Agreement to Perform an Investment Grade Audit

AGREEMENT, entered into as of _____, 2020, by and between _____("Contractor" or "Vendor") a corporation with a principal place of business at _____ and the Department of Administrative Services ("State") a department of the State of New Hampshire with a principal place of business at 25 Capitol Street, Concord, NH (individually, a "Party" or collectively, the "Parties").

Now, therefore, in consideration of these premises and the mutual promises herein expressed, State and Contractor agree as follows:

BASIS:

The basis for this Agreement is:

Department of Administrative Services (hereinafter called "the State") owns six (6) state-owned facilities in Concord, NH (hereinafter called "the Facilities"). State desires to improve the energy efficiency of certain facilities that it owns and occupies by means of an energy performance contract. The State has solicited competitive proposals, evaluated Contractor's response, and wishes to engage Contractor to conduct an Investment Grade Audit of the facilities to determine whether the State should proceed with an energy reduction project by means of an energy performance contract.

Contractor has made a preliminary assessment of the Facility and submitted a proposal in response to a State issued RFP, to provide certain services and equipment. The Contractor provides services and other measures designed to reduce energy consumption or energy costs. The Contractor is willing to guarantee that the State will realize energy cost savings during each year of the term of an energy performance contract, calculated and adjusted according to accepted terms.

The work to be performed at the Facility by Contractor (the "Project") will identify the Measures to be installed and other services, if any, to be provided by Contractor.

1. DEFINITIONS:

Baseline Energy Use. A calculation of energy use of a building or piece of equipment over a specified period used to project energy use had the project not been implemented.

Energy Conservation Measures (ECM). A measure to reduce energy use or costs, such as the installation of equipment or systems, or modification of equipment or systems, or revised operation and maintenance procedures.

Guaranteed Performance. The annual energy unit and cost savings, which the Contractor guarantees will be realized by the State as a result of the Project, will be calculated in accordance with the methodology (i.e., the International Performance Measurement and Verification Protocol (IPMVP) Options A and B) described in the original RFP and agreed to by Contractor in its RFP response. The Parties agree that the final M&V Plan will be negotiated and mutually agreed to during the development of the IGA. Excess annual energy units and cost savings obtained by the

State beyond the Contractor's annual guarantee cannot be used as a credit by the Contractor in any previous or subsequent years of the contract term and will not be applied for any shortfall in guaranteed energy units or cost savings during the contract term. Each Group must meet the 20 year payback requirement on its own. Measures must be easily separated by building for ease of calculating loan repayments. All energy and cost savings derived from the implementation of this project will be retained by the State.

Energy unit savings will be the basis of the performance guarantee and guaranteed cost savings are extrapolated from the energy unit savings and baseline utility costs. Since energy costs fluctuate, the Contractors must meet the guaranteed annual energy unit savings as a requirement of the performance guarantee. In no instance will guaranteed cost savings be used as the sole condition for meeting the performance guarantee. Further, as required in NH RSA 21-I:19-d (f), "Any energy performance contract should require the contractor to include all energy efficiency improvement in selected buildings that are calculated to recover all costs within 20 years from the date of project implementation at existing energy prices. The contract shall require that the public utility or energy services provider be repaid only to the extent of energy cost savings guaranteed by the contractor to accrue over the term of the contract."

Investment Grade Audit. A survey of existing energy systems of a Facility for the purpose of proposing Energy Conservation Measures (ECMs) and verifying that the proposed ECMs are guaranteed to generate energy consumption and cost savings and meet the financial requirements within seventeen years The results of an Investment Grade Audit are presented in a written report that includes a methodology for the calculation of the Baseline Energy Use and a description of physical conditions, equipment counts, nameplate data and control strategies. For each ECM recommended, the Investment Grade Audit generally provides equipment counts, implementation costs, efficiency levels or performance characteristics of the equipment comprising the proposed ECMs, on-going maintenance costs, annual energy and cost savings, the useful life of the ECM and a life-cycle cost analysis. Projected energy savings must account for interaction among recommended Energy Conservation Measures. See Section 3 and the State RFP #2021-254 "Energy Performance Contracting Services for six (6) state-owned facilities in Concord, NH." The results of the Investment Grade Audit are presented in a written report.

Measurement and Verification. The process of monitoring and measuring the energy consumption of a facility or specific equipment or systems, before and after Project implementation, to determine if guaranteed or predicted energy savings are being realized. The International Measurement and Verification Protocols will be used to measure and monitor all installed ECMs.

Project. An energy and energy-related cost reduction program that may include design, engineering, procurement, installation of equipment, ongoing maintenance, measurement and verification, and other services.

