PRIMER 6 Rebates & Capacity Buy-Backs

P6

water savings	revenue risk	ease of use	cost
moderate	moderate	moderate	moderate

How can rebates and capacity buy-backs benefit WDM in your Municipality?

Rebates and capacity buy-backs offer incentives for residents, businesses and/or industries to engage in desired water use reduction behaviours.

They are typically designed to offset the often high costs involved in upgrading to more efficient water fixtures (e.g. toilet installations) and other water conservation-oriented technology (e.g. large volume rainwater harvesting systems).

Rebates are most effective when the value of the financial incentive is high enough to influence customers to purchase a product they would not normally have purchased. Capacity buy-backs typically involve a water audit and assistance with evaluating the best retrofits for improved water efficiency.

How effective are rebates for Water Demand Management?

There is some concern that rebates have reached a saturation point among today's consumers, and will therefore have diminishing returns as part of a water demand management strategy. Several existing programs have shown long-term sustained success, including:

- York Region – over 35,000 Water Sense toilets had been purchased under their rebate program as of December 31, 2010[1];
- Region of Waterloo – 29,282 toilets have been rebated through the program during the last five years, with estimated cumulative water savings of 4,866 m^3 per day[2].

Even when saturation for a rebate occurs, it is important to see rebates as part of a larger suite of water demand management activities. With social research on consumer use and satisfaction with rebates, rebate programs can be adjusted, eliminated or new ones launched to promote behaviour change, as best fits the changing needs of each municipality.

Funding rebate programs through partnerships

Rebate programs can have high start-up costs due to the need for computer tracking systems, communication materials, administrative personnel and space, and banking procedures for the rebates. One way to offset these costs is to explore partnership opportunities. Part of the funding for Guelph's Smart Wash Rebate Program, which offers an incentive of $100 for purchasing water and energy efficient washing machines, comes from Guelph Hydro Electric Systems Inc. This type of partnership between water and electric utilities could serve as a model for co-funding other rebate programs and other water demand management activities.

What is a "capacity buy-back"?

A term borrowed from electrical utilities, capacity buy-back programs allow water utilities to buy back (through rebates and financial support) water capacity that has been freed up in industry, commercial or institutional systems through retrofits that permanently reduce their water use. Water audits and assistance with identifying suitable and best-practice retrofits are often provided.

[1] York Region. (2011). *Long Term Water Conservation Strategy.*

[2] Region of Waterloo (2012). *Water Efficiency Master Plan Progress Report 2007-2011.*

Guelph's ICI Capacity Buyback Program provides financial assistance for conducting water audits and capital retrofits.

As the first institution accepted under the program, the University of Guelph conducted a water audit on 17 buildings in 2007. The total cost of the chosen retrofits was $353,000 and the University was given a one-time incentive from the Capacity Buyback Program of $93,570. The annual water savings for Guelph were 113, 844 m^3/year, with a net annual operating savings of $182,150 per year. The payback on the investment was 1.28 years.

In York Region, water audits to identify water-saving opportunities are provided free of charge to industry, businesses and institutions. Regional staff provide a comprehensive report on activities and strategies that can be taken to improve water efficiencies based on the results of the audit. Approved applicants are eligible for a one-time financial incentive of $0.30 per litre of water saved per average day, or 50 per cent of the total capital cost of the retrofit up to a maximum of $50,000 once the capital retrofits have been implemented.

Case Study

Building on the Royal Flush: Water Conservation Rebates in Guelph

Population (2011): 121,688
Density: 1,395.4/km^2
Number of Meters/Services (2011): 40,032
Water Supply: Groundwater

Guelph's first rebate program focusing on water conservation began with the Royal Flush Toilet Program in 2003 (currently a $75 rebate for WaterSense-approved models). The city's rebate offers have grown to include:

- $100 for replacing top-loading washing machines with front-loading ENERGY STAR® models;
- $60 for installing a waterless floor drain
- trap device in a home;
- $30 or $70 for replacing furnace-mounted humidifiers with a new approved model;
- Up to $2,460 one-time rebate for choosing a Blue Built Home;
- $1000 for installing an approved greywater reuse system; and
- $2000 for installing an approved rainwater harvesting system.

