

**Energy Saving Improvement Analysis**

• READ INSTRUCTIONS ON PAGE 2.

PLEASE USE A SEPARATE FORM FOR EACH IMPROVEMENT

Include *Steps to Obtaining a Low-Interest Loan Using an Energy Saving Improvement Analysis and Form 33, Energy Billing History*

1. Borrower Name \_\_\_\_\_ Mailing Address \_\_\_\_\_

City _____	State _____	Zip Code _____	Telephone (      ) _____
------------	-------------	----------------	-----------------------------

2. Location of Building or Energy Improvement (street address or legal description) \_\_\_\_\_

3. Describe Proposed Energy Improvement \_\_\_\_\_

4. Describe Existing Condition of Building or System \_\_\_\_\_

4a. Disposal — What will be done with the existing materials or equipment being replaced? \_\_\_\_\_  
(see instructions on back, existing equipment may not be kept)

5. Estimate **CURRENT** Annual Energy Use and Cost for Building or System Receiving Energy Improvement (Provide copies of actual fuel bills for previous year, and complete Form 33, Energy Billing History. Show calculations and attach additional pages as necessary)

6. Estimate Annual Energy Use and Cost **AFTER** Installation of Energy Improvement (show calculations and attach additional pages as necessary)

7. Estimate Life Expectancy (in years) of Energy Saving Improvement being Installed \_\_\_\_\_

8. Cost of Energy Saving Improvement, installed (see instructions) .....	8.	\$	
9. Annual Energy Dollar Savings (line 5 minus line 6).....	9.	\$	/year
10. Simple Payback in years (line 8 divided by line 9) .....	10.		years

I hereby certify that the information presented above and on the attached pages is a true and accurate representation of both the existing conditions and the energy saving improvement which I intend to undertake; that the calculations and underlying assumptions are correct to the best of my knowledge; and I have read and understand the instructions for this form. I will permit my lender and the Nebraska Department of Environment and Energy, as they deem necessary, to have access to the subject property and records in order to make on-site inspections of the improvements or replacements I am proposing under the program.

**sign here** ▶ Signature of Borrower \_\_\_\_\_ Date \_\_\_\_\_

Submit This Form, Form 33, Energy Billing History and supporting documents to a participating lender. Contact us with questions: NDEE.DESL@NEBRASKA.GOV, 245 Fallbrook Blvd Ste 100 Lincoln, NE 68521, 402.471.2186, <https://dee.nebraska.gov/>

## INSTRUCTIONS

**LINE 2. Location of Building or Energy Improvement.** This is the actual location where the improvement will be installed or where it is normally stored. It may be a street address or a legal description of a parcel of land. A post office box number is not acceptable. If improvement is to be made at a remote location, submit a copy of the Plat Map for the legal description given and mark the location of the improvement on the map.

**LINE 3. Describe the Energy Saving Improvement.**

List the type of energy saving improvement you want to make. Please use a separate form for each improvement you want to make. Include detailed information (model numbers, efficiencies, dimensions, etc.) as appropriate to describe both the existing situation and proposed improvement. You may provide a brief description here and attach a separate page with details if more room is needed.

**LINE 4. Describe Existing Conditions.** Explain the energy problem you would like to fix. Include detailed information (model numbers, efficiencies, dimensions, etc.) as appropriate to describe the situation. List only the problems that will be corrected by the energy saving improvement you want to make under this loan. You may provide a brief description here and attach a separate page with details if more room is needed.

**LINE 4a. Disposal.** If you are replacing materials or equipment, what will be done with the existing materials or equipment? These must be disposed of in some manner and you cannot simply move the existing materials or equipment to a new site and continue using them because that would not constitute "replacement." You cannot keep the existing equipment for back-up, scrap, or spare parts for another similar piece of equipment. You may be asked for verification of disposal, which may be a copy of the final sales receipt showing trade, bill of sale, or a physical inspection. Note – the existing equipment should not be disposed of until after your proposed improvement has been approved by NDEE and your lender has notified you of final project approval (See instruction on "Steps to Obtain a Low-Interest Loan Using an Energy Saving Improvement Analysis," provided with this form).

**LINE 5. Estimate CURRENT Annual Energy Use and Cost.** If one or more of the energy sources listed on Form 33 are used exclusively for the system to be improved (such as an irrigation motor) then list the total here. Otherwise, estimate what portion of the energy listed on Form 33 is used by the system to be improved based on other information, such as readings from an hour meter. Or, if you are replacing an air conditioning system (note the Overview on the "Steps" guide), subtract amounts on your electric bill used during winter months, from amounts used during summer months to determine the portion of the bill used by the existing air conditioner. List assumptions and show any calculations which were used to derive this estimate. Cost estimates should be based on current fuel bills, which would be the previous year's average price, not specific highs or lows. Make your calculations on

this form in the space provided or attach the calculations on a separate page.

**LINE 6. Estimate Annual Energy Use and Cost AFTER Installation of Energy Saving Improvement.** Estimate the energy which will be required to do the same job after the improvement has been made. List assumptions and show any calculations which were used to derive this estimate. Cost estimates should be based on current fuel bills, which would be the previous year's average price, not specific highs or lows. If the proposed improvement requires you to change to a fuel you have not used in the past, provide a quote for that new fuel with suppliers name, address, and phone number. Provide copies of manufacturer's test data to support efficiency claims. Savings calculations for any heating or cooling equipment must include a tested seasonal, ARI, or GAMA efficiency (unvented systems are not allowed). Provide complete information on brands and model numbers of proposed improvement equipment. Costs for reduction in labor or machine wear cannot be included in your estimate, only those costs associated with energy use. Make your calculations on this form in the space provided or provide a brief summary and attach the calculations on a separate page.

**LINE 7. Estimate Life Expectancy of Energy Saving Improvement Being Installed.** How long is the energy saving improvement going to be effective? If the improvement has a limited life expectancy, list that life in years. The life of the improvement must exceed the simple payback.

**LINE 8. Cost of Energy Saving Improvement, Installed.**

List the total cost of the energy saving improvement after it is installed. This amount must be the cost for all labor, materials and equipment necessary for a properly functioning system which will produce the energy savings described on line 9, less any amounts for equipment in the existing system which is being traded or sold. Attach copies of price quotes to support the cost (including any trade-in or sale allowance).

**LINE 9. Annual Energy Dollar Savings.** Subtract the amount on line 6 from the amount on line 5. Enter the result on line 9. This is the amount you should save on energy bills each year.

**LINE 10. Simple Payback in Years.** Divide the amount on line 8 by the amount on line 9. Enter the result on line 10. The number you will enter on line 10 is the number of years it will take for the energy saving improvement to pay for itself from the money you will save on energy bills, less interest. This number cannot be higher than the simple payback limits listed below. If the number of years on line 10 is higher than the simple payback limits listed below, your energy saving improvement is not eligible for a low-interest loan.

**SIMPLE PAYBACK LIMITS:**

- 15 years for building energy conservation improvements,
- 5 years for replacement household appliances, and
- 10 years for all other projects.