Total Project Cost. All costs associated with the development and implementation of an energy performance contract, which may include, but are not limited to: the comprehensive energy audit; ECM design, procurement and installation; financing fees; construction contract bonds; interest charges; training of facility staff; measurement and verification; equipment operation and maintenance; project management; the energy performance guarantee; and Contractor overhead and profit.

2. The Contractor shall perform an Investment Grade Audit of the following facilities:

Agency	***Facility Name***
General Services	Emergency Operations Center
	Materials & Research, DOT
	Mechanical Services, DOT
	Pillsbury Street - Old Labor
	Supreme Courthouse
	Walker Building

The Contractor shall gather and analyze information and data and propose a project to the State in a comprehensive energy audit report that would reduce the State's expenses for energy, water and related operations. The Investment Grade Audit shall be conducted at the Contractor's own expense. The Contractor shall conduct an on-site survey of the facilities and shall interview appropriate State personnel to learn the operating characteristics of the facilities and the existing equipment and systems therein.

The Investment Grade Audit shall identify all feasible energy conservation, load management, building envelope, water conservation; and renewable resource options for which the total cost savings benefits are expected to exceed implementation costs, including financing, over the term. The comprehensive energy audit shall also address the following options specifically identified by the State:

- Building Automated Control Systems
- Building Envelope
- Domestic Hot Water Systems
- Electric Distribution System and Transformers
- Equipment e.g. Compressors
- Heating, Ventilation and Air Conditioning
- Lighting Systems and Controls, including exterior lighting
- Plug-Load Control
- Premium Efficiency Motors and Variable Frequency Drives
- Renewable Energy
- Water Conservation
- Additional Measures

3. Contractor shall certify in writing that Contractor has a plan to coordinate all activities involving handling, transport, and disposal of hazardous materials, including asbestos, affected by the installation of Measures under this Agreement. Provided; however, that the State will enter directly into contracts with third parties for necessary handling, transport or disposal of hazardous materials (other than for mercury-containing lamps and PCB-containing ballasts) discovered by Contractor, as a part of such plan. If no hazardous materials are involved or affected, Contractor shall so assert.

The Investment Grade Audit shall present a detailed analysis and discussion of the Contractor's proposed ECMs at the State's facilities. It shall include a methodology for the calculation of the baseline energy use and a description of physical conditions, equipment counts, lighting audits, nameplate data, and control strategies prior to project implementation.

For each measure recommended, the Investment Grade Audit shall provide equipment counts, implementation costs, efficiency levels or performance characteristics of the equipment comprising the proposed measure, on-going maintenance costs, annual energy and cost savings, and the useful life of the measure. Projected energy savings must account for interaction among recommended measures.

There shall be a separate section in the comprehensive energy audit report for each building and an executive summary which lists all proposed ECMs with the implementation cost, estimated energy cost savings, useful life of the equipment, and the simple payback for each measure.

The report shall incorporate the following format:

Changes from the Original Proposal – provide a complete description of what changes have occurred from the original proposal to the completed Investment Grade Audit and explain why these changes were necessary. Include at a minimum for each ECM:

- Changes in quantities of equipment or fixtures,
- Changes in installation or equipment costs,
- Changes in equipment type and/or specifications,
- Changes in the implementation timeline, and
- Changes in the scope of work.

Measure Descriptions – provide a complete description of each proposed measure, which will include at a minimum:

- The proposed upgrade, replacement, or operational change;
- Existing equipment and fixture inventories;
- Waste recycling measures;
- Quantities, and make and model of all proposed new equipment;
- Interface between the proposed measure and existing equipment; and
- A cost and savings summary (Form E-2) and savings guarantees

Operation and Maintenance Services and Responsibilities – provide a complete description of the maintenance services that the Contractor will provide and a complete description of any maintenance actions for which the State will retain responsibility.

- Operation services to be performed by the Contractor
- Operation services to be performed by the State
- Training Services to be performed by the Contractor
- Maintenance services to be performed by the Contractor
- Maintenance to be performed by the State
- Repair response times and agreements

Measurement and Verification Plan – document the methods that will be used to calculate energy savings and convert them to cost savings, including the baseline that savings will be measured against and any provisions for modifying the baseline. Information to be provided includes:

- an energy baseline and the methodology used for the calculation of baseline energy consumption;
- the International Performance Measurement and Verification Protocol method to measure energy savings for each conservation measure and/or energy type after ECMs have been installed;
- the method to verify ECM compliance with requirements of standards of service and comfort;
- the method of determining guaranteed energy unit and cost savings and compliance with standards of service and comfort annually throughout the Term;
- the utility rate schedules to be used for calculating energy cost savings; and
- A clearly defined performance guarantee which indicates energy unit savings will be the basis of the guarantee and that guaranteed cost savings are extrapolated from the energy unit savings and baseline utility costs. Also include an outline of the process for reimbursing the state for any shortfall in the energy unit savings guarantee. In no instance will guaranteed cost savings be used as the sole condition for meeting the performance guarantee.

