BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

ON-BILL FINANCING WORKING GROUP – JOINT COMMENTS OF

KEYSTONE ENERGY EFFICIENCY ALLIANCE (KEEA), CITIZENS FOR PENNSYLVANIA'S FUTURE (PENNFUTURE), THE SUSTAINABLE ENERGY FUND, AND SIERRA CLUB

I. Introduction

These comments are filed jointly by the Keystone Energy Efficiency Alliance (KEEA), Citizens for Pennsylvania's Future (PennFuture), the Sustainable Energy Fund, and Sierra Club. We appreciate the opportunity to submit comments on the design and implementation of an on-bill financing program in Pennsylvania.

On January 25, 2013, the Public Utility Commission (PUC) posed nine questions to the on-bill financing working group. The PUC's questions and our group's comments are outlined below.

II. Answers to PUC Questions

1. Please provide detailed comments as to what metrics would allow a pilot to be deemed successful.

Based on our review of existing on-bill programs, the types of metrics used to evaluate the programs included: default levels, energy savings, participation rates, customer satisfaction, and funds spent.[1] Inspection samplings totaling 5-10% of all projects might also help determine success. To the extent that existing Act 129 project inspections can suffice, the on-bill recovery program should rely on those. However, it's important to note that most programs did not have to meet a set of performance metrics in order to be scaled-up to a full program. These programs instead set out to

[1] Programs surveyed include: San Diego Gas & Electric, New Hampshire Electric Cooperative, United Illuminating, How$mart KY; Midwest Energy How$mart, Madison Gas & Electric, Alliant Energy, MPower Oregon,

use the pilot phase to learn how best to run the program and understand what changes should be made before expansion. For example, Midwest Energy's How$mart on-bill financing program relied on operational metrics, including evaluating if they could bill effectively and if they could get contractor buy-in. Midwest Energy targeted between 50 and 150 completed projects for their two-year pilot – and completed about 80 in the first 12 months before conversion to a permanent program. They also targeted around 2,000 kWh, and 250 therms per project of energy saved.

Since it will be difficult to know what the participation rate and savings will be, any metrics chosen will be estimates. Therefore, it is important that any metrics be goals rather than steadfast requirements that must be met in order for the pilot to continue and move to full-scale. The pilot phase is an opportunity to learn from experience and adjust the program as needed to increase participation and customer satisfaction. We recommend that the Commission require an interim evaluation one year into the pilot (half-way through), and quarterly stakeholder meetings to keep all parties informed of pilot progress and to make any needed mid-term adjustments.

It's also important to align on-bill programs to existing Act 129 programs, so that programs don't compete for customers and create market confusion. Therefore, any evaluations performed for on-bill programs should be complementary to existing electric distribution company (EDC) and Statewide Evaluator (SWE) evaluations. Another timeline consideration is the transition between a pilot and a full on-bill repayment program. When transitioning into a full program, it is important that programs do not go dark. The pilot program should switch seamlessly to a full long-term program.

If the Commission decides to create metrics, below are examples of participation levels, based on the early results of several on-bill programs.

Utility/Program	**Sector**	**Pilot Length**	**Projects Completed**
How$mart KY	Residential	2 years	108
MPower	Multifamily	2 years	25 units
Midwest Energy How$mart	Residential	1 year	80
United Illuminating	Small Business	2000 was first year of program	Goal of 225 – completed 317

2. **Please comment as to some possible timelines for the deployment and implementation of a pilot program.**

Electric distribution companies (EDCs) should begin working on the on-bill repayment pilot as soon as the PUC approves such a program. Since the on-bill financing working group process is moving at a good pace, we would like to see this pilot implemented during Act 129 Phase II. Since on-bill serves as a tool to compliment Act 129 programs, it should not require significant modification of any approved EDC Phase II plan. Running the pilot during Phase II would allow for a potential full-scale program in Phase III.

