Schedule 1

Measurement and Verification Methodology

The Measurement and Verification Methodology involves use of utility meters or sub-meters to assess the energy performance of a portion of, or an entire facility. This methodology assesses the aggregated performances of all energy conservation measures (ECMs) applied to the area served by a single energy meter, regardless of measure type. This methodology determines the collective savings of all ECMs applied to the part of the facility monitored by the energy meter. Also, since meters are used, savings reported under may include the effects of any non-ECM changes made in facility energy use patterns (positive or negative) unless those changes are specifically identified and accounted for.

Metrix Utility Accounting System™ (Metrix™) is the software program used by all of the major performance contractors in the United States to determine ECM savings from utility bills, while correcting for changes in weather, occupancy, production, or any other variable that significantly affects utility usage. The software can be used to meet industry guidelines, such as the International Performance Measurement and Verification Protocol. The methodologies employed in and results garnered from Metrix™ can be replicated in MS Excel, although with much effort.

1. Objectives

In order to accurately determine the energy and cost savings resulting from a performance contract, it is necessary to compare pre-retrofit and post-retrofit conditions. To accomplish this task the relationship between utility usage and weather (and/or other independent variables) during the pre-retrofit period are determined using statistical methods embodied in Metrix™. It is assumed that if the Performance Contractor did not implement utility savings measures, usage and demand would continue as before, and that the relationship found between utility usage and weather (or other independent variables) would continue unaltered into the future. In this schedule "Baseline" is defined as a specific "pre-retrofit" period of time and any data associated with the analysis of that period.

The following methodology will be used to calculate utility unit savings:

1. Heating Degree Days (HDDs) and Cooling Degree Days (CDDs) are calculated for billing periods corresponding to Baseline utility bills. Other independent variable data (such as occupancy or production) may also be determined.

2. Metrix™ attempts to find the relationship between utility usage (or demand) and the independent variables (e.g. HDD, CDD, Production, Occupancy, etc.). This resulting relationship, the Fit Line Equation, is found using linear regression techniques, as is documented below. Metrix™ will determine the resulting coefficients of consumption (and demand) per independent variable unit (e.g. kWh/HDD, Therms/Car Produced), for those meters in which such relationships are found to be statistically significant. These coefficients of consumption (and demand) per unit will be included as part of this agreement in Schedule 1 Exhibit A.

3. The Performance Contractor will document and provide in Schedule 1 Exhibit A the following results of the linear regression;

    a. Utility Bills used in Baseline period: including meter read date, number of days in bill, usage, and if applicable, demand,

b. Independent Variable amounts per Baseline period bill (e.g. CDD, HDD, Occupancy, Production),

c. Weather station used,

d. Balance Point Temperatures used to calculate CDD and HDD,

e. Fit Line Equation, coefficients of consumption (and demand) per independent variable unit (e.g. kWh/HDD, Therms/Car Produced),

f. Statistical Indicators: R^2 value, T-statistics, CVRMSE and Mean Bias Error.

4. During the Performance (post-retrofit) Period, the Baseline coefficients and the post-retrofit variable data (e.g. CDD, HDD, production, occupancy) are applied to the regression calculation to adjust for differences in conditions. Applying Performance Period conditions to the Baseline model projects an Adjusted Baseline which represents how much usage would have been consumed had no energy conservation measures been implemented.

5. The units saved are equal to this Adjusted Baseline minus the Actual consumption or demand (as shown in the Performance Period utility bills) for the billing period. The Adjusted Baseline referred to in this document is equivalent to the "Baseline Scenario" in Metrix™.

The regression analysis methodology used in this agreement is capable of making adjustments for changes in the number of days in the billing period, HDD, CDD, and up to three other variables. The inclusion of any variables will be mutually agreed upon by the Performance Contractor and the Customer and supported by regression analysis documentation presented in Schedule 1 Exhibit A. In addition, the Adjusted Baseline may also be modified with Baseline Modifications when necessary.