To establish the baseline, provide supporting documentation on:

- building physical condition;
- hours of use or occupancy;
- area of conditioned space;
- area of unconditioned space;
- inventory of energy consuming equipment or systems;
- energy consuming equipment operating conditions and loads; and
- standards of service and comfort observed (e.g. light levels and temperatures).

Describe the manner in which the Contractor shall secure the energy performance guarantee.

Installation Schedule – provide for each measure, a proposed implementation schedule with the following milestones:

- Design completed
- Permits
- Submittals (plans and specifications)
- Equipment/material acquisition
- Mobilization
- Installation
- Clean up
- Startup/testing, commissioning, initial Measurement and Verification
- Final inspection and project acceptance
- Post installation submittals
- Periodic Measurement and Verification, annual true-ups
- Training

Subcontractor and Equipment Vendor/Brand Schedules - provide a list of subcontractors (or possible subcontractors), and equipment brands and vendors.

Compensation Schedule – The Compensation Schedule should indicate any progress payments for construction through Project Acceptance and any regular payments after Project Acceptance for ongoing monitoring, operating, and maintenance services, if applicable.

Environmental Impact – Provide projected annual greenhouse gas reduction quantities for the total project based on the guaranteed energy savings. Utilize the following conversion coefficients in determining the gas reduction quantities for the type of energy indicated.

Electricity Savings (MM = 1 million, 3.412 MMBtu/MWh)

Carbon Dioxide	244.52 lb/MMBtu	834.31 lb/MWh
Sulfur Dioxide	0.53 lb/MMBtu	1.80 lb/MWh
Nitrous Oxides	0.21 lb/MMBtu	0.73 lb/MWh

Source: NH DAS, 2013

#2 Oil (Sulfur content 0.5%, M =1 million, 0.139 MMBtu/gal)

Carbon Dioxide	161.27 lb/MMBtu	22.38 lb/gal
Sulfur Dioxide	1.022 lb/MMBtu	0.142 lb/gal
Nitrous Oxides	0.00187 lb/MMBtu	0.00026 lb/gal

Natural Gas (MM =1 million, 0.1 MMBtu/therm (100 ft^3))

Carbon Dioxide	116.98 lb/MMBtu	11.70 lb/therm
Sulfur Dioxide	0.00059 lb/MMBtu	0.000082 lb/therm
Nitrous Oxides	0.0022 lb/MMBtu	0.0003 lb/therm

Propane (MM = 1 million, 0.09101 MMBtu/gal)

Carbon Dioxide	139.05 lb/MMBtu	12.65 lb/gal
Sulfur Dioxide	0.0006 lb/MMBtu	0.00009 lb/gal
Nitrous Oxides	0.006 lb/MMBtu	0.0009 lb/gal

Sources:
EIA (2012). Voluntary Reporting of Greenhouse Gases Program Fuel Emission Coefficients.

EPA (2011). AP-42, **Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources.**

Standards of Service and Comfort for the State facilities shall be as follows:

In conditioned areas, space temperatures will be maintained between 68°F and 76°F dry bulb (please consult with each agency about range) during the heating season and scheduled occupied periods. In no instance shall the lowest temperature in the building fall below 68°F during occupied periods (except in cases of boiler failure when a minimum temperature of 55°F must be met with backup heating sources until failed units can be repaired). These temperature requirements shall

also apply to buildings that have central cooling systems. In buildings with ventilation systems, outside air cannot be reduced below the quantities found in ASHRAE standard 62-89, "Ventilation for Acceptable Indoor Air Quality." Where control is available in office spaces, 20-60% relative humidity shall be maintained during periods scheduled for occupancy, or maintained at present building set points. Data centers shall have humidity settings that meet their own standards.

