



# Home Energy Loan Program

**Implementation Guide**

**October 2021 – Version 8**



**Michigan Saves<sup>SM</sup>**

**Prepared by**

Michigan Saves  
[www.MichiganSaves.org](http://www.MichiganSaves.org)

# Table of Contents

Document History .....	5
Introduction .....	6
The Michigan Saves Home Energy Loan Program.....	7
Residential Loan Basics .....	7
Becoming a Michigan Saves Authorized Contractor .....	8
Contractor Application Process .....	8
Contractor Requirements .....	9
Estimates and Warranties .....	12
Subcontracting Policy .....	12
Installation Best Practices and Requirements.....	12
Prohibition on Contractor Reserves .....	12
Relationship with Michigan Saves .....	13
Minimum Number of Projects .....	13
Michigan Saves Program Training .....	13
Changes and Other Updates to Contractor Information.....	14
Fees Assessed to Contractors.....	14
Financing Customers Through Michigan Saves .....	14
Customer Eligibility.....	14
Loan Application Process .....	15
Eligible Improvements .....	16
Eligible Measures .....	16
Appliances .....	16
Renewable Energy Measures.....	17
Nonenergy Building Performance Improvements .....	17
Diagnostic Testing .....	18
Project Completion.....	19
Customer Loan Closing and Payment .....	19
Customer Rebates .....	19
Program Forms.....	20
Loan Application .....	20
Membership Application .....	21

Loan Closing Documents .....	21
Certificate of Completion .....	21
Job Record.....	21
Quality Assurance .....	22
Quality Assurance Objectives .....	22
Quality Assurance Procedures .....	22
Document Review.....	23
Customer Satisfaction Survey .....	23
Phone and Site Inspections .....	23
Types of Deficiencies and Corrective Action Reports .....	25
Safety Deficiencies .....	25
Workmanship Deficiencies .....	25
Programmatic Deficiencies.....	26
Contractor Response to Corrective Action Reports .....	26
Written Response .....	27
Corrective Action Examples.....	28
Contractor Participation Status.....	30
Customer Inquiries and Complaints .....	30
Marketing .....	31
Attachment A: Eligible Measures List .....	31
Attachment B: Underwriting Criteria for Michigan Saves Loans .....	34

## Document History

Version	Date	Nature of Revisions
1.0	August 19, 2010	Initial implementation guide
2.0	February 15, 2011	Updated to reflect new ways for contractors to qualify as authorized or advanced; subcontracting policy; health and safety measures policy; quality assurance procedures; new specification sheet and online database option; and new eligible measures list, including solar photovoltaic.
3.0	April 30, 2012	Increased loan limit to \$20,000, new collection policy for per-loan fee described, instructions for online contractor portal added.
4.0	September 4, 2012	Removed requirement regarding primary residence.
5.0	March 15, 2014	Updated to reflect new loan cap of \$30,000, revised FICO requirements and new terminology for QA process. Replaced “à la carte” and “whole-home assessment option” terminology with a more functional description that better represents how the program is implemented. Added contractor rating system.
6.0	March 2, 2018	Updated authorized contractor requirements and list of eligible improvements. Revised quality assurance procedures.
7.0	June 25, 2020	Updated to reflect rate buy-down option that contractors may offer to customers and collection of fees resulting from rate buy-down. Revised the minimum number of loans that contractors are expected to complete each year. Changed all references of OCP to NGEN and updated terminology and processes to reflect NGEN. Removed insulation as a measure that requires pre- and post-installation diagnostic testing.
8.0	October 7, 2021	Updated the contractor fee to 2.49 percent. Added clarifying language on program codes and financing product details.

## Introduction

Michigan Saves is a nonprofit organization dedicated to making energy improvements easier for all Michigan energy consumers. To accomplish this, Michigan Saves operates as a green bank, making affordable financing and incentives available through grants and partnerships with private sector lenders and energy providers. We also authorize and monitor a network of contractors while providing technical assistance for customers and contractors alike. Our current portfolio includes programs for residential, commercial, and municipal customers, and supports energy-efficiency, renewable energy, and lead abatement projects.

Michigan Saves' mission is to stimulate and support investment in energy-efficiency and renewable energy systems and measures in Michigan homes, businesses, and public buildings. Working through our industry and community partners, we offer a statewide network of authorized, professional building contractors with expertise in energy efficiency and onsite renewable energy systems. We also make innovative, affordable financing available for energy-focused building and equipment improvements and accelerate demand for greater efficiency through education and communication.

This implementation guide outlines the details and requirements of the Michigan Saves Home Energy Loan Program, which provides easy, affordable loans to homeowners for qualifying energy efficiency, renewable energy, and lead abatement improvements in Michigan. The guide serves as a reference for participating contractors to understand the program requirements and to promote the program to customers.

# The Michigan Saves Home Energy Loan Program

## Residential Loan Basics

The Michigan Saves residential loans under this program are unsecured loans for amounts of \$1,000 to \$50,000, with a fixed interest rate not to exceed 7% APR and terms of up to 180 months. The Home Energy Loan is originated and serviced by a Michigan Saves authorized lender. Some lenders may offer loans at rates below 7% APR, with maximum loan amounts less than \$50,000 and loan terms less than 180 months. Details are provided in Table 1. See Attachment B for additional information on underwriting criteria, including required documentation.

**TABLE 1. Financing Product Details**

<b>Eligible properties</b>	Single-family (one- to four-unit) homes, primary residence, secondary home, or property not used as income
<b>Eligible borrowers</b>	<ul style="list-style-type: none"> <li>Property owner</li> <li>Family member of owner that occupies the home</li> </ul>
<b>Loan type</b>	Unsecured personal loan (solar may have UCC filing with permission from Michigan Saves)
<b>Eligible improvements</b>	Prequalified energy and non-energy improvements installed by a Michigan Saves authorized contractor
<b>Loan amounts</b>	\$1,000 to \$50,000 (some lenders cap loan amounts at \$30,000 or \$40,000).
<b>Loan term</b>	<p>For loan amounts up to \$4,999—12 months per \$1,000. For loan amounts \$5,000 to \$30,000—lengths up to 120 months. Borrowers can select shorter terms.</p> <p>Some lenders may offer up to 240 months. For loan terms greater than 120 months—12 months per \$1,000 (up to the maximum term set by the lender).</p>
<b>Loan rates</b>	Not to exceed 7% APR per year or such other rate as Michigan Saves may determine on a semi-annual basis. Lenders may offer rates below 7% APR. Fixed rate with no prepayment penalty.
<b>Key underwriting criteria</b>	<ul style="list-style-type: none"> <li>Minimum 640 credit score (lenders use either FICO or VantageScore 3.0 or 4.0). If there are multiple borrowers, the higher score, regardless of income, must be used for qualification. Some lenders may opt to underwrite loans for customers with credit scores 639 and lower.</li> <li>No bankruptcies in the last 12 months. Applies to all chapters of bankruptcy. The 12-month period begins from date of discharge.</li> <li>No foreclosures or repossessions in the last 12 months (nothing opened, must be settled)</li> <li>Unpaid collections greater than \$1,000 (excludes medical collections) are evaluated on a case-by-case basis by the lender</li> <li>No outstanding tax liens or money judgements</li> <li>Debt-to-income ratio of 50% or less</li> </ul>

Authorized lenders make all final underwriting decisions. Loans may be approved, declined, or subject to further review if underwriter determines that the credit score or other factors are inconsistent with actual credit profile.

