



Leaders at the Core of Better Communities

2010 Annual Awards Program

Program Excellence Awards Nomination Form

Deadline for Nominations: March 12, 2010

Complete this form (sections 1 and 2) and submit with your descriptive narrative.

SECTION 1: Information About the Nominated Program

Program Excellence Award Category (*select only one*):

- Community Health and Safety
- Community Partnership
- Community Sustainability
- Strategic Leadership and Governance

Name of program being nominated: Landfill Methane Recovery Program

Jurisdiction(s) where program originated: City of Arlington

Jurisdiction population(s): 365,000

Please indicate the month and year in which the program you are nominating was fully implemented. (Note: All Program Excellence Award nominations must have been fully implemented by or before January 31, 2009, to be eligible. The start date should not include the initial planning phase.)

Month: January Year: 2009

Name(s) and title(s) of individual(s) who should receive recognition for this award at the ICMA Annual Conference in San José, California, October 2010. (Each individual listed MUST be an ICMA member to be recognized.):

Name: Jim Holgersson

Title: City Manager Jurisdiction: City of Arlington, TX

Name: Dale Fissler

Title: City Manager Jurisdiction: City of Fort Worth, TX

Name: _____

Title: _____ Jurisdiction: _____

SECTION 2: Information About the Nominator/Primary Contact

Name of contact: Bob Byrd
Title: Deputy City Manager Jurisdiction: City of Arlington, TX
Street address: 101 W. Abram
City: Arlington State/Province: TX
Zip/Postal Code: 76010 Country: USA
Telephone: (817) 459-6105 Fax: (817) 459-6410
E-mail: bob.byrd@arlingtontx.gov

The City of Arlington Landfill Methane Recovery Program is submitted as a nomination for the 2010 Program Excellence Award under the category of Community Sustainability Awards

Background

The genesis the of landfill methane program reaches back to the 1990's when the City of Arlington's Mayor and City Council made the decision to move forward with the extensive and expensive upgrades to the landfill facility to comply with federal RCRA standards that had been passed through to the individual states. Part of the regulations required a comprehensive program to address methane emissions, a potent greenhouse gas.

The recovery system required to address methane emissions is, by its very nature, expensive. As the City of Arlington moved forward to comply with RCRA, it began to actively explore possible cost sharing partnerships for the methane program. The effort manifested itself in the marketing of the landfill's methane gas rights. The City was willing to consider signing over the landfill gas rights to a viable business or investor that would financially participate in the development of a recovery system.

After a number of attempts with other national methane gas brokers, an agreement was reached between the City and Renovar Energy Corporation of Midland, Texas. Renovar agreed to install the well system, furnish and install a compression/flare station, and market the methane gas to an end user. This removed the financial burden from the City while allowing full compliance with federal and state regulations. This agreement was ratified by the Mayor and City Council in 1999, with a savings to the City of Arlington of over \$3 million. Subsequently, Renovar found an end user, the Village Creek Sewage Treatment Plant, operated by the City of Fort Worth, and constructed a 3 mile pipeline to transport the gas. At the Village Creek Sewage Treatment Plant, the gas is used as a supplement to natural gas in daily operations. Transportation of the methane gas between the landfill and the sewage treatment plant began in 2005 and has continued since that time.

Overcoming Barriers and Obstacles/Lessons Learned during the Implementation of the Program.

The agreement with Renovar has changed over the years. In 2003, the City of Arlington began and successfully completed a State of Texas permit amendment that vertically expanded the landfill, and increased the life expectancy over 20 years. This presented a challenge with the methane gas rights and the Renovar agreement.

Like any landfill, methane production increases as time goes on, peaks, and eventually loses marketability. At the time the agreement with Renovar was reached, the expected closure date of the landfill was 2007. The additional 20 years of landfill required a change by Renovar to their business model, and the City worked with Renovar to re-craft the agreement, extending the gas rights into the time frame of 2025.

Another challenge was the lease of the landfill by the City of Arlington to Republic Industries in 2005. In dealing with the complex lease agreement, several options were available. In the end, the contract for the gas rights remained with the City of Arlington and Renovar.

A test of the adaptability of the recovery program occurred as Republic began the vertical expansion authorized by the permit amendment. Recovery wells, owned and operated by Renovar, were in the path of the expansion. Accordingly, the City worked with Renovar to move and deepen the wells required for expansion; in exchange, the City pledged partial financial support for the installation of an additional gas collection header to handle the increase in methane quantities generated by the expansion.

Over the last year and a half, the City worked with Renovar to qualify for and obtain carbon credits for the project. Through this joint effort, the Chicago Climate Exchange certified carbon credits offsets and accepted the offsets for trading on the Exchange. The 1999 agreement with Renovar was structured in a manner that provided a 50/50 sharing of any financial benefit realized by the project. Little was known about what type of benefit this might have been at the time, but the City had the foresight to address the sharing arrangement in the agreement. The sale of the credits provided the funding for the City portion of the collection header expansion, a considerable savings to rate/tax payers of Arlington.

