# BOMA Energy Performance Contracting Model [BEPC]

Improving energy performance and creating value through energy performance retrofits

Value Service provider Partnership Streamlined Retrofits Building value Net operating income investor Confidence Project Energy savings commercial REAL ESTATE



PRODUCED BY THE BUILDING OWNERS & MANAGERS ASSOCIATION (BOMA) INTERNATIONAL

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The Building Owners and Managers Association (BOMA) International is a federation of 91 BOMA U.S. associations and 17 international affiliates. Founded in 1907, BOMA represents the owners and managers of all commercial property types including 10.4 billion square feet of U.S. office space that supports 1.8 million jobs and contributes \$227.6 billion to the U.S. GDP. Its mission is to advance a vibrant commercial real estate industry through advocacy, influence and knowledge. Learn more at <u>www.boma.org</u>.

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# **BEPC 101**

The BOMA Energy Performance Contracting (BEPC) Model provides building owners and operators simplified methods and best practices for undertaking energy efficiency projects as a means for <u>enhancing asset value</u> by improving energy efficiency. BEPC uses a performance-based contracting model that reduces risk so that capital investment to improve financial and environmental performance can be covered by the energy and operational savings created by those improvements. The toolkit includes a number of resources that can be used to execute an energy efficiency retrofit project:

- Advice on best practices in project development and execution;
- Contract template and supplemental language; and
- A series of model documents and templates that can be used to streamline project development and contracting, for use with the BEPC contract template or without if an owner prefers to use their own standard contract.

#### **About BOMA International**

The Building Owners and Managers Association (BOMA) International is an unbiased provider of resources and solutions to facilitate voluntary, business case driven market transformation of the built environment. BOMA has worked with real estate industry leaders and energy service companies to develop an industry vetted, standardized, and simplified model to address barriers to greater efficiency and sustainable real estate. BOMA also provides educational resources to support understanding of the key value and business case drivers for increased energy efficiency. For example, real estate professionals and service provider partners have access to education, information sharing and case studies through the annual BOMA International Conference and Every Building Show. BOMA has also developed classroom and webinar based programs focused on sustainability, such as the Sustainable Operations Series (SOS) and BOMA Energy Efficiency Program, or "BEEP" as it's more commonly known. One of the BEEP courses specifically focuses on the EPC processes and the BEPC Model.

The BEPC Model is a collaboration between BOMA and major service provider partners, real estate organizations and other leaders. BOMA would like to formally thank the Rocky Mountain Institute, Los Angeles Better Buildings Challenge, Trane, Siemens, Johnson Controls, ABM Building Solutions and Jonathan Furr, senior counsel at the law firm of Holland & Knight, who provided independent legal and EPC contracting expertise to the development of this program. All contact information for these and other partners can be found in Appendix K.

# **BOMA Energy Performance Contracting Model (BEPC)**

For over 100 years, the Building Owners and Managers Association (BOMA) International has supported the development of best practices within the real estate industry through research, education, and advocacy. In the spirit of this tradition, in 2007, BOMA partnered with the Clinton Climate Initiative (CCI) and collaborated with major real estate companies and energy service companies (ESCOs) to identify the historical barriers to investment in energy efficiency in the commercial real estate sector. The outcome was to develop a model to help owners/operators execute cost-effective energy efficiency retrofits to drive greater value in investment real estate through simplified, standardized Energy Performance Contracting (EPC) approach. This toolkit reflects a 2015 update to the BEPC model, incorporating lessons learned from projects and programs that have been implemented using BEPC or similar models, as well as changes in the energy retrofit industry over the last decade. In addition, the BEPC suite of tools provides template documents to aid with service provider selection, bidding, and project development, as well as an industry-vetted service contract.