One lender, Michigan State University Federal Credit Union (MSUFCU), does not currently use the centralized loan application system. Rather, MSUFCU uses a merchant lending system, where authorized contractors complete the loan application with the customer and submit it electronically to the credit union for a decision. Upon project completion, the authorized contractor would prepare the loan closing documents for the customer's signature and submit the signed loan documents to MSUFCU for loan closure and payment.

While the Home Energy Loan Program is available statewide, not all lenders are available in all parts of the state, and underwriting criteria vary slightly by lender. Michigan Saves offers lenders the choice of lending to applicants with credit scores less than 640. Currently, all participating lenders allow credit scores of 640 and above. Participating lenders, and their minimum accepted credit score, are listed on the Michigan Saves website (see <http://michigansaves.org/contractors/?tab=lenders>). For further details regarding the available lenders, loan amounts, terms, and rates available, log in to NGEN, navigate to "Links", and click on the residential offering matrix.

## Becoming a Michigan Saves Authorized Contractor

### Contractor Application Process

To perform work under the Michigan Saves Home Energy Loan Program, contractors must apply to Michigan Saves by submitting the contractor application and required documentation, paying a one-time, nonrefundable application fee and signing the contractor agreement (embedded in the online contractor application).

Contractors begin the application process by creating a user name and password through the National Green Energy Network (NGEN) platform at [https://www2.michigansaves.org/users/sign\\_up](https://www2.michigansaves.org/users/sign_up), which establishes their account with Michigan Saves. Contractors should retain the user name and password, so they may access their account to submit the required project completion forms. Upon creating a user name and password, contractors then complete and submit the contractor application for review. Embedded within the application is a Swipe link, enabling contractors to pay the nonrefundable application fee with a credit card. Alternatively, contractors may mail a check to Michigan Saves. Contractors must attend the online contractor training session or watch a series of training videos and take a short quiz to fulfill the training requirement. The training videos can be accessed at <http://michigansaves.org/contractors/training/>.



Michigan Saves reviews all applications and verifies all documentation. If any information is missing or inadequate, Michigan Saves contacts the individual for updated information. Once a contractor application is approved and the contractor is authorized to participate in the Home Energy Loan Program, Michigan Saves provides the contractor with a unique Michigan Saves identification number. The contractor will then have full access to the Michigan Saves loan center and can begin initiating loans for customers.

Michigan Saves generally reviews contractor applications and documentation within a few days of submission. Missing information and documentation will extend the length of the review process. Once a contractor is authorized, Michigan Saves automatically sends their information to the loan application center, where the contractor will be visible to customers immediately.

## Contractor Requirements

Michigan Saves is very mindful of building public trust and protecting the program's reputation and realizes that the loan program could be diminished by the acts of a few unprofessional contractors. To ensure that all authorized contractors are committed to providing high-quality workmanship and a high level of professionalism, Michigan Saves asks that all contractors meet the requirements as set forth in Tables 2 and 3. Repeated failure to meet these requirements could result in suspension or termination from the program.

**TABLE 2. Minimum Contractor Qualification Requirements**

Category	Description	Documentation Required
<b>Business Organization, Financial/Ethical Stability</b>		
Licensed business	The company is registered with the Corporations Division at the State of Michigan	License number and business type (LLC, corporation, etc.) on application form
Workers' compensation or self-insurance	Required for all contractors unless they are a sole proprietor or limited partnership, which are exempt under state law, or a corporation or a limited liability company that has filed for an exclusion	Insurance certificate, proof of sole-proprietorship, or state exclusion form
General liability	Required with minimum coverage of \$1,000,000 per occurrence, \$1,000,000 aggregate	Insurance certificate
<b>License/Certification</b>		
Skilled trade license	Active license in applicable trade (see Table 3), as required by law with no pending actions against the license	Copy of license and confirmation of no pending action on application form

Category	Description	Documentation Required
Federal lead-safe certification*	Required for any contractor with a residential builders or maintenance and alterations license (strongly suggested, but optional, for all other contractors)	Proof of successful completion
Michigan lead abatement certification	Required for any contractor that is performing lead abatement activities (see table 3)	Copy of license
<b>Training/Education</b>		
Michigan Saves training	Training session on Michigan Saves program requirements and financing (offered online or via video)	Proof of participation

\* As of April 22, 2010, the U.S. Environmental Protection Agency (EPA) requires that contractors performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities, and schools must be certified and follow specific work practices to prevent lead contamination if the structure was built before 1978. Firms can become certified by completing an application and sending in a fee payment. Applications may take up to 90 days to be approved by the EPA. Individual renovation contractors must complete an EPA-accredited training course to receive certification. More information is available at <http://www.epa.gov>.

Any installation contractor performing work in a trade that requires a state license must have a valid license specific to that trade. Contractors shall only perform the work for which they are licensed or certified to perform. The relevant state licenses are listed in Table 3.

Contractor must comply with all applicable federal, state, and municipal laws, ordinances, and regulations, including, but not limited to, the Michigan Home Solicitation Sales Act, Michigan's Construction Lien Act, and residential building codes. Some of the purchases financed with Michigan Saves loans may be subject to the Michigan Home Solicitation Act. For these sales, the customer has a right to cancel any time prior to midnight of the third business day after the date of the sale.

**TABLE 3. Summary of State Licensing Requirements for Contractors**

Skilled Trade	License	Special Designations
Boiler	Boiler installer	None
Construction, including insulation, remodeling, and weatherization	Residential builders	None
Electrical	Electrical contractor or master electrician	None

Mechanical	Mechanical contractor	<ol style="list-style-type: none"> <li>Hydronic heating, cooling, and process piping</li> <li>Heating, ventilation, and air conditioning (HVAC) equipment†</li> <li>Ductwork</li> <li>Refrigeration</li> <li>Limited heating service†</li> <li>Unlimited heating service</li> <li>Limited refrigeration and air conditioning service†</li> <li>Unlimited refrigeration and air conditioning service</li> <li>N/A for program</li> <li>Specialty License</li> <li>A—Solar</li> </ol>
Plumbing	Plumbing contractor or master plumber	None
Lead Abatement	Lead Abatement Firm Lead Abatement Supervisor Lead Abatement Worker Lead Inspector Lead Risk Assessor	None

†Minimum requirement for mechanical contractor license. Strongly suggest classification numbers one (hydronic heating, cooling, and process piping) and three (ductwork), but they are not required. The Michigan mechanical code requires mechanical contractors to hold the service classifications (numbers five or six and seven or eight) if the contractor is servicing HVAC equipment. Classification number two (HVAC equipment) is for installation work only and is not a substitute for the service classifications.

Michigan Saves reserves the right to require additional qualifications for contractors and will notify contractors of the new requirements. It is expected that any new requirements would be phased in over a six to eight-month period. See contractor agreement for additional terms and conditions for authorized contractors to participate in the program.

