



**COUNTY OF KENDALL, ILLINOIS
SPECIAL COMMITTEE OF THE WHOLE
COUNTY OFFICE BUILDING
County Board Rooms 209-210**

**Tuesday, January 31, 2017 at 6:00 PM
AGENDA**

- 1. Call to Order and Pledge of Allegiance**
- 2. Roll Call:** Matt Kellogg, Audra Hendrix, Matthew Prochaska, John Purcell, Bob Davidson, Elizabeth Flowers, Tony Giles, Scott Gryder, Lynn Cullick, Judy Gilmour
- 3. Old Business**
 - *Leopardo Presentation (with Question and Answer Period)*
 - *Discuss Replacement of Air Conditioning Equipment and Alternative Fuel Vehicles*
- 4. New Business**
- 5. Public Comment**
- 6. Questions from the Media**
- 7. Chairman's Report**
- 8. Review Board Action Items**
- 9. Executive Session**
- 10. Adjournment**

COUNTY OF KENDALL, ILLINOIS
COMMITTEE OF THE WHOLE
Thursday, January 12, 2017

CALL TO ORDER AND PLEDGE OF ALLEGIANCE

The meeting was called to order by County Board Vice Chair Scott Gryder at 4:00p.m., who led the committee in the Pledge of Allegiance to the American Flag.

ROLL CALL

Present: Scott Gryder – present, Lynn Cullick – here, Judy Gilmour – here, Matt Kellogg - yes, Audra Hendrix - here, Matthew Prochaska – here, Bob Davidson – yes, Tony Giles - here

Committee Members Absent: Elizabeth Flowers, John Purcell

Others present: Sheriff Dwight Baird, ASA Leslie Johnson, Technology Director Scott Koeppel, Health Department Executive Director Amaal Tokars, State’s Attorney Eric Weis, and County Administrator Jeff Wilkins

OLD BUSINESS - None

NEW BUSINESS

- *Public Act 99-900 IMRF Participation Requirements* – County Treasurer & Collector Jill Ferko explained that the proposed resolution was sent to her by IMRF and the one they are requiring for some of the Board members participation, and that she wanted the proper resolution on file with IMRF. The item will be added to the County Board agenda for January 17, 2017

- *Black and White Printing of Committee Packets* – Member Cullick stated that the Admin HR committee has had conversations about the cost of printing packets in color vs. black and white. Scott Koeppel, Technology Director, reported the cost for printing in color is 7 cents per page, black and white is .7 per page. Mr. Koeppel also said that if even one page contains color, the whole document would cost the color price. Member Cullick stated that the committee thought it would be a significant amount of savings to print packets in black and white.

- *Process for appointing/re-appointing Chief Assessor* – Member Cullick stated that the Admin HR committee has been in discussion on the current Chief Assessor term length, when the current Assessor is up for reappointment, the 120/90 day notice if the County Board did not choose to reappoint the current assessor, the process for appointing and reappointing, previous evaluations, and an evaluation to be done by the County Board in February.

PUBLIC COMMENT – None

QUESTIONS FROM THE MEDIA - None

CHAIRMAN'S REPORT – No report

REVIEW BOARD ACTION ITEMS – Nothing to add

EXECUTIVE SESSION – Member Davidson made a motion to enter into Executive Session for the purpose of the appointment, employment, compensation, discipline, performance, or dismissal of specific employees of the public body or legal counsel for the public body, seconded by Member Hendrix.

ROLL CALL: Member Hendrix – aye, Member Giles – yes, Member Cullick – yes, Member Gilmour – yes, Member Gryder – yes, Member Davidson – yes, Member Prochaska – yes

With all present voting aye, the committee entered Executive Session at 4:12p.m.

ADJOURNMENT – Member Kellogg moved to adjourn the meeting at 4:27p.m. Member Cullick seconded the motion. The motion was unanimously approved by a voice vote.

Respectfully Submitted,

Valarie McClain
Administrative Assistant/Recording Secretary

EXECUTIVE SUMMARY

GUARANTEED SAVINGS PERFORMANCE CONTRACT | THE COUNTY OF KENDALL



Work to Date/Timeline:

- Project development began with an offer from Leopardo to complete a facility assessment of all the county buildings to determine if the County could take advantage of specific legislation allowing for Qualified Performance Contracting entities to upgrade and/or replace outdated, inefficient energy consuming infrastructure with more efficient equipment and systems at little to no cost. Infrastructure to be assessed includes: Boilers, HVAC Equipment, Air Handlers, Building Control Systems, Interior/Exterior Lighting, Vehicle Fleet, etc. These type of energy efficiency projects, delivered under specific Illinois legislation are called Energy Savings Performance Contracts (ESPC) **

The energy savings (\$) derived from an ESPC project pays for the project by either direct funding from current budgets or payment to a third party financing the project over time.

- Kendall County accepted Leopardo's offer to proceed with a no cost/no obligation building by building and fleet assessment to determine the current energy efficiency of these elements and determine the possible parameters of an overall project potential. The assessment, at this stage, does NOT represent a complete and detailed final engineering design but rather tests these two questions:
 1. *Are there needed infrastructure replacements or upgrades that can improve energy efficiency and save money*
 2. *Can a financial model be developed to enable a specific ESPC project scope to be completed?*



ESPC Facility Assessment Process:

- With assistance from County Staff, Leopardo physically surveyed each building to determine the status of the energy consuming infrastructure (lights, HVAC, etc.)
- Copies of electrical and gas utility bills, county fleet vehicle information (including age, miles driven and fuel consumption costs) were provided by County Staff
- Leopardo used all of this information, performing rigorous calculations and leveraging national databases and internal historical databases to determine that there was good potential for a significant project (\$9,000,000 in scope) depending on the financial preference of the County
- Leopardo reviewed the preliminary findings with the County and were advised that based on the current annual budget and limited reserves that only a self-funding project would be considered. In short, there was no interest in providing funds to help repair or replace the entire aged and outdated energy inefficient infrastructure
- With that direction, Leopardo completed the project's potential assessment and value proposition based on a self-funding project. A project that would be paid for by reduced energy and operational costs applied against the entire project cost with funding provided by a third party



Facility Assessment Final Conclusion:

- Based on the direction from the County to provide a self-funding solution to the most dire infrastructure needs, the final report recommends a project be undertaken to replace the Public Safety building's environmental control systems and three outdated refrigeration equipment plants for the cooling of the Public Safety facility. To provide needed cash flow to self-fund the project, Leopardo also recommends upgrading the County-owned vehicles with a dual-fuel system utilizing propane. **This is the self-funding scope: Public Safety building cooling systems replacement, building automation systems for all County buildings and vehicle fuel upgrades**

EXECUTIVE SUMMARY

GUARANTEED SAVINGS PERFORMANCE CONTRACT | THE COUNTY OF KENDALL



Facility Assessment Final Conclusion (continued):

- The savings derived from reduced energy consumption due to more efficient refrigeration equipment, building operations and more efficient county fleet vehicle operation would pay for the cost of the project including the initial project development, final engineering, equipment selection and purchase and financing over the term of 15 years
- Bear in mind: this preliminary Facility Assessment is a Performa level review of the Project potential. While Leopardo **strongly** believes that the Project is self-funding and represents the best value proposition for the investment, final design, coordination and engineering **has not** been completed. There has been no commitment made to Leopardo for selection to perform the actual project nor is there any commitment to pay Leopardo for the initial project development and assessment completed to date
- Leopardo's recommendation to Kendall County:
 - ✓ take advantage of the Performance Contracting Legislation to fund the identified equipment replacement needs that benefit the long term performance and operation of the Public Safety facility
 - ✓ proceed as prescribed by law and solicit final proposals from qualified ESPC Contractors, including Leopardo, to complete the engineering and design, collaboration with the County on final equipment selection, competitive procurement of the scope recommended equipment, and coordinate with the County and Building Staff on in-place, no down time installation



Project Financial Summary

1. Project Investment: \$1,931,296
2. Term of Financing: 15 Years
3. Savings Over Term: \$3,385,957
4. Positive Cash Flow: \$1,046,199
5. Scope: HVAC controls upgrade to eight county buildings
LED lighting upgrades to Public Safety Center
PC power management software
Public Safety Center refrigeration/cooling equipment AHU1, AHU2, MZU3
Fleet fuel upgrade for 43 vehicles



Next Steps:

1. In accordance with performance contracting legislation, the County Board must vote to approve the placement of a legal advertisement soliciting proposals/qualifications for the desired scope of work from qualified ESPC firms
2. A third party engineer evaluates the proposals for soundness of the engineer, the proposed project parameters, and the project savings guarantee
3. The County then selects a Provider, negotiates and executes a Letter of Intent (the point of initial commitment of \$'s)
4. The Provider completes final engineering and design and make a final firm value proposition – scope, timing, savings, guarantee
5. Final negotiation and agreement for an executed contract (the point of final commitment of \$'s)
6. Project is executed and savings begin to accrue

** The overall value proposition for a performance contracting approach allows public entities (schools, towns/cities/county governments, independent taxing bodies (water, waste water, libraries, etc.) to pursue a qualification based selection process of an ESPC proposer to develop a project in a design/build fashion with the proposer guaranteeing project performance, savings and cost (no change orders!) for the life of the Project.

This approach does not have to rely on increased indebtedness, increase in taxes, or other traditional funding approaches for owned/operated infrastructure and can utilize third party financing as an alternative without a corresponding impact to indebtedness.

It is a viable, legal alternative to standard design, bid, build where the public entities traditionally hold the risk and responsibility for design and ultimately project success.



FREQUENTLY ASKED QUESTIONS

Why now?

To reduce Kendall County's operating costs and ensure the replacement of the heating and air conditioning system at the Public Safety Center will be completed before summer.

How will the cost of the project be paid for?

By lowering the budgeted Natural Gas, Electric and Fleet Fuel cost.

Are the projected savings guaranteed?

Yes. The winning bidder must Guarantee the project savings or write a check to Kendall County for the difference. Kendall County also keeps all savings above expectations.

Will the project be competitively bid?

Yes.

Will this raise my taxes?

No. The cost of the project will be paid for by the "guaranteed savings" created by reducing utility costs, lower fleet fuel costs, and lower maintenance.



FREQUENTLY ASKED QUESTIONS

Will this lower the county's operating cost moving forward?

Yes. Total guaranteed savings is \$168,842.

What are the projected annual savings per year?

Building Utilities \$69,690. Fleet Fuel Savings \$92,532. General Maintenance \$6,621.

When will the work take place?

The beginning of April to ensure completion before summer heat arrives.

When will final approval to move forward be given to the board?

During the February board meeting.

What state law governs "performance contracting?"

The Illinois General Assembly enacted 50 ILCS 515/1 which establishes the basis for energy efficiency in state and local government buildings. This bill authorizes guaranteed energy savings performance contracting

Will this project lower Kendall County's Carbon Footprint?

Yes. It will remove 513 tons of CO2. That's like removing 152 cars or planting 1127 trees.

Executive Summary Overview

Kendall County Public Safety Center

January 26, 2017

Existing Condition:

The Public Safety Center is located at 1102 Cornell Lane in Yorkville, IL. The facility is a 2 story administration office and jail facility. The administrative area is approximately 26,000 square feet in dimension and is served by two (2) AHU units # 1 & 2. The west jail area is approximately 8,800 square feet in dimension and is served by AHU#3. The Administration office AHU's are constant volume with frequency drives units with main hot water heating coils with associated VAV boxes with hot water reheat and electric steam grid humidifiers. The Jail AHU's are constant volume units with frequency drives with a main hot water heating coil, dx coil with dual acting damper multi-zone air handlers. The entire Penthouse areas are filled housing the existing AHU's and associated components. In the Administrative areas ductwork is distributed horizontally on each floor to each zone. In the Jail both supply and return ductwork is distributed around the penthouse to each jail zone.

In the Administration areas the HVAC System Controls were upgraded several years ago to Trane DDC computerized control. The Trane DDC contains the AHU and condensing unit only. The VAV controls are still pneumatic on the Robertshaw system. In the Jail area the HVAC System Controls are original to the facility and are on a Robertshaw pneumatically controlled system.

AHU-1, AHU-2, and MZU-3, and MZU-4 date back to the building's 1991 construction. In 2014 the refrigeration system on MZU - 4 failed and was replaced. Given the high cooling demand along with the 24-7 runtime on these units, the other refrigeration systems are near the end of their useful lives and will need to be replaced. Additionally, the R-22 refrigerant has become obsolete and is no longer in production. This means any repairs done to the existing systems shall be significantly more expensive.

KCFM is proposing to replace all of the 1991 refrigeration systems with new, high-efficiency systems. This includes new compressors and condensing units, new refrigerant piping, and new coils for AHU-1, AHU-2, and MZU-3. The new systems shall significantly reduce the cooling energy required, thus reducing the electrical costs. New environmentally friendly refrigerant shall significantly reduce maintenance costs. Capital cost avoidance will be observed as well, as the existing systems are prone to failure given their age and significant demand.

The facility was originally built in 1992 at a time when building/energy codes were not as strict and demanding as they are today. As such, HVAC systems like these met code, and were the industry standard at that time. If this same facility were to be built brand new today, this exact HVAC system type would not meet current building/energy code, and thus would be disallowed by code. The scope of our proposed project includes updating the building HVAC systems to be ultra-high energy efficiency, and brings the HVAC systems up to meeting current code.

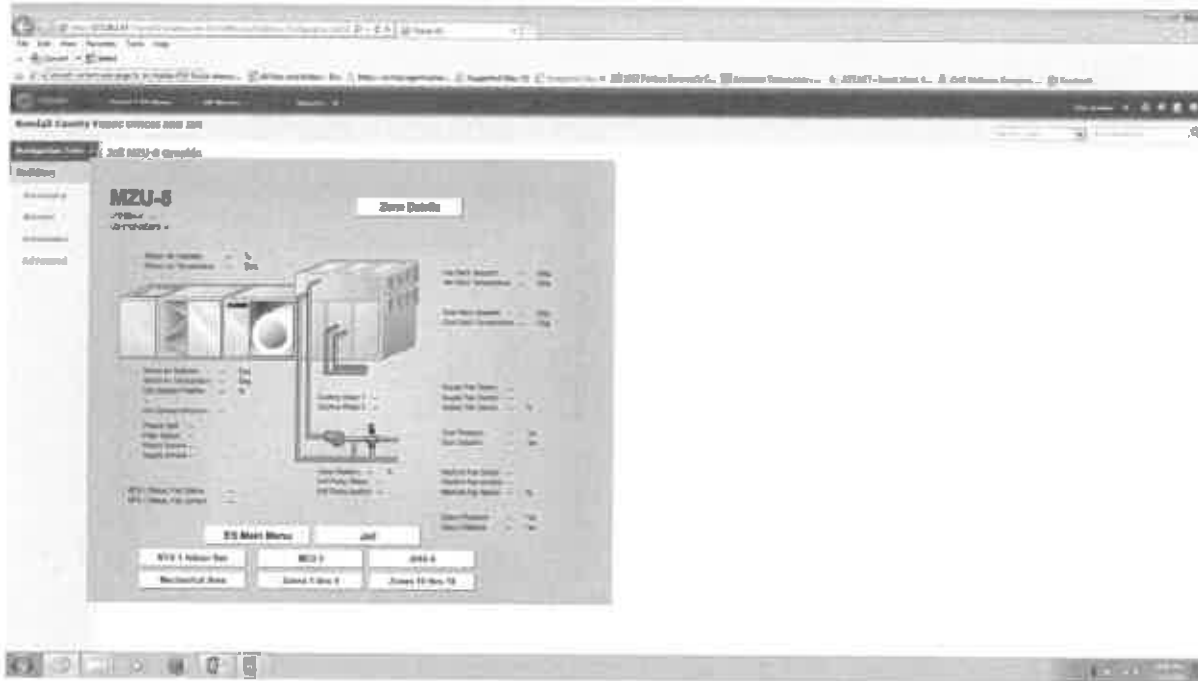
Solution:

- Replace the existing AHU coils and condensing units with new energy efficient units. The components would be comprised of new condensing units, new evaporator coils and new controls based on the Trane ES system in place.
- Unit to be installed on a Vibration Isolation curb with sound attenuation ballast.
- Install new evaporator coil in the existing AHU.
- Install new refrigerant piping to the new evaporator coil.
- Install or upgrade existing Trane DDC controls for AHU 1 & 2.
- Install new DDC controls to AHU#3 in the Jail.
- Expand the existing Trane DDC Controls to the new systems

Benefits:

- New systems will meet Energy Codes
- Better temperature and humidity control for the areas where equipment is being replaced
- Reduced energy costs annually
- Modernizes all HVAC controls to a single networked system
- Reduced O&M costs

Typical Existing PSC Multi-zone AHU Systems



Kendall County Public Safety Center H.V.A.C. Equipment Replacement

AHU	Condensing Unit	Manuf.	Cooling Size
AHU - 1	ACCU - 1	Trane	80 tons
AHU - 2	ACCU - 2	Trane	40 tons
MZU - 3	ACCU - 3	Trane	40 Tons

