On-Bill Financing Webinar - Questions and Answers

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Michael Volker, Director of Regulatory & Energy Services, Midwest Energy, Inc. (MWE)

Questions for both Brian Alfano and Michael Volker:

1. How are your administrative cost per customer including marketing, audit, back-end quality control, etc?
   • Brian (CEWO): For the time being, we are somewhat expensive and that was intentional. Being a Department of Energy (DOE) American Reinvestment and Recovery Act (ARRA) funded program, our charter was to create a scalable replicable model and try things that could that could be taken into other areas. Part of that was to build things and be expensive. We are currently a non-profit, so we can’t generate profit. However, our grant with DOE is running out, and we are looking to shift our model to allow for profits. When we are talking today about administrative costs, each project is about $2000. However, $400 off the top is an energy audit so we actually pay our contractors on that back-end for that. We also were very expensive on the marketing side because we are buying heavy data lists and so forth. We now own all of those, so moving forward where our marketing was $300 a home; we are actually looking down closer to $100 a home. When I’m giving you that dollar amount, that is still based on our old model where we were subcontracting work out. By bring all those services in house and scaling some things back, we’re actually cheaping ourselves. While we’re a non-profit, we’re actually looking at a business and looking at scale to lower costs down.
   • Michael (MWE): Because of the realm of what we do, we also provide other services, which include a free walk-through audit, and we provide services for contractors. In fact, part of our way of building the original contractor network was we sized the equipment, a free service we provided contractors, to eliminate the problem of contractors oversizing equipment. Because of how spread out we are and because we do the audits internally, our cost per program is approximately $1100 and $1500 per completed project. What has helped a lot is that fact that two thirds of all audits completed become a How$mart project, which helps us to lower the cost overall. We do charge $200 to a customer that elects not go through the program, but that fee does not cover the full cost of the audit. When you include the post retrofit audit, it is between $600 & $700 dollars. We do have embedded within our program the ability to add the 5% of the cost of the project as program fees and because we’re getting money at very low costs, we charge residential customers 3% and industrial/commercial customers 4.5%, included in that is 2-3.5% markup of interest rate that over time cover our cost. Our
typical cost is between $1,100 and $1,500 per completed project and that does include completing a very comprehensive audit.

2. **Have you considered using this model for financing community solar projects?**
   - **Brian (CEWO):** For community solar in general, this model would not work only because the real work in our program is being done to the home that the homeowner lives in, so the financing institutions that we work with would not be willing to provide the same kind of financing for something that would be put on to a school or in a park. The on-bill would not work at all because it is directly tied to that premise that the utility bill is on. Now if you are asking if we are looking at this model for solar in general, absolutely. That is a market that we would eventually like to get into, one that we could not as part of our Department of Energy grant. We are looking at homeowners who are getting an energy retrofit, would also like to get solar, and would be able to lump those in. On-bill may have some struggles with that. We haven't gotten far enough to start to have those conversations but our off-bill providers would be happy to provide their loan products to help individual solar projects.
   - **Michael (MWE):** There are a couple reasons why we won’t use How$mart to fund community solar. First of all, House Smart is about saving energy and we really emphasize that we are a fuel neutral in this program. In other words, we don’t care when we come out and do an audit whether the energy-savings is natural gas savings or electric savings. Renewable energy like solar is still energy use. We are interested in saving energy, not using energy, whether it's renewable energy or not. That's not the point of this program. That being said we are actively investigating and leading the economic analysis on looking at a community solar project and I am very interested in some of the things that have been going to Colorado with community solar.

3. **What prompted you to initiate this project? What would motivate utilities to participate in this program? Was it only reducing customer complaints and improve customer service?**
   - **Michael (MWE):** The reason for us to do this was really a convergence of several things happening at once. Back in 2006, our company had been doing audits for decades and it was really adding up in terms of the non-response. We’re often back year after year at the same location doing an energy audit and telling the tenant/homeowner the same things to improve repeatedly. It was inaction associated with our audit that I wanted to address. Secondarily, natural gas prices were high and increasing, and there was some concern for low-income customers. The City of Hayes, KS had a nice idea to use extra money received from Midwest Energy to do something good that would benefit their citizens. They thought the best thing to do was use it to help low-income customers pay their utility bill in the wintertime. Their only stipulation was that in order to do that they had to get an audit from Midwest Energy, but that just exasperated the problem of non-response we had. We had to find way to get past that. Third thing that happened is, I was the Academic Energy Economist on the Kansas Energy Council and the Council was
trying to address the very high natural gas prices that were expected in 2007. The Energy Council was throwing out program ideas and I happened to read about the PAYS (Pay As You Save) program and learned that this is the answer to all my problems. I recognized that we were having problems with the barriers that the PAYS type model can address. All those things coming together and then also having a really progressive board and senior management, a willingness of legislators to change utility-enabling legislation, and encouragement of the Utility Commission all kind of worked together to get us to take the step and do this program and it's been a success ever since.

