

Capstone Assignment
ABA Stonier School of Banking
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RESIDENTIAL ENERGY LENDING

**AN OPPORTUNITY FOR FIRST MERCHANTS BANK TO INCREASE
ITS CONSUMER CUSTOMER BASE AND ENHANCE
PROFITABILITY THROUGH PRODUCT DIFFERENTIATION**

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EXECUTIVE SUMMARY

The banking industry continues to condense through mergers and acquisitions, not to mention the dramatic decrease in De Novos. First Merchants Bank (FMB) continues to grow organically, primarily through acquisitions. As the bank finds itself competing with not only credit unions and community banks but also large regional banks, how does FMB differentiate itself from the competition? The intent of this capstone is to present information to stakeholders within the organization about the importance of differentiating through the offering of new and innovative loan products such as Residential Energy Lending. This product offering is intended to not only enhance profitability for the organization but also attract forward thinking, planning, and environmentally conscious consumers.

Although, FMB is now close to \$13.0B in assets, it is comprised of many community banks acquired during the past decade. FMB provides its customers with broad, customary financial services delivered locally by bankers who are known and trusted in their communities. The company's motto is, "The Strength of Big and the Service of Small." FMB is currently competitive, especially in a bidding situation. However, it is not known as a low-cost provider of products and services. FMB intends to differentiate with knowledgeable bankers that are attentive to their customer's needs by providing a whole bank delivery system. Also, FMB has a very robust sales tracking technology that encourages bankers to contact clients on a regular basis to check in and to offer other bank products and services. Turnaround time on loan applications is a huge emphasis with bank management. The process is managed very closely from beginning to end to ensure a timely response and quick and efficient closing. The bank prides itself with relationship banking in their local markets; nevertheless, some commercial

bankers will investigate areas outside of their immediate market area and in some cases other states to search for sizeable loan transactions.

First Merchants Bank's competitive advantage is that of a moderate differentiation and not considered to be extreme. As the bank continues to grow primarily through acquisitions, the desire to obtain larger relationships will increase; therefore, the pressure to win larger transactions will increase. The bank certainly will continue to be the relationship bank in the areas in which it serves, but an increase in large commercial transactional lending can be anticipated. These past bank acquisitions have allowed the bank to improve on its efficiency ratio and lower its cost of funds positioning itself to become more competitive especially with larger institutions.

Banking institutions continue to look for ways to improve the bottom line, usually through economies of scale. As they grow, what makes them different than the bank down the street and what prevents them from becoming stale? For example, credit unions clearly have a defined customer base through memberships, offering low pricing on loan products due to the exemption of federal income taxes and less regulations. They continue to put pressure on banks, including First Merchants, to be competitive with retail borrowers and small businesses. On the other hand, as the bank continues to grow, it starts to compete with medium to large regional and national banks that have pricing advantages on very large loan transactions. If First Merchants continues to acquire and improve efficiencies and cost of funds, the bank will continue to perform year after year. The question is, **what happens when the acquisitions stop?** Differentiation becomes much more imperative for continued success.

One example FMB can do to accomplish this differentiation is to continue to develop new and innovative products and services to meet the needs of a constantly changing consumer

base. One such way is to recognize the change in extreme weather patterns causing widespread power interruptions and the desire for homeowners to be more environmentally conscious. Thus, the increased demand for residential whole house generators and solar power panels. The competition for this type of lending is limited throughout the country and is very expensive. FMB should consider competitive loan products to attract these forward thinking, environmentally conscious consumers.

INTRODUCTION/BACKGROUND

FMB History

First Merchants Bank was originally known as the Merchants National Bank of Muncie, Indiana and it was organized during the Panic of 1893 by a group of service-minded businessmen who recognized a need in their community and acted to fulfill that need. Spearheaded by Hardin Roads, a former successful wholesale grocer, the enterprising men invested capital of \$100,000. This was the only time it was necessary to raise capital through outside sources. First Merchants Bank has survived panics, depressions, and wars to become the leading financial institution in East Central Indiana. As the bank continued to grow over the decades, its management team decided to have its common stock listed on the NASDAQ market services in 1989. FMB's most recent acquisition occurred in of October of 2018 when FMB announced that it had signed a definitive agreement to merge with Monroe Bank & Trust of Monroe, Michigan. On September 1st, 2019, legal close occurred and integration activity commenced on November 12, 2019. Today, FMB is \$13.0 billion in assets with 125 locations in Michigan, Ohio, Indiana and Illinois and it is the intent of the executive management team to continue to seek out acquisition opportunities. Forbes has released its 2020 list of "America's

Best Banks,” and for the third consecutive year, First Merchants Bank, Indiana’s second largest financial services holding company, has been rated by Forbes as the country’s fifth best bank.

The Proposal

This market opportunity was derived from personal experiences and desires as a homeowner, primarily the frustration of chronic power disruptions and the desire to be more environmentally conscious while saving money. Many homeowners reside in a region of southeastern Michigan, known as Wayne County, where city water and sewer services are not available. Therefore, these homeowners are forced to construct or purchase a home with well and septic. There is a benefit of not having to pay city water and sewer fees which can be expensive, but there is another cost of being on well water: power outages. For families living in southeast Michigan, they can always count on a power outage at least twice a year due to ice storms or excessive winds. Not having electricity impacts the ability to heat or cool a home, illuminate, operate a sump pump or prepare food. Most importantly, not having water to take a shower or flush a toilet is extremely inconvenient. Some of these power outages have exceeded two or three days, which makes it impossible to stay in a home, forcing families to move to a hotel, outside of the blackout area, or stay with family members not impacted.

Midwest Weather

You don’t have to be a weather expert to know that the Midwest is subject to ice storms, snowstorms, lightning strikes, and excessive winds. According to the 2018 Eaton Blackout Tracker Report, (page 7) Michigan ranks fourth nationally in the total number of power outages over the past six years. Michigan’s residents put up with more outages per capita than any of the other electricity-challenged states. Michigan ranks among the worst states for number of outages caused by weather and downed trees, according to the Eaton report, but also for outages caused

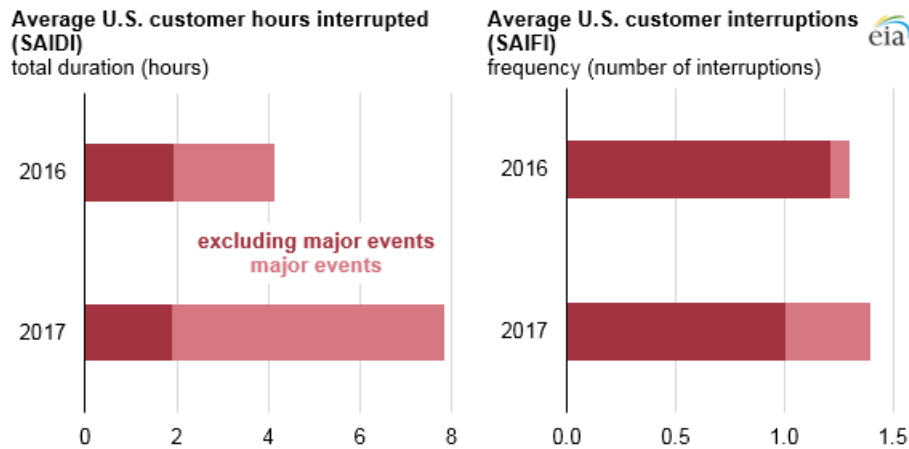
by power equipment failure and utility company human error. In addition, Ohio ranked fifth with one storm that stood out on Nov. 15, 2018 that caused power outages to nearly 134,000 customers, the majority in Hamilton County.

