

# Integrated Renewable Energy



## Real World Renewable Solutions

Delivering more value through a comprehensive approach.

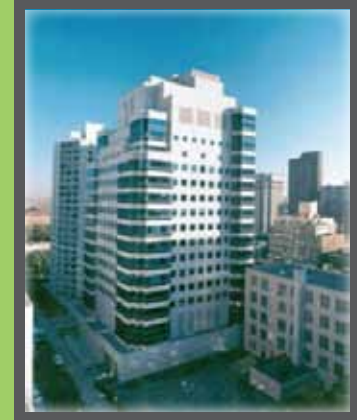


# New Energy Leadership

Since 1980, Lime Energy has worked in scores of building types, including high-rise office buildings, mixed-use complexes, manufacturing plants, retail sites, data centers, banks, sports complexes, large government sites, schools and hospitals.

Lime Energy is a leading provider of energy efficiency and renewable energy services. We evaluate, design, and install projects that dramatically save energy at client facilities, reduce operations and maintenance costs and improve building infrastructure and value.

Work is performed by our experienced staff of over 400 engineers, certified energy managers, technicians, construction and installation professionals. This broad range of experience in energy efficiency and renewable technologies and services assures the highest quality analysis, design and project installation.



## Power of the Platform

Lime Energy brings core competencies in designing and deploying comprehensive energy efficiency strategies coupled with energy supply technologies (both traditional and renewable) to our clients.

Our integrated platform is built on a strong foundation of strategic insight, technology experience, skilled solution design and proven implementation success.



Lighting



Energy Engineering



Weatherization



Water



HVAC/  
Mechanical



Renewables



On-Site Generation



Controls

Our program specific expertise, familiarity with the process, and command of state and federal incentive programs means Lime Energy offers a smarter, more comprehensive, and more knowledgeable approach to renewable projects that delivers on energy performance, managed risk, and increased incentives.

Lime Energy does not represent any one product or technology. We focus on delivery energy solutions that meet the specific needs of each customer. We specify from the universe of available options in order to provide the very best choices for building performance, maximized cost savings and return on investment.

# Renewable Expertise

Lime Energy combines our engineering, implementation and project finance experience and capabilities to provide energy asset development and management services to our customers who wish to benefit from renewable energy sources.

Lime Energy's highly regarded renewables development team has the technical experience to create economically viable renewable energy solutions.

Renewable energy sources include solar photovoltaics, solar thermal, geothermal, biomass, and recovery of landfill gas. Our technical depth coupled with alternative financial structuring offers clients the opportunity to benefit from renewable energy without the need for capital investment.

While renewable energy can supplement or completely provide a facility's energy requirements, Lime Energy typically performs a low risk assessment with our clients to potentially uncover additional opportunities to save energy. This proven process enables our clients to make smarter energy decisions before considering the size and capacity of a renewable option.

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## Project Experience



### **Solar Energy Hot Water System: Holland Gardens**

Lime completed a solar energy hot water system for Holland Gardens, a 189 unit public housing development in Jersey City. The solar hot water solution includes a 2,500 gallon insulated hot water storage tank, together with 44 of the most technologically advanced solar collectors available. The solar panels are located on the roof of the administration building and will provide hot water for the approximately 420 residents in the complex. Funding was provided by the American Reinvestment and Recovery Act (ARRA).



### **Solar Photovoltaic System: Tyndall Air Force Base**

Lime Energy was selected to support the development and implementation of an innovative renewable program at Tyndall Air Force Base. In addition to replacing four air-cooled chillers with high efficiency models, Lime designed and installed a demonstration solar photovoltaic system, and solar domestic hot water systems for three buildings. The solar systems were part of a government testing program.