2. Definitions

Adjusted Baseline	The Adjusted Baseline estimates Performance Period consumption (or demand) using the Baseline Equations presented in Schedule 1 Exhibit A plus any Baseline Modifications (as presented in Schedule 1 Exhibit B). The Adjusted Baseline represents how much energy (or demand) would have been used had no ECMs been implemented. The calculation is based upon pre-retrofit (Baseline) energy usage patterns and post-retrofit conditions (e.g. HDDs, CDDs, # of days, production, etc.).
Balance Point	The Cooling Balance Point is the temperature at which the building starts cooling. The Heating Balance Point is the temperature at which the building starts heating. When tuning for HDD and CDD, the Heating and Cooling Balance Points need not be the same number.
Baseline	Baseline is defined as a specific "pre-retrofit" period of time and any data or models used for, or resulting from, the analysis of that period. Accordingly, Baseline also refers to the relationship, or model, determined through regression analysis of pre-retrofit usage vs. pre-retrofit independent variable conditions as presented in the equation below. The Baseline is usually represented by a Baseline Equation like the those presented in Schedule 1 Exhibit A.
Baseline Equation	The Fit Line, which was created when a regression was performed, has an equation, which is called the "Fit Line Equation." The Baseline Equation is the "Fit Line Equation", combined with any Baseline Modifications if any exist. Baseline Equation = Fit Line Equation +/- Baseline Modifications
Baseline Modification or Baseline Adjustment	The regression equation may be augmented by a multiplier or absolute factor to account for changes in utility usage patterns. The augmentation is called a Baseline Modification. Typical cases that require Baseline Modifications are increases in building area, additions of new equipment, and changes in operating hours.
Baseload	Usage that is unrelated to weather (heating or cooling), or production, occupancy, or other independent variables used in the regression. Baseload usage is consistent on a monthly basis. Examples of Baseload electricity may be lights, computers and constant volume fans and pumps. Examples of Baseload gas usage may be domestic hot water, cooking, laundry and process equipment.
Cooling Degree Day (CDD)	CDDs are a measure of cooling load during a given period of time. CDDs are proportional to cooling energy usage in a facility. For a given Balance Point Temperature, double the amount of CDDs corresponds to double the amount of cooling energy usage in a facility. A large number of CDDs signifies that the building required a large amount of cooling. Zero CDDs signifies that the building did not require any cooling. CDDs are calculated using standard industry methods utilizing the difference between the average outdoor temperature and the Balance Point of the meter.
Cooling ΔT	Demand does not have a relationship to CDDs, but does have a relationship to the hottest or coldest temperature during the billing period. The Cooling ΔT is the difference between the highest temperature in a billing period and the demand cooling balance point.
Energy Conservation Measure (ECM)	Energy Conservation Measures are those enhancements made to the Customer's facility by the Performance Contractor to save utility usage and/or demand. Examples include: lighting retrofits, building controls, chiller replacement, etc.
Fit Line	Fit Line is another term for "best-fit line", or the line that comes closest to all the points in the graph of utility usage (or demand) vs. an independent variable (e.g. CDD/day, HDD/day, production/day).
Fit Line Equation	Every line can be defined by an equation, such as y = mx + b. The Fit Line Equation is the equation for the Fit Line.

Heating Degree Day (HDD)	HDDs are a measure of heating load during some period of time. HDDs are proportional to heating energy usage in a facility. For a given Balance Point Temperature, double the amount of HDDs corresponds to double the amount of heating energy usage in a facility. A large number of HDDs signifies that the building required a large amount of heating. Zero HDDs signifies that the building did not require any heating. HDDs are calculated using standard industry methods utilizing the difference between the Balance Point of the meter and the average outdoor temperature.
Heating ΔT	Demand does not have a relationship to HDDs, but does have a relationship to the hottest or coldest temperature during the billing period. The Heating ΔT is the difference between the heating balance point and the lowest temperature in a billing period.
Installation Period	The Installation Period is the time period during which the equipment installations and facility modifications are made for which energy savings will be calculated during the Performance Period. The Installation Period falls between the Baseline Period and the Performance Period. Energy Savings are often calculated during the Installation Period as well.
Performance Period	The Performance Period is the time period for which energy savings calculations are sought. This period falls after the Baseline Period and the Installation Period.
Regression Analysis	Regression Analysis is a statistical operation, which is used by Metrix™ to determine the relationship between utility usage (or demand) and independent variables (e.g. CDD, HDD, production, occupancy).
Utility Cost Savings	Utility Savings in units of dollars. Utility Cost Savings are calculated by applying costs to Utility Unit Savings.
Utility Unit Savings	Utility Savings in units of consumption or demand (e.g. kWh, kW, therms). Utility Unit Savings are calculated using Adjusted Baseline minus Performance Period Actual utility bill consumption or demand.

