

**BOARD OF ALDERMEN**  
**OPERATIONS & PROCEDURES SUBCOMMITTEE MEETING**  
**TUESDAY, APRIL 12, 2016 – 7:00 P.M.**  
**CITY HALL – MEDIA CENTER**

**MINUTES**

Mr. Iacuone called the meeting to order at 7:05 p.m. All rose and pledged allegiance to the flag.

**Roll Call**

Present: Stephen Iacuone, Joseph DiMartino

Absent: Arthur Gerckens, Peter Olenoski

Also Present: Alderman Carmen DiCenso  
Alderman Ron Sill  
Alderman Anthony Staffieri  
Keith A. McLiverty, City Treasurer  
Carlo Sarmiento, Building Inspector  
Henry J. Domurad, Jr., Chief Administrative Officer  
Thomas Welch, Corporation Counsel

**ADDITIONS, DELETIONS, CORRECTIONS AND ADOPTION OF THE AGENDA**

**A MOTION** was made by Mr. Iacuone with a second by Mr. DiMartino to move item #9 – Building Department Request to transfer \$12,000 for computers and software upgrades so that the department can go wireless – discussion/possible action to Item #8 and move Item #8 – Energy Savings Evaluation to Item #9. **Motion carried.**

**PUBLIC PORTION**

Mr. Iacuone asked three times if anyone else wished to speak. Hearing no requests the public portion was closed.

**APPROVE MINUTES OF THE FEBRUARY 9, 2016 OPERATIONS & PROCEDURES MEETING**

Mr. DiMartino noted that he was not present at the February 9, 2016 meeting. The minutes for this meeting were **TABLED**.

**APPROVE MINUTES OF THE MARCH 8, 2016 OPERATIONS & PROCEDURES MEETING**

**A MOTION** was made by Mr. DiMartino with a second by Mr. Iacuone to approve the minutes of the March 8, 2016 meeting as presented. **Motion carried.**

**BUILDING DEPARTMENT REQUEST TO TRANSFER \$12,000 FOR COMPUTERS AND SOFTWARE UPGRADES SO THAT THE DEPARTMENT CAN GO WIRELESS. DISCUSSION/POSSIBLE ACTION**

Mr. Sarmiento told the committee members that he requested the transfer, which is money that is already in his budget to do some computer improvements and to

hopefully go paperless and be on line by the first of the year. He said right now he had to move the computer from the counter so his new assistant would be able to use it.

Mr. Iacuone said he is at a loss – you're just making a transfer?

Mr. Sarmiento said that he went to the Board of Apportionment & Taxation (BOAT) twice and explained what he needed. Unfortunately he wasn't able to attend their meetings and they denied him both times. He said there were suggestions that he place this under Capital Planning. Mr. Sarmiento said he is coming to this committee because the money is there and he needs it. He said the Building Department at any given time the best year they had was \$105,000 now we're close to \$160,000 with the improvements that they have made and this will make the department that much better and more efficient especially with Route 34 coming and all the work that we're going to be doing. He said he isn't looking at tomorrow – he's looking to see what we're going to be doing in a year, year and a half from now and we have out of State companies. He said he wants to facilitate their ability to pull permits on line and start moving like the big cities are.

Mr. Iacuone said if it's just a transfer he doesn't see a problem with it. He said he can understand going to Capital but if the money is there and you're not asking for additional funds it really wouldn't make sense.

Mr. DiCenso questioned whether or not this committee had the authority to approve this. Mr. Iacuone said he would suggest just sending it to the full Board of Aldermen. Mr. Sarmiento said he has been told the full Board can vote on this and yes you would have the authority. Atty. Welch asked what authority. What are you looking for? Mr. Sarmiento said to approve the transfer. Atty. Welch said they don't transfer line items. Mr. Sarmiento said they can tell the BOAT to transfer his funds. Atty. Welch said that would be the BOAT. Mr. Iacuone said we can make a recommendation to them. I believe they feel if they can they'll transfer it. Mr. Sarmiento said that will help him in his quest to achieve these funds. He said it doesn't want it to become like last time and it took eight months. He said he doesn't want this to be coming into the next budget and that he would like to have this in place as soon as possible.

Mr. Iacuone said the only other question that you're going to have to overcome for the board and not maybe ask for a bid waiver. Is the total cost being over \$10,000? Mr. Sarmiento said its two separate quotes and it's for two different things and its two separate companies. He said he did talk about all of this – it shouldn't be an issue. Mr. Iacuone said we got in trouble for that – splitting hairs – once before. Mr. Sarmiento said this is literally two separate items. One is Flagship with the equipment and the other is GEMS/Walsh, which is completely separate. They are different items and he has placed one item first on the agenda and when the second item came up they combined them, which Mr. Sarmiento said he didn't want to do. He wanted to keep them separate because they're two completely separate things – one happens to be the computer and the other is the software.

Mr. Iacuone said he doesn't have a problem bringing it to the Board. He told Mr. Sarmiento just to make sure that he attends the meeting to explain what he's trying to do. Mr. Sarmiento said that he'll explain to them exactly what he's trying to do. He also said that he would be going in front of the BOAT again and hopefully this time he'll be

able to attend. Mr. Sarmiento said the other time he had an emergency and could not make the meeting but he had explained to them exactly what he was looking for. He said frustration has made him come before the committee this evening. The money is there – it's to help the Building Department, Blight Department, Zoning Department. He said we all have additional personnel and we need the extra equipment and the software and we really need this to operate to our fullest.

**A MOTION** was made by Mr. Iacuone with a second by Mr. DiMartino to recommend to the full Board of Aldermen the request from the Building Department to transfer \$12,000 for computers and software upgrades so that the department can go wireless. **Motion carried.**

**ENERGY SAVINGS EVALUATION. SHORT PRESENTATIONS FROM THE FOLLOWING:**

Three companies were present to provide a presentation to the committee members present:

1. conEdison Solutions
2. Johnson Controls
3. Total Energy Connections

A copy of each presentation is attached to these minutes. The companies will also be attending the full Board of Aldermen meeting on Thursday April 28, 2016 to provide a presentation to the entire board.