Regarding the length of the program, we suggest that the pilot run for at least two years to allow for a sufficient amount of time to ramp up the pilot. Since it can take six months to a year to complete the necessary changes to the billing system and get the program off the ground, we recommend that the two year pilot officially launch as soon as systems are in place and ready to approve loans. We also suggest that at least halfway through pilot program spending, the PUC review pilot progress and determine if the pilot is on track for full deployment, or implement a plan that ensures program does not go dark.

3. **Should it be decided that OBF is possible beyond a pilot program, to the best of your ability, please detail what you believe would be the key cost components of a long-term program.**

On-bill repayment programs require upgrades to EDC billing systems which are likely the largest cost components in these programs, other than the loan capital itself. However, it is possible that billing could be done manually for the pilot program, which would help reduce costs and the amount of time needed to get the program up and running. Manual billing should be considered unless EDCs have a low cost way to pay for the billing system upgrades. Other cost components for an on-bill repayment program include, administration, marketing, and education. The manner in which program costs are recovered would be best proposed by the EDCs.

4. **Please comment as to how to handle partial payments and termination.**

During the on-bill repayment pilot, we believe that termination should not be a consequence for failing to make a loan payment. However, we recognize that when expanding the pilot to a full program, it may be necessary to include the threat of termination. Before including the threat of termination, there needs to be an in-depth examination of current termination regulations to determine if they are permissible. The threat of termination phased into the full program may help attract more third-party lenders to grow and maintain the loan funding pool. If it is determined that termination is permissible, we do not recommend applying it to multi-family properties. Based on interviews with other on-bill programs it is understood that shut-off is not applied to these properties. In the rare case there is a default on a multi-family account, it is better to restructure the loan and work with the account holder. While the threat of termination may help attract third-party lenders, it's important to note that termination would rarely occur. Out of 19 on-bill financing programs that the American Council for an Energy-Efficient Economy (ACEEE) examined in 2011, 18 reported a default rate ranging between 0-2%[2].

During the pilot we also recommend that any partial payment be applied to the utility charges first and then to the loan repayment.

5. Please consider and comment on how an energy audit would be paid for.

We suggest that energy audits conducted for energy efficiency improvements financed and paid for through an on-bill repayment program be included in the loan for the improvements. Having any upfront cost will become a barrier to participation, which would negate the purpose of the on-bill repayment program in the first place. However, energy audits that do not result in the completion of an energy efficiency project should not be financed through the on-bill repayment program. If the on-bill repayment program becomes part of Act 129, it would make sense to tap into existing EDC programs that offer incentives to cover part of the upfront audit cost. This could then lower the overall project cost, or reduce the amount of out-of-pocket expense to a customer that does not follow-through with the recommended energy efficiency improvements. The Sustainable Energy Fund (SEF) recommends that the pilot not make a determination on who pays for the audits on projects that do not result in energy efficiency improvements. SEF believes by requiring the customer to cover the costs limits business models in which contractors perform free audits as a loss leader. Here are some program examples of how other utilities deal with the audit payment:

- **MACED How$mart KY –** Audit cost is wrapped up into the loan. However, if a customer doesn't go through with improvements, they can charge them $200.
- **Midwest Energy How$mart –** There is no charge for the audit when the customer participates in the program. If program is not used for the recommended

[2] American Council for an Energy-Efficient Economy. On-bill Financing for Energy Efficiency Improvements: A Review of Current Program Challenges, Opportunities, and Best Practices. Report No. E118, December 2011.

improvements, Midwest Energy may charge customers $200 for the How$mart® audit. Audit done by Midwest's own auditors who are RESNET and BPI certified.

- **MPower Oregon –** Full cost of audit is covered by MPower as part of the program.
- **United Illuminating –** The audit is free and the participating vendors understand that. The participation rate is approximately 40%, in other words for every 100 audits, 40 customers decide to participate.
- **NYSERDA- Green Jobs Green New York –**The interest rate for a residential On-Bill Recovery loan is 3.49% for terms of 5, 10, or 15 years. Audits under the program are free for customers whose incomes are >200% Area Median Income (AMI) and on a sliding scale thereafter. Income eligibility is self-reported. Residential applicants are charged a loan processing fee of $150, which can be included in the amount financed. The loan term cannot exceed the useful life of the improvements. The loan is attached to the property, not the owner, but a declaration is recorded so future buyers are notified; it doesn't represent a lien on the property.