Wayne Galliher, Water Conservation Program Manager at the City of Guelph, says the following practices have worked well in achieving success in Guelph's rebate programs:

Wayne Galliher, City of Guelph

- Instant toilet rebate events at local retailers;
- Point of sale based marketing material; and
- Increasing knowledge among local contractors, who can then serve as ambassadors for the program with the public and endorse the products to their clientele.

Galliher's closing words of advice are "be out there and be visible" and "partnerships – with local retailers and contractors – are key.

Porcelain Mountains: Integrating Rebates and Waste Management Streams

Wayne Galliher, Water Conservation Program Manager at the City of Guelph, reminds us that in implementing rebates it is important to look at the program in a broader context and how it affects other systems.

When widespread retrofits are effective, the next question that is raised is what is happening to all of that waste? Effort needs to be put into understanding how a rebate program – and resulting retrofits – will affect waste streams (e.g. porcelain toilets), and how those increases can be addressed.

Case Study

Long-Standing Rebate Program: Region of Waterloo's Toilet Replacement

Population (2011): 507,906
Density: 370.4 people/km^2
Water Supply: 75 per cent groundwater, 25 per cent surface water

The Region of Waterloo has the longest standing toilet rebate program – launched in 1994 – in the Grand River watershed. Since then, the program has provided 73,778 rebates to residential and business property owners, and there are still more 13 litre toilets in circulation that the program is targeting.

Steve Gombos, Region of Waterloo

Steve Gombos, Water Efficiency Manager at the Region of Waterloo, notes that the program has matured since the launch of the program, and attributes its success to three key factors:

1. Educating retailers and plumbers – specifically demonstrating that the toilet technology actually works, to the right level of customer satisfaction;
2. Building awareness through education and outreach each year, such as:
    - Plumbing education events;
    - Demonstrations of "the good, the bad, and the ugly" toilet technology;
    - Newsletters to the public;
    - Communications and advertising;
    - Engaging schools; and
3. Tracking awareness and public opinion – especially how individuals hear about the program.

He also stresses the importance of market research to ensure that the rebate program adds value to existing programs and is not made irrelevant if market trends indicate behaviour will be changed in that direction anyway without the rebate. Ultimately, Gombos advises to "keep the administrative cycle simple, but keep it honest. Start as a pilot – evaluate – and change if necessary or eliminate".

Resources:

- Guelph water conservation rebates and ICI Capacity Buy-Back programs: http://www.guelph.ca/living.cfm?itemid=78890&smocid=2338
- Region of Waterloo's toilet replacement program: http://www.regionofwaterloo.ca/en/aboutTheEnvironment/Conservation2.asp
- Alliance for Water Efficiency: http://www.allianceforwaterefficiency.org/resource-library/default.aspx#
- York Region's Capacity Buy-Back Program: http://www.waterfortomorrow.ca/en/atwork/industry.asp?_mid_=21370

The Water Demand Management Primer series was developed in partnership with the following municipalities and partners:

Townships of Amaranth and East Garafraxa, Brant County, City of Brantford, Bridgewater Research, Township of Centre Wellington, Dufferin Water Services, City of Guelph, Town of Grand Valley, Grand River Conservation Authority, Guelph-Eramosa Township, City of Kitchener, LURA Consulting Ltd., Township of Mapleton, Neeb Engineering Inc., Oxford County, POLIS, REEP Green Solutions, Township of Southgate, Region of Waterloo, City of Waterloo and Wellington County.

This project was undertaken with the financial support of the Government of Canada through the Federal Department of the Environment. This project has received finding support from the Government of Ontario. Such support does not indicate endorsement by the Government of Ontario of the contents of this material.