#### **Benefits of Energy Retrofits**

There are many benefits to energy efficiency retrofits for building owners, operators and tenants. Owners/operators improve operating efficiency and better manage operating costs. New building systems and technologies allow for better control of temperature and indoor air quality, which improves occupant comfort and supports greater tenant satisfaction and retention. Improving energy efficiency also creates potential for improved tenant attraction and retention, as tenants enjoy a lower overall cost of occupancy and because tenants are increasingly demanding greener buildings. The BEPC model can be used not only for improving energy performance, but also as an important step to obtaining ENERGY STAR, LEED, Green Globes, BREAM, Green Star, Net Zero Energy and other certifications. A more exhaustive list of benefits to owners and tenants can be found in Appendix H.

In addition, investments in new, more efficient building systems drive better asset value by:

- Incorporating state of the art building systems that are more valuable than older, antiquated equipment nearing the end of its useful life and allow for changing tenant demands, such as increased densification;
- Reducing risk of functional and economic obsolescence by facilitating LEED, ENERGY STAR and other market driven sustainability certifications that are increasingly demanded by tenants and investors;
- Demonstrating willingness to invest in building operations, financial and environmental performance, enhancing property, investor and owner brand and marketing position;
- Positioning the property to be more competitive in the market due to better management of overall operating costs, including energy and other natural resources, waste reduction, and potential insurance cost reductions; and
- Reducing risk of disruption to tenant businesses from equipment failure or higher cost emergency repairs by proactively managing equipment replacements.

# **Removing Historical Barriers to Investment in Energy Efficiency**

Certain common issues have historically created barriers to the financing and execution of energy efficiency retrofit projects in multi-tenant commercial investment real estate. It is in the context of these challenges that BOMA has developed the BEPC model.

Historical Barriers to Adoption	BEPC Solutions
Short Hold Periods	Recently, focus has shifted towards a
When cap rate compression is the strategy for	"value creation" approach that is not
creating value and the asset can be sold at any	driven by cap rate reductions but by
time, deeper investments in efficiency are more	enhanced investment in property
difficult to execute. In this situation, many	performance, marketability, and function
owners are reluctant to incur <u>any</u> obligations	to support better leasing velocity,
that may complicate a future sale. This creates	occupancy and higher net operating
a myopic focus on short-term results that	income and thus asset value. BEPC can
eliminates many of the more robust energy	help create value by taking increasingly
efficient systems, which may require 5-10 years	functionally obsolescent buildings through
to pay back. The result is a bias toward short	a renovation of key operating systems to
payback projects, such as lighting retrofits.	make the building more operationally
	efficient and better able to handle the
	increased energy/resource demands of
	today's tenants.
Owner/Tenant Split Incentive	
Most private sector real estate assets are	Many leases contain clauses that permit
held by non-occupying owners. This	owners to pass-through the capital costs of
factor, combined with net or modified	efficiency improvements to the extent that
gross lease structures where multiple	these costs are offset by a reduction in
tenants/lessees pay utilities either directly	operating expenses. The BEPC model
or through reimbursements, largely	includes clear demonstration of reduced
insulates the owner not only from rising	energy and operating costs; subject to
energy costs, but also from the cost	lease requirements, owners utilizing BEPC
savings benefits of investment in	may be able to pass through the amortized
improved energy efficiency. The result is	cost of the energy retrofit to the tenants.
an owner with limited incentive to invest	
in energy efficiency. Similarly, while the	In addition, there are increasing
tenants pay for energy costs, they won't	opportunities to engage tenants around
proactively invest in long-term capital	efficiency investments to demonstrate to
improvements for a building they do not	tenants the value and benefits to their
own.	business due to such investments. With
	clear demonstration of benefits, tenants
	typically are supportive of investments in
	retrofits that help to lower operating costs
	and improve comfort.