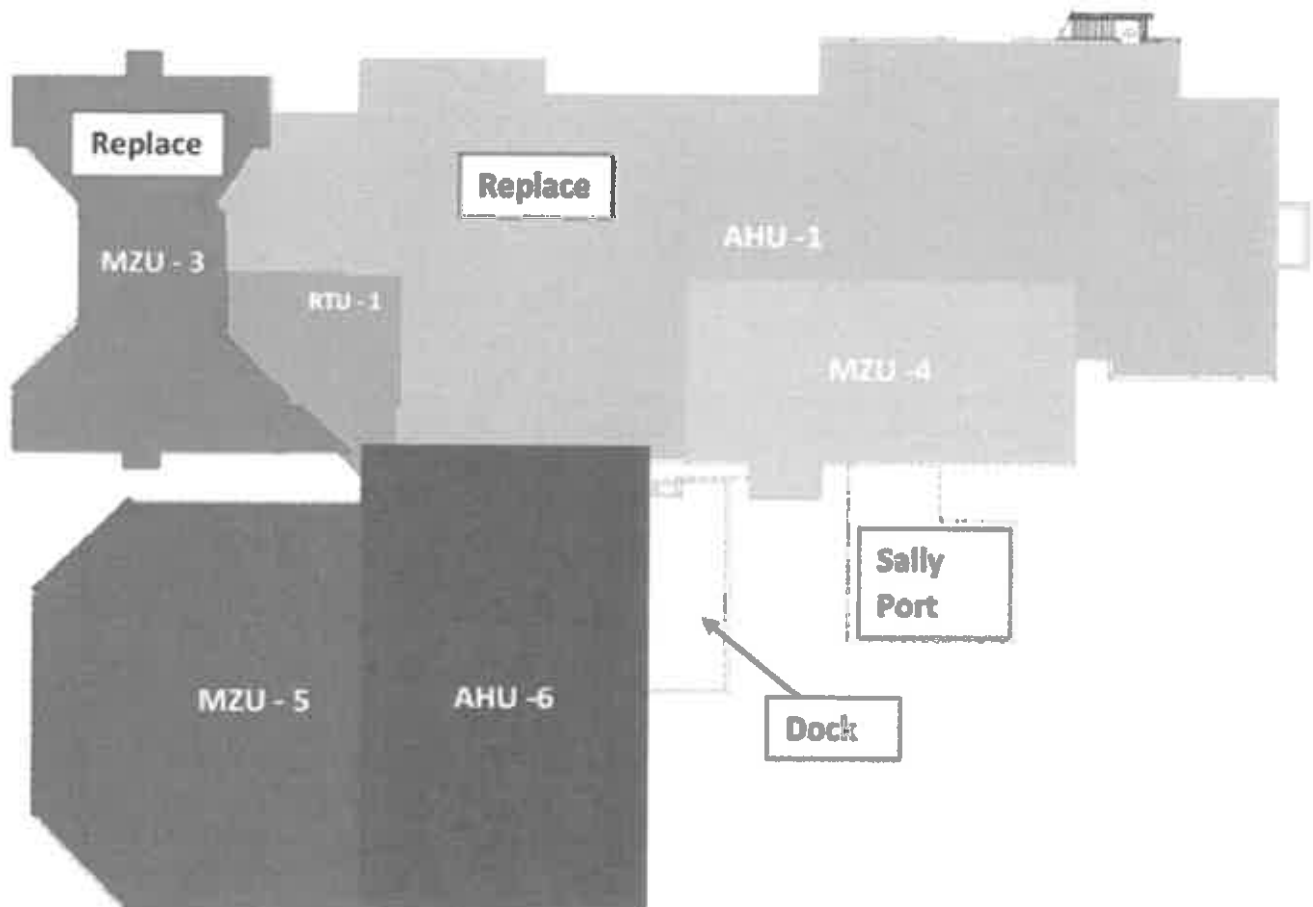
Note

AHU = Air Handler

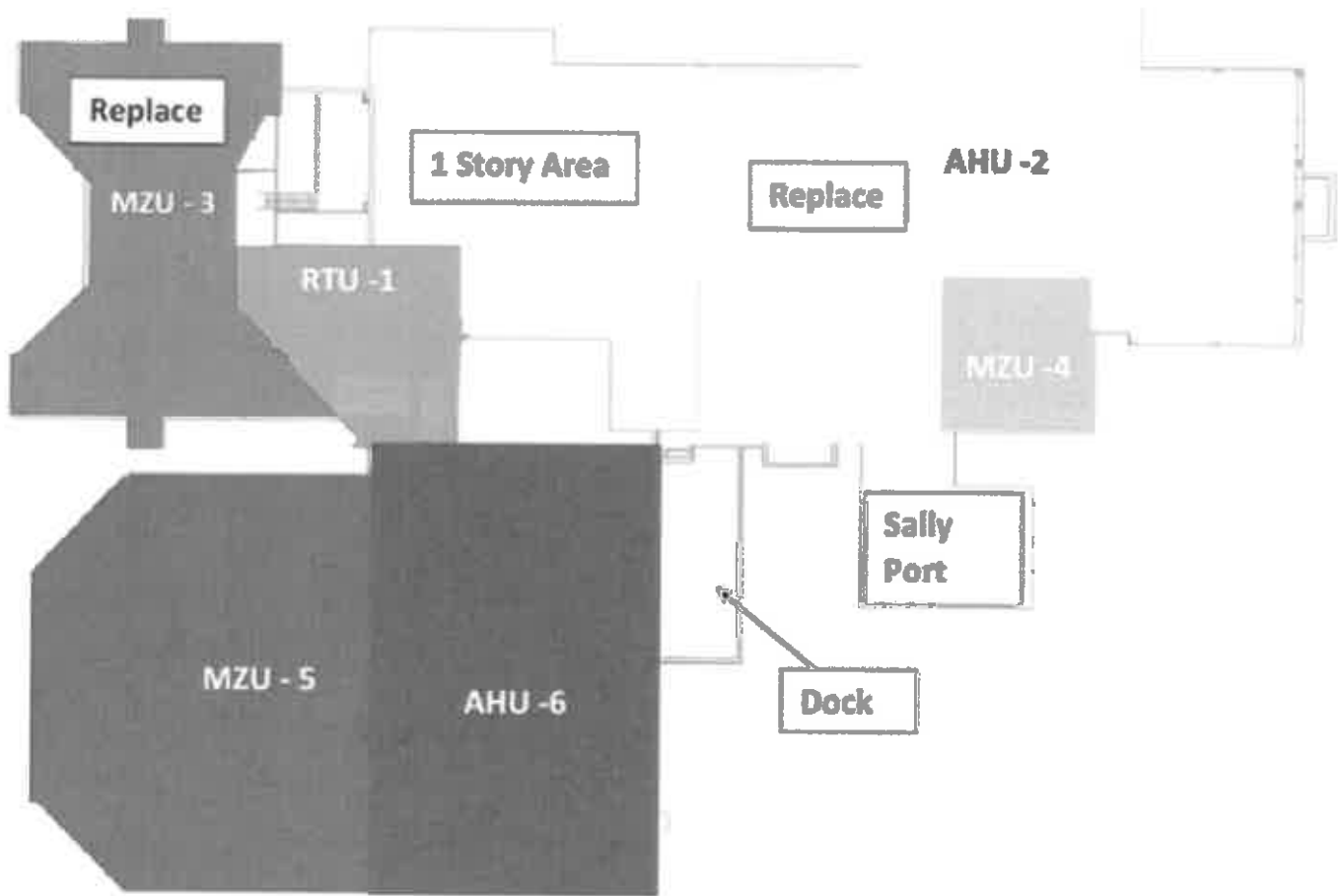
MZU = Multi-zone unit

Public Safety Center

H.V.A.C. Unit Coverage areas - 1st Floor



H.V.A.C. Unit Coverage areas – 2nd Floor

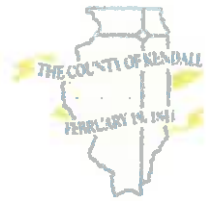




Kendall County

Office of the Sheriff

Dwight A. Baird, Sheriff
1102 Cornell Lane Yorkville Illinois 60560
Phone: 630-553-7500 Fax: 630-553-1972
www.co.kendall.il.us/sheriff



APPROVAL OF REQUEST FOR RECORDS

TO: Patrick Stiles

DATE: December 24, 2017

On January 20, 2017, the Kendall County Sheriff's Office received your written request for public records. In response to your request and pursuant to the Illinois Freedom of Information Act, please be advised that your request for records is granted in its entirety.

I. List of Approved Records

The categories of records for which we approved your request are as follows:

Total revenue and cost to house out of county prisoners for the months of Oct., Nov., & Dec., 2016. Also information pertaining to work. comp. claims for correctional deputies during same time frame.

If you have any questions regarding this matter or require further information, please feel free to contact the undersigned.

Very truly yours,

A handwritten signature in cursive script that reads "Dee Fuchs".

Dee Fuchs
Freedom of Information Act Officer
Kendall County Sheriff's Office
630.553.7500 x1100

County	Month/Year	# of inmates	# of Inmate Days	Revenue	# of Meals	Cost of ea meals	total cost of meals
Kane Co.	16-Oct	1	31	1,860	93	1.28	119.04
DuPage Co.	16-Oct	2	62	3,720	186	1.28	238.08
Dekalb Co.	16-Oct	17	407	24,420	1,221	1.28	1562.88
Cook Co.	16-Oct	37	516	30,960.00	1,548	1.28	1981.44
Fed's	16-Oct	11	247	18,525	741	1.28	948.48
Total	16-Oct	68	1,263	79,485	3,789		3,996.48
Kane Co.	16-Nov	1	9	540	27	1.23	33.21
DuPage Co.	16-Nov	2	60	3,600	180	1.23	221.4
Dekalb Co.	16-Nov	13	315	18,900	945	1.23	1,162.35
Cook Co.	16-Nov	40	723	43,380	2,169	1.23	2,667.87
Fed's	16-Nov	12	280	21,000	840	1.23	1,033.20
Total	16-Nov	68	1387	86,880	4,161		5,118.03
Kane Co.	16-Dec	0	0	0	0	0	0.00
DuPage Co.	16-Dec	2	32	1,920	64	1.23	78.72
Dekalb Co.	16-Dec	10	260	15,600	780	1.23	959.40
Cook Co.	16-Dec	42	750	45,000	2,250	1.23	2,767.50
Fed's	16-Dec	11	299	22,425	897	1.23	1,103.31
Total	16-Dec	65	1341	84,945	3,991		4,908.93

Attachment G

total

251,310.00

14,023.44

KCSO
COPY
TO: PATRICK STILES

Work Comp Claims for Corrections Deputies for Oct, Nov, Dec of 2016

Corrections 11/2/2016 --Exposure to Bodily Fluids/Infectious, employee went to retrieve tray from inmate cell and inmate threw urine and feces at employee face.
Inmate Cano, Taylor (Kendall Inmate)

Corrections 11/15/2016 --Hostile Acts of Other Persons, deputy was collecting dinner trays while doing so an inmate struck the deputy in the face causing the Deputy to lose a tooth.
Inmate Cano, Taylor (Kendall Inmate)

Corrections 11/15/2016 --Hostile Acts of Other Persons, deputy was collecting dinner trays while doing so an inmate struck the deputy.
Inmate Cano, Taylor (Kendall Inmate)

Corrections 12/22/2016 --Hostile Acts of Other Persons, inmate was handing over shaving supplies and while doing so struck the Deputy in the face.
Inmate Cano, Taylor (Kendall Inmate)

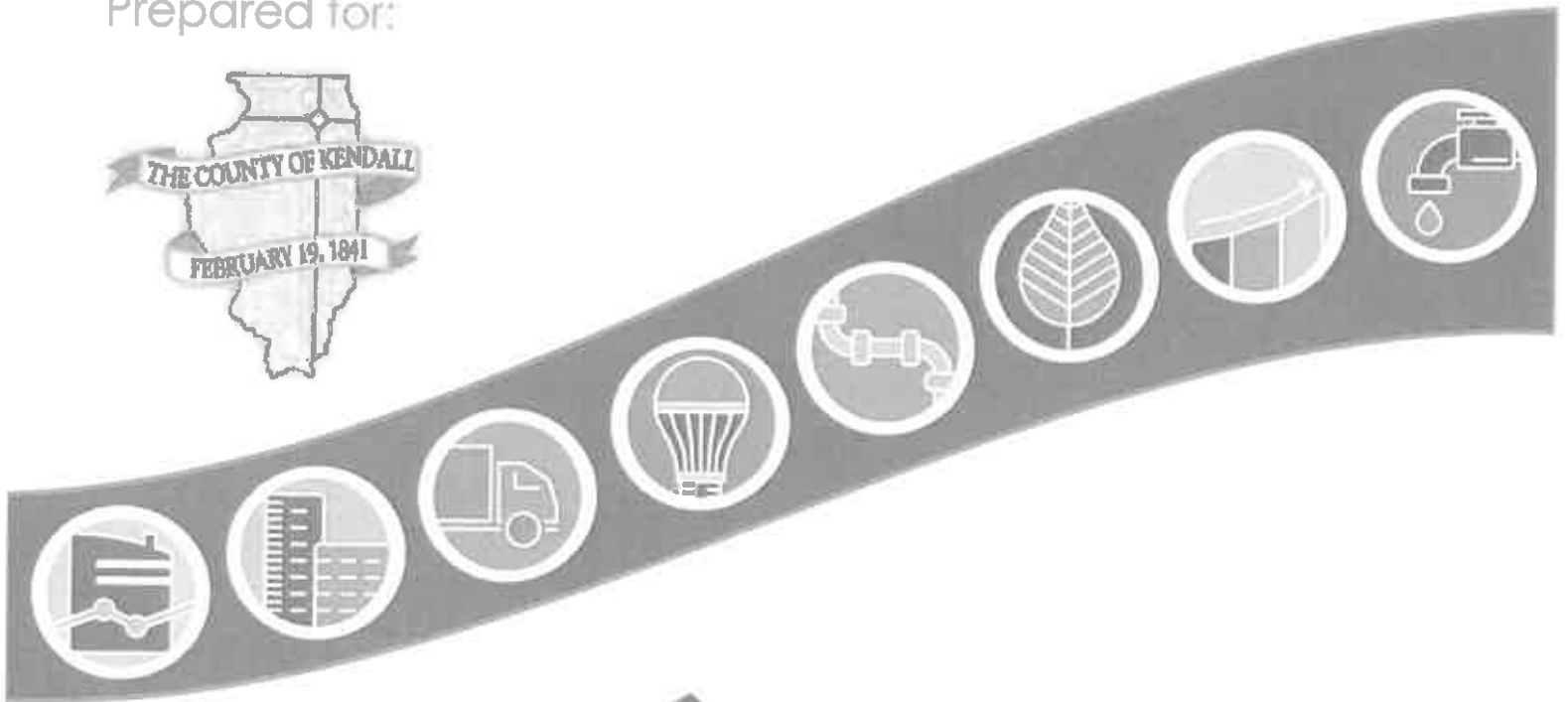
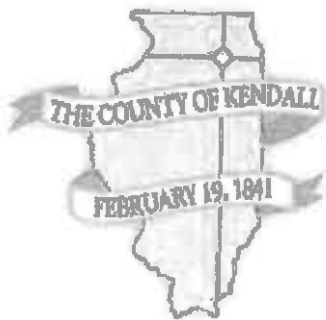
KCSO
COPY
TO: PATRICK STILES



FACILITY SUMMARY

Energy Service Providers for Self Funding
Energy Efficiency Improvements

Prepared for:



Submitted October 24, 2016



CONTENTS

1. Executive Summary
2. Budget Analysis
3. Field Survey & Energy Conservation Recommendations
4. Savings Summary
5. Business Case Analysis
6. Illinois ESPC Summary
7. Next Steps
 - a. RFP ESPC Legal Advertisement
 - b. RFP/Q ESPC Document
 - c. ESPC 3rd Party Evaluation Information
 - i. Sample RFQ for 3rd Party Review Services
 - ii. Recommended Firms for Solicitation
 - iii. Budget Estimate





EXECUTIVE SUMMARY

The purpose of this feasibility study is to identify projects that will significantly reduce owning and operating costs for Kendall County. This energy conservation program is the funding vehicle that allows you to use guaranteed savings from the County's maintenance and operations budget (utilities) as capital to fund needed upgrades and modernizations to the infrastructure, and is financed over a specified period of time.

This program is designed to be budget neutral or better, and to create a positive cash flow that improves the financial performance for the County. **Leopardo can guarantee that cost avoidance (utility and operations expenses) will meet or exceed annual payments to cover all project costs over an agreed debt service period, or Leopardo pays the difference.**

A team of experts from Leopardo worked with County personnel to conduct a utility and/or field audit at the following locations:

1. **Animal Control**
2. **County Office Building**
3. **Courthouse**
4. **Facilities Management & Coroner Building**
5. **Health & Human Services**
6. **Highway Department**
7. **Historic Courthouse**
8. **Public Safety Center**

In addition to auditing the County owned buildings, Leopardo conducted a thorough analysis on the following County-wide operations:

1. **County Owned Street Lights**
2. **County Owned Vehicles**

This report has been generated through analysis of your existing energy data, as well as information collected during the initial facility surveys. Based on these preliminary findings, your decision to proceed initiates a detailed engineering study where specific energy conservation measures and detailed pricing will be identified. Our unique interactive consultation provides you with the opportunity to select the best combination of improvements for your infrastructure. Upon execution of contracts, we implement the recommended measures and begin the process of ensuring their results.

The following report includes energy conservation measures and savings information designed to assist the County in meeting its long-range plans for reducing energy use and costs and to improve the facilities through increased environmental stewardship. We appreciate the opportunity to collaborate with the County and look forward to implementing a comprehensive project to maximize efficiency and savings.

Leopardo will continue to help Kendall County:

- Determine the infrastructure, buildings and ECMs for the project
- Plan current and future capital expense reports
- Develop the request for proposals documents



EXECUTIVE SUMMARY

Our goal in presenting this report is to communicate the opportunity to optimize the cost/benefit of your energy/maintenance expense dollars using the performance contract procurement method that will yield material benefit to the County. This can include the following:

- Sustained energy cost reduction
- Future energy and operating cost retention
- Leverage current energy and operating budget to address infrastructure needs
- Enhance the environment and comfort for County staff and citizens
- Enable the County to redirect capital budgets to higher value-added projects that will help grow the County



Based on the current expenditures of the County in building utilities, building maintenance, and fleet fuel, Leopardo has determined the following cost savings opportunity.

Annual Cost Savings

Building Utilities	\$69,690
Fleet Fuel	\$92,532
General Maintenance	\$6,621
Total	\$168,842

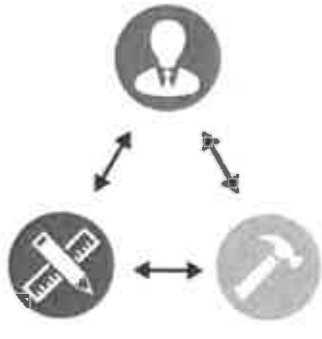
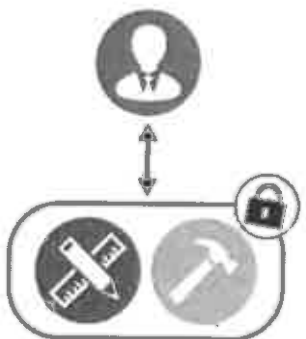


EXECUTIVE SUMMARY

CONTRACT METHODS

TRADITIONAL CONSTRUCTION

PERFORMANCE CONTRACTING

RISK ASSESSMENT				
	Owner	AE/GC	Owner	Leopardo
Schedule Risk	✓			✓
Financing Risk	✓			✓
Design Engineering		✓		✓
Performance Guarantee	✓			✓
Cost Guarantee	✓			✓
Project Management		✓		✓
Results Accountability	✓			✓

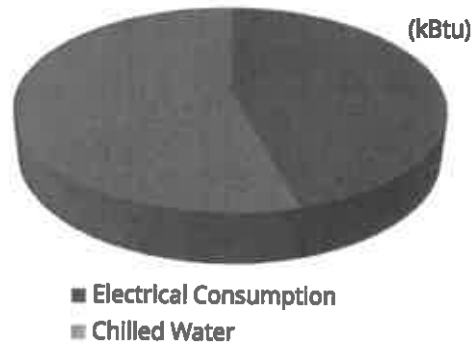


BUDGET ANALYSIS

To evaluate energy consumption for Kendall County, a utility bill analysis was performed. Twenty-four (24) months of utility bill data were collected, sorted and analyzed to identify energy consumption trends for the County's entire infrastructure. The data was organized our analysis software and analyzed based on several metrics. The following graphics represent a summary of the analyzed utility data. Additionally, the County's budget for fleet services, and building operations were evaluated and summarized in the charts below.

