

2006/2007 Washer Rebate

**Yukon Government's Energy Solutions Centre and
Natural Resources Canada**

Final Report
April 19, 2007

PROGRAM OVERVIEW

One of the fundamental objectives of the Energy Solutions Centre (ESC) is to serve Yukon's energy efficiency needs by:

1. helping to build capacity in energy efficiency related fields; and,
2. by working to sensitize and condition the Yukon marketplace to become more energy efficient.

In order to help meet these objectives in 2002 ESC participated in the "Yukon Fridge Exchange" program. This program offered retailer and consumer incentives in order to encourage consumers to trade in their old, inefficient refrigerators for new ENERGY STAR® rated ones. Over the course of the program nearly 200 old fridges were replaced and concurrent? retailer incentives for the sale of ENERGY STAR® labeled fridges, washers and dishwashers were paid out for 630 appliances.

Based on the approximate energy consumption of these appliances, the average household savings as a result of the fridge exchange was approximately \$91 per year. For Yukon diesel communities, 79 fridge exchanges represents an annual estimated reduction of 58 Tonnes in Greenhouse Gas emissions plus generation savings to the utility of 72 megawatt hours and avoided costs of approximately \$14,400 per year.

The success of this program has encouraged ESC to continue to offer programs focused on the replacement of high energy consuming residential appliances.

The focus of our present initiative is clothes washing machines. Today it's understood that front-loading washers use approximately 40% less water and 50-60% less energy than traditional top loading machines. Despite this fact, the most recent "Residential Energy End Use Survey" shows that very few Yukon households have chosen to invest in these high efficiency appliances. The survey also shows that a significant number of Yukon households have washing machines that are 10 years or older and will likely require replacements in the near future.

With a low percentage of uptake in high efficiency washers, and the potential for significant reductions in both energy and water consumption, the Energy Solutions Centre chose to offer a rebate for Energy Star® rated clothes washers.

The program worked by offering Yukon residents that purchased an Energy Star® rated front loading washing machine between January 1 and March 15, 2007 a \$75 rebate (\$125 for residence of diesel powered communities) from the Energy Solutions Centre. Applicants were required to supply appropriate proof of purchase along with completing an application form and brief program survey.

This program had 116 successful applicants which representing approximately 1% of Yukon households.

PROJECT BUDGET

Actual program costs were as follows:

Marketing Costs

- Advertising (newspapers, radio) \$2,163.60
- App. Form Pub. (Leaf Marketing) \$3,556.77
- Bill Insert Pub. (Integraphics) \$1,575.00

Subtotal **\$7,295.37**

Rebate Costs

- Excepted applications (116) \$8,900.00

Total: **\$16,195.37**

PROJECT RESULTS

This program had 116 successful applicants which represents approximately 1% of Yukon households. According to Energy Star® and NRCAN's Office of Energy Efficiency, a conventional Clothes Washer consumes, on average, 529 kWh of electricity and 54,700 litres of water per year while an Energy Star® rated washer will use, on average, 243 kWh and 28,000 litres of water per year. Based on these numbers each Energy Star® rated washer replacing a conventional machine represents an energy savings of approximately 286 kWh (at current Yukon electrical rates that's a savings of approximately \$27) and 26,700 litres of water per year.

Based on the approximation above, the participants in this program are responsible for Energy savings of 33,200 kWh (\$3,100) and 3,100,000 litres of water per year or equivalent to 365,000 kWh (\$34,200) and 34,000,000 litres of water over the predicted lifetime of the washing machines. This represents not only significant savings for consumers, but considerable water savings for municipal governments concerned with the costs of extracting, treating, distributing and disposing of water. If only 10% of Yukon households chose this kind of technology, the savings would add up to approximately \$30,000 in electrical costs per year, and 30,000,000 litres of water saved.

As a final comment, the project has been intended not only to provide new technology to the public and to provide savings immediately, but also to act as a catalyst for additional behavioral changes on the part of Yukon consumers. That is, we anticipate that the project will result in consumers becoming more aware of the benefits of this technology and will help lead to further sales of these energy efficient products. Although it is impossible to calculate with any degree of accuracy the benefit of this "after effect", there will undoubtedly be additional benefits that will result from this in terms of lowering consumer electrical bills, reducing overall demand on the system, and reducing greenhouse gas emissions in communities where they are associated with electrical generation.

