

REQUEST FOR DECISION

Subject: Subject



Presented to: Council

Date: June 7, 2010

Submitted by: Whit Anthes, Environmental
Assistant, and
Chad Townsend, Environmental
Coordinator

Agenda #:

RECOMMENDATION

- 1) That Council direct administration to revise the existing residential environmental incentive program with the following actions:
 - a) discontinue low-flow toilet rebates (retain dual flush)
 - b) discontinue Energy Audit rebates
 - c) discontinue free water conservation kits
 - d) add high efficiency (Energy Star) refrigerator rebates
 - e) add Energy Star windows and door rebates
 - f) add water heater insulation blankets
 - g) add solar hot water system rebates

- 2) That Council direct administration to revise the commercial environmental incentive program with the following actions:
 - a) discontinue low flow toilet rebates (retain dual flush)
 - b) discontinue pre-rinse spray valves
 - c) add Energy Star window and door rebates

BACKGROUND

Reason for Report

In November of 2005, Council moved to direct any surplus revenue above that year's budgeted amount for the ATCO Gas franchise to "*a targeted fund for initiatives within our community that will increase energy efficiency.*" A total of \$119,978.00 was accrued.

On September 24, 2007 Council decided to approve a residential energy efficiency audit rebate. At its October 9th meeting in 2007, Council also approved a residential toilet rebate fund. Each program was allocated \$20,000.

In July, 2009 Council decided to expand the existing programs to offer rebates to both the residential and commercial sectors. The expansion included free water conservation kits for homes, high efficiency dishwashers, rain barrels, and programmable thermostats.

On March 31, 2010 the federal government ended its ecoENERGY Retrofit rebate program.

A Community Plan environmental goal of the Town is to "*minimize energy and water consumption across the community.*" The popularity of the expanded rebate program (see attached) suggests that further opportunities for additional conservation efforts are in demand. The discontinuation of the federal rebate program means residents and commercial property owners have lost some of the complimentary financial incentives for energy efficient renovations. Remodeling the current rebate

program will allow the Town to focus its remaining funds on new ways to reach its environmental goal.

Summary of Issue

1. a) Since 2007 residents of Banff have had the opportunity to receive rebates for the purchase of low-flow (\$75) and dual flush toilets (\$100). Since the expansion of the program in 2009, over 200 rebates have been given out to Banff residents for the purchase of these toilets. After reviewing the rebate data for the past year, it is clear that the dual flush toilets are more popular than the low-flow models. The original toilet rebate program was designed to encourage Banff residents to purchase efficient 6 L or dual flush toilets, to replace the larger 13 L toilets. Sales of 13 L toilets have now been widely discontinued and 6 L low flow toilets have become the standard model in home improvement stores. This progress means the option of purchasing a new 13 L toilet is no longer a factor for residents replacing their toilets. By discontinuing only the low-flow toilet rebate, residents would still be able to receive post purchase rebates for the dual flush model. Since the dual flush toilets are better in terms of water conservation, the continued rebate would encourage residents to purchase the often more expensive of the two models.

b) The second rebate that could be discontinued is the energy audit rebate. In the past year, only five residents have taken advantage of the energy audit incentive. It has proven to be the least popular of the existing rebate offers. The purpose of the energy audit rebate was to encourage residents to take part in the federal ecoEnergy retrofit program, which required an energy audit to be performed before program applications were accepted. Since that federal program has now ended, the main purpose for the rebate no longer exists. Additionally, since April 2009, the Alberta government through Climate Change Central now offers \$100 rebates for home energy evaluations. With this new rebate available to Alberta residents, the Town's energy audit rebate is no longer the only financial incentive available to Banff residents. With overlapping rebates, it is currently possible for a Banff resident to receive two similar rebates for the same audit. The discontinuation of the Banff energy audit rebate would result in more available funds for other parts of the environmental incentive program.

c) Since September 2009, nearly 300 water saving kits have been purchased by the Town (\$22 each) and distributed free to those in the community who requested them. These kits included small plumbing accessories and information on how to conserve water in the home. After nearly a year of the free offer, demand for the kits has diminished and the target market for the offer seems to be satisfied. The program could consider discontinuing the water conservation kit and direct the remaining available funds to help provide other energy efficiency tools to Banff residents. A final shipment of water kits could be ordered before discontinuation in an effort to satisfy the remaining residents interested in the offer.

d) One proposed new residential program would offer rebates for the purchase of high efficiency 'Energy Star' refrigerators. Because refrigerators are always running, they have a large impact on the energy use of a household; on average they account for 8% of monthly energy costs. Energy efficient refrigerators use up to 20% less energy than models without the Energy Star qualifications. In addition, if a household switches from an older refrigerator manufactured before 2001, the energy star model can use up to 40% less energy. Although the Energy Star appliances cost more than standard models, a rebate may persuade residents

purchase the most efficient refrigerators available. A \$200 rebate would be available for residents who replaced their older refrigerators with an Energy Star model.