State	Total # affected	Ranking	Total # of outages
Michigan	12.5M	4	1,369
Ohio	7.0M	5	1,349

Source: Eaton 2018 Blackout Tracker Report, Retrieved from <http://electricalsector.eaton.com/forms/BlackoutTrackerAnnualReport>, p. 9

On November 30, 2018, the U.S. Energy Information Administration posted an article on the increasing power disruption in the United States. It explained that electric power for U.S. customers was interrupted for an average of just under 8 hours (470 minutes) in 2017, nearly double the average experienced in 2016. More major events such as hurricanes and winter storms occurred in 2017, and the total duration of interruptions caused by major events was longer. Excluding these major events, the average duration of interruptions customers experienced was almost identical in 2016 and 2017, at about 2 hours in both years. In 2017, the average customer experienced 1.4 interruptions counting major events and 1.0 interruption excluding major events. (See graph pg. 8)

So, what does this information tell us? Power outages are widespread throughout the United States. Michigan and Ohio rank in the top 5 in total number of individuals affected and total number of outages. The trend of outages is increasing since 2016 especially due to major weather events, not to mention an aging power grid. These disruptions are extremely inconvenient, resulting in the loss of food, an inoperable sump pump, and the need to seek out temporary housing.



Source: U.S. Energy Information Administration, *Annual Electric Power Industry Report* (EIA-861 data file)

Whole house generators are a great “temporary” source of electricity, however, if you want to prevent those unexpected power outages, save money in the long run and leave less of an environment footprint, residential solar panels with battery backups could be a possibility. Both options are costly with solar panels being the most expensive.

Whole House Generators

Whole house generators powered by natural gas are a great way to gap those unexpected power disruptions. With improvement in technology and reliability, generators are becoming more and more popular. Generators for smaller homes or limited service start at \$2,000 plus installation which can range from \$1,500 to \$2,000 (7.5kw). Whole house generators for larger or custom homes servicing the entire home with Wi-Fi managed capability can be as much as \$9,000 (25kw) plus installation costing approximately \$4,500. Financing options are available however, they can be costly if you are unable to pay within 12-18 months. For example, 10-year financing can cost as much as 9.99% APR.

Residential Solar Panels

Residential Solar Panels have many benefits in addition to providing back up energy, provided that the system has back up batteries. If homeowners are interested in saving energy costs in the long run, increasing the value of their home, extending the life of their roof, and lowering their environmental footprint, solar panels are a great option.

Solar Reviews is an independent comparison website for the residential solar industry, providing information for the benefit of consumers since 2012. It has also grown to become the leading consumer education website for homeowners considering installing solar panels on their rooftop and to offer consumers solar price comparisons. Information from their website indicates that the average home cost of solar panels and installation in Wayne and Monroe Counties are \$3.00/kw or just under \$22,000. To assist in the cost and to promote the use of residential solar panels, the federal government does offer tax credits of 26% for 2020. The good news is that costs have dropped 36% over the past five years and are expected to continue.

When it comes to generating solar powered electricity, it's estimated that the cost of solar power/kW hour is only 6 cents. Average cost of utility power over 25 years (if you don't get solar) is 35 cents/kW hour. This shows that solar is a far cheaper way to power a home in southeast Michigan over the long term. Estimates derived from Solar Reviews shows that an average monthly electric bill from DTE in southeastern Michigan is \$190 which is subject to 3.5% increases annually. After the installation of solar, the estimated total monthly energy bill is \$185 comprised of a \$5 utility bill and a \$180 solar loan payment. This does not include other benefits such as a potential increase in home value, refunds or net metering from the utility company for excess energy production and exponential savings when the solar panels are paid off. Most importantly, homeowners are generating clean energy.

So, it's clear that alternative sources of energy are increasing in popularity. Whether it's a whole house generator or solar panels, these homeowners desire to save money and increase the value of their home, while being considerate of the environment. With increased competition, it is imperative that First Merchants Bank seek out ideas and strategies to differentiate itself. If the bank wishes to be viewed as progressive and proactive to attract prospective customers that seek out alternative energy, it should consider a campaign to offer competitive Residential Energy Lending.

If First Merchants Bank offered competitive financing options to assist in the purchase and installation of whole house generators or solar panels, it would create opportunities to not only increase loan balances and profitability, but also expand its customer base of forward-thinking, budget minded consumers.

Whole House Generator Market Activity

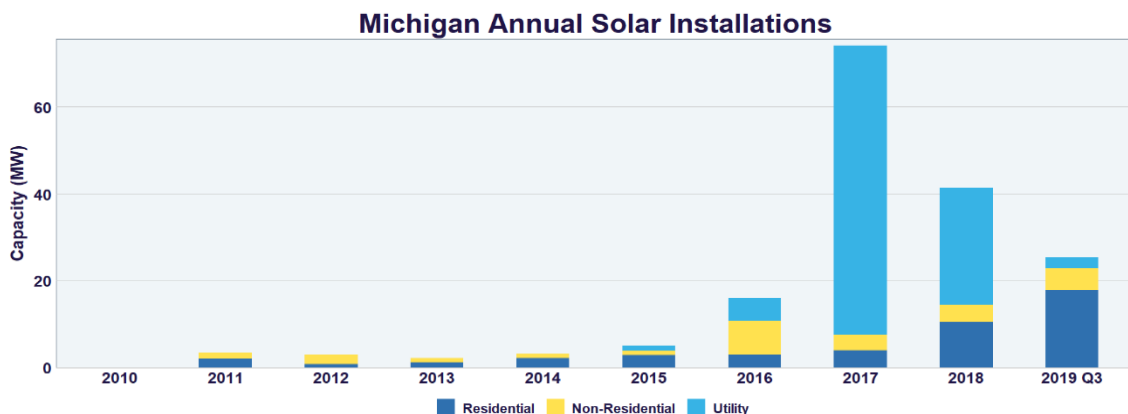
Generac, a leader in home standby generators with more than 75% market share in North America, recently reported that only 4.5% of U.S. households contain whole house generators. Third quarter 2019 sales increased 7.4% to \$335 million as compared to \$311.9 million last year. They attribute this growth to an aging power grid, an aging population dependent on power, and attitudes changing around global warming with expectations of increasing power interruptions.