3. Application of Regression Analysis Calculation For Usage

The relationships documented on Schedule 1, Exhibit A were established using the Metrix™ software program. Below are the equations which are used to both establish the Base Line and serve as the basis for post-retrofit analysis.

Once the coefficients C_D, C_H, C_C, C_1, C_2, C_3 and the Degree Day Balance Point Temperatures TB_H, TB_C have been obtained by regression, presented and agreed upon by the Performance Contractor and Customer, they remain fixed and are used to derive Adjusted Baseline consumption for the Installation and Performance Periods.

The Baseline Equation used to fit utility bills to the independent variables is:

$$\hat{Q}_i = [C_D * (T_i - T_{i-1}) + C_H * HDD_{BH,i} + C_C * CDD_{BC,i} + C_1 * U_{1,i} + C_2 * U_{2,i} + C_3 * U_{3,i}] * BM_{m,i} + BM_{o,i}$$

where:

i	= index for N utility bills (i=1..N);
$\hat{Q}_i$	= Best Fit to utility bill consumptions [Utility Units, e.g., kWh];
C_D	= Baseload consumption per unit time (Utility Units/day, e.g., kWh/day);
D_i-D_{i-1}	= time interval between dates D_i and D_{i-1} (days elapsed since an arbitrary origin);
C_H,C_C	= Coefficients for Heating and Cooling Degree Days (Utility units/deg-day);
$HDD_{BH,i}$	= Heating Degree Days for Heating Balance Point Temperature T_{BH} (ºF-day or ºC-day);
$CDD_{BC,i}$	= Cooling Degree Days for Cooling Balance Point Temperature T_{BC} (ºF-day or ºC-day);
C_1, C_2, C_3	= Coefficients for other independent variables, k_1, k_2, and k_3;
$U_{1,i}$, $U_{2,i}$, $U_{3,i}$	= Values of other independent variables, k_1, k_2, and k_3;
$BM_{m,I}$	= Baseline Modification, multiplier;
$BM_{o,i}$	= Baseline Modification, absolute offset.

In practice, only the Baseload consumption per unit time, C_D, and one or two of the other coefficients are usually non-zero and therefore of consequence. Though theoretically possible, it is rare to find a statistically significant correlation with more than three or four independent variables.

4. Application of Regression Analysis Calculation for Demand

Demand is treated differently than consumption since demand is an instantaneous value, while consumption is aggregated over the billing period. The difference between the demand calculations and the energy calculations are:

a. Demand is not a function of number of days, and

b. Demand does not have a relationship to degree days (which are summed over a number of days), but instead has a relationship to the Heating ΔT or Cooling ΔT.

The Heating ΔT is the difference between the demand heating Balance Point Temperature and the lowest temperature during the billing period. The demand heating Balance Point Temperature is unrelated to the Balance Point Temperature used to calculate heating degree days.

The Cooling ΔT is the difference between the highest temperature during the billing period and the demand cooling Balance Point Temperature. The demand cooling Balance Point Temperature is unrelated to the Balance Point Temperature used to calculate cooling degree days.

Once the coefficients D, D_H, D_C, D_1, D_2, D_3 and the ΔT Balance Point Temperatures T_{BH}, T_{BC} have been obtained by regression, presented and agreed upon by the Performance Contractor and Customer, they remain fixed and are used to derive Adjusted Baseline demand for the Performance Period.