e) A second proposed addition is a rebate for energy efficient windows and doors. Until March 31st 2010, Banff residents were able to receive rebates from the federal ecoENERGY Retrofit program to purchase replacement energy efficient windows, doors, and skylights. With the end of the program, a financial incentive to purchase these materials no longer exists. These types of windows and doors are more air tight and reduce the amount of heat loss from homes and have been credited with being nearly 40% more efficient than standard models. A study done by the federal government shows that 60 % of residential energy consumption can be attributed to space heating. One way to reduce this consumption is to prevent heat loss through windows and doorways. A \$50 rebate per window and door could motivate homeowners to purchase new energy star windows and doors that will reduce their homes overall energy consumption. A \$1,000 maximum per household can be enforced to ensure program funds are evenly distributed amongst the town.

f) A third proposed addition is to provide residents with water heater insulation blankets at a nominal cost. A water heater insulation blanket is a low cost way to insulate water heaters and reduce the energy used to maintain hot water. When hot water heaters are not being used, they are still storing hot water and can lose heat through the walls of the heater if not well insulated. This standby heat loss can be reduced by 25-50% by simply wrapping the heater in insulation. This reduction of heat loss can also reduce a household energy bill by 4-9%. As water heating is estimated to contribute to over 20% of energy consumption in a household, this product offer would be helpful to reducing energy costs and greenhouse gas emissions for Banff residents. The cost of a blanket is \$35 and would be available to residents for \$5 upon request.

g) Lastly, a fourth proposed addition is a rebate program for solar hot water heater systems. These systems use solar energy to heat water, rather than natural gas or fossil fuels. A recent study showed that over 20% of energy used in homes came from water heating. Using solar energy reduces the amount of residential greenhouse gas emissions and reduces costs associated with household water heating. A study by the City of Medicine Hat shows that solar energy can produce 2500 kWh per year; enough to meet nearly half of the water heating energy demands for a family of four. It is a goal of the environmental incentive program to motivate residents to make significant changes to their homes in an effort to protect the environment and reduce greenhouse gas emissions. A rebate for these solar energy systems could be an incentive for residents to reduce their energy consumption, and help the town meet its environmental goals. At an average cost of \$6,500, a post installation rebate of \$650 would reimburse residents for 10% of the purchase cost.

2. a) Discontinuing the low-flow toilets for the commercial rebate program could serve as an incentive to purchase the more efficient of the two existing toilet offers. The dual flush toilets are generally more expensive, but the rebate helps bring the cost down to that of the standard low-flow models. Since the dual flush toilets have a greater ability to conserve water, the continued rebate would encourage commercial businesses to purchase the more efficient of the two models.

b) Since January 2010, there have been no requests for the high efficiency pre rinse spray valves. After five months without activity it is likely the spray valves have satisfied their target market or the offer has been forgotten. In an effort to distribute the remaining valves a flyer could be distributed to restaurants reminding them of the offer but announcing its discontinuation. The distribution would be first come first serve until the depletion of the supply. The discontinuation of this offer would allow for further funds to be used on other parts of the environmental incentive program.

c) There are currently no specifications in the Land Use Bylaws that require higher efficiency than Alberta Building Code windows and doors in the redevelopment of commercial buildings. A rebate for Energy Star windows and doors could influence businesses to install more energy efficient materials. Installation of these windows and doors would also reduce the cost of heating and cooling buildings. The maximum of \$5,000 dollars per commercial property would remain on the rebates so as to allow the funds to be fairly distributed amongst the participants.

Other Communities

The government of Alberta, in association with Climate Change Central is currently offering rebates on a variety of appliances and services. The rebates for this program include Energy Star clothes washers (\$100), furnaces and boilers (\$600), gas water heaters (\$300), central air conditioners (\$200), and home energy evaluations (pre and post renovations = \$200). Residents of Alberta can apply for these rebates online, and simply scanning or sending in the product receipts. The revisions to the Banff rebate program have been proposed so as not to overlap these rebate offers already available to Town residents.

In January 2008, the City of Medicine Hat approved a number of incentive programs offering rebates on energy efficient applications and renewable energy installations. Further, they created a program called HAT Smart that promotes a wide variety of services and programs, which help residents save on resources like water, gas and electric, as well as recycling efforts to reduce solid waste. The City's residential rebate program offers rebates ranging anywhere from \$75 for clothes washers to \$6,000 for solar electric systems. In April 2009, their commercial rebate program was established with 1 million dollars of municipal funding, and a \$50,000 limit per organization. In July 2008, Medicine Hat City Council to fund a total of 50 solar water heating incentives. To date there have been 15 solar thermal systems installed and another 10 homeowners have reserved the incentives and should be installing within the next nine months. Medicine Hat is currently offering a \$3,000 incentive for the installation of a system that captures at least 12 gigajoules of solar energy in the form of water heating.

