

Multifamily Housing

LC Associates Services

Energy Services Company



LC
associates



LCA offers business solutions that result in energy savings and overall positive impact on our environment that fosters job growth through energy cost savings, project implementation and other socioeconomic benefits.



ABOUT LC ASSOCIATES

LC Associates (LCA) is the premiere energy services company in New York City, we are the proud recipients of NYSEERDA's highly coveted "Most Outstanding ESCo" award. We have received this award for providing outstanding customer service and the most successful incentive applications in any one year. We have secured over \$100M in financial cash grants for our clients and the creation of over \$300M in construction related jobs for New York City since our inception in 2002.

LCA is the only energy services company that has been successfully able to combine the Demand Response Programs offered by the NYISO and the many commercial incentive programs offered by NYSEERDA, ConEdison and other incentive program administrators, under one umbrella so our clients have a unique "one-stop shopping" experience.



By leveraging LC Associates' ability to integrate strategic procurement, demand response, utility auditing, and incentives expediting under one umbrella, our clients can have peace of mind that one service does not adversely affect the other and that a constant stream of revenue for efficient buildings are secured.

What we do

In LC Associates, our main goal is to help our clients to manage their energy expenditure. Over the years we have developed a full spectrum of energy services to help our clients with all aspects of their energy needs - from buying energy strategically, to improving efficiency and meeting legislative requirements. LC Associates' main services include engineering feasibility evaluations, securing of cash incentives, demand response and energy procurement.

This brochure provides information about the qualifications and services that LC Associates can offer to your Multifamily Housing. If you have any questions about the contents of this brochure, please contact us at (212) 579-4236 or by email at tomb@cutone.org.

OUR SERVICES AT A GLANCE

Energy Efficiency

LC Associates is a NYSERDA cash incentive expeditor. NY State provides cash incentives to businesses that install energy efficient upgrades. Upgrades range from energy efficient lighting, HVAC, elevators, air compressors and other similar projects. Small businesses can benefit from prescriptive incentives that allow cash payments for qualified projects.



Demand Response

LC ASSOCIATES can enroll you in a program which will allow you to get paid semi-annually for participating in a demand response program. This program requires electricity consumers to lower their electric consumption during pre-planned events to protect the electric grid from collapse. Clients participating in this program are compensated even if they are not called to curtail!



Energy Procurement

Energy Procurement and Advising compliments our demand side management services allowing us to optimize both sides of the market. Our unique relationship with energy suppliers allows us to tailor fixed-pricing energy contracts with Clients that meet their needs, with minimal or no termination fees.



Here's what **LC Associates** can do for your Multifamily Housing Building:



Elevator Modernization
Reduce your operating and maintenance costs.

Lower your operating costs and increase energy savings by upgrading to LED Lighting.

Automated Demand Response
Schedule your curtailment events.

Automatic adjustments to changing external conditions.

Automate your billing process with our Sub-Metering Dashboard.

Reduce your heating costs and maintenance calls by upgrading the boiler Controls.

Access to your buildings' energy usage reports.

Offsite management is easier with our Energy Clouds.

Get the best rates for electricity and natural GAS.

Monitor Demand Response Programs.

LC Associates is committed to helping customers to save money through energy efficient technology and providing incentives for customers to utilize green energy. Our team of professionals and engineers are uniquely qualified to manage the process of securing cash incentives from start to finish.



ENERGY EFFICIENCY CASH INCENTIVES

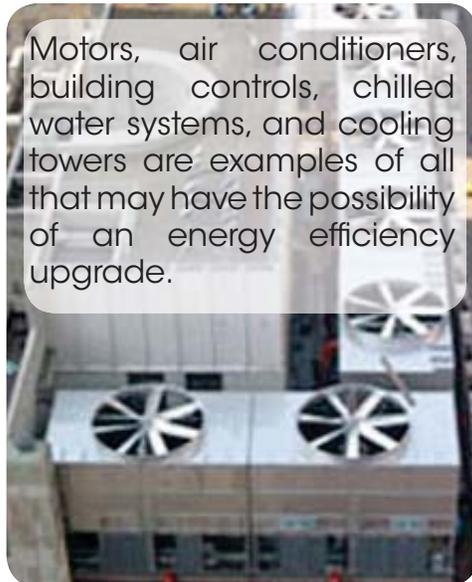
LIGHTING UPGRADES

By upgrading the fluorescent and incandescent lighting to LED lighting, customers save over 40% off their lighting costs. As administrator of their projects, LC ASSOCIATES pays customers \$0.11/kWh based on annual kWh savings in cash payments to offset the implementation costs.



