

*Residential Low-Income  
Exemplary Program*

***Indiana Low-Income Weatherization and Refrigerator Replacement Program  
Cinergy/PSI  
State of Indiana Weatherization  
Indiana Community Action Programs***

**PROGRAM OVERVIEW**

The program serves households whose annual income is at or below 125% of the federal poverty guideline. Clients receive services through weatherization, energy assistance, and energy education, thus ensuring that they lower their energy burden. In the Cinergy/PSI territory, homeowners also receive additional weatherization measures paid for by the utility, as well as refrigerator replacements if the units are tested above a certain energy usage. The program replaces inefficient, high energy user refrigerators with efficient ENERGY STAR<sup>®</sup>-rated refrigerators. The refrigerator replacement program went statewide in mid-2002.

The program provides comprehensive services and energy savings to low-income individuals through a partnership among partnering state, local, and private entities. This leverages funding and program resources. Cinergy/PSI established partnerships with the State of Indiana Weatherization Program, the local community action agencies, the Indiana Community Action Association, and the Whirlpool Corporation.

An exemplary feature of this program is a sliding-scale payment system for refrigerators. This was a win-win situation for all parties because shared costs allow for a greater number of clients to be served as well as larger savings to be realized. In the refrigerator program, 57 percent of the homes tested received replacements. Replacement units must save at least 400 kWh per year. Average savings per unit is 1,260 kWh per year. The payment is split between the state and the utility based on the savings. For the 400 kWh minimum savings, Cinergy/PSI will pay \$100 towards the cost of the unit, up to the total cost of the unit based on savings. The sliding scale of utility payments was based on utility avoided costs to get positive results for the utility while minimizing the state contribution required.

Another exemplary feature of this program is the partnership that Cinergy/PSI developed with the Whirlpool Corporation to supply the ENERGY STAR units. This was possible due to the high volume of refrigerators being purchased. As a result, Cinergy/PSI was able to negotiate an exceptionally good price for the new units. The negotiations included delivery and set-up of the new units, and removal of the old ones followed by permanent removal from the grid by dismantling them in an environmentally friendly manner.

**PROGRAM PERFORMANCE**

This program has shown itself to be very cost-effective, so much that the state of Indiana has implemented the program statewide, effective July 1, 2002. This will ensure the future of this very unique partnership, as well as serve additional customers and provide additional energy savings.

Refrigerator replacements are a common program feature since most of the homes served are very low income, and these households tend to have the older, less efficient refrigerators. To date, the program in the Cinergy/PSI territory is replacing an average of 57 percent of the units tested. Not only is this program providing clients with saving, but is permanently removing the old units from the grid and ensuring other families will not be burdened with them.

The testing results are collected by the agencies and submitted to the Indiana Community Action Association. This data is presently entered into a database maintained by Cinergy/PSI. However, the cost-effectiveness of replacing refrigerators has already been determined through several projects completed under the U.S. Department of Energy and utility companies. Cinergy/PSI has all the collected data but a formal impact evaluation has not been conducted by PSI yet.

Cinergy/PSI has been able to demonstrate annual energy savings of 287,320 kWh by collecting data on 228 replaced refrigerators.

### **LESSONS LEARNED**

Some of the key lessons learned from the Indiana Low-Income Weatherization and Refrigerator Replacement Program include:

- Utility funding on sliding scale increases cost-effectiveness
- Delivery and coordination with supplier critical
- Testing needs to be two hours minimum

**PROGRAM AT A GLANCE**

**Program Name:** Indiana Low-Income Weatherization and Refrigerator Replacement Program

**Targeted Customer Segment:** Low-income residential households

**Program Start Date:** Cinergy/PSI has been involved with the Low-Income Weatherization Program since 1990. In January 1997, the program as it exists today was developed. In October 2001, the Refrigerator Replacement program component was included as part of the weatherization program.

**Program Participants**

Low-Income Weatherization Program

2001: 1,948 participants  
 2002: 2,029 participants  
 1997 through Dec. 2002: 9,231 participation

Refrigerator Replacement component

Nov. 2001 through Dec. 2002: 398 refrigerators were tested and of those, 228 were replaced.

**Approximate Eligible Population:** The program serves households whose annual income is at or below 125% the federal poverty guideline. For the Cinergy/PSI portion of the program, customers must have a Cinergy/PSI electric account. Refrigerator participants must also own their homes.

**Participation Rate:** NA

**Annual Energy Savings Achieved**

Low-Income Weatherization Program

2001 annual savings: 835,137 kWh  
 2002 annual savings: 741,205 kWh  
 Cumulative annual savings from total program (beginning 1997): 3,581,513 kWh

Refrigerator Replacement Program

Inception through 2002: 287,340 kWh annual  
 Average savings per refrigerator replaced: 1,260 kWh per year

**Peak Demand (Summer) Savings Achieved:**

Refrigerator program—The demand impact is 0.373 kW saved per unit or 85.044 kW for the program.

**Other Measures of Program Results to Date:**

The Total Resource Cost test (TRC), utilizing DSManager, shows a program TRC of 1.87 for the utility.

**Budget**

Refrigerator Component

Year	Utility Costs—PSI
Nov. '01–Oct. '02	\$63,649*
2003 (projected)	\$100,000
Year	State of IN Costs
Nov. '01–Oct. '02	\$51,349*
2003 (projected)	\$80,000
Year	Total Costs
Nov. '01–Oct. '02	\$115,000
2003 (projected)	180,000

\*These numbers reflect only the cost of the new refrigerator (which includes delivery of new, and removal and disposal of the old). No PSI or state program administration expenses are included. PSI's administration expenses totaled \$15,351.

**Funding Sources:** Cinergy/PSI and State of Indiana Weatherization

**Best Person to Contact for Information about the Program**

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