**ADJOURNMENT**

**A MOTION** was made by Mr. Gerckens with a second by Mr. Olenoski to adjourn the meeting at 8:17 p.m. **Motion carried.**

Respectfully submitted,



Patty Finn  
Recording Secretary

Attachments: conEdison Solutions Proposal  
Johnson Controls Proposal  
Total Energy Connections, LLC Proposal

**THESE MINUTES ARE SUBJECT TO APPROVAL BY THE BOARD OF ALDERMEN OPERATIONS & PROCEDURES SUBCOMMITTEE AT THEIR NEXT MEETING.**

# City of Derby, Connecticut

## Proposal For Energy Savings Performance Contract



Competitive Energy Businesses





# Introductions

**ConEdison Solutions**

- **Ward Strosser, Point of Contact**

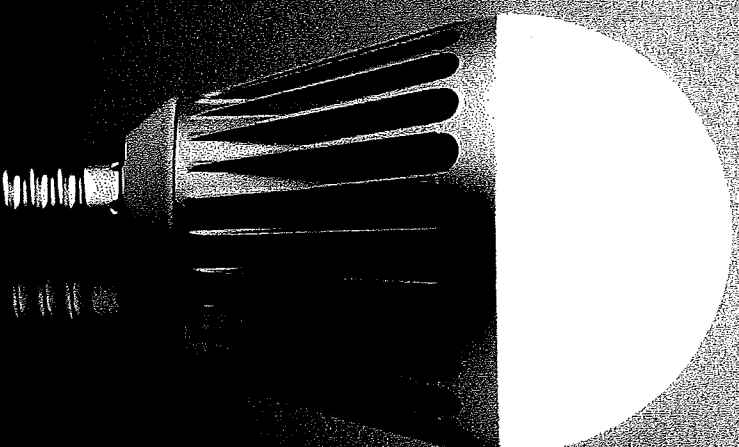


**conEdison**

**Competitive Energy Businesses**

# Agenda

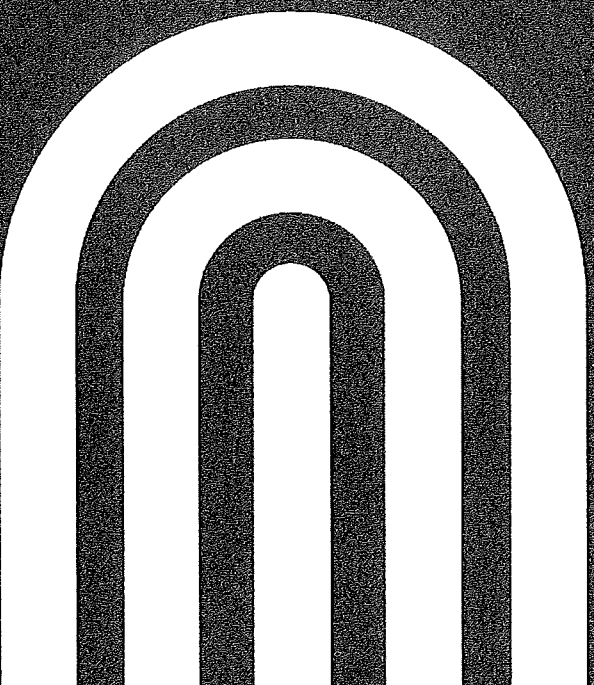
- ConEdison Solutions Overview
- Derby's Needs & Proposed Solutions
  - Address Infrastructure Needs
  - Building Management Systems
- Implementation Plan
- Training
- Financial Summary
- Open Discussion





# ConEdison Solutions Overview

- Unregulated  
Subsidiary of the first  
and oldest utility in the  
U.S., Consolidated  
Edison, Inc.
- Fully independent  
from manufacturers (*all  
we do is energy*)
- Connecticut  
Department of  
Energy &  
Environmental  
Protection  
Approved



- Over 180 professionals with  
experience in:
- Performance  
Contracting / Energy  
Engineering
- CHP and Microgrid  
Systems
- Solar Photovoltaic  
Systems / PPAs
- Retail Electricity Supply  
/ Distribution
- Full Service Energy  
Services Company

# Accreditations



One of the  
Premier  
ESCOs in  
the Country



U.S. DEPARTMENT OF  
**ENERGY**



Competitive Energy Businesses

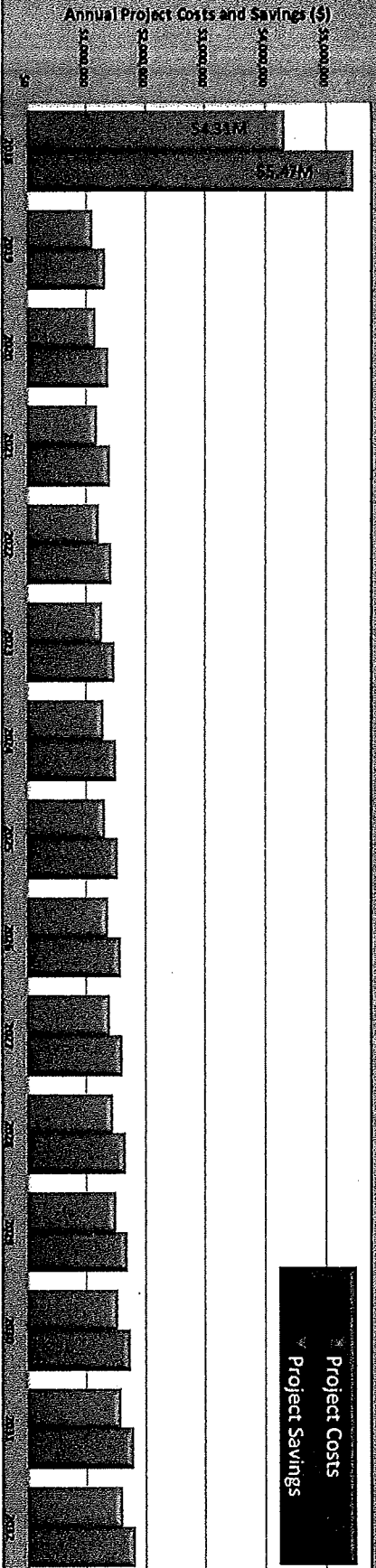
## How Does This Program Benefit Derby?