HVAC

Motors, air conditioners, building controls, chilled water systems, and cooling towers are examples of all that may have the possibility of an energy efficiency upgrade.



ELEVATOR MODERNIZATION

Converting from old motor generator sets to solid state drivers and A/C motors.



Payments are based on the energy savings of your project and LC Associates fees are 100% contingent on securing the NYSERDA's Cash Incentives.

The New York Energy Research and Development Authority (NYSERDA) has been a key asset to New York State businesses in that it provides incentives for business owners to install energy efficiency equipment and upgrades to their facilities. Each year NYSEDA dispenses over \$400M in incentives to help you offset the cost of energy efficiency improvements such as lighting, air conditioning, elevator modernizations, building controls and other similar systems.

1199 Housing Corporation "East River Landing" is a middle income housing complex of government subsidized and cooperative apartments located in East Harlem. The building complex consists of 1604 units of which 1594 are residential apartments and 10 commercial spaces located in four buildings.

LC Associates secured over \$3M in grants for East River Landing resulting in over \$1.5M annual savings in energy costs and \$100,000 in Annual Demand Response Revenue.



LED LIGHTING UPGRADES

Energy efficient LED Lighting upgrades included hallway, stairwell, parking lot and exterior lighting systems which reduced overall lighting operating costs by 40%. This task included inventorying and tagging every lighting fixture and identifying areas where additional occupancy and daylight controls were used to for additional cost savings.



WEATHERIZATION

Each nook and cranny in all Shareholder apartments were identified and insulated against infiltration of unconditioned air. Shareholder environment has improved and the cost of heating or cooling infiltrated outside air has been significantly reduced.

BOILER CONTROLS



A central boiler plant generated enough steam to fill up the mains of each 32 story building and overcome any leaks which caused overheating and opened windows. A new EnergyGuard™ boiler control system was installed to control the central steam plant and consisted of installing approximately 20 temperature sensors in a spiral configuration in each building that would feed data back to a central controller in the boiler plant. The control system would then monitor space temperatures and modulate steam flow into the building's risers zones depending on where it was needed. The result is few boilers operating leading to reduced heating costs and fewer maintenance calls!

1199 East River Landing Energy Efficiency Case Study

DEMAND RESPONSE ELECTRIC LOAD CURTAILMENT

The New York Independent System Operator (NYISO) administers the "Demand Response Program". Our Clients participate in this program through LC ASSOCIATES which is a **Registered Interface Party or a (RIP)**

This program is designed to protect New York City's electrical distribution grid from power failure. The NYC Electric Grid is one of the oldest in the world and dates back to Thomas Edison, the founder of electricity in the United States. As the City's population grows, the demand for electricity increases.

During times of high electric demand, such as in the summer, the Grid works under considerable stress and the NYISO and ConEdison notifies Clients requesting them to curtail their electric demand by shutting down discretionary electric equipments such as lighting, water fountains, reduce the number of elevators or turn on electric generators if clients have one.



As an incentive to participate in this program, the NYISO offers CASH PAYMENTS to Clients that stand-by and participate if called upon. Our Clients receive payments twice per year just for standing by and pledging to curtail electric demand, and get paid even if they are not asked to perform. Performance however is monitored and Clients are rated based upon their past performance which can affect their cash payments.

Q. What if I do not Curtail?

A. You still get paid for participating but if you do not curtail then your facility is de-rated and future payments are affected until the next curtailment event where your rating is adjusted based upon your performance.

Q. How is the payment based?

A. Payments are based upon the market rate for wholesale electric power and historically has averaged \$11/kW during the summer and \$3/kW during the winter.