STANDARD HOURS OF OPERATION

Agency/Building	***Street***	***City***	***Zip Code***	***Square Footage***	***Usage Type***	***Area***	***Base Hours of Operation***
General Services							
Emergency Operations Center	*224 Sheep Davis Road*	*Concord*	*03301*	*67,644*	*Data Center*	*All*	*M-F (24hrs/day), COVID 19 (24hrs/day-7 days/wk)*
						Housekeeping	*M-F 3:00 PM - 11:30 PM*
Materials & Research, DOT	*5 Hazen Drive*	*Concord*	*03301*	*29,318*	*Office*	*All*	*M-F 6:00 AM - 4:00 PM*
						Housekeeping	*M-F 4:30 PM - 8:30 PM*
Mechanical Services, DOT	*226 Sheep Davis Road*	*Concord*	*03301*	*85,900*	*Repair Services*	*All*	*M-F 7:00 AM - 3:30 PM (Weekend Hours = Snowstroms etc.)*
						Housekeeping	*M-F 5:00 PM - 9:00 PM*
Pillsbury Street - Old Labor	*19 Pillsbury Street*	*Concord*	*03301*	*9,198*	*Office*	*All*	*M-F 7:00 AM - 4:30 PM*
						Housekeeping	*M-F 5:00 PM - 7:00 PM*
Supreme Courthouse	*1 Charles Doe Drive*	*Concord*	*03301*	*41,045*	*Courthouse*	*All*	*M-F 7:00 AM - 6:00 PM*
						Housekeeping	*M-F 6:00 AM - 3:00 PM*
Walker Building	*21 S. Fruit Street*	*Concord*	*03301*	*110,000*	*Office*	*All*	*M-F 8:00 AM - 4:30 PM*
						Housekeeping	*M-F 5:00 PM - 9:00 PM*

During unoccupied periods, the heating and/or cooling systems may be turned off. However, the systems must be so designed that before any high or low temperatures or humidity conditions that could damage equipment in the spaces can occur, the heating and/or cooling system will restart and control the temperature or humidity as required. In any case, temperatures must be restored to the 68°F - 76°F range by the start of the next occupied period.

Hot water to kitchen areas will be supplied at a temperature of 120°F. Domestic hot water for bathrooms, showers and hygiene purposes shall be delivered at a temperature between 85°F and 110°F. All other domestic hot water temperature requirements must meet applicable NH plumbing code standards.

Minimum lighting levels shall be in accordance with applicable Illumination Engineering Society (IES) standards for each type of space and activity as of the time of the Measure installation. It is recommended a sampling of light level readings be taken at various locations before considering lighting upgrade options. This will assure post-retrofit light levels will be adequate and that lighting upgrades will not be based on existing light levels which may be below or above IES standards.

The key personnel assigned responsibility for the conduct of the comprehensive energy audit shall be identified in writing prior to the commencement of the comprehensive energy audit, and shall be subject to the approval of the State. Proposed changes in the key personnel also shall be subject to State approval.

The State agrees to allow the Contractor access to its facilities during normal working hours for the purpose of gathering information required for the Investment Grade Audit and to cooperate with the Contractor in providing timely, complete, accurate, and pertinent information. If it has not already done so, the State shall furnish, or cause its energy suppliers to furnish, accurate and complete data concerning energy usage for the facilities for a recent 24-month period.

The Contractor agrees that this Investment Grade Audit shall be completed and delivered to the State within ____weeks of the signing of this Agreement by both parties.

Within 15 business days of receipt of the Investment Grade Audit, the State may request in writing additional information about any proposed measures. In such event the Contractor agrees to provide, at no additional cost to the State, detailed engineering and financial calculations and to identify all assumptions and inputs underlying the recommended ECMs and services. The Contractor will submit the requested information within 15 business days of receipt of the request from the State. Upon receipt of the information from the Contractor, the State may, within 5 days of receipt of the initial response from the Contractor, request additional information about the recommended program. The Contractor shall have 10 days to respond to the second and any subsequent requests for information, and the State shall have 10 days to respond. These requests for information may involve attempts to resolve deficiencies in or material objections to the proposed Project. This process may continue until (a) the parties resolve the deficiencies and objections and the State accepts the comprehensive energy audit report; (b) the State and the Contractor mutually select an acceptable engineering firm to decide whether the recommended ECMs are feasible and the proposed costs and savings are reasonable; or (c) either party decides to pursue its legal rights in an appropriate forum. The State shall not be responsible for expenses incurred by the Contractor for providing additional information needed to clarify, review or modify the Investment Grade Audit after the initial presentation by the Contractor.

This Agreement in no way binds the State or the Contractor to enter into any future agreement for any purpose.

This Agreement shall become effective and binding upon approval by the New Hampshire Governor and Executive Council pursuant to RSA 4:15.

