

## Alexandria Sanitation Authority (ASA)

### Energy Savings Performance Contract (ESPC)



The Alexandria Sanitation Authority's (ASA) main wastewater treatment facility is a 54 million gallon/day, high tech, wastewater treatment plant. The Authority had recently completed a \$250 million plant upgrade and, due to rising utility costs, was looking for additional energy cost saving measures.

The facility consists of 20 buildings measuring 708,495 square feet and used natural gas to operate the pasteurization flare involved in the wastewater treatment process. Con Edison Solutions, through its subsidiary, Custom Energy Services, successfully redirected the digester gas that is given off as a by-product of the wastewater treatment process to the pasteurization flare. This allows Alexandria Sanitation Authority to maintain their wastewater treatment process while still reducing natural gas costs.

Several of the facility's natural gas boilers were also upgraded. In addition to these natural gas boilers, two electric boilers were installed. The electric rates in the Alexandria area are such that it is cheaper to use electricity during off-peak hours than natural gas. By installing electric boilers, the Alexandria Sanitation Authority could take advantage of these off-peak electric savings.



#### PROJECT DATA

##### LOCATION

Alexandria, VA

##### CONSTRUCTION DATES

May 2008 to July 2009

##### CAPITAL COSTS

\$5,949,588

##### ANNUAL SAVINGS

\$308,495

##### ENVIRONMENTAL BENEFITS

546 tons of harmful greenhouse gas emissions reduced annually

Equivalent to:

- Preserving 3.5 acres of forest from deforestation\* or
- Conserving 1,151 barrels of oil\*

\*Sources:

- Leonardo Academy's Cleaner & Greener<sup>SM</sup> Emissions Reduction Calculator: <http://www.cleanerandgreener.org/resources/pollutioncalculator.html>
- U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator: <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

*“Custom Energy Services  
(a Con Edison Solutions company)  
has been an excellent partner  
in advancing our organizational  
goals for energy efficiency.*

*... Through each step of the audit  
and conceptual design, Custom  
Energy Services maintained a  
collaborative atmosphere and  
established efficient lines of  
communication with ASA.*

*... The concepts of energy  
auditing, design build, and  
performance contracting were  
new to ASA. Custom Energy  
Services kept this in mind and  
provided the correct amount  
of workshops, meetings, and  
walkthroughs to make sure ASA  
was keeping pace with the audit  
and design.”*

Paul Carbarry  
Director of Green Fields  
Alexandria Sanitation Authority



## PROJECT DATA

### Energy Conservation Measures

- Lighting System Upgrades
- Installing natural gas boilers
- Installing electric boilers for steam generation
- Modify pasteurization flare to burn digester gas
- Retrofit steam traps