King County Courthouse and King County Jail

Energy Services Proposal

November 29, 2006

Prepared For:

King County

Prepared By:

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EXECUTIVE SUMMARY

McKinstry Essention (McKinstry) was retained by King County (the County) through the Washington State Department of General Administration (GA) Energy Savings Performance Contracting (ESPC) program, which is authorized under RCW 39.35a, to investigate the investment grade viability of an overall utility load reduction as a result of system efficiency improvements and an alternate source of heat for the King County Courthouse and Jail facilities. After analyzing detailed economic, constructability, and environmental factors, the project team's recommendation is to depart from the district steam system (provided by Seattle Steam). Installing and operating local, dual fuel hot water boiler systems offers the best return on investment (ROI) for the County, and provides the additional benefits associated with an environmentally sound new system.

Furthermore, this new local boiler system that uses natural gas is served by a regulated utility (Puget Sound Energy) and does not require a long term contract commitment, thus adhering to the County's policy of not entering into long term contracts.

When this local boiler system is combined with energy conservation measures throughout these facilities, such as ventilation control and enhanced scheduling for the Courthouse, the ROI associated with this recommendation improves.

Because this proposal includes an open-book, guaranteed maximum costing methodology, and because we guarantee annual project energy savings, undertaking this project will reduce the County's first cost risk. Finally, this project can be funded based upon the energy savings cash flow stream without impacting the capital budget.

A. OVERVIEW OF INVESTMENT GRADE ASSESSMENT

From July to November 2006, McKinstry conducted a three stage assessment of the King County Courthouse and Jail Facility.

This investment grade assessment consisted of a complete and systematic review of financial, operational and constructability aspects of viable system alternatives.

In conducting the assessment, McKinstry focused on two primary components:

1. Analyzing current and future costs of heating the facilities with district steam versus heating with local natural gas fired, dual fuel hot water boilers.
2. Assessing efficiency improvements to the existing heating, ventilation, and air conditioning (HVAC) systems.

Project goals included:

- Reducing annual utility costs by selecting the optimum fuel source based upon future fuel cost projections.
- Reduce annual utility costs by performing cost effective energy conservation measures that reduce fuel consumption.
- Improving system reliability and redundancy as appropriate.
- Improving the mechanical system's operating (energy) efficiency.
- Improving occupant comfort.

- Capitalizing on programmed equipment replacement to optimize system configuration.
- Reducing and/or eliminating the reliance on long-term contracts.
- Improving the County's environmental footprint affected by these systems.

B. Analytical Methodology

McKinstry employed robust and fundamental industry standard engineering principals and practices as the foundation of this assessment. A rigorous and systematic compilation of utility and HVAC operational data was derived through the following means:

- Monthly utility bill historical data from January 2002 to present established an energy baseline with a robust historical use profile.
- Detailed engineering analysis, which included running full building computer simulation tools and other measure-specific detailed engineering calculations to analyze the existing system's baseline operation versus the proposed system's operating parameters.
- Portable data logging equipment was installed to measure specific system operating parameters. This trended data and reports were used as input to the detailed engineering analysis.
- Prior building heating and ventilation system studies provided additional mechanical system information.
- The team created schematic design level mechanical and electrical plans for estimating purposes and constructability review.
- The team produced detailed, all-inclusive construction grade project cost estimates.

C. Findings

Upon reviewing multiple options and system enhancements, including remaining on Seattle Steam, McKinstry developed a set of recommended system modifications. The recommended system modifications yield a new, reliable, and energy efficient system. The proposed system includes the following core elements:

1. Courthouse
   a) Convert to four (4) roof mounted gas fired, dual fuel hot water boilers sized to meet heating needs. Boilers include dual fuel high turndown burners.
   b) Utilize CO_2 sensors at strategic locations to ensure adequate but not excessive ventilation of assembly areas. This will help reduce simultaneous heating and cooling of the space.
   c) Implement control system sequence, set point and calibration changes to increase comfort and reduce energy consumption.

2. Jail
   a) Convert to three (3) roof mounted gas fired, dual fuel hot water boilers sized to meet heating needs. Boilers include dual fuel high turndown burners. This option provides a fully redundant boiler for an N+1 system reliability rating.
   b) Install small steam generator for kitchen equipment service.
   c) Add VFDs to six (6) building fans.
   d) Implement control system sequence, set point, and calibration changes to increase comfort and reduce energy consumption.

FINANCIAL SUMMARY

We anticipate the project to produce over $643,532 in annual energy savings to King County. Savings of $8,907/yr are projected based on a reduced repair costs and future avoided capital expenditures as agreed upon with King County. Total first year savings is estimated at $652,439 annually.

The total guaranteed maximum project cost is $5,066,864. Including sales tax and Engineering & Architectural Services (E&AS) fees, and before any utility incentives, the final total project cost is estimated at $5,703,285. The estimated utility rebate from Seattle City Light is approximately $40,000.

The simple payback for converting the Jail and the Courthouse from Seattle Steam to natural gas is projected to be 9.4 years. Requiring an investment of $5.6 million, it would result in a Net Present Value Savings (NPV) of $2.1 million (assuming a real discount rate of 7% (10.2% with 3% inflation). If the wood fired boiler is not installed by Seattle Steam, the NPV would increase to $3.0 million. If a 2% real discount rate is used to determine the NPV, the result would be substantially higher. All primary systems included in this proposal carry an expected life of 25 years or greater.

SYSTEM RELIABILITY

The proposed systems include an appropriate level of redundancy to ensure operational continuity in the program. Currently, an interruption or failure in the single steam pipe service connection to the buildings necessitates that the program relocate or cease operation. The proposed dual fuel hot water boilers will provide a reliable heating source—if the source of natural gas is interrupted, the boilers will continue to operate on oil with no interruption in the heating service.

ENVIRONMENTAL BENEFITS

The environmental benefits of this recommended system differ if compared to a wood fired boiler system, which may be installed by Seattle Steam. It should be noted that wood contains "biogenic" carbon. Under international greenhouse gas accounting methods developed by the Intergovernmental Panel on Climate Change, biogenic carbon is part of the natural carbon balance and will not add to atmospheric concentrations of carbon dioxide. Some reporters use an emission factor of zero for wood, wood waste, and other biomass fuels in which the carbon is entirely biogenic. However, because the ultimate destination of the wood waste in question is to a landfill with methane capture rather than open burning, we have chosen to include the wood CO_2 impact since any wood waste not burned by Seattle Steam Company will be sequestered. Tables 1 and 2 below show the Environmental Summary.

Tables 1 and 2. Environmental Benefits Summary (With and Without Wood Waste)

Base (Seattle Steam with Wood)	Proposed (Boiler)	Change	
4,666,098	7,885,000	3,218,902	Lbs CO2 Nat. Gas
13,267,951	0	(13,267,951)	Lbs CO2 Wood
47,724	0	(47,724)	Lbs CO2 Trucks
17,981,772	7,885,000	(10,096,773)	**Lbs CO2 Total**
3,587	6,061	2,474	Lbs NOx Nat. Gas
9,864	0	(9,864)	Lbs NOx Wood
13,451	6,061	(7,389)	**Lbs NOx Total**
6,722,349	0	(6,722,349)	**Gallons Water**
389	0	(389)	**Gallons Chemicals ***

* Inside building only. Doesn't include chemicals used by Seattle Steam)

Base (Seattle Steam without Wood)	Proposed (Boiler)	Change	
11,665,245	7,885,000	(3,780,245)	Lbs CO2 Nat. Gas
0	0	0	Lbs CO2 Wood
0	0	0	Lbs CO2 Trucks
11,665,245	7,885,000	(3,780,245)	**Lbs CO2 Total**
8,967	6,061	(2,906)	Lbs NOx Nat. Gas
0	0	0	Lbs NOx Wood
8,967	6,061	(2,906)	**Lbs NOx Total**
6,722,349	0	(6,722,349)	**Gallons Water**
389	0	(389)	**Gallons Chemicals ***

* Inside building only. Doesn't include chemicals used by Seattle Steam)

For reference: On average, one car produces 15,000 pounds of CO_2 annually and one acre of trees absorbs 7,333 pounds of CO_2 annually.

D. Conclusion

This analysis is the latest in a series of studies, each of which have concluded that decentralizing from Seattle Steam shows a favorable ROI for the subject buildings and water boiler systems will provide for a level of heating redundancy that currently does not exist, while improving overall environmental impact.

This project represents an excellent opportunity for King County to greatly improve its facilities while saving significant energy costs. The project provides facility improvements with an overall project payback of under 10 years. If the Seattle Steam wood burning boiler is not constructed, the payback only improves. McKinstry looks forward to continuing to work with King County and

the State of Washington Department of General Administration Energy Group to make this project a success.

Authorization to proceed with the integrated design and delivery of this project as recommended by December 15, 2006 will allow for a summer construction period providing reduce utility costs for King County.

This current assessment differs in that it offers an investment grade level of information, which provides for a guaranteed ROI. Implementing the recommendations will install building efficiency measures that reduce overall energy consumption. Furthermore, the primary hot fully functional heating plant that will be in service for the 2007 heating season.

SCOPE OF WORK

A. FACILITY IMPROVEMENT MEASURE (FIM) SUMMARY

For detailed scope of work descriptions please refer to Attachment A – "Detailed Scope of Work."

B. ESCO SERVICES

McKinstry Essention (McKinstry) will include the following services related to this project:

1. ENERGY AUDIT: The energy audit is complete and is submitted under Exhibit 1 – "Directed Engineering Study."
2. DESIGN SERVICES: McKinstry will provide a detailed engineering design as needed to obtain Owner review and approval of the proposed system and to obtain competitive bids. In addition, McKinstry will also provide construction support services, start-up, testing, as-built drawings of systems installed, and provide relevant operations and maintenance manuals.
3. CONSTRUCTION: Provide, or cause to be provided, all material, labor, and equipment, including paying for permits, fees, bonds, and insurance, required for the complete and working installation of McKinstry's equipment.
    a. McKinstry will provide a site superintendent who will be responsible for the onsite supervision and coordination of trades and subcontractors. This individual's responsibilities will also include regular work observations, quality control, site security, enforcement of the site specific safety plan, as well as coordinating any impact upon building tenants with the Owner.
    b. McKinstry may perform portions of the contraction work or may subcontract portions to qualified firms. In either case, McKinstry Essention will share information regarding actual costs of the work with the Owner.
    c. When McKinstry has completed the installation of the Equipment, including start-up, operations verification, and training in accordance with the Proposal, McKinstry will provide to Owner a "Notice of Commencement of Energy Savings".
    d. At the conclusion of the project, McKinstry will submit a "Notice of Substantial Completion" to the Owner.
4. CONSTRUCTION MANAGEMENT: McKinstry will provide a dedicated construction manager who will provide contract administration services for the project. The owner is expected to coordinate day-to-day communications with tenants and any scheduling of tenant relocations in and around occupied areas.
5. OPERATION TRAINING: McKinstry will provide on-going training of building staff during construction and a minimum of 16 hours of training on the energy management control system.

