Report on Loans for Geothermal Heating Systems
Made Pursuant to Resolves 2007, Chapter 156
to the Utilities and Energy Committee
by the Public Utilities Commission

January 15, 2009

I. Background

During its Second Regular Session, the 123rd Legislature enacted Resolves 2007, Chapter 156, "Resolve, Regarding Loans for Geothermal Heating Systems" (Chapter 156). Section 1 of Chapter 156 provides that the Public Utilities Commission (Commission) may provide loans for geothermal heating systems under the Energy Conservation Small Business Revolving Loan Program. Chapter 156 took effect on March 18, 2008.

Chapter 156 further provides that the Commission shall submit an annual report to the Utilities and Energy Committee (Committee) "regarding the number, amount and characteristics of loans made during the previous program year for geothermal heating systems and other energy conservation measures under the Energy Conservation Small Business Revolving Loan Program."

The purpose of this report is to comply with the reporting requirement in section 1 of Chapter 156. Section 2 of Chapter 156 directs the Maine State Housing Authority (MSHA) to provide the Committee with a summary of loans it has granted under its Home Energy Loan Program. The Commission understands that MSHA is preparing a separate report in response to section 2 of Chapter 156.

II. Energy Conservation Small Business Revolving Loan Program

The Program has existed since 1997, when it was established by the Energy Conservation Division (ECD), which was then part of the Department of Economic and Community Development. The Program was established in response to an analysis of the energy audit program. The analysis showed that many small businesses which had obtained energy audits did not implement the recommendations from those audits because of the difficulty in finding funding. That finding led to the establishment this revolving loan program for small businesses that offers a low interest rate and guaranteed low closing costs in order to provide small businesses with the opportunity to fund energy efficiency measures which were identified as part of the audit program.

Initially, the Program provided loans at 5% interest, capped at $25,000. The cap was put in place because the funding available for the Program was limited and the ECD wanted to be able to provide loans to as many participants as possible. Over time, as the cost of energy efficiency measures rose, and interest rates declined, the interest rate offered under the Program was lowered to 3% and the cap was increased to $35,000.

The Program offers loans for a variety of energy conservation measures. Some of the types of projects which have always been eligible for loans include insulation, energy efficient boilers, refrigeration and other appliances, as well as wind, solar and geothermal systems. Recently, alternative power units for trucks (APU's) were added to the list of the energy conservation measures funded under the loan program.

The Commission was given authority to administer the Program in 2004. PL 2003, Chapter 644. Details regarding the Program and the associated fund are codified 35-A M.R.S.A. § 10005. In 2008, the Finance Authority of Maine (FAME) proposed to the Commission that we partner on large loan requests under the Program. FAME has funding available for energy efficiency measures for small businesses under its Economic Recovery Loan Program. The partnership allows us to increase the cap to $250,000 while retaining the 3% interest rate. Under this agreement, Efficiency Maine provides the energy audits, which identify viable energy conservation measures, and certifies corresponding loan applications as to their effectiveness in saving energy or replacing fossil fuels with clean energy. Applications that seek funding up to $35,000 are funded by Efficiency Maine through the Program fund. Approved applications that seek more than $35,000 in funding are forwarded by Efficiency Maine to FAME for funding.

III. Geothermal Technology

Geothermal heating systems were the focus of Chapter 156. Geothermal heating is one of many alternative heating technologies that are available to Mainers. Geothermal heating systems couple a heat pump, which is an established and reliable technology, with a source of low-grade heat such as a well or coils buried in the ground. Rather than generating heat like a system that relies on fossil fuels, geothermal technology moves heat that already exists from one location to another. In the winter, the geothermal system collects heat from the ground and delivers it to the structure to be heated. In the summer, the cycle reverses and the system sends the heat from the host structure to the earth. Geothermal systems tend to have low operating costs, but high initial costs.

IV. Loans Made Under the Program

Chapter 156 requires the Commission to report on loans made under the Energy Conservation Small Business Revolving Loan Program during the previous program year for (1) geothermal heating systems and (2) other energy conservation measures under the Program.

Since Chapter 156 took effect (March 18, 2008), the Commission has received many inquiries about the availability of loans for geothermal systems. In response to each of these inquiries, the Commission informed the person making the inquiry that loans are available under the Program and described the loan application process. In spite of the many inquiries, no one submitted an application to the Commission for a

loan for a geothermal system under the Program during the 2008 program year which ran from July 1, 2007 through June 30, 2008. A summary of the applications received in program year 2008 is included below.

The Commission has also received several applications for loans under the Program since June 30, 2008. For the Committee's convenience, we have also included a summary of applications the Commission has received under the Program during the current program year which runs from July 1, 2008 through June 30, 2009. This summary of applications received to date during the current program year is also included below. As you will see in this summary, he Commission has granted loan applications for a variety of energy conservation installations under the Program. However, the Commission has received no applications under the Program for geothermal heating systems during the current program year. Collectively, the summaries below show that the Commission received no applications for geothermal heating systems under the Program since the enactment of Chapter 156 and has consequently made no loans for geothermal systems under the Program.

