



State Energy Conservation Office

"Energy Efficiency: Texas' Newest Energy Resource."

History of LoanSTAR Program

The Texas LoanSTAR (loans to Save Taxes And Resources) Program uses a revolving loan mechanism, which will allow it to continue indefinitely and benefit generations of future Texans. The program was initiated by the Texas Energy Office in 1988 and approved by the U. S. Department of Energy (DOE) as a statewide energy efficiency demonstration program. The quality control on all phases of LoanSTAR has made it one of the most successful and best-documented building energy efficiency programs, state or federal, in the United States.

As of January 2013, LoanSTAR has funded over 215 loans totaling over \$257 million dollars. As a result of these loans, the LoanSTAR Program has achieved total cumulative program energy savings of over \$385 million dollars, which results in direct savings to Texas Taxpayers.

The funding source is petroleum violation escrow funds ([PVE](#)) from the federal government. LoanSTAR is unique in a number of ways (including the acronym for its name, since its origins are in the Lone Star State). The size, \$98.6 million, makes it the largest state-run building conservation program in the United States. The loans are targeted for public buildings, including state agencies, school districts, higher education, local governments and hospitals.

In order to comply with the mandate, the State Energy Office developed program procedures and guidelines to allow the LoanSTAR Program to not only prove that the financed energy retrofits would pay for themselves, but also to demonstrate that the actual energy savings were being exceeded by over 20% of the originally estimated savings. Included as part of the quality controls for the program were:

1. development of LoanSTAR technical energy assessment report guidelines;
2. training of energy engineering consulting firms on audit techniques and the LoanSTAR guidelines;
3. development of protocols to have each LoanSTAR project metered and monitored to track pre- and post-retrofit energy consumption; and,
4. creation of methods of analyzing energy savings from retrofits.

Due to quality controls such as good audit guidelines, training, metering and monitoring, follow-up with agencies to ensure the retrofits were working properly, and building commissioning assistance for improved operation and efficiency, the measured LoanSTAR savings exceeded audit estimates of energy savings. Few energy efficiency programs can make this claim. The initial loans (1989-1994) were made for a period of four years with program paybacks averaging 3.4 years. In 1995 the State Energy Office received approval from DOE to remove the "demonstration" label for LoanSTAR.

There have been several changes in the LoanSTAR Program since inception. Initially, loans had to pay back within four years and all major projects had to be metered and monitored for savings verification. In 1995 the loan period was lengthened to eight years and metering and monitoring became an option for the loan recipient with the cost allowed to be rolled into the loan. In 2001 the pay back period extended once again to the current 10 year maximum loan term.