The manner in which the City addressed the expansion; the lease; and the certification, acceptance, and sale of carbon credits on an international exchange speak positively to the flexibility and adaptability of the methane recovery program.

Both Republic and the City of Arlington are currently considering another expansion of the landfill facility. As a result of the work and accomplishments in addressing issues that arose during the initial expansion, we have involved all parties in the early stages of the planning effort. The City anticipates that the lessons learned from the navigation of issues that were encountered with the first expansion will save both time and money as the second expansion moves forward.

Program Results

The program is responsible for a significant reduction in the carbon foot print of the City. Since inception, the program has recovered and removed over 1, 817,101,136 cubic feet of methane from the Arlington Landfill. The following table depicts the environmental benefit in everyday, tangible elements:

	2005	2006	2007	2008	2009	Totals
CO2 metric tons	100	188,537	188,130	163,601	194,561	734,927
CO2 from passenger vehicles per year	19.2	36,049	35,971	31,281	37,201	140,521
CO2 from gallons of gas consumed per year	11,289	21,207,422	21,161,927	18,402,839	21,885,432	82,668,935
CO2 from barrels of oil consumed	233	438,451	437,511	380,468	452,469	1,709,132
CO2 from electricity used by homes per year	13	24,485	24,432	21,247	25,268	95,445
Carbon sequestered annually by acres of pine forest	21.4	40,199	40,113	34,883	41,484	156,701

Additionally, all parties, the City of Arlington, Renovar, and the City of Fort Worth, can legitimately lay claim to a program that environmentally and financially benefits over 1,000,000 residents in Arlington and Fort

Worth, while providing a viable and robust green business opportunity for the private sector to bring a supplier and an end user together.

On April 15, 2004, the Environmental Protection Agency designated nine North Central Texas counties as Nonattainment for Ozone (8-hour Ozone Standard). While the Metroplex area's main source of air pollution results from mobile sources, methane recovery at the Arlington landfill serves as an example of a project that can remove significant quantities of green house gas from the atmosphere. Behind enteric fermentation, landfills rank as the second highest source of methane emissions in the United States. Since inception, the project has prevented the release of the equivalent of almost three quarters of a million tons of CO₂.

The City's landfill serves as a regional resource for the regulated, safe, and efficient disposal of residential and commercial waste. While some in the green industry tend to look unfavorably on landfills, Arlington's facility consistently receives high marks in the City's Citizen Satisfaction survey. The facility scored a user rating of 90.9% excellent/good in the survey completed in December 2009 by Decision Analyst. The methane recovery system plays an important role in the positive user perception of the landfill.

The program promotes environmental excellence by providing an outstanding example of environmental stewardship for other cities and the general public as well. The program and all partners received national attention as the winner of the 2003 EPA Landfill Methane Outreach Program (LMOP) of the Year award. Given the right economic and business conditions, the program can be replicated on either a larger or smaller scale by other municipalities.

General Information

The project is administered by the City of Arlington, in full partnership with the City of Fort Worth, and the Renovar Energy Corporation of Midland, Texas. The ongoing project clearly demonstrates the durable nature of the program and the benefits to each of the partners. Carbon Credits from the program are marketed on the Chicago Climate Exchange by Renovar in partnership with Element Marketers of Houston,

Texas. The program, including the certification and sale of resultant carbon credits was in place and fully operational/implemented by January 31, 2009.

The program has decreased the reliance and moderated the volatility of natural gas prices for Fort Worth's Village Creek Sewage Treatment Plant, while providing Arlington cost avoidance on system installation and maintenance leading to lower residential trash collection and disposal rates. The methane recovery program strikes a balance in avoiding system maintenance and expansion costs, meeting the environmental needs of the City and the region, and allows the landfill to continue to serve, for the foreseeable future, as a significant general fund revenue source for Arlington. Through technology, the mechanics of the program are fully automated, reducing the need for full time staffing to continually monitor system performance.

Summary

Initially, the program involved a significant degree of risk taking by the City. The concept of an exchange of gas rights for system installation and on-going maintenance activity was relatively new to the solid waste industry and a very different concept to local government at the time of the agreement. The parties involved worked tirelessly to make the agreement a reality and have worked to keep the program vibrant and intact.

The agreement amendments, the certification and sale of carbon credits continue to use the landfill as an ongoing resource for both economic and environmental benefits to residents. Ongoing cost avoidance to rate/taxpayers totals in the millions of dollars, and will grow as the program continues.

The program is a testament to the versatility of the council-manager form of government, and fully conforms to the ICMA Core Beliefs. The City of Arlington is proud of the program and related accomplishments and appreciates the opportunity to submit the program as a nomination for the 2010 Annual Awards Program.