- **Brian (CEWO):** My answer is drastically different because we are not a utility; we were chartered to actually do energy-efficiency work and making things easier for a homeowner. It's about helping them understanding and achieving their efficiency goals and how we can help deliver that in the most cost effective way. For us, it's bringing all of different partners together and trying to make things as easy as possible for a homeowner to complete a home energy retrofit. Our bigger challenge have utilities recognize that there is some value in the services we’re providing and that they don't have to do the work but can pay us to do the work on the backside to help with the administrative cost. As a nonprofit we're not out there to make money, our charter is to really get this done, however it has to be paid for somehow and part of that, especially if we’re providing rebates, would need to come from the utility partners.

4. **How are the savings measures identified? If thru an audit, how is the audit funded?**

- **Brian (CEWO):** Measures are identified by audit, today we utilize our DOE funding to help reimburse contractors for this $100 if they do not convert the sale and $300 to convert the sale. This is intentional to reward contractors to convert sales and not just make a business out of testing homes. In the future, we are looking at potentially charging the homeowner for this but are still evaluating.

- **Michael (MWE):** They are identified (and quantified) through an extensive audit. The audit is by far our biggest “program cost”. Program costs are funded in two ways: First, we add 5% to the amount of project cost invested (i.e., if the project cost is $5,000, we will add $250 for program fees). Second, we mark-up the interest rate. Currently, we have access to low-cost capital to be used for this program through a USDA (RUS) program called REDL&G (Rural Economic Development Loan and Grant). Since the cost of the debt in that program is very low, while we have embedded in our How$mart charge a 3% (residential) or 4.5% (non-residential) rate. Essentially, we are marking up the money by 2% or so and the spread on the interest rate provides coverage for our program costs. NOTE: by tariff, we could mark the money up more than we do. We have elected to keep it low because members (we are a coop) like the program so much.
5. For a big complex, how much does it cost to install and geothermal or solar panel?
   - Brian (CEWO): Unfortunately, we don’t cover either of these items in our program so I am not able to answer this question.
   - Michael (MWE): I don’t know. Solar panels are nice, but not part of this program (this is about energy saving, not renewable energy). For How$mart GT (the special 30 year version for geothermal loops), we only allow residential applications.

Questions for Michael Volker, Midwest Energy Inc.

1. How is low-income defined?
   - Michael (MWE): I can’t really define low-income in terms of income levels, but it is based on customers who have previously asked for financial assistance on their utility bill.

2. What percentage of loans are made to low income customers?
   - Michael (MWE): We do not track low-income loans dependently, because we do not have a clear definition of low-income. However, this program does work nicely for those with low income because they are the customers with the least access to capital.

3. Can the on-bill scheme also work for end-use appliances like refrigerators or LED’s? Or not, because they are movable?
   - Michael (MWE): Our requirement is that it is permanently attached to the foundation. If the program is based at the meter/ premise then energy savings need to stay there. We therefore elect not to include “white goods” such as refrigerators or LED’s which can move around. However, in commercial and industrial settings we sometimes consider lighting as permanently attached figures.

4. What percentage of the loans are for equipment versus whole house retrofits?
   - Michael (MWE): About 70% of projects include some thermal shell improvements, which are paid through the program. Often times, thermal shell improvements can be easy projects (such as caulking around windows) that the homeowner elects to do themselves. Then they use the program to pay for system upgrades, such as an HVAC system. Vast majority of loans are for whole home retrofits.