The Baseline Equation used to fit utility bills to the independent variables is:

$$\hat{P}_i = [D + D_h * \Delta T_{BH,i} + D_c * \Delta T_{BC,i} + D_1 * U_{1,i} + D_2 * U_{2,i} + D_3 * U_{3,i}] * BM_{m,i} + BM_{o,i}$$

where:

i	= index for N utility bills (i=1..N);
$\hat{P}_i$	= Best Fit to utility bill demands [Utility Demand Units, e.g., kW];
D	= Baseload demand (Utility Units, e.g., kW);
D_h,D_c	= Coefficients for Heating and Cooling ΔT (Utility Demand Units/ ºF or ºC);
$\Delta T_{BH,i}$	= Heating ΔT, (Balance Point Temperature T_{BH} - low temperature $t_{Lo,i}$) (ºF or ºC);
$\Delta T_{CH,i}$	= Cooling ΔT, (high temperature $T_{Hi,i}$ - Balance Point Temperature t_{BC}) (ºF or ºC);
D_1, D_2, D_3	= Coefficients for other independent variables, k_1, k_2, and k_3;
$U_{1,i}$, $U_{2,i}$, $U_{3,i}$	= Values of other independent variables, k_1, k_2, and k_3;
$BM_{m,i}$	= Baseline Modification, multiplier;
$BM_{o,i}$	= Baseline Modification, absolute offset.

5. Calculation of Heating and Cooling Degree Days

The Heating and Cooling Degree Days in the Baseline Equation are calculated for billing periods from daily temperature data: For any given period from dates D_{i-1} to D_i, Heating Degree Days are calculated as the sum of positive differences of a Balance Point Temperature and the average daily dry bulb temperatures:

$$HDD_{BH,i} = \sum_{d=D_{i-1}+1}^{D_i} (T_{BH} - T_{O,d})^+$$

where:

$HDD_{BH,i}$ are Heating Degree Days the days from T_{i-1} to T_i, °F-day (°C-day);
D_i is the last day of the i-th billing period;
D_{i-1} is the last day of the (i-1)-th billing period, and $D_{i-1}+1$ is the 1st day of the i-th period.
T_{BH} is the heating Balance Point Temperature, °F (°C);
$T_{O,j}$ is the average outdoor temperature for the day D_i, °F (°C);
$(X)^+$ indicates that only positive differences are to be used, and negative differences set to zero.

Heating Balance Point Temperatures vary from building to building and are a function of building composition (e.g. insulation, solar gains, roof, wall and window construction, etc.), heating system parameters (e.g. ventilation rates, temperature set points, lockouts, schedule) and internal gains (e.g. lighting, equipment, occupants, and their schedules). Typical heating Balance Point Temperatures vary between 55 and 65°F (approximately 13 to 18°C). The Balance Point Temperature is usually obtained from the best fit of the regression.

Cooling Degree Days over the same period are similarly calculated as:

$$CDD_{BC,i} = \sum_{D=D_{i-1}+1}^{D_i} (T_{O,d} - T_{BC})^+$$

where:

$CDD_{BC,i}$ are Cooling Degree Days the days from D_{i-1} to D_i, °F-day (°C-day);
T_{BC} is the Cooling Balance Point Temperature, °F (°C);
all other symbols are the same as in the previous equation.
Cooling Balance Point Temperatures also vary from building to building and are a function of building composition (e.g. insulation, solar gains, roof, wall and window construction, etc.), cooling system parameters (e.g. ventilation rates, temperature set points, lockouts, schedule) and internal gains (e.g. lighting, equipment, occupants, and their schedules). Typical Cooling Balance Point Temperatures vary in a similar range as the Heating Balance Point Temperature and the physical interpretation is the same. Again, the actual value of the cooling Balance Point Temperature is usually obtained from the best fit of the regression.

Every meter may have its own unique set of Balance Point Temperatures. In addition, for meters that heat and cool, heating Balance Point Temperatures need not be the same as cooling Balance Point Temperatures, as buildings may begin heating and cooling at different temperatures.