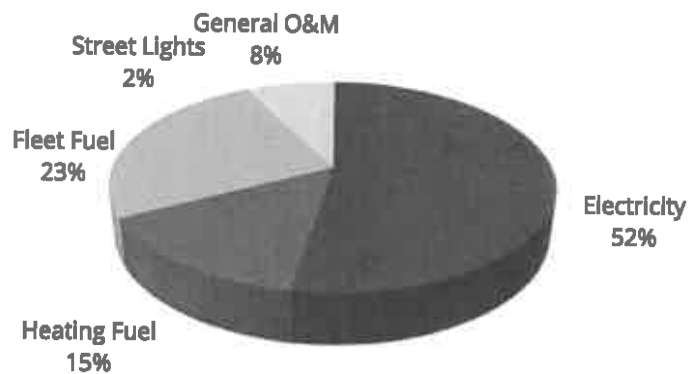
Annual Energy Profile

5,505,157	kWh
22,480,213	kBtu - Heating
103	kBtu/ft ²



Annual Cost Profile

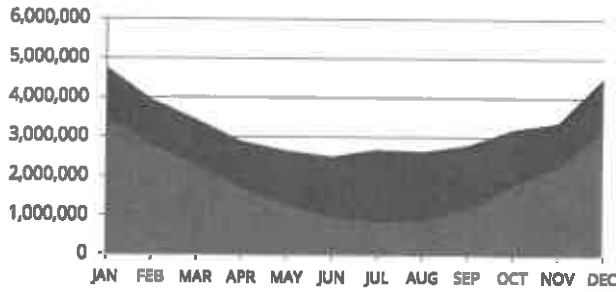
Electricity	\$	510,792
Heating Fuel	\$	143,403
Fleet Fuel	\$	222,630
Fleet Operations	\$	222,630
Street Lights	\$	22,500
General O&M	\$	75,000
Total	\$	974,325



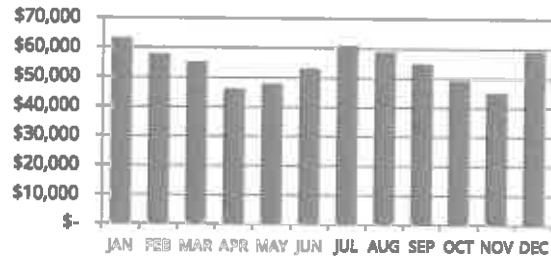
BUDGET ANALYSIS

MONTHLY ENERGY PROFILE FOR BUILDINGS

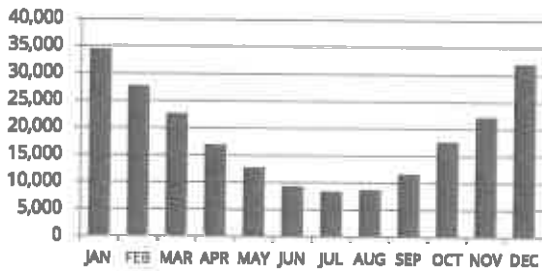
Total Energy Consumption (kBtu)



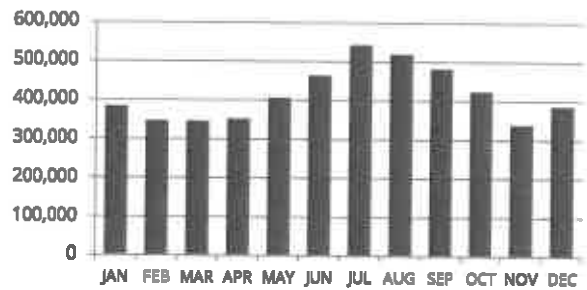
Utility Costs (\$)



Heating Fuel Consumption (Therm)



Electrical Consumption (kWh)



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

ANIMAL CONTROL

800 John Street | Yorkville, IL 60560

Year Built:	1991
Renovations:	-
Square Footage:	3,360
# of Stories:	1
Occupancy:	5
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$6,110
Hours of Operation:	M-F / 8:00: AM – 5:00 PM



Current Building Conditions

Lighting

- The office area consists of 4-foot, 2-lamp fixtures that have been retrofitted to LED tubes fixtures in 2010. The kennel area consists of both 4-foot and 8-foot T12 fixtures. The exterior lights consist of 4 150W wall packs.

HVAC

- The office area is conditioned by an original natural gas fired 70% efficient furnace and R-22 air conditioner.
- A small gas water heater provides the domestic hot water needs for the office and the kennel.
- A small boiler provides under-floor radiant heating for the kennel area. The kennel is also partially cooled by two small window units. Small exhaust fans provide ventilation for the kennel.
- The storage garage on the west side of the building is served by a unit heater.

Building Automation Controls

- The split system and boiler are controlled by programmable thermostats.
- There are no controls for the window units serving the kennel.

Plumbing

- Urinals are 1.0 gallons per flush, and the toilets are 1.6 gallons per flush and are in good condition. The bathroom sinks are 0.5 gallons per minute.

Building Envelope

- The windows are fixed single pane with tinted glass. The doors are tinted with double pane glass. The weather stripping appears to be in fair condition.

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 88 kBTUs per square foot. The annual utility cost of the facility is \$6,110 per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

ANIMAL CONTROL (Continued)

802 John Street | Yorkville, IL 60560

Site Photos



Boiler & Pump



Window AC For Kennel



T12 Lighting



Exhaust Fan In Kennel



Furnace



Condensing Unit

Energy Conservation Recommendations

Lighting

- The exterior lighting and interior lighting should be upgraded to LED. Exit signs shall be upgraded to LED as well. There are several areas where occupancy sensors can be utilized, such as restrooms, utility rooms, conference rooms, and private offices.

HVAC

- It is recommended to replace the boiler and boiler water circulation pump.
- The split system serving the office should be replaced.

Building Automation Controls

- The thermostats should be replaced with new current technology that provides all functions such as email alarms, trending, scheduling and remote access. New sequences and scheduling capabilities will allow the equipment to operate more efficiently without sacrificing comfort. This would have significant savings in heating, cooling, and fan energy usage.

Plumbing

- The water fixtures are not recommended to be replaced at this time.

Building Envelope

- It is recommended that weather stripping is installed, and door adjustments are to be made to reduce infiltration.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

COUNTY OFFICE BUILDING

111W Fox Street | Yorkville, IL 60560

Year Built:	1970s
Renovations:	-
Square Footage:	32,000
# of Stories:	3 + Mezzanine
Occupancy:	70-80
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$54,484
Hours of Operation:	M-F / 8:00: AM – 5:00 PM



Current Building Conditions

Lighting

- The majority of the interior consists of 4-foot, 2-lamp fixtures that have been retrofitted to LED tube fixtures in 2010. There are some remaining screw-in fixtures that are either compact fluorescent or metal halide. Some fluorescent T12 fixtures remain in the mechanical room.
- There are 5 parking lot post lights that are 150-175W metal halides. One of the posts has been retrofitted to LED. The exterior wall packs on the building have been converted to LED as well.

HVAC

- RTU#1 is a 2013 Trane Intellipak package units with natural gas heat for morning warm up and R-410A DX cooling. These units supply air to approximately VAV's with hot water reheat on the (4) floors. Systems can operate in air side economization. Electric baseboards serve the perimeter for each floor. These are enabled when the outside air temperature is below 40F.
- (1) Exhaust fans provide general exhaust.
- (1) 2013 Hydrotherm natural gas hot water boilers provide heating water to the VAV reheats, along with perimeter heating. (2) Pumps with VFD's for hot water circulation.
- (1) Small electric water heater provides the domestic hot water needs.

Building Automation Controls

- The existing BAS front end is a Trane Tracer ES providing access to controls within the building. Controllers are newer Trane DDC.
- The electric baseboard heaters are centrally enabled by the Trane system. Once enable, they are manually controlled by a dial thermostat located on each baseboard.

Plumbing

- Urinals are 1.0 gallons per flush, and the toilets are 1.6 gallons per flush and are in good condition. The bathroom sinks are 0.5 gallons per minute.

Building Envelope

- The windows have several broken and deteriorated seals, and are in poor condition.
- The weather stripping around the doors is showing deterioration as well.

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 107 kBTUs per square foot. The annual utility cost of the facility is \$54,484 per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

COUNTY OFFICE BUILDING (Continued)
807 John Street | Yorkville, IL 60560

Site Photos



Boiler



Rooftop Unit



T12 Lighting



Single Pane Window



Trans Control Panel



Exterior Lighting

Energy Conservation Recommendations

Lighting

- Retrofit all fluorescent and metal halide fixtures to LED. The LED fixture on one of the parking lot poles should be replaced to match the others.

HVAC

- The HVAC equipment is not recommended to be replaced at this time.

Building Automation Controls

- The existing BAS should be recalibrated and recommissioned to maximize energy efficiency.
- Since electricity is a much more expensive heating source than natural gas, the hot water reheat and electric reheat operation should be investigated to minimize the use of the baseboards.
- HVAC schedules with setup and setback temperatures that closely follow the building occupancy schedule should be implemented. A morning warm-up sequence should be used where the outside air damper remains closed, and only the gas furnace heat, and hot water reheat is used. Sequences should also utilize the electric baseboards only when necessary, and should only be enabling these a few at a time to limit a demand spike.
- A demand limiting sequence should also be implemented here. Revise sequence and control as required. RCX all mechanical systems to assure operation at maximum efficiency.

Plumbing

- The water fixtures are not recommended to be replaced at this time.

Building Envelope

- It is recommended that the windows all be replaced. The weather stripping around the exterior doors should be replaced as well to reduce infiltration.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

COURTHOUSE

807 John Street | Yorkville, IL 60560

Year Built:	1994
Renovations:	2009
Square Footage:	184,000
# of Stories:	2
Occupancy:	90-110
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$275,970
Hours of Operation:	M-F / 8:00: AM – 5:00 PM



Current Building Conditions

Lighting

- The 2009 addition consists of 2-lamp and 3-lamp T8 fixtures. There are several cans lights that are 13W and 26W PLCs. See drawings for complete detail on the interior lighting for the 2009 addition. The original 1994 building has been retrofitted to LED tube fixtures in 2010. The exterior lighting consists of the following:
 - 15 x 250W spot lights
 - 10 x 100W wall packs above exterior doors and garage doors
 - 20 x 2-head 400W poles
 - 40 single-head 400W poles

HVAC

- Hot water heating is provided to original building and expansion by two original 1994 Cleaver Brooks FLX700-300 hot water boilers and a 2008 Fulton VTG-3000 that was added to run at lower temps. The Boiler loop and house heating loop are piped in a primary/secondary configuration. Hot water is delivered to the primary VAV air handlers and reheat coils at the VAV's through a series of circulation pumps with VFD's.
- Chilled water cooling is provided to the original structure by the original 1994 Trane RTAA 200 air cooled chiller with a remote evaporator barrel. The 2009 expansion area is cooled by (2) Trane RTAC 200 air cooled chillers with standard evaporator barrels. The facility maintenance indicated that these chillers were designed and installed with extra capacity. The circulation pumps with VFD's supply the cooled water from the chillers to the primary AHU's.
- There are (2) original 1994 primary AHU's with VFD's for the original building located in penthouses at the roof level. The expansion is supplied by (2) 2009 primary AHU's with VFD's located in the lower level and connected to (1) ERV unit for outdoor air preconditioning.
- The VAV's in the original building are Trane Air Valve type and the expansion VAV's are Price. The hot water reheat coils have 2-way valves.
- The controls are Trane Tracer ES and have been adapted and updated in certain areas. The original system still contains Trane PCMs and original VAV controls.
- The domestic hot water is a newer gas hot water heater.

Building Automation Controls

- The BAS front end is a Trane Tracer ES providing access to controls within the Courthouse. The original building has mostly original Trane controls including original PCMs. The addition has newer Trane controls.

Plumbing

- Urinals are 1.0 gallons per flush, and the toilets are 1.6 gallons per flush and are in good condition. The bathroom sinks are 0.5 gallons per minute.

Building Envelope

- The general infrastructure of the building is in good condition. The roof is a composite material and appears to be in good condition. The 1994 section of the building has double pane windows. Underneath each window frame is an operable metal damper for ventilation. This mechanism has been known to cause comfort issues, particularly in the winter because of draft.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

COURTHOUSE (Continued)

807 John Street | Yorkville, IL 60560

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 75 kBTUs per square foot. The annual utility cost of the facility is \$275,970 per year.

Site Photos



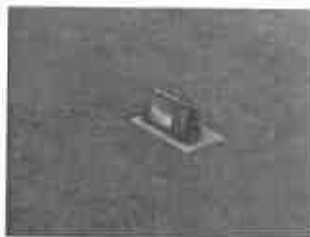
LED Lighting



1994 Chiller



1994 Air Handling Unit



Exterior Lighting



Window With Louver



Term Control Panel

Energy Conservation Recommendations

Lighting

- The exterior lighting and the remaining fluorescent interior lighting shall be upgraded to LED. Exit signs shall be upgraded to LED as well. Some decorative fixtures, such as wall sconces may need further investigation to determine the best retrofit. There are several areas where occupancy sensors can be utilized, such as restrooms, utility rooms, conference rooms, and private offices.

HVAC

- It is recommended to replace the 1994 chiller and chilled water circulation pumps.
- The 1994 air handling units should be rebuilt or replaced.
- The existing 1994 VAV boxes shall be retrofitted to incorporate the new building automation controls.

Building Automation Controls

- The existing system serving the 1994 section shall be replaced with new current technology that provides all functions such as email alarms, trending, scheduling and remote access. New sequences and scheduling capabilities will allow the equipment to operate more efficiently without sacrificing comfort. This would have significant savings in heating, cooling, and fan energy usage.
- The controls in the 2009 addition shall remain but be recommissioned. New sequences shall be implemented to optimize the efficiency of the equipment without compromising comfort.

Plumbing

- The water fixtures are not recommended to be replaced at this time.

Building Envelope

- It is recommended that weather stripping is installed, and door adjustments are to be made to reduce infiltration. The operable metal dampers under the windows shall be removed and replaced with insulative building materials to reduce infiltration.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

FACILITIES MANAGEMENT & CORONER

804 John Street | Yorkville, IL 60560

Year Built:	2001
Renovations:	-
Square Footage:	3,800
# of Stories:	1
Occupancy:	5-10
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$5,024
Hours of Operation:	M-F / 8:00: AM – 5:30 PM



Current Building Conditions

Lighting

- The majority of the interior consists of 4-foot, 2-lamp fixtures that have been retrofitted to LED tube fixtures in 2010. There are some remaining T12 fixtures in the storage areas. Exterior lighting consists of a couple of wall packs that are 75-150W metal halide.

HVAC

- The facilities and coroner office area is conditioned by an original 2010 natural gas fired 80% efficient furnace and R-22 air conditioner. A separate rooftop unit serves the coroner area. The facilities work/storage area and the coroner garage have (3) natural gas unit heaters.
- A small gas water heater provides the domestic hot water needs.

Building Automation Controls

- All of the HVAC equipment is controlled with conventional thermostats.

Plumbing

- Urinals are 1.0 gallon per flush, the toilets are 1.6 gallons per flush and are in fair condition. The bathroom sink flow rates vary between 0.5 and 1.0 gallons per minute.

Building Envelope

- The windows are double pane with tinted glass. The doors are tinted with double pane glass. The weather stripping appears to be in good condition.

Utility Information

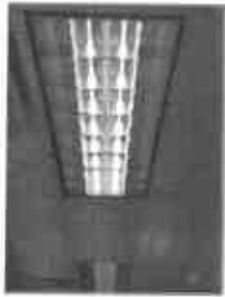
Natural gas and electric usage data were provided by COMED AND NICOR. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 88 kBTUs per square foot. The annual utility cost of the facility is \$5,024 per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

FACILITIES MANAGEMENT & CORONER (Continued)
804 John Street | Yorkville, IL 60560

Site Photos



LED Lighting



Water Heater



Gas Furnace



T12 Lighting



Condensing Unit



Unit Heater

Energy Conservation Recommendations

Lighting

- The exterior lighting and the remaining fluorescent interior lighting should be upgraded to LED. Exit signs shall be upgraded to LED as well. There are several areas where occupancy sensors can be utilized, such as restrooms, utility rooms, conference rooms, and private offices.

HVAC

- It is recommended to replace the existing split system with a high efficiency unit. The unit will be designed to handle multi-zone control.

Building Automation Controls

- The existing system should be replaced with new current technology that provides all functions such as email alarms, trending, scheduling and remote access. New sequences and scheduling capabilities will allow the equipment to operate more efficiently without sacrificing comfort. This would have significant savings in heating, cooling, and fan energy usage.
- The new system shall be designed to provide multi-zone temperature control, which is an issue with the current system.

Plumbing

- The water fixtures are not recommended to be replaced at this time.

Building Envelope

- No recommendations for building envelope at this time.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

HEALTH & HUMAN SERVICES

811 John Street | Yorkville, IL 60560

Year Built:	2004
Renovations:	-
Square Footage:	32,000
# of Stories:	2
Occupancy:	40-50
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$52,390
Hours of Operation:	Monday & Friday 8am-4:30pm Tuesday-Thursday: 8am-8pm



Current Building Conditions

Lighting

- The majority of the interior consists of 4-foot, 2-lamp fixtures that have been retrofitted to LED tube fixtures in 2010. There are some remaining screw-in fixtures that are either compact fluorescent or metal halide. The outdoor lights consist of spot lights have been retrofitted to LED as well. Some screw-in fixtures at the front entrance are either fluorescent or metal halide.

HVAC

- The building's HVAC system consists of two Trane Intellipak VAV rooftop units with DX cooling, and gas furnace heating. Hot water re-heat at the VAV boxes to provided by a Bryan hot water boiler (450MBH input). This is a non-condensing boiler with a minimum turndown of 225MBH input. The recorded temperature of the hot water supply was 160F during the summer season.
- The domestic hot water is provided by a high-efficiency AO Smith water heater.

Building Automation Controls

- The BAS is a Trane Tracer system. There are existing time schedules in the Trane system. The existing time schedules are as follows:
 - Monday-Sunday 4:30am-9:00pm
 - Unoccupied Setpoints:
 - 78F cooling
 - 65F heating

Plumbing

- Urinals are 1.0 gallon per flush, the toilets are 1.6 gallons per flush and are in fair condition. The bathroom sink flow rates vary between 0.5 and 1.0 gallons per minute.

Building Envelope

- The windows are fixed double pane with tinted glass. The doors are tinted with double pane glass. The weather stripping appears to be in good condition. Some areas on the west side of the building have worn window seals, causing infiltration and comfort issues in the winter season.

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBtUs), as it takes the cost per unit out of the equation. This building operates at approximately 108 kBtUs per square foot. The annual utility cost of the facility is \$52,390 per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

HEALTH & HUMAN SERVICES

811 John Street | Yorkville, IL 60560

Site Photos



LED Lighting



Trane Rooftop Unit



Boiler



Trane Control Panel



Panels Below Windows



High Efficiency Water Heater

Energy Conservation Recommendations

Lighting

- It is recommended to retrofit all remaining fluorescent and metal halide fixtures to LED.

HVAC

- It is recommended to replace the hot water boiler with a high-efficiency condensing model.

Building Automation Controls

- The existing Trane system should be recalibrated and recommissioned to ensure the controls are performing to their maximum capabilities. Provide new programming to implement energy-efficient strategies such as static pressure reset, morning warm-up/cool-down, and supply temperature reset. New programming should also include new time schedules that closely match the building occupancy schedule

Plumbing

- The water fixtures are not recommended to be replaced at this time.

Building Envelope

- Inspect and replace windows on the west side of the building that are contributing to high infiltration and comfort issues.





FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

HISTORIC COURTHOUSE

110 W Madison Street | Yorkville, IL 60560

Year Built:	1864
Renovations:	2001
Square Footage:	21,000
# of Stories:	3
Occupancy:	40-50
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$26,170
Hours of Operation:	Monday-Friday: 8am-4:30pm



Current Building Conditions

Lighting

- The majority of the interior consists of 4-foot, 2-lamp fixtures that have been retrofitted to LED tubes fixtures in 2010. There are some remaining screw-in fixtures that are either compact fluorescent or metal halide. Exit signs appear to be incandescent. The outdoor lights consist of screw compact fluorescents. There are some sidewalk lights on poles that appear to be 150W metal halide.

