

NewGen *NEWS*

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Feature Article: Commercial Food Waste Collection in the Houston-Galveston Area Council Planning Region



A cost effective and efficient approach to food waste diversion could substantially impact overall recycling rates within the United States, as well as in the Houston-Galveston Area Council (H-GAC) planning region in Texas. The H-GAC assists with municipal solid waste and recycling planning for a 13-county region that is home to over 6 million people.

To identify how commercial food waste diversion could be increased using a voluntary and collaborative approach with the private sector, H-GAC partnered with NewGen Strategies and Solutions, LLC (NewGen), and its subcontractor Risa Weinberger & Associates, a composting consultancy, to conduct a feasibility study. The H-GAC study primarily focused on coordinating future food diversion initiatives between commercial generators, collectors, and processors in the Greater Houston area. The figure below outlines participant categories in those three sectors.



MAJOR FINDINGS

NewGen's initial goal was to gauge the feasibility of establishing a commercial food waste diversion program in the H-GAC region and identify entities motivated to participate. Several generators were already engaged in successful food waste reduction efforts in the community, and many others desired a more comprehensive and robust food recycling network. Composting infrastructure for some food waste streams existed. The following is a summary of the major findings of the feasibility study.

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GENERATORS

- **Some grocery stores and commercial food processors in the H-GAC region are currently active in food waste diversion.** Several commercial entities, such as Whole Foods Market, already donate excess, edible food to local area food banks and pantries, and some are also actively diverting food waste to composting facilities when it is not fit for human consumption.

The Houston Food Bank is currently the nation's largest food bank where nearly 73 million pounds of food are received annually from grocery stores, retailers, and distributors. This provides approximately 50 million meals to those in need on an annual basis. Unfortunately, canned items or damaged food products that cannot be distributed for human consumption are currently landfilled. There is a desire to compost the food waste, however constrained staffing levels limit the entity's ability to manually extract food and subsequently set it aside for compost processors.

- **Restaurants are not typically large generators of preconsumer food waste.** Preconsumer food waste at a restaurant is any waste generated during meal preparation. Preconsumer food waste may come from over-purchasing, spoilage, contamination, and food preparation (e.g., vegetable and meat trimmings). Most surveyed restaurants generate less than a 60- or 90-gallon cart of preconsumer food waste per day.
- **Many businesses that already participate in a food waste program do so because of their dedication to sustainable practices.** To motivate other commercial businesses to recycle organics an economic incentive is needed. Such encouragement requires low composting processing fees, competitive collection rates (vs. traditional solid waste collection), and sufficient room for the food waste collection containers.



COLLECTORS

- **One of the biggest barriers to a more active commercial food waste program is the lack of food waste collection companies in the H-GAC region.** Currently, some national and smaller solid waste collection companies provide limited collection services related to food waste. However, due to low route densities, collection via these haulers is not actively promoted as a service to their customers. This oftentimes results in a higher rate charged to the customer than if

standard solid waste collection service is being provided.

- **Building designs and layouts at commercial businesses (primarily restaurants) can present challenges because some locations have limited room for food waste collection containers, or existing enclosure laws make it difficult to create room for additional carts.** Some cities have addressed the issue with ordinances that require sufficient room for food waste containers prior to new construction permitting. Other entities have addressed this challenge with increased frequency of collection and/or revisiting their waste stream to determine whether food waste containers can potentially reduce the number of solid waste carts or dumpsters on site.



PROCESSORS

- **The three major private composters in the Houston area (Living Earth, Nature's Way and New Earth) emphasized the benefits of food waste in the composting process.** It provides a high concentration of nitrogen, which accelerates the composting process. Composting can be a water intensive business, and because food is largely comprised of water (60-80%), it minimizes

the need for additional water sources. In 2011, during one exceptionally dry year in Texas, one composter pumped over four million gallons of water from its well to facilitate the composting process. By including more food waste, this composter would be able to reduce its use of potable drinking water.

All three private processors expressed a desire to obtain more feedstocks; however, the type of feedstock available to the processors depends on their Texas Commission on Environmental Quality (TCEQ) certification. As a result, certain processors are only able to accept vegetative food waste, while others can also accept meat, fat, and dairy by-products. All processors overwhelmingly agree that preconsumer waste is preferred to postconsumer waste due to contamination and quality issues inherent in postconsumer food waste.

Feature Article cont.

The estimated excess composting capacity available to accept and process food waste in the H-GAC region is, at a minimum, an additional 85,000 to 95,000 tons per year.