- City and BOE Pay Approximately \$650,000 Annually for Utilities
- Develop a Co-Authored Solution
- Provide Comprehensive Energy & Infrastructure Strategy
- ConEd Solutions Typically Save Our Partners Up to 30% Annually
- Savings are Guaranteed and Pay for the Project
- After the Financing Term, All Savings Go Directly to the City & BOE
- We Apply for State, Utility and Federal Rebates/Grants and DEEP Financing Programs on Your Behalf
- Guaranteed fixed price and no change orders. We Offer Full Pricing Transparency

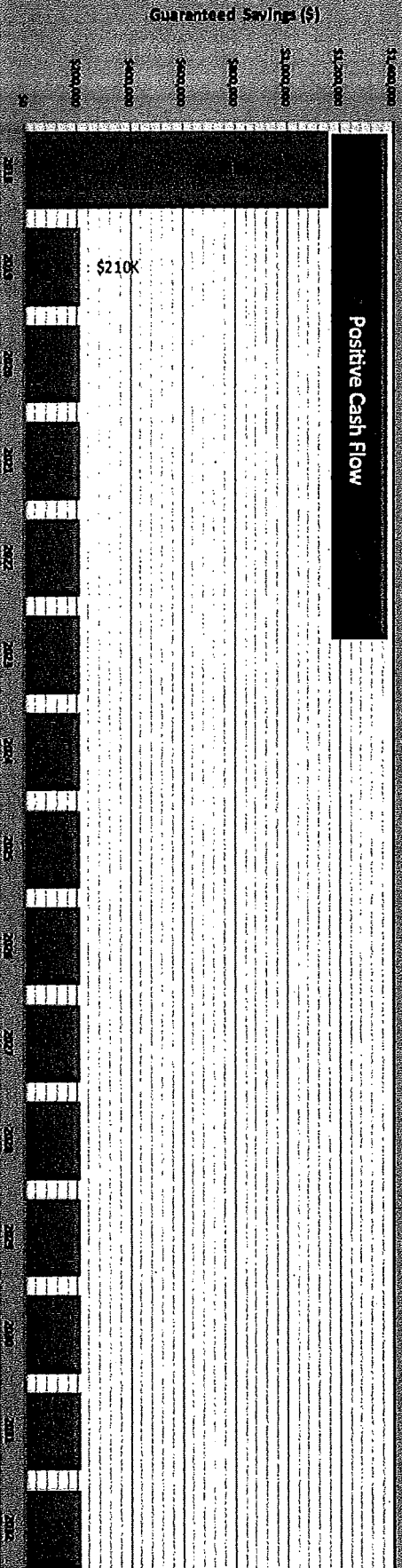


# Cash Flow – Comprehensive Rebates

Partnership Between The City of Stamford and ConEd Solutions  
Energy Solutions Project - Cash Flow



Partnership Between The City of Stamford and ConEd Solutions  
Energy Solutions Project - Projected Positive Cash Flow



Competitive Energy Businesses



# Energy Performance Contracting Process





## **Derby High School – Infrastructure and Improvements Needed**

Lighting Upgrades/Replacements – Interior and Exterior

Building Automation System Upgrade

Combined Heat and Power Solution in Conjunction with Conversion to Hydronic Heating

Window Replacements and Building Weatherization

Retro-commissioning of Existing Systems

Solar Photovoltaic

Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions



Competitive Energy Businesses



## **Derby Middle School – Infrastructure and Improvements Needed**

Lighting Upgrades/Replacements – Interior and Exterior

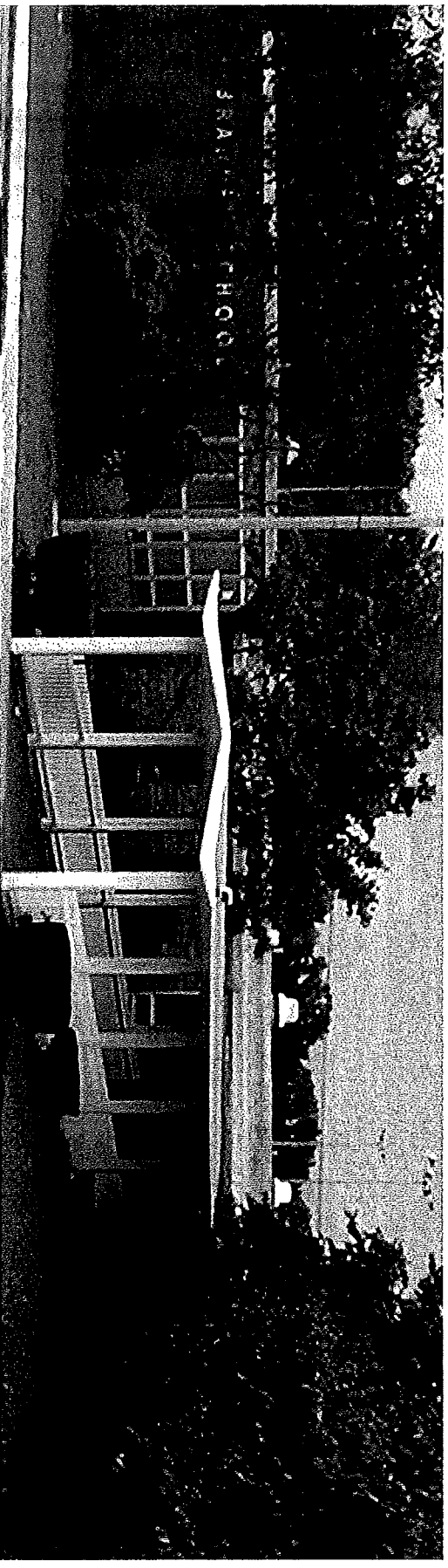
Building Automation System Retro-commissioning

Combined Heat and Power System Evaluation to Increase Operational Hours and Efficiency

Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions



Competitive Energy Businesses



## **Bradley Elementary School – Infrastructure and Improvements Needed**

Lighting Upgrades/Replacements – Interior and Exterior

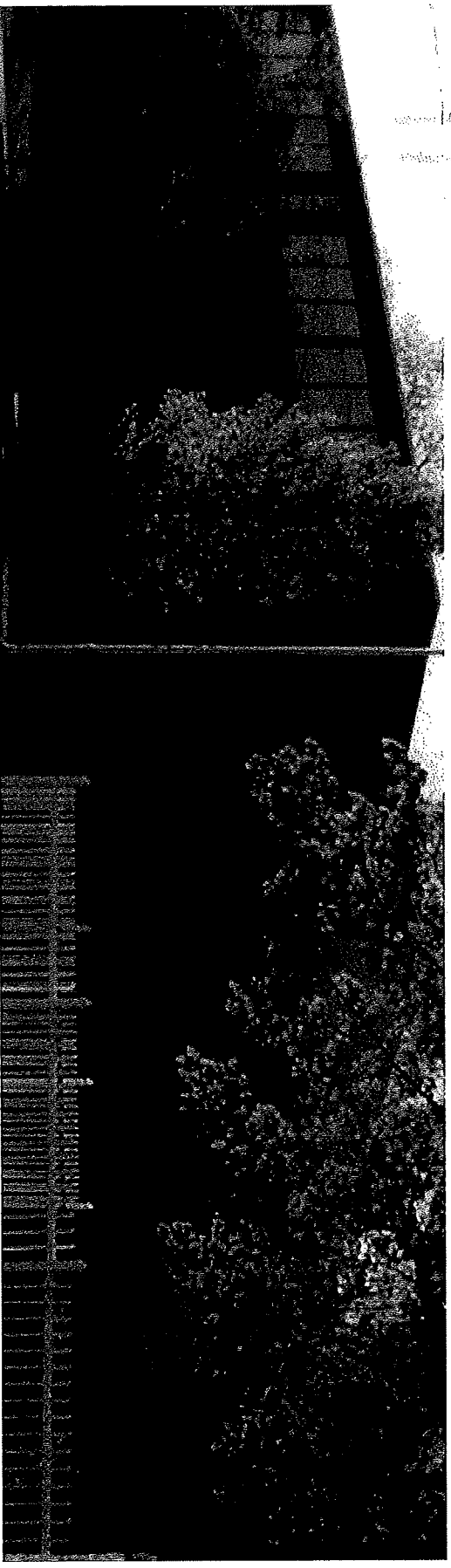
Building Automation System Upgrades

Window Replacements and Building Weatherization

Retro-commissioning of Existing Systems

New High Efficiency Boiler Installation

Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions



## **Irving Elementary School – Infrastructure and Improvements Needed**

Lighting Upgrades/Replacements – Interior and Exterior

Building Automation System Upgrades

Window Replacements and Building Weatherization

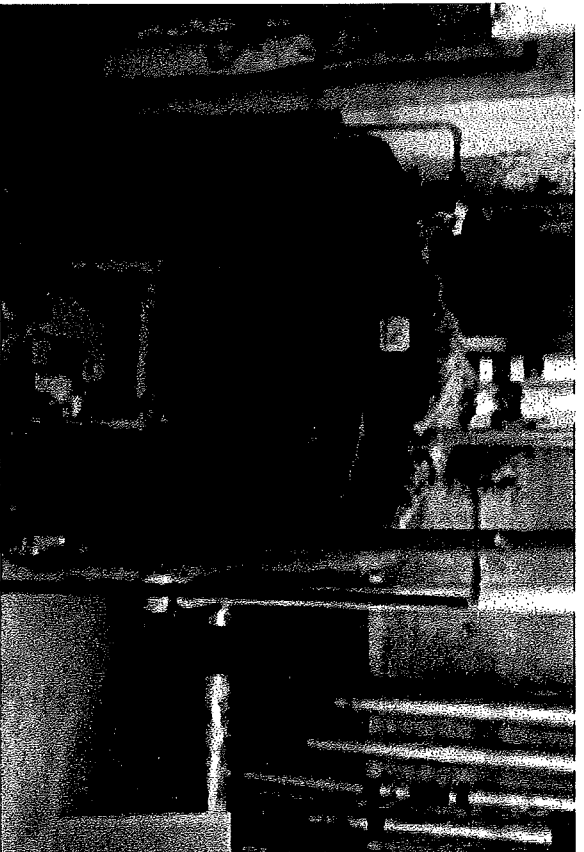
Retro-commissioning of Existing Systems

New High Efficiency Boiler Installation

Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions



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## Existing Boilers

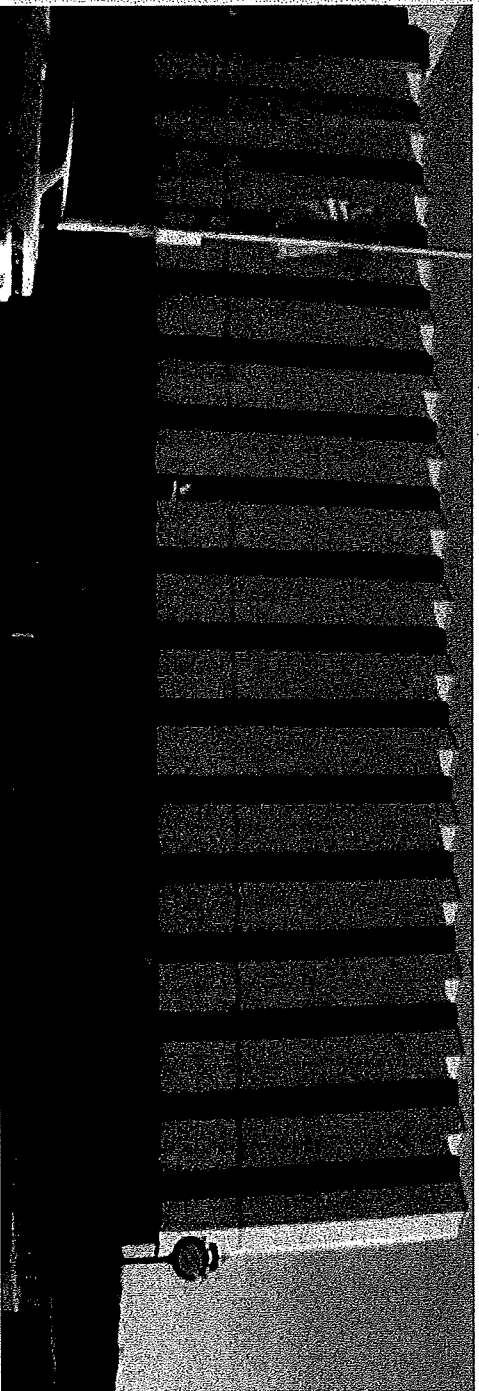
- Original to Schools (Get age of schools)
- In Need of Major Repairs
- Insulation is Lacking
- Efficiency is Very Poor
- Emissions are Sub-Standard
- Major Cause of Concern for Reliability/Resiliency



