INTRODUCTION

Loan financing may be used for a variety of energy-saving investments, from which recipients may benefit from increased comfort in their buildings and reduced energy cost. Loan recipients repay loans with money saved on energy bills. Loan principal and interest, plus any administrative fees, are repaid within a ten year period or less. Individual loan award amounts are based on estimated annual energy savings documented as part of the application process.

The requirements that follow are intended to encourage participation through an application process that requires minimal effort and cost but provides the best estimation of energy savings that are likely to result from the implementation of one or more energy efficiency or renewable energy measures.

The department may request additional information as needed to determine the feasibility of the project, the projected energy savings and financial risk of the proposed loan application. Applicants must be an acceptable credit risk as determined by the department and capable of repaying the requested loan amount based on a financial risk analysis.

Energy Loan Program statutes may be found under RSMo 640.651 to 640.686. Energy Loan Program Rules are outlined in Title 4 CSR 340-2 dated April 30, 2015. This and other program information may be found at the department’s website: http://energyloan.mo.gov

APPLICATION CYCLE

Application cycle(s) information including cycle opening and closing dates, information designating eligible energy using sectors for each application cycle, allocation of total dollars available for loans in each designated energy using sector, and interest rates will be published periodically by the Division of Energy in the "In-Additions" section of the Missouri Register and through other public information methods.

An Application Cycle is the period of time each year that the department shall accept applications for financial loan assistance under the provisions of sections 640.651 to 640.686, RSMo. The availability of loan funds is determined for each loan cycle and is announced in the "In-Additions" section of the Missouri Register published by the Secretary of State. Application cycles and the availability of loan funds are also made known through other means such as trade shows, association meetings, emails and news articles.

ELIGIBLE ENERGY USING SECTORS FOR FY2018 SPECIAL LOAN CYCLE

City and County-owned and operated nursing homes, assisted living facilities and correctional institutions
Public and Private Institutions of Higher Education
Public and Private not-for-profit Hospitals

ELIGIBILITY REQUIREMENTS

The applicant's proposed project must be located within the borders of Missouri.

The applicant must own and operate the building or system proposed for energy-saving improvements.

The building, facility or system proposed to receive Energy Conservation Measures (ECMs) must have a useful life and expected operational life greater than the loan repayment period as determined by the Division of Energy.

The applicant must not be in default or have a pending event of a default.

The applicant must have no outstanding or known unresolved actions for violations of applicable federal, state, or local laws, ordinances and rules.

The applicant is not presently debarred, suspended, proposed for debarment, declared ineligible, or otherwise excluded from covered transactions by any federal department or agency.

The applicant must be current on all taxes due and owed to the State of Missouri.

The proposed project must be in compliance with all state and federal environmental laws and permits.

The Department of Health and Senior Services must certify that projects selected for loans are consistent with related health requirements for hospital facilities.

The Coordinating Board for Higher Education must certify that projects selected for loans are consistent with related state programs for institutions of higher education facilities.
ELIGIBLE PROJECTS

Loan funds may be used to finance the design, material and equipment acquisition, installation and commissioning of energy efficiency and renewable energy projects to reduce energy consumption and costs in (1) an existing structure; (2) proposed new construction; (3) any applicant-owned group of closely situated structural units that are centrally metered or served by a central utility plant; or (4) an eligible portion of any of these that includes an energy-using system.

For new construction, loans may be used to finance the incremental cost of implementing energy-saving measures that exceed the energy efficiency standards established by local codes or the latest version of ASHRAE standard 90.1.

APPLICATION PROCESS

Requests for loan financing must be made using the Division of Energy’s Energy Loan Program Application Authorization Form and Technical Assistance Report (TAR) which include: Fuel Use Summary Form, Energy Conservation Measure (ECM) Summary and applicable ECM Worksheets or a customized TAR. A customized TAR may be required for projects that may not be suitable for the ECM Worksheets. ECM Worksheets may be found on the "Instructions" tab.

The Application Authorization Form must be signed and dated by an authorized official. An authorized official is an individual with authority to obligate an eligible entity by signature to a loan agreement and promissory note to repay the loan. A paper copy of the signed, original Application Authorization Form and required documents may be mailed to the DED/DE address below. An electronic copy of the signed, Application Authorization Form and required documents may be emailed to the address listed below.

The completed Application Authorization Form and required documents, must be received at the following address no later than the loan cycle closing date. Applications received after a designated closing date will not be considered for review or loan award but may be held for consideration during subsequent application cycles.

Missouri Department of Economic Development
Division of Energy
Attn: Loan Program Clerk
P.O. Box 1766
301 W. High, Ste. 720
Jefferson City, MO 65102
Email: energy@ded.mo.gov

TECHNICAL ASSISTANCE REPORT (TAR)

A Technical Assistance Report (TAR) is a specialized engineering report, subject to approval by the department, that identifies and specifies the quantity of energy savings and related energy cost savings that are likely to result from the implementation of one (1) or more energy conservation or renewable energy measures. The TAR need not be prepared by a professional engineer, if the department determines that the adequate performance of the TAR analysis for any project does not require engineering education, training, and experience. At a minimum a TAR shall contain the following items subject to the approval of the Division of Energy:

- Fuel usage summary and analysis of energy costs.
- Detailed description of each ECM.
- Detailed estimate of ECM cost of implementation.
- Detailed analysis of energy savings from each ECM.
- Simple pay back of each ECM.
- Cumulative simple pay back of all ECMs.
- An energy audit must meet the minimum of Level 2 audit per most recent ASHRAE Procedures For Commercial Building Energy Audits.