6. PERFORMANCE MAINTENANCE: ESCO will provide ongoing monitoring and support services to help ensure that predicted savings are achieved throughout the term of the agreement. Ongoing services shall be under separate agreement. Ongoing services shall be at the discretion of the County to terminate. Specific tasks associated with proposed ongoing performance assurance tasks can be found in table 3.1- "Energy Cost Savings Guarantee Summary."
7. EQUIPMENT MAINTENANCE: McKinstry will provide no equipment maintenance or repairs after the warranty period. Following the completion of the installation and Owner acceptance of the Equipment, the Owner shall provide all necessary service, repairs, and adjustments to the Equipment so that the Equipment will perform in the manner and to the extent set forth in the Proposal. McKinstry shall have no obligation to service or maintain the Equipment after the warranty period.
8. WARRANTY: McKinstry will warrant equipment for one year following Notice of Substantial Completion. Specific information regarding equipment warranty will be passed on to owner.
9. HAZARDOUS WASTE OTHER THAN PCB LIGHTING BALLASTS: Should the project require removal or disposal of hazardous material, McKinstry Essention may have the hazardous material or substances removed and disposed of at the request of the Owner. McKinstry will not assume ownership of the material but may act on behalf of the Owner to properly remove and dispose of the material. The Owner shall pay McKinstry for the cost of such work. The Owner agrees and acknowledges that it has not relied on or employed McKinstry to analyze or identify the presence of any hazardous substance on the Owner's premises. The cost of hazardous material abatement and disposal is not included in this proposal.
10. HAZARDOUS WASTE ASSOCIATED WITH PCB LIGHTING BALLASTS: Where PCB ballasts are discovered as part of lighting retrofit work, McKinstry shall dispose of PCB ballasts through an approved hazardous waste vendor. The cost of hazardous material abatement and disposal associated with PCB ballasts is included in this proposal.

C. EXTENT OF SUBCONTRACTING

McKinstry may subcontract the energy audit, design, construction management, start-up, and training portions of this Contract to qualified firms upon review and approval by owner. Construction subcontracts will be awarded competitively. McKinstry will endeavor to satisfy the MWBE goals of Washington State.

D. PROJECT SCHEDULE

The following information lists several milestone dates for the project. McKinstry will develop a detailed schedule outlining all of the various design, pre-construction, construction, and closeout tasks associated with the project and that interfaces with other construction work not under this proposal.

	Start	Finish
ESP Review and Approval Process	11/29/06	12/15/06
McKinstry Design and Pre-Construction	1/2/07	4/2/07
Final Construction Docs & Permitting	4/16/07	5/1/07
Construction	5/1/07	9/30/07

ENERGY COST SAVINGS GUARANTEE

A. GUARANTEE OVERVIEW

1. Philosophy: McKinstry Essention (McKinstry) is prepared to guarantee any portion of a project over which it has direct control. Where McKinstry does not have direct control (such as burn hours associated with lighting), we are prepared to work with the customer to devise a method of Measurement and Verification (M&V), which will provide the highest degree of assurance that the energy cost savings exist.

2. This Project: For this project, McKinstry is prepared to guarantee the performance of the installed initiatives to reduce energy consumption. The target energy reductions for the initiatives that will be implemented are as follows: Refer to Table 3.1. Based upon the stipulated conditions as enumerated by King County personnel and the utility rates as described below, the utility cost savings are also shown in Table 3.1.

3. On-going Services: The cost of the first year of Performance Assurance is included in the project scope. The cost of On-going Performance Assurance in years 2-10 is at the discretion King County. McKinstry is prepared to continue the guarantee as long as King County continues the on-going services as described herein. When King County chooses to cancel the ongoing services, the guarantee will also be terminated at the same point in time.

   For this project, King County has elected not to have McKinstry Essention provide on-going performance assurance services past year one.

B. FIM SPECIFIC PERFORMANCE ASSURANCE METHODOLOGY

1. Guarantees: Table 3.1 Energy Savings Guarantee Summary provides the specific energy consumption savings for each field improvement measure and the guarantee that McKinstry will provide associated with that measure. Savings calculations are based upon both baseline operating characteristics and proposed operation criteria:

   a. Baseline: “Baseline” refers to the existing operating characteristics that were used to calculate energy cost savings. The baseline operating characteristics, including system performance and operational expenditures, which were used for this project are provided in Table 3.1. In general, all parties acknowledge the baseline associated with any specific measure has been derived from the following sources:

      (1) Actual operating information gathered through field observation, measurement, micro-data loggers, and owner’s operating log books.

      (2) Owner provided information concerning stipulated factors such as burn hours, occupancy, or operational expenditures.

      (3) In some instances, a modified baseline may have been developed to address areas whereby pre-retrofit conditions do not reflect a system that is operating per current code or what the client may deem as normal operation.

b. Proposed: The proposed operating criteria, including system performance and operational expenditures, which were used for savings calculations are provided in Table 3.1. Systems must be operated per the proposed criteria to ensure energy cost savings are realized. McKinstry will provide the initial start-up, commissioning, and programming of the system to ensure that the systems operate per the proposed operating criteria. King County acknowledges their responsibility to ensuring that these criteria are maintained and associated energy savings are realized. Energy Savings Guarantees are predicated on King County maintaining their responsibilities as provided below in "On-Going Owner Responsibilities."

2. Performance Assurance (PA): Table 3.2 - "Performance Assurance Plan Outline" provides the specific on-going reporting tasks that McKinstry will perform to verify that the systems are performing as specified. The intent of the verification is to measure and verify leading indicators on which the energy savings are based. Once these leading indicators are measured and are verified to be in accordance with the proposed criteria, the savings due to the performance of the equipment or measure shall be deemed as met. McKinstry has proposed measurement of these indicators. The site specific Performance Assurance Program encompasses the following elements:

   a. Closeout Commissioning Report: McKinstry will provide a closeout commissioning report during the one month period starting three months after the Notice of Commencement of Energy Savings. The scope of this report consists of the tasks outlined under the "Post-Retrofit" stage of Table 3.2.

   b. First Year On-going Reporting: For this project, McKinstry Essention proposes reporting of the first year PA tasks as provided in Table 3.2 on a one-time basis. The scope of this report consists of the tasks outlined under the "First Year" stage of Table 3.2. The first report shall be provided no later than one year after last date of Notice of Commencement of Energy Savings. However, if additional phases of work are involved, a single PA Report may be provided at regular interval(s) that reports across all relevant phases of work.

   c. Years 2 – 10 On-going Reporting: At this point, this proposal does not contain any guarantee past Year 1.

C. UTILITY RATES

1. Utility Rate: For the purpose of calculating savings, the utility rates used will be the utility rates as paid by King County to the utility company during the pertinent period, adjusted for any rate schedule changes made by the utility company, except that the utility rate used for calculation will never go below the Floor Rate, or above the Ceiling Rate, as described below. In the event that a building has multiple meters on different rate schedules, the per-unit cost of the utility will be the average of all the rate schedules in effect at that facility.

   a. Base Utility Rate: Refer to table 3.3 for the Base Utility Rates (including sales tax).

2. Floor Utility Rate: For the purpose of calculation of savings, the utility rate shall never drop below the base utility rates described above. This shall be known as the Floor Utility Rate.

3. Ceiling Utility Rate: For the purpose of calculation of savings, the utility rate shall never exceed 1.5 times the base utility rate described above. This shall be known as the Ceiling Utility Rate.

4. Rate Schedule Changes: When the utility company makes a change to the rate schedule, the new rate will be used for calculating savings realized during a given period. If a rate schedule change occurs partway through a period, an aggregate rate comprised of a weighted average between the old and the new rate will be used. The weighting will be based upon the portion of the period that each rate applied.

D. STANDARDS OF COMFORT SERVICE

The following section provides the standards of comfort, which King County must maintain to ensure the comfort of the students, faculty, and staff, and upon which all energy calculations were based.

HVAC Comfort

Heating, ventilating and air conditioning (HVAC) systems provided by McKinstry Essention will provide comfort and indoor air quality in accordance with the Standards of Comfort below. This standard will pertain only to buildings and areas of buildings in which the McKinstry Essention is installing HVAC equipment that has direct control over space comfort conditions. HVAC comfort conditions cannot be guaranteed when operable windows or doors are open.

Indoor Conditions:

Occupied:

Winter Heating Minimum Setpoint – 70 degrees F

Winter Heating Maximum Setpoint – 74 degrees F

Summer Cooling Minimum Setpoint - 72 degrees F (where mechanical cooling systems are employed)

Summer Cooling Maximum Setpoint - 78 degrees F (where mechanical cooling systems are employed)

Unoccupied:

Minimum - 55 degrees F

Maximum - 85 degrees F (where mechanical cooling systems are employed)

Relative Humidity (If humidity control provided):

Minimum - 40%

Maximum - 60%

Minimum outside air per occupant:

In accordance with ASHRAE standards and Washington State Ventilation and Indoor Air Quality Code.

Lighting:

Illumination Levels Verification:

Illumination levels shall be as recommended by the Illuminating Engineer's Society of North America (IESNA).

For primary and secondary schools, illumination will also meet 1997 WAC 246-366-120 lighting requirements (for Washington state school districts only).

Illumination Levels Design:

The lighting and illumination levels for lighting systems provided by the McKinstry Essention will meet or exceed current recommended practices by the Illuminating Engineering Society of North America for illumination levels for the various tasks that are conducted throughout King County.

E. ON-GOING OWNER RESPONSIBILITIES

King County shall provide the following services as part of this energy services project. In the event that these services are not provided, energy savings and associated guarantees will be modified to reflect the associated impact.

(1) Maintain all equipment per manufacturer's recommendations and proposed maintenance schedule.

(2) Maintain all sequence of operations and performance criteria related to installed systems as proposed and designed.

(3) Provide other FIM specific on-going responsibilities as provided in Table 3.2 - "Performance Assurance Plan Outline."

(4) Provide McKinstry with copies of actual monthly utility billing information on a quarterly basis for the duration of the ongoing service period. This includes electric, natural gas, and fuel oil. For this project, the ongoing service period shall be one year. The associated facilities where utility information shall be provided include all meters providing direct or indirect service to all buildings included in this project.

(5) Provide McKinstry all internal sub-meter data, including electric and condensate meters, providing direct or indirect service to all buildings included in this project.

(6) Provide McKinstry access to Energy Management and Control Systems for the purpose of collecting and logging data over time as required for performance verification.

(7) King County shall notify McKinstry in writing with regards to any changes or alterations to buildings that will affect energy usage. This notification must be

provided within two weeks of the change. This includes occupancy or use changes, computer load or other load changes, scheduling changes, and sequence of operations changes.