5. What incentives, if any, do you provide to landlords to get them to agree to the improvement?
   - Michael (MWE): We don’t provide incentives to landlords. The value of the program is an incentive in and of itself. What we do with landlords is offer the incentives of not tying up their capital. They can have somebody else determine what needs to be done to improve their property, pay for the improvement and have their tenants pay for it on the bill – they’re never out any money. The only problem with rental properties and
landlords is if we come into a property and see there are unsafe conditions we’re required to shut it down. The landlord is forced into doing something. I called them slumlords. We have not figured out yet how to tear down that barrier of getting into the rental market but that really is a different issue on than energy efficiency.

6. Do you charge any origination fees?
   - **Michael (MWE):** It’s not a loan so no. But we will add 5% onto the cost of the project to cover our program fees and the audit.

7. Is there a total pool of funds allocated for the program?
   - **Michael (MWE):** No. Because it also generates revenue on the side and I am sort of have carte blanche on the amount of investment we could make. I have never been pushed to say “no, we’re not going to do that because we run out of funds.”

8. Was the new MWE billing system put place to accommodate the on-bill financing system?
   - **Michael (MWE):** No. The only thing that I requested was that the new billing system be compatible with the on-bill financing system and could do the billing for the types of rates that we have too. We are putting a new billing system because our old one was quite antiquated.

9. Is there a big difference between collecting funds from ratepayer for Energy Efficiency and using utility funds for Energy Efficiency investments?
   - **Michael (MWE):** On surface, yeah there is. One is revenue and other is an expense. If I’m understanding it right, in terms of recovering costs associated with the energy efficiency investment as opposed to recovering costs from regular utility service, the answer is no. We consider this and it is defined by law, by statute, as being a utility service so it is no different whether we’re recovering utility investment for energy efficiency or whether were recovering utility investment in a generation plant or transmission lines or distribution lines or meters or services. The only difference is this investment is behind the customer meter and that’s why I keep saying that How$mart is just a line extension beyond customer meter.

10. How do contractors put up the upfront cost for the equipment, etc if they are paid only after post audit? What does the post audit entail (inputs, methods, timing metrics?)
    - **Michael (MWE):** Our theory (unlike the original PAYS model) is such that we do not come between the contractor and his/her customer. Contractors understand our payment policy and generally are okay with it. In some instances, they will require the customer to put up some of the money up front. With one contractor, there has been a disagreement as they complain about us not paying them some of the project costs before completion. But we said if we did that, they would be subcontracting to us, not to the ultimate customer. The post retrofit audit is scheduled ASAP after the
customer/contractor say that work is complete. Even under the worst circumstances, it is no more than two weeks later. What is tested depends on what work was completed. If a central air conditioner is replaced (only), just verification of the efficiency, size, and function of the equipment is checked. In most instances, much more than that is done including new blower door, combustion area zone, IR scans, and other.

11. Was it only "reducing customer complaints/improving customer service" that prompted MWE to initiate this program? i.e. what would motivate utility firms elsewhere to do this?

- **Michael (MWE):** No. It was the desire to manage growth, concern regarding environmental costs, desire to tear down market barriers, etc. There were LOTs of reasons. But, ultimately, the auditing function had existed for decades as a Customer Service application. There was no more important reason than improving member satisfaction. There are lots of reasons that might motivate utility firms, but one I think that is perhaps most important is almost never considered: By making energy services a part of the utility business, the utility has increased “economies of scope”. In other words, the utility has grown without adding customers or load, but rather has gone to a deeper involvement with existing customers. There is more than one way to grow.

12. If these are NOT loans, who absorbs the debt if utilities are shut off?

- **Michael (MWE):** WHY are the utilities shut off? Let’s assume it is for nonpayment. First, only the part of the “investment” that has been billed is subject to non-payment. This is no different than the “traditional” utility bills that hadn’t been paid. Every utility has an expense embedded in their rates called “bad debt” – i.e. non-recoverable utility bills that have been disconnected, bankruptcy, etc. ALL CUSTOMERS PAY FOR BAD UTILITY DEBT under traditional utility service and under How$mart. The part of the How$mart investment that would go into the “bad debt” account is the part that has been billed. Because the net utility bills were lower even with the How$mart charge, that amount is LESS than it would have been in the absence of the program. Second, the amount of the investment not yet billed, remains with the premise until the next customer moves in, is reconnected, etc. If there is an interim period between tenants in a rental home: either the landlord takes over the payments (if the utilities are changed to his/her name) or the loan is frozen until the utilities are reconnected.