While a TAR may vary in length and form, the following references may be used as a guide in the preparation of the report:

**ECM WORKSHEETS**

The ECM Worksheets are a set of worksheets to qualify energy conservation measures for funding approval that have been proven cost-effective over time and, generally, do not require a more comprehensive analysis.

For the Energy Loan Program Application, at minimum, the following items must be submitted: Application Authorization form, Fuel Use Summary, most recent 12 months utility bills, ECM Summary and applicable ECM Worksheets.

Hand calculations or spreadsheets for simple ECMs may be accepted on a case-by-case basis. Modeling is not required when ECM Worksheets are appropriate.

ECM worksheets provide line by line instructions to guide in their completion. The following is a brief description for each worksheet:

- **The Motor Upgrade** worksheet is used to estimate energy savings for more efficient motor replacement. The worksheet is only applicable to constant load and same size motors. The worksheet is not applicable to pulsating loads, VFDs, random loads, or loads that cycle at rapidly repeating intervals.

- **The Wall or Ceiling Insulation** worksheet is used to estimate the savings for an area to be insulated that has a uniform R-value over the entire area and in which the R-value to be added will be applied uniformly over this same area. If the R-value is not the same in all areas of the building or different R-values will be added to separate areas of the building, a worksheet must be used for each of the individual areas.

- **The Pipe Insulation** worksheets (Natural Gas and Electric) are used to estimate the savings for insulating heating pipes that serve radiators or fan coil units. Furnace rooms, crawlspaces, unheated areas and overheated rooms are typical for effective insulation applications. A Heat Loss Factor Table follows the Pipe Insulation Worksheet for reference. To use the worksheet, the heating and cooling distribution pipe must be in an area of constant temperature. The pipe distribution must be indoors.

- **The Programmable Setback Thermostat** worksheet is used to estimate the savings as a result of setting the heating thermostat to a lower value during a building’s unoccupied hours.

- **The Lighting/Motion Sensor** worksheet is used to estimate the savings from a reduction in the number of lamps, lamp or ballast wattage, hours of use per year or a change to new efficient fixtures.

- **The Windows Replacement/Reduction** worksheet is used to estimate the savings from replacing inefficient windows with more efficient models or for the addition of storm windows. The worksheet is also used to estimate the savings from windows reduction. Reduced infiltration and improved U-values are included in the worksheet’s computation method.

- **The Heating Plant Replacement** worksheet is used to estimate the savings when installing a new more efficient furnace or boiler or when changing the energy sources used for heating. ECMs that reduce the overall heat load, such as insulation or window replacement, should be considered in conjunction with heating plant replacement. Efficiency of an old heating plant is assumed at 65 percent unless field-tested.

- **The Cooling Plant Replacement** worksheet is used to estimate the savings when installing new more efficient cooling units or when changing the energy sources used for cooling. ECMs that reduce the overall cooling load, such as insulation or window replacement, should be considered in conjunction with cooling plant replacement.

- **The Dishwasher - Energy Star®** worksheet is used to estimate savings when upgrading from a conventional dishwasher model to an ENERGY STAR® model. The worksheet is applicable for commercial-grade dishwashers with standard commercial rack size only. The worksheet is not applicable to residential units.

- **The Dishwasher - Other** worksheet is used to estimate savings when upgrading to dishwashers that are not rated by ENERGY STAR®. The worksheet is applicable for commercial-grade dishwashers with standard commercial rack size only. The worksheet is not applicable to residential units.

Vendor/Contractor quotes or other cost estimates can be used as a basis for ECM costs. Vendors/Contractors may assist in the completion of the worksheets. The worksheets are designed to provide conservative estimates of savings using a generalized computation approach.

The Division of Energy may request additional information as needed to determine the proposed project’s feasibility and estimated energy savings.

**SELECTION CRITERIA**

Recipients of loan financing will be determined through a competitive process. Applications will be ranked based on the proposed project’s payback score which is determined by dividing the cost to implement a project by the estimated energy cost savings. Projects with the lowest payback score will be funded until all available loan funds are allocated.
PROJECT START DATE

Projects will not be considered that were completed prior to the official loan cycle announcement date. An applicant may submit an application and start a project at any time but SUBMISSION OF AN APPLICATION DOES NOT GUARANTEE LOAN FINANCING. (**Refer to Reimbursement Requirements**) 

TERMS OF LOAN

The Division of Energy determines loan interest rates and other fees for each loan cycle – typically from two to four percent. Interest rates for each loan cycle are announced in the “In Additions” section of the Missouri Register.

Loans (including interest and fees) are repaid within a ten year period or less. Loans will not be made that have a payback period of less than six months.

Loan payments are made on a bi-annual schedule. Invoices for bi-annual payments are issued two months prior to each payment due date. Late payments may be subject to additional charges. Once a loan is fully paid, the “paid” Promissory Note will be returned to the recipient. Loan documents and records must be retained for three years from date of final payment.

REIMBURSEMENT REQUIREMENTS

Once construction is complete, a Final Project Cost Report and Reimbursement Request with supporting documentation (invoices/receipts for goods and services purchased for the project, copies of canceled checks, and itemized accounting) must be submitted within 30 days.

Invoices for work, goods, or services with dates prior to the cycle announcement date will not be reimbursed. The Division will perform a final inspection and complete all close-out documentation prior to reimbursement. Once this process is complete, the reimbursement will be forwarded and a Promissory Note and final amortization will be sent to you. Your first payment will be due to the Division of Energy no more than 150 days from the date of reimbursement.

FOR ASSISTANCE

Division of Energy loan staff is available to answer questions about the application process and technical requirements for submission of a loan application:

Phone: (855) 522-2796 or (573) 526-7770

https://energyloan.mo.gov