Michigan Saves does not endorse, qualify, certify, or approve any contractor. While authorized contractors have met certain requirements for participation, customers will enter a direct relationship with the contractor of their choice. The selection of the contractor and acceptance of materials and work performed is the sole responsibility of the customer. Michigan Saves encourages each customer to evaluate potential contractors by reviewing credentials, qualifications, and references.

Michigan Saves monitors all authorized contractors to ensure compliance with program guidelines. This includes paperwork reviews and periodic site inspections of homes to verify improvement installation. Michigan Saves removes contractors from the Home Energy Loan Program for reasons

including, but not limited to, repeated failure to follow program guidelines, gross misrepresentation, loss of insurance or license, or criminal convictions. Please see the Quality Assurance section of this guide for more information.

## Estimates and Warranties

The contractor must provide customers with written estimates and enter into written contracts with customers for work paid for with a Michigan Saves loan. Contractors shall provide the customer a written warranty of labor and materials for a minimum of one year from the date of service. Equipment installed shall carry the manufacturer's warranty.

## Subcontracting Policy

Authorized contractors may subcontract work to other entities that are not authorized, provided the subcontracted entity is appropriately qualified and has required licenses. Subcontracted work is subject to quality assurance (QA) review, and the authorized contractor initiating the project will be responsible for responding to any corrective actions required resulting from the QA review.

## Installation Best Practices and Requirements

Furnaces must be properly sized, as determined by a computer-generated, Manual J heat load calculation or other simulation using industry-recognized energy modeling software. Michigan Saves may request computer-generated load calculations for comparison with the size of the installed unit. Any significant discrepancies would likely trigger a site inspection.

All equipment installations and the work of all trades shall be performed in accordance with applicable codes; manufacturers' written instructions and recommendations; industry best practices and standards; and federal, state, and local requirements. Examples of installation best practices include:

- The Air Conditioning Contractors of America HVAC Quality Installation Specification (Standard Number ANSI/ACCA 5 QI-2010), <http://www.cce1.org/resid/rs-ac/HVACQIspec.pdf>
- Technical standards developed by the Building Performance Institute, <http://www.bpi.org/standards/current-standards>
- The American Society for Testing and Materials ASTM E 2112-07(2016)—Standard Practice for Installation of Exterior Windows, Doors, and Skylights, <http://www.astm.org>
- The Insulation Contractors Association of America 25 Checkpoints for Inspecting Insulation Jobs, <https://www.insulate.org/25-Checkpoints-for-Insulating-Jobs.pdf>
- Proper equipment sizing, controls, airflow, and fuel connections must be verified for all combustion appliances

## Prohibition on Contractor Reserves

Michigan Saves prohibits any participating lender from offering contractor reserves or rewards that encourage contractors to promote one participating financial institution over another.

## Relationship with Michigan Saves

At no time will the contractor represent its business as an agent or representative of Michigan Saves. Since Michigan Saves does not certify, approve, or qualify contractors, contractors may only represent themselves as Michigan Saves authorized contractors. Any contracts between the contractor and its customers or any third parties shall clearly and conspicuously state that no agency relationship exists between the contractor and Michigan Saves. Michigan Saves cannot endorse or make any warranties as to the work and business practices of a contractor.

Contractors have no power or right to bind Michigan Saves or act on its behalf when dealing with customers or third parties. Contractors and Michigan Saves shall not exercise any control or supervision of one another, nor be responsible for each other in the performance of any service. Michigan Saves does, however, reserve the right to conduct random QA field inspections of work performed pursuant to the terms of the contractor agreement and the Quality Assurance section of this guide.

## Minimum Number of Projects

Michigan Saves would like authorized contractors to complete at least one residential or commercial loan each calendar year. Periodically, Michigan Saves will review contractor participation in the financing programs and may propose termination for those contractors that do not appear to be promoting the residential or commercial loan programs nor completing projects with Michigan Saves financing. Michigan Saves will notify contractors at least 30 days in advance of the pending termination. Contractors that recommit to Michigan Saves will remain authorized.

## Michigan Saves Program Training

To becoming authorized, contractors must participate in Michigan Saves training. Michigan Saves contractor account managers usually train contractors and staff in-person at the contractor's office or over the phone. At least one designated employee for each contractor must attend the training. That individual will serve as the contractor's point person to train other employees. Michigan Saves strongly encourages all employees with direct customer contact, particularly those promoting financing under the Michigan Saves program, attend the training. Michigan Saves post training resources for contractors at <http://michigansaves.org/contractors/training/>.

The program training covers the following topics:

- Role of Michigan Saves authorized contractors in the program
- Program guidelines, including eligible improvements
- Customer eligibility and enrollment process

- Use of forms
- Marketing and communications guidelines
- Quality assurance process

## Changes and Other Updates to Contractor Information

Authorized contractors must notify Michigan Saves of any changes in the information provided in the original application, including, but not limited to, changes in business status, contact information, licenses, insurance, or certification. Contractors can update their information by logging into their account through the online portal, NGEN. A contractor should then complete only those portions of the application where there is new information.

Authorized contractors must immediately notify Michigan Saves if they no longer have any license, insurance, certification, or registration required by the program. Failure to do so could result in a contractor's suspension or termination from the program.

## Fees Assessed to Contractors

Authorized contractors shall pay to Michigan Saves a fee of 2.49 percent of the loan amount for work completed under the program. The proceeds from collected fees are used by Michigan Saves to sustain the program's operations. The fee is automatically deducted from the final payment by the authorized lender prior to disbursing the payment to the contractor. Michigan Saves suggests that contractors include this fee in the cost of their services. If the contractor chooses to separate the fee from the labor or equipment costs, it should be disclosed to the customer upfront. If a contractor invoices the customer for the fee after the loan proceeds are paid to the contractor, Michigan Saves will ask the contractor to rescind the invoice, since the contractor should not be billing for undisclosed costs after the project is complete.

Authorized contractors shall be responsible for any rate buy-down fees resulting from rate buy-down promotions offered to and selected by customers under the program. The rate buy-down fee for a project is equal to the interest which would have otherwise been charged to a customer by the lender if the rate buy-down were not selected. The rate buy-down fee is automatically deducted from the final payment by the authorized lender prior to disbursing the payment to the contractor.

# Financing Customers Through Michigan Saves

## Customer Eligibility

To be eligible for a Michigan Saves loan, the customer must:

- Own the home—single-family (one- to four-unit) homes, primary residence, secondary home, or property not used as income property

- Be a family member of the owner that resides at the home
- Meet lender's underwriting criteria (see Attachment B for details)

The customer may apply for the loan with a co-applicant.

## Loan Application Process

The Michigan Saves Home Energy Loan Program is contractor driven. In some cases, customers will seek Michigan Saves authorized contractors via our online searchable database. In other cases, contractors will promote their affiliation with Michigan Saves through marketing materials. Regardless of the flow of contact between a customer and an authorized contractor, the loan application process remains the same.

The following steps outline the loan application process:

**Step 1:** Customer works with a Michigan Saves authorized contractor to identify qualifying energy improvements and craft a workplan based on the customer's needs. A list of authorized contractors is available at <https://michigansaves.org/find-a-contractor/>.