First Merchants Bank currently has 20 banking centers throughout southeastern Michigan serving the counties of Wayne, Monroe, Oakland, and Washtenaw. According to the Southeastern Michigan Counsel of Governments, population and household information as of November 2018, based on the above-mentioned counties, contained \$1.4 million households of which 65% or 910k represent single family dwelling ownership. Utilizing the estimate of 4.5% of households owning whole house generators, one could expect that roughly 40,950 homes are

equipped with whole house generators in the markets served. If the 4.5% of private residences utilizing whole house generators grew from 4.5% to 5.0%, that number could expect to be 45,550, or a net growth of 4,550 units. Not all purchasers will require financing so an assumption can be utilized that 75% will seek out financing or 3,412 households. If First Merchants was successful in obtaining a conservative number of 5% of this net growth in units sold, that would translate into 170 potential loans with an average loan amount of \$8,500. Total loan production estimate per year would be \$1.45 million

Solar Panel Market Activity

The Solar Energy Industries Association, an advocate behind solar energy through advocacy and education, is a national trade association for the U.S. solar energy industry, which employs more than 242,000 Americans. According to SEIA, Michigan ranks 32nd in the United States with just over 7,000 residential, commercial and utility installations totaling 174 MW or 175,000 kW. It's clear from the chart below that residential installations have increased year after year since 2012 with a dramatic increase in the third quarter of 2019. Michigan is projected to rank 21st over the next five years.



The benefit for solar power users is net metering. This is when a residential producer of solar power produces more energy than needed and sells back to the grid. In an article dated

May 2019, Jim Malewitz of The Bridge, a Michigan non-partisan environmental watch group claims that 3,400 customers signed up for net metering through 2017, up from more than 2,100 two years earlier. Solar company officials say they've since hooked up thousands more folks encouraged by policies like net metering and declining technology costs.

When referring to the graph above, at the end of the third quarter 2019, Michigan residents installed 18 MW of capacity or 18,000 kW. A single-family home consisting of 2,200 to 2,400 sq. ft. would require a 10-kW system where a home containing 1,200 sq. ft. would require a 6-kW system. If you use an average of 8-kW per system divided by 18,000 kW of installed capacity for the 9 months ended 2019, it results in 2,250 residential installations or 3,000 annualized. Most of the manufacturing and installers are in southeastern Michigan so an estimate for the region of 75% or 2,250 can be utilized. Not all purchasers will require financing so an assumption can be utilized that 75% will seek out financing or 1,687 households. If First Merchants could obtain 5% of this installation activity, it would translate into 84 potential loan transactions with an average loan amount of \$16,000. Total loan production estimate per year would be \$1.35 million.

STRATEGY AND IMPLEMENTATION

First Merchants Scale

One of the greatest strengths that First Merchants Bank possesses is its strong national reputation as Indiana's second largest financial services holding company. Forbes ranks the country's 100 largest banks based on 10 metrics related to growth, profitability, capital adequacy and asset quality. Metrics include return on average tangible equity, return on average assets, net interest margin, efficiency ratio and net charge-offs as a percent of total loans. The most recent rating by Forbes recognizing FMB as the country's fifth best bank in the county is extremely

beneficial in establishing the trust of potential customers and ultimately strategic partnerships with installers. This is clear evidence that FMB has the knowledge, scale, and infrastructure to easily deploy the enhancement of its existing consumer-based products. Not only does this potentially increase profitability but also displays the bank's ability to be progressive by acknowledging consumer trends.

If there is a weakness to consider it is the delivery of consumer loan documents. Competition in this arena is all about ease of delivery and convenience. For example, electronic execution of applications and loan documentation. Prior to the COVID 19 pandemic, FMB engaged in the traditional form of loan documents which was in-person execution. However, FMB has adapted to the limitation of face to face meetings as a result of the pandemic and started to adopt "DocuSign" for its execution of PPP loans. Competition, especially in the residential home loan market, has begun to adopt the remote loan application and documentation submittal process. If FMB enters the residential energy market, it is imperative to fully utilize remote application submittal and documentation execution.

Market Differentiation

The strategic opportunity is to develop a plan for First Merchants Bank to generate additional profitability by expanding the consumer loan product line without having to incur substantial investment while enhancing the bank's image through effective market differentiation. As the banking and credit union industry continue to condense and become more competitive, it is imperative for financial institutions to develop ways to increase profitability while differentiating from the competition. First Merchants has a wide array of products and services. There is not a person or medium sized business FMB can't serve. FMB can serve the average retail customer and small business to compete with credit unions and community banks.

FMB can also compete with some of the larger regional and national banks such as Bank of America, Chase, Fifth Third, and Comerica for larger credits. Clearly, there is a broad target market based on our wide array of retail and commercial banking products and services offered to a relatively large geographic area.

Let's face it, banks and credit unions provide deposit products and loan products and all claim to be the best when it comes to customer service. With that, what products and services are in line with the community in which we serve? What are some of the trends? What can we offer above and beyond the basic products and services that one expects from a financial institution? This proposal identifies a way to expand that product offering through Residential Energy Lending. Whole house generator and solar power panel financing provides First Merchants Bank the opportunity to create enhanced market differentiation. As we all become more knowledgeable about climate change and the state of the environment in general, a growing number of people are searching for cleaner and more sustainable energy solutions. From LED bulbs to electric cars, people are doing what they can to lessen their dependence on fossil fuels and reduce their carbon footprint. Since renewable energy is one of the best ways to do this, its popularity is quickly spreading. Additionally, as consumers become more informed, more people want the companies they depend on for power, water, and other resources to be environmentally friendly. This is leading to more companies striving to adopt 'greener' policies to grow their "market share" and build a loyal customer base. Within the article *3 Reasons To Consider Renewable Energy*, they state, "This trend doesn't appear to be a flash in the pan, either. In fact, when polled, younger generations have indicated that they are willing to pay more for products and services that are provided by companies that abide by eco-friendly policies and

practices” (IGS Energy). FMB should recognize this change within its identified market area and offer competitive financing for the proposed Residential Energy Lending.