## Proposed Boilers

- Smaller Footprint
- Well Insulated
- Redundancy Built Into the Design
- 90+% Efficiency
- High Turn Down Rates to Reduce Cycling
- 20 ppm NOX
- Can Be Easily Integrated into BMS
- Can Operate Well at Low Water Temperatures





## **Derby City Hall – Infrastructure and Improvements Needed**

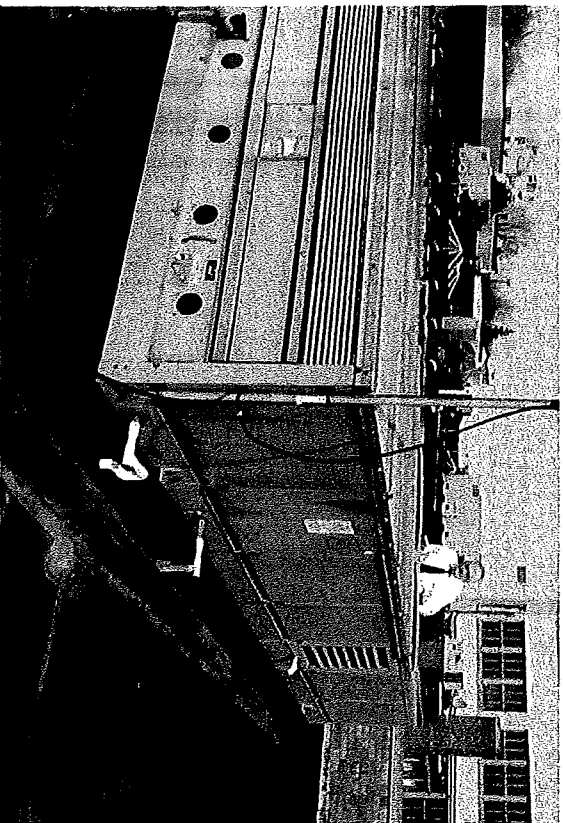
Lighting Upgrades/Replacements – Interior and Exterior

Building Automation System Upgrades

Retro-commissioning of Existing Systems

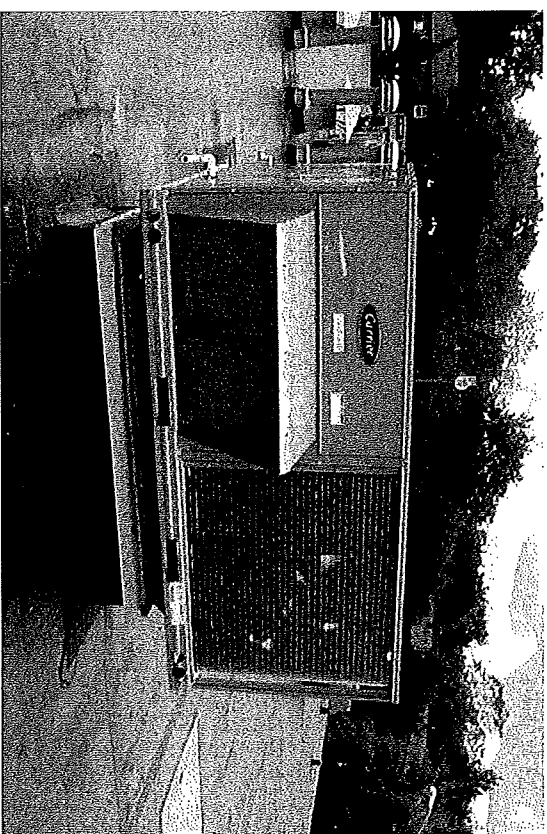
New High Efficiency Rooftop Unit Installation for First Floor

Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions



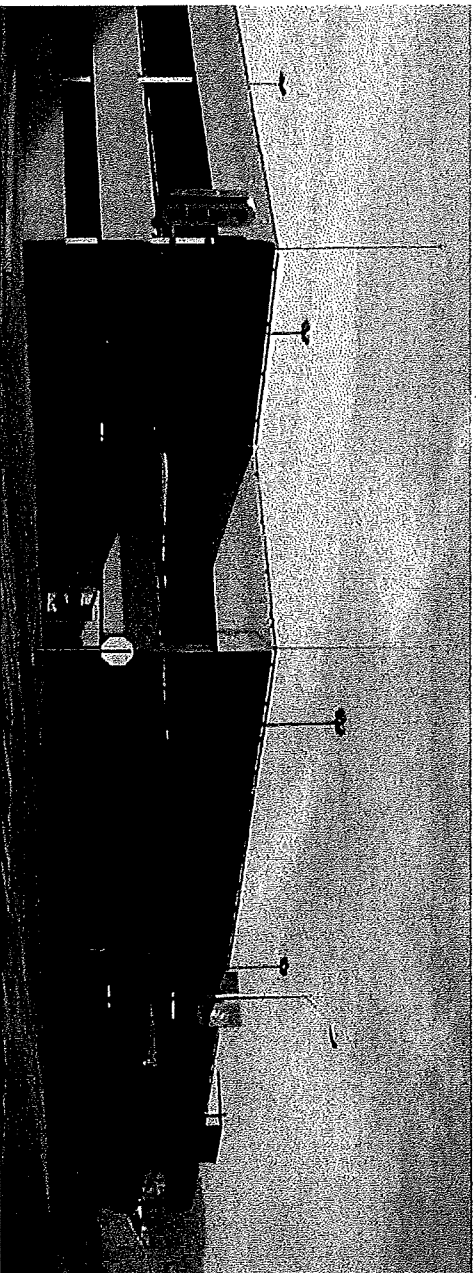
## Existing Rooftop Unit

- Original to Building
- In Need of Major Repairs
- Insulation and Controls are Lacking
- System Efficiency is Very Poor (Constant Speed)
- Vibration and Acoustic Concerns
- Major Cause of Concern for Reliability/Resiliency



## Proposed Rooftop Unit

- Well Insulated
- Conversion to Variable Air Volume System
- Eliminate Vibration and Sound Transmission
- Easily Integrated into BMS to Optimize Space Conditions and Run-Time to Reduce Energy Consumption



