State Energy Program Case Studies



Like the rest of the country, Nebraska discovered the nation's oil addiction in the 1970s.



Still, today, the vast majority of Americans have few financing options and thus little incentive for making energy improvements to their homes. Nebraska is changing this trend—using federal oil overcharge dollars and local lenders as partners, the state is working with consumers to find permanent ways to fund efficiency projects that improve the quality and comfort of Nebraska homes.

Oil Overcharge Opportunity

The Nebraska Energy Office saw its opportunity when millions of dollars from oil overcharge settlements began to arrive in the 1980s. "We wanted to do something very different with this one-time financial windfall by revolving the oil overcharge funds so that as many consumers as possible would benefit," said Ann Selzer, Nebraska's SEP manager. In 1990, that idea became Dollar and Energy Saving Loans.

The program is a revolving fund that reduces the interest payments for energy-related projects that meet minimum efficiency standards. The Energy Office purchases half the loan at zero interest and a commercial lender provides the other half at market rates, usually at an interest rate between 10% and 12%. The net interest cost to the borrower is a blend of the two halves, and averages between 5% and 6%. The loan program, which was originally funded with oil overcharge dollars, is replenished with loan repayments.

In the 12 years since Nebraska started the fund with \$23.6 million, those initial funds have revolved more than three times, representing \$73.8 million in loan funding from the Energy Office. Add to this some \$82.9 million in loan funding from banks, savings and loans, and credit unions. (In addition, borrowers spent \$19.3 million from their own funds on home improvements that did not qualify for energy loans.) Altogether, the Dollar and Energy Savings Loan Program has provided \$156.7 million in financing for energy projects.

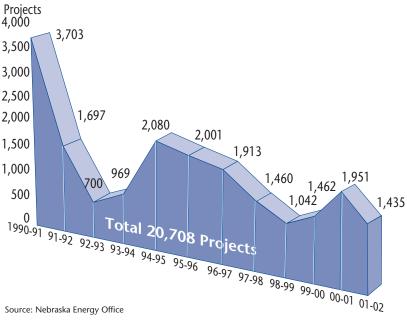


U.S. Department of Energy Energy Efficiency and Renewable Energy

Office of Weatherization and Intergovernmental Program

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Number of Dollar and Energy Saving Projects by Fiscal Year 1990-2002



Local Lenders as Partners

Not surprisingly, these lowinterest loans are very pop ular. As of September 2002, the Energy Office had financed 20,708 projects. More than 19,000 of these were typical home improvements such as replacing furnaces and adding insulations. While the bulk of the projects are residential, the Energy Office has financed other types of projects as well:

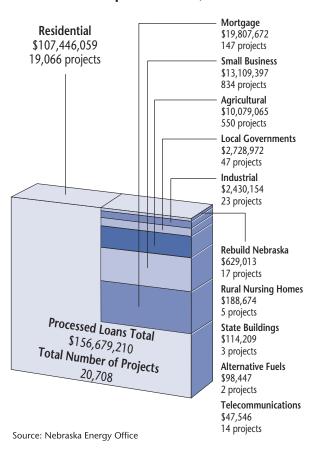
More than 265 lenders, operating at 667 locations across Nebraska. offer Dollar and Energy Saving loans. Lenders screen potential borrowers for credit worthiness, secure project information, and submit the loan application to the Energy Office. Borrowers are responsible for securing one or more bids from contractors. The Energy Office reviews the winning bid to verify that efficiency standards are included and then notifies the lender for loan approval.

Energy Office staff also monitors a portion of the projects to make sure that inspections are performed and sub-standard equipment is not substituted after loan approval. If such equipment is found during an inspection, the borrower and contractor must replace it or pay off the loan immediately. According to Selzer, that policy has all but eliminated this kind of problem in the field. The Energy Office uses SEP funds to administer the loan program.

Shards in the Grass

As an example of Nebraska's Dollar and Energy Saving loan program success, take the Hayward Place Condominiums project. At Hayward Place, the windows needed to be replaced so badly that they literally were falling out of their frames and breaking on the ground.

Oil Overcharge Funds Invested in Types of Dollar and Energy Saving Loans as of September 30, 2002



Nebragka

Located in Lincoln, the condominium building was converted from a public school in 1985 while keeping the original windows from 1925. The school itself was first built in 1904, and the building is on the Register of National Historic Places. Unfortunately, the windows were single-pane, drafty, and because they were relatively large, wasted lots of energy. Tenants also complained that they rattled in their frames and formed condensation and frost on the inside in winter.

The search for efficient and historically accurate windows was expensive, because the historical register required that windows match the originals as closely as possible. Ed Caudill, an officer of the Hayward Place Owners' Association, said that an initial estimate for replacing the 71 windows with wood trim and muntin bars dividing the windowpanes was more than \$120,000.

Luckily, a yearlong search resulted in finding a window manufacturer experienced with historic renovations, and Caudill's lender was a Dollar and Energy Saving Loan partner. "The loan department at Cornhusker Bank has brochures all over the place—you can't miss them," he said. "It made sense to see if the replacement windows we wanted could qualify for a low-interest loan."

Eagle Window and Door, a Lincoln-based manufacturer, could produce the windows in the needed sizes—some more than 9 feet tall. Eagle recommended double-paned, aluminum clad replacement windows with low emissivity glass and argon gas between the panes. The U-value of the windows is 0.36, almost 10% better than the Energy Office's thermal standards for windows. Not only would Eagle's windows provide better protection from Nebraska's Great Plains weather, the cost savings were nearly \$40,000.

For the initial review at the Energy Office, the condominium association sought financing for \$60,000, the maximum for a multifamily project, which was less than the total cost of the windows. The Energy Office determined that the association qualified for a \$100,000 loan since it was a small business with fewer than 25 employees and annual revenue below \$2.5 million. In February 1999, the Energy Office approved the project and the construction of the windows could begin.

According to Pauline Smith, a loan officer and assistant vice president with Cornhusker Bank, helping with the window replacement was a natural project for them to consider. "Cornhusker had helped

finance the purchase of many of the condos," Smith said. "We were glad Cornhusker could also be a part of the on-going preservation of the property because the building is the gem of the North Bottoms neighborhood."

Today the windows are installed, and residents are happy with them. According to Caudill, finding the right windows and financing was an example of how being energy efficient can also be affordable. "This building has been here for 100 years and will probably be here for another 100," Caudill said. "You don't replace windows very often, so it just makes sense to get as energy efficient as possible."



Seventy-one windows were replaced in Lincoln's oldest surviving school building, now Hayward Place Condominiums.



This is an opening where a bank of five windows was removed. Workers were able to remove old windows and install new ones in a single day.

1 Caudill, PIX123

State Energy Program Case Studies

A Strong Energy Portfolio for a Strong America

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For more information, see the following publications by the Nebraska Energy Office:

- Dollar and Energy Saving Loan Program Overview; Nebraska Energy Office 2001 Annual Report See pages two and three for a summary of the loan program; 10 pp; March 2002.
- Energy Efficiency and Historic Preservation:

 A Planning Guide for Buildings

 The Nebraska Energy Office published this guide about how to use a whole-building approach to increase energy efficiency while maintaining historic integrity during retrofits on older buildings; 10 pp; July 2001.
- 40 Ways to Finance Your Energy Improvements

 The Nebraska Energy Office published this online compendium of federal, state, utility, local, and other methods to finance energy efficiency projects; 63 pp; October 2001.

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