6. Additional Independent Variables

If utility bills correlate poorly or incompletely with Heating and Cooling Degree Days, then independent variables such as occupancy hours, meals served, or widgets produced, may be applied to the regression equation. Typically such non-weather related variables are available on a periodic basis with reading dates different from the utility bill reading dates. In such cases the available readings must be time-shifted to result in an equivalent series of readings whose reading dates coincide with those of the utility bills. Lacking any detailed information, time-shifting can be simply done by proportional weighting of two consecutive variable values by the fraction of the time their period overlaps with that of the utility bill.

7. Savings Calculation Procedure

What follows is the procedure used to calculate Utility Unit Savings:

1. Determine Baseline Period
   The first step is to identify a billing period, called the Baseline, which best represents the facility's pre-retrofit utility usage pattern. Typically the most recent 12 months of bills prior to the retrofit are chosen, as these would best represent utility usage patterns. However, buildings change due to building additions, new equipment or operating strategies, which can result in significant changes in usage patterns during the Baseline Period, which can render a meter impossible to perform a regression on. In the event of such changes, 12 months of bills prior to the change might be more suitable (with an appropriate Baseline Modification to account for the change in usage pattern).

2. Perform Regression Analysis
   The Performance Contractor will:

   Enter utility bill data and weather data, and any other independent variable data (e.g. production or occupancy) into Metrix™.

   Perform a regression of usage (or demand) vs. weather and/or other independent variable using Metrix, thereby determining the the resulting coefficients of consumption (and demand) per independent variable unit (e.g. kWh/HDD, Therms/Car Produced), for those meters in which such relationships can be established. These coefficients of consumption (and demand) per unit will be included as part of this agreement in Schedule 1 Exhibit A.

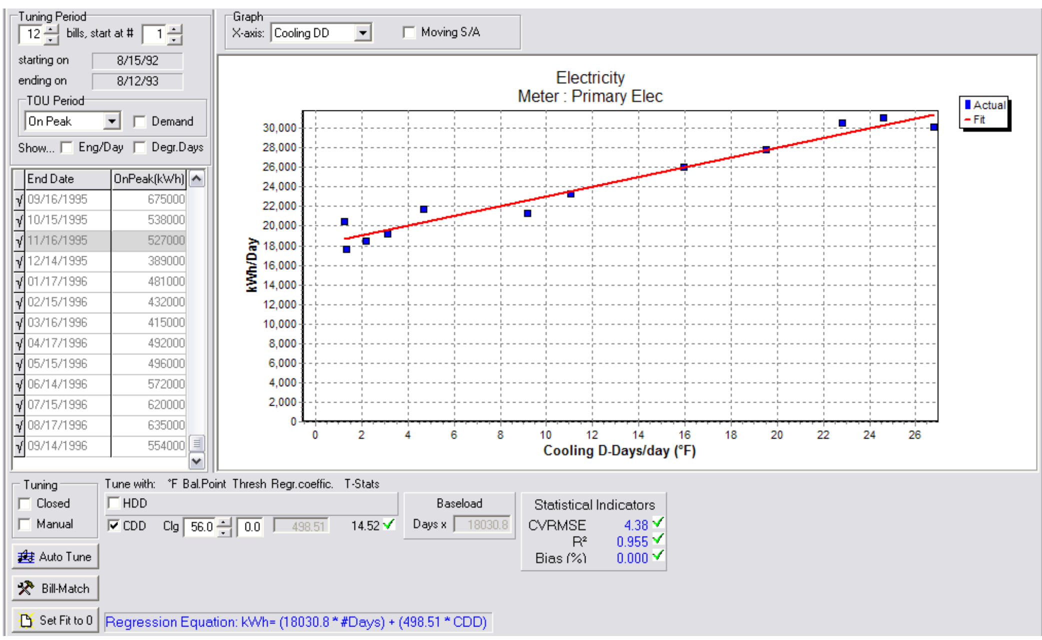

Figure 1. Example of a Regression Analysis. (This example is for a hospital in Alabama.)