**Step 2:** Contractor provides information on the Michigan Saves loan program to the customer. Customer initiates the loan application process by accessing the loan application center via phone or online portal, or by working with select contractors to apply through MSUFCU's indirect lending system. Customers must provide their contractor's unique six-digit contractor identification number at the initiation of the application. Periodically, Michigan Saves may offer special promotions that require a four-digit program code. Contractors, who are eligible for special promotions, will be provided this code, which must be entered by the customer during the application process. Then, the customer completes the loan application over the phone or online in a ten-minute process. Most applicants receive an immediate decision on their loan application. If approved, the customer submits documentation, such as the credit union's membership application, proof of identity and residency, and proof of income (when applicable) to their lender.

**Step 3:** The contractor installs the equipment according to the workplan and the contract with the customer. If air sealing measures were installed, a test-out procedure would also be conducted to ensure that the improvements were installed properly and do not create any indoor air quality issues. As necessary, the workplan can be modified to address any health and safety issues identified during the installation process or the test-out procedure.

**Step 4:** After installation, the contractor obtains the customer's signature on a certificate of completion provided by Michigan Saves. The contractor must then create a job record and submit the signed certificate to the lender through NGEN. This triggers payment to the contractor, minus the 2.49 percent contractor fee and the rate buy-down fee (if any), which are automatically removed by the lender. Payment normally arrives within three to ten days.

**Step 5:** The customer repays the loan via direct billing by the lender unless a utility serves as the billing agent under an agreement with the authorized lender.

## Eligible Improvements

Michigan Saves financing may only be used for qualifying energy improvements installed by Michigan Saves authorized contractors. Measures installed by the homeowner or any other individual or company not authorized by Michigan Saves (and not acting as a subcontractor for an authorized contractor) are not eligible for financing. Additionally, improvements should save energy (no cosmetic improvements), unless the improvements are nonenergy building performance improvements related to energy improvements or otherwise approved by Michigan Saves.

### Eligible Measures

Under the Michigan Saves Home Energy Loan Program, homeowners can finance any eligible energy improvement implemented by a Michigan Saves authorized contractor. Eligible improvements include:

- Any measure or equipment with an ENERGY STAR® label
  - Air conditioners, air source heat pumps, appliances, boilers, exterior doors, furnaces, geothermal systems, roofs (asphalt or metal), water heaters, and windows
- Air sealing improvements, which must also include test-in and test-out blower door diagnostics
- Insulation improvements, such as attic, kneewall, or wall insulation
- Lead abatement activities, including but not limited to, window and siding replacement, soil removal, interior trim replacement, and encapsulation
- Renewable energy improvements, such as solar PV and solar thermal systems, electric vehicle charging stations, and whole-home battery storage systems
- Water efficiency measures, like low-flow toilets, faucets, and showerheads
- Other designated improvements, such as insulated vinyl siding, insulated mobile home skirting, and whole-home generator systems (only available for financing when combined with other qualifying improvements)

All work must be performed in accordance with all applicable federal, state, and local codes and standards, and contractors must obtain all required permits from local authorities.

### Appliances

Qualifying appliances, such as clothes dryers, clothes washers, dishwashers, freezers, and refrigerators may be financed provided that other qualifying improvements (not including other appliances) have been selected. At a minimum, all appliances must be ENERGY STAR® rated.



Michigan Saves strongly encourages customers to select appliances from the Consortium for Energy Efficiency Super Efficient Home Appliances Initiative, available at <http://www.cee1.org/content/cee-program-resources>. All appliances and other replaced equipment must be disabled and taken out of service permanently, and either recycled or disposed of in accordance with local, state, and federal laws, codes, and ordinances. Appliances and other replaced equipment may not be reused.

## Renewable Energy Measures

Homeowners can also use Michigan Saves financing for renewable energy measures like solar PV systems and solar thermal systems. The equipment (modules, inverter, and meter if necessary) must be approved by the local utility provider.

For all solar PV system installations, whether roof mounted or ground mounted, authorized contractors shall obtain the appropriate city or municipal building permits. All solar PV installations must include a solar generation meter and meter enclosure. If the solar PV system is grid connected, it must comply with current Michigan Electric Utility Generator Interconnection Requirements.

Residential wind turbines are eligible for financing through Michigan Saves.

## Nonenergy Building Performance Improvements

Michigan Saves will also finance the remediation of pre-existing environmental hazards and the repair of physical/structural defects that create health and safety issues (collectively known as nonenergy building performance improvements), so long as the remediation or repairs are coupled with an appropriate efficiency measure and the cause(s) of the environmental hazard or physical defect are addressed.

Examples of this type of work include:

- Asbestos abatement with air sealing or when installing a new boiler system
- Electric service upgrade, if necessary, when installing a new heating/cooling unit
- Upgrade of knob-and-tube wiring to install wall insulation
- Radon abatement, when financing any eligible improvement
- The cost of removing an oil tank, when done in connection with a heating system replacement
- Repairs to the home due to water damage, molds or mildew, ice dams, or other symptoms of poor building performance, if the cause(s) of building performance-related damage are addressed

In each of these examples, the remediation of the environmental hazard is coupled to the installation of an efficiency measure. Michigan Saves will not finance remediation work alone. A customer must also install a related efficiency measure.

Any remediation work must be performed by a contractor who is qualified and, in many cases, licensed for the task. Contractors should not attempt to remediate environmental hazards or correct

physical defects for which they are not trained or qualified. Doing so will increase a contractor's liability and jeopardize their participation in Michigan Saves. Authorized contractors who can remediate environmental hazards should consider obtaining pollution occurrence (also called pollution liability) insurance to protect them from liability.

See Attachment A for the full list of eligible measures.

## Diagnostic Testing

To finance air sealing improvements, contractors must also implement pre- and post-installation diagnostic testing, unless prevented by the presence of mold, asbestos, or other hazardous conditions. Michigan Saves will accept pre-installation diagnostics performed within 12 months of the Michigan Saves project implementation. The authorized contractor is still responsible for performing post-installation diagnostic testing, which should be implemented to the Building Performance Institute's Technical Standards for the Building Analyst Professional, available at <http://www.bpi.org/sites/default/files/Technical%20Standards%20for%20the%20Building%20Analyst%20Professional.pdf>.

Michigan Saves requires air sealing contractors to have third-party accreditation (or to subcontract the diagnostic testing to an individual who has the third-party accreditation) to document their capability to properly implement the diagnostic testing procedures. Michigan Saves recognizes the following third-party accreditations for diagnostic testing.

**TABLE 4. Accreditation for Diagnostic Testing**

Accreditation	Work Performed
<b>Building Performance Institute</b> <ul style="list-style-type: none"> <li>• Building analyst</li> <li>• Energy auditor</li> <li>• Envelope professional</li> <li>• Infiltration and duct leakage</li> </ul> <b>Residential Energy Services Network</b> <ul style="list-style-type: none"> <li>• Certified home energy rater</li> </ul> <b>Weatherization Assistance Program</b> <ul style="list-style-type: none"> <li>• Level I or II inspector</li> </ul> <b>Laborers' International Union of North America</b> <ul style="list-style-type: none"> <li>• Energy auditor</li> </ul>	Pre- and post-installation diagnostic testing

# Project Completion

## Customer Loan Closing and Payment

After the work is satisfactorily completed, the customer and contractor will sign a certificate of completion (COC). The contractor attaches the signed COC to the job record, which they must create within NGEN. Once the job record is completed and the signed COC is attached, the contractor will electronically submit to Michigan Saves the entire job record through NGEN. Upon submission, a copy of the project record is received by both the lender and Michigan Saves.