A. Program Year 2008 – July 1, 2007 through June 30, 2008

During the 2008 program year, the Commission received 11 applications for a loan under the Program. The following list summarizes the number, amount and characteristics of the loans awarded under the Program during program year 2008.

As noted above, the Commission has an agreement with the FAME for large applications (greater than $35,000) under the Program. Two applications on the following list, ABC Express and Macomber Transportation, were reviewed and approved by Commission but funded by FAME.

Program Year 2008				
NAME	***TOWN***	***APPRV DATE***	***PROJECT***	***LOAN AMT.***
BRUCE BULGER - C MARK FURNITURE	DEER ISLE	9/10/2007	WINDOWS, INSULATED DOOR, BOILER, SOLAR	**$35,000.00**
TIDEWATER MOTEL	VINALHAVEN	4/3/2008	SOLAR SYSTEM	**$24,000.00**
YANKEE PRIDE TRANSPORT	NOBLEBORO	4/8/2008	4 APU UNITS	**$29,988.00**
FAMILY FARE, AKA MAINE DINER	WELLS	4/29/2008	3 PHASE POWER	**$35,000.00**
WHITE PINES INN[1]	CASCO	6/2/2008	SOLAR THERMAL SYSTEM	$31,500.00
ABC EXPRESS	PRESQUE ISLE	6/16/2008	8 APU UNITS	**$64,260.00**
HAROLD LEIGHTON	MILLINOCKET	6/16/2008	APU UNIT	**$7,937.00**
MACOMBER TRANSPORTATION	GARDINER	6/23/2008	10 APU UNITS	**$73,962.00**
KEHOE TRUCKING	BELGRADE	6/23/2008	APU UNIT	**$8,676.00**
MIDWEST RUN, INC.	SKOWHEGAN	6/23/2008	4 APU UNITS	**$34,486.00**
MARTIN BROWN (MHBT)	BENTON	6/24/2008	APU UNIT	**$7,726.00**
TOTAL REVIEWED				**$352,535.00**
TOTAL COMPLETED				**$321,035.00**
FAME FUNDED				**$138,222.00**
EM FUNDED				**$182,813.00**

[1] This application was withdrawn after it was reviewed and had received approval.

B. Partial Program Year 2009 – July 1, 2007 through January 15, 2009

The following list summarizes the number, amount and characteristics of the loans awarded under the Program during the current program year through January 15, 2009. One application on the following list, Bill's Trucking, was reviewed and approved by Commission but funded by FAME.

Program Year 2009 – To Date				
NAME	***TOWN***	***APPRV DATE***	***PROJECT***	***LOAN AMT.***
BILLS TRUCKING (BILLS AUTO TRANSPORT)	GREENE	9/8/2008	13 APU UNITS	**$116,708.00**
SUNSET FLOWERLAND AND GREENHOUSE #2	FAIRFIELD	8/14/2008	REPLACE OLD OIL FURNACES WITH 8 NEW EFFICIENT PELLET STOVES	**$27,162.00**
P&C Transport - PRESTON BROWN	WOODLAND	8/21/2008	APU UNIT	**$8,820.00**
COLONIAL THEATRE (victor Flick Corp.)	BELFAST	9/5/2008	INSULATION - ATTIC AND WALLS	**$13,500.00**
CARSON TRUCKING	KINGMAN	9/26/2008	APU UNIT	**$8,500.00**
MOUNTAIN VILAGE FARM B&B	KINGFIELD	9/22/2008	WINDOWS AND INSULATION	**$22,500.00**
VALLEY AUTO	FORT KENT	9/25/2008	SOLAR THERMAL SYSTEM	**$20,000.00**
CARSON TRUCKING	KINGMAN	9/26/2008	APU UNIT	**$8,500.00**
				$225,690.00
PINE CREST B&B[2]	GORHAM	10/17/2008	SOLAR, INSULATION, CONVERSION TO GAS, WINDOWS	$35,000.00
BLACK ROCK FARM[3]	CAPE PORPOISE		NEW HEATING SYSTEM	$32,190.00
TOTAL REVIEWED				**$292,880.00**
TOTAL COMPLETED				**$225,690.00**
FAME FUNDED				**$116,708.00**
EM FUNDED				**$108,982.00**

[2] This application was withdrawn after it was reviewed and had received approval.

[3] This application was reviewed by the Commission but was withdrawn by the applicant during FAME's review of the credit aspects of the application. Consequently, there is no "approval date" for this application.

V. Conclusion

As can be seen from the above lists, the Commission has received and reviewed applications for various projects under the Program over the past two program years and has provided a variety of loans for energy conservation measures during that period of time. However, none of these loans were for the installation of geothermal heating systems.

The Commission would be happy to meet with the Committee to present this Report and respond to any questions you may have about loans made under the Energy Conservation Small Business Revolving Loan Program.