Innovation Affects Image

Innovation is about doing something differently from everyone else operating in your space. If your organization is using innovation on its products, for example, then the goal is to develop or update the products until there is nothing else on the market like it. We have all heard the term, “innovate or die”. That’s a pretty harsh statement, but it’s true. With the increase in modern technology, including but not limited to the internet, it is crucial for businesses to constantly seek out ways to become more innovative by adapting to the trends of their market areas. Utilizing innovation will save money, time and other resources but most of all it will give FMB a competitive advantage over other financial institutions stuck in their old ways.

Innovation helps an organization differentiate itself and its products from the competition, which can be particularly powerful in an oversaturated financial industry. So, if FMB wishes to attract forward thinking, environmentally conscious and fiscally responsible customers from young homeowners to retirees, the adoption of innovation through Residential Energy Lending will provide that positive image to increase market share.

Aging Population

Statistics tell the story that the U.S. population is getting older at a dramatic rate. The Department of Health & Human Services Administration’s on Aging estimates that nearly 55 million people – nearly one-in-six – will be age 65 or older by 2020, compared with 40 million in 2010. As the population ages, their basic needs become essential, such as heat, water, air conditioning, medical devices and home security; all reliant on electricity. In the event of interruption of electricity, many seniors may not be able to venture out of their home due to

inclement weather, and for those that do attempt to leave their home, they put themselves at risk. It certainly is to their benefit to stay in the comforts of their home. This certainly can be accomplished with purchase of a whole house generator.

Baby boomers, born 1946-1964, are open minded when it comes to technology. As an example, many baby boomers have integrated the internet into their daily lives. A report last year, according to Pew Research's most recent social media fact sheet, 69% of adults between 50-64 and 40% of those above 65 use social media.. This number is only set to increase. FMB should ignore the presumption that seniors do not understand technology and instead use it as an avenue for delivering targeted, relevant offers to increase engagement.

Founded more than 30 years ago, FONA International, creator and producer of flavors for many of the largest food, beverage, and nutritional companies in the world state that **Baby boomers hold \$2.6 trillion in buying power.** They're credited as one of the wealthiest generations to date and are still economically powerful despite their old age. Boomers have had more time to build their wealth in comparison to other generations while some are still in the workforce and making more money. Not only do they possess buying power they are also concerned about the environment and willing to make the investment. According to an article in Forbes dated February 17, 2020, baby boomers outpace millennials and gen-z when it comes to reducing or eliminating their carbon footprint. Purchasing solar power panels with battery backups drastically reduce or eliminate electric bills, and also make a statement to protecting the environment and making a commitment to sustainability. So, financial institutions who can effectively meet the changing needs of aging consumers will be able to tap into the largest slice of the mature market pie.

Threats/Risks

There are many reasons to consider entering the residential energy lending market, so what are the apparent risks? The current pandemic certainly has precautionary actions being taken by lenders. Factors leading to the concern include rapidly rising unemployment, potential decreases in home values, and potential loss rates on loan amounts exceeding 80% CLTV. Through the month of May 2020, FMB HELOC outstandings are trending down; current balances are \$376 million compared to \$380 million the prior month. Utilization rates are also declining, currently at 44% compared to 47% the month prior. Delinquency rates are up slightly, while losses remain in control at this time. On a positive note, through April 2020, the consumer loan portfolio was at a 0.857% delinquency rate, well below the 1.5% internal target, and annualized net charge off rate was 0.253%, below the 0.5% target. With the anticipated distribution of vaccines and stimulus packages, it can be expected that economic activity should stabilize in 2021.

Regarding solar panels, currently there is 26% federal tax credit encouraging homeowners to take advantage of renewal sources of energy such as solar panels. This federal tax credit is expected to reduce to 22% in 2021 through 2022. If these credits continue to decrease or are eliminated, it could have a negative impact on the installations of solar panels. The mitigant to this risk is the cost of solar panels continuing to drop. In summary, the threats to entering this financing market is very small. In the event FMB believed it was no longer advantageous to offer financing, the cost to unwind would be minimal.

Existing Financing Options-FMB

After searching various financial institution websites within the subject market area, it was discovered that no financing options are available, specifically for residential energy loan

products. Certainly, banks and credit unions offer the traditional home equity term loans, lines of credit, and home improvement loans. What does a prospective customer do in the case that they wish not to use the equity in their home, or they don't have adequate equity? What options do they have? In addition, some home improvement loans are expensive and limited in the amount of credit extended. Below demonstrates existing pricing for First Merchants Bank's home equity loans, home equity lines of credit, and home improvement loans.



Terms	First Merchants Home Improvement Loan	First Merchants Home Equity Line of Credit	First Merchants Home Equity Term Loan
Interest Rate	6.99% fixed 60 months	Wall Street Journal Prime floating and up	3.99% fixed 60 months 4.99% fixed 120 months
LTV	N/A	*Up to 89.9% LTV	*Up to 89.9% LTV
Loan Maximum	\$5,000	Unlimited	Unlimited
Collateral	Unsecured	Secured by primary residence	Secured by primary residence

*Note-These options are based on an "A" credit of 740 or higher

Existing Options of Financing-Synchrony Bank

Whole House Generators

What appears to be the largest competitor of financing whole house generators is Synchrony Bank based out of Stamford, Connecticut. Generac, a leader in home standby generators with more than 75% market share in North America, exclusively promotes Synchrony on its corporate website. Synchrony is a consumer financial services giant delivering customized

financing programs across many industries including retail, health, auto, travel and home.

Financing whole house generators is strictly a one-time transaction with no requirement for an auto debit from a deposit account. In addition, financing does not include taxes and delivery.

Below is a summary of the unsecured financing options with Synchrony.



Rate (APR)	Term
9.99%	62-132 months
7.99%	38-61 months
5.99%	19-37 months
0%	Up to 18 months

Existing Options of Financing-Light Stream

Residential Solar Panels

There are clearly limited sources of competition when it comes to solar financing. The following non-Michigan banks and finance companies claim to offer solar financing which is defined as unsecured. Here are just some of the names that are active or willing to finance in Michigan.

Light Stream

Home Loan

AmeriFirst

Dividend Solar

EFS

Green Sky Credit

Medallion Bank

After reviewing their websites to discover their solar financing plans, many do not disclose their terms and conditions, however, Light Stream does offer detailed information on their unsecured solar plans. Light Stream is a division of TRUIST which is the result of a Sun Trust Bank and BB&T merger. Light Stream’s lowest financing option information is displayed in the table below.