Upon receipt of the project record, the lender initiates the loan closing process and funds the loan, minus the 2.49 percent contractor fee and the rate buy-down fee (if any). In most cases, contractors receive payment within three to ten days of submitting the project record. Payment to contractors can be delayed if the customer does not promptly close the loan. Michigan Saves strongly encourages contractors to maintain close communications with their customers to ensure that the loan is closed promptly.

Currently, all Michigan Saves authorized lenders are credit unions. By law, credit unions can only offer loans to their members. If a customer is not a member of the credit union that is originating and servicing their loan, they will have to join that credit union by opening an account and making a small deposit. This is handled routinely as part of the loan closing process.

Most lenders close loans electronically through programs like DocuSign®. In these situations, the lender emails the customer a secure link to their loan documents. Customers click the link to view and electronically sign their loan closing documents. This is the fastest and most common method to close Michigan Saves loans. For customers who do not have an email address or who do not trust electronic loan closing, the lenders can overnight loan documents to the customer. The cost of sending documents via next-day service is borne by the customer. Customers who close the loan via mail may need the services of a notary public. Specific details regarding loan closing will be determined when the lender calls the customer a few days after the initial loan approval.

The lender will begin billing the customer after the loan is closed in accordance with their established billing practices. Automatic withdrawal may be offered by the lender or its servicing agent. Customers are permitted to pay off the loan early, without penalty, if they choose.

## Customer Rebates

The Michigan Saves financing program is designed to complement utility rebates, state rebates, contractor incentives, and federal tax credits. For rebates offered by the State of Michigan or individual utilities, the customer should follow the redemption procedures outlined by those entities.

The customer is also responsible for claiming any applicable federal tax rebates. The contractor should provide all the necessary product information and costs for customers to include in their tax filing.

Because rebate amounts and availability can change quickly and without notice, Michigan Saves strongly suggests that contractors and customers review utility websites for up-to-date information prior to installing any efficiency measure. Michigan Saves has no control or influence over any third-party rebate program and makes no assurances or guarantees as to rebate amounts or availability.

## Program Forms

The following forms are required for each project financed by Michigan Saves. Table 5 describes each form, its purpose, and to whom it should be submitted.

**TABLE 5. Program Forms**

Form	Purpose/Use	Responsible	Submitted to	Format
Membership application	To enroll the customer as a member of a participating credit union	Customer	Lender	Digital or hardcopy as determined by lender
Loan application	To determine if customer is approved for Michigan Saves financing	Customer	Loan application center	Online or by phone
Certificate of completion	Certifies that work is complete and program eligible Customer release of certain program information Triggers loan closing and payment to contractor	Customer and contractor (signatures required)	Michigan Saves	Upload copy to Michigan Saves through NGEN
Job record	Summarizes the financed improvements and replaced equipment	Contractor	Michigan Saves	Online form in NGEN
Loan closing documents	To close loan with lender	Customer	Lender	Digital or hardcopy as determined by lender

## Loan Application

The loan application is completed by the customer online or over the phone. There is no hardcopy application form to be submitted. Customers apply for financing through the Michigan Saves loan application center using the credentials of an authorized contractor or through an authorized contractor who participates with MSUFCU's indirect lending system. Customers are not able to apply

for Michigan Saves financing directly with the authorized lenders. In some cases, to complete the loan approval process, the customer may need supplemental documents, such as proof of income.

## Membership Application

By law, credit unions cannot lend to nonmembers. Since all the Michigan Saves authorized lenders are credit unions, customers must complete the membership application of their selected credit union prior to or concurrent with the signing of the loan documents. Depending on the lender, the membership application could be a paper form that the customer completes and returns via U.S. Postal Service or in person at a branch location, or a digital form that is submitted electronically. Customers must provide proof of identity and residency, i.e., they must provide a copy of their driver's license and make a small deposit into a savings or checking account. The amount of the deposit varies by lender, but usually ranges from five to 20 dollars. Some lenders will pay this deposit for the customer.

## Loan Closing Documents

Because Michigan Saves works with regulated lenders, the loan closing documents are standardized across authorized lenders. Lenders can have the customer sign the loan closing documents prior to project completion or after project completion. Most lenders provide the loan closing packages to the customers digitally, enabling the customers to close the loan without having to physically sign a document.

For contractors using the MSUFCU indirect lending system, it is the contractor's responsibility to print the loan closing package and obtain the customer's signature on the loan documents. Once complete, the contractor should mail the loan documents with the original signatures to MSUFCU.

Regardless of the method used by the lender to transmit loan documents to the customer, payment will not be made to the contractor until the lender receives the COC from Michigan Saves and the customer will not be billed by the lender until the contractor payment has been issued.

## Certificate of Completion

The contractor must submit the original COC to Michigan Saves by attaching it to the job record. When the contractor submits the job record to Michigan Saves for approval, a copy of the COC and the job record are automatically transmitted to the lender to initiate the loan closing and payment process. Contractors can use a paper version of the COC, download a copy from NGEN, or request electronic signatures through NGEN.

## Job Record

The job record collects basic information on the home and work completed so that Michigan Saves can calculate the project's energy savings. This information must be entered by the contractor through the online form in NGEN. There is no paper version of this form.

## Quality Assurance

Contractors promoting Michigan Saves financing must provide high-quality work and comply with Michigan Saves requirements as outlined in this implementation guide. Michigan Saves will perform certain QA functions to confirm that, on a consistent basis, the measures financed through Michigan Saves qualify under program guidelines and were installed in accordance with applicable program requirements and industry standards, ensuring that energy savings can reasonably be achieved.

### Quality Assurance Objectives

The QA objectives are to:

- Clearly define and educate contractors on the program requirements and institute processes and systems to avoid problems where possible and to proactively identify potential issues
- Verify that financed measures are qualifying improvements under program guidelines
- Verify that the contractor followed Michigan Saves program guidelines in performing the work and related paperwork requirements
- Verify that there were no fraudulent or misleading actions on the part of the contractor or auditor
- Confirm customer satisfaction with contractor's performance and quality of work
- Provide a process for evaluation of contractor performance and workmanship and the resolution of identified problems

### Quality Assurance Procedures

The QA procedures for overall program compliance and installation of measures are summarized in Table 6. These procedures combine contractor training and feedback through traditional oversight, while also providing a high level of assurance for homeowners that measures were installed correctly, a check for fraudulent activity, and continual improvement from contractors.

The QA procedures generally follow the Home Performance with ENERGY STAR® (HPwES) model, including document reviews, file checks, and site inspections. Michigan Saves will coordinate with any HPwES program in the state, such as the Consumers Energy program, to use that program's QA in lieu of most of these procedures. In addition, to avoid duplication, Michigan Saves will coordinate with third-party accreditation programs on QA activities for contractors participating in the Michigan Saves program.