3. **Document and Gain Acceptance of Baseline Information**
The Performance Contractor will document and provide in Schedule 1 Exhibit A the following results of the linear regression:

   a. Utility Bills used: including meter read date, number of days in bill, usage (or demand)

   b. Independent Variable amounts per bill (e.g. CDD, HDD, Occupancy, Production)

   c. Weather station used, Balance Point Temperatures used to calculate CDD and HDD

   d. Fit line equation, coefficients of consumption (and demand) per independent variable unit (e.g. kWh/HDD, Therms/Car Produced)

   e. Statistical Indicators: R2 value, T-statistics, CVRMSE and Mean Bias Error.

Meter Tuning Contract

Project: Gulf Med Ctr | **Site: Med Ctr Building** | **Area: Med Ctr Building**
Meter: Primary Elec | **Unit: Qty OnPk (kWh)** | **Account: XYZ-Electric**

From	To	# Days	Reading	Incl?	HDD	CDD	Offset	Baseline	Deviation
08/15/92	09/12/92	29	887,090	☒	0.0	662.0	-	852,909	-3.9%
09/13/92	10/11/92	29	755,200	☒	4.5	462.5	-	753,455	-0.2%
10/12/92	11/12/92	32	680,400	☒	108.0	294.0	-	723,548	6.3%
11/13/92	12/11/92	29	536,100	☒	333.0	63.0	-	554,299	3.4%
12/12/92	01/11/93	31	596,100	☒	245.0	97.0	-	607,310	1.9%
01/12/93	02/11/93	31	545,100	☒	353.0	41.5	-	579,643	6.3%
02/12/93	03/12/93	29	593,100	☒	338.5	36.5	-	541,088	-8.8%
03/13/93	04/12/93	31	672,600	☒	226.5	144.5	-	630,989	-6.2%
04/13/93	05/12/93	30	699,700	☒	42.5	332.0	-	706,430	1.0%
05/13/93	06/14/93	33	917,000	☒	4.0	644.5	-	916,308	-0.1%
06/15/93	07/13/93	29	900,300	☒	0.0	714.0	-	878,832	-2.4%
07/14/93	08/12/93	30	903,600	☒	0.0	803.5	-	941,479	4.2%
Total (Average)		**363**	**8,686,290**		**1655.0**	**4295.0**	-	**8,686,290**	**0% +/- 4.4%**

Primary Elec (Account # XYZ-Electric): Tuning Period is 363 days from 8/15/92 until 8/12/93.
Below is the equation used to calculate the Baseline values for the tuning period and all future periods:

Baseline (kWh) = 18030.78 x #Days + 498.51 x ClgDD

The Baseline Equation has a Net Mean Bias of 0% and a Monthly Mean Error of +/-4.4%. The underlying regression has a R^2=0.955
Baseline Costs are calculated using Rate Tariff documented in separate attachment.

Explanations and Assumptions:
☐ (empty checkbox) under 'Incl?' indicates that the bill is excluded from the regression. However the Baseline Equation is always applied for all billing periods, even those exluded from the regression.
HtgDD = Heating Degree-Days calculated for MOBILE, AL for a 65°F balance point.
ClgDD = Cooling Degree-Days calculated for MOBILE, AL for a 56°F balance point.
Multiplier is derived from Modification(s) in effect during the tuning period and is replicated annually for all future
Please sign below to indicate your acceptance of the Baseline Calculations for the Primary Elec meter, Account # XYZ-Electric

Figure 2. Example: Typical Documentation of a Meter's Regression. (This example is for a hospital in Alabama.)

4. **Determine Post-Retrofit Utility Unit Savings**
The Performance Contractor will:

   Enter post-retrofit utility bills, weather data (and other independent variable information) into Metrix^{TM}, which will determine the Adjusted Baseline for each Performance Period utility bill. The Adjusted Baseline is calculated by Metrix using the fit line equation and any Baseline Modifications that may be applicable. The units saved are equal to this Adjusted Baseline minus the Actual consumption (or demand) for the billing period.

8. Baseline Modifications

A Baseline Modification is an additional factor that is added or multiplied to the fit line equation to represent one of two types of anomalies: deviations from the usage pattern which occurred during the Baseline Period (annual periodic modifications), or post-retrofit changes in usage patterns caused by the customer which may compromise savings numbers (additional modifications).