F. NON-PERFORMANCE

1. In the event the equipment performance is not met, McKinstry accepts responsibility for additional electricity used by the equipment as a result of the reduced performance. McKinstry may, at its option, execute any of the following options:

   a. Repair or replace equipment as required to meet required performance.

   b. Make payments for the extra energy consumption to King County. In the event that the McKinstry chooses the payment option, McKinstry reserves the right to select either an annual payment for the duration of the finance term or a one-time lump-sum payment of the same amount. In either case, the payment will be calculated based upon the quantity of additional electricity used and the Base Utility Rate as described above.

G. CHANGE OF USE

1. In the event that King County chooses to make changes to the facility that require set point adjustments, longer operating hours, or continuous equipment operation, King County agrees that:

   a. Savings deemed as met described above will continue to be deemed as met.

   b. Additional cost of extended equipment operation is a cost of the change, not due to a failure of the McKinstry or their equipment.

   c. McKinstry shall not be responsible for any increase in energy, maintenance, or any other costs incurred as a result of the extended equipment operation.

   d. McKinstry at its option may make a baseline energy use adjustment to account for a change-of-use at any facility.

Scenario - E - BASE WITH ADDED N+1 BOILER
King County - Group 1

Table 3.1: Energy Savings Guarantee Summary

FIM Descriptions			Key Performance Indicators	Agreed Upon Criteria		Percent of Calculated Savings	TARGET ENERGY CONSUMPTION SAVINGS ***											GUARANTEE SUMMARY		
							Electricity		Gas		Other	Heating Penalty			Cooling Credit		Total	Energy		Operational
FIM #	FIM Name	Site		Baseline	Proposed	%	kWh	kWh ($)	Therms	Therms ($)	$	kBTU	Fuel	kBTU ($)	kWh	kWh ($)	Utility ($)	Performance Guarantee *	Stipulated Factors	Stipulated Savings ($)
1.1-COURT	Convert Steam Heating to Courthouse Rooftop HW Boilers	Courthouse	1. Heating and domestic hot water load (annual BTU). 2. Boiler Efficiency. 3. Boiler system performance.	1. Based on steam Utility Manager data from Jan 02 - Mar 06. 2. N/A. 3. N/A.	1. Same as base. 2. 81.8%. 3. Capacity will be adequate, and the system will function properly.	80%	0	$0	(261,891)	($299,964)	$0	0	Steam	$0	0	$0	$316,939	The boiler system will provide the calculated BTUH of heating and domestic hot water at the required efficiency. Equipment is guaranteed for 1 year parts and labor. Extended warranties up to 20 years are avaialble upon request.	1. Heating and domestic hot water load (annual BTU). 2. All recommended maintenance will be performed by KC.	$7,224
1.1a-JAIL	Add N+1 Boiler to FIM 1.1-JAIL	Correctional Facility	1. Boiler system performance.	1. N/A.	1. Capacity will be adequate, without the use of the standby boiler.	80%	0	$0	(303,497)	($347,618)	$0	0	Steam	$0	0	$0	$232,327	The boiler system will provide the calculated BTUH of heating and domestic hot water at the required efficiency. Equipment is guaranteed for 1 year parts and labor. Extended warranties up to 20 years are avaialble upon request.	1. Heating and domestic hot water load (annual BTU). 2. All recommended maintenance will be performed by KC.	$1,683
3.1-JAIL	Add VFDs to Jail Fans	Correctional Facility	1. Method of Capacity Control 2. Average Motor kW	1. Riding Fan Curve, modeled as "Outlet Dampers" 2. As measured in 1x measurement	1. VSD reduces Motor & Fan Speed. 2. Reduced average kW per ASHRAE Load Profile for VAV Air System.	90%	203,230	$11,189	0	$0	$0	0	Steam	$0	0	$0	$11,189	1. Fans will modulate Speed to maintain capacity. 2. Average Motor kW will be reduced.	1. All 6 fans have no present capacity control in operation. 2. Jail AHU's have load profile similar to ASHRAE Standard VAV Load Profile.	$0
4.1-COURT	Ventilation Rate Optimization	Courthouse	1. DDVAV Box Minimum Flows. 2. Hours of Operation	1. As established from "As-Built" Plans and DDC System examination 2. 5:00am - 6:00pm Monday-Friday.	1. As established during design to provide 0.06 CFM/ft² OSA per ASHRAE 62-2004. 2. No change.	90%	130,270	$7,172	31,152	$35,681	$0	0	Steam	$0	0	$0	$42,853	1. DDVAV Boxes will operate at a lower level, and respond to sensed CO2 levels by increasing minimum flow rates. 2. none.	1. Data as found in As-Built Plans, DDC systems, and Balancing Reports are reliable. 2. Building Hours remain per present schedule.	$0
5.1-COURT	HVAC Controls Review & Optimization	Courthouse	1. Mixed Air Setpoint for DDVAV AHU's 2. Perimeter AHU Setpoint. 3. DDVAV AHU Hours of Operation. 4. Perimeter AHU Hours of Operation.	1. 55℉ setpoint, with full economizer operation to keep as close to 55℉ as possible. 2. Perimeter AHU's maintain 55℉ Discharge Temperature during all hours of operation. 3. 5:00am - 6:00pm Monday-Friday. 4. 5:00am - 6:00pm Monday-Friday.	1. Floats with dampers at Min OSA. 2. Perimeter AHU DAT floats with OSA between 55℉ and 74℉. 3. No changes proposed. 4. 7:00am - 6:00pm Monday-Friday. (2 hour/day reduction in morning run-time.)	90%	4,035	$222	30,706	$35,170	$0	0	Steam	$0	0	$0	$35,392	1. Higher Mixed Air Temperatures will still properly satisfy end loads without further changes to AHU's. 2. Floating DATs will still allow all zones presently meeting HVAC comfort needs will continue to do so.	1. DDVAV Mixed Air Setpoints have and would otherwise continue to maintain 55℉. 2. Perimeter AHU Discharge Temps have and would otherwise continue to maintain 55℉. 3. All TOD schedules.	$0
5.1-JAIL	HVAC Controls Review & Optimization	Correctional Facility	1. Hours of Operation 2. AHU Discharge Temperature	1. Continuous (8760 hours) 2. Fixed at 55℉.	1. No change. 2. Floats higher when Heat Recovery Loop in use	20%	7,432	$409	3,861	$4,423	$0	0	Steam	$0	0	$0	$4,832	1. No change. 2. If AHU DAT's are allowed to float higher and maximize Heat Recovery, then reheat and energy consumption will be reduced.	1. No change. 2. Heat recovery system is and continues to be operated.	$0
					TOTALS		**344,967**	**$18,992**	**(499,668)**	**($572,308)**	**$0**	**0**	**0**	**$0**	**0**	**$0**	**$643,532**			**$8,907**

* Refer to Table 3.2 for specific Performance Assurance tasks to be performed to verify savings
** The magnitude of the penalty / credit for lighting and plug load FIMs is based on the November 1993 ASHRAE Journal. It is based on heating type, mechanical or free cooling, and climate zone.
*** The savings shown in the this table are less than the calculated savings. Refer to the "Percent of Calculated Savings" column for the percent of the calculated savings that are shown in this table. The savings guarantee is based on the savings shown in Table 3.1.

Scenario - E - BASE WITH ADDED N+1 BOILER
King County - Group 1

Table 3.2: Performance Assurance Plan Outline

FIM Descriptions			Key Performance Indicators	Audit Stage (Baselining)	Post Retrofit Stage (Commissioning)	First Year	Year 2 - Year 10 (Budgeted Under Separate Proposal)	On-going Owner Responsibilities
FIM #	FIM Name	Site						
1.1-COURT	Convert Steam Heating to Courthouse Rooftop HW Boilers	Courthouse	1. Heating and domestic hot water load (annual BTU). 2. Boiler Efficiency. 3. Boiler system performance.	1. Review billing history. 2. N/A. 3. Perform preliminary design and peak load (BTUH) calculations.	1. None proposed. Same as base. 2. Tune boiler. Perform flue gas analysis at standard rating conditions and jacket loss calculation to show that the boiler efficiency is at least 81.8%. If any one boiler is lower than 81.8%, it will be used as the stand-by boiler. 3. Provide balancing report to show that the calculated design gpm (+/- 10% is delivered by the new piping.	1. None proposed. Same as base. (BTU meter will be installed and monitored for informational purposes, but won't be part of the guarantee since building use and weather are outside of McKinstry Essention's control.) 2. Confirm with KC staff that all recommended preventative maintenance has been done annually. Tune boiler. Perform flue gas analysis at standard rating conditions and jacket loss calculation to show that the boiler efficiency is at least 81.8%. If any one boiler is lower than 81.8%, it will be used as the stand-by boiler. 3. Log or trend supply water temperature to show that the boilers are able to maintain setpoint when the OSA temperature is between 17 and 27 degrees.	1. None proposed. Same as base. (BTU meter will be installed and monitored for informational purposes, but won't be part of the guarantee since building use and weather are outside of McKinstry Essention's control.) 2. Confirm with KC staff that all recommended preventative maintenance has been done annually. Tune boiler. Perform flue gas analysis at standard rating conditions and jacket loss calculation to show that the boiler efficiency is at least 81.8%. If any one boiler is lower than 81.8%, it will be used as the stand-by boiler to minimize savings loss while the condition is rectified. 3. None proposed.	Perform recommended preventative maintenance on the boilers (see attached.) Notify McKinstry Essention if changes are planned to the boiler plant control sequence or setpoints.
1.1a-JAIL	Add N+1 Boiler to FIM 1.1-JAIL	Correctional Facility	1. Boiler system performance.	1. Perform preliminary design and peak load (BTUH) calculations.	1. None proposed.	1. Log or trend supply water temperature to show that the boilers are able to maintain setpoint when the OSA temperature is between 17 and 27 degrees without the use of the stand-by boiler.	1. None proposed.	Perform recommended preventative maintenance on the boilers (see attached.) Notify McKinstry Essention if changes are planned to the boiler plant control sequence or setpoints.
3.1-JAIL	Add VFDs to Jail Fans	Correctional Facility	1. Method of Capacity Control 2. Average Motor kW	1. Inspect to verify existing capacity control. 2. Measure existing motor kW.	1. Commission to ensure proper VFD Operation and Control. 2. DDC Trend to verify varying AHU speed.	1. None proposed. 2. Review DDC Trends to confirm continued varying operation.	1. None proposed. 2. Review DDC Trends to confirm continued varying operation.	1. Maintain VFD Operation. 2. Do not leave Fan Speed Signal commanded in OPERator Priority.