## **Derby Municipal Parking Garage & Street Lighting Infrastructure and Improvements Needed**

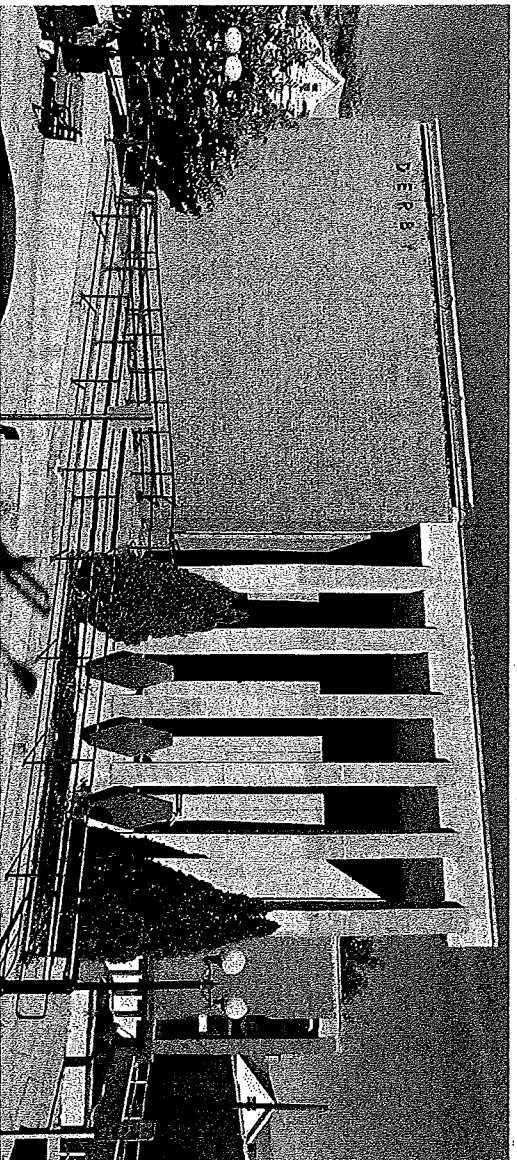
Lighting Upgrades/Replacements

Solar Photovoltaic Evaluation

Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions

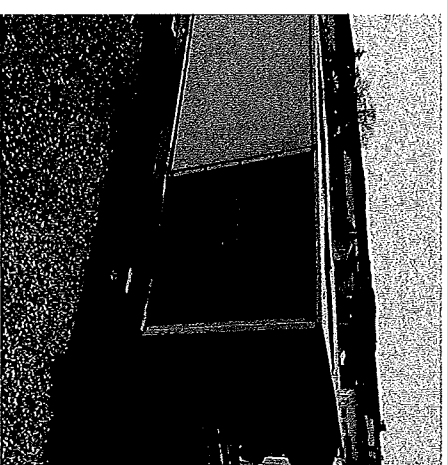


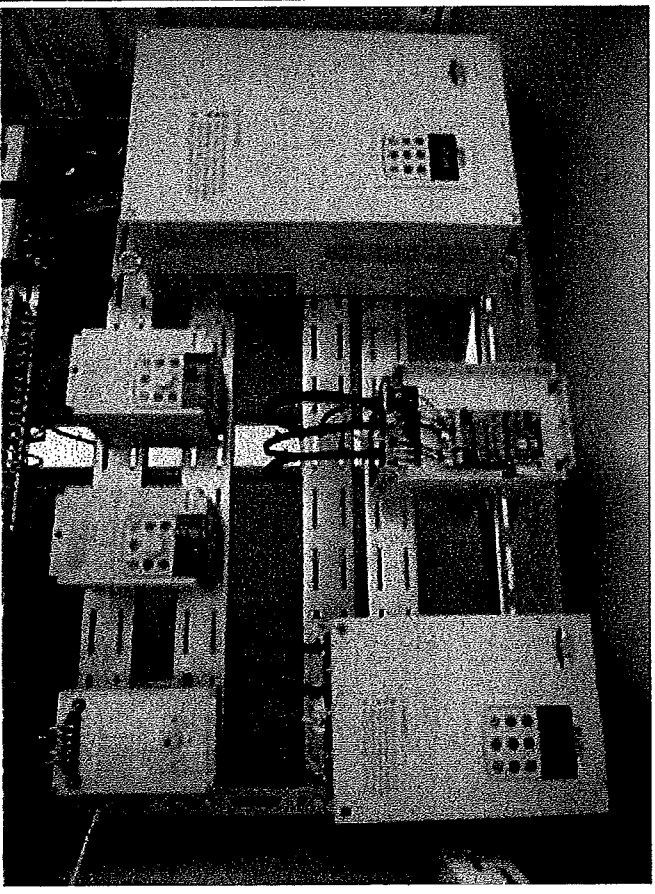
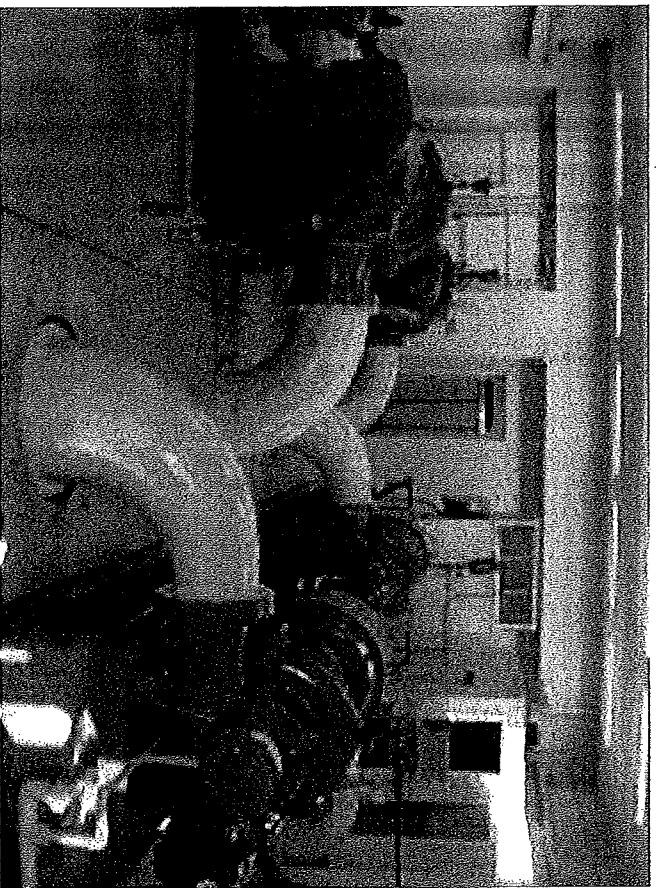
Competitive Energy Businesses