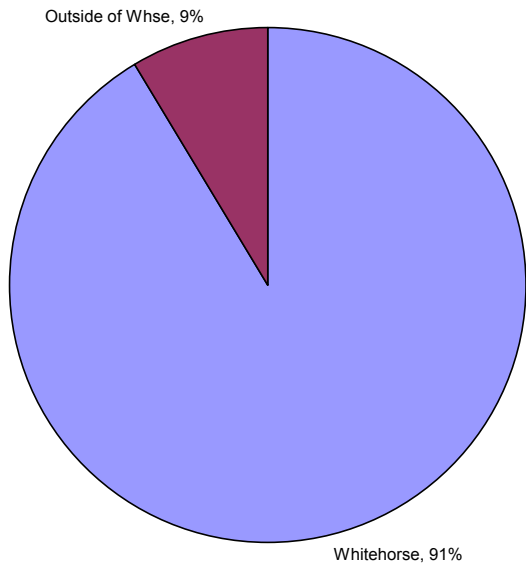
CONCLUSION

Energy efficient clothes washers are a practical way to reduce energy and water consumption in the Yukon thereby helping to reduce greenhouse gas emissions and both electrical and municipal utility infrastructure costs.

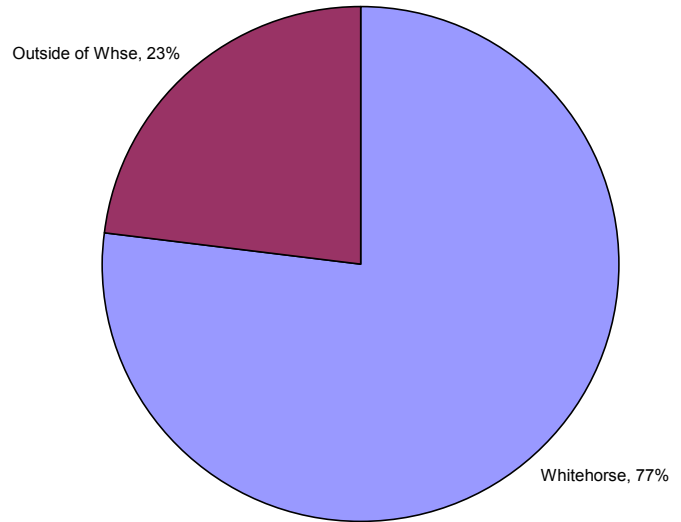
This project illustrated that there is a high level of public interest in these high efficiency machines. It's intended that a project of this nature will help Yukoners keep energy conservation in mind when purchasing major appliances.

Appendix A: Successful Rebate Applications Information

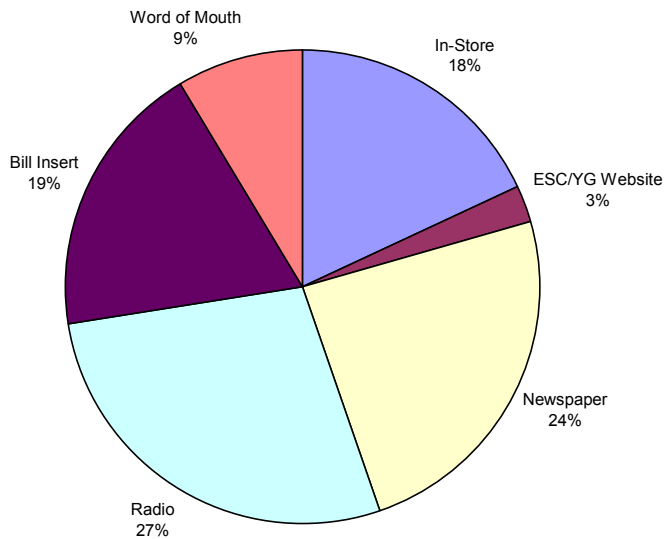
Applications by Community



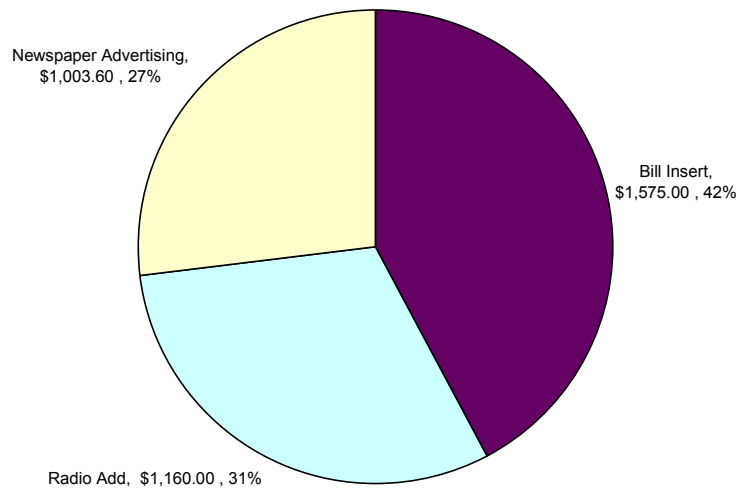
Applications by Community (Normalized to Population Distribution)



How Applicants Heard about the Program



Advertising Costs



Importance of The Rebate in Washer choice