199 East River Landing has participated in the Demand Response Program for a number of years but has only been able to curtail about 200kW by shutting down equipment in their common areas. LC Associates was hired by ERL to evaluate their potential to increase the amount of pledged kW they could deliver into the Demand Response Program and found that the maximum kW that could be curtailed for a short period of time was in the vicinity of 1,700kW.

ERL later engaged LC Associates, an authorized Curtailment Service Provider (CSP) to manage ERL's Demand Response Program. **A pilot project was implemented**

where the shareholders were invited to participate in the Demand Response program by shutting down their air conditioners during the curtailment event in addition to curtailing only the common areas, and the result was that ERL curtailed over 1,000kW!



Given that ERL demonstrated that it could curtail 1,000 kW voluntarily and in a manual fashion. ***LC Associates was able to secure \$899,000 in a one-time cash payment from ConEdison to offset the cost of an Automated Demand Response (ADR)*** system that could also be leveraged for other future applications such as security and alarms.

199 East River Landing Demand Response Case Study

AUTOMATED DEMAND RESPONSE The Technology by LCA



The ADR system designed by LC Associates has an aesthetically pleasing wirelessly controlled high power switch sized specifically for up to 3 Amp circuits. The switch has the following features:



One 220V or 110V air conditioner outlet.

One non-switched dual 110V outlet with a courtesy USB charging station.

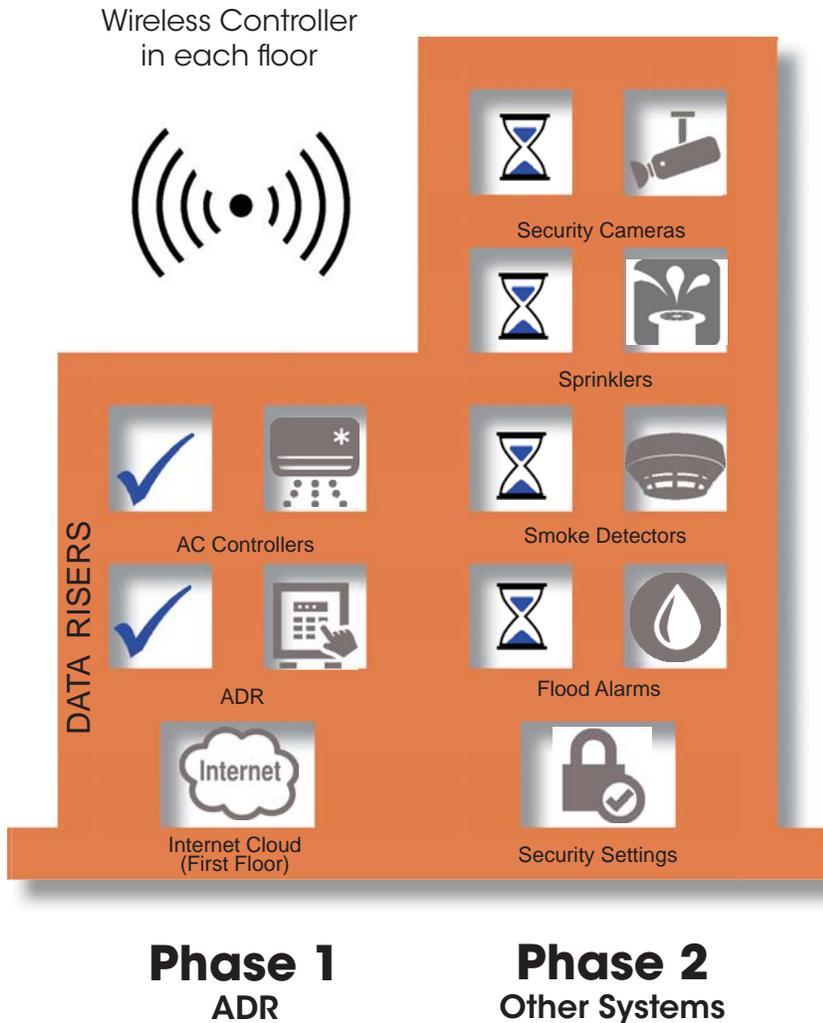
One low power z-wave wireless switch driving a high powered 30 Amp relay for the air conditioner load.