**TABLE 6.** Summary of Quality Assurance Procedures

QA Measure	Purpose
Document review	Review COC for signatures and job record for compliance with program guidelines
Customer satisfaction survey	Confirm contractor work quality and customer satisfaction with overall program—screen for site inspection
Phone call to customer	Verify customer satisfaction—screen for site inspection
Site inspections (periodic)	Verify accurate reporting and appropriate installation of measures

## Document Review

After the COC and the job record are uploaded to Michigan Saves through NGEN, Michigan Saves reviews the documents for accuracy and completeness. If the documents are not complete, Michigan Saves sends an email to the contractor asking for the missing information. If the missing information is not provided within two weeks, Michigan Saves will call or send a second email request and give the contractor another two weeks to provide the missing information. If the contractor does not respond, then Michigan Saves may issue a corrective action report (CAR) to the contractor.

## Customer Satisfaction Survey

Michigan Saves sends a customer satisfaction email survey to each customer following the completion of the project. Customers rate their experience with Michigan Saves, the authorized contractor, and lender. All customers are given the opportunity to provide feedback, and all feedback that is received is anonymized, recorded, and made available in the “rating” column of the contractor search result. Customers are given the option to remain anonymous. Contractors will be notified when new customer reviews are posted. Any reviews that receive a contractor rating of 3-stars or fewer will be held in moderation for two weeks. In moderation, Michigan Saves staff will reach out to the contractor so that concerns can be directly addressed with their customer. Alternatively, Michigan Saves will accept a written response to be posted with the customer’s review after the moderation period ends. Concerns with any customer comments or ratings should be submitted to Michigan Saves staff.

## Phone and Site Inspections

After Michigan Saves reviews the documents for completion and accuracy, a certain percentage of projects will be selected for further review. Projects with unusual diagnostic test results or potential discrepancies will be flagged for site inspection. If additional projects need to be inspected to meet the minimum level of site inspections, projects will be selected at random.

Phone or site inspections will occur on two of the contractor’s first ten projects, and then 5 percent of projects thereafter. Initially, Michigan Saves staff will call the customer to confirm their satisfaction

with the work and ask if they would like an onsite visit by staff. Michigan Saves staff will coordinate the site inspection directly with the homeowner.

Michigan Saves staff may request additional documentation in advance of a site inspection. This may include documentation of efficiency or equipment sizing, such as Manual J calculations, manufacturer documents, project invoice, or the start-up manual used to calibrate a furnace. Contractors must have these documents on file and supply them within ten days of the request.

During a site inspection, Michigan Saves staff will perform the following tasks:

- Visually, and through conversation with homeowner, verify basic information about the home and the installed equipment
- Visually confirm that all work identified in work scope has been completed
- Verify that installation of equipment or materials is satisfactory:
  - Confirm reported efficiency rating of installed equipment, where applicable (evidence of window efficiency must be available at the home for purchase verification or available upon request)
  - Verify that furnace was calibrated appropriately (manufacturer's start up sheet has been completed and left with the homeowner or is available from contractor upon request)
- Verify that no unsafe conditions from installed work exist
- Verify that permits were pulled, if applicable

For air sealing projects with diagnostic testing, Michigan Saves staff will perform the following tasks:

- Visually, and through conversation with homeowner, verify basic information about the home and the installed equipment
- Confirm if the homeowner received an audit report (visually inspect if possible)
- Visually confirm that all work identified in work scope has been completed
- Verify that installation of equipment or materials is satisfactory:
  - Confirm reported efficiency rating of installed equipment, where applicable (evidence of window efficiency must be available at the home for purchase verification or available upon request)
  - Verify that furnace was calibrated appropriately by reviewing the manufacturer's start up sheet, when available
- Verify that no unsafe conditions from installed work exist
- Verify the blower door test-out results
- Verify that there is no obvious failure to comply with applicable laws, codes, and ordinances, such as providing R value
- Verify that any health and safety concerns not due to installed work were mentioned to homeowner



## Types of Deficiencies and Corrective Action Reports

All deficiencies identified during quality assurance reviews and inspections will be categorized as safety, workmanship, or programmatic findings based on the guideline provided below. All deficiencies will require a corrective action, as indicated on the CAR.

Any repeated deficiencies will be cause for evaluation of contractor program status or dismissal from the program. If objective evidence is not supplied indicating that corrective actions have been addressed, including pictures or other such evidence, Michigan Saves may require an additional field inspection to verify the completion of the corrective action.

### Safety Deficiencies

Safety deficiencies detected during site inspections must be addressed by the contractor within 48 hours of receipt of the CAR, because there is an immediate health and safety risk to the homeowner.

Safety deficiencies may include:

- Electric, fire, or structural hazards to occupant that were part of installation
- Failed combustion safety testing results
- Gas leaks
- Improper clearance to combustibles that were part of installation
- Improper pipe wrap installation that creates a combustion hazard
- Serious moisture issues that were not corrected by the installed measures
- Unsafe conditions from installed work that are an immediate risk to occupants
- Violation of the Building Airflow Standard
- Other issues as defined by Michigan Saves staff during the site inspection

### Workmanship Deficiencies

Workmanship deficiencies detected during inspections must be addressed by the contractor within 14 days of contractor receipt of the CAR. Examples of workmanship deficiencies include:

- Failure to follow all applicable laws, codes, and ordinances (such as not providing documentation of R value and material for insulation to occupant according to Michigan Residential Energy Code N1101.3.1).
- Failure to provide homeowner with furnace calibration worksheet (start-up sheet)
- HVAC equipment is improperly installed or not operational
- HVAC system is over- or under-sized by more than 20,000 BTUs when compared to Manual J calculation
- Missing carbon monoxide detector, conforming to Underwriters Laboratory standard 2034,
- Poor workmanship

- Test-out diagnostics incomplete or inaccurate (Example: greater than 10 percent variance between contractor test-out and quality assurance blower door results)
- Unvented combustion appliances defined by the Building Performance Institute as a health and safety issue left in the home
- Other issues as noted by inspector

## Programmatic Reminders

Programmatic reminders are issued by Michigan Saves during documentation review. Reminders must be addressed by the contractor within 30 days of contractor receipt of the notification.

Examples of programmatic reminders include:

- Failure to submit COC or job record in a timely manner
- Failure to respond to safety and workmanship CARs
- Financing of nonqualifying measures
- Installation of measure was different than that noted on Michigan Saves job record
- Installation of eligible measures not recorded on the job record
- Misrepresentation
- Other issues as noted by inspector

## Contractor Response to Corrective Action Reports

All inspection noncompliance and/or deficiencies, whether safety, workmanship or programmatic, will be documented on a CAR and transmitted to the contractor. Contractors may be asked to submit a written response to Michigan Saves indicating how they have implemented the corrective action required, and what steps will be taken to prevent future deficiencies. Failure of the contractor to respond by the time designated on the CAR may result in a change in contractor status.

Nonresponsive or late response to a CAR may result in the contractor's suspension or termination.

Response times may vary, and contractors should consult the CAR for the response time specific to a given project. General contractor response times to correct a deficiency of installation are shown below. Contractors may be required to implement longer-term measures to prevent further deficiencies in the future, such as staff training.