- **Annual Periodic Modifications**
  Annual Periodic Modifications may be used to correct Adjusted Baseline consumption for anomalies that occurred during the Baseline period because of operational procedures or abnormal conditions that occurred. These "out of line" consumption periods cause the regression equation to over or under predict consumption. A modification helps to fit the equation's predicted value to the actual value that occurred during the tuning period. Future consumption can be predicted with a higher degree of confidence once the predicted and actual tuning period consumption is matched properly. Annual Periodic Modifications for the Project, if any are used, are identified on Schedule 1, Exhibit B.

- **Facility Modifications**
  During the term of the Agreement, it may also be necessary to make modifications to the Adjusted Baseline. Table 1 details an incomplete list of some the circumstances that will result in Baseline Modifications.

Item #	Circumstance	Notes
8a	Changes within Premise	In the event the Performance Contractor determines or becomes aware of physical or operational changes that affect utility usage within the facility which are beyond the agreed upon conditions as shown on Schedule 1 Exhibit A of this schedule and as implied by the Baseline Equation values of any independent user variable as defined in Sections (3) and (4) above and documented on Schedule 1 Exhibit F, the Performance Contractor shall be entitled to make such Baseline Modifications as may be necessary to the calculations used to determine Utility Unit Savings in order to reflect the effects of such action by Customer.
8b	Non-Compliance with Building Codes	In the event the Performance Contractor determines or becomes aware that building codes are not being adhered to, the Performance Contractor shall be entitled to make such Baseline Modifications as may be necessary to the calculations used to determine Utility Unit Savings in order to reflect the effects of the correction to these deficiencies.. .
8c	Improper Maintenance of Equipment	In the event the Performance Contractor determines or becomes aware the Customer's equipment is not being maintained in proper operating condition, the Performance Contractor shall be entitled to make such Baseline Modifications as may be necessary to the calculations used to determine Utility Unit Savings in order to reflect the effects of improper maintenance of building energy consuming equipment.
8d	Disabling Equipment	In the event Customer disables, disconnects, or otherwise ceases to use or overrides any or all service(s) or Equipment provided by the Performance Contractor under this Performance Contract, the Performance Contractor shall be entitled to make such Baseline Modifications as may be necessary to the calculations used to determine Utility Unit Savings in order to reflect the effects of such action by Customer.

9. Bill-Matching

Some meters are not used to heat or cool a facility, and thus may not have a statistically significant relationship to CDDs, HDDs, or any other independent variable (e.g. occupancy, production, etc.). Some meters instead have random usage patterns that are not successfully predicted by the independent variables chosen, resulting in Baseline regressions that do not meet industry standard tests for validity. In this case, the Contractor will forgo regression analysis and will, instead, for the meter in question, compare monthly Baseline bills to their corresponding monthly bills during the Performance Period to determine Energy Unit Savings. In order to compare equal numbers of days in the Performance Period and Baseline bills, the Baseline amounts may be "Time-Shifted", or prorated.

10. Applying Utility Costs to Energy Unit Savings to Calculate Energy Cost Savings

Utility Cost Savings are determined by applying utility unit costs to the Utility Unit Savings. There are four possible cost calculation methods which can be used to apply utility costs. They are:

- Single Utility Rate Schedule
  Uses the applicable utility rate tariffs explicitly modeled in the Metrix™ program. The same rates are then applied to Performance Period and Adjusted Baseline consumption and demand. If this method is used, details of the utility rate to be applied are documented in Schedule 1 Exhibit E.

  If the utility provider changes the rate of the utility being provided, the calculations used to determine Utility Cost Savings may be updated with the new rates.

- Multiple Utility Rate Schedules
  Also uses the applicable utility rate tariffs explicitly modeled in the Metrix™ program. However, different rates can be applied Performance Period Actual and Adjusted Baseline consumption and demand. This method is used when the utility rate for a given account is changed due to one of two reasons:

  - The Performance Contractor moved this account to a different utility rate

    or

  - The utility company moved this account to a different utility rate as a result of Contractor-initiated ECMs.

  A typical application of this method would apply the original utility rate to the Adjusted Baseline consumption and the new utility rate to the Performance Period Actual consumption.