One snubber circuit to protect the relay contactors and also extend the life of the outlets.

Given that ERL demonstrated that it could curtail 1,000 kW voluntarily and in a manual fashion. **LC Associates was able to secure \$899,000 in a one-time cash payment from ConEdison to offset the cost of an Automated Demand Response (ADR) system that could also be leveraged for other future applications such as security and alarms.**

A main wireless controller for each floor is installed in the MER or electrical closet and is able to communicate to the switches in each of the air conditioner units on their respective floors. The controllers are designed for Demand Response protocols and daily energy management.



The PoE system is also able to support PoE enabled video cameras and other similar equipment such as lighting. By participating in this Demand Management Program, customers will reduce their cost of electrical consumption

Communication consists of Power over Ethernet (PoE) data cables. The data cables incorporate a network hub on each floor that communicate to the z-wave controllers and also provide them with power. This greatly reduces the cost of the installation as many of the areas may not have available electric outlets and a PoE system does not require them.

LC Associates has designed an algorithm that can be easily configured for any application. The Software platform consists of a configuration panel that categorizes each controlled circuit as participating, partially participating, or not participating. Curtailment events are broadcasted via email and text in addition to telephone calls and any modifications in regards to opting in or out will be done by automatically via software and supervised via a human operator.

ENERGY PROCUREMENT

Our energy procurement expertise and services will enable Cohen Brothers Realty to obtain the best rates and contract terms for electricity and natural gas.

LC Associates will leverage our relationships with energy supply companies to offset the cost of electricity, oil and natural gas for our clients

Our procurement specialists are experts at providing energy market analysis and reporting, energy planning, forecasting and negotiating with suppliers both current and future.



What we do

Working with our Energy Supply alliances, LC Associates formulates a custom energy purchasing strategy for each customer that significantly reduces utility costs, through negotiating lower contract rates.

How we do it?



- Analyzing historical usage, operational needs and current load for each utility service.
- Identifying and partnering with our network of third party utility suppliers to develop the optimal energy purchasing strategy.
- Securing multiple supplier bids to ensure competition.
- Conducting a bid leveling analysis, providing our recommendation, and negotiating final terms.



Why LC Associates?

Upon completing our procurement analysis, and supplier solicitation and negotiation, LC associates will deliver a full price comparison worksheet, which includes variable and fixed rate contract bids from multiple suppliers, various contract terms (12 and 24 months), and associated rates and savings.

Once your commodity purchase is executed, rather than move onto the next customer, LC Associates is still there for you to assist in the ongoing management of your energy consumption including budget vs. actual reports, energy consumption and costing projections, effects of energy conservation measures and more!



Energy Management Dashboard

This Cloud Platform is designed for Executive and Managerial staff which automates the delivery of Business Intelligence as it relates to all facets of Energy Services.

As a value added service for Energy Procurement Customers, the Energy Dashboard provides:



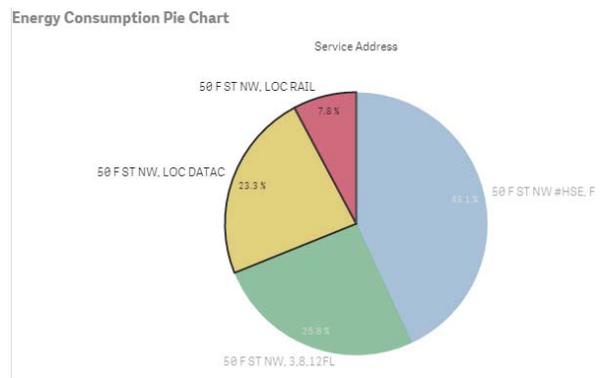
- Overview of energy consumption and costs across the entire portfolio.
- Business Analytics on energy prices, usage, trends and rate analysis.
- Leverage information to make strategic energy purchases and win concessions from suppliers.
- View Demand Response Performance.
- Benchmark energy performance for Local Law 84 Reports.

Features

Visualize and interact with data using filters.



Select the buildings direct from the charts to get better insights.