Scenario - E - BASE WITH ADDED N+1 BOILER
King County - Group 1

Table 3.2: Performance Assurance Plan Outline

FIM Descriptions			Key Performance Indicators	Audit Stage (Baselining)	Post Retrofit Stage (Commissioning)	First Year	Year 2 - Year 10 (Budgeted Under Separate Proposal)	On-going Owner Responsibilities
FIM #	FIM Name	Site						
4.1-COURT	Ventilation Rate Optimization	Courthouse	1. DDVAV Box Minimum Flows. 2. Hours of Operation	1. Review plans, schedules, balance reports, DDC system. 2. Review logged & trendeded data for conformance.	1. Verify via FPT that elevated CO2 levels properly increase DDVAV box minimums. Provide verification of the 0.06 CFM/SF settings. Provide verification of proper CO2 sensor calibration. 2. None proposed.	1. DDC review of up to 10% of boxes to verify continued lower box minimums. Includes review of Trend Data as available. 2. None proposed.	1. DDC review of up to 10% of boxes to verify continued lower box minimums. Includes review of Trend Data as available. 2. None proposed.	1. Do not leave terminal flow rates commanded in OPERator Priority.
5.1-COURT	HVAC Controls Review & Optimization	Courthouse	1. Mixed Air Setpoint for DDVAV AHU's 2. Perimeter AHU Setpoint. 3. DDVAV AHU Hours of Operation. 4. Perimeter AHU Hours of Operation.	1. Trend and Log DDVAV AHU Mixed Air Temperatures. 2. Trend and Log Perimeter AHU Discharge Temperatures. 3. Trend and Log hours of operation for general conformance to schedule. 4. Trend and Log hours of operation for general conformace to schedule.	1. FPT of DDVAV MAT temps to verify proper operation. 2. FPT of Perimeter AHU DAT to verify proper operation. 3. Review programmed schedules for proper scheduling. 4. Review programmed schedules for proper scheduling.	1. Review DDC Trend logs to verify continued operation. 2. Review DDC Trend Logs to verify continued proper operation. 3. Review DDC Trend Logs to verify continued scheduled operation. 4. Review DDC Trend Logs to verify continued scheduled operation.	1. Review DDC Trend logs to verify continued operation. 2. Review DDC Trend Logs to verify continued proper operation. 3. Review DDC Trend Logs to verify continued scheduled operation. 4. Review DDC Trend Logs to verify continued scheduled operation.	1. Do not override setpoints or schedules.
5.1-JAIL	HVAC Controls Review & Optimization	Correctional Facility	1. Hours of Operation 2. AHU Discharge Temperature	1. Trend and log to confirm. 2. Trend and Log to confirm & verify present operation.	1. None proposed. 2. FPT to confirm proper operation.	1. None proposed. 2. Review DDC Trends to confirm proper operation.	1. None proposed. 2. Review DDC Trends to confirm proper operation.	Operators do not override setpoints to cause additional heating.

King County - Group 1

Table 3.3: Utility Base Rates

11/29/07

	Gas				Steam		Electric				
Site	Gas Cost $/Therm (including tax)	Gas Provider	Gas Rate Schedule	Gas Rate Schedule Effective on Date	Steam Cost $/M-lb	Steam Rate Schedule Effective on Date	Electric Cost $/kWh (including tax)	Electric Cost $/kW (including tax)	Electric Provider	Electric Rate Schedule	Electric Rate Schedule Effective on Date
Correctional Facility	$1.1454	PSE	86	1/1/07	$25.48	1/1/07	$0.0551	$0.7644	Seattle City Light	ELGD	1/1/07
Courthouse	$1.1454	PSE	86	1/1/07	$28.20	1/1/07	$0.0551	$0.7644	Seattle City Light	ELGD	1/1/07

Note: Steam cost is actually a multi-tier rate with escalation, plus a "wood discount" phased in over time. This steam rate is representative only. Refer to Life Cycle Cost Analysis for more Steam Rate details.

PROJECT FINANCIALS

A. CONTRACTOR'S TOTAL PROJECT COST

GUARANTEED MAXIMUM PROJECT COST

McKinstry guarantees that the Contractor's Total Guaranteed Maximum Project Cost will not exceed $5,197,684 (Reference Table 4.1. section D) which includes an $348,334 Construction Contingency.

Costs presented in this ESP are valid for 45 days from the date of ESP publication. If the notice to proceed is issued after the 45 days from publication, McKinstry reserves the right to re-evaluate the project and make necessary modifications to the construction costs.

TOTAL PROJECT COST

The project financials are calculated using a total predicted project cost that is the best estimate of the Total Project Cost $5,848,782 (Reference Table 4.1. section F) and credits. Owner direct costs and taxes are not guaranteed by McKinstry Essention.

Non guaranteed costs include:

- Sales tax, WA State interagency fees, other Owner directed contractors or consultant charges and Owner's contingency, which are estimated at $651,098 (Reference Table 4.1 Section E).
- There are currently no Owners Allowances.

Non guaranteed credits include:

- Utility rebates which are estimated at $40,000 (Reference Table 4.3).

Project Simple Payback:

- The project simple payback is calculated at 8.90 years (Reference Table 4.3)

B. PROJECT COST TABLE

(SEE TABLE 4.1 – "BUDGET SUMMARY" - ALL FEE PERCENTAGES AND COSTS ARE UNIQUE TO THE PROJECT)

C. ITEMS INCLUDED IN TOTAL PROJECT COST (REFERENCE TABLE 4.1. SECTION A - F)

a. Engineering audit, including the cost for preparation of this proposal

b. Engineering design

c. Cost of McKinstry standard monitoring and verification data logging equipment (excluding permanently installed meters, specialized project specific meters or testing equipment and or utility maters)

d. Ongoing verifications services for the first year of operation

e. Construction management services

f. Installation of McKinstry equipment required to meet the energy savings guarantee or original scope of project including but not limited to the following costs as specified in the scope of work:

1. All costs paid by McKinstry for the installation of the equipment. This includes costs paid to subcontractors or directly to

McKinstry personnel, when related to installation or system verification of McKinstry equipment.

2. The portion of reasonable travel, lodging, and meal expenses of officers or employees incurred while traveling in discharge of duties connected with the work.
3. Cost of all equipment, materials, supplies, and equipment incorporated in the work, including costs of transportation thereof.
4. Cost or rental charges, including transportation and maintenance, of all materials, supplies, equipment, temporary facilities, and hand tools not owned by the workers, which are consumed in the performance of the work and cost less salvage value on such items used but not consumed which remain the property of McKinstry.
5. Cost of premiums for all bonds and insurance, which McKinstry is required to purchase and maintain.
6. Sales, use, or similar taxes related to the work, and for which McKinstry is liable, imposed by a governmental authority.
7. Permit fees, royalties, and deposits lost for causes other than McKinstry's negligence.
8. Losses and expenses not compensated by insurance or otherwise sustained by McKinstry in connection with the work, provided they have resulted from causes other than the fault or neglect of McKinstry Essention. Such losses shall include settlements made with the written consent and approval of the Owner. If, however, such loss requires reconstruction and McKinstry is placed in charge thereof, McKinstry shall be paid for services a fee.
9. Minor expenses such as parking, long distance telephone calls, telephone service at the site, express mail services, and similar petty cash items.
10. Demolition cost and cost of removal of all debris.
11. Costs incurred due to an emergency affecting the safety of persons and property.
12. Other costs incurred in the performance of the work if and to the extent approved in advance in writing by the Owner.
13. Cost reserved for contractor's contingency.
14. Cost of equipment startup, owner training, system verification and balancing performed by McKinstry Essention.

g. Construction Bonds (including Performance & Payment and Retention bonds), Liability Insurance, and Builder's Risk Insurance

h. McKinstry Essention fee: This includes McKinstry Essention's remuneration for compensation of personnel, expenses, risks related to the project, overhead, and profit.

i. McKinstry Essention shall provide a Schedule of Values. The schedule of values will include all costs related to the installation of McKinstry Essention's equipment. See TABLE 4.5A – "Construction Schedule of Values/Projected Progress Billings.

D. CONSTRUCTION CONTINGENCY

A construction contingency of 10% $348,334 (reference Table 4.1 section C) of the direct construction costs has been established for this project. McKinstry is authorized to expend the contingency for items necessary to complete the original scope of this project pending authorization by the Owner and the Department of General Administration that the changes are necessary to meet the energy guarantee or original intent of the project. Additionally the intent of the construction contingency is to compensate the ESCO for all unforeseen conditions discovered after the acceptance of this Energy Services Proposal. Unforeseen conditions includes but is not limited to: design developments, unforeseen field conditions, construction coordination issues, schedule delays not under the control of the contractor and escalation, required to deliver the energy savings guarantee or original intent of the project.

Items not included in the construction contingency include items that are directly related to owner's hazardous materials survey and hazardous material abetment or other owner controlled work, which are funded by Owner.

ESCO fees on contractor's contingency funds: ESCO shall request Owner and GA approval of a professional services agreement amendment through the use of a change order proposal which will include design, CM and OH&P fees as applicable if:

a. A scope addition is required to meet the energy guarantee or selection of a contract, or
b. Contracts or equipment is purchased that is other than low bid.
c. Unanticipated construction costs due to unforeseen conditions up to the unspent contractor's contingency when supported by documentation for the additional funds.

Other uses of the contingency funds will be justified through normal project accounting documentation required for payment.

All unused construction contingency funds shall reduce the overall project cost to the Owner.

E. ONGOING SERVICES

No on-going services in years 2-10 have been proposed under this ESP. Year 1 has been included.

F. ACCOUNTING RECORDS

The Owner shall be afforded access to all the ESCO's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to this contract, and the contract shall preserve all such records for a period of three years, or for such longer period as may be required by law, after the final payment.

G. RECONCILIATION OF CONSTRUCTION COSTS

The contractor's Guaranteed Maximum Project Cost is based on firm negotiated bids or estimated labor and material costs developed by the ESCO. Labor & Material costs that are estimated by the ESCO may vary from the estimate. The following procedures are established to reconcile this difference:

a. If the Maximum Guaranteed Project Cost at completion exceeds the estimated amount (plus contingency), the additional costs will be borne by McKinstry.

b. If the Maximum Guaranteed Project Costs (bid vs budget or T&M vs budget) at completion are less than the estimated proposal amount (less contingency), the savings will be retained by the Owner.

c. There shall be no cost savings split between the Owner and McKinstry.

The following Figure 4.A outlines proposed procurement and payment reconciliation methods. Changing the proposed method of reconciliation after the acceptance of the ESP may require an adjustment to the Guaranteed Maximum Project Cost.

Definitions:

Major Equipment: Major Equipment is equipment purchased by McKinstry Essention with a value over $5,000.

Negotiated: Construction contract value is to be established through negotiations with a select or single contractor (i.e. owner preferred controls contractor, mechanical contractor, etc.).