## **Veterans Community Center – Infrastructure and Improvements Needed**

Lighting Upgrades/Replacements – Interior and Exterior  
Building Automation System Upgrades  
Window Replacements and Building Weatherization  
Retro-commissioning of Existing Systems  
Review of Pool Heating and Ventilation Systems  
Savings More Than Pays for Project and Are Guaranteed by ConEd Solutions





## City Water Distribution Pumps - Existing

Constant Speed Pumps Used

Limited Connectivity for Control and Predictive Maintenance

## City Water Distribution Pumps - Proposec

Variable Frequency Drive Retrofit

- Operate Only as Fast as Needed to Save Energy
- Controls Tied into City Energy Dashboard
- Optimize Run Time & Operational Life Expectancy
- Temperatures, Pressures and Vibration Can be Monitored





# Financing


## Cost Effective Tax Exempt Financial Structures :

- TELP: Tax Exempt Lease Purchase
  - Low issuance cost
  - Similar interest rates as a bond
  - Quick turn-a-round
- Bond Issuance
  - Ideal for large borrowing due to the fees associated with the issuance (above \$20MM)
- Typical rates are below 3%



# Approach To Construction

**Goal of Construction:** To Implement a High Quality Project, on Schedule and with Minimal Disruption While Maintaining Occupant Safety/Comfort.

- 
- **Team approach** - With the customer throughout the construction process
  - **Proper Staffing** - Dedicated PM and CM
  - **Contractor Selection and Management** - Work with Local Labor
  - **Timely and Effective Communication** - Regular Progress Meetings
  - **Minimize Impact To Operations and Quality Control** – Proper Work Sequencing, Extensive Commissioning and Monitoring & Verification
  - **Safety and Security** - OSHA Certified, Weekly S&S Meetings
  - **Operator Training** - Classroom and Hands On Training, Digitally Recorded
  - **Schedule** - 18 Month Design and Construction Schedule



## Staff Training

- ConEdison Solutions On-Site Staff Training
  - Classroom and Hands-On
- Manufacturer Equipment Training
- Annual Retraining

## Student Sustainability Certificate Program:

- FIRST: For Inspiration and Recognition of Science and Technology
- TELall: Tomorrow's Energy Leaders auditing, learning, & leading
- Educational Outreach Dashboard





# Thank you!

For more information, call:

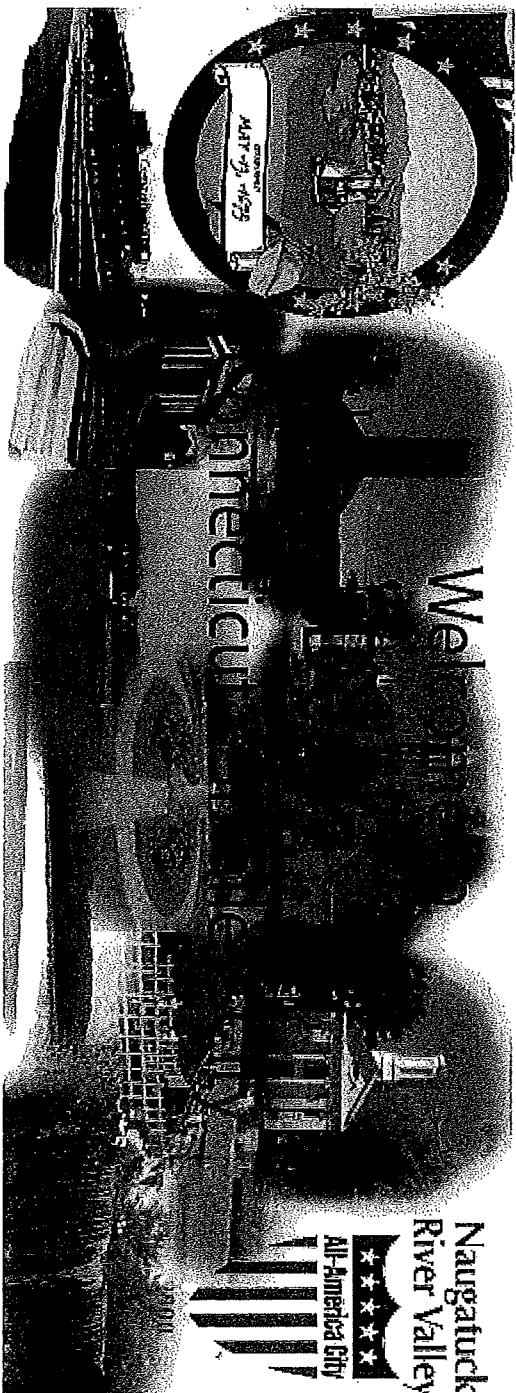
Ward Strosser

Phone: 914-860-5946

Email: [StrosserW@conedsolutions.com](mailto:StrosserW@conedsolutions.com)



Competitive Energy Businesses



## Operations & Procedures Sub-Committee

### Presentation on Guaranteed Performance Contracting

April 12, 2016

"Keeping Derby Moving Forward"





# Agenda

- Introductions
- City of Derby – What can be accomplished
- City of Derby Goals
- Developing a Successful Project
- Johnson Controls – Background
- Questions

## Performance Contracting - Financial Solution to Capital Projects/Energy Needs – Key Benefits

- Preserves capital while making needed infrastructure improvements
- Budget neutral – funding from existing budget
- No bonding – positive for taxpayers
- Holistic approach – bundles improvements to maximize efficiency
- Financial guarantee
- Expedites the implementation – save \$\$ sooner
- Guaranteed pricing – no change orders
- Vendor neutral
- Innovative solutions
- Collaborative effort

"Keeping Derby Moving Forward"