IDENTIFYING PRIORITIES

Staff at H-GAC, the cities of Houston and Sugar Land, and NewGen strategized the next steps to meet the short-term and mid-term initiatives as listed below. Future efforts regarding this study will focus on implementing the following recommendations:

Short-Term Initiatives (first 12-months)

- Offer a quarterly commercial food waste roundtable focused on implementing recommendations of the study.
- Coordinate education and outreach, including development of training materials for food waste generators.
- Clarify materials accepted by processors.
- Discuss potential consideration for a tiered-rate structure for incoming food waste with composting facilities.
- Focus initial food waste diversion on commercial food processors, wholesale food distributors, and retail grocery stores.
- Pursue food waste on "Produce Row."
- Follow up with collection companies that currently collect solid waste or recyclables and inquire whether they would consider expanding their collection services to include food waste.
- Begin development of a geographic information system (GIS) database of food waste generators, collectors, and processors in the H-GAC planning region.

Mid-Term Initiatives (13-months to 36-months)

- Coordinate food waste diversion programs with restaurants.
- Explore food waste diversion to farms.
- Develop model ordinances for use by local governments to incentivize or mandate food waste diversion from landfills by selected generators or haulers.

The full report related to this study is available here: <https://www.h-gac.com/community/recycling/documents/CommercialFoodWasteCollectionStudy2015.pdf>.

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ENERGY INSIGHTS

Boulder, Colorado Looks to Settle Municipalization Efforts While Hawaiians Push for Local Ownership

After Boulder, Colorado voters initially approved of the City's pursuit of a municipal utility in 2011, Boulder began the actual regulatory PUC process of creating the City-owned utility in 2015 and acquiring Xcel Energy's assets within and outside the City's boundaries. However, on June 8th, Boulder announced they are in discussions with Xcel Energy about a possible settlement, with a potential ballot measure for voters to approve a new franchise agreement with Xcel Energy in November 2016 or 2017.

While Boulder may halt their municipalization pursuits, the Hawaiian Islands may be the next to pursue greater local control of their electric utility. The often uncertain NextEra acquisition of the Hawaiian utility HECO was finally rejected by the Hawaii PUC in mid-July, and the State has set aside more than \$1 million to evaluate alternative utility models and possible municipal or cooperative ownership structures. The possible alternative models or ownership structures must manage aggressive renewable goals, high conventional fuel costs, high customer DER penetration levels, and environmental reluctance to support LNG imports, all while keeping costs in control for customers.

NewGen Teams with the Committee of Chief Risk Officers to Provide Risk Management Consulting Services

NewGen is excited to announce that it is now teaming with the Committee of Chief Risk Officers (CCRO) to form the CCRO for Public Utilities. This new working group will begin meeting in late 2016. We anticipate that the CCRO for Public Utilities will eventually begin writing the risk policies and procedural standards papers similar to the papers currently published by the CCRO. Meetings will be held at NewGen offices in Denver, Dallas, or Austin. Current members include CPS Energy, AMP, and Tacoma Light and Power. Please contact Michael Lane (mlane@newgenstrategies.net) at NewGen if you are interested in joining this working group.

ENERGY PROJECT HIGHLIGHT

Depreciation Study

Los Angeles Department of Water and Power

NewGen was recently awarded a contract to perform a depreciation study for the power division of Los Angeles Department of Water and Power (LADWP). LADWP is the largest municipal electric utility in the U.S. serving 1.57 million electric meters. As municipal electric utilities join regional energy markets, they will be subject to regulatory rules for developing revenue requirements similar to investor-owned utilities which place more focus on depreciation than the cash-needs approach typically used by municipal utilities to determine rates. Developing accurate, detailed depreciation rates consistent with FERC and state commission approved practices in support of transmission revenue requirements supports the defensibility of filings and eventual cost recovery.



WATER, WASTEWATER, AND STORMWATER INSIGHTS

American Water Works Association Releases 2016 State of the Water Industry Report

The American Water Works Association (AWWA) recently published the annual State of the Water Industry Report. Timely and consistent repair and replacement of infrastructure continues to represent one of the biggest issues faced by the industry. Rounding out the primary issues identified this year includes financing capital improvements, the ability to recover the utility's cost of service, and public acceptance of the rate increases necessary to provide the required monetary resources. Possibly the most alarming result of this year's report is that "nearly one-third of the utilities in the response sample are struggling to cover the full cost of providing services, including infrastructure R&R and expansion needs, through customer rates and fees." Now more than ever it is critical for utilities to engage with their customers and key stakeholders and educate them on the vital nature of water and wastewater service and the associated cost with providing this critical service.

Internal Revenue Service Proposes Rule to Clarify Definition of Political Subdivision

The Internal Revenue Service (IRS) recently proposed rules to refine the definition of a political subdivision as it relates to the issuance of tax-exempt debt. Under the proposed rule, for an entity to be considered a political subdivision, it must demonstrate sovereign power, governmental purpose, and governmental control. The proposed rule has potential, far-reaching implications on the capability of various entities to continue to issue tax-exempt debt. At the time of this publication, the public comment period has ended and a hearing has been held by the IRS on this matter, but no additional information on the agency's next steps is available. NewGen will continue to follow this rule-making and provide updates as they become available.

