

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 & GreenerSM 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