- **Safety corrective actions:** Must be remedied by the contractor within 48 hours or time noted on CAR.
- **Workmanship corrective actions:** If possible, deficiency must be remedied by the contractor within 14 days. If a remedy is not possible (i.e., the contractor has oversized a furnace) then the contractor may be asked by Michigan Saves to submit a written action plan to prevent future deficiencies.
- **Programmatic reminders:** If possible, deficiency must be remedied by the contractor within 30 days.

Michigan Saves is responsible for verifying and approving any corrective actions submitted by the contractor. If CARs are incomplete or do not adequately address the deficiency, the contractor will be notified of the deficiency by Michigan Saves and required to resubmit the CAR response.

## Written Response

CARs include space for contractors to submit a written response to the deficiencies noted by the inspector. Upon request, contractors who receive a CAR should return it with a written response explaining what steps they will take to correct the noted deficiency (short-term corrective actions), as well as what steps they will take to ensure that such deficiencies are not repeated (long-term corrective actions). Long-term corrective actions may include changes to a contractor's business procedures and staff, or training for current staff. Objective evidence of corrective actions, such as pictures, training records, and updated procedural manuals, must be supplied for all safety and workmanship CARs and as needed for any minor CARs.

## Corrective Action Examples

Example CARs and corrective actions are summarized in Table 7.

**TABLE 7.** Sample Corrective Actions

Deficiency	CAR Type	Response Time	Root Cause	Short-term Corrective Action	Long-term Corrective Action	Objective Evidence
Gas leaks	Safety	24 hours	Improper installation	Leak repaired within 24 hours of notice	Improved training of technicians	Customer confirmation of repair
Failure to submit COC and job record in a timely manner	Programmatic	30 days	Not familiar with program requirements	Additional staff training	None	Proof of training
Oversizing of HVAC equipment	Workmanship	14 days	Incorrect Manual J calculation	Notice to all staff to perform and document Manual J calculations	None	Manual J software identified, and sample Manual J calculation performed by contractor
Installing ineligible measure	Programmatic	30 days	Not familiar with program requirements	Additional staff training	None	Proof of training

Manual J calculation not completed	Workmanship	14 days	Manual J calculation not completed by staff	Reminder to staff to complete Manual J calculation for all installations	Installation checklist distributed to staff that includes all steps to be taken when installing a furnace, including sizing furnace with Manual J calculation	Copy of notice to staff and checklist submitted with written response
------------------------------------	-------------	---------	---	--	---	---

## Contractor Participation Status

Contractors who are active participants in Michigan Saves financing programs, without any major issues, will remain in good standing. Michigan Saves staff will evaluate contractor performance on, at least, an annual basis to ensure that contractors continually meet our standards for workmanship and comply with program requirements. Michigan Saves reserves the right to terminate contractors, who do not meet our quality standards or who repeatedly fail to comply with program requirements.

Michigan Saves will use best judgment, based on the number and severity of issues, when determining if a contractor's participation in Michigan Saves should be terminated. Depending on the severity, number, and type, the following noncompliance issues could lead to a contractor's termination.

- Failure to actively promote or participate in Michigan Saves financing programs
- Failure to follow program guidelines and requirements, including form completion or installation requirements
- Health and safety issue in home resulting from work
- Loss of license or insurance or other requirements
- Misrepresentation
- Convictions or disciplinary action by state or other official body

At all times, Michigan Saves, at its own discretion and without reason, retains the right to terminate a contractor from participating in the program.

## Customer Inquiries and Complaints

Customer inquiries or complaints regarding services or equipment installed should be directed to the contractor. Michigan Saves encourages each customer to research the contractor's work through word of mouth; contractor ratings; customer networks, such as Angie's List; and the Better Business Bureau.

If a customer files a complaint with Michigan Saves regarding a contractor's performance, workmanship, or professionalism, Michigan Saves will note the complaint in the contractor's permanent file and take appropriate action. Repeated customer complaints can result in a contractor's suspension or termination from Michigan Saves. Customer complaints will be flagged and reviewed by Michigan Saves and may be prioritized for a site inspection. Site inspections do not constitute an effort to resolve any disagreement between the customer and the contractor.

Customers should direct any billing questions to their lender.

# Marketing

Upon authorization, contractors will receive a welcome kit that provides marketing resources to help promote Michigan Saves to customers. The welcome kit includes contractor identification cards, customer stories, and rack cards. Additionally, authorized contractors may download Michigan Saves logos for use on their website and marketing materials.

If contractors wish to develop their own marketing materials and use the Michigan Saves logo, they must follow the Michigan Saves brand guidelines. Michigan Saves will provide the brand standards guidebook to contractors upon request. It is also available for download at <https://www.michigansaves.org/wp-content/uploads/2020/11/2020-MI-Saves-Brand-Standards.pdf>. If a contractor does develop marketing materials that include the Michigan Saves logo, Michigan Saves reserves the right to request changes to, or termination of, any materials that do not meet our guidelines. The contractor bears all changes and associated costs. Contractors can request a review of draft materials, but this is not required. Send drafts to [registration@michigansaves.org](mailto:registration@michigansaves.org). Expect response within three business days.

## Attachment A: Eligible Measures List

Prequalified Energy Improvements	Minimum Level of Efficiency
<b>Appliances</b> <i>Appliances can only be financed if other eligible measures are financed</i>	
Ceiling fan	ENERGY STAR®
Dehumidifier	ENERGY STAR®
Freezer (chest/upright)	ENERGY STAR®
Dishwasher	ENERGY STAR®
Refrigerator	ENERGY STAR®
Room air conditioner	ENERGY STAR®
Washing machine	ENERGY STAR®
<b>Building Shell Improvements</b>	
Exterior doors ( <i>upgrade existing units only—National Fenestration Rating Council (NFRC) label</i> )	ENERGY STAR®
Reflective roof ( <i>metal or asphalt</i> )	ENERGY STAR® or comparable
Skylights ( <i>upgrade existing units only</i> )	ENERGY STAR®
Storm windows and doors	ENERGY STAR®
Windows ( <i>upgrade existing units only—NFRC label</i> )	ENERGY STAR®