Bid: Construction contract value is to be established through a bid process based upon formal bid documents including plans and specifications which will be bid to a minimum of two (typically three) pre-qualified contractors as approved by the ESCO and owner. Owner shall endorse any selection of a Subcontractor or equipment that is other than low bid through a properly executed change order.

Self Perform: McKinstry intends to perform work with McKinstry Essention, Inc. and/or McKinstry Co. personnel.

Schedule of Values (SOV): - Cost shall be substantiated with a properly executed invoice from the subcontractor or supplier that matches the schedule of values in their contract or purchase order.

Time & Materials (T&M) NTE: Published sell rates will be established prior to issuance of contract to subcontractor or commencement of work by McKinstry (reference attachment "RATES" at the end of section 4). A monthly labor and material report will be provided which will include labor hours and dollars per individual, and material and equipment invoices. T&M subcontracts are inherently

more document intensive and therefore carry a higher construction management - administration fee as indicated in table 4.1

Figure 4.A

Construction Cost Category (ref Table 4.1)	Proposed Construction Method	End of Project – Reconciled (SOV or T&M)
Controls Systems	Negotiated Subcontract Sole Source	SOV
Major Equipment	Subcontract Bid	SOV
Sheet Metal	Subcontract Bid	SOV
Piping	Subcontract Bid	SOV
Electrical	Subcontract Bid	SOV
Lighting	Subcontract Bid	SOV
General Construction	Self Perform	T&M
TAB/Start up	Self Perform	T&M
Commissioning	Self Perform	T&M
Change Order (CO)	Negotiated Subcontract	SOV

H. ESCO COMPENSATION

a. Terms: Net 30 days (45 days for State Treasure payments) from the date of invoice, Invoicing cannot begin before the "Notice of Commencement of Energy Savings", per the Master Agreement. If the Owner is financing the project through loans, payment will not be made before the loan transaction is complete, per the Master Agreement

b. Payments: At a minimum, payments will be made in the amount of 100%, less retention of 5% per the contract, at the completion and implementation of any individual Facility Improvement Measure (FIM) in the amount of that FIM as delineated in the contract. If more than one FIM is completed in a monthly period, all of those FIM's will be paid (Exception: Single Transition COP Loan).

c. Finance Charges on Unpaid balances: Payments due and unpaid shall be subject to interest charges within 30 days (45 days for State Treasure payments) of receipt of a properly completed invoice per RCW 39.76. Finance charges will be calculated on the un-billed balance at the rate of Prime + 1% per annum. Charges accrue until balances are paid in full. Interest charges will be calculated daily, compounded monthly.

d. Construction Period Finance: McKinstry may charge construction period finance for projects, independent of financing method, whereby the anticipated billing lags the earned schedule of values by more than 90 days. Tables 4.5A (Prime + 1.0% for a State COP scenario with payment at the end of the construction period), 4.5B (owner financed ie: loan, bond, with progress payments), and 4.5C (100% capital infusion with progress payments) provide the anticipated maximum construction period finance charges for this project based on the estimated earned value each month verses the anticipated billing collection schedule. Many financing options are available but Table 4.5A is used in this analysis as the more conservative approach in regards to maximum project cost.

If Owner controlled schedule delays (delays not caused by McKinstry) occur during the progress of the project, the Contractor may request additional finance charges be added to the project. Construction period finance will be calculated on the un-billed balance at the rate of Prime + 1% per annum. Interest charges will be calculated daily, compounded monthly. Charges accrue until balances are paid in full. Charges will be paid out of Construction Contingency.

McKinstry and the Owner will work together to minimize finance charges. Table 4.5A has been created based on the following criteria:

- If State Treasurer COP funded, GA accepts invoices in accordance with State Treasury loan cycle
- GA requires 5 working days to substantiate McKinstry invoice
- Owner requires 10 working days to process invoice
- If State Treasurer COP funded, McKinstry Essention will submit invoices 15 working days prior to State Treasurer cut off date (IE: Feb 1, May 1, Aug 1, Nov 1)

Tables 4.5A, B, C have been created in conjunction with the construction schedule located in Section 2. The construction schedule has been developed based on the following assumptions:

- Owner review of final Energy Services Proposal (ESP) 15 working days
- McKinstry receives notice to precede within 15 working days from the final review responses
- Owner Design Review comments submitted to McKinstry Essention within 15 working days from design submittal.

e. Substantiation of Finance Charge: McKinstry will do an accounting of finance charges progressively through the project, and at contract completion submit a change request itemizing the summary of additional costs for implementation. The contract will then be increased to reflect the same and finance charges will be paid within thirty days of the date of approved substantiation. Contractor's Maximum Project Cost will be

adjusted to reflect the additional finance charges and billings will be adjusted accordingly. Finance charges will be drawn from contractor's contingency.

I. FINANCING

McKinstry Essention enjoys over 45 years of experience within the engineering and contracting industry and its financial strength exceeds the industry average. This strength makes it possible to provide and assist with the financing needs of its customers. Long standing relationships with vendors assures reasonable pricing and excellent payment terms.

PROJECT-LONG TERM FINANCING:

The University of Washington has several options available for long term permanent financing. The State COP program can provide financing terms up to a twelve-year payment plan. Third Party financing is also available. Current finance rate on long-term, permanent financing is currently in the range of 4.5% – 5.5%, but will vary until a rate has been locked in.

1. Base option financial Scenario through State of Washington Treasurers Office:

Figure 4.B

Total Project Cost	$5,848,782
Owner Capital Infusion	$0
Utility Rebate	$40,000
Financed Amount	$5,808,782
Term of Loan	20.00 Years
Interest Rate	5.00%
Number of Payments per Year	2.00
Annual Payment	$462,800
Simple Payback	8.90

Table 4.3 located in the end of this section provides a Cash Flow Analysis for this project over the 20.0 years.

J. TERMINATION VALUE

Refer to financing program guidelines for information on Termination values.

K. TERMS AND CONDITIONS

a. TERMS OF AGREEMENT

The Contract shall be effective and binding upon the parties immediately upon its execution and the period from contract execution until the Commencement Date shall be known as the "Interim Period". All energy savings achieved during the interim period will be fully credited to Owner, and may be used to offset any loss of energy savings; as mutually agreed to by the Owner and McKinstry.

b. INSURANCE AND BONDING

McKinstry shall provide a Payment and Performance bond, Retention bond Liability Insurance and Builder's Risk Insurance.

For The Purposes of This Agreement, the "Sum Amount of Bond" Shall Be (See Table 4.1 –"Budget Summary Breakdown").

1. The bond amount consists of Labor and Materials and State Sales Tax.
2. The bond amount does not include Retention Bond costs. Retention Bond is a McKinstry overhead expense.
3. This bond does not include any construction contingencies.
4. Certificates of General Liability Insurance will be provided prior to Contract Signing. The State Of Washington and the Owner shall both be named as Insured on all insurance certificates.

McKinstry shall provide a payment and performance bond in the amount of 100% of the construction cost, as defined in the Energy Services Agreement Addendum. The amount shall include all authorized changes and state sales tax. The Bond shall be in the form attached to the Conditions of the Energy Services Agreement. The Contract listed on the bond form shall be the Addendum No. and Agreement No. which incorporates the work and the "Contract Date" shall be the date of the Addendum. The full and just sum of the Bond shall be as defined above and shall include the actual cost of purchasing and installing McKinstry Essention's equipment. The Bond shall specifically exclude coverage for those portions of the Energy Services Agreement and/or Energy Services Agreement Addendum pertaining to design services, energy cost savings guarantee, maintenance guarantee, utility incentives, efficiency guarantees, and any other clauses which do not relate specifically to construction management and supervision of work for purchasing and installing of McKinstry's equipment, or for work to be accomplished by the Owner. The Bond shall be with a Surety or Bonding Company that is registered with the State of Washington Insurance Commissioner's Office.

TABLE 4.1 BUDGET SUMMARY

FIM No.	Multiple		
Date:	11/29/2006		
Project:	King County	Budget Phase	Post ROM
Building:	Multiple	Scenario: *E - BASE WITH ADDED N+1 BOILER*	Estimator: Terry Green

A. CONSTRUCTION COSTS			HVAC	Electrical *	EMCS *	General	Lighting	TOTAL
1	1.1-COURT	Convert Steam Heating to Courthouse	$962,725	$128,250	$77,790	$159,445	$0	$1,328,210
2	1.1a-JAIL	Add N+1 Boiler to FIM 1.1-JAIL	$1,268,512	$141,350	$111,128	$155,195	$0	$1,676,185
3	3.1-JAIL	Add VFDs to Jail Fans	$0	$43,780	$33,896	$0	$0	$77,676
4	4.1-COURT	Ventilation Rate Optimization	$0	$0	$52,764	$0	$0	$52,764
5	5.1-COURT	HVAC Controls Review & Optimizatio	$0	$0	$9,500	$0	$0	$9,500
6	5.1-JAIL	HVAC Controls Review & Optimizatio	$0	$0	$5,700	$0	$0	$5,700
7	Start-up TAB & FPT					$130,455		$130,455
8	Site Supervision					$158,150		$158,150
A1. SUB-TOTAL CONST. COST (1 thru 8) =			$2,231,237	$313,380	$290,778	$603,245	$0	**$3,438,640**
	Construction Bonds	1.3%	$29,006	$4,074	$3,780	$7,842	$0	$44,702
A2. TOTAL CONSTRUCTION COST (A1+Bond) =			$2,260,243	$317,454	$294,558	$611,087	$0	**$3,483,342**

B.	ESCO FEES			
1	Audit Fee	$140,230	lump sum	$140,230
2	Design - Mech/plbg/elect/arch/struct	12%	B2 (%) x A1 total (less lighting and items 7 thru 12)	$378,004
3	Constr. & Proj. Admin.	7%	B3 (%) x A1 total	$240,705
4	OH & Profit	17%	B4 (%) x A1 total	$584,569
TOTAL ESCO FEES (B1+B2+B3+B4) = B				**$1,343,508**

C.	OTHER COSTS			
1	Project Contingency	10%	C1 (%) x (A2 total)	$348,334
2	ESCO M&V Costs (Year 1)	$22,500	lump sum	$22,500
TOTAL OTHER COSTS (C1+C2) = C				**$370,834**

D.	**TOTAL GUARANTEED MAXIMUM PROJECT COST (A+B+C) = D**			**$5,197,684**

E..	NON-GUARANTEED COSTS			
1	Sales Tax - Construction	8.8%	E1% x A2 total	$306,534
2	Sales Tax - Prof. Services	8.8%	E2% x B total	$118,229
3	Interagency Fee	$66,048	lump sum	$66,048
4	Construction Period Finance Costs	$160,287	lump sum	$160,287
TOTAL NON-GUARANTEED COSTS (E1+E2+E3+E4) = E				**$651,098**