Texas Commission on Environmental Quality Implements HB 1

The Texas Commission on Environmental Quality (TCEQ) has adopted changes to the Public Health Services (PHS) Fee. These changes are in response to HB 1 adopted in the 84th Session of the Texas Legislature, which directed the TCEQ to increase fees by rule to ensure sufficient resources are available for the organization's water programs. The Fee has been increased as indicated below. Utilities should carefully consider these increases as they prepare for expenditures in the upcoming fiscal year.

- Increase Tier I (fewer than 25 connections) from \$100 to \$200;
- Increase Tier II (25 – 160 connections) from \$175 to \$300; and
- Increase Tier III (over 160 connections) from \$2.15 per connection to \$4.00 per connection.

WATER, WASTEWATER, AND STORMWATER PROJECT HIGHLIGHT

State Water Implementation Fund for Texas Assistance

Waco Water Utilities

NewGen recently assisted Waco Water Utilities in requesting \$12 million in funding under the State Water Implementation Fund for Texas (SWIFT) for implementation of Advanced Meter Infrastructure (AMI). The new AMI system will allow the City to facilitate a reduction in the City's water loss, allow customers real-time access to their water consumption, and allow the City to implement acoustic leak detection throughout its distribution system. By utilizing the SWIFT program through

the Texas Water Development Board, the City is projected to save over \$1.5 million as compared to traditional bond financing mechanisms. The City's application is under final consideration by TWDB and is anticipated to be approved within the coming months.



SOLID WASTE AND RECYCLING INSIGHTS

Institute of Scrap Recycling Industries: Paper from Mixed Waste Recycling Facilities is Not Desired

In a survey just released by the Institute of Scrap Recycling Industries (ISRI), there was a clear preference for purchasing recovered fiber from non-mixed waste facilities. ISRI released findings from its survey in early June; 41 industry representatives showed that more than 75% of buyers avoid purchasing paper from mixed-waste recycling facilities. Of those respondents that do purchase some paper from mixed-waste facilities, 70% of them said the quality was worse than most other recovered paper they had purchased. In mixed-waste processing systems, garbage and recyclables are collected in one bin, and facilities strive to separate out the marketable material. ISRI has formally opposed mixed-waste processing facilities in the past. Several municipalities in the U.S. have discussed moving to such facilities recently, but many in the recycling industry are strongly against them. In February, Indianapolis said it would suspend its plan to retain Covanta to build a \$45 million mixed-waste processing facility to handle the city's waste. Houston, who had been "considering" the idea of mixed-waste, instead renewed its contract with Waste Management for single stream recycling for a minimum of a two-year period.

Association of Plastic Recyclers Provides Funds to Flint, Michigan

More than \$20,000 was provided by the Association of Plastic Recyclers (APR) to the City of Flint, Michigan to start a short-term plastic bottle reclamation program, where residents have been generating a significant number of plastic bottles due to the lead-water crisis. The goal is to raise a total of \$75,000 to fund the program. Funding will be used to help cover the costs of education, bags for collection, trailers and containers, and

Solid Waste and Recycling Insights cont.

transportation related costs. Companies and individuals wanting to support the effort can contact Kerrin O'Brien the Executive Director of the Michigan Recycling Coalition at kobrien@michiganrecycles.org.

Solid Waste Association of North America National Conference in Indianapolis (August 22-25, 2016)

If you have not made your reservations yet, the national conference and trade show for the Solid Waste Association of North America (SWANA) will be taking place August 22-25 in Indianapolis. This conference is widely recognized as the premier solid waste and recycling conference to attend, that brings the latest with regard to trends in the industry, education, new products and technology. This will be the 54th Annual WASTECON Conference. Don't miss it!

SOLID WASTE AND RECYCLING PROJECT HIGHLIGHT

Solid Waste Workshops

North Central Texas Council of Governments

NewGen was retained by the North Central Texas Council of Governments (NCTCOG) to conduct two, ½-day workshops on two topics that are relevant to local solid waste officials. (NCTCOG serves a 16-county region encompassing the Dallas/Fort Worth Metroplex, and provides solid waste planning grant funds, as well as planning and training assistance to local government officials involved in the solid waste and recycling industry.)

On Tuesday July 26, 2016, Mr. Yanke, President - Environmental Practice, conducted a 3-hour training session on Full Cost Accounting for Municipal Solid Waste Services. In this session he addressed the process for accurately capturing all cost data for a city's solid waste utility (operating and capital costs), and establishing rates that identify the costs for the provision of each solid waste and recycling service.