The PUC should also consider looking at including benchmarking efforts into the initial energy audit for schools, public buildings and the multi-family sector. Benchmarking building energy use with EPA's Portfolio Manager tool might help multifamily entities in this process. In fact, requiring government and multifamily entities to benchmark would help quantify savings achieved and also encourage better energy management and continuous energy savings. To make it easier on smaller entities, the pilot program could limit benchmarking to buildings that are 25,000 sq. ft. or larger and reduce the interest rate for participants who benchmark by 50 basis points.

6. Would safety and repair be included in an OBF loan or would that cost be incurred separately by the business owner?

On-bill repayment loans should allow some degree of flexibility for safety and repair. If these types of expenses are not allowed for on-bill repayment, it could become a barrier to participation. Such expenses should be considered qualified expenses only if they are pre-requisites for the energy-related projects. It is important that contractors pay attention to safety and repair issues when conducting an audit for an on-bill repayment project. However, not every safety and repair upgrade will qualify for an on-bill repayment loan. The scope of work for each project should be designed to maintain bill neutrality and keep the intent of the on-bill repayment loans intact, while ensuring that all modifications conform to safety standards and codes. For example, New

York’s on-bill recovery loan program includes ancillary "health and safety" improvements, provided they do not exceed 15% of the total cost and a maximum of $2,000.

7. Please provide suggestions as to how/if the proposed model could be modified to include government/nonprofit/multifamily entities. Should there be a separate model for multifamily? Should there be a separate model for government/nonprofit?

Government/nonprofit/multifamily entities could use the Sustainable Energy Fund’s proposed on-bill repayment model for small commercial projects. They would not require a separate model. The overall idea of the proposed on-bill repayment model is that it should be offered to any small commercial energy efficiency project looking for financing. Each loan will be implemented to help EDCs claim savings towards Act 129 goals and might have to be tweaked a bit for multifamily entities and government/nonprofit projects that are larger in scale. It should be noted that San Diego Gas & Electric (SDG&E) has an on-bill financing program that can be used by Commercial, Industrial, Nonprofit, Schools, Local Government, State Government, Multi-Family Residential, and Institutional customers. SDG&E’s on-bill program tool can be used with any of their existing commercial energy efficiency programs.

8. Please comment as to how bill neutrality would best be determined.

Bill neutrality is a critical component of on-bill repayment. Keeping customers’ bills equal to or less than loan payments greatly increases the probability that customers will pay their loan installments and their overall bills. However, it is important that bill neutrality not be guaranteed. Based on our review of other on-bill programs, it is not common practice to guarantee bill neutrality. It is difficult to forecast potential changes to electricity rates, customer behavior and changes in weather.

We recommend that bill neutrality calculations be kept as simple as possible. Energy savings can be projected by using estimated/deemed savings, and the payback period should be taken into consideration. Specifically, we support SDG&E’s model where they take the expected annual savings from the project (using deemed savings or custom measurement and verification), and then compare that sum to the project costs in order to calculate the loan term to allow for neutrality (within the term limits). SDG&E typically adds on a one-month buffer to the loan term. The resulting monthly fee is fixed for the length of the loan, and the customer is made aware upfront that there is no guarantee for bill neutrality.

We also recommend that bill neutrality not be too prescriptive, as it could impede a customer's ability to invest in more expensive measures that offer deeper savings. Some utilities require that the repayment surcharge be no more than 90% of the projected savings, which helps provide a cushion in the case of changes in electricity rates. In other programs, changes in circumstances do not typically change the monthly loan payments. Keeping loan payments steady throughout the loan term bolsters participation and the likelihood that customers will remain current on their payments.

Programs surveyed for bill neutrality efforts are listed below.