Loan amount	24-36 months	37-48 months	49-60 months	61-72 months	73-84 months	85-144 months
\$5000- \$9,999	7.49%- 15.49%	8.09%- 16.09%	8.49%- 16.49%	8.79%- 16.99%	N/A	N/A
\$10,000- \$24,999	3.99%- 14.49%	5.34%- 15.09%	6.49% - 15.49%	6.79%- 15.99%	6.99%- 16.29%	N/A
\$25,000- \$49,000	5.49% - 14.49%	6.09% - 15.09%	6.49% - 15.49%	6.79% - 15.99%	6.99%- 16.29%	6.89% - 16.49%

A Competitive Solution

A possible alternative to encourage financing of whole house generators and solar panels would be to provide a specific purpose promotion. If a prospective customer wished to utilize the equity in his/her home, the promotion would allow up to **95%** LTV to assist in the purchase of alternative residential energy applications compared to the existing FMB LTV limit of **89.9%**. The requirement, in addition to normal underwriting, would be that the equipment be purchased from an authorized dealer and installed by a licensed contractor. The home equity term loan interest rate would be reduced by 10 basis points compared to traditional pricing. The home equity line of credit option (HELOC) would maintain the existing FMB pricing, however, LTV

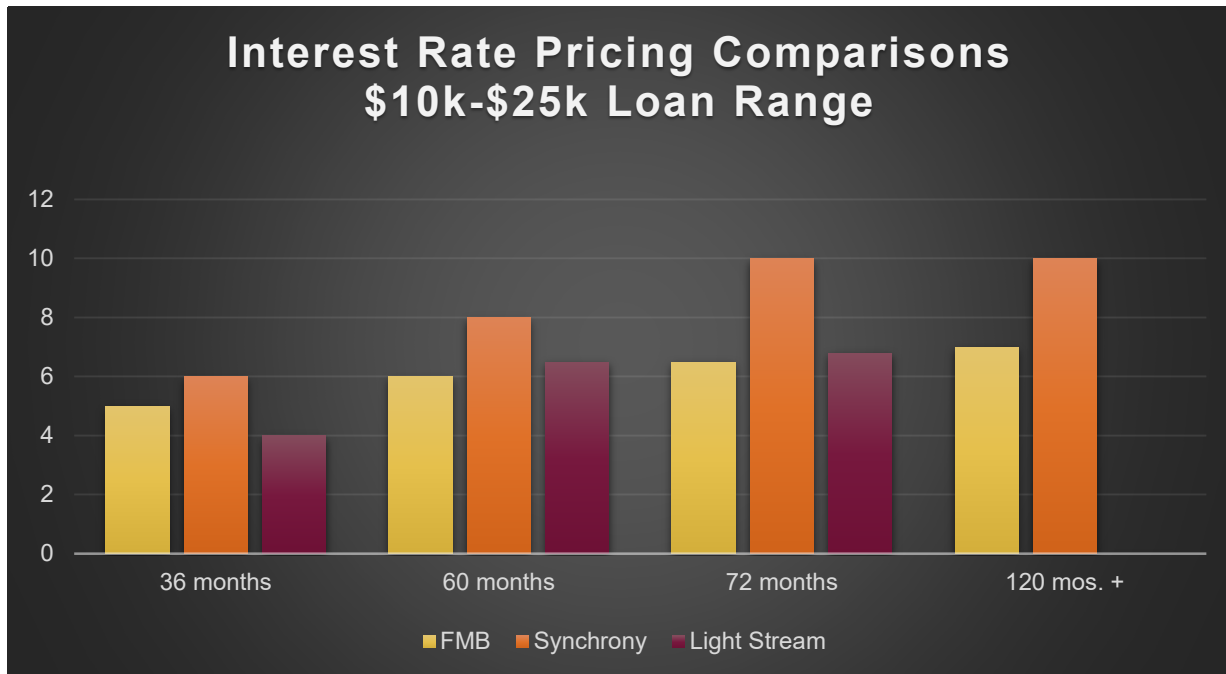
would also be increased to **95% LTV**. In the event the customer does not establish a DDA account with auto debit, a .25% rate increase would apply.

If the home equity structure does not fit the needs of the customer, FMB could offer a special promotion home improvement loan, otherwise known as a Residential Energy Loan. Under the Home Improvement category, FMB may offer a residential energy option with increased loan maximums up to **\$10,000** for whole house generators and **\$25,000** for solar panels with preferential pricing up to a 1% reduction and adding a 72 month and 120 month option priced at .50% and 1% above the 60 month option respectively. In the event the customer does not establish a DDA account with auto debit, a .25% rate increase would apply. Below demonstrates the promotional offering.

Terms	First Merchants Home Residential Energy Loan	First Merchants Home Equity Line of Credit	First Merchants Home Equity Term Loan
Interest Rate	4.99% fixed 36 mos. 5.99% fixed 60 mos. 6.49% fixed 72 mos. 6.99% fixed 120 mos.	Wall Street Journal Prime floating and up	3.89% fixed 60 months 4.89% fixed 120 months
LTV	N/A	*Up to 95.5% LTV	*Up to 95.5% LTV
Loan Maximum	\$10,000 WHG \$25,000 SP	Unlimited	Unlimited
Collateral	Unsecured/UCC 1-A	Secured by primary residence	Secured by primary residence

***Note-These options are based on an "A" credit of 740 or higher. A .25% rate increase would apply if borrower does not elect to establish a FMB auto debit dda.**

Although, Light Stream does permit larger unsecured transactions than the proposed FMB unsecured home improvement plan, it's clear that the FMB residential energy loan promotion has its benefits when compared to the \$10,000-\$25,000 categories 61-120 months.



***Note-Light Stream does not provide 120-month financing for the subject loan range**

Establishment of Task Force

The next stage of this process is to establish a stakeholder task force. The following individuals are identified as being imperative in preliminary discussions related to the potential offering of residential energy loans:

- Tom Myers, Regional President-Michigan
- Carrie Valek, Director of Consumer Banking
- Colton Cooley, Mgr. Retail Lending Sales
- Todd Patrick, Director of Product Mgmt. and Financial Performance
- Karen Evans, Director of Marketing
- Patrick Sims, Corporate Counsel-Compliance

After the initial task force meeting indicating the desire to move forward, the next step would be to discuss profitability models with the Director of Product Management and Financial Performance. Upon satisfactory review of profitability models, discussion would then focus on compliance issues involving the product offering. Some issues to discuss are the loan to value maximum of 95.5% with the secured options and the filing of a UCC 1-A for the unsecured option.

Strategic Partnerships

In addition to marketing the promotion through traditional forms such as mailers, print, social media and cable, it would be imperative to establish strategic partnerships with local dealers and installers of whole house generators and residential solar panels. There are approximately 60 whole house generators dealers/installers within southeastern Michigan. Most that advertise financing utilize Synchrony Bank. The goal would be to meet with dealers to show that FMB could offer competitive financing and a quick approval process with a local bank. After researching solar panel dealers and installers in southeastern Michigan, there are three that repeatedly show up with very high ratings on Home Advisor and Angie's List: The Green Panel, located in Brighton, MI, Oak Electric Services, Inc. located in Waterford, MI and Michigan Solar Solutions of Wixom, MI. Like whole house generator dealer/installers, the goal would be to meet with these three popular dealer and installers of solar panel and inform them of FMB's Residential Energy Lending promotion and its advantages.