Another three-hour training session was held on Food Waste/Organics Reduction, Collection, and Diversion. It is estimated that less than 5% of all food waste that can be diverted from landfills is actually being diverted. This session discussed findings from a recent study completed for the H-GAC (see feature article), and strategies for successfully diverting commercial food waste for beneficial reuse in the Dallas/Fort Worth Metroplex. The workshops were conducted at NCTCOG's offices in Arlington, Texas. (Copies of the training materials can be obtained by contacting Mandy Sines msines@newgenstrategies.net.)



RECENT HIRES

Karen Weeden, Executive Consultant

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Karen Weeden joined NewGen as an Executive Consultant in March 2016. Karen comes to NewGen with more than 16 years of experience, having previously served as a Senior Rate Analyst at Missouri River Energy Services. Karen has extensive experience with cost of service, rate design, and financial analysis for utilities.

Scott Burnham, Executive Consultant

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Scott Burnham joined NewGen as an Executive Consultant in April 2016. He offers over 18 years of experience in the areas of project management, cost of service and rate design, asset valuation, and financial feasibility analysis. Scott leads efforts to create financial models that develop revenue requirements, cost allocation, financing strategic capital and operating objectives, and rate structure alternatives, ensuring our clients have reliable and defensible results. He has developed and reviewed pro forma financial models to determine projected revenues and costs associated with various projects and financing approaches for a variety of power generation facilities. Scott is well-versed in cost allocation theories and methodologies, rate design concepts and approaches, and providing summary analyses and recommendations to industry clients.

Scott co-leads the semi-annual Cost of Service and Rate Design class through EUCL, an industry conference organization, which are routinely attended by all types of utility stakeholders.

Andy Reger, Senior Consultant

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Andy Reger joined NewGen as a Senior Consultant in July 2016. Andy has seven years of experience in the energy industry. His prior work has focused on cost of service and rate design, distributed energy resource market analysis with an emphasis on rooftop solar, solar rate design, integrated resource planning, and load forecasting for utility clients.



CONFERENCES AND SEMINARS

Texas Public Power Association Annual Meeting - July 2016

NewGen team members attended the Texas Public Power Association's (TPPA) Annual Meeting. NewGen representatives also led two speaking sessions while in attendance.

- *Risk Mgmt/ERCOT Compliance Issues* presented by Mike Lane and Bob Anderson (CCRO)
- *Financial Planning and Budgeting* presented by Mike Lane and Max Bernt

Panhandle Chapter of the Government Finance Officers Association of Texas - July 2016

Chris Ekert spoke to the Panhandle Chapter of the Government Finance Officers Association of Texas on July 22nd. Chris provided a *Regulatory and Legislative Update for Water and Wastewater Utilities in Texas*, with specific emphasis on ongoing rule-making at the Public Utility Commission applicable to water and wastewater utilities.

Texas Association of Assessing Officers Annual Conference - August 2016

NewGen will have a booth at the Texas Association of Assessing Officers & Institute of Certified Tax Administrators Annual Conference to be held in Galveston, TX. This event is considered the "premier event" for all property tax professionals and we welcome you to booth #409 to chat with Mike Lane.

WASTECON 2016 - August 2016

Dave Yanke will be serving as a moderator at WASTECON 2016 in Indianapolis on Thursday, August 25th. Feel free to visit with him while he is at this national solid waste and recycling conference (August 22 – 25) if your schedule permits.

APPA Business & Finance Conference - September 2016

NewGen staff will be attending the APPA Business & Finance Conference. Additionally, Mike Lane and Max Bernt will serve as instructors for the *New Strategies in Financial Planning and Budget Modeling* pre-conference seminar.

NM Recycling & Solid Waste Conference - September 2016

Dave Yanke will present a *Full Cost Accounting & Solid Waste Rate Structuring* presentation during the Solid Waste Management session on September 28th.

STAR Recycling Summit 2016 - October 2016

NewGen will have a booth at the STAR Recycling Summit 2016 in San Antonio October 17-19. Come by our booth to visit with one of our consultants. Dave Yanke will be speaking on a panel titled "Are we expecting too much from MRFs?"



ANNOUNCEMENTS

NewGen is seeking a Municipal Solid Waste/ Recycling Consultant - Manager

NewGen is seeking to hire a consultant with 10 to 20 years of experience in the solid waste and recycling consulting industry. Applicants should have experience in the conduct of operational reviews, financial analyses, procurements, and/or solid waste planning. This position will have sales, managing and training responsibilities within our rapidly growing solid waste practice and report directly to the President of the Environmental Practice. For more information send your resume and/or questions to Dave Yanke at dyanke@newgenstrategies.net.

Office locations: Austin, Dallas, Denver, Nashville, Seattle. Working remote may be considered.