13. How do you handle transfers of occupancy and, particularly, long vacancy periods?

- **Michael (MWE):** If the utilities are disconnected, the balance is frozen until a new (and properly notified) customer connects. This is no different than traditional utility investment in wires and pipes, recovery of the investment is frozen until a new customer is connected.
14. **Does the program serve tenant-metered (units individually metered) properties/utility bill?**
   When you have vacancies in multifamily properties, do you address them as well?
   - **Michael (MWE):** With difficulty. Adequately allocated costs and benefits associated with a “whole-house” (or whole-building) approach when there are multiple meters is not easy. There is no one answer, but lots of possible scenarios each with a different answer. For example, we had one instance where a rental property had multiple apartments, each one with individual electric meters for the tenants, and one gas meter for the entire building paid by the landlord. Since Midwest Energy served both the electric and gas to that customer, we tied the How$mart charge to the single gas meter and avoided allocation issues. Once the How$mart charge has been allocated to a particular unit, it is completely separate from the other units. It is recovered as if it is a stand-alone building.

15. **There is also "split incentives" between end-user and "public benefit" ---e.g. CO2 reduction**
   - **Michael (MWE):** No disagreement. Just being a devil’s advocate: I could argue as a West Virginia coalmine worker that there are negative public benefits to the CO2 reduction too. Personally, I’m staying away from the “externalities”. By definition, they cannot be quantified (despite our best efforts to do it). What I tend to look at is far more readily quantified. But, in concept, I don’t disagree with you!

16. **You don’t appear to have a credit score threshold?**
   - **Michael (MWE):** Nope. No credit scores. Only utility bill status is necessary – customer must be current. If they are current now, wouldn’t it make sense that they would be current if we lower their bill (as required by tariff)? To be honest, do you really need this type of program for people with credit scores in the 700 range? I’m not knocking loan programs that require decent credit. But really, who needs this program the most? The danger of making the program regressive is real. We are not going there with this program.

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**Questions for Brian Alfano, Clean Energy Works Oregon (CEWO)**

1. **How do you get uptake when you’re not serving reactive, single measure market? In CA, we see very low uptake for proactive, whole house projects.**
   - **Brian (CEWO):** We do extensive marketing on the whole house approach. Actually about 40% of the leads that come into the program is driven by contractors. Customers may enter as wanting a single measure done, but after the free home energy audit they are given a comprehensive report that shows every flaw in the house. The contractors are very good at explaining to homeowners why completing a single measure will not make a large impact in home performance. Our incentives for bundling measures are better than a single measure through utilities. In Oregon with also have a different
market with the Energy Trust of Oregon. We work on potentially off-ramping single measures with utility partners. Then the utility partners then onramp to our program.

2. **How do utilities incorporate Clean Energy Works Oregon (CEWO) energy savings into their supply side procurement planning? For example, how does CEWO energy savings reduce carbon emissions?**
   - **Brian (CEWO):** This is a really good question and somewhat a loaded question for us. Most of the primary utilities, but not all of them, work within the Energy Trust of Oregon territory. We work with Energy Trust to provide data, and then they pass it on and work with the utility. In some markets, we don’t have agreements with utilities. So we aren’t working with them, but we are working in their area. That model is changing though. We are looking at creating a completely different model where we can transcend and work with all different utilities and build exactly what we want that to look like. So we will be an efficiency provider to homes.

3. **Many argue that in order to have a statewide or regionwide energy efficiency financing program, you need a standard loan product from a secondary capital market source that can serve the entire state or region. This would not only provide loan capacity and geographic continuity, but also minimize confusion to contractors and homeowners. What are your thoughts about the need for a standard loan product and/or secondary capital markets to finance energy efficiency?**
   - **Brian (CEWO):** I personally totally disagree with that model and the reason for that is trying to say to a homeowner one-size-fits-all. Every homeowner has a different situation and a different way to do it. Across this country, there are almost 10,000 small financial institutions and credit unions that all have money and want to lend out money and are willing to do it and will do it for an extremely attractive manner. We have already really great small financial institutions that have available capital that would love to get into this, they just don’t really understand it - we need educate them and understand that these are fantastic loans. Clean Energy Works Oregon (CEWO) is a model that can help explain that. We should be paying attention to low and moderate income and try to tackle that with a different model.

