

(SAMPLE)

# Energy Cost Savings Guarantee

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## 3.1 Guarantee Overview

1. **Philosophy:** 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 Section 3, Table 3.1. Based upon the stipulated conditions as enumerated by the Great Falls School District personnel and the utility rates as described below, the utility cost savings are also shown in Table 3.1.
3. **Ongoing Services:** The cost of years one through four of Measurement and Verification (M&V) is included in the project scope assuming Great Falls Public Schools contracts with McKinstry to provide M&V services for years 5 through 15. The cost of Ongoing M&V in years five through fifteen has already been agreed upon by McKinstry and Great Falls Public Schools. McKinstry is prepared to continue the guarantee as long as Great Falls Public Schools continues the ongoing services as described herein. When Great Falls Public Schools chooses to cancel the ongoing services, the guarantee will also be terminated at the same point in time. Please refer to Section 3, Table 3.2 for a summary of the proposed measurement and verification scope for years one through four.

## 3.2 ECM SPECIFIC PERFORMANCE ASSURANCE METHODOLOGY

1. **Guarantees:** Table 3.1 Energy Savings Guarantee Summary provides the specific energy consumption savings for each energy conservation measures 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 logbooks.
    - (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. Great Falls Public Schools acknowledges their responsibility to ensuring that these criteria are maintained and associated energy savings are realized. Energy Savings Guarantees are predicated on Great Falls Public Schools maintaining their responsibilities as provided below in "On-Going Owner Responsibilities."
2. **Measurement and Verification Proposal:** Refer to separate M&V agreement for details on the proposed M&V scope for years five through fifteen.

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## 3.3 Utility Rates

1. Utility Rate: For the purpose of calculating savings, the utility rates used will be the utility rates as paid by Great Falls Public Schools 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 or above the Floor Rate. 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, this utility rate shall be used throughout the life of this contract to calculate the energy costs savings to Great Falls School District.

## 3.4 STANDARDS OF COMFORT SERVICE

The following section provides the standards of comfort, which Great Falls Public Schools must maintain to ensure the comfort of the occupants and staff, and upon which all energy calculations were based.

### HVAC Comfort

Heating, ventilating, and air conditioning (HVAC) systems provided by McKinstry 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 McKinstry 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:



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Minimum outside air per occupant shall be in accordance with American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) standards where McKinstry has provided renovations to introduce outside air, and where allowable and feasible within the constraints of existing buildings and systems. In the case of Roosevelt, the scope of work in this IGAR includes re-using existing outside air penetrations for the new unit vents. Similar compromises may need to be explored in East Middle School and Longfellow Elementary School. In the case of Lewis and Clark, Meadowlark and Riverview Elementary Schools, no new equipment is being installed, only existing equipment operational schedules are being modified.

Less stringent conditions will not be proposed unless specifically approved by the client agency (if applicable).

## Lighting

### Illumination Levels Verification:

Illumination levels shall be as recommended by the Illuminating Engineer's Society of North America (IESNA). For pool facilities, illumination will meet applicable Montana State guidelines.

### Illumination Levels Design:

The lighting and illumination levels for lighting systems provided by McKinstry 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 Great Falls Public Schools.

## 3.5 On-Going Owner Responsibilities

Great Falls Public Schools 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 ECM 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 water. For this project, the ongoing service period shall be four years. 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. Great Falls School District shall notify McKinstry in writing concerning any changes or alterations to the building that will affect energy usage. This notification should 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.

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## 3.6 Non-Performance

In the event the equipment performance is not met, McKinstry accepts responsibility for additional electricity, natural gas, and water used by the equipment, due to reduced performance. McKinstry may, at its option, execute any of the following options:

1. Repair or replace equipment as necessary to meet required performance.
2. Make payments for the extra energy consumption to Great Falls Public Schools. In the event that McKinstry chooses the payment option, McKinstry reserves the right to select either an annual payment for the duration of the guarantee term or a one-time lump-sum payment of the same amount, adjusted for the agreed upon utility rate escalation. In either case, the payment will be calculated based upon the quantity of additional electricity, natural gas, or water used and the Base Utility Rate adjusted for escalation as described above.

## 3.7 Change Of Use

In the event that Great Falls Public Schools chooses to make changes to the facility that requires set point adjustments, longer operating hours, or continuous equipment operation, Great Falls Public Schools agrees that:

1. Savings deemed as met described above will continue to be deemed as met.
2. Additional cost of extended equipment operation is a cost of the change, not due to a failure of McKinstry or their equipment.
3. McKinstry shall not be responsible for any increase in energy, maintenance, or any other costs incurred because of the extended equipment operation.
4. During the M&V portion of the project, McKinstry will make a baseline energy use adjustment to identify and account for a change-of-use at the facility, at the direction of Great Falls Public Schools. McKinstry will be reimbursed by Great Falls Public Schools for this effort.
5. McKinstry may calculate the change in energy consumption due to the specific system's operation. McKinstry will be reimbursed by Great Falls Public Schools for this effort.

## 3.8 Energy Savings Guarantee Summary (Table 3.1)

The energy savings guarantee summary for Great Falls Public Schools is attached at the end of this section.

## 3.9 Performance Assurance Plan Outline (Table 3.2)

The performance assurance plan outline for Great Falls Public Schools is attached at the end of this section.

## 3.10 Utility Base Rates (Table 3.3)

The utility base rates summary for Great Falls Public Schools is attached at the end of this section.