HVAC

- Heating and cooling is provided by (4) Trane roof mounted package gas units and (3) Trane split systems with gas furnaces were installed in 2001.
- (1) Small electric water heater provides the domestic hot water needs.

Building Automation Controls

- Most of the HVAC equipment is controlled by programmable thermostats. A small zone control system (KMC) provides control in the lower level.

Plumbing

- Lavatory sinks range from 1.0 to 2.2 gpm. Toilets are 1.6 gpf, and urinals are 1.0 gpf. All water fixtures appear to be in good condition.

Building Envelope

- The older windows on the original section of the building are clear, operable, single pane. They are inefficient and cause significant infiltration. The exterior doors are in good condition, but the weather stripping could stand to be replaced.
- Some of the brick and mortar is cracking and separating on the lower level due to water damage.

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 76 kBTUs per square foot. The annual utility cost of the facility is \$26,170 per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

HISTORIC COURTHOUSE (Continued)
110 W Madison Street | Yorkville, IL 60560

Site Photos



Single Pane Windows and Door



Furnace in Attic



Fluorescent Lighting



Exterior Brick Deterioration



AC Condensing Unit



Exterior Lighting

Energy Conservation Recommendations

Lighting

- Retrofit all remaining fluorescent and metal halide fixtures to LED.
- Occupancy sensors should be installed in all offices to turn off lights during unoccupied periods.

HVAC

- It is recommended that the existing AHUs should be replaced with high efficiency models.

Building Automation Controls

- It is recommended to upgrade to web enabled thermostats that can be controlled by the facility manager to ensure proper operation and energy savings. Replace control system to web enabled system. Install controls on entryway cabinet heaters.
- The 2nd floor of the courthouse is a large special event room that is rarely used. The unit that serves this area should have a CO2 sensor to control the outside air damper. The controls should also interface with the occupancy sensor (provided by others) to enable a standby mode.

Plumbing

- There are no recommendations for plumbing upgrades at this time.

Building Envelope

- It is recommended to replace the historic windows with fixed, double pane, low e equivalents to reduce infiltration. Weather stripping around the exterior doors should be replaced as well.
- The water leakage on the building exterior should be assessed. Repair and replacement of the damaged brick and mortar on the lower level entryway should be done as needed.





FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

HIGHWAY DEPARTMENT

6780 IL-47 | Yorkville, IL 60560

Year Built: 1980s
Renovations: 2010
Square Footage: 27,948
of Stories: 1
Occupancy: 10-20
Energy Source: Natural Gas and Electric
Total Utility Cost: \$12,115
Hours of Operation: Monday-Friday: 7:00am-4:30pm



Current Building Conditions

Lighting

- The lighting has various fluorescent fixtures consisting of the following:
- New Building:
 - (12) – 2L 8ft T12
 - (10) – 2L 4ft T8
 - (20) – 400W MH
 - (4) – 100-150W MH exterior wallpacks
- Old Building:
 - (23) – 400W MH
 - (8) – 2L 8ft T12
 - (4) – 100-150W MH wallpacks

HVAC

- The office area is conditioned by 10 year old R-22 split system for cooling and a 70% efficient gas furnace for heating.
- Two gas fired unit heaters and a spot radiant heaters heat the vehicle repair area.
- A small gas water heater provides the domestic hot water needs.
- The 2010 building is heated with newer 80% gas fired unit heaters. The space is mainly used for storage only.

Building Automation Controls

- There is no comprehensive building automation system. All of the HVAC equipment is controlled by hand, or with conventional thermostats.

Plumbing

- Urinals are 1.0 gallon per flush, and the toilets are 1.6 gallons per flush and are in fair condition. The bathroom sink flow rates vary between 0.5 and 2.0 gallons per minute.

Building Envelope

- Windows are aluminum double pane and in good shape. Roofing is in good condition. Brick exterior and joints are in good condition. Overhead doors are in good structural condition, but some minor damage

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 40 kBTUs per square foot. The annual utility cost of the facility is \$12,115 per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

HIGHWAY DEPARTMENT (continued)
6780 IL-47 | Yorkville, IL 60560

Site Photos



Metal Halide Lighting



Typical Unit Heater



Condensing Unit Serving Office



Conventional Thermostat



Typical Infrared Heater



Insulation Over Office Space

Energy Conservation Recommendations

Lighting

- Both the interior and exterior lighting should be upgraded to LED. Exit signs should be upgraded to LED as well. There are few areas where occupancy sensors can be utilized, such as restrooms, utility rooms, conference rooms, and private offices.

HVAC

- It is recommended to replace the office HVAC systems with high efficiency systems utilizing environmentally friendly refrigerant.
- For the garage area in the original building the heating systems should be replaced with Infrared tube heaters.

Building Automation Controls

- It is recommended to upgrade to web enabled thermostats that can be controlled by the facility manager to ensure proper operation and energy savings.

Plumbing

- There are no recommendations for plumbing upgrades at the Highway Department.

Building Envelope

- There are no recommendations for building envelope at the Highway Department



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

PUBLIC SAFETY CENTER

1102 Cornell Lane | Yorkville, IL 60560

Year Built:	1991
Renovations:	2005
Square Footage:	96,000
# of Stories:	2
Occupancy:	80-100
Energy Source:	Natural Gas and Electric
Total Utility Cost:	\$221,932
Hours of Operation:	24 hours



Current Building Conditions

Lighting

- Currently, the majority of the lighting is LED 4-foot tube fixtures, although some of the existing fixtures are fluorescent T8. There are a few other specialty fixtures, such as wall-mounted lighting, and can lighting that are compact fluorescent.
- Exterior lights consist of 400 watt wall packs. Drawings detail the quantity.

HVAC

Original Building (1991)

- AHU#1 and AHU#2 are original 1991 Trane air handlers with hot water coils and R-22 DX cooling. The air cooled condensing units (80 ton and 40 ton) are also original. These units supply air to VAV's on the first and second floor. Original Inlet vanes have been removed and supply fan VFD's have been installed. Systems can operate in air side economization. These AHU's reside in a mechanical room on the second floor, with the condensing units on the adjacent roof.
- MZU#3 and MZU#4 are original 1991 Trane multi-zone air handlers with DX cooling, serving the cell and processing areas. They have plate style heat exchangers to aid in treating the fresh air that being introduced into the building via these units. MZU#3 has 15 zones and MZU#4 has 6 zones. The condenser for MZU#3 is an original 40 ton air cooled unit using R-22 refrigerant. The condenser for MZU#4 is a newer 7.5 ton unit using R-410A refrigerant. The evaporator has also been replaced. MZU#3 is located in a penthouse above the cells, with the condensing unit on the adjacent roof. MZU#4 is in a mechanical room on the 2nd floor above the processing area, with the condensing unit on an adjacent roof.
- Roof mounted exhaust fans provide general exhaust.
- (2) Original Burnham natural gas hot water boilers provide heating water to the HVAC systems. A variety of hot water pumps circulate to various devices in the building.
- (2) Original AO Smith natural gas hot water boilers and a 1,750 gallon storage tank provide 105 deg. water for the domestic hot water needs.
- (1) Newer AO Smith natural gas hot water boiler and a 750 gallon storage tank provide 140 deg. water for the kitchen.

2005 Addition

- AHU#6 is a Trane modular air handler with hot water heat and R-22 DX cooling. The air cooled condensing unit has a capacity of 20 tons. The unit also has an electric pre-heat for the outdoor air. This system supplies conditioned air to the space via 15 VAV boxes. Supply and return fans have VFD's.
- MZU#5 is a Trane multi-zone air handler with DX cooling, servicing the new cell area. A plate style heat exchanger has been installed to aid in treating the fresh air that being introduced into the building via the unit. The condenser for MZU#5 is a 30 ton air cooled unit using R-22 refrigerant. System has 11 zones.
- RTU#1 is a 7.5 ton package unit with gas heat and R-22 refrigerant that conditions the indoor recreation area. This unit is constant volume and has an air economizer.





FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

PUBLIC SAFETY CENTER (Continued)
1102 Cornell Lane | Yorkville, IL 60560

Current Building Conditions (Continued)

Building Automation Controls

- There are a variety of controls in this facility. The 1991 building has original pneumatics, along with original Robertshaw digital controls. There have been some devices that have been upgraded to Trane and can be accessed by the Trane ES. Trane DDC controls were installed on the equipment installed during the 2005 building expansion.

Plumbing

- Urinals are 1.0 gallon per flush, and the toilets are 1.6 gallons per flush and are in fair condition. The bathroom and kitchen sink flow rates vary between 0.5 and 2.0 gallons per minute. The shower nozzles are old and likely flow in the range between 2.5 and 3.5 gallons per minute.

Building Envelope

- Windows are tinted double pane and are in fair condition. The roof is in fair condition. Block exterior and joints are in good condition. Overhead doors are in good structural condition, some of the weather stripping was recently replaced.

Utility Information

Natural gas and electric usage data were provided by ComEd and Nicor. Typically, utility usage is reviewed based on the BTUs per square foot (kBTUs), as it takes the cost per unit out of the equation. This building operates at approximately 165 kBTUs per square foot. The annual utility cost of the facility is **\$221,932** per year.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

PUBLIC SAFETY CENTER (Continued)
1102 Cornell Lane | Yorkville, IL 60560

Site Photos



LED Lighting



Non-Condensing Boilers



Building Automation Control Panel



Exterior Lighting



Multi-Zone Unit



VAV Air Handling Unit

Energy Conservation Recommendations

Lighting

- The remaining interior fluorescent lighting and exterior fixtures should be upgraded to LED. Exit signs shall be upgraded to LED as well. There are few areas where occupancy sensors can be utilized, such as restrooms, utility rooms, conference rooms, and private offices.

HVAC

- Replacement of all 1991 cooling equipment is recommended. Direct Expansion (DX) cooling is recommended instead of chilled water due to construction challenges in the jail area.
- One of the existing boilers should be replaced with a high efficiency boiler that can run at lower supply temperature during low load conditions. Balancing of the hot water distribution and verify pump capacity shall be evaluated.
- Exhaust fans should be replaced with high efficiency ECM style. Evaluate if the plate style heat exchangers save energy vs. additional wattage to operate, remove or replace. Replace 1991 domestic hot water heaters.
-
- MZUs 3, 4, and 5
- The multi-zones should be replaced with VAV AHUs with equivalent capacities and design flow rates.
- A lower-cost alternate would be to modify the existing multi-zones. The linkage between the hot deck and cold decks can be separated and a new set of actuators can be added so that they are controlled independently. Static pressure sensors would be installed in both the hot and cold decks. A VFD would be installed on the supply fan motor of control to the static pressure in each deck.
- The feasibility of this need to be evaluated as there may be airflow requirement for correctional facilities, hence why they may have the multi-zones in the first place.





FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

PUBLIC SAFETY CENTER (Continued)
1102 Cornell Lane | Yorkville, IL 60560

Energy Conservation Recommendations (Continued)

Building Automation Controls

- A new building automation system should be installed that provides all functions such as email alarms, trending, scheduling and remote access. New sequences and scheduling capabilities will allow the equipment to operate more efficiently without sacrificing comfort. This would have significant savings in heating, cooling, and fan energy usage. The new system would also report values to the County Hall's front end computer.

Plumbing

- No Plumbing is recommended for upgrade at this time.

Building Envelope

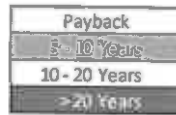
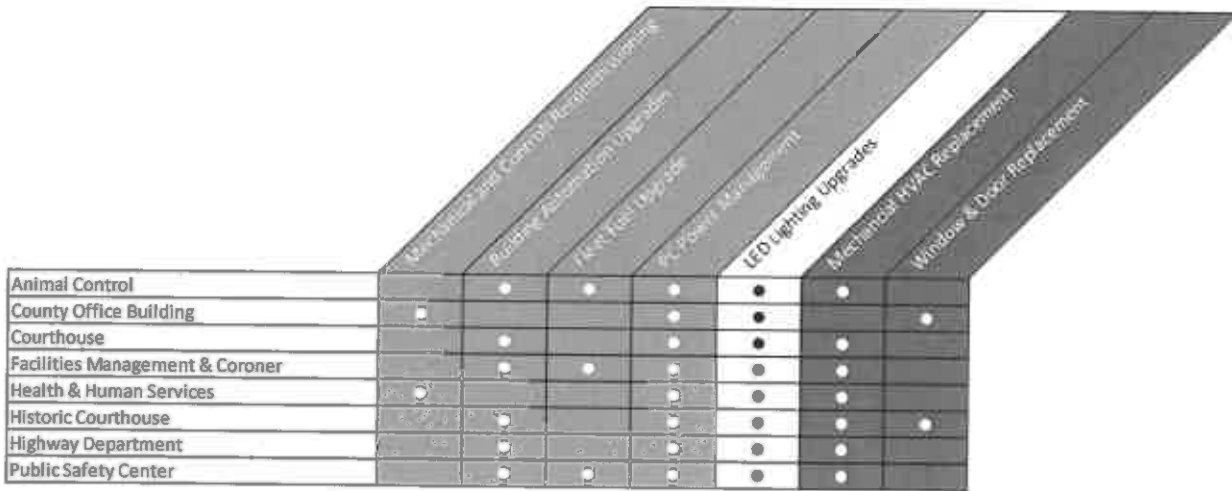
- No building envelope upgrades are recommended at this time.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

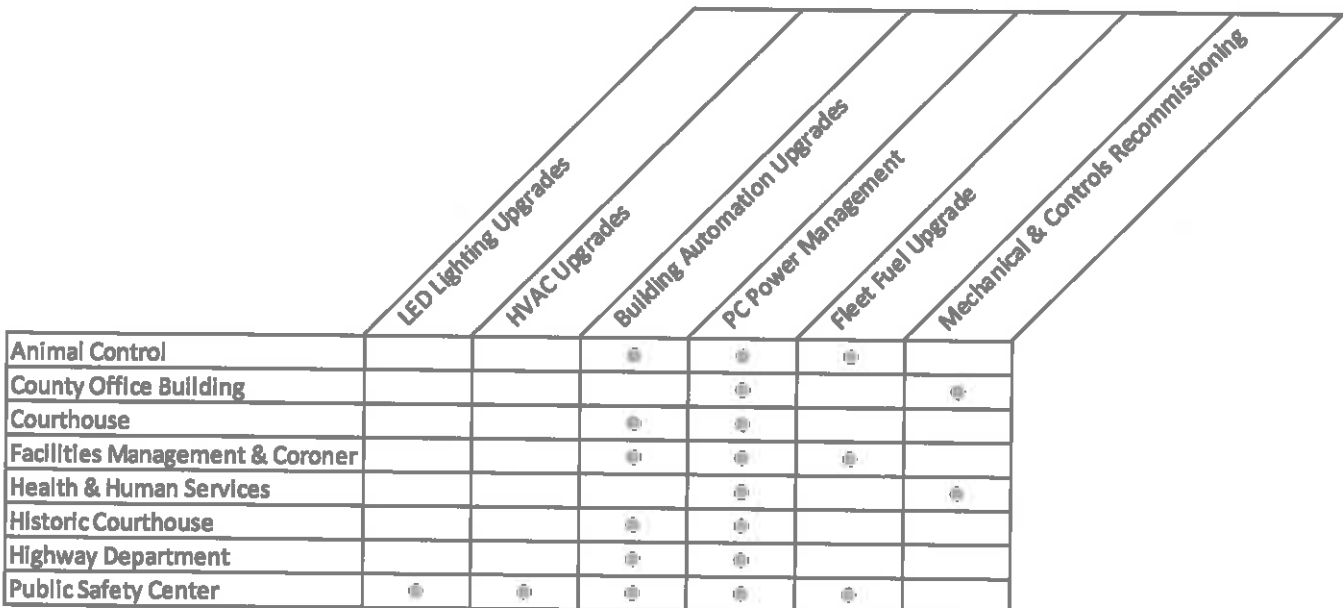
SCOPE SUMMARY

Though there are significant cost savings opportunities, not all of the conversation measures proposed in this section can be funded by savings alone. Some of the items such as the mechanical HVAC improvements have long-term paybacks. The graphic below illustrates typical payback ranges specific cost-saving measures.



RECOMMENDED SCOPE

Based on discussions with Kendall County officials, Leopardo recommends the following upgrades to the facilities that :



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

RECOMMENDED SCOPE DESCRIPTIONS

Below provides a general description of the technology being proposed for Kendall County. The largest opportunities for savings for the County are LED lighting, building controls, PC power management, and fleet fuel conversion.

Lighting

The majority of the facilities have LED interior lighting, though many areas including the Courthouse and the Public Safety Center have several T8 lamps and compact fluorescents. Some T12 fixtures are present throughout all of the facilities, mostly in storage and mechanical rooms. Many of the parking lot lights and exterior wallpacks are metal halide. Some of the parking lot lighting at the Public Safety Center and the County Office Building has been retrofitted to LED. High-bay metal halide fixtures are also present at the Highway Department facility.



Various Fluorescents



Metal Halide Lighting



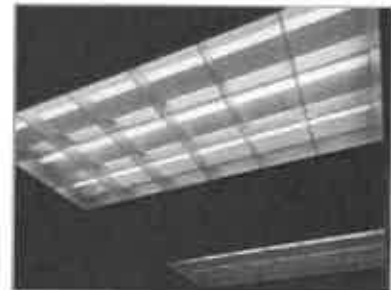
T12 Lighting



Compact Fluorescents



Exterior Metal Halide Wallpack



T8 Lighting

Leopardo proposes that all of the remaining fluorescent and metal halide fixtures at the Public Safety Center be retrofitted with LED fixtures. The LED market is rapidly growing, pushing the direction of the lighting industry to produce more LED options at a lower cost. One of the largest energy uses in a building is lighting. LEDs have the potential to reduce lighting energy by 40 to 50%. One of the main reasons LED's efficiency is its ability to emit light in a specific direction. This reduces the need for reflectors and diffusers. LEDs also have the potential to last twice as long as a conventional fluorescent lamp, thereby reducing maintenance costs.



In addition to LED fixtures, other lighting technology such as occupancy sensors shall be installed in strategic locations to take advantage of turning off lights during unoccupied times.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

Building Automation Controls

Kendall County's facilities have a variety of building automation (BAS) systems that control and monitor the HVAC equipment. Many of these systems are very antiquated, and have limited controllability of the equipment. Buildings such as the Public Safety Center have older pneumatic systems. These systems have fallen out of calibration, which creates comfort issues, and decreases the operating efficiency. Some of the buildings, such as the County Office Building, have newer direct digital control (DDC) systems. Though these systems have better control and remote monitoring, they too have fallen out of calibration. Additionally, there are newer control strategies that optimize the operation of the equipment while not compromising on occupant comfort. Some of the facilities with building automation can be remotely monitored and controlled by the front end computer location in the Facilities Management office. But the Animal Control, Historic Courthouse, Highway Department, and the Facilities Management building have only stand-alone thermostat controls and do not have any remote access.