  If the utility provider changes the rate of the utility being provided, the calculations used to determine Utility Cost Savings may be updated with the new rates.

- Average Total Cost per Consumption
  Does not explicitly use the utility rate tariffs, but rather applies the average cost per consumption unit for each billing period (e.g. $/kWh, $/therm) from the Performance Period Actual Utility data to Adjusted Baseline usage. That cost per unit is then applied to the Adjusted Baseline consumption and demand. For example, if the July 2003 electric bill averages $0.0673/kWh, the July 2003 Adjusted Baseline cost would be calculated using the same unit cost determined from the Performance Period Actual Utility data (in this example $0.0673/kWh).

- Average Cost/Consumption & Cost/Demand
  Does not explicitly use the utility rate tariffs, but rather applies the average cost per consumption unit and per demand unit for each billing period (e.g. $/kWh, $/therm) from the Performance Period Actual Utility data to the Adjusted Baseline usage and demand. This method can only be used when consumption and demand costs are broken out on utility bills.

Schedule 1: Exhibit A: Baseline Information

The following pages contain "Tuning Contracts" which provide the results of the linear regressions. The "Tuning Contracts" detail the results of the linear regressions as presented in Appendix A: Section 1.3. The Tuning Contracts are generated by Metrix™ using Customer's utility bills and applicable independent variables (e.g. Cooling Degree Days, Heating Degree Days, Production, Occupancy, etc.).

(put tuning contracts generated from Metrix™ here)

Schedule 1: Exhibit B: Baseline Modifications

The following pages contain Baseline Modifications that are to be applied to the regression equations. These Baseline Modifications are already presented in Schedule 1 Exhibit A, however Schedule Exhibit B presents a list of Modifications and reasons thereby.

Table A.1.1.B List of Baseline Modifications

Facility	Meter Name	Modification Name or Type	Reason for Modification

Schedule 1: Exhibit C: Existing Facility Conditions

The following pre-retrofit (Baseline) operational conditions were determined to be in existence at the time of the signing of this Performance Contract.

(Please make tables, etc. and list these items below, as significant changes to these will give occasion to make baseline modifications, but you need to have pre-retrofit conditions documented first.)

- occupancy type, density and occupancy periods
- operating conditions for each baseline operating period and season. (For example, in an industrial process, baseline operating conditions might include product type(s), volume, raw material type, and number of production shifts per day. In a building baseline operating conditions might include light level and color, space temperature humidity and ventilation.)
- description of any baseline conditions which fall short of required conditions. For example, if the space is under-heated during the baseline, but the ECM will also restore heating capacity so that the desired temperature can be achieved. Details of all adjustments that are necessary to the baseline energy data to reflect the energy management program's expected improvement from baseline conditions.
- size, type, and insulation of any relevant building envelope elements such as walls, roofs, doors, windows. (floor area alone might be enough.)
- equipment inventory: nameplate data, location, condition. Photographs or videotapes are effective ways to record equipment condition.
- equipment operating practices (schedules and setpoints, actual temperatures and pressures)
- significant equipment problems or outages during the baseline period.

Schedule 1: Exhibit D: List of Meters and Associated Facilities

Table A.1.1.D List of Meters to be Tracked

Facility	Utility Type	Meter ID	Account #	Utility

Schedule 1: Exhibit E: Utility Cost Information

Table A.1.1.E presents a list of accounts and associated cost calculation methods (e.g. average costs, single utility rate, etc.), and what utility rate is to be use to apply costs to utility unit savings.

Table A.1.1.E Cost Calculation Method to be Applied

Facility	Utility Type	Account #	Utility	Cost Calculation Method	Rate if Applicable

Below are the details of the various rates to be applied (assuming Single Utility Rate or Multiple Utility Rate methods are used.)

(put utility rate information here)

Schedule 1: Exhibit F: Independent Variables Used in Regression

Table A.1.1.F presents a list of independent variables to be used in the regressions besides CDD and HDD.

Table A.1.1.F.1 *(put variable name here)*

Date	Variable Reading

(If more variables, add more tables. Do not add tables for CDD and HDD)