Investment Capital Constraints Most owners have finite capital availability to invest in their properties and energy efficiency projects must compete with other high-priority building improvements, such as refurbishment of common areas and tenant improvements. In addition, system renovations or replacements are often not included in the additional underwriting of the asset. These factors significantly limit the availability of capital for a comprehensive energy efficiency program.	Because of the rigorous process and flexible templates used in the BEPC model, it may be possible to access one of the growing sources of third-party capital for energy efficiency improvements if the owner would prefer not to use its own capital. These alternative financing vehicles include Property Assessed Clean Energy (PACE), Energy Service Agreements or Efficiency Service Agreements (ESAs), or Power Purchase Agreements (PPAs). More detail on financing options is included in Appendix C.
<u>Collateral Issues</u> Commercial property assets are typically owned by an unrated limited-liability company (a special-purpose vehicle specifically created to own that asset) and will have a mortgage under which all real property improvements are pledged under a first priority lien in favor of the mortgagee. While the LLC may have a large parent, generally speaking the parent does not guarantee the obligations of the LLC. This makes debt financing options of efficiency investments not only more challenging but also more costly due to the perceived risk of a non- rated or newly formed special purposes entity that owns the real estate.	BEPC is designed to work with the common financing structures and models in the market, many of which commercial lenders are participating in nationwide. BEPC includes the option of M&V and energy savings guarantees that can be as rigorous as required by lenders, and can easily conform to ratepayer or other local or national programs.

# State of the Building Energy Efficiency Industry

More than ever, measurable energy efficiency is at the forefront of economic, energy security, and climate change agendas. In many markets today, all levels of government are focused on energy efficiency and clean energy, including proposed new rules for states to implement and measure CO2 reduction plans. Many local governments are requiring disclosure of energy consumption data in buildings, and may even require owners to demonstrate improvements in the efficiency of their buildings. Utilities, required to meet ambitious energy reduction mandates, are investing billions of dollars in incentives for new building equipment and systems that show persistent reductions that can be measured. Beyond the arguments for compliance and risk mitigation, there are financial benefits to improving energy efficiency – both for building owners and for tenants. The competitive advantages of maintaining ENERGY STAR or LEED-certified buildings have been shown in numerous studies from an occupancy, net operating income and asset value perspective. Further research shows that high-quality tenants are increasingly demanding high-performance energy efficient space.

The service and financial industry has evolved to meet this growing demand – there are more service providers than ever who can perform energy modeling and robust audits, assess energy conservation

measures and provide performance guarantees of the work. Several companies now offer energy savings insurance to service providers, expanding the options for performance guarantees. In addition, concepts such as integrated project design, whole-building modeling and lifecycle cost analysis are being embraced by traditional design-build firms as well as by energy service companies (ESCOs) and specialty engineering firms.

Similarly, the options to finance performance-based energy efficiency retrofits have expanded. New models, such as Property Assessed Clean Energy (PACE) financing, are being developed around the country, and traditional lenders are underwriting long-term projects that have measurable savings. In short, the motivation to execute a performance-based retrofit as well as the options to design, execute and finance these projects continues to grow.

## What is Energy Performance Contracting?

The process outlined in this program uses the concept of energy performance contracting (EPC) and related best practices in contracting as a mechanism for carrying out projects to reduce energy use in existing buildings. For over three decades, EPC has been offered by Energy Service Companies (ESCOs) as a self-financing mechanism to pay for energy efficiency retrofits and capital improvements from utility and operational savings. However, due to its complex and lengthy development and contracting timeline, EPC has largely been confined to the public sector, where building owners are generally longer-term holders of their real estate and have found lenders willing to lend on the "full faith and credit" of the public entity.

The BOMA Energy Performance Contracting (BEPC) Model is a refinement of this innovative contracting concept, which uses guaranteed savings to repay the cost of the project. In creating the BEPC Model, key aspects of the project development and implementation process have been streamlined via boiler-plate documents, including the BOMA Energy Performance Contract template itself. In the BEPC Model, the owner sets the financial and environmental parameters and the service provider<sup>1</sup> audits the building(s), designs the project, establishes a maximum project cost, calculates minimum energy savings, and acts as the prime contractor for project implementation, providing ongoing measurement and verification (M&V) of project performance after completion. With the standardized BOMA Energy Performance Contract template and associated energy performance assurance language options, there is an opportunity to reduce the time it takes to complete these types of projects from 18 - 36 months down to 