Pneumatic Actuators



Front End Computer



Conventional Thermostat



Pneumatic Control Panel



Trans Control Panel



VAV Box Controller

Leopardo proposes to install new DDC systems into all of Kendall County's facilities with existing pneumatics and conventional thermostats. This includes fully automated controls to be installed on all new and existing HVAC equipment. Buildings with newer DDC systems, such as the County Office Building and Health and Human Services, controls recommissioning would be done to recalibrate the system as well as implement new energy-efficient control strategies. All of the new and existing controls would be integrated into the front end computer at the Facilities Management office. This shall serve as the centralized workstation for all of the buildings. Through this workstation, the County shall be able to remotely control and monitor all of the HVAC equipment. The most significant feature of the front end computer is the built-in time schedules to remotely disable the equipment during unoccupied hours. During the audits, it was observed that much of the equipment was running 24-7. By having the ability to schedule off equipment during unoccupied hours through the workstation, this would achieve significant energy savings in both natural gas and electricity. In addition to scheduling capabilities, other energy efficient strategies shall be built into the controls' programming. Strategies such as demand controlled ventilation, static pressure reset, and optimized start maximize the operating efficiency of the HVAC equipment.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS



A new comprehensive control system will also provide the ability to constantly monitor the equipment Instantaneously. Multiple monitoring points on HVAC equipment will create better resolution for diagnosing problems and troubleshooting, savings significantly on maintenance costs.



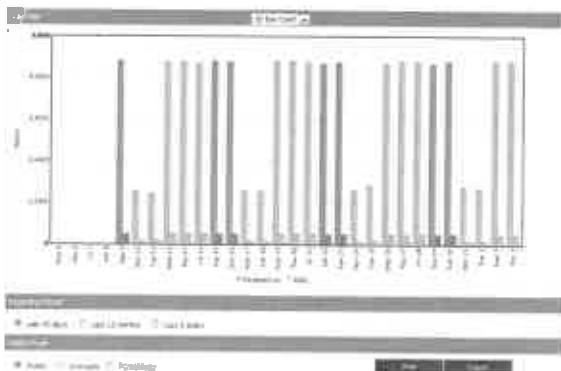
FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

PC Power Management

Approximately 20%-30% of the electricity use is miscellaneous plug load, most of which is computers, and IT-related equipment. During the audit, Leopardo engineers observed several desktop computers, copiers, and printers. Many of these devices remain on or in a "stand-by" mode when they're not in use.



Leopardo recommends installing PC Power management software at the server level that will automatically place computers into a low-power sleep mode after a period of inactivity. Additionally, a low-power mode can be enabled during the overnight hours when the offices are unoccupied. All of these settings are accessed through installed software and controlled by the network administrator. Settings can quickly and easily be changed across the entire network. The software will have access to every device on the network, and will have the ability to trend log any device to examine the energy use and determine the savings opportunity.



By implementing PC power management software, the county will see significant savings in electricity. Additionally, this would enhance data security by reducing the chance of valuable information being displayed on unattended PCs.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

Public Safety Center – Cooling Equipment Replacement

One of the most critical needs the County needs to address is the older HVAC equipment in the Public Safety Center. AHU-1, AHU-2, and MZU-3, and MZU-4 date back to the building's 1991 construction. Last year, the refrigeration system on MZU-3 failed and was replaced. Given the high cooling demand along with the 24-7 runtime on these units, the other refrigeration systems are near the end of their useful lives and will need to be replaced. Additionally, the R-22 refrigerant has become obsolete and is no longer in production. This means any repairs done to the existing systems shall be significantly more expensive.



Leopardo proposes all of the 1991 refrigeration systems be replaced with new, high-efficiency systems. This includes new compressors and condensing units, new refrigerant piping, and new coils for AHU-1, AHU-2, and MZU-3. The new systems shall significantly reduce the cooling energy required, thus reducing the electrical costs. New environmentally friendly refrigerant shall significantly reduce maintenance costs. Capital cost avoidance will be observed as well, as the existing systems are prone to failure given their age and significant demand.



FIELD SURVEY & ENERGY CONSERVATION RECOMMENDATIONS

Fleet Fuel Upgrade

In addition to utility savings in buildings, there are significant opportunities in reducing the maintenance and operational costs in the County's fleet. This would include police vehicles, maintenance vehicles, and any other services vehicles used by the County. The following describes recommendations to be implemented to the existing fleet.



Fleet Fuel Upgrade

Leopardo proposes that the existing fleet be upgraded to use propane as an alternative fuel. Propane can be purchased at a significantly lower cost than gasoline. As a result, the County has a significant cost savings opportunity to upgrade their vehicles to run on propane.

There are two types of propane vehicles: dedicated and bi-fuel. Dedicated propane vehicles are designed to run only on propane, while bi-fuel propane vehicles have two separate fueling systems that enable the vehicle to use either propane or gasoline. Leopardo recommends the bi-fuel technology as it provides the flexibility and convenience for refueling. Since the vehicles will have the propane tank as well as the existing gasoline, the bi-fuel system significantly extends the mileage range. A propane vehicle's power, acceleration, and cruising speed are the same compared to gasoline-fueled vehicles.

The Alternative Fuel Upgrade is the most advanced alternative fuel upgrade system. Using exclusive plug-and drive technology, the propane system is completely non-invasive to the existing gasoline engine. This uses advanced technology to make the engine run on propane, natural gas or methane. This provides the ability to run on a variety of fuel types. Additionally, the vehicles will retain their ability to run on gasoline. Should a vehicle ever run out of propane while running, the system will automatically and seamlessly switch to gasoline. The system is installed by a specially trained ASE certified mechanic, and the same performance can be expected from using propane as from gasoline. The alternative fuel upgrade is compatible with any vehicle. All of the equipment remains on the vehicle. The system is designed to operate along with the existing vehicle's existing components. By implementing this upgrade, the County will have significant cost savings in their fleet fuel purchasing.





**Kendall County
Project Execution Timeline (DRAFT)**

	Building	Scope	BAS Duration	HVAC Duration	2016			2017											
					O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	Public Safety -	AHU-1																	
		New DX equipment and refrigerant	2	18															
		AHU-2																	
		New DX equipment and refrigerant	2	16															
		MZU-3																	
		New DDC Trane Controls	20	20															
		New (15) zone controls sensors	6																
		Replace pneumatic hot water valve to DDC unit	1																
		MZU-4 (already has new DX)																	
		New DDC Trane Controls	14	3															
		New (6) zone controls sensors	3																
		Replace pneumatic hot water valve to DDC unit	1																
		MZU-5 (add alternate)																	
		New DX equipment and refrigerant	2	20															
		New DDC Trane Controls	18																
		New (11) zone controls sensors	3																
		Replace pneumatic hot water valve to DDC unit	1																
		New DDC controls and recommissioning for existing equipment	4																
2	Facilities - New DDC controls		12																
3	Animal - New controls on existing equipment		10																
4	Health - Re-commission existing controls		3																
5	County Bldg - Re-commission existing controls		3																
6	2009 Courthouse - Re-commission existing controls		8																
7	1994 Courthouse - Install new DDC Controls		20																
8	Highway - Install new DDC controls		18																
9	Historic - Install new DDC controls		20																

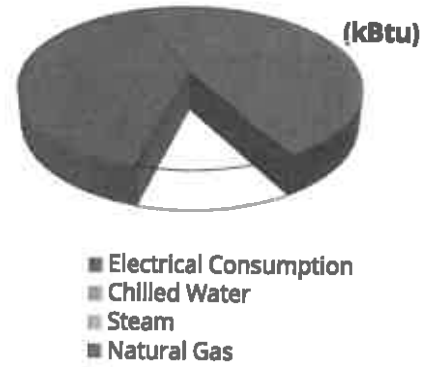


SAVINGS SUMMARY

Based on the conservation measures proposed, the graphics below represent the savings in the buildings.

Annual Energy Savings

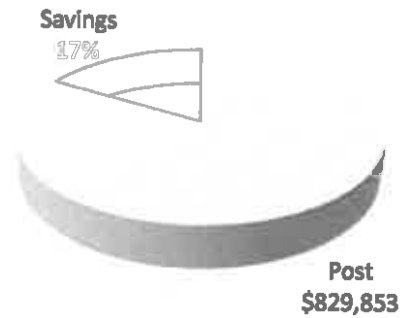
649,412	kWh
2,995,703	kBtu – Heating



Annual Cost Savings

Electricity	\$	54,551
Heating Fuel	\$	15,139
Fleet Fuel	\$	92,532
General Maintenance	\$	6,621

Total **\$168,842**

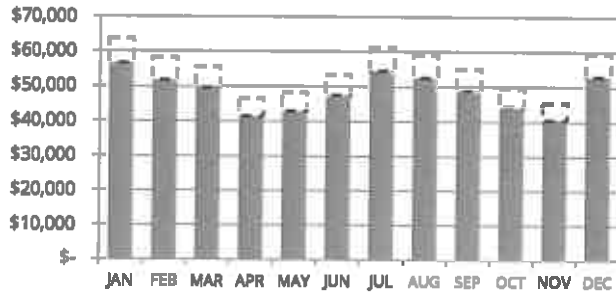




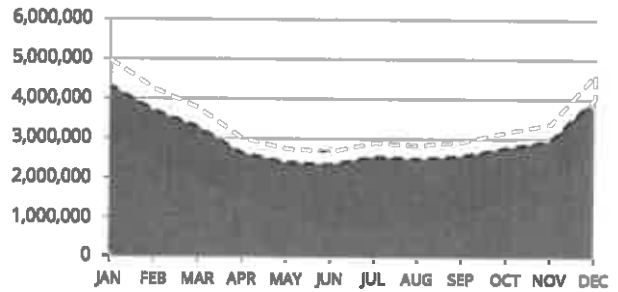
SAVINGS SUMMARY

MONTHLY ENERGY SAVINGS FOR BUILDINGS

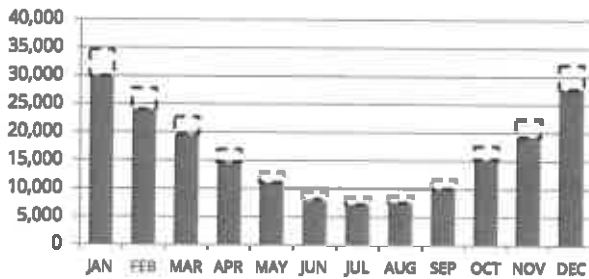
Utility Costs (\$)



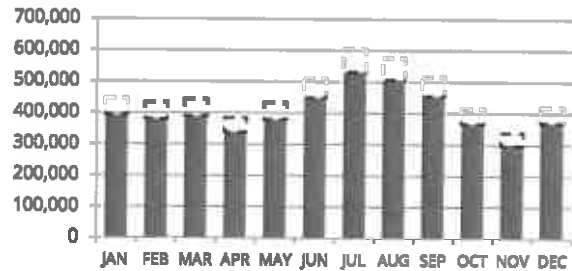
Total Energy Consumption (kBtu)



Heating Fuel Consumption (Therm)



Electrical Consumption (kWh)



ENVIRONMENTAL IMPACT



Tons of CO₂

513



Cars Removed

152



Trees Planted

1,127



BUSINESS CASE ANALYSIS

TOTAL PROJECT CASH FLOW AND FINANCIAL ANALYSIS

Energy Savings Performance Contract For Kendall County

Total Project Cost:	\$1,931,296
Amount Financed:	\$1,931,296
Utility Rebates:	\$TBD
Rate of Financing:	2.5%
Term of Financing:	15 Years
Program Cash Flow:	\$1,046,199

Year	Energy Savings	Maintenance Savings	Fleet Savings	Total Annual Savings	Debt Payment	Cash Flow
0	\$17,422	\$1,655	\$23,133	\$42,211	\$0	\$42,211
1	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
2	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
3	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
4	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
5	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
6	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
7	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
8	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
9	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
10	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
11	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
12	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
13	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
14	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
15	\$69,690	\$6,621	\$92,532	\$168,842	\$155,984	\$12,859
16	\$69,690	\$6,621	\$92,532	\$168,842	\$0	\$162,222
17	\$69,690	\$6,621	\$92,532	\$168,842	\$0	\$162,222
18	\$69,690	\$6,621	\$92,532	\$168,842	\$0	\$162,222
19	\$69,690	\$6,621	\$92,532	\$168,842	\$0	\$162,222
20	\$69,690	\$6,621	\$92,532	\$168,842	\$0	\$162,222
Total	\$1,411,221	\$100,963	\$1,873,773	\$3,385,957	\$2,339,759	\$1,046,199



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT

This Master Equipment Lease-Purchase Agreement (this "*Master Lease*") is made and entered into by and between The Fifth Third Leasing Company ("*Lessor*") and the Lessee identified below ("*Lessee*").

1. LEASE OF EQUIPMENT.

Subject to the terms and conditions of this Master Lease, Lessor agrees to sell, transfer and lease to Lessee, and Lessee agrees to acquire, purchase and lease from Lessor, all Equipment described in each Schedule signed from time to time by Lessee and Lessor. Each Schedule signed and delivered by Lessor and Lessee pursuant to this Master Lease shall constitute a separate and independent lease and installment purchase of the Equipment therein described. This Master Lease is not a commitment by Lessor or Lessee to enter into any Lease not currently in existence, and nothing in this Master Lease shall be construed to impose any obligation upon Lessor or Lessee to enter into any proposed Lease, it being understood that whether Lessor or Lessee enter into any proposed Lease shall be a decision solely within their respective discretion.

2. CERTAIN DEFINITIONS.

All terms defined in the Lease are equally applicable to both the singular and plural form of such terms. (a) "*Lease*" means each Schedule and the terms and conditions of this Master Lease incorporated therein. (b) "*Lien*" means any security interest, lien, mortgage, pledge, encumbrance, judgment, execution, attachment, warrant, writ, levy, other judicial process or claim of any nature whatsoever by or of any person. (c) "*Equipment*" means the property described in each Schedule, together with all attachments, additions, accessions, parts, repairs, improvements, replacements and substitutions thereto. (d) "*Escrow Agreement*" means the Escrow Agreement relating to a Schedule, dated the Commencement Date under such Schedule and substantially in the form attached to this Master Lease, among Lessor, Lessee and the escrow agent therein identified, with respect to the Escrow Fund established and to be administered thereunder. (e) "*Escrow Fund*" means the fund of that name established pursuant to an Escrow Agreement. (f) "*Schedule*" means each Lease Schedule (substantially in the form attached to this Master Lease) signed and delivered by Lessee and Lessor, together with all addenda, riders, attachments, certificates and exhibits thereto, as the same may from time to time be amended, modified or supplemented.

3. LEASE TERM.

The term of each Lease ("*Lease Term*") commences on, and interest accrues from, the date identified in the related Schedule as the Commencement Date and, unless earlier terminated as expressly provided in the Lease, continues until Lessee's payment and performance in full of all of Lessee's obligations under such Lease.

4. RENT PAYMENTS.

4.1 For each Lease, Lessee agrees to pay to Lessor the rent payments ("*Rent Payments*") in the amounts and on the dates set forth in the Schedule A-1 attached to the Schedule (a "*Payment Schedule*"). A portion of each Rent Payment is paid as and represents the payment of interest as set forth in the applicable Payment Schedule. Rent Payments under each Lease are payable out of the funds of Lessee that are legally available therefore ("*Legally Available Funds*") in U.S. dollars, without notice or demand, at the office of Lessor identified below (or such other place as Lessor may designate from time to time in writing).



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

4.2 EXCEPT AS SPECIFICALLY PROVIDED IN SECTION 6 HEREOF, LESSEE'S OBLIGATION TO PAY RENT PAYMENTS UNDER EACH LEASE SHALL BE ABSOLUTE AND UNCONDITIONAL IN ALL EVENTS AND SHALL NOT BE SUBJECT TO ANY SETOFF, DEFENSE, COUNTERCLAIM, ABATEMENT OR RECOUPMENT FOR ANY REASON WHATSOEVER, INCLUDING (WITHOUT LIMITATION) BY REASON OF EQUIPMENT FAILURE, DISPUTES WITH THE VENDOR(S) OR MANUFACTURER(S) OF THE EQUIPMENT OR LESSOR, ACCIDENT OR ANY UNFORESEEN CIRCUMSTANCES.

4.3 Lessor and Lessee understand and intend that the obligation of Lessee to pay Rent Payments under each Lease shall constitute a current expense of Lessee and shall not in any way be construed to be a debt of Lessee in contravention of any applicable constitutional or statutory limitations or requirements concerning the creation of indebtedness by Lessee, nor shall anything contained in any Lease constitute a pledge of the full faith and credit or taxing power of Lessee.

4.4 If Lessor receives any Rent Payment from Lessee after its due date, Lessee shall pay Lessor on demand from Legally Available Funds as a late charge one and one-half percent per month (1.5%) of such overdue amount, limited, however, to the maximum amount allowed by law.

5. ESCROW AGREEMENT; EQUIPMENT DELIVERY AND ACCEPTANCE; FUNDING CONDITIONS.

5.1 In order to provide financing to pay the costs to acquire and install the Equipment ("Purchase Price") as described in a Schedule, Lessor and Lessee hereby agree to execute and deliver an Escrow Agreement relating to such Schedule on the date on which the Funding Conditions for such Schedule are satisfied as provided in Section 5.2. If Lessee signs and delivers a Schedule and an Escrow Agreement and if all Funding Conditions have been satisfied in full, then Lessor will deposit or cause to be deposited into an Escrow Fund under the related Escrow Agreement an amount (which may include estimated investment earnings thereon) equal to the Purchase Price for the Equipment to be financed under the related Schedule.

5.2 Lessor shall have no obligation to deposit any Purchase Price into an Escrow Fund under the related Schedule unless all reasonable conditions established by Lessor ("*Funding Conditions*") have been satisfied, including, without limitation, the following: (a) Lessee has signed and delivered to Lessor the Schedule, its related Payment Schedule and the related Escrow Agreement; (b) no Event of Default or Non-Appropriation Event shall have occurred and be continuing under any Lease; (c) no material adverse change shall have occurred in the financial condition of Lessee or any Supplier (as hereinafter defined); (d) the Equipment is reasonably satisfactory to Lessor and is free and clear of any Liens (except Lessor's Liens); (e) all representations of Lessee in the Lease remain true, accurate and complete; (f) the amount (if any) that Lessor may require in advance that Lessee apply to the payment of Equipment costs; and (g) Lessor has received all of the following documents, which shall be reasonably satisfactory, in form and substance, to Lessor: (1) evidence of insurance coverage or self-insurance required by the Lease; (2) an opinion of Lessee's counsel; (3) Uniform Commercial Code (UCC) financing statements with respect to the Equipment; (4) real property waivers as Lessor may deem necessary; (5) copies of resolutions by Lessee's governing body, duly authorizing the Lease and the Escrow Agreement and incumbency certificates for the person(s) who will sign the Lease and the Escrow Agreement; (6) such documents and certificates as Lessor may request relating to federal tax-exemption of interest payable under the Lease, including (without limitation) IRS Form 8038-G or 8038-GC and evidence of the adoption of a reimbursement resolution or other official action in the event that Lessee is to be reimbursed for expenditures that it has paid more than sixty days prior to the date on which the Funding Conditions are satisfied; and (7) such other documents and information previously identified by Lessor or otherwise reasonably requested by Lessor.



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

5.3 Lessee shall, at its sole expense, arrange for the transportation, delivery and installation of all Equipment to the location specified in the Schedule ("*Location*") by Equipment suppliers ("*Suppliers*") selected by Lessee. Lessee shall accept Equipment for purposes of the related Lease as soon as it has been delivered and is operational. Lessee shall evidence its acceptance of any Equipment by signing and delivering to Lessor a Certificate of Acceptance in the form and manner required by the applicable Escrow Agreement.

