion in investments to retrofit 80% of the housing to a 30% reduction to meet the building portion of the target. After researching ways to reach the target, the County decided that there are neither enough funding, contractors nor evaluators to accomplish the goal through County retrofits. It was estimated that the County would need to retrofit 200 houses per day through 2015 to meet the target! Sonoma County decided to look for other ways to spur aggressive action in building retrofits. The County decided to offer a residential and commercial loan program to help reach their goals.

Sonoma County's extensive residential and commercial loan program differs from Boulder County's in several key ways:

- Its funding source is not the bond market, but is a treasury pool of County funds. The County had \$1.9 billion in all of its aggregated pooled funds that needed to be invested prudently, returning a reasonable interest rate. The treasury office has policies to make sure there is adequate diversity and risk management, but ultimately, the County got approval to provide 3% of the treasury pool toward this loan pool, supporting investment in energy efficiency in the City, but getting the kinds of interest income they would get from other market investments. The available funds from this source were \$45 million. Backstopped by an annuity from the water fund, the program could operate at \$60 million. Unlike Boulder County, this allows the Sonoma to make the interest rate and fees known prior to application, reducing borrower anxiety and revenue uncertainties. In Sonoma's case, the interest rate charged was 7% on the assessments, which incorporated a return sufficient to administer the program.
- Sonoma County's program is open year-round – there are no “application periods”. Sonoma County's program is capitalized first, unlike Boulder's program where they build subscriptions periodically and then go to market. The funds are available when the customers are ready. This avoids application “crunches” for contractors.
- The program is “first in line” as a tax or collection lien, and is in front of the first mortgage. Thus, it is a very safe investment for the county because it sits first in line for payment. In addition, even if the house burns down, the property is worth at least the 10%, so it is a viable investment. The payment also goes with the property.

The Program

The Sonoma County program finances up to 10% of the established market value of the property. Terms are five years if the value of the assessment is \$5,000 or less (there is a \$2,500 minimum), and ten to twenty years (at borrower's choice) for larger loans. The use of a property tax repayment with a maximum of 10% of the home value means that there is no need to look at credit histories for borrowers (like banks need), because it is the property that secures the loan. It allows the County and residents to secure low interest/low risk loans without having to look at a credit score, only the property value. The borrowers have no other caps or ceilings, and there

are no mandatory measures that must be included to get other measures. The program includes a long list of energy efficiency, water conservation, and clean generation measures.

The application process involves several steps:

- The homeowner considers the measures they want to install and get estimates for funding purposes;
- The application is evaluated against program parameters, measures, and money to see if it fits under the program;
- If it passes, an agreement to fund is made, and a contract is signed and the County puts a lien on the property;
- When the permit is final, a request for disbursement is issued, and the County issues a check.

The County has had 900 residential and business applications to date, and the program has funded \$9 million in measures within the last 6 months, and another \$11 million in applications are ready to go. The program has led to \$30 million in applications with no government grants or funds. The largest application is a \$2.5 million manufacturing facility that was retrofitted with a cool roof. The most common measures implemented include a great deal of solar measures, windows, HVAC, and cool roofs, along with insulation and water measures.

Sonoma feels the industry is generally moving toward approved contractor lists, but Sonoma's program relies on licensed contractors (and verifies they are licensed and in good standing). They look at themselves as the financier, not the "selector of contractors".

Lessons and Next Steps

Sonoma County reports that for the future it is important for the Federal government to get involved and allow greater flexibility for tax exempt bonds for these types of programs.

Palm Desert

Palm Desert's "Energy Independence Program" initially used \$2.5 million dollars from the general fund to kick off the program; additional rounds were funded by the sale of bonds. To date, the program has issued 220 loans for a total of \$7.5 million in energy efficiency and renewables investments. The interest rate for the bonds, similar to Sonoma County, is 7%.

Like all of the other programs, the Palm Desert program requires borrowers pay the loan back through the property tax that remain with the property (incorporating the 7%). Initially, the minimum loan was \$5,000, and there was no maximum. This has been modified to a maximum of \$100K, and any loan amount over \$30K requires a consent agreement from the mortgage holder or bank. Borrowers may choose a term of 1-20 years at their discretion. The City is not the first in line for repayments; Riverside County gets its taxes first, and then repayments to this program are second in line. Property taxes are computed annually but paid semi-annually.

The administration of the program is being handled by one internal staff person. They are internally processing the loans, and the title company fees are incorporated into the loan. A \$40 loan fee helps fund the tax advisory staff. The rest of the administration is managed internally.

The city's program is first-come, first-serve. They accept applications at any time (open applications), but when the funds run out, they begin putting names on an interest list for notification. Measures that are allowed include: any energy efficiency measure or upgrade that is permanently affixed, including solar, air conditioning, high efficiency pool pumps, ENERGY STAR® windows, and other measures. Program results include:

- 220 total applications, with 6 commercial applications;
- One commercial program was \$500K, and the next highest loan was for \$30K;
- The average residential loan is between \$25K-\$30K.
- 70% of the money went to solar; the next highest measures are windows and air-conditioning.

Lessons Learned

- Palm Desert suggests it is important to be thorough on the title report, and review the applications well to check that the measures being requested are truly related to energy use.
- The City's goal is to reduce 30% of city-wide energy usage by 2011, and 30% reduction in peak – a goal that was established in 2007. So far, the City has reached 40% of its goal, and funding is a big issue. Bonding is a time consuming process.

Summary and Lessons

Reducing dependence on fossil fuels, or reaching (Kyoto or other) aggressive sustainable energy goals is going to require huge investments in efficiency. While progress is being made, two areas have lagged:

- Retrofits in existing buildings, which may be responsible for half the emissions in community greenhouse gas inventories, and
- Installation of large investment, longer payback measures.