Initial Scope

Because the writer of this proposal is located within the southeastern Michigan region of First Merchants Bank, the data generated represents the like region. If the bank's senior management team elects this proposal, it is recommended that it be limited to the southeastern

Michigan region. It would also be advisable that the establishment of any strategic partnerships with retailers and installers be delayed until the training and implementation of the program within the FMB team is completed.

Once data is retrieved regarding positive loan activity within this market, other markets within the organization may be considered.

FINANCIAL IMPACT

FMB Consumer Profitability

The intent of this proposal is to not only suggest the positive image of providing residential energy lending but also display in the following scenarios that this type of financing can increase balances and do it profitably to FMB standards. One of the greatest benefits of this strategic proposal is that it will not require any material capital investment. Yes, it is expected there will be some opportunity costs associated with the establishment of a strategic task force to meet and analyze the existing consumer portfolio and analyze the opportunity for expanding consumer lending activity, however, this endeavor can be accomplished with existing management, retail staff and infrastructure. In addition to these opportunity costs, FMB should be expected to incur other costs such as upfront marketing costs and loss provisions. The first step is to review FMB's existing consumer loan activity and profitability for the year ended 2019. According to FMB's July 2020 Consumer Bank Lending Review, balances were approximately \$421 million in real estate secured loans and \$82 million in non-real estate loans. Loan fee income was \$1.463 million and total revenue was \$16.553 million. When reviewing FMB's consumer loan profitability as of year-end 2019, the average loan spreads for the consumer loan book is 3%. Upfront marketing research and material for a new consumer loan

product is estimated at **\$5,000** annually and charge off provisions at **.50%**, however, these costs will be recognized net of revenue over time. There were 2,670 real estate secured loans produced with origination and personnel expense allocated to real estate secured loans were estimated at \$1.77 million or **\$662/loan**. In addition, there were 4,000 non-real estate loans booked, and total origination expense was about \$251k or **\$62/loan**. There were approximately 7,300 denied applications and \$147k in expenses allocated to denials. When layering in personnel expense, provision expense, and Decision Pro fees, total net revenue is just under \$11 million. **Profit per loan is \$407 and the ROA is 2.19%**.

The following financing assumptions are based on several different scenarios. Scenario 1 is based on utilizing terms related to whole house generators (pgs. 10-11). Scenario 2 is based on utilizing terms related to solar panels (pg. 12). Other items included in Scenario 1 and 2 recommended by FMB's Consumer Bank Lending Review are the following:

- Loan Fee (\$0 for Secured, \$125 unsecured)
- Charge Off Percentage (.50%)
- Charge Off Loan Amount (\$1,500)
- Annual Portfolio Growth (5.00%)
- Annual Marketing Expense (\$5,000)
- Annual Personnel Costs (\$62/loan)
- Origination Costs (\$600/loan R/E secured, \$60/loan unsecured WHG, \$100/loan unsecured SP)

Scenario 1 – Whole House Generator Financing Options (170 loans/yr.)

	FMB COF	Margin	Rate	Term	Average Loan	Fee	Net Revenue	ROA
WHG Unsecured	1.42% 10 year	5.57%	6.99%	120 mos.	\$8,500	\$125	\$37,550 Yr. 1 \$111,574 Yr. 2	2.60% Yr. 1 3.77% Yr. 2
WHG Unsecured	.80% 5 year	5.19%	5.99%	60 mos.	\$8,500	\$125	\$34,589 Yr. 1 \$102,969 Yr. 2	2.39% Yr. 1 3.48% Yr. 2
WHG Home Equity Term	1.42% 10 year	3.47%	4.89%	120 mos.	\$8,500	\$0	(\$90,503) Yr. 1 (\$18,354) Yr. 3	-6.26% Yr. 1 -0.41% Yr. 3
WHG Home Equity Term	.80% 5 year	3.09%	3.89%	60 mos.	\$8,500	\$0	(\$93,464) Yr. 1 (\$32,883) Yr. 3	-6.47% Yr. 1 -0.72% Yr. 3
WHG HELOC	.27% 30 day	2.98%	3.25%	Interest Only	\$8,500	0%	(\$94,321) Yr. 1 (\$37,089) Yr. 3	-6.53% Yr. 1 -0.81% Yr. 3

See Appendix A

The above scenario clearly displays that the, 120-month and 60-month, unsecured options, with a **\$125** processing fee, is substantially more profitable than the secured options utilizing the home equity options due to the higher spread and less upfront origination costs. ROA on these unsecured options exceed FMB's average 2.19% in the first year of roll out. Certainly, there is less risk associated with home equity options however due to upfront origination costs and competitively driven lower margins, a desired ROA equal to or greater than FMB's current ROA of 2.19% could take up to five years of cumulative loan growth assuming an average loan of \$8,500. A possible solution for improving the return on the real estate secured option is to consider utilizing a 2 x S.E.V. formula to establish value in lieu of an appraisal. This option could potentially reduce the origination costs per loan as much as \$450 which would result in an ROA of .86% for year 1 and 1.45% for year 4 when utilizing the 10 year option.

Scenario 2 – Solar Panel Financing Options (84 loans/yr.)

	FMB COF	Margin	Rate	Term	Average Loan	Fee	Net Revenue	ROA
Solar Panels Unsecured	1.42% 10 year	5.57%	6.99%	120 mos.	\$16,000	\$250	\$40,422 Yr. 1 \$114,669 Yr. 2	3.01% Yr. 1 4.14% Yr. 2
Solar Panels Unsecured	.80% 5 year	5.19%	5.99%	60 mos.	\$16,000	\$250	\$37,655 Yr. 1 \$106,624 Yr. 2	2.80% Yr. 1 3.85% Yr. 2
Solar Panels Home Equity Term	1.42% 10 year	3.47%	4.89%	120 mos.	\$16,000	\$0	(\$35,346) Yr. 1 \$46,795 Yr. 3	-2.63% Yr. 1 1.10% Yr. 3
Solar Panels Home Equity Term	.80% 5 year	3.09%	3.89%	60 mos.	\$16,000	\$0	(\$38,113) Yr. 1 \$33,206 Yr. 3	-2.84% Yr. 1 .78% Yr. 3
Solar Panels HELOC	.27% 30 day	2.98%	3.25%	Interest Only	\$16,000	0%	(\$38,914) Yr. 1 \$29,273 Yr. 3	-2.90% Yr. 1 .69% Yr. 3