5.4 If a Non-Appropriation Event or an Event of Default occurs prior to Lessee's acceptance of all the Equipment under the related Schedule, the amount then on deposit in the Escrow Fund shall be applied to prepay the unpaid principal component of the Rent Payments in whole on the first business day of the month next succeeding the occurrence of either such Event plus accrued interest to the prepayment date; *provided, however*, that the amount to be prepaid by Lessee pursuant to this Section 5.4 shall first be paid from moneys in the related Escrow Fund and then from Legally Available Funds and other moneys available for such purpose as a result of the exercise by Lessor of its rights and remedies under the related Schedule. Any funds on deposit in the Escrow Fund on the prepayment date described in this Section 5.4 in excess of the unpaid principal component of the Rent Payments to be prepaid plus accrued interest thereon to the prepayment date shall be paid promptly to Lessee.

5.5 To the extent that Lessee has not accepted items of Equipment before the eighteen-month anniversary of the Commencement Date identified on the related Schedule, the amount then on deposit in the related Escrow Fund shall be applied to prepay the unpaid principal component of the Rent Payments in part, in inverse order of Rent Payments, on the first business day of the next month plus accrued interest to the prepayment date; *provided, however*, that the amount to be prepaid by Lessee pursuant to this Section 5.5 shall first be paid from moneys in the related Escrow Fund and then from Legally Available Funds. Notwithstanding any such partial prepayment, the related Schedule shall remain in full force and effect with respect to the portion of the Equipment accepted by Lessee during such eighteen-month period, and the portion of the principal component of Rent Payments remaining unpaid after such prepayment plus accrued interest thereon shall remain payable in accordance with the terms of the related Schedule. Upon Lessor's request, Lessee shall execute an amendment to the related Payment Schedule that reflects the change to the Rent Payments as a result of such partial prepayment.

6. TERMINATION UPON NON-APPROPRIATION EVENT.

6.1 For each Lease, Lessee represents and warrants that (a) it has appropriated and budgeted Legally Available Funds to make all Rent Payments required pursuant to such Lease for the remainder of the fiscal year in which the Lease Term commences; (b) it currently intends to make Rent Payments for the full Lease Term as scheduled on the applicable Payment Schedule so long as funds are appropriated for each succeeding fiscal year by its governing body; and (c) during the 10 fiscal years prior to the date of the applicable Lease, its governing body has not failed (for whatever reason) to appropriate amounts sufficient to pay its obligations that are subject to annual appropriation. Lessee reasonably believes that moneys in an amount sufficient to make all Rent Payments can and will lawfully be appropriated and made available therefore.

6.2 If Lessee's governing body fails to appropriate sufficient funds in any fiscal year for Rent Payments and other amounts to be paid under a Lease in the next succeeding fiscal year, then a "*Non-Appropriation Event*" shall have occurred.



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

If a Non-Appropriation Event occurs, then:

(a) Lessee shall give Lessor written notice at least 30 days prior to the end of the then current fiscal year of such Non-Appropriation Event and provide written evidence of such failure by Lessee's governing body;

(b) on the Return Date, Lessee shall return to Lessor all, but not less than all, of the Equipment covered by the affected Lease, at Lessee's sole expense, in accordance with Section 21 hereof; and (c) the affected Lease shall terminate on the Return Date without penalty or expense to Lessee, *provided*, that Lessee shall pay all Rent Payments and other amounts payable under the affected Lease for which funds shall have been appropriated, and *provided further*, that Lessee shall pay month-to-month rent at the rate set forth in the affected Lease for each month or part thereof that Lessee fails to return the Equipment under this Section 6.2. "Return Date" means the last day of the fiscal year for which appropriations were made for the Rent Payments due under a Lease.

7. NO WARRANTY BY LESSOR.

LESSEE ACQUIRES AND LEASES THE EQUIPMENT UNDER EACH LEASE "AS IS." LESSEE ACKNOWLEDGES THAT LESSOR DID NOT MANUFACTURE THE EQUIPMENT UNDER ANY LEASE. LESSOR DOES NOT REPRESENT THE MANUFACTURER, SUPPLIER, OWNER OR DEALER, AND LESSEE SELECTED THE EQUIPMENT BASED UPON LESSEE'S OWN JUDGMENT. LESSOR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OR AS TO THE EQUIPMENT'S VALUE, DESIGN, CONDITION, USE, CAPACITY OR DURABILITY. LESSEE AGREES THAT REGARDLESS OF CAUSE, LESSOR IS NOT RESPONSIBLE FOR, AND LESSEE WILL NOT MAKE ANY CLAIM AGAINST LESSOR FOR, ANY DAMAGES, WHETHER CONSEQUENTIAL, DIRECT, SPECIAL OR INDIRECT INCURRED BY LESSEE IN CONNECTION WITH THE EQUIPMENT UNDER ANY LEASE. NEITHER THE MANUFACTURER, SUPPLIER OR DEALER NOR ANY SALESPERSON, EMPLOYEE OR AGENT OF THE MANUFACTURER, SUPPLIER OR DEALER IS LESSOR'S AGENT OR HAS ANY AUTHORITY TO SPEAK FOR LESSOR OR TO BIND LESSOR IN ANY WAY. For and during the Lease Term under each Lease, Lessor assigns to Lessee any manufacturer's or supplier's product warranties, express or implied, applicable to any Equipment and Lessor authorizes Lessee to obtain the customary services furnished in connection with such warranties at Lessee's sole expense. Lessee agrees that (a) all Equipment will have been purchased by Lessor in accordance with Lessee's specifications from Suppliers selected by Lessee, (b) Lessor is not a manufacturer or dealer of any Equipment and has no liability for the delivery or installation of any Equipment, (c) Lessor assumes no obligation with respect to any manufacturer's or Supplier's product warranties or guaranties, (d) no manufacturer or Supplier or any representative of said parties is an agent of Lessor and (e) any warranty, representation, guaranty or agreement made by any manufacturer or Supplier or any representative of said parties shall not be binding upon Lessor.

8. TITLE; SECURITY INTEREST.

8.1 Upon Lessee's acceptance of any Equipment under a Lease and in accordance with the related Escrow Agreement, title to such Equipment shall vest in Lessee, subject to Lessor's security interest therein and all of Lessor's other rights under such Lease including, without limitation, Sections 6, 20 and 21 hereof.

8.2 As collateral security for Lessee's obligations to pay all Rent Payments and all other amounts due and payable under each Lease and to perform and observe all covenants, agreements and conditions (direct or indirect, absolute or contingent, due or to become due or existing or hereafter arising) of Lessee under such Lease, Lessee hereby grants to Lessor a first priority, exclusive security interest in any and all of the Equipment (now existing or hereafter acquired) under each Lease, moneys and investments held from time to time the Escrow Fund under each Escrow Agreement and any and all proceeds of any of the foregoing. Lessee agrees to execute and deliver to Lessor all necessary documents to evidence and perfect such security interest, including, without limitation, Uniform Commercial Code (UCC) financing statements and any amendments thereto and certificates of title or certificates of origin (or applications thereof) noting Lessor's interest thereon.



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

9. PERSONAL PROPERTY.

All Equipment is and will remain personal property and will not be deemed to be affixed or attached to real estate or any building thereon.

10. MAINTENANCE AND OPERATION.

Lessee shall, at its sole expense: (a) repair and maintain all Equipment in good condition and working order, in accordance with manufacturer's instructions, and supply and install all replacement parts or other devices when required to so maintain the Equipment or when required by applicable law or regulation, which parts or devices shall automatically become part of the Equipment; (b) use and operate all Equipment solely for the purpose of performing one or more governmental functions of Lessee and in a careful manner in the normal course of its operations and only for the purposes for which it was designed in accordance with the manufacturer's warranty requirements; and (c) comply with all laws and regulations relating to the Equipment. No maintenance or other service for any Equipment will be provided by Lessor. Lessee will not make any alterations, additions or improvements ("Improvements") to any Equipment without Lessor's prior written consent unless the improvements may be readily removed without damage to the operation, value or utility of such Equipment, but any such improvements not removed prior to the termination of the applicable Lease shall automatically become part of the Equipment.

11. LOCATION; INSPECTION.

Equipment will not be removed from, or if Equipment is rolling stock its permanent base will not be changed from, the Location without Lessor's prior written consent which will not be unreasonably withheld. Upon reasonable notice to Lessee, Lessor may enter the Location or elsewhere during normal business hours to inspect the Equipment.

12. LIENS, SUBLEASES AND TAXES.

12.1 Lessee shall keep all Equipment free and clear of all Liens except those Liens created under each Lease. Lessee shall not sublet or lend any Equipment or permit it to be used by anyone other than Lessee or Lessee's employees.

12.2 Lessee shall pay when due all Taxes that may now or hereafter be imposed upon: any Equipment or its ownership, leasing, rental, sale, purchase, possession or use; any Lease or Escrow Agreement; any Rent Payments or any other payments due under any Lease; or any Escrow Fund. If Lessee fails to pay such Taxes when due, Lessor shall have the right, but not the obligation, to pay such Taxes. If Lessor pays any such Taxes, then Lessee shall, upon demand, immediately reimburse Lessor therefore. "Taxes" means present and future taxes, levies, duties, assessments or other governmental charges that are not based on the net income of Lessor, whether they are assessed to or payable by Lessee or Lessor, including, without limitation (a) sales, use, excise, licensing, registration, titling, gross receipts, stamp and personal property taxes and (b) interest, penalties or fines on any of the foregoing.



MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)**13. RISK OF LOSS.**

13.1 Lessee bears the entire risk of loss, theft, damage or destruction of any Equipment in whole or in part from any reason whatsoever ("*Casualty Loss*"). No Casualty Loss to any Equipment shall relieve Lessee from the obligation to make any Rent Payments or to perform any other obligation under any Lease. Proceeds of any insurance recovery will be applied to Lessee's obligations under this Section 13.

13.2 If a Casualty Loss occurs to any Equipment, Lessee shall immediately notify Lessor of the same and Lessee shall, unless otherwise directed by Lessor, immediately repair the same.

13.3 If Lessor determines that any Item of Equipment has suffered a Casualty Loss beyond repair ("*Lost Equipment*"), then Lessee shall either: (a) immediately replace the Lost Equipment with similar equipment in good repair, condition and working order free and clear of any Liens (except Lessor's Liens) and deliver to Lessor a purchase order, bill of sale or other evidence of sale to Lessee covering the replacement equipment, in which event such replacement equipment shall automatically be Equipment under the applicable Lease, or (b) on the next scheduled Rent Payment due date, pay Lessor (i) all amounts owed by Lessee under the applicable Lease, including the Rent Payment due on such date, plus (ii) an amount equal to the applicable Termination Value set forth in the Payment Schedule to the applicable Lease. If Lessee is making such payment with respect to less than all of the Equipment under a Lease, then Lessor will provide Lessee with the pro rata amount of the Termination Value to be paid by Lessee with respect to the Lost Equipment.

13.4 Lessee shall bear the risk of loss for, shall pay directly and shall defend against any and all claims, liabilities, proceedings, actions, expenses (including reasonable attorney's fees), damages or losses arising under or related to any Equipment, including, but not limited to, the possession, ownership, lease, use or operation thereof. These obligations of Lessee shall survive any expiration or termination of any Lease. Lessee shall not bear the risk of loss of, nor pay for, any claims, liabilities, proceedings, actions, expenses (including attorney's fees), damages or losses which arise directly from events occurring after any Equipment has been returned by Lessee to Lessor in accordance with the terms of the applicable Lease or which arise directly from the gross negligence or willful misconduct of Lessor.

14. INSURANCE.

14.1(a) Lessee at its sole expense shall at all times keep all Equipment insured against all risks of loss or damage from every cause whatsoever (including collision in the case of vehicles) for an amount not less than the Termination Value of the Equipment under each Lease. Lessor shall be named as loss payee with respect to all insurance covering damage to or loss of any Equipment, and the proceeds of any such insurance shall be payable to Lessor as loss payee to be applied as provided in Section 13.3. (b) The Total Amount Financed as set forth on the applicable Payment Schedule does not include the payment of any premium for any liability insurance coverage for bodily injury and/or property damage caused to others and no such insurance will be purchased by Lessor. (c) Lessee at its sole expense shall at all times carry public liability and property damage insurance in amounts reasonably satisfactory to Lessor protecting Lessee and Lessor from liabilities for injuries to persons and damage to property of others relating in any way to any Equipment. Lessor shall be named as additional insured with respect to all such public liability and property damage insurance, and the proceeds of any such insurance shall be payable first to Lessor as additional insured to the extent of its liability and then to Lessee.



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

14.2 All Insurers shall be reasonably satisfactory to Lessor. Lessee shall promptly deliver to Lessor satisfactory evidence of required insurance coverage and all renewals and replacements thereof. Each Insurance policy will require that the Insurer give Lessor at least 30 days prior written notice of any cancellation of such policy and will require that Lessor's interests remain insured regardless of any act, error, misrepresentation, omission or neglect of Lessee. The Insurance maintained by Lessee shall be primary without any right of contribution from insurance which may be maintained by Lessor.

14.3 If Lessee is self-insured under an actuarially sound self-insurance program that is acceptable to Lessor with respect to equipment such as the Equipment under a Lease, Lessee shall maintain during the Lease Term of such Lease such actuarially sound self-insurance program and shall provide evidence thereof in form and substance satisfactory to Lessor.

15. PURCHASE OPTION.

Upon thirty (30) days' prior written notice by Lessee to Lessor, and so long as there is no Event of Default then existing, Lessee shall have the option to purchase all, but not less than all, of the Equipment subject to a Lease on any Rent Payment due date by paying to Lessor all Rent Payments then due (including accrued interest, if any) plus the Termination Value set forth on the Payment Schedule to the applicable Lease for such date. Upon satisfaction by Lessee of such purchase conditions, Lessor shall release its Lien on such Equipment and Lessee shall retain its title to such Equipment "AS-IS, WHERE-IS," without representation or warranty by Lessor, express or implied, except for a representation that such Equipment is free and clear of any Liens created by Lessor.

16. LESSEE'S REPRESENTATIONS AND WARRANTIES.

With respect to each Lease, the Equipment subject thereto and the related Escrow Agreement, Lessee hereby represents and warrants to Lessor that:

(a) Lessee has full power, authority and legal right to execute and deliver the Lease and the Escrow Agreement and to perform its obligations under the Lease and the Escrow Agreement, and all such actions have been duly authorized by appropriate findings and actions of Lessee's governing body;

(b) the Lease and the Escrow Agreement have each been duly authorized, executed and delivered by Lessee and each constitutes a legal, valid and binding obligation of Lessee, enforceable in accordance with their respective terms;

(c) the Lease and the Escrow Agreement are each authorized under, and the authorization, execution and delivery of the Lease and the Escrow Agreement comply with, all applicable federal, state and local laws and regulations (including, but not limited to, all open meeting, public bidding and property acquisition laws) and all applicable judgments and court orders;

(d) The execution, delivery and performance by Lessee of its obligations under the Lease and the Escrow Agreement will not result in a breach or violation of, nor constitute a default under, any agreement, lease or other instrument to which Lessee is a party or by which Lessee's properties may be bound or affected;

(e) there is no pending, or to the best of Lessee's knowledge threatened, litigation of any nature that may have a material adverse effect on Lessee's ability to perform its obligations under the Lease and the Escrow Agreement; and



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

(f) Lessee is a state, or a political subdivision thereof, within the meaning of Section 103 of the Internal Revenue Code of 1986 (the "Code") and will do or cause to be done all things necessary to preserve and keep in full force and effect its existence as such.

17. TAX COVENANTS.

Lessee hereby covenants and agrees that:

(a) The parties anticipate that Lessor can exclude the interest component of the Rent Payments under each Lease from federal gross income. Lessee covenants and agrees that it will (i) complete and timely file an information reporting return with the Internal Revenue Service ("IRS") in accordance with Section 149(e) of the Code; (ii) not permit the Equipment to be directly or indirectly used for a private business use within the meaning of Section 141 of the Code including, without limitation, use by private persons or entities pursuant to contractual arrangements which do not satisfy IRS guidelines for permitted management contracts, as the same may be amended from time to time; (iii) invest and reinvest moneys on deposit in the Escrow Fund related to each Lease from time to time in a manner that will not cause such Lease to be classified as an "arbitrage bond" within the meaning of Section 148(a) of the Code; (iv) rebate an amount equal to excess earnings in any Escrow Fund to the federal government if required by, and in accordance with, Section 148(f) of the Code and make the determinations and maintain the records required by the Code; and (v) comply with all provisions and regulations applicable to establishing and maintaining the excludability of the interest component of the Rent Payments under each Lease from federal gross income pursuant to Section 103 of the Code.

(b) If Lessor either (i) receives notice, in any form, from the IRS; or (ii) reasonably determines, based on an opinion of independent tax counsel selected by Lessor and approved by Lessee, which approval Lessee shall not unreasonably withhold, that Lessor may not exclude the interest component of any Rent Payment under a Lease from federal gross income because Lessee breached a covenant contained in paragraph 17(a) herein, then Lessee shall pay to Lessor, within thirty (30) days after Lessor notifies Lessee of such determination, the amount which, with respect to Rent Payments previously paid and taking into account all penalties, fines, interest and additions to tax (including all federal, state and local taxes imposed on the interest component of all Rent Payments under such Lease due through the date of such event) that are imposed on Lessor as a result of the loss of the exclusion, will restore to Lessor the same after-tax yield on the transaction evidenced by this Lease (assuming tax at the highest marginal corporate tax rate) that it would have realized had the exclusion not been lost. Additionally, Lessee agrees that upon the occurrence of such an event, it shall pay additional rent to Lessor on each succeeding Rent Payment due date in such amount as will maintain such after-tax yield to Lessor. Lessor's determination of the amount necessary to maintain its after-tax yield as provided in this subsection (b) shall be conclusive (absent manifest error). Notwithstanding anything in a Lease to the contrary, any payment that Lessee is required to make pursuant to this subsection (b) shall be made only from Legally Available Funds.



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

18. ASSIGNMENT.

18.1 Lessee shall not sell, assign, transfer, pledge, hypothecate or grant any Lien on, nor otherwise dispose of, any Lease, any Equipment, any Escrow Agreement or any Escrow Fund or any Interest in any thereof.

18.2 Lessor may assign its rights, title and interest in and to any Lease, any Equipment or any Escrow Agreement (including the Escrow Fund thereunder), and/or may grant or assign a security interest in any Lease, its Equipment or any Escrow Agreement (including the Escrow Fund thereunder), in whole or in part, to any party at any time and from time to time without Lessee's consent. Any such assignee or lien holder (an "Assignee") shall have all of the rights of Lessor under the applicable Lease and Escrow Agreement. LESSEE AGREES NOT TO ASSERT AGAINST ANY ASSIGNEE ANY CLAIMS, ABATEMENTS, SETOFFS, COUNTERCLAIMS, RECOUPMENT OR ANY OTHER SIMILAR DEFENSES WHICH LESSEE MAY HAVE AGAINST LESSOR. Unless otherwise agreed by Lessee in writing, any such assignment transaction shall not release Lessor from any of Lessor's obligations under the applicable Lease. An assignment or reassignment of any of Lessor's right, title or interest in a Lease, its Equipment or any Escrow Agreement (including the Escrow Fund thereunder) shall be enforceable against Lessee only after Lessee receives a written notice of assignment that discloses the name and address of each such Assignee. Lessee shall keep a complete and accurate record of all such assignments in the form necessary to comply with Section 149(a) of the Code. Lessee agrees to acknowledge in writing any such assignments if so requested.