4. **Who does the underwriting and are there expanded criteria?**
   - **Brian (CEWO):** Underwriting is done solely by our lending partners. In the on-bill scenario, Craft3 does it all. The on-bill product does have expanded underwriting criteria because they utilize the utility bill as a mitigating factor for repayment, so they actually will go lower than most of our traditional lenders. On-bill does allow that to be expanded a little bit more than our traditional lenders. Typically, what you will see is if the homeowner tries to go through and they know they have some damage credit, they may try to go through our on-bill provider. We have actually had some that are reverse. They didn’t qualify for on-bill because of late payments but they did qualify with the
traditional lender. It’s part of making sure that we have options that help the homeowners throughout the process.

5. **How many ground source heat pumps have you financed?**
   - **Brian (CEWO):** I honestly cannot answer that. I don’t even know if we could find that data out. We may be able to find out how many heat pumps we have done collectively as a program and make assumptions based on loans, but we don’t detail that information out per project per lender.

6. **Can you explain Off-Bill financing? You mentioned On-Bill but not Off-Bill.**
   - **Brian (CEWO):** Off-Bill would be considered your traditional financing. What that means is the homeowner receives a traditional statement and makes their payment to that lending institution directly. They pay it just like their car loan or credit card bill to the existing institution. Our other four lending partners outside of Craft3 are all considered Off-Bill financing.

7. **In Clean Energy Works Oregon, what would a homeowner with a ten year loan do if they moved in year 3?**
   - **Brian (CEWO):** They would most likely pay that off with the proceeds of the sale. They would have the ability to potentially have the new homeowner take over that new loan. You would have difficulty trying to explain to person buying your house that the home is worth more because of energy retrofit, is more comfortable and the buyer has to take on the $10,000 of that is owed on it. It makes it much more difficult and muddy, so typically they're going there just going to pay off that debt to get it done, unless it's fully unsecured and there's no UCC filing.

8. **Is there a plan to include tenants in either program? What challenges in this market have prevented you from addressing this sector?**
   - **Brian (CEWO):** Not at this time, mainly because there is plenty of volume for us in owner occupied properties. From a lending perspective, the challenges are many, the main one is that these are much riskier credits for a lender and the pricing would not be as competitive. The tenant typically is not as invested in the home, which makes things more difficult.

9. **How are the savings guaranteed?**
   - **Brian (CEWO):** There is no guarantee on the savings just an evaluation of what may be saved and then at the test out we let the homeowner know what the new test shows compared to the original. There however isn’t a guarantee as behavioral factors come in. During our pilot, we polled homeowners and many stated that they used to keep their home at say 70 but now keep it at 75 during the winter, this obviously has some impacts in the savings and we moved away from a guarantee.
10. Where are the funds obtained to subsidize interest rates?
   - Brian (CEWO): Originally, this came from our grant from the DOE. Today we do not subsidize any of our rates or terms and the lenders take that on in a competitive manner.

11. Are homeowners required or encouraged to obtain multiple bids?
   - Brian (CEWO): Homeowners are not encouraged but multiple bids are available should a homeowner feel strongly. Part of our value to the homeowner and that contractor is that this is minimal and they can feel confident that the work they are getting done is by a highly qualified contractor.

12. Are renewable generation measures eligible?
   - Brian (CEWO): Not today but we are looking at this for the future.

13. What comes after ARRA in terms of funding to sustain the program am?
   - Brian (CEWO): We are looking for State funding to help bridge our revenue gap over a two year time period, after that we are looking at revenue from different buckets to help fund the program. Those buckets include Contractors, Utilities, Homeowners and Lenders (yes we anticipate getting money from our lenders as well as we are not paying them).

14. How are you tied to Utilities? Are your loans tied to home value (mortgage) or are they unsecured?
   - Brian (CEWO): We receive rebates back for the energy savings measures from a number of utilities in the State but operate independently of them with contracts spelling out measures and payments. Most loans do not require a home value and would be considered unsecured, we did recently introduce standard equity products which do require value but the homeowner has the option of not utilizing that.

15. How are you tied to the utilities? Is it just one lender?
   - Brian (CEWO): Same as above for utilities. We work with 5 different lenders across the State.

16. What are the incentives to the utility companies to participate in an On-Bill?
   - Brian (CEWO): A few years back there was legislation passed that encouraged utilities to participate in On-Bill. There is no true incentive monetarily just some help from the legislation!