See Appendix B

The above scenario clearly displays that the, 120-month and 60-month, unsecured options, with a **\$250** processing fee, is substantially more profitable than the secured options utilizing the home equity options due to a larger loan amount, higher spread and less upfront origination costs. ROA on these unsecured options exceed FMB's average 2.19% in the first year of roll out. Certainly, there is less risk associated with home equity options however due to upfront origination costs and competitively driven lower margins, a desired ROA equal to or greater than FMB's current ROA of 2.19% could take up to 5 years of cumulative loan growth with the 10 year pricing and 6 years of cumulative growth with 5 year pricing assuming an average loan of \$16,000. As mentioned on page 26, if FMB elected to utilize a 2 x S.E.V. formula to establish value in lieu of an appraisal, this option could potentially reduce the origination costs per loan as much as \$450 which would result in an ROA of .18% for year 1 and 2.32% for year 2 when utilized for the 10 year option.

NON-FINANCIAL IMPACT

Internal and External Image

One of the biggest challenges associated with the roll out of a new consumer loan product, especially one that is considered progressive and relatively new to the market, is understanding the item being financed and connecting to those consumers purchasing the item. There is an opportunity cost, for sure. This requires the commitment of bank management and staff to educate, plan, train, market and execute. Yes, it can be time consuming at first, but the benefit of this product proposal is that it does not require substantial capital investment. There is no requirement for new equipment, software platforms, facilities, or additional staff.

Non-financial impact from an internal perspective is that it sends a message to bank employees directly and indirectly engaged in the endeavor that FMB is seeking out new and creative ways to thrive in a very competitive market. How does the bank differentiate? How does the bank attempt to maximize profitability and shareholder value? It does it through recognizing market trends, buying habits, demographics, changes to our communities and environment. Certainly, employees want to be part of a winning team considered to be an innovative market leader. This could result in the retention of talent and possibly attract new talent. On page 15, it is noted that innovation affects image. In the marketplace, innovation helps institutions differentiate from the competition, which can be particularly powerful in an oversaturated financial industry. Maybe it's the delivery of new technologies, community involvement or in this case, innovative residential energy lending. This non-financial positive image impact can attract those forward thinking, environmentally conscious and fiscally responsible consumers. When consumers are searching the internet for financing options to

assist in the purchase of whole house generators or solar panel financing and they discover First Merchants Bank, it sends a message and possibly opens the door to many opportunities.

The Experience

With a new product offering it is imperative that an institution track the customer experience from beginning to end and beyond. First Merchants can offer a new and innovative loan product, however, if the process is clunky and inefficient, word can travel fast to the market and possible strategic partners. Word of mouth can be the best form of advertising, so tracking or monitoring the experience can provide meaningful feedback. According to Ascendant Strategy Management Group d/b/a Clear Point Strategy, a strategic marketing firm out of Arlington, Virginia, non-financial impact can be measured in 15 ways, however, the five listed below are examples of, how to track the customer experience:

1. **Conversion Rate:** The percentage of interactions that result in a sale. Formula: $(\text{Interactions with Completed Transactions}) / (\text{Total Sales Interactions}) = (\text{Conversion Rate})$
2. **Retention Rate:** The portion of consumers who remain customers for an entire reporting period. Formula: $(\text{Customers Lost in each Period}) / (\text{Number of Customers at the Start of a Period}) = (\text{Customer Retention Rate})$
3. **Contact Volume By Channel:** The number of support requests by phone and email. This allows the organization to not only compare which method customers prefer, but also to track the number of support requests month-to-month.
4. **Customer Satisfaction Index:** Gauge of a company's success at meeting customers' needs.
5. **Net Promoter Score:** The likelihood that customers and strategic partners will recommend a brand to others. A score from 1-10 that qualifies promoters (usually 9-10) and detractors (under 6). Formula: $(\text{Number of Promoters}) - (\text{Number of Detractors}) = (\text{Net Promoter Score})$

CONCLUSION

The banking industry is competitive. Banks, Credit Unions, and Fintechs are all battling for market share. Growing organically is becoming more challenging as this market share fight continues. An alternative to this challenge is to grow through scale such as acquisitions and loan portfolio purchases, but this is difficult to sustain, therefore organic growth is imperative. Differentiation of FMB through creative and progressive loan programs is one way to attract new and forward-thinking customers.

Our world is continuously changing at an exponential rate. Severe weather patterns, an aging power grid, an environmentally conscious population, and an aging population. All these factors are changing the buying habits of consumers striving to lessen their carbon footprint and obtain energy independence. The introduction of whole house generators and residential solar panels have made that a possibility, however, they are costly. As these forms of residential energy are increasing in households throughout the country, they present an opportunity for FMB to assist in financing this growing industry. It can be assumed that future purchasers of these forms of energy are environmentally conscious, forward thinking individuals that would prove to be responsible borrowers and a promising customer base for FMB.

The demand for these types of residential energy products are growing and will continue for the foreseeable future. Many individuals do not have the luxury to pay cash for these products and that is where FMB can take advantage of this opportunity. The financial impact shown on pgs. 26 & 27 demonstrate that the unsecured option for these potential loans show the propensity to be profitable and yield a ROA greater than FMB's existing 2.19%. Yes, the home equity options are not as profitable due to the upfront costs and lower spreads. If FMB adopted a property evaluation of 2 x S.E.V. in lieu of the cost of an appraisal, it is demonstrated that

these, secured options, could be much more profitable and possibly present the opportunity to sell other products and services.

The upfront costs to entertain this opportunity are minimal because FMB has the infrastructure in place to entertain these new loan products. Yes, there will be time and money spent on staff to educate, plan, train, market and execute but that is a relatively small costs when compared to the potential benefits. In the event the product line does not reach expectations, it can easily and inexpensively be unwound without community backlash. This consumer product offering has many benefits, not only for the bank's shareholders and its employees, but most importantly its existing customers and new prospects interested in financing residential energy home products.