18.3 Subject to the foregoing, each Lease inures to the benefit of and is binding upon the successors and assigns of the parties hereto.

19. EVENTS OF DEFAULT.

For each Lease, "Event of Default" means the occurrence of any one or more of the following events as they may relate to such Lease: (a) Lessee fails to make any Rent Payment (or any other payment) as it becomes due in accordance with the terms of the Lease, and any such failure continues for fifteen (15) days after the due date thereof; (b) Lessee fails to perform or observe any of its obligations under Section 12.1, 14 or 18.1 hereof; (c) Lessee fails to perform or observe any other covenant, condition or agreement to be performed or observed by it under the Lease and such failure is not cured within thirty (30) days after receipt of written notice thereof by Lessor; (d) any statement, representation or warranty made by Lessee in the Lease or in any writing delivered by Lessee pursuant thereto or in connection therewith proves at any time to have been false, misleading or erroneous in any material respect as of the time when made; (e) Lessee applies for or consents to the appointment of a receiver, trustee, conservator or liquidator of Lessee or of all or a substantial part of its assets, or a petition for relief is filed by Lessee under any federal or state bankruptcy, insolvency, moratorium or similar law; or (f) Lessee shall be in default under any other Lease or under any other financing agreement executed at any time with Lessor.

20. REMEDIES.

If any Event of Default occurs, then Lessor may, at its option, exercise any one or more of the following remedies:



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

(a) Lessor may require Lessee to pay (and Lessee agrees that it shall pay) all amounts then currently due under all Leases and all remaining Rent Payments due under all Leases during the fiscal year in effect when the default occurs together with accrued interest on such amounts at the respective rates provided in such Leases from the date of Lessor's demand for such payment;

(b) Lessor may require Lessee to promptly return all Equipment to Lessor in the manner set forth in Section 21 (and Lessee agrees that it shall so return the Equipment), or Lessor may, at its option, enter upon the premises where any Equipment is located and repossess such Equipment upon seven (7) days' prior notice to Lessee, without any court order or other process of law and without liability for any damage occasioned by such repossession;

(c) Lessor may sell, lease or otherwise dispose of any Equipment, in whole or in part, in one or more public or private transactions, and if Lessor so disposes of any Equipment, then Lessor shall apply the entire proceeds of such disposition as follows: *first*, to pay costs that Lessor has incurred in connection with exercising its remedies; *second*, to payment of amounts that are payable by Lessee under clause (a) above; and *then* to payment of the Termination Value set forth in the applicable Payment Schedule for the last Rent Payment due date for the fiscal year in which the related default occurs; *provided, however*, that any disposition proceeds in excess of payment of all of the foregoing amounts shall be paid promptly by Lessor to Lessee;

(d) Lessor may terminate, cancel or rescind any Lease as to any and all Equipment;

(e) Lessor may exercise any other right, remedy or privilege that may be available to Lessor under applicable law or, by appropriate court action at law or in equity, Lessor may enforce any of Lessee's obligations under any Lease or with respect to the Escrow Fund under the related Escrow Agreement; and/or

(f) Lessor may require Lessee to pay (and Lessee agrees that it shall pay) all out-of-pocket costs and expenses incurred by Lessor as a result (directly or indirectly) of the Event of Default and/or of Lessor's actions under this Section, including, without limitation, any attorney fees and expenses and any costs related to the repossession, safekeeping, storage, repair, reconditioning or disposition of any Equipment. None of the above remedies is exclusive, but each is cumulative and in addition to any other remedy available to Lessor. Lessor's exercise of one or more remedies shall not preclude its exercise of any other remedy. No delay or failure on the part of Lessor to exercise any remedy under any Lease shall operate as a waiver thereof, nor as acquiescence in any default, nor shall any single or partial exercise of any remedy preclude any other exercise thereof or the exercise of any other remedy.

21. RETURN OF EQUIPMENT.

If Lessor is entitled under the provisions of any Lease, including any termination thereof pursuant to Section 6 or 20 hereof, to obtain possession of any Equipment or if Lessee is obligated at any time to return any Equipment, then (a) title to the Equipment shall vest in Lessor immediately upon Lessor's notice thereof to Lessee, and (b) Lessee shall, at its sole expense and risk, immediately de-install, disassemble, pack, crate, insure and return the Equipment to Lessor (all in accordance with applicable industry standards).



MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

Such Equipment shall be in the same condition as when received by Lessee (reasonable wear, tear and depreciation resulting from normal and proper use excepted), shall be in good operating order and maintenance as required by the applicable Lease, shall be free and clear of any liens (except Lessor's Lien) and shall comply with all applicable laws and regulations. Until Equipment is returned as required above, all terms of the applicable Lease shall remain in full force and effect including, without limitation, obligations to pay Rent Payments and to insure the Equipment. Lessee agrees to execute and deliver to Lessor all documents reasonably requested by Lessor to evidence the transfer of legal and beneficial title to such Equipment to Lessor and to evidence the termination of Lessee's interest in such Equipment.

22. LAW GOVERNING; UCC ARTICLE 2A WAIVER.

(a) Each Lease shall be governed by the laws of the state in which Lessee is located (the "State").

(b) Lessee hereby willingly and knowingly waives any rights or remedies to which it may otherwise be entitled under Sections 508 through 522, inclusive, of Article 2A of the Uniform Commercial Code in effect in the State.

23. NOTICES.

All notices to be given under any Lease shall be made in writing and either personally delivered or mailed by certified mail to the other party at its address set forth herein or at such address as the party may provide in writing from time to time. Any such notices shall be deemed to have been received five (5) days subsequent to mailing if sent by regular or certified mail, or on the next business day if sent by overnight courier, or on the day of delivery if delivered personally.

24. FINANCIAL INFORMATION; INDEMNITY; POWER OF ATTORNEY.

24.1 Within two hundred ten (210) days after their completion for each fiscal year of Lessee during any Lease Term, Lessee will deliver to Lessor upon Lessor's request the publicly available annual financial information of Lessee.

24.2 Lessee hereby appoints Lessor its true and lawful attorney-in-fact (with full power of substitution) to prepare any instrument, certificate of title or financing statement covering the Equipment or otherwise protecting Lessor's interest in the Equipment; and to make claims for, receive payment of and execute and endorse all documents, checks or drafts for loss, theft, damage or destruction to the Equipment under any insurance.

25. SECTION HEADINGS.

All section headings contained herein or in any Schedule are for convenience of reference only and do not define or limit the scope of any provision of any Lease.



BUSINESS CASE ANALYSIS

MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT (continued)

26. EXECUTION IN COUNTERPARTS.

This Master Lease and each Lease may be executed in several counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument; *provided, however*, that only Counterpart No. 1 of each Lease (including the terms and conditions of this Master Lease Incorporated therein by reference) shall constitute chattel paper for purposes of the applicable Uniform Commercial Code.

27. ENTIRE AGREEMENT; WRITTEN AMENDMENTS.

Each Lease, Escrow Agreement and other documents or instruments executed by Lessee and Lessor in connection therewith constitute the entire agreement between the parties with respect to the lease and financing of the Equipment covered thereby, and such Lease shall not be modified, amended, altered or changed except with the written consent of Lessee and Lessor. Any provision of any Lease found to be prohibited by law shall be ineffective to the extent of such prohibition without invalidating the remainder of the Lease.



ILLINOIS ESPC SUMMARY

STATE LEGISLATION

Local Government Energy Conservation Act (50 ILCS 515/1)

The Illinois General Assembly enacted the Local Government Energy Conservation Act (50 ILCS 515/1). This legislation has created opportunities for local governments to pay for comprehensive energy and maintenance improvement programs out of energy and maintenance savings generated by retrofitting their facilities. The following are some additional facts and clarifications on 50 ILCS 515/1:

- The law provides local governments with the ability to obtain additional funds for needed capital improvements.
- **The improvement package must generate enough energy and operating savings to pay for the entire project to the average system life of the energy conservation measure or 20 years, whichever is less.**
- **By using funds budgeted for utility and operating costs, the legislation enables local governments to accomplish necessary building repairs and energy conservation improvements without additional capital outlays.**
- Because these projects are completely based on performance, a local government can select companies and products that will give them the greatest value instead of being forced to use the lowest bids.
- Future maintenance expenses and demands will be reduced because it costs less to maintain new equipment.
- As energy costs continue to rise, the excess funds that become available as a result of this program will continue to increase.

This approach has been particularly beneficial by combining low cost, high-yield energy conservation measures to create a package that addresses needs and fits into the Local Government Energy Conservation Act.

LOCAL GOVERNMENT ENERGY CONSERVATION ACT (50 ILCS 515/1)

(50 ILCS 515/1)

Sec. 1. Short title. This Act may be cited as the Local Government Energy Conservation Act. (Source: P.A. 88-173.)

(50 ILCS 515/3)

Sec. 3. Applicable laws. Other State laws and related administrative requirements apply to this Act, including, but not limited to, the following laws and related administrative requirements: the Illinois Human Rights Act, the Prevailing Wage Act, the Public Construction Bond Act, the Public Works Preference Act (repealed on June 16, 2010 by Public Act 96- 929), the Employment of Illinois Workers on Public Works Act, the Freedom of Information Act, the Open Meetings Act, the Illinois Architecture Practice Act of 1989, the Professional Engineering Practice Act of 1989, the Structural Engineering Practice Act of 1989, the Local Government Professional Services Selection Act, and the Contractor Unified License and Permit Bond Act. (Source: P.A. 97-333, eff. 8-12-11.)

(50 ILCS 515/4)

Sec. 4. Applicability. In order to protect the integrity of historic buildings, no provision of this Act shall be interpreted to require the implementation of energy conservation measures that conflict with respect to any property eligible for, nominated to, or entered on the National Register of Historic Places, pursuant to the National Historic Preservation Act of 1966, or the Illinois Register of Historic Places, pursuant to the Illinois Historic Preservation Act. (Source: P.A. 94-1062, eff. 7-31-06.)



ILLINOIS ESPC SUMMARY

(50 ILCS 515/5)

Sec. 5. Definitions. As used in this Act, unless the context clearly requires otherwise: "Energy conservation measure" means any improvement, repair, alteration, or betterment of any building or facility owned or operated by a unit of local government or any equipment, fixture, or furnishing to be added to or used in any such building or facility, subject to all applicable building codes, that is designed to reduce energy consumption or operating costs, and may include, without limitation, one or more of the following:

- (1) Insulation of the building structure or systems within the building.
- (2) Storm windows or doors, caulking or weather-stripping, multi-glazed windows or doors, heat absorbing or heat reflective glazed and coated window or door systems, additional glazing, reductions in glass area, or other window and door system modifications that reduce energy consumption.
- (3) Automated or computerized energy control systems.
- (4) Heating, ventilating, or air conditioning system modifications or replacements.
- (5) Replacement or modification of lighting fixtures to increase the energy efficiency of the lighting system without increasing the overall illumination of a facility, unless an increase in illumination is necessary to conform to the applicable State or local building code for the lighting system after the proposed modifications are made.
- (6) Energy recovery systems.
- (7) Energy conservation measures that provide long-term operating cost reductions.

"Guaranteed energy savings contract" means a contract for:

- i. the implementation of an energy audit, data collection, and other related analyses preliminary to the undertaking of energy conservation measures; (ii) the evaluation and recommendation of energy conservation measures; (iii) the implementation of one or more energy conservation measures; and (iv) the implementation of project monitoring and data collection to verify post-installation energy consumption and energy-related operating costs. The contract shall provide that all payments, except obligations on termination of the contract before its expiration, are to be made over time and that the savings are guaranteed to the extent necessary to pay the costs of the energy conservation measures. Energy savings may include energy reduction and offsetting sources of renewable energy funds including renewable energy credits and carbon credits.

"Qualified provider" means a person or business whose employees are experienced and trained in the design, implementation, or installation of energy conservation measures. The minimum training required for any person or employee under this paragraph shall be the satisfactory completion of at least 40 hours of course instruction dealing with energy conservation measures. A qualified provider to whom the contract is awarded shall give a sufficient bond to the unit of local government for its faithful performance.

"Request for proposals" means a competitive selection achieved by negotiated procurement. The request for proposals shall be announced through at least one public notice, at least 14 days before the request date in a newspaper published in the territory comprising the unit of local government or, if no newspaper is published in that territory, in a newspaper of general circulation in the area of the unit of local government, from a unit of local government that will administer the program, requesting innovative solutions and proposals for energy conservation measures. Proposals submitted shall be sealed. The request for proposals shall include all of the following:

- (1) The name and address of the unit of local government.
- (2) The name, address, title, and phone number of a contact person.
- (3) Notice indicating that the unit of local government is requesting qualified providers to propose energy conservation measures through a guaranteed energy savings contract.
- (4) The date, time, and place where proposals must be received.
- (5) The evaluation criteria for assessing the proposals.
- (6) Any other stipulations and clarifications the unit of local government may require.

"Unit of local government" means a county, township, municipality, or park district.

(Source: P.A. 96-1197, eff. 7-22-10.)



ILLINOIS ESPC SUMMARY

(50 ILCS 515/10)

Sec. 10. Evaluation of proposal. Before entering into a guaranteed energy savings contract under Section 15, a unit of local government shall submit a request for proposals. The unit of local government shall evaluate any sealed proposal from a qualified provider. The evaluation shall analyze the estimates of all costs of installations, modifications, or remodeling, including, without limitation, costs of a pre-installation energy audit or analysis, design, engineering, installation, maintenance, repairs, debt service, conversions to a different energy or fuel source, or post-installation project monitoring, data collection, and reporting. The evaluation shall include a detailed analysis of whether either the energy consumed or the operating costs, or both, will be reduced. If technical assistance is not available by a licensed architect or registered professional engineer on the unit of local government's staff, then the evaluation of the proposal shall be done by a registered professional engineer or architect who is retained by the unit of local government.

Any licensed architect or registered professional engineer evaluating a proposal under this Section may not have any financial or contractual relationship with a qualified provider or other source that would constitute a conflict of interest. The unit of local government may pay a reasonable fee for evaluation of the proposal or include the fee as part of the payments made under Section 20. (Source: P.A. 94-1062, eff. 7-31-06.)

(50 ILCS 515/15)

Sec. 15. Award of guaranteed energy savings contract. Sealed proposals must be opened by a member of the unit of local government's governing body or an employee of the unit of local government at a public opening at which the contents of the proposals must be announced. **Each person or entity submitting a sealed proposal must receive at least 10 days notice of the time and place of the opening. The unit of local government shall select the qualified provider that best meets the needs of the unit of local government. The unit of local government shall provide public notice of (I) the meeting at which it proposes to award a guaranteed energy savings contract, (II) the names of the parties to the proposed contract, and (III) the purpose of the contract. The public notice shall be made at least 10 days prior to the meeting.** After evaluating the proposals under Section 10, a unit of local government may enter into a guaranteed energy savings contract with a qualified provider if it finds that the amount it would spend on the energy conservation measures recommended in the proposal would not exceed the amount to be saved in either energy or operational costs, or both, within a 10 year period from the date of installation, if the recommendations in the proposal are followed. (Source: P.A. 88-173.)

(50 ILCS 515/20)

Sec. 20. Guarantee. The guaranteed energy savings contract shall include a written guarantee of the qualified provider that either the energy or operational cost savings, or both, will meet or exceed within 20 years the costs of the energy conservation measures. The qualified provider shall reimburse the unit of local government for any shortfall of guaranteed energy savings projected in the contract. A qualified provider shall provide a sufficient bond to the unit of local government for the installation and the faithful performance of all the measures included in the contract. **The guaranteed energy savings contract may provide for payments over a period of time, not to exceed 20 years from the date of the final installation of the measures.** (Source: P.A. 96-1197, eff. 7-22-10.)

(50 ILCS 515/25)

Sec. 25. Installment payment contract; lease purchase agreement. A unit of local government, or units of local government in combination, may enter into an installment payment contract or lease purchase agreement with a qualified provider or with a third party, as authorized by law, for the funding or financing of the purchase and installation of energy conservation measures by a qualified provider. Every unit of local government may issue certificates evidencing the indebtedness incurred pursuant to the contracts or agreements. Any such contract or agreement shall be valid whether or not an appropriation with respect thereto is first included in any annual or supplemental budget adopted by the unit of local government. Each contract or agreement entered into by a unit of local government pursuant to this Section shall be authorized by official action of the unit of local government's governing body. The authority granted under this Section is in addition to any other authority granted by law.



ILLINOIS ESPC SUMMARY

If an energy audit is performed by an energy services contractor for a unit of local government within the 3 years immediately preceding the solicitation, then the unit of local government must publish as a reference document in the solicitation for energy conservation measures the following:

- (1) an executive summary of the energy audit provided that the unit of local government may exclude any proprietary or trademarked information or practices; or the energy audit provided that the unit of local government may redact any proprietary or trademarked information or practices.

A unit of local government may not withhold the disclosure of information related to (i) the unit of local government's consumption of energy, (ii) the physical condition of the unit of local government's facilities, and (iii) any limitations prescribed by the unit of local government.

The solicitation must include a written disclosure that identifies any energy services contractor that participated in the preparation of the specifications issued by the unit of local government. If no energy services contractor participated in the preparation of the specifications issued by the unit of local government, then the solicitation must include a written disclosure that no energy services contractor participated in the preparation of the specifications for the unit of local government. The written disclosure shall be published in the Capital Development Board Procurement Bulletin with the Request for Proposal. (Source: P.A. 95-612, eff. 9-11-07; 96-1197, eff. 7-22-10.)

(50 ILCS 515/30)

Sec. 30. Term; budget and appropriations. Guaranteed energy savings contracts may extend beyond the fiscal year in which they become effective. **The unit of local government shall include, in its annual budget and appropriations measures for each subsequent fiscal year, any amounts payable under guaranteed energy savings contracts during that fiscal year.** (Source: P.A. 88-173.)

(50 ILCS 515/35)

Sec. 35. Operational and energy cost savings. The unit of local government shall document the operational and energy cost savings specified in the guaranteed energy savings contract and shall designate and appropriate that amount for an annual payment of the contract. If the annual energy savings are less than projected under the guaranteed energy savings contract, the qualified provider shall pay the difference as provided in Section 20. (Source: P.A. 88-173.)

(50 ILCS 515/40)

Sec. 40. Available funds. A unit of local government may use funds designated for operating or capital expenditures for any guaranteed energy savings contract, including purchases using installment payment contracts or lease purchase agreements. A unit of local government that enters into such a contract or agreement may covenant in the contract or agreement that payments made under the contract shall be payable from the first funds legally available in each fiscal year. (Source: P.A. 88-173.)

(50 ILCS 515/45)

Sec. 45. Funding. State aid and other amounts appropriated for distribution to or reimbursement of a unit of local government shall not be reduced as a result of energy savings realized from a guaranteed energy savings contract or a lease purchase agreement for the purchase and installation of energy conservation measures. (Source: P.A. 88-173.)

(50 ILCS 515/75)

Sec. 75. (Amendatory provisions; text omitted). (Source: P.A. 88-173; text omitted.)

(50 ILCS 515/99)

Sec. 99. This Act takes effect upon becoming a law. (Source: P.A. 88-173.)





NEXT STEPS

Request for Proposals

The next step in the process leading to a fully developed energy savings performance contract, per 50 ILCS 515/1, is the release of a request for proposals/qualifications for performance contracting services. Leopardo's energy savings performance contracting proposal is an iterative process that takes into consideration the needs and wants of the county.