### **Biomass Boiler Plant: Arnot Ogden Medical Center**

Lime Energy as the Design Builder to develop and construct the project. The work performed included installation of a wood-chip gasifier and heat recovery boiler, along with significant mechanical and electrical system upgrades. A new plant building was constructed to house the new boiler facilities, maintenance office, and storage bunker. The project allowed the customer to utilize the wood-chip fuel source, and to improve the overall energy efficiency of the hospital.



### **Geothermal Heat Pump: Housing Authority**

Lime Energy designed and installed energy efficient geothermal heat pump systems to replace existing gas furnaces at a housing authority in Pennsylvania. The project included new heating systems for seven 50+ year old facilities. To address the domestic hot water system, Lime analyzed the inefficient existing solar system and corrected the piping, along with replacing the DHW boilers with high efficiency equipment.



### **Landfill Gas Solution: Zemel Road Landfill**

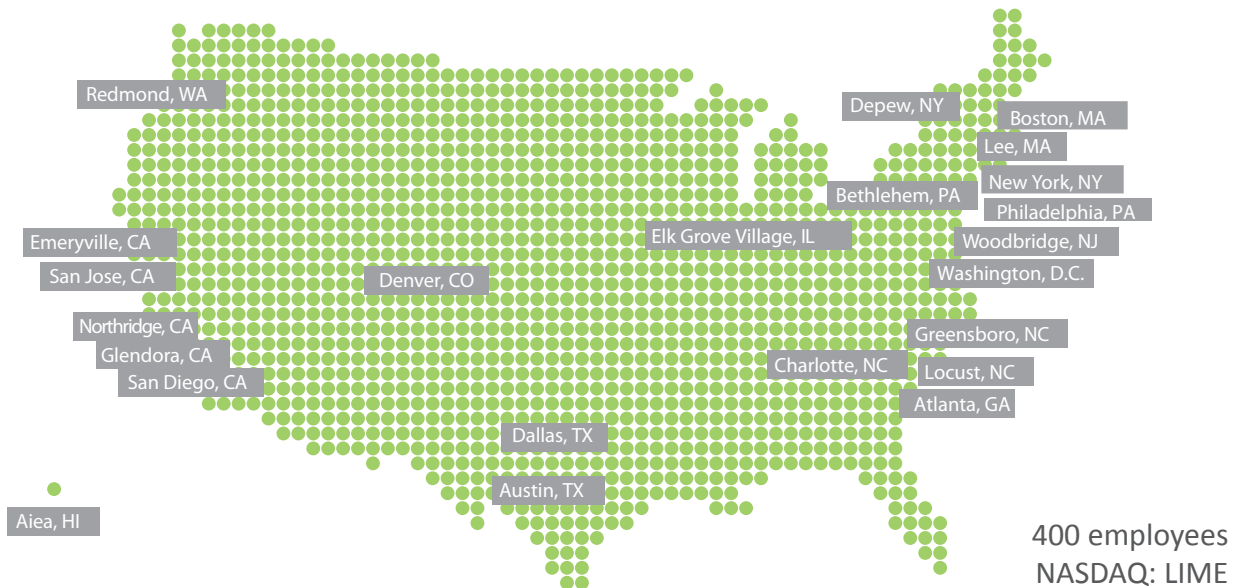
Lime acquired the gas rights to the Zemel Road landfill in Punta Gorda, FL. Lime entered into a 20-year power purchase agreement with a utility for the sale of electricity and certain environmental attributes to be generated by a 4.2 megawatt landfill gas to electricity generating facility.

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*Lime performs project feasibility assessments, estimate economic returns, arrange debt and equity financing, manage the design and construction process, and operate the asset under a long-term agreement. The Lime team also qualifies and structures investment opportunities to maximize risk-adjusted returns, then manage the design and construction process and operate the assets under long-term agreements.*

# About Lime Energy

Lime Energy has been delivering new and alternative energy strategies for over 30 years. By combining our strategic insight, custom program design and implementation capabilities, we are helping our customers realize the benefits of emerging policy and technology initiatives.



[www.lime-energy.com](http://www.lime-energy.com)