The Municipality of Jasper is currently offering rebates to residents that install solar water heater systems. The Town of Jasper has set aside funds for 20 solar energy systems and is offering rebates of \$500 for residents that successfully complete the installation.

In May 2004 the Town of Canmore introduced its *Residential ULF toilet rebate program*. This program originally offered a rebate low-flow (\$50) and dual flush (\$65) toilets. Eventually the program was increased to offer \$75 for low-flow toilets and \$100 for dual flush models. The cap for the program

was \$60,000 and was since depleted in May 2009. Additional funding has not yet been approved for further continuation of the program.

Okotoks introduced a water and energy rebate program in the fall of 2008 to encourage and reward residents for replacing their old water guzzling toilets and appliances with water and energy efficient models. Residents were offered a \$50 rebate up to a maximum of \$100/household. The total project funding was \$20,000, with rebates offered on a first-come-first serve basis. As of June 2, 2009 Okotoks reported that all of their funding had been used. Rebates covered clothes washers, dishwashers, refrigerators, and low-flush toilets. Based on their quarterly report, the following rebates were ranked from highest to lowest demand in terms of popularity:

1. Low-flush toilet
2. Clothes Washer
3. Dishwasher
4. Refrigerator

Response Options

- 1) Council may choose not to expand or discontinue parts of the current residential incentive program, or to select a few of the residential incentive options proposed.
- 2) Council may choose not to revise the commercial environmental incentive program, or select a few of the options proposed.
- 3) Council may choose to take no action and continue with the current program.

IMPLICATIONS OF DECISION

Budget

A total of \$119,978 was originally available. To date, \$55,882.75 remains for the use of the environmental incentive program. Currently, this is a non-replenished fund. Therefore, once the allocated amounts are depleted, approval would be required from Council for additional funding.

Typical Costs & Suggested Incentives

1. a) (Discontinue low flow toilet rebate)
- b)(Discontinue energy audit rebate)
- c)(Discontinue water conservation kit)
- d) High Efficiency Refrigerators (Energy Star)
Average purchase cost to homeowner: \$1,000 – \$3,000
Proposed Incentive: \$200 (average of 10% of cost) post purchase rebate
- e) Energy Star Windows and Doors
Average purchase cost to homeowner: \$300-\$500 (Window) \$300-\$600 (Door)
Proposed Incentive: \$50 post purchase rebate
- f)Water Heater Insulation Blanket
Purchase Cost: \$35 per unit
Proposed Incentive: \$5 each to residents, upon order

g) Solar Domestic Hot Water System
 Average purchase cost to homeowner: \$6,000-\$7,000
 Proposed Incentive: \$650 post installation rebate

2. a) (Discontinue low flow toilet rebates)

b) Energy Star Windows and Doors
 Average purchase cost to property owner: \$300-\$500 (Window) \$300-\$600 (Door)
 Proposed Incentive: \$50 post purchase rebate (maximum \$5,000)

c) (Discontinue pre rinse spray valves)

Internal Resources

The rebates could continue to be administered by the Administrative Assistant for Planning and Engineering, in conjunction with the Building Inspector and / or Administrative Assistant for Operations who verify proper disposal of the replaced toilet

Communication

To raise awareness of the changes to the program, the following tactics would be used:

- A flyer inserted with the July utility bill (with consideration for future bills depending on program uptake)
- A notice placed on the Town's Public Information Page
- A feature box announcing the new program at www.banff.ca (in addition to independent web pages detailing how the program works)
- Information distribution to the Banff Crag & Canyon, Rocky Mountain Outlook and via Rocky Mountain FM
- Information distribution via Banff Lake Louise Tourism's Highpoints publication, via the Small Business Association and through the Hotel/Motel Association

Banff Community Plan

The new Banff Community Plan includes the goal "Minimize energy and water consumption across the community", and promotes as Indicators of environmental success [reduced]:

- *Water consumption community-wide*
- *Energy usage within Town of Banff facilities*
- *Energy consumption community-wide*

Council Strategic Priorities

Council Strategic Priorities for 2009-2010 include "reducing greenhouse gas emissions for municipal operations and the community" and "minimizing energy and water consumption across the community"

Legislation/Policy

The promotion of water and energy efficiency measures is in line with the Local Action Plan *For Addressing Energy Management & Greenhouse Gas Emissions* adopted by Council in 2003.

CONCLUSION

Most of the Town's environmental rebate programs have proven popular, but this program benefits from regular review. The federal ecoENERGY retrofit program was recently cancelled. With approximately \$55,000 remaining in the original allocation, the Town is still in a good leadership

position to offer more financial incentives for participation in more environmental programs with respect to water and energy use efficiency. Revising the incentive program to include the variety of options listed previously, will not only increase the opportunities for community water and energy savings, but continue to enhance the environmental profile of the Town.

ATTACHMENTS

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Submitted By: Whit Anthes

Reviewed By: Robert Earl, Town Manager