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Appendix A:

Whole house generator pricing analysis-120 month non-real estate secured

	10 Yr COF	Margin	Rate	Term	AvgLoan	Fees	C/O %	C/O \$	Current HH	HH Penetration*	AnnualGrowth	AnnualMarketing
	1.42%	5.57%	6.99%	120	\$8,500	1.50%	0.50%	\$1,500	910,000	0.019%	5.00%	\$5,000
Month	1	2	3	4	5	6	7	8	9	10	11	12
Loans	14	28	42	56	70	85	99	113	127	141	155	170
Spread	\$552	\$1,105	\$1,657	\$2,209	\$2,762	\$3,354	\$3,906	\$4,458	\$5,011	\$5,563	\$6,115	\$6,707
Fee	\$0	\$1,785	\$1,785	\$1,785	\$1,785	\$1,913	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,913
Exp	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417
C/O #	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/O \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rev	\$136	\$2,473	\$3,025	\$3,578	\$4,130	\$4,849	\$5,274	\$5,827	\$6,379	\$6,931	\$7,484	\$8,203
	# Loans		Revenue		Origination	Personnel	Net Annual					
	Annual	Cummulative	Annual	Cummulative	Cost	Costs	Revenue	ROA				
Year One	170	170	\$58,290	\$58,290	\$ 10,200	\$ 10,540	\$ 37,550	2.60%				
Year Two	178	348	\$143,830	\$202,120	\$ 10,680	\$ 21,576	\$ 111,574	3.77%				
Year Three	188	536	\$231,944	\$434,063	\$ 11,280	\$ 33,232	\$ 187,432	4.11%				
Year Four	195	731	\$323,581	\$757,644	\$ 11,700	\$ 45,322	\$ 266,559	4.29%				
Year Five	204	935	\$419,418	\$1,177,062	\$ 12,240	\$ 57,970	\$ 349,208	4.39%				

Whole house generator pricing analysis-60 month non-real estate secured

	5 Yr COF	Margin	Rate	Term	AvgLoan	Fees	C/O %	C/O \$	Current HH	HH Penetration*	AnnualGrowth	AnnualMarketing
	0.80%	5.19%	5.99%	60	\$8,500	1.50%	0.50%	\$1,500	910,000	0.019%	5.00%	\$5,000
Month	1	2	3	4	5	6	7	8	9	10	11	12
Loans	14	28	42	56	70	85	99	113	127	141	155	170
Spread	\$515	\$1,029	\$1,544	\$2,059	\$2,573	\$3,125	\$3,639	\$4,154	\$4,669	\$5,184	\$5,698	\$6,250
Fee	\$0	\$1,785	\$1,785	\$1,785	\$1,785	\$1,913	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,913
Exp	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417
C/O #	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/O \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rev	\$98	\$2,398	\$2,912	\$3,427	\$3,942	\$4,621	\$5,008	\$5,522	\$6,037	\$6,552	\$7,067	\$7,745
	# Loans		Revenue		Origination	Personnel	Net Annual					
	Annual	Cummulative	Annual	Cummulative	Cost	Costs	Revenue	ROA				
Year One	170	170	\$55,329	\$55,329	\$ 10,200	\$ 10,540	\$ 34,589	2.39%				
Year Two	178	348	\$135,225	\$190,553	\$ 10,680	\$ 21,576	\$ 102,969	3.48%				
Year Three	188	536	\$217,414	\$407,967	\$ 11,280	\$ 33,232	\$ 172,902	3.80%				
Year Four	195	731	\$302,860	\$710,828	\$ 11,700	\$ 45,322	\$ 245,838	3.96%				
Year Five	204	935	\$392,238	\$1,103,065	\$ 12,240	\$ 57,970	\$ 322,028	4.05%				

Appendix B:

Solar panel pricing analysis-120 month non-real estate secured

	10 Yr COF	Margin	Rate	Term	AvgLoan	Fees	C/O %	C/O \$	Current HH	HH Penetration*	AnnualGrowth	AnnualMarketing
	1.42%	5.57%	6.99%	120	\$16,000	1.50%	0.50%	\$2,500	910,000	0.009%	5.00%	\$5,000
								0.5				
Month	1	2	3	4	5	6	7	8	9	10	11	12
Loans	7	14	21	28	35	42	49	56	63	70	77	84
Spread	\$520	\$1,040	\$1,560	\$2,079	\$2,599	\$3,119	\$3,639	\$4,159	\$4,679	\$5,199	\$5,719	\$6,238
Fee	\$0	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680
Exp	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417
C/O	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/O #	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/O \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rev	\$103	\$2,303	\$2,823	\$3,343	\$3,863	\$4,383	\$4,902	\$5,422	\$5,942	\$6,462	\$6,982	\$7,502
	# Loans		Revenue		Origination	Personnel	Net Annual					
	Annual	Cummulative	Annual	Cummulative	Cost	Costs	Revenue	ROA				
Year One	84	84	\$54,030	\$54,030	\$ 8,400	\$ 5,208	\$ 40,422	3.01%				
Year Two	89	173	\$134,295	\$188,325	\$ 8,900	\$ 10,726	\$ 114,669	4.14%				
Year Three	93	266	\$216,503	\$404,828	\$ 9,300	\$ 16,492	\$ 190,711	4.48%				
Year Four	97	363	\$302,350	\$707,178	\$ 9,700	\$ 22,506	\$ 270,144	4.65%				
Year Five	102	465	\$392,447	\$1,099,625	\$ 10,200	\$ 28,830	\$ 353,417	4.75%				

Solar panel pricing analysis-60 month non-real estate secured

	5 Yr COF	Margin	Rate	Term	AvgLoan	Fees	C/O %	C/O \$	Current HH	HH Penetration*	AnnualGrowth	AnnualMarketing
	0.80%	5.19%	5.99%	60	\$16,000	1.50%	0.50%	\$2,500	910,000	0.009%	5.00%	\$5,000
								0.5				
Month	1	2	3	4	5	6	7	8	9	10	11	12
Loans	7	14	21	28	35	42	49	56	63	70	77	84
Spread	\$484	\$969	\$1,453	\$1,938	\$2,422	\$2,906	\$3,391	\$3,875	\$4,360	\$4,844	\$5,328	\$5,813
Fee	\$0	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680	\$1,680
Exp	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417	-\$417
C/O	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/O #	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/O \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rev	\$68	\$2,232	\$2,717	\$3,201	\$3,685	\$4,170	\$4,654	\$5,139	\$5,623	\$6,107	\$6,592	\$7,076
	# Loans		Revenue		Origination	Personnel	Net Annual					
	Annual	Cummulative	Annual	Cummulative	Cost	Costs	Revenue	ROA				
Year One	84	84	\$51,263	\$51,263	\$ 8,400	\$ 5,208	\$ 37,655	2.80%				
Year Two	89	173	\$126,250	\$177,513	\$ 8,900	\$ 10,726	\$ 106,624	3.85%				
Year Three	93	266	\$202,914	\$380,427	\$ 9,300	\$ 16,492	\$ 177,122	4.16%				
Year Four	97	363	\$282,970	\$663,397	\$ 9,700	\$ 22,506	\$ 250,764	4.32%				
Year Five	102	465	\$367,002	\$1,030,400	\$ 10,200	\$ 28,830	\$ 327,972	4.41%				