Leopardo will develop the scope of the development project based on the energy savings and financial goals of the county. This process will lead to a fully-developed project with firm pricing for each and every ECM Investigated, and the payback/energy savings guarantee criteria spelled out in a straight forward manner.

Energy Conservation Measures

The product of this process is an investment grade audit addressing all county buildings identified as having potential in the preliminary study and as directed by the county. This audit will look at all the equipment and the infra-structure as a whole. The main areas of concern are:

- Lighting (Interior and Exterior)
- Heating Equipment
- Cooling Equipment
- Heating and Cooling Controls
- Lighting Controls
- Building Envelope
- Water Conservation
- Water Meter Upgrades
- And will give consideration to Renewable Energy Options

Leopardo will commit a team of engineers and a project manager who will analyze each potential improvement measure. The analysis will be a fully developed and firm bid project backed document providing the county with a dynamic report that will illuminate the cost/benefit of each ECM identified by the team. Using this analysis the county's leadership team will pick and choose the most beneficial set of ECMs that will serve the goals of the county. The proprietary spreadsheet that will be used in the decision making process allows multiple what-if scenarios to be developed and will demonstrate clearly the benefits that will accrue as the result of implementation for any combination of improvement measures. As a part of this phase, the developed ECM sheet will be optimized for the desired outcome of the project and a final project will be identified and adopted.

TIMELINE

- | | |
|---|------------------------------------|
| ▪ Initial Meetings | 03/14/2016, 04/04/2016, 04/14/2016 |
| ▪ Feasibility Stage | 04/20/2016 – 10/21/2016 |
| ▪ Presentation to Internal Team | 10/24/2016 |
| ▪ State Attorney to review RFQ for ESPC & Engineering Services | 10/26/2016 – 11/04/2016 |
| ▪ Presentation to C.O.W. | 11/10/2016 |
| ▪ County Board Issues approval for RFQ for ESPC | 11/15/2016 |
| ▪ County Board Issues approval for RFQ for Engineering Services | 11/15/2016 |
| ▪ Legal Advertisement | Week of 11/21/2016 |
| ▪ RFQ Preview Meeting | 11/29/2016 |
| ▪ Submission of Proposals/Qualifications | 12/20/2016 |
| ▪ Provider Selected | 01/20/2016 |
| ▪ Scope/Contract Negotiation | 01/23/2016 – 02/03/2016 |
| ▪ Contract Presented to County Board for Approval | 02/21/2016 |
| ▪ Final Design, Permits, Equipment Ordering, etc. | (6-8 week turn time) |
| ▪ Project Installation Begins | First Week of April |





NEXT STEPS

A. RFP ESPC LEGAL ADVERTISEMENT

Legal Notice

Kendall County is requesting proposals/qualifications from interested and qualified Energy Savings Performance Contractors for the implementation of a Guaranteed Energy Conservation Program utilizing the Local Government Energy Conservation Act (50 ILCS 515/1) Performance Contracting Legislation for county facilities. All qualified firms interested in providing the specified contracting services should contact the Facilities Management Director to obtain the required information package on 11/29/2016. All responses are due by 2 PM on 12/20/2016.

For information contact:
Jim Smiley
Facilities Management Director
(630) 553-4102
By Order of Kendall County

Advertisement Date – Resolution Date



Kendall County, Illinois

REQUEST FOR PROPOSALS/QUALIFICATIONS OF ENERGY SERVICE PROVIDERS FOR SELF FUNDING ENERGY EFFICIENCY IMPROVEMENTS

A. GENERAL BACKGROUND AND PROJECT GOALS

Purpose

Kendall County (Owner) is requesting proposals for the identification, design, and implementation of energy efficiency improvements on a self-funding performance-contracting basis in accordance with Local Energy Conservation Act (50 ILCS 515/1).

The purpose for issuing this request is to identify and select a qualified provider, or energy services company, to perform the implementation of an energy savings performance contract.

Suppliers shall be able to provide comprehensive design-build construction, building management and energy services, including, but not limited to, the performance of investment grade energy audits, the program design by in-house professional engineers, selection of energy conservation measures, and installation of energy efficient systems, ongoing support and training services, assistance in securing financing for the transaction, and accountability for system performance, measurement and verification, and cost of operations savings.

Responses should be technically creative regarding modernization, energy conservation, energy management, maintenance, training, and overall service.

Qualified responders must have the below minimum qualifications:

1. Have in-house design/build installation capabilities with three (3) State of Illinois municipal project examples of similar size and scope that were competitively bid.
2. In-house engineering team to design all solutions with registered Professional Engineer (P.E.), Certified Energy Manager (CEM), at least one (1) LEED Accredited Professional, and minimum of four (4) engineers insuring accountability for customer design.
3. In-house dedicated retro-commissioning and service team shall have sufficient service vehicles available to complete the project as provided in the work schedule approved by the county.
4. Utilize in-house employees for project installations in such areas as controls, lighting, mechanical installations, service, retro-commissioning, and audits resulting in greater purchasing power for the customer.
5. Provider must have proof of twenty five (25) years in business showing stability.

Overview of Goals and Objectives

The Owner expects to achieve the following goals and objectives by entering into a guaranteed energy services contract with the selected provider:

1. Reduce operating costs to reinvest in deferred maintenance areas
2. Improve environmental conditions for employees and visitors to the facilities
3. Improve maintenance and operation of the facilities
4. Provide better working conditions in the identified facilities
5. Preserve capital funds for other requirements

Included Facilities

The Owner desires to implement the performance based contract at the following locations:

1. Courthouse
2. Public Safety Center
3. Health & Human Services
4. Animal Control
5. Facilities Management & Coroner
6. Historic Courthouse



- 7. County Office Building
- 8. Highway Department
- 9. Fleet Services

Potential respondents must attend the bid preview meeting and facility tour to be eligible to respond to this request. The date for the preview meeting and facility tour is November 29th, 2016 at 9:00 AM at the County Office Building located at 111 W. Fox Street, Yorkville, IL 60560.

A research information packet outlining square footage, utility data and related information for each facility will be supplied to interested vendors at this meeting.

Qualification Process

The selection of the qualified respondents will be based on the responses to this request and the ability of the provider to best meet the needs of the Owner. The Owner reserves the right to accept or reject any offeror's proposal based on its sole determination of its best interests. This request is not an offer to contract. Acceptance of a proposal neither commits the Owner to award a contract to any vendor, even if all requirements stated in this request are met, nor limits our right to negotiate in our best interests. The Owner reserves the right to contract with a vendor for reasons other than lowest price. After selecting an energy service provider, the Owner intends to negotiate a performance based contract agreement with the selected provider.

Selection Process and Timing

The following process will be used to select the preferred energy services provider.

Legal Advertisement	Week of 11/21/2016
Preview Meeting	11/29/2016
Site Surveys	11/29/16
Submission of Proposal	12/20/16
Selection/Notification to Provider	01/20/2016
Contract Presented to count board for approval	TBD

Contact and Response Deadline

In order to be considered, respondents must submit a complete and thorough response to this request. One original and four (4) copies (total of five (5) responses) must be submitted to the Owner at or before 2:00 p.m. CST on 12/20/2016. Responses must be submitted in a sealed envelope and clearly marked "ENERGY SAVINGS PROPOSAL." To ensure that your response is received before the deadline, either hand deliver or send submittal by registered mail to:

Kendall County Office Building
 111 W. Fox Street
 Yorkville, Illinois, 60560

All submissions become the property of Kendall County, and will not be returned to the vendor. All costs associated with the submission preparation will be the responsibility of the submitting ESCO and will not be reimbursed by the county. **NO EXTENSIONS TO THE ABOVE TIMELINE WILL BE GRANTED OR DISCUSSED.**

Response Preparation and Completeness

An authorized representative of the offeror shall sign responses. All information requested must be submitted and organized using the letter and number format as listed below to assist the Owner in the qualification and evaluation process. Submission of e-mail and/or fax responses will not be considered and will result in elimination of a response otherwise received timely and in accordance with directions. Failure to submit all information as requested may result in the requester requiring immediate submission of the missing information within 24 hours from the requested notification, reducing the score for that component of the response and / or elimination of the respondent from consideration. Emphasis should be placed on completeness and clarity of content. Inclusion of unrelated or unrequested materials that do not address the attached format shall be considered unresponsive. Proposals received after the designated deadline will be returned unopened. Should such proposal(s) be opened inadvertently the Owner reserves the right to retain a copy for the files of the Owner.



Confidentiality

Upon receipt, the proposals shall become the property of the Owner. Ownership of all data, materials, and documentation originated and pursuant to this request shall be subject to public inspection in accordance with prevailing public access laws. Trade secrets or proprietary information submitted by an offeror must be so identified on each page on which it is found and shall not be subject to public disclosure. The Owner may obtain clarifications from the respondent or its contractors at any time.

B. REQUEST FOR PROPOSAL FORMAT AND SPECIFICATIONS

Each company must provide an energy conservation report as detailed below. The report must include certification under a registered professional engineer's seal that the report uses reasonable methods of analysis and estimation.

Executive Summary

Responses shall include a summary overview of the respondent's proposal, approach and other pertinent information. The binding authority in the management of the firm must sign the summary overview.

Company Qualifications and Financial Strength

Company Profile / Product Independence

1. Provide information specifying legal business classification, state of incorporation, audited annual report and summary of financial strength.
2. Address the company's ability to fulfill the financial guarantee terms and duration of the performance based contract. Include a summary of the extent and stability of business operations related to installation services for the last twenty five (25) years.
3. If the firm is a factory owned branch, specify the legal business classification, state of incorporation and where legal contracts will be executed. Specific information about the business unit (the specific branch, division, or office responding to this RFP only), project team and management dedicated to ensuring project performance as well as the ESCO will be evaluated. Inclusion of information on projects performed or developed outside of responding branch or office will not be considered.
4. Indicate whether the response is being submitted on behalf of a parent company (List any division or branch offices to be involved in this project); division (attach separate list if more than one is to be included); subsidiary; or branch office. Include the name, address, city, state, and zip code.
5. Address the firm's representation or affiliation with the manufacturing or installation of any line of energy related equipment, which may be utilized in this project. Specify what that equipment is and how it may impact the project.
6. Corporate Data - Indicate how many years your firm has been in business under its present business name. Provide the total number of employees of the responding branch only. Please identify the number of personnel or resources that are capable of supporting the project in the responding branch office. Give the name and address of the primary individual responsible for contract negotiation as well as all persons with authority for contract execution. This person should reside in responding branch.

Project Team and Experience

1. Provide a project team organizational chart including roles and responsibilities. Include concise resumes of company employees who will work on this project. Include resume(s) of a minimum of one (1) in-house Professional Engineer(s).
2. Include resumes of a minimum of one (1) in-house LEED AP professional and one (1) Certified Energy Manager (CEM). Include copies of certification licenses for each.
3. Briefly describe the relevant experience and qualifications for those team members (no more than 10 individuals) who will be directly responsible for design and implementation of this project. Please include individual resumes as attachments for review. All members should reside in responding branch, Corporate or regional support will not be accepted, please indicate location of each respondent.
4. Provide information on construction management capabilities with resumes.
5. Provide a listing of service and installation capabilities of your firm.
6. Provide a reference list identifying at least three (3) county/municipality projects. This list should include the project name, location, and scope of work and owner reference including contact name and phone number. These references should be by responding branch only. Reference from outside offices or corporate reference will not be accepted.
7. Identify all projects that did not meet the energy guarantee or have resulted in litigation. Providers not listing all outstanding litigation on guaranteed energy savings performance contracts will be rejected without further consideration. Identify the reasons!



Insurance and Bonding

1. Include evidence that the firm is able to provide a 100% project value performance bond for its faithful performance of the installation.
2. As an indication of your firm's financial stability provide your firm's cost of performance and payment bond per thousand dollars of contract value.
3. Include evidence that the firm is able to provide and maintain for the life of the contract insurance in the amounts of:
 - A. Commercial and general liability in amount not less than \$1,000,000 each occurrence.
 - B. Comprehensive automotive liability in amount not less than \$1,000,000 each occurrence.
 - C. Workman's compensation insurance not less than \$1,000,000 each occurrence.
 - D. Excess liability not less than \$3,000,000.

2. Technical Approach, Energy Efficiency and Energy Conservation Measures.

1. Total turnkey project to include: project development, design, implementation, project management, financing, measurement and verification, and training.
2. Responses should include a detailed approach to meeting the goals and objectives for the facilities. Provide a measurement and verification plan in accordance with the international protocol, including the plan for execution identifying responsible parties. Provide an overview of the technical approach that is used to identify, evaluate and recommend energy conservation measures (ECMs).

3. Financial Approach

The respondent should describe financial alternatives that will responsibly maximize the net economic benefit and minimize financial risk.

A. Financing Sources

Provide descriptions of the sources and types and costs of financing available and recommended for use in this program.

B. Penalties and Other Costs

Indicate any penalties or other costs that will be assessed in the event the decision is made not to proceed with this project at any point prior to mutual approval of a Contract Agreement.

C. Savings

Describe the basis of cost of operations savings, its execution, and the methods of auditing

D. Financial Model

1. Include the procedure for calculation of savings with related cost adjustments.
2. Include the procedure for handling excess savings.
3. Include the procedure for handling project delays and related cost adjustments

4. Services

1. Operation and Maintenance / Partnership Plan – As part of this response provide pricing for three years of preventive maintenance for referenced facilities. Describe how cost effective maintenance strategies for the installed ECMs maximize savings performance. Identify and describe the roles and requirements of maintenance services.
2. Provide the estimated costs of annual reconciliation statements, measurement and verification and any required on-going services.
3. Provide information on your firm's ability to provide gas, electric and/or other innovative energy services.

5. Ability to Self-Perform / Other Benefits

1. Define what aspects of the proposal could be self-performed by your company.
2. List proposed scope/trade work that would be subcontracted and your plan of utilizing sub-contractors.

Other Benefits:

Describe any other benefits your firm can bring to the energy services program.



Advertisement for Request for Proposals

The owner will be receiving responses to this request from companies interested in providing an Energy Savings Program per State of Illinois legislation.

Responses will be due by 2:00 P.M. CST on 12/20/16:

County Contact

Jim Smiley
Facilities Management Director
Phone: 630.553.4102

All questions concerning this request must be directed to the above contact. Contacting elected officials or staff other than Jim Smiley will result in elimination from consideration as a qualified provider. The Owner reserves the right to accept the proposals/qualifications that, in its opinion, best serves the interest of the Owner.



REVISED - REQUEST FOR QUALIFICATIONS

Third-Party Consulting Services for Energy Saving Performance Contract

Issue Date: November 28, 2016

Closing Date: December 12, 2016

Third-Party Review of Energy Saving Performance Contract (ESPC) Proposals

Kendall County is seeking a Third-Party Energy Consulting Firm to provide consultation services and review of ESPC project proposals. There may be multiple phases. The Initial phase for which the County is seeking professional services will be energy savings performance contracting proposals focused on fleet related energy conservation measures (ECM).

Future phases may include various ECMs applicable to municipal facility/county operations: HVAC measures, lighting measures, envelope improvement measure, etc.

Energy Service Company (ESCO) proposals are scheduled to be received on December 20, 2016. Commencement of this consulting agreement will occur after the ESCO is selected on or around January 20, 2016.

Scope of services for Phase 1:

- Review of ESPC proposed fleet conservation measures

- Review of the ESCO proposed baseline energy methodology and calculations used in the proposal(s).

- Review of the costs and savings associated with the selected ECMs

- Review of the Measurement and Verification (M&V) and commissioning plans proposed (if proposed/applicable).

- Review the outputs of all the savings calculations as it translates to the savings guarantee, specifically, verifying the safety factors put in place to de-rate the projected savings

- Prepare a report evaluating and concluding if the projected savings proposed are realistic, achievable and verifiable.

- Optional additional service – M&V assessment: provide review, report, and recommendations based on the ESCO 1st year M&V report. Review savings calculations and confirm the report was prepared in accordance with the ESCO contract technical scope section.

- Optional additional service – future phases may be developed and added to this scope of services as appropriate.

Proposal pricing for phase 1 should be either detailed lump sum valuation or not to exceed (NTE) hourly rates with an estimate of hours (or any other industry standard approach).



Interested firms should submit a narrative proposal that details the plan to address the scope of services requested. The proposal is limited to 8 single spaced pages. In addition to the proposal, please provide the following:

Resumes of key staff members who will actually perform the work on this project and a description of their role.

Three to five examples of similar consulting assignments completed in the last 3 years.

At least three references. This does not count against the proposal pages.

Selection Factors:

Selection Factors	Weight
Experience on similar projects with municipalize or other public entities.	25%
Past performance on similar projects.	25%
Adequate staff with appropriate training and experience.	20%
Project performed under the Illinois performance contracting legislation	10%
Ability to confirm building energy model accuracy.	20%

All questions should be directed to the following person and are due by February 10, 2017 at 1:00 PM. Questions will be answered and posted to the WCPSS website by 12:00pm noon on February 13, 2017.

Jim Smiley – Kendall County, Facilities Management Director
Phone: 630.553.4102, Email: jsmiley@co.kendall.il.us

Submit (2) two printed copies and (1) one electronic copy of the proposal on portable USB by 3:00 PM on the closing date of December 12, 2016.

Deliver to: Kendal County Office Building
 111 West Fox Street
 Yorkville, IL 60560





NEXT STEPS (REQUEST FOR PROPOSAL)

C.II. RECOMMENDED FIRMS FOR SOLICITATION

Recommended Firms for Solicitation for Provision of Review Surfaces

Environmental Systems Design, Inc.

Contact Name: Chris Wilson, P.E., Studio Leader | Energy+Eco
Phone: 312.580.0533
Email: cwilson@esdglobal.com
Website: <http://www.esdglobal.com>

Grumman/Butkus Associates

Contact Name: David Eldridge, P.E., Associate
Phone: 847.328.3555
Email: deldridge@grummanbutkus.com

Contact Name: Fiona Martin, P.E., Senior Project Engineer
Phone: 847.328.3555
Email: fmartin@grummanbutkus.com
Website: <http://grummanbutkus.com>

Seventhwave

Contact Name: Adam McMillen, P.E., LEED AP BD+C, Director of Energy Consulting
Phone: 312.852.1360
Email: amcmillen@seventhwave.org
Website: <http://www.seventhwave.org>

Larson Engineering

Contact Name: Mike Gleason, MEP Department Head
Phone: 630.357.0540
Website: <http://www.larsonengr.com/>

KJWW

Contact Name: Bob Winter, Office Leader
Phone: 312.294.0501
Website: <http://www.kjww.com/>





NEXT STEPS

C.III. BUDGET ESTIMATE

ESPP 3rd Party Proposal Review Budget Estimate

Assumptions:

1. Review is focused on evaluation of savings value proposition
2. Scope is contained to evaluation of the first project phase – fuel upgrade
3. Work is completed in the selected engineer's office with no onsite field evaluation trips
4. Engineer billing rate: FTE * 2.6; \$80 * 3.5 = \$280/hr. Duration of engineering review: not to exceed 80 hours
Report Generation: 8 hours (@ \$100/hour)
Internal Peer Review: 2 hours (@ \$400/hour)

Budget:

$\$280 * 80 = \$22,400$

$\$100 * 8 = \800

$\$400 * 2 = \800

Total: \$24,000 (Includes reimbursable, no travel required nor included)

Recommendation:

In accordance with the legislation this cost should be incorporated into the ESPP proposer cash flow, eliminate any costs to the customer.