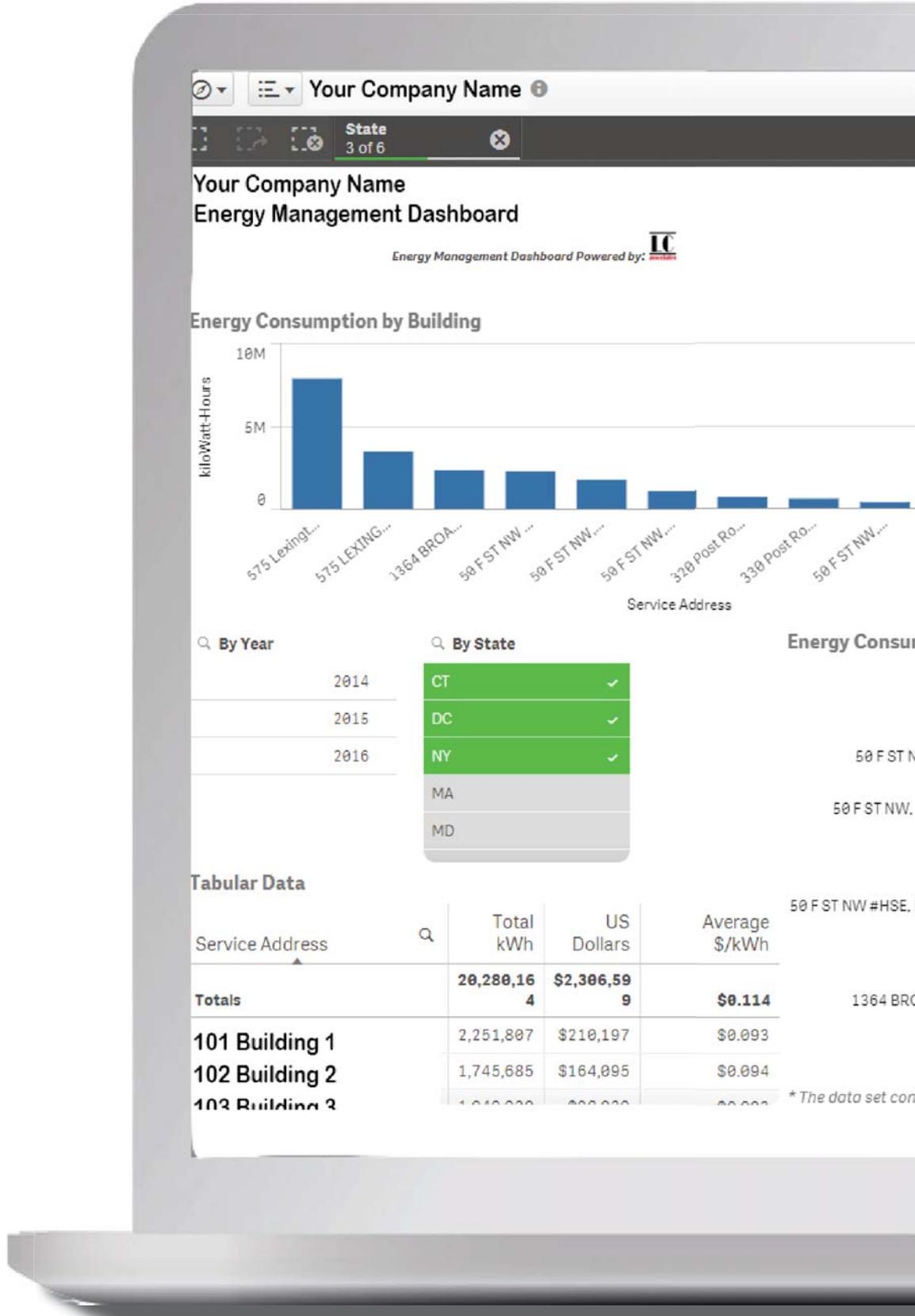


Take snapshots and change presentation features.