F.	**TOTAL PROJECT COST (D+E) = F**			**$5,848,782**

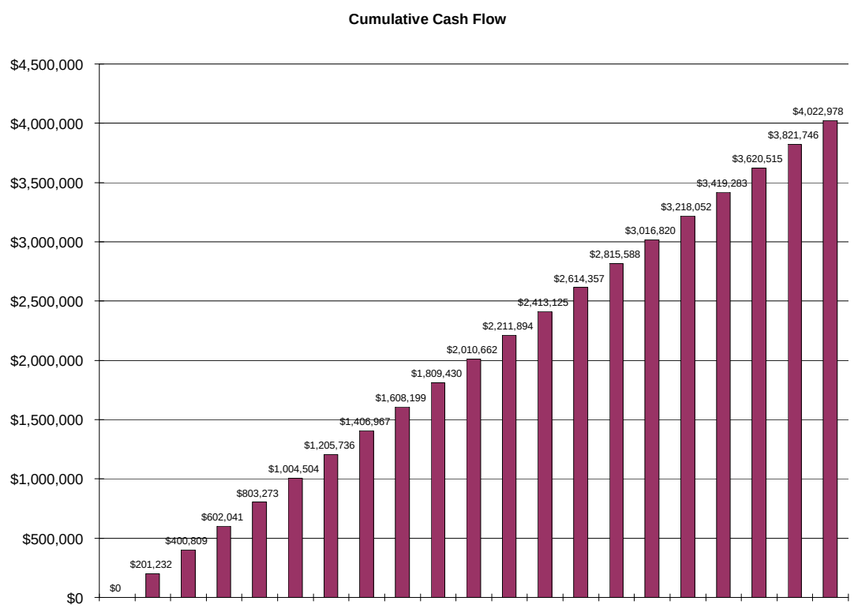
Table 4.3 - Cash Flow Analysis

Cash Flow Analysis

Customer:	King County
Group and Phase	Group 1
Scenario:	D - BASE (WITHOUT N+1 BOILER)
Financing Source:	

Financial Data for Scenario:

First Cost	$5,703,285
Utility Rebate	$40,000
BETC	$0
Net Customer Cost	$5,663,285
Capital Infusion	$0
Amount Financed	$5,663,285
Annual Utility Savings	$643,532
Annual Operational Savings	$8,907
Cash Flow Analysis Period	20.0
Include Depreciation (1=Yes, 0=No)	0.0
Life of Equipment (For Depreciation)	10.0
Number of Years for O&M Savings	10.0
Annual Measure and Verification Fee	$1,500
% MV of Utility Savings	0.2%
M&V Start Year	2.0
M&V End Year	2.0
Financing Term (Years)	20.00
Annual Interest Rate %	5.00%
Payments per Year	2.00
First Payment Due Date	9/1/07
Discount Rate	0.00%
Inflation Rate	0.00%
Scenario Simple Payback (yrs)	8.68
Net Present Value (NPV) Year 10	$2,010,662
Net Present Value (NPV) Year 15	$3,016,820
Net Present Value (NPV) Year 20	$4,022,978



Cash Flow Analysis:

Period	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
Year	**2004**	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
First & Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0.0
Equipment Depreciation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tax Credit Impact	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Subtotal	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Annual Utility Savings		$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532
Utility Escalation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Utility Savings	**$0**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**
Annual O&M Savings		$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907
O&M Escalation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total O&M Savings	**$0**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**
M&V Fee	5.0%	$0	$0	($1,654)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Annual Savings		$0	$652,439	$650,786	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439
Accumulated Savings		**$0**	**$652,439**	**$1,303,225**	**$1,955,665**	**$2,608,104**	**$3,260,544**	**$3,912,983**	**$4,565,422**	**$5,217,862**	**$5,870,301**	**$6,522,741**	**$7,175,180**	**$7,827,620**	**$8,480,059**	**$9,132,499**	**$9,784,938**	**$10,437,378**
Annual Finance/Lease Payment	**$ -**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**	**($451,208)**
Principal		($172,245)	($180,965)	($190,126)	($199,751)	($209,863)	($220,488)	($231,650)	($243,377)	($255,698)	($268,643)	($282,243)	($296,532)	($311,544)	($327,315)	($343,886)	($361,295)
Interest		($278,963)	($270,243)	($261,082)	($251,457)	($241,344)	($230,720)	($219,558)	($207,831)	($195,510)	($182,565)	($168,965)	($154,676)	($139,664)	($123,892)	($107,322)	($89,913)
Annual Cash Flow	$0	$201,232	$199,578	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232	$201,232
Cumulative Cash Flow:	**$0**	**$201,232**	**$400,809**	**$602,041**	**$803,273**	**$1,004,504**	**$1,205,736**	**$1,406,967**	**$1,608,199**	**$1,809,430**	**$2,010,662**	**$2,211,894**	**$2,413,125**	**$2,614,357**	**$2,815,588**	**$3,016,820**	**$3,218,052**
Present Value (PV) Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Cumulative PV	**$0**	**$201,232**	**$400,809**	**$602,041**	**$803,273**	**$1,004,504**	**$1,205,736**	**$1,406,967**	**$1,608,199**	**$1,809,430**	**$2,010,662**	**$2,211,894**	**$2,413,125**	**$2,614,357**	**$2,815,588**	**$3,016,820**	**$3,218,052**

Notes (1) Discount rate and inflation rate not used per GA program requirements.
(2)
(3)

Scenario - E - BASE WITH ADDED N+1 BOILER
King County - Group 1

Table 4.2: FIM Matrix

FIM #	FIM Name	Building	Budget *	Annual Utility Savings	Annual Operational Savings	Potential Utility Rebate **	Net Customer Cost (including Utility Incentive)	Simple Payback (including Utility Incentive)	Measure Life (yrs)***
1.1-COURT	Convert Steam Heating to Courthouse Rooftop HW Boilers	Courthouse	$2,466,135	$316,939	$7,224	$0	$2,466,135	7.6	20+ Years
1.1a-JAIL	Add N+1 Boiler to FIM 1.1-JAIL	Correctional Facility	$3,112,232	$232,327	$1,683	$0	$3,112,232	13.3	20+ Years
3.1-JAIL	Add VFDs to Jail Fans	Correctional Facility	$144,224	$11,189	$0	$40,000	$104,224	9.3	15 Years
4.1-COURT	Ventilation Rate Optimization	Courthouse	$97,969	$42,853	$0	$0	$97,969	2.3	15 Years
5.1-COURT	HVAC Controls Review & Optimization	Courthouse	$17,639	$35,392	$0	$0	$17,639	0.5	15 Years
5.1-JAIL	HVAC Controls Review & Optimization	Correctional Facility	$10,583	$4,832	$0	$0	$10,583	2.2	15 Years
Totals for Selected FIMs			$5,848,782	$643,532	$8,907	$40,000	$5,808,782	8.9	0.00

* Project costs for Sections B, C, and E of Table 4.1 are divided among individual FIMs proportional to each FIM's Section A cost. Therefore the budget prices s individual FIMs are approximate and shown for reference only. If individual FIMs are dropped from or added to the project, the project cost will not decrease o exactly the dollar amount shown in this table.

** Utility rebate is contingent on utility company funding and final approval and is shown for reference only.

*** Total Measure Life is a weighted average based on individual measure lives and their associated annual utility and operational savings.

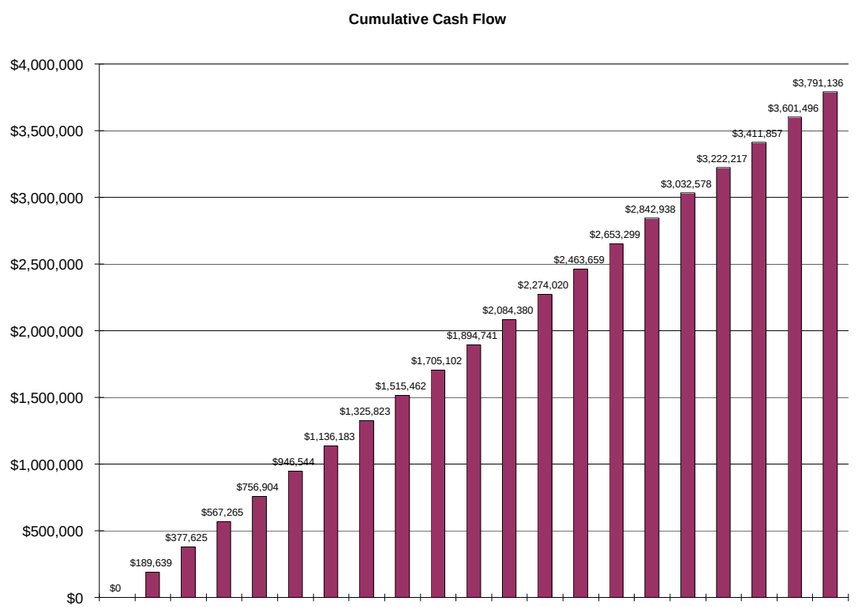
Table 4.3 - Cash Flow Analysis

Cash Flow Analysis

Customer:	King County
Group and Phase	Group 1
Scenario:	E - BASE WITH ADDED N+1 BOILER
Financing Source:	

Financial Data for Scenario:

First Cost	$5,848,782
Utility Rebate	$40,000
BETC	$0
Net Customer Cost	$5,808,782
Capital Infusion	$0
Amount Financed	$5,808,782
Annual Utility Savings	$643,532
Annual Operational Savings	$8,907
Cash Flow Analysis Period	20.0
Include Depreciation (1=Yes, 0=No)	0.0
Life of Equipment (For Depreciation)	10.0
Number of Years for O&M Savings	10.0
Annual Measure and Verification Fee	$1,500
% MV of Utility Savings	0.2%
M&V Start Year	2.0
M&V End Year	2.0
Financing Term (Years)	20.00
Annual Interest Rate %	5.00%
Payments per Year	2.00
First Payment Due Date	9/1/07
Discount Rate	0.00%
Inflation Rate	0.00%
Scenario Simple Payback (yrs)	8.90
Net Present Value (NPV) Year 10	$1,894,741
Net Present Value (NPV) Year 15	$2,842,938
Net Present Value (NPV) Year 20	$3,791,136



Cash Flow Analysis:

Period		0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
Year		**2004**	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
First & Replacement		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0.0
Equipment Depreciation		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tax Credit Impact		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Subtotal		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Annual Utility Savings			$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532	$643,532
Utility Escalation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Utility Savings		**$0**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**	**$643,532**
Annual O&M Savings			$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907	$8,907
O&M Escalation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total O&M Savings		**$0**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**	**$8,907**
M&V Fee	5.0%	$0	$0	($1,654)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Annual Savings		$0	$652,439	$650,786	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439	$652,439
Accumulated Savings		**$0**	**$652,439**	**$1,303,225**	**$1,955,665**	**$2,608,104**	**$3,260,544**	**$3,912,983**	**$4,565,422**	**$5,217,862**	**$5,870,301**	**$6,522,741**	**$7,175,180**	**$7,827,620**	**$8,480,059**	**$9,132,499**	**$9,784,938**	**$10,437,378**
Annual Finance/Lease Payment		**$ -**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**	**($462,800)**
Principal			($176,670)	($185,614)	($195,011)	($204,883)	($215,255)	($226,152)	($237,601)	($249,630)	($262,267)	($275,545)	($289,494)	($304,150)	($319,547)	($335,725)	($352,721)	($370,577)
Interest			($286,130)	($277,186)	($267,789)	($257,917)	($247,545)	($236,648)	($225,199)	($213,170)	($200,533)	($187,255)	($173,306)	($158,650)	($143,253)	($127,075)	($110,079)	($92,223)
Annual Cash Flow		$0	$189,639	$187,986	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639	$189,639
Cumulative Cash Flow:		**$0**	**$189,639**	**$377,625**	**$567,265**	**$756,904**	**$946,544**	**$1,136,183**	**$1,325,823**	**$1,515,462**	**$1,705,102**	**$1,894,741**	**$2,084,380**	**$2,274,020**	**$2,463,659**	**$2,653,299**	**$2,842,938**	**$3,032,578**
Present Value (PV) Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Cumulative PV		**$0**	**$189,639**	**$377,625**	**$567,265**	**$756,904**	**$946,544**	**$1,136,183**	**$1,325,823**	**$1,515,462**	**$1,705,102**	**$1,894,741**	**$2,084,380**	**$2,274,020**	**$2,463,659**	**$2,653,299**	**$2,842,938**	**$3,032,578**

Notes (1) Discount rate and inflation rate not used per GA program requirements.
(2)
(3)

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P. O. Box 24567
Seattle, WA 98124

Project: King County Court House & Jail Phase 1.1

Job No: P10611 Date: 22/29/06

TABLE 4.5 A - Construction Schedule of Values/Projected Progress Billings- PHASE 1.1 N+1 Boiler
Financing Via State Treasurer COP - 9.5% Interest

Description	Contract Amount	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
ENERGY SERVICES																
Energy Services Proposal & DES	$140,230	$140,230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Design - Mechanical & Electrical	$378,004	$0	$151,202	$151,202	$75,601	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$240,705	$3,069	$0	$0	$0	$64,598	$55,344	$50,828	$43,066	$23,801	$0	$0	$0	$0	$0	$0
ESCO OH & Profit	$584,569	$7,454	$0	$0	$0	$156,880	$134,406	$123,439	$104,588	$57,803	$0	$0	$0	$0	$0	$0
Sub Total Energy Services	$1,343,508	$150,753	$151,202	$151,202	$75,601	$221,477	$189,749	$174,267	$147,654	$81,604	$0	$0	$0	$0	$0	$0
CONSTRUCTION																
1.1-Court Convert Steam Heat to Heating Hot Water	$1,328,210	$0	$0	$0	$0	$398,463	$265,642	$265,642	$265,642	$132,821	$0		$0	$0	$0	$0
1.1a-Jail Add N+1 Boiler to FIM 1.1 Jail	$1,676,185	$0	$0	$0	$0	$502,856	$335,237	$335,237	$335,237	$167,619	$0	$0	$0	$0	$0	$0
3.1-Jail Add VFDs to Jail Fans	$77,676	$0	$0	$0	$0	$0	$46,606	$31,070	$0	$0	$0	$0	$0	$0	$0	$0
4.1-Court Ventilation Rate Optimization	$52,764	$0	$0	$0	$0	$0	$31,658	$10,553	$10,553	$0	$0	$0	$0	$0	$0	$0
5.1-Court HVAC Controls Review and Optimization	$9,500	$0	$0	$0	$0	$0	$5,700	$3,800	$0	$0	$0	$0	$0	$0	$0	$0
5.1-Jail HVAC Controls Review and Optimization	$5,700	$0	$0	$0	$0	$0	$3,420	$2,280	$0	$0	$0	$0	$0	$0	$0	$0
Start-up Tab & FPT	$130,455	$0	$0	$0	$0	$0	$78,273	$52,182	$0	$0	$0	$0	$0	$0	$0	$0
Site Supervision/Safety	$158,150	$0	$0	$0	$0	$39,538	$39,538	$39,538	$15,815	$23,723	$0	$0	$0	$0	$0	$0
Construction Bond	$44,702	$44,702	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ESCO M&V (Year 1)	$22,500									$22,500						
Sub Total Construction	$3,505,842	$44,702	$0	$0	$0	$940,856	$806,074	$740,302	$627,247	$346,662	$0	$0	$0	$0	$0	$0
WSST (8.8%) on Construction Costs	$298,624	$3,934	$0	$0	$0	$82,795	$70,934	$65,147	$55,198	$28,526	$0	$0	$0	$0	$0	$0
WSST (8.8%) on Profession Services Costs	$115,418	$13,266	$13,306	$13,306	$6,653	$19,490	$16,698	$15,335	$12,994	$7,181	$0	$0	$0	$0	$0	$0
Total Project Cost	$5,263,392	$212,655	$164,507	$164,507	$82,254	$1,264,618	$1,083,455	$995,050	$843,092	$463,974	$0	$0	$0	$0	$0	$0
Cumulative Cost		$212,655	$377,162	$541,670	$623,923	$1,888,542	$2,971,997	$3,967,048	$4,810,139	$5,274,113	$5,274,113	$0	$0	$0	$0	$0
INVOICES																
McKinstry Invoice to Owner if State Loan	$5,263,392	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,263,392	$160,287	$0	$0	$0	$0
PAYMENTS																
Project Cost		$212,655	$377,162	$541,670	$623,923	$1,888,542	$2,971,997	$3,967,048	$4,810,139	$5,274,113	$5,274,113	$0	$0	$0	$0	$0
McKinstry Monthly Construction + Interest (w/ 90 day grace)		$0	$0	$0	$628,211	$1,892,830	$2,981,259	$3,991,294	$4,857,987	$5,353,559	$5,392,018	$0	$0	$0	$0	$0
Cum Construction Period Financing @ 9.5%	**$160,287**	**$0**	**$0**	**$0**	**$4,288**	**$4,973**	**$14,985**	**$23,602**	**$31,598**	**$38,459**	**$42,382**	**$0**	**$0**	**$0**	**$0**	**$0**
OTHER COSTS																
State GA Fee	$66,048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$66,048	$0	$0	$0	$0	$0
Construction Contingency	$348,334	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT COSTS	**$5,838,061**	**$212,655**	**$164,507**	**$164,507**	**$82,254**	**$1,264,618**	**$1,083,455**	**$995,050**	**$843,092**	**$463,974**	**$66,048**	**$0**	**$0**	**$0**	**$0**	**$0**

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P. O. Box 24567
Seattle, WA 98124

Project: King County Court House & Jail Phase 1.1

Job No: P10611 Date: 22/29/06

TABLE 4.5 B - Construction Schedule of Values/Projected Progress Billings- PHASE 1.1

Financing Via Owner - 4.5% Interest

Description	Contract Amount	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
ENERGY SERVICES																
Energy Services Proposal & DES	$140,230	$140,230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Design - Mechanical & Electrical	$367,356	$0	$146,942	$146,942	$73,471	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$234,493	$2,989	$0	$0	$0	$62,759	$54,116	$49,601	$41,840	$23,188	$0	$0	$0	$0	$0	$0
ESCO OH & Profit	$569,484	$7,260	$0	$0	$0	$152,415	$131,424	$120,459	$101,612	$56,314	$0	$0	$0	$0	$0	$0
Sub Total Energy Services	$1,311,563	$150,480	$146,942	$146,942	$73,471	$215,174	$185,540	$170,060	$143,452	$79,502	$0	$0	$0	$0	$0	$0
CONSTRUCTION																
1.1-Court Convert Steam Heat to Heating Hot Water	$1,328,210	$0	$0	$0	$0	$398,463	$265,642	$265,642	$265,642	$132,821	$0		$0	$0	$0	$0
1.1-Jail Convert Steam Heat to Heating Hot Water	$1,587,451	$0	$0	$0	$0	$476,235	$317,490	$317,490	$317,490	$158,745	$0	$0	$0	$0	$0	$0
3.1-Jail Add VFDs to Jail Fans	$77,676	$0	$0	$0	$0	$0	$46,606	$31,070	$0	$0	$0	$0	$0	$0	$0	$0
4.1-Court Ventilation Rate Optimization	$52,764	$0	$0	$0	$0	$0	$31,658	$10,553	$10,553	$0	$0	$0	$0	$0	$0	$0
5.1-Court HVAC Controls Review and Optimization	$9,500	$0	$0	$0	$0	$0	$5,700	$3,800	$0	$0	$0	$0	$0	$0	$0	$0
5.1-Jail HVAC Controls Review and Optimization	$5,700	$0	$0	$0	$0	$0	$3,420	$2,280	$0	$0	$0	$0	$0	$0	$0	$0
Start-up Tab & FPT	$130,455	$0	$0	$0	$0	$0	$78,273	$52,182	$0	$0	$0	$0	$0	$0	$0	$0
Site Supervision/Safety	$158,150	$0	$0	$0	$0	$39,538	$39,538	$39,538	$15,815	$23,723	$0	$0	$0	$0	$0	$0
Construction Bond	$43,549	$43,549	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ESCO M&V (Year 1)	$22,500									$22,500						
Sub Total Construction	$3,415,955	$43,549	$0	$0	$0	$914,236	$788,327	$722,555	$609,500	$337,789	$0	$0	$0	$0	$0	$0
WSST (8.8%) on Construction Costs	$298,624	$3,832	$0	$0	$0	$80,453	$69,373	$63,585	$53,636	$27,745	$0	$0	$0	$0	$0	$0
WSST (8.8%) on Profession Services Costs	$115,418	$13,242	$12,931	$12,931	$6,465	$18,935	$16,328	$14,965	$12,624	$6,996	$0	$0	$0	$0	$0	$0
Total Project Cost	$5,141,560	$211,103	$159,873	$159,873	$79,937	$1,228,798	$1,059,567	$971,165	$819,211	$452,032	$0	$0	$0	$0	$0	$0
Cumulative Cost		$211,103	$370,977	$530,850	$610,787	$1,839,584	$2,899,151	$3,870,316	$4,689,528	$5,141,560	$5,141,560	$5,141,560	$5,141,560	$5,141,560	$5,141,560	$5,141,560
INVOICES																
McKinstry Invoice to Owner if State Loan	$5,141,560	$0	$0	$0	$610,787	$1,228,798	$1,059,567	$971,165	$819,211	$452,032	$0	$0	$0	$0	$0	$0
PAYMENTS																
Project Cost		$211,103	$370,977	$530,850	$610,787	$1,228,798	$1,059,567	$971,165	$819,211	$452,032	$0	$0	$0	$0	$0	$0
McKinstry Monthly Construction + Interest (w/ 90 day grace)		$0	$0	$0	$610,787	$1,228,798	$1,059,567	$971,165	$819,211	$452,032	$0	$0	$0	$0	$0	$0
Cum Construction Period Financing @ 4.5%	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
0.0450																
OTHER COSTS																
State GA Fee	$66,048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$66,048	$0	$0	$0	$0	$0
Construction Contingency	$339,346	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT COSTS	**$5,546,954**	**$211,103**	**$159,873**	**$159,873**	**$79,937**	**$1,228,798**	**$1,059,567**	**$971,165**	**$819,211**	**$452,032**	**$66,048**	**$0**	**$0**	**$0**	**$0**	**$0**