Owners and occupants of existing residential and commercial buildings have lagged in installing solar equipment and other longer payback efficiency and renewable measures. This is presumably partially due to the requirement of up-front investment, and because occupants often move prior to realizing installed measure pay back. Typically owners have been reluctant to invest in measures that might not pay back within their tenure. However, developing a financing method that makes the innovation of attaching payments to the property, rather than the current owner, completely changes the game.

Lessons Learned

We reviewed four pioneering programs in this family, located in California and Colorado. These jurisdictions have implemented slightly different designs, each with pros and cons. Key features and lessons follow.

- **Source of funds:** Some communities used city funds. General fund sources tend to be scarce, but pulling some reserve fund balances from traditional investments and investing locally (at a comparable rate of return) has philosophical appeal. Cities or counties can invest in helping achieve their own sustainability goals. Going to the bond market is a very appropriate source of funds for this kind of investment. This assumes the program and applications are large enough to broadly spread the administrative and keep the interest rate low. Changes to allow better access to tax exempt bonds for these applications would help make the programs even more competitive and attractive financially.
- **Aggregation and authority:** Given the administration and labor costs, aggregating cities and counties into joint programs may make the program more cost-effective. This may also help make the program rules more uniform for contractors and others involved in the program. Regulatory authority needs to be checked; state law changes were needed in Colorado, and some regulatory changes were also needed to allow these programs in California. To gain the kind of investment levels that will be needed to reach goals will require very significant increases in the coverage of these programs – perhaps even statewide.
- **Education:** Boulder County requires all applicants to attend educational workshops to try to improve the measure selection and understating of energy use and measure functions. None of the other programs make this requirement.
- **Measures:** Some of the programs funded only renewables or solar measures. Given the strong and long-term performance available from shell improvements and other energy efficiency investments, it seems essential to support and include these measures.
- **Coverage:** Residential, low income, commercial, schools, and government buildings could all potentially benefit from the program.

Recent Issues that have Arisen – the Fannie Mae / Freddie Mac Issue

Fannie Mae received questions from “seller-services” regarding PACE programs. They note that PACE loans generally have automatic first lien priority over previously recorded mortgages. In May 2010, they issued a letter stating that the terms of the Fannie Mae / Freddie Mac Uniform Security Instruments prohibit loans that have senior lien status to a mortgage. In response, PACE programs have written to appeal to the Administration to request action on rescinding Lender Letters to protect homeowners in PACE communities, exempt conforming PACE programs from GSE adverse action, and other actions. Given the activity and interest in these programs, it is hoped that the issue will be resolved favorably and soon.

Conclusions

Table 2 highlights some of the key alternatives and decision points associated with these types of loan programs. These four initial programs have themselves led to more than \$33 million of investments in energy efficiency and renewables within the last year or so. The good news is that these investments are not concentrated in simply more lighting initiatives, but have broken through to serious investment in long-term measures like insulation, windows, cool roofs, photovoltaics, and other measures. And the best news is that these are practical programs that communities and counties can undertake by just facilitating private investment – not through

heavy financial commitments from governmental budgets. Jurisdictions do not have to continue to hope that PUCs and utilities will authorize programs that will help cities and counties reach sustainability goals; jurisdictions can take initiatives even in areas with reluctant energy agencies.

Table 2. Decision Points, Alternatives, Strengths/Weaknesses, and Recommendations

Element	Options	Strengths	Weaknesses	Recommendations / Comments
Funding source	General funds or pooled funds	Interest rates are determined prior to applications, less variability and unknowns	Adequate funding/capitalization required	If a city or county has funds it currently invests in other institutions, assigning a comparable rate of return will allow jurisdictions an alternative for investing in their own local initiatives (and goals). However, if a city / county does not have access to funds, the bond market is a ready source of significant funds.
	Bond market	Does not require general funds	Interest rates cannot be determined until after bonds are bought at market, potentially more variability (however, the county that used the bond market had a lower interest rate)	
	Both general and bond market			
Loan amount	Set minimum	Limits staff time/admin	Discourages small projects	Set a minimum to reduce administrative and labor costs but consider funding all income qualified applicants regardless of size. Set maximum based on value of home.
	No minimum	Allows for any size project	May be less cost effective in administrative effort	
	Set maximum	Allows for more homeowners/businesses to get loans	May limit some highly impactful programs	
	Amount based on value of home	Limits payback risk	Requires property value assessments	
	Payback period depends on size of loan	Can see a quicker return on small loans	May discourage some participation	
Requirements	Mandatory education/workshops	Encourages the adoption of EE behaviors and additional measures	Makes it more difficult for some to participate	Require workshops – value to “smart” investment is very strong. Application fee helps cover administrative costs that occur whether or not households (or businesses) participate.
	Application fee	Helps to cover administration costs	Discourages participation	
	No mandatory education	Increases participation	Reduces buy-in by participants, ignores behavioral related changes	
	Matching funds by homeowner	Requires participant buy-in	Limits participation	
Enrollment period	Rolling enrollments	Makes the process easier for participants, decreases “crunch” for admin and contractors	Only works with general/pooled funds,	Application periods may be less convenient, but generate interest / enthusiasm / press coverage / buzz. Consider several per year to balance pros / cons.
	Application period	Builds “buzz” over the outreach period, do not need capitalization	Creates “crunch” for admin and contractors	
Contractors	County/city approved list	Assures contractors meet standards	Increased admin, may not be fair for some contractors	Consider allowing any licensed contractor to avoid extra administrative costs and encourage all to participate.
	Any licensed contractor	Fair for all contractors	Some contractors may not be aware of all EE measure options	