ENERGY PROCUREMENT

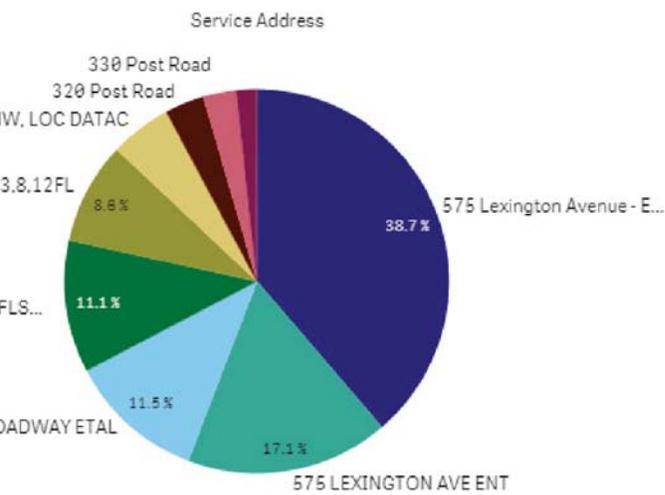
Energy Management Dashboard



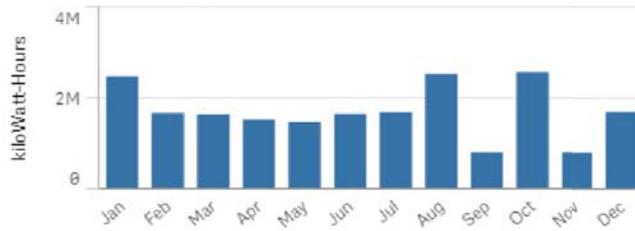
Supply Costs by Building



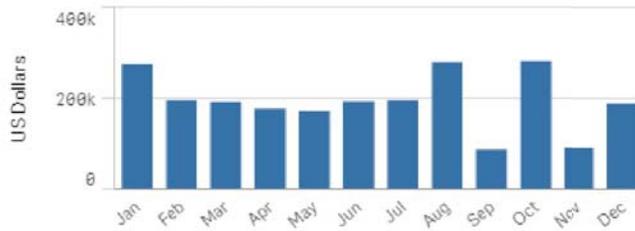
Consumption Pie Chart *



kilo-Watt Hours by Month



Supply Charged by Month



contains negative or zero values that cannot be shown in this chart.

Energy Procurement Submetering Dashboard

Invoice processing is a tedious, time consuming and expensive task when it is done manually. LC Associates has simplified this process with our Submetering software that is designed to seamlessly transfer invoice data and deliver superior results to meet all your business needs. LCA's Submetering Dashboard has easy to use navigation and functional breakdown and reporting capabilities.

Multi-tenant customers enrolled in our Procurement Program are offered a revenue solution through Sub-Metering. LC Associates utilizes a wireless metering network which allows all pertinent parties to log into their respective metering sites via the internet. Our software reads meters electronically so that the utilities are accurately measured and billed properly on a timely basis.

Our technology reduces the risk of human error associated with manual data entry systems. LC Associates' Submetering Dashboard offers a comprehensive data reporting for each tenant, building or location in your organization and fully automates utility bill management and data capture in a friendly interface that provides faster access to accurate information.



Export to your Accounting systems.



Eliminate manual meter readings.



Automatically email invoices and tenants



Automate utility bill availability.

Total SubMetered Revenue

153k

Submetered Recovery Rate

99.12%

Billed Demand kW

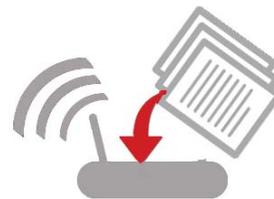
1,729

Total Utility Charges

154.4k

Occupancy Rate

83.6%



Eliminate manual data extraction.



Manage multiple lease structures.

Measure buildings and portfolios KPI's such as percentage recovery and percentage occupancy rates.