- Less complicated examples:
    - **Madison Gas & Electric –** No bill neutrality requirement. Energy savings may be more, less, or equal to the loan payment. The customer decides how they want their loan structured to target more, less, or equal to projected energy savings. Loan payments are fixed, energy savings are estimated.
    - **United Illuminating (UI) -** Implements maximum loan term of 48 months. If a project has a payback that is longer than that, it would be cash negative, however, the average project is between 3 and 3.5 years. They instituted a strategy in 2007 to extend the loan beyond the payback to spur greater participation. For example, if the project has a 3 year payback UI may make the loan a 42 month term. So if the customer is saving $250 a month, the monthly loan amount may be $210 thus creating a cash positive transaction. This is done in lieu of increasing the incentive to get a customer to participate.
    - **SDG&E –** Uses deemed savings or custom M&V to calculate expected energy savings. Prefer deemed savings as SDG&E feels those are more conservative (underestimate actual savings) and can help in customer satisfaction on monthly bill savings. For example, if a customer upgrades from a 60% efficient to a 90% efficient heat pump, the customer gets all of that savings but the deemed savings only show credit from switching from baseline (86% efficiency to the 90%). Also costs less to use deemed savings. SDG&E takes the expected annual savings from the project, and compares it to the cost to calculate the loan term to allow for neutrality (within the term

limits). SDG&E usually then adds on a month to that to provide a buffer. Once monthly fee is set it is not changed.

- More complicated examples:
  - **Midwest Energy How$mart –** Calculates expected energy savings using WrightSoft energy modeling software. Midwest Energy calibrates to three years of actual energy usage history (if available). Unlike REM (DOE rating software), WrightSoft allows true calibration. This prevents over-estimation of savings potential. Midwest Energy then takes the energy savings and applies it to a Financial Model which includes price forecasts, and discount rates. The outputs of the Financial Model are: monthly savings (estimate), maximum investment allowed, and estimated amount of buy-down of the total project cost (if any). The repayment surcharge will be no more than 90% of the projected savings. Midwest Energy does go back a year after the loan begins and compares usage to estimates. After adjusting for weather, they can tell how close estimates are. So far, they are within the well published "rebound effect" tolerances.
  - **How$mart KY –** Uses a program to calculate monetary savings from improvements. They use 12 months of previous energy consumption, then estimate savings per improvement and multiply that by the retail rate and that produces the savings.

9. Please comment as to whether or not OBF should be only available to energy efficiency projects that qualify under Act 129.

As mentioned above, the proposed on-bill repayment model intends to cover any small commercial energy efficiency project looking for financing. This includes electric and non-electric energy saving upgrades. Offering the on-bill repayment program to all energy efficiency projects provides more incentive for customers to utilize this financing mechanism. This is where on-bill repayment can help complement Act 129 even as it increases customer participation. In its Act 129 Phase II Final Order, the Commission stated that "it is in the public interest for EDCs to adopt more comprehensive measures including whole house treatments. As such, the Commission will require EDCs to develop EE&C plans that contain at least one comprehensive measure for residential and small commercial rate classes in EE&C Plans."[3] However, due to the 2% cost cap and the inability to count non-electricity savings in the Total Resource Cost (TRC) test, rebates may not be high enough to encourage customers to complete whole-building retrofits and some measures may not be included at all. On-bill repayment can make up the incremental cost between the available rebates and the full cost of the whole-building retrofit.

EDCs can claim savings towards their Act 129 goals in two different ways through on-bill repayment projects. By looking at the electric efficiency measures implemented in a project, EDCs can either claim deemed savings based on the Technical Reference Manual (TRM) or as a custom Act 129 project.

10. Please provide a listing of available "off-bill" financing options, paying particular attention to available financing for small commercial and industrial.

Please see PennFuture's attached paper outlining programs available to small businesses, and the pros and cons to each.

III. <u>Conclusion</u>

We thank the Commission for setting up the On-Bill Financing Working Group allowing all stakeholder opinions and needs to be considered. KEEA, PennFuture, The Sustainable Energy Fund, and Sierra Club are grateful for the opportunity to submit these comments to the Working Group. We look forward to working together to make on-bill repayment efforts in the Commonwealth as successful as possible.

[3] Act 129 EE&C Phase II Implementation Order (Docket Nos. M-2012-2289411 and M-2008-2069887) Entered Aug. 3, 2012.