# Steps in Process

- Discuss your issues and priorities (all electric high school, aging boilers at elementary schools, city hall equipment and controls)
- What we evaluate:
  - All building systems
    - Boilers, air conditioning, controls, lighting, water, renewable energy
- Develop interactive model of projects
  - Prioritize based on need, cost and savings
- Collaborative process – select equipment (best match for energy savings and ease of maintenance)
- Financial model
- Construction Schedule
- Calculate Incentives

# Additional Benefits

- Incentives/Grants – various sources
- Municipal Energy Pledge – fosters economic growth (recognition and grant eligibility)
- Long term capital planning – reduce risk
- Educational programs/community outreach
- Flexibility – your priorities included (phone system), others?
- Public relations – highly visible

# Sample of Experience and References

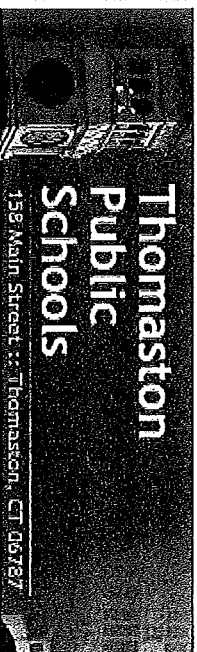
- Over 3,200 performance contract projects
- Over \$5 Billion in financial guarantees



**North Haven, CT (town and schools)**  
 \$6.0 Million in improvements  
 20 Year Guaranteed Savings  
 \$900,000 in UI incentives



**East Hartford, CT (town and schools)**  
 • 2 phases – \$12 Million in improvements  
 • \$1.4 Million in incentives received  
 • Over \$1 million savings/year



**Thomaston, CT (town and schools)**

- \$2.9 Million in improvements
- Installation of geothermal system
- \$96,250 – geothermal rebate
- Over \$230,000 savings/year



**Lawrence & Memorial Hospital - New London, CT**

**CELEBRATING A CENTURY OF CARE**  
 "Keeping Derby Moving Forward"

- \$8.5 Million in improvements
- Largest incentive - \$2.0 Million
- Over \$800,000/year savings

**October 7, 2015**  
**North Haven celebrates first of many energy upgrades**



Fifth-graders at Montowese School look at before and after pictures of the recently-replaced school boilers, part of a program that will save the town \$6 million in energy-related infrastructure upgrades to be completed by next summer. Kate Ramunni — New Haven Register

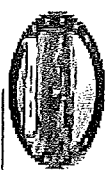
**“North Haven embarked on this important initiative and Johnson Controls has done a great job in doing the research for the town,” First Selectman Michael Freda said. “We have been absolutely delighted with the results.”**

The work will be completed without the town having to go out to bond the money, Freda said.

“This initiative is one of the most unique things a municipality can do,” Freda said.

The town entered into a performance contract with Johnson Controls that requires no upfront costs or any debt, he said.

“Keeping Derby Moving Forward”



# Why Johnson Controls

- Johnson Controls – 130+ yrs. in business – Building Efficiency - not a subsidiary or separate entity
- Extensive experience – specialized teams (engineering, construction, operations and energy specialists)
- FINANCIAL GUARANTEE --- WHAT IT MEANS
- Our Team - We are responsible for development, reporting and financial outcome.
  - Rigorous process
  - Financial guarantee promotes results
  - Equipment evaluated – must be reliable for the long term and results
  - Track, measure, report = outcome
- Over 3,200 performance contracts with over \$5 Billion in Guarantees



"Keeping Derby Moving Forward"



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# THE CITY OF DERBY

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## GOING GREEN

Presented By:

**TOTAL ENERGY  
CONNECTIONS, LLC.**

April, 2016





Total Energy Connections is proud to present the City of Derby the following energy savings projects. Based on our comprehensive energy audit at City Hall and the City Hall Garage, we found that the City of Derby can achieve significant reductions in energy costs based on a comprehensive energy project through United Illuminating's Energy Opportunities Program.

The turn-key project will include lighting upgrades in addition to heating and air-conditioning upgrades. The new equipment installed will be high efficiency equipment resulting in a reduced energy bill. In addition to the equipment, labor and incentives. Total Energy Connections project costs includes: complete removal of existing equipment and proper disposal of all materials.

Outlined below are details of the projects. The incentives **estimated** are based on all equipment listed being upgraded to include a comprehensive bonus based on our experience with the utility program.

The City could also take advantage of United Illuminating's 0% interest financing up to \$100,000 that would reside on the City's Utility Bill for 48 months and the remaining portion through a Tax-Exempt Municipal Lease program.



## City Hall Lighting and HVAC

- o Change out Light Fixtures to New LED Fixtures in Offices, Halls, and Common Areas
  - o Change out T8 Lamps to LED Instafit Lamps in closets, and areas with minimal usage
- o Change existing Ballasts to New Low Power Ballasts in closets and areas with minimal usage
- o New LED Fixtures in Exterior Areas
- o New HVAC Rooftop Unit Change-Out
- o Rigging, Disposals, Lift Rentals, and Dumpsters included in project cost
- o Interior Lighting 5 Year Manufactures' Warranty
- o Exterior Lighting 10 Year Manufactures Warranty
- o 1 Year Labor Warranty

\*All project costs and incentives are estimates and subject to change upon utility review.

Total Project Cost .....	\$270,388.97
Estimated Annual Electric Savings .....	\$18,171.17
Estimated Utility Incentive.....	\$132,173.78
Estimated Project Balance .....	\$138,215.20
United Illuminating 0% on-Bill Financing .....	\$100,000.00
Customer Balance .....	\$38,215.20



## City Hall Garage Lighting

- o New LED Fixtures in Garage
- o Disposals, Lift Rentals, and Dumpsters included in project cost
- o Exterior Lighting 10 Year Manufactures Warranty
- o 1 Year Labor Warranty

\*All project costs and incentives are estimates and subject to change upon utility review.

Total Project Cost .....	\$70,598.80
Estimated Annual Electric Savings .....	\$15,905.70
Estimated Utility Incentive.....	\$25,622.00
Estimated Project Balance .....	\$44,976.80



### City Hall Lighting, HVAC, and City Garage Lighting Totals

Total Project Cost .....	\$340,987.80
Estimated Annual Electric Savings .....	\$34,076.87
Estimated Utility Incentive.....	\$157,795.80
Estimated Project Balance .....	\$183,192.00
United Illuminating 0% on-Bill Financing .....	\$100,000.00
Customer Balance .....	\$83,192.00