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P. O. Box 24567
Seattle, WA 98124

Project: King County Court House & Jail Phase 1.1

Job No: P10611 Date: 22/29/06

TABLE 4.5 C - Construction Schedule of Values/Projected Progress Billings- PHASE 1.1
Financing Via Capital Infusion - 0% Interest

Description	Contract Amount	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
ENERGY SERVICES																
Energy Services Proposal & DES	$140,230	$140,230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Design - Mechanical & Electrical	$367,356	$0	$146,942	$146,942	$73,471	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$234,493	$2,989	$0	$0	$0	$62,759	$54,116	$49,601	$41,840	$23,188	$0	$0	$0	$0	$0	$0
ESCO OH & Profit	$569,484	$7,260	$0	$0	$0	$152,415	$131,424	$120,459	$101,612	$56,314	$0	$0	$0	$0	$0	$0
Sub Total Energy Services	$1,311,563	$150,480	$146,942	$146,942	$73,471	$215,174	$185,540	$170,060	$143,452	$79,502	$0	$0	$0	$0	$0	$0
CONSTRUCTION																
1.1-Court Convert Steam Heat to Heating Hot Water	$1,328,210	$0	$0	$0	$0	$398,463	$265,642	$265,642	$265,642	$132,821	$0		$0	$0	$0	$0
1.1-Jail Convert Steam Heat to Heating Hot Water	$1,587,451	$0	$0	$0	$0	$476,235	$317,490	$317,490	$317,490	$158,745	$0	$0	$0	$0	$0	$0
3.1-Jail Add VFDs to Jail Fans	$77,676	$0	$0	$0	$0	$0	$46,606	$31,070	$0	$0	$0	$0	$0	$0	$0	$0
4.1-Court Ventilation Rate Optimization	$52,764	$0	$0	$0	$0	$0	$31,658	$10,553	$10,553	$0	$0	$0	$0	$0	$0	$0
5.1-Court HVAC Controls Review and Optimization	$9,500	$0	$0	$0	$0	$0	$5,700	$3,800	$0	$0	$0	$0	$0	$0	$0	$0
5.1-Jail HVAC Controls Review and Optimization	$5,700	$0	$0	$0	$0	$0	$3,420	$2,280	$0	$0	$0	$0	$0	$0	$0	$0
Start-up Tab & FPT	$130,455	$0	$0	$0	$0	$0	$78,273	$52,182	$0	$0	$0	$0	$0	$0	$0	$0
Site Supervision/Safety	$158,150	$0	$0	$0	$0	$39,538	$39,538	$39,538	$15,815	$23,723	$0	$0	$0	$0	$0	$0
Construction Bond	$43,549	$43,549	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ESCO M&V (Year 1)	$22,500									$22,500						
Sub Total Construction	$3,415,955	$43,549	$0	$0	$0	$914,236	$788,327	$722,555	$609,500	$337,789	$0	$0	$0	$0	$0	$0
WSST (8.8%) on Construction Costs	$298,624	$3,832	$0	$0	$0	$80,453	$69,373	$63,585	$53,636	$27,745	$0	$0	$0	$0	$0	$0
WSST (8.8%) on Profession Services Costs	$115,418	$13,242	$12,931	$12,931	$6,465	$18,935	$16,328	$14,965	$12,624	$6,996	$0	$0	$0	$0	$0	$0
Total Project Cost	$5,141,560	$211,103	$159,873	$159,873	$79,937	$1,228,798	$1,059,567	$971,165	$819,211	$452,032	$0	$0	$0	$0	$0	$0
Cumulative Cost		$211,103	$370,977	$530,850	$610,787	$1,839,584	$2,899,151	$3,870,316	$4,689,528	$5,141,560	$5,141,560	$5,141,560	$5,141,560	$5,141,560	$5,141,560	$5,141,560
INVOICES																
McKinstry Invoice to Owner if State Loan	$5,141,560	$0	$0	$0	$610,787	$1,228,798	$1,059,567	$971,165	$819,211	$452,032	$0	$0	$0	$0	$0	$0
PAYMENTS																
Project Cost		$211,103	$370,977	$530,850	$610,787	$1,839,584	$2,899,151	$3,870,316	$4,689,528	$5,141,560	$0	$0	$0	$0	$0	$0
McKinstry Monthly Construction + Interest (w/ 90 day grace)		$0	$0	$0	$610,787	$1,839,584	$2,899,151	$3,870,316	$4,689,528	$5,141,560	$0	$0	$0	$0	$0	$0
Cum Construction Period Financing @ 0%	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
0.0000																
OTHER COSTS																
State GA Fee	$66,048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$66,048	$0	$0	$0	$0	$0
Construction Contingency	$339,346	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT COSTS	**$5,546,954**	**$211,103**	**$159,873**	**$159,873**	**$79,937**	**$1,228,798**	**$1,059,567**	**$971,165**	**$819,211**	**$452,032**	**$66,048**	**$0**	**$0**	**$0**	**$0**	**$0**

TABLE 4.1 BUDGET SUMMARY

							FIM No.	Multiple
							Date:	11/29/2006
Project:	King County						Budget Phase	Post ROM
Building:	Multiple	Scenario:	D - BASE (WITHOUT N+1 BOILER)				Estimator:	Terry Green

A. CONSTRUCTION COSTS			HVAC	Electrical *	EMCS *	General	Lighting	TOTAL
1	1.1-COURT	Convert Steam Heating to Courthouse	$962,725	$128,250	$77,790	$159,445	$0	$1,328,210
2	1.1-JAIL	Convert Steam Heating to Jail Roofto	$1,203,512	$141,350	$97,394	$145,195	$0	$1,587,451
3	3.1-JAIL	Add VFDs to Jail Fans	$0	$43,780	$33,896	$0	$0	$77,676
4	4.1-COURT	Ventilation Rate Optimization	$0	$0	$52,764	$0	$0	$52,764
5	5.1-COURT	HVAC Controls Review & Optimizatio	$0	$0	$9,500	$0	$0	$9,500
6	5.1-JAIL	HVAC Controls Review & Optimizatio	$0	$0	$5,700	$0	$0	$5,700
7	Start-up TAB & FPT					$130,455		$130,455
8	Site Supervision					$158,150		$158,150
A1. SUB-TOTAL CONST. COST (1 thru 8) =			$2,166,237	$313,380	$277,044	$593,245	$0	**$3,349,906**
	Construction Bonds	1.3%	$28,161	$4,074	$3,602	$7,712	$0	$43,549
A2. TOTAL CONSTRUCTION COST (A1+Bond) =			$2,194,398	$317,454	$280,646	$600,957	$0	**$3,393,455**

B.	ESCO FEES			
1	Audit Fee	$140,230	lump sum	$140,230
2	Design - Mech/plbg/elect/arch/struct	12%	B2 (%) x A1 total (less lighting and items 7 thru 12)	$367,356
3	Constr. & Proj. Admin.	7%	B3 (%) x A1 total	$234,493
4	OH & Profit	17%	B4 (%) x A1 total	$569,484
TOTAL ESCO FEES (B1+B2+B3+B4) = B				**$1,311,563**

C.	OTHER COSTS			
1	Project Contingency	10%	C1 (%) x (A2 total)	$339,346
2	ESCO M&V Costs (Year 1)	$22,500	lump sum	$22,500
TOTAL OTHER COSTS (C1+C2) = C				**$361,846**
D. TOTAL GUARANTEED MAXIMUM PROJECT COST (A+B+C) = D				**$5,066,864**

E..	NON-GUARANTEED COSTS			
1	Sales Tax - Construction	8.8%	E1% x A2 total	$298,624
2	Sales Tax - Prof. Services	8.8%	E2% x B total	$115,418
3	Interagency Fee	$66,048	lump sum	$66,048
4	Construction Period Finance Costs	$156,331	lump sum	$156,331
TOTAL NON-GUARANTEED COSTS (E1+E2+E3+E4) = E				**$636,421**
F. TOTAL PROJECT COST (D+E) = F				**$5,703,285**

Scenario - D - BASE (WITHOUT N+1 BOILER)
King County - Group 1

Table 4.2: FIM Matrix

FIM #	FIM Name	Building	Budget *	Annual Utility Savings	Annual Operational Savings	Potential Utility Rebate **	Net Customer Cost (including Utility Incentive)	Simple Payback (including Utility Incentive)	Measure Life (yrs)***
1.1-COURT	Convert Steam Heating to Courthouse Rooftop HW Boilers	Courthouse	$2,474,490	$316,939	$7,224	$0	$2,474,490	7.6	20+ Years
1.1-JAIL	Convert Steam Heating to Jail Rooftop HW Boiler	Correctional Facility	$2,957,463	$232,327	$1,683	$0	$2,957,463	12.6	20+ Years
3.1-JAIL	Add VFDs to Jail Fans	Correctional Facility	$144,712	$11,189	$0	$40,000	$104,712	9.4	15 Years
4.1-COURT	Ventilation Rate Optimization	Courthouse	$98,301	$42,853	$0	$0	$98,301	2.3	15 Years
5.1-COURT	HVAC Controls Review & Optimization	Courthouse	$17,699	$35,392	$0	$0	$17,699	0.5	15 Years
5.1-JAIL	HVAC Controls Review & Optimization	Correctional Facility	$10,619	$4,832	$0	$0	$10,619	2.2	15 Years
Totals for Selected FIMs			$5,703,285	$643,532	$8,907	$40,000	$5,663,285	8.7	0.00

* Project costs for Sections B, C, and E of Table 4.1 are divided among individual FIMs proportional to each FIM's Section A cost. Therefore the budget prices s individual FIMs are approximate and shown for reference only. If individual FIMs are dropped from or added to the project, the project cost will not decrease or exactly the dollar amount shown in this table.

** Utility rebate is contingent on utility company funding and final approval and is shown for reference only.

*** Total Measure Life is a weighted average based on individual measure lives and their associated annual utility and operational savings.