Prequalified Energy Improvements	Minimum Level of Efficiency
<b>Renewable Energy and Energy Generation Measures</b> <i>Whole-home generator systems can only be financed if other eligible measures are financed. Whole-home battery storage systems should only be financed in conjunction with a solar photovoltaic system.</i>	
Electric vehicle charging stations	Level 2
Combined heat and power systems	
Solar photovoltaic modules	
Whole-home battery storage systems	
Whole-home generator systems	
<b>HVAC Measures</b> <i>All HVAC installations must be sized appropriately for the home using computer-generated Manual J or other industry-approved energy modeling software.</i>	
Air source heat pump <ul style="list-style-type: none"> <li>Split system</li> <li>Package system</li> </ul>	SEER $\geq$ 14.5, EER $\geq$ 12.0 SEER $\geq$ 14.0, EER $\geq$ 11.0
Boiler <ul style="list-style-type: none"> <li>Natural gas, oil, propane</li> <li>Wood gasification               <ul style="list-style-type: none"> <li>UL rated</li> <li>EPA Phase 2 qualified (white tag)</li> <li>Must be purchased and installed by authorized contractor with Michigan boiler installer license</li> </ul> </li> </ul>	AFUE $\geq$ 85% AFUE/TE $\geq$ 75%
Central air conditioning <ul style="list-style-type: none"> <li>Split system</li> <li>Package system</li> </ul>	SEER $\geq$ 14.5, EER $\geq$ 12.0 SEER $\geq$ 14.0, EER $\geq$ 11.0
Furnace <ul style="list-style-type: none"> <li>Natural gas and propane</li> <li>Oil</li> </ul>	AFUE $\geq$ 90% AFUE $\geq$ 85%
Groundsource heat pump ( <i>closed loop</i> ) <ul style="list-style-type: none"> <li>Water to air</li> <li>Water to water</li> </ul>	EER $\geq$ 17.1, COP $\geq$ 3.6 EER $\geq$ 16.1, COP $\geq$ 3.1
Groundsource heat pump ( <i>open loop</i> ) <ul style="list-style-type: none"> <li>Water to air</li> <li>Water to water</li> </ul>	EER $\geq$ 21.1, COP $\geq$ 4.1 EER $\geq$ 20.1, COP $\geq$ 3.5
Groundsource heat pump (direct geoechange)	EER $\geq$ 16.0, COP $\geq$ 3.6
<b>Lead Abatement Activities</b>	
<ul style="list-style-type: none"> <li>Encapsulation</li> <li>Trim replacement</li> <li>Siding replacement</li> <li>Soil removal and replacement</li> <li>Window replacement</li> </ul>	
<b>Water Heating Measures</b>	



Prequalified Energy Improvements	Minimum Level of Efficiency
Water heater <ul style="list-style-type: none"> <li>• Electric tank (upgrade existing units only)</li> <li>• Gas condensing tank</li> <li>• Gas storage tank</li> <li>• Gas tankless</li> <li>• Heat pump tank</li> </ul> Solar thermal	EF $\geq$ .93 EF $\geq$ .80 for units <75,000 BTU TE > 96% for units >75,000 BTU EF $\geq$ .67 EF $\geq$ .82 EF $\geq$ 2.0 SF $\geq$ .50, SRCC certified
<b>Nonenergy Building Performance Measures</b> <i>Michigan Saves will finance nonenergy building performance measures that support energy improvements when done in conjunction with an energy improvement. Michigan Saves will not finance remediation work alone.</i>	
<b>Examples:</b> <ul style="list-style-type: none"> <li>• Asbestos abatement or electrical service upgrade necessary when installing a new heating/cooling unit.</li> <li>• Upgrade of knob-and-tube wiring to install insulation.</li> <li>• Radon and lead abatement work when combined with other qualifying measures.</li> <li>• The cost of removing an oil tank when done in connection with a heating system replacement.</li> <li>• Repairs to the home due to water damage, molds or mildew, ice dams, or other symptoms of poor building performance, provided the causes of building performance-related damage are addressed.</li> </ul>	

## Attachment B: Underwriting Criteria for Michigan Saves Loans

Michigan Saves loans must satisfy minimum underwriting standards established by Michigan Saves. These standards, along with the other loan product details, are outlined in the following table. Each lender sets their own underwriting criteria and makes their own decision about which loans to approve.

Loan Product Details	Structure/Minimum Standards
Loan type	Unsecured (solar may have UCC filing with permission from Michigan Saves)
Eligible improvements	Energy-saving home improvements recommended by a Michigan Saves authorized contractor
Loan amounts	\$1,000 to \$30,000. A loan maximum greater than \$30,000 may be set by the lender
Loan term	For loan amounts up to \$4,999—12 months per \$1,000. For loan amounts \$5,000 to \$30,000—lengths up to 120 months. Borrowers can select shorter terms. Some lenders may offer up to 240 months. For loan terms greater than 120 months—12 months per \$1,000 (up to the maximum term set by the lender).
Loan rates	Not to exceed 7% APR per year or such other rate as Michigan Saves may determine on a semi-annual basis. Lenders may offer rates below 7% APR. Fixed rate with no prepayment penalty.
Eligible properties	Single-family (one- to four-unit) homes, primary residence, secondary home, or property not used as income
Eligible borrowers	<ul style="list-style-type: none"> <li>Property owner</li> <li>Family member of owner that occupies the home</li> </ul>
<b>Credit Scores</b> —accepted credit scoring models include those who use a base scoring range between 300 and 850, such as FICO and Vantage score (versions 3.0 and later).	
Minimum credit score	Minimum 640 (if there are multiple borrowers, the higher score, regardless of income, must be used for qualification). Lenders have the option of approving loans with credit scores less than 640 and may select their own maximum loan amount and term.
Bankruptcy	No bankruptcies in the last 12 months. Applies to all chapters of bankruptcy. The 12-month period begins from date of discharge.

Loan Product Details		Structure/Minimum Standards	
Foreclosure and repossession		None in the last 12 months (nothing opened, must be settled)	
Unpaid collection accounts		Final decision deferred to the lender for open accounts exceeding \$1,000, excluding medical collections.	
Judgments and tax liens		Must be paid or in repayment.	
Lenders make all final underwriting decisions. Loans may be approved, declined, or subject to further review if underwriter determines that the credit score or other factors are inconsistent with actual credit profile.			
Income Verification Requirements			
<ul style="list-style-type: none"><li>Income verification is exempt for loans less than \$6,000 and for credit scores over 720.</li><li>For loans greater than \$6,000 and for credit scores less than 720, the lender determines if income verification is required.</li><li>In all cases, income verification may be done if the underwriter determines that the credit scores or other factors are inconsistent with the actual credit profile.</li></ul>			
Salaried employment income		One pay stub with YTD earnings dated within 30 days of the application	
Retirement income		<ul style="list-style-type: none"><li>Award/benefit letter for SSI or pension showing income amount, payment frequency, and start and end dates OR</li><li>A copy of a bank statement showing direct deposit of retirement income</li></ul>	
Self-employment income		Two most recent federal income tax returns (first two pages of 1040) plus Schedule C, if applicable	
Other income (if applicable)		When income other than primary income is being used to qualify for the loan, such as rental, alimony, or investment income, verification is required.	
Debt to Income Ratio			
Total monthly obligations		<ul style="list-style-type: none"><li>Any loan with a remaining term of less than six months may be excluded from the calculation.</li><li>When a tradeline is deferred, use 1% per month (except student loans). Lenders may contact applicants to obtain the actual monthly payment for deferred mortgage or real estate tradelines at their discretion.</li></ul>	
Total monthly obligations to total monthly income		<ul style="list-style-type: none"><li>All qualifying credit scores—50% or less.</li><li>When debt-to-income exceeds 50% and credit score is 680 and greater, final decision is deferred to the lender.</li></ul>	
Escalating debt		<ul style="list-style-type: none"><li>All qualifying credit scores—no more than three tradelines opened in the last 12 months when the customer's revolving burden is greater than 49.99%</li></ul>	



**Michigan Saves<sup>SM</sup>**

230 N. Washington Square, Ste. 300, Lansing, MI 48933  
517-484-6474 | [info@michigansaves.org](mailto:info@michigansaves.org)

**[www.MichiganSaves.org](http://www.MichiganSaves.org)**