EXHIBIT B

Payment Terms

1. The Investment Grade Audit shall be conducted at the Contractor's own expense.
2. The Contractor shall be solely responsible for any and all costs incurred by the Contractor for work performed by the Contractor in preparation of the Investment Grade Audit prior to the Governor and Executive Council approval of this agreement. The State shall have no obligation to reimburse the Contractor for its expenses relating to the work performed in the preparation of the Investment Grade Audit prior to approval by the Governor and Executive Council.
3. If the State elects not to proceed after accepting the Contractor's Investment Grade Audit, or if the State and Contractor cannot agree on the contents or manner of incorporation of the Investment Grade Audit within 30 days after its submission, then this Agreement shall terminate and the State shall pay the Contractor $_____ as compensation for the preparation of the Investment Grade Audit, unless:
    a. The Investment Grade Audit does not comply with the terms of the Agreement,
    b. The total energy savings set forth in the Investment Grade Audit are less than 85% of the total energy savings proposed by the Contractor in its proposal, unless the quantity and scope of ECMs changes as a result of changes such as the following: different building operating assumptions provided by the State, addition or removal of ECMs from the project scope by the State, or changes in financial parameters as noted in item 3. c. below,
    c. The net financial benefit set forth in the Investment Grade Audit is less than 85% of the net financial benefit proposed by Contractor in its proposal, unless changes in financial assumptions occur relative to those made in the RFP response, including factors such as the following: interest rate, finance term, energy rates, added M&V or O&M requirements, changes in building codes, added costs for scope not providing additional energy savings such capital improvements or architectural enhancements, and extended or phased construction schedule, or
    d. An agreement between the Contractor and the State that provides for an alternative compensation arrangement.

    In these events, the State shall have no obligation to reimburse the Contractor forth cost of preparing the Investment Grade Audit and may use any information contained in the report or implement any of its recommendations with no cost or obligation to the Contractor.
4. Payment shall be paid within thirty (30) days after receipt of invoice. Said payment shall be made by means of a check mailed to the address in Paragraph 1.4 of this contract. Upon such payment, the Investment Grade Audit shall be the property of the State.
5. If the total energy savings set forth in the Investment Grade Audit are within 15% of the Contractor's original proposal and the State enters into a Performance Contract with the Contractor based on the State's "Model Agreement for Guaranteed Energy Performance," the cost of the Investment Grade Audit shall be included in the cost of the Performance Contract.

Insert Certificate of Authority, SOS Authorization, Certificate of Insurance

Exhibit 1
Energy Savings Guarantee, Measurement and Verification Plan, and Commissioning Procedures

In this Exhibit, document the methods that will be used to calculate energy savings and convert them to cost savings, including the baseline that savings will be measured against and any provisions for modifying the baseline. Information to be provided includes:

1. an Energy Baseline and the methodology used for the calculation of baseline energy consumption;
2. the method to measure energy savings for each energy type after Energy Conservation Measures have been installed;
3. the method to verify Energy Conservation Measures compliance with requirements of Standards of Service and Comfort;
4. the method of determining energy savings and compliance with Standards of Service and Comfort annually throughout the Term; and
5. the utility rate schedules to be used for calculating energy cost savings.

To establish the baseline, provide supporting documentation on:

1. building physical condition;
2. hours of use and occupancy;
3. area of conditioned space;
4. area of unconditioned space;
5. inventory of energy consuming equipment and systems;
6. energy consuming equipment operating conditions and loads;
7. standards of service and comfort observed (e.g. light levels and temperatures).

Indicate the commissioning procedures and performance tests that will be followed for each Energy Conservation Measure, prior to Energy Conservation Measure acceptance, that shall demonstrate full compliance with the design and implementation standards set forth in this Agreement.

Describe the manner in which the Contractor shall secure the energy savings guarantee.

Utilize the following table to indicate potential Annual Dollar Savings and the Energy Savings Guarantee.

Year	Annual Potential Energy Savings ($)	Annual Guaranteed Energy Savings ($)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
TOTAL		

Annual Potential Savings: These energy savings are the difference between the Baseline energy use and the energy use after implementation of the Energy Conservation Measures. This approach requires the adoption of a measurement and verification protocol for the life of the Agreement.

Annual Guaranteed Savings: The amount of Annual Measurable Savings the Contractor will guarantee is consistently achievable with this Agreement. The Annual Guaranteed Savings will be the basis for financing the Energy Conservation Measures outlined in this Agreement.

Utilize the following table to indicate Guaranteed Annual Energy Savings in appropriate energy units.

Year					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
TOTAL					

Form E-2: Summary of Proposed Energy Conservation Measures – (Cost Only)

Transfer from Form E-2 to show the total project cost for every ECM category.

Summary by Category for All Buildings

Measure I.D. Category	Project Costs ($)
TOTALS	