Tenants Invoice

Invoice No. 321654

**Your Building's
Name**

ELECTRICITY SERVICE INVOICE

MEMBER NAME
123 MAIN STREET
NUMBER 7
FAKETOWN, NJ 01001

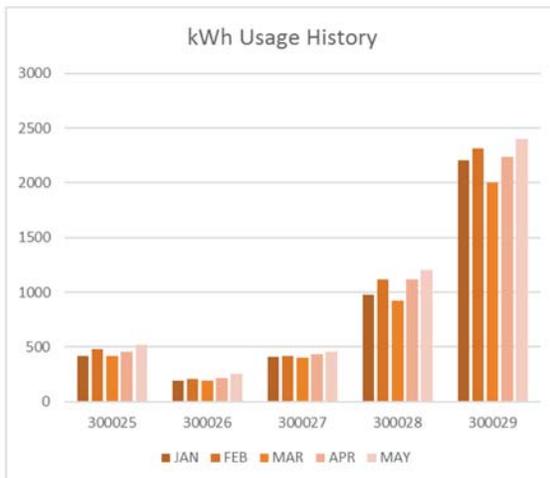
Invoice Date	06/11/2016
Due Date	07/11/2016
Usage Period	05/05/2015-06/09/2015

Account Number: 666777888999

Tenant Account Number

TOTAL DUE

\$754.40



Submeter Number	Tenant Usage	\$/kWh	Usage Cost
300025	523	0.2	\$ 104.6
300026	256	0.3	\$ 76.80
300027	456	0.23	\$104.88
200028	1200	0.15	\$ 180.00
300029	2401	0.12	\$ 288.12

PLEASE DETACH AND RETURN BOTTOM PORTION WITH PAYMENT

MEMBER NAME
123 MAIN STREET
FAKETOWN, NJ 01001

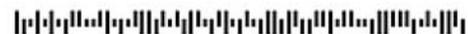
Send Remittance To:

Your Building's Name
PO BOX 9999
FAKETOWN, NY 07960

Account Number	999999
Current Amount D	\$ 2,228.66
Total Amount Due	\$ 2,228.66
Additional Fees Apply After 07/11/2016	
Amount Paid	

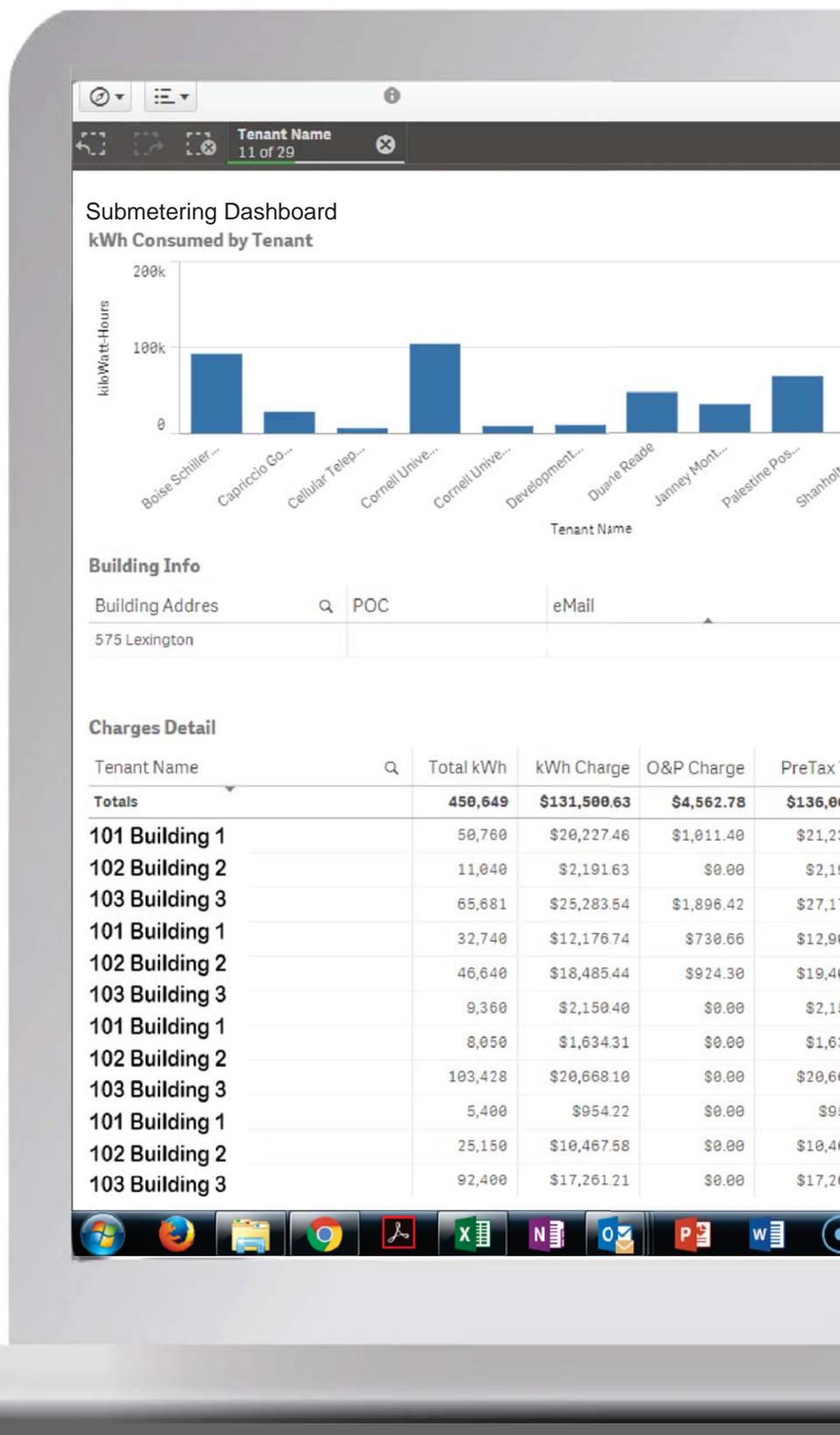
Make Checks Payable To:

Your Building's Name LLC



Energy Procurement

Submetering Dashboard



Q Billing En...
1/4/2016

Total SubMetered Revenue

136.1k

Total Utility Charges

154.4k

Submetered Recovery Rate

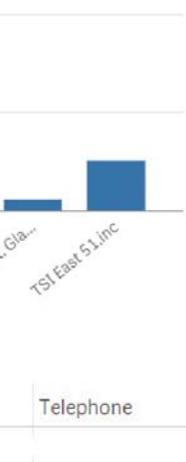
88.14%

Occupancy Rate

100.0%

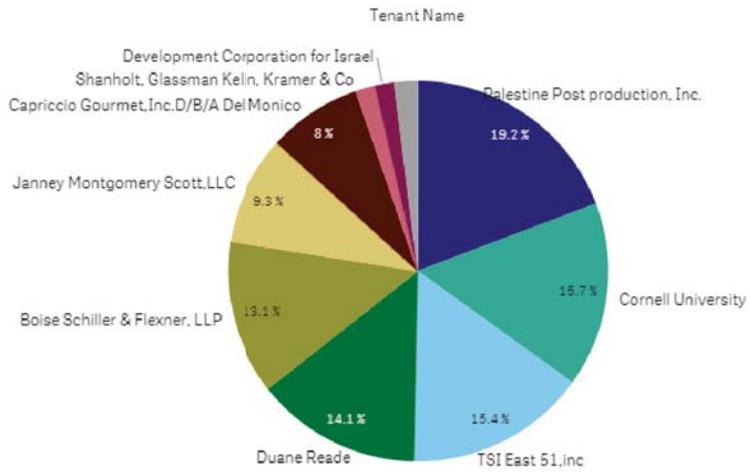
Billed Demand kW

1,729



Revenue by Tenant

Total	Sales Tax	Total Charge
53.41	\$12,083.25	\$148,146.66
88.86	\$1,884.94	\$23,123.80
91.63	\$194.51	\$2,386.14
79.96	\$2,419.86	\$29,599.82
97.40	\$1,145.52	\$14,052.92
99.74	\$1,722.62	\$21,132.36
50.40	\$190.85	\$2,341.25
84.31	\$145.05	\$1,779.36
88.10	\$1,834.29	\$22,502.39
54.22	\$84.69	\$1,038.91
87.58	\$929.00	\$11,396.58
81.21	\$1,531.93	\$18,793.14



Contact Us:
For more information,
please contact
your Sales Representative:

Tel: +1(212) 579 4236
Email: info@cutone.org



Scan the QR code to access our Energy Management Dashboard video, or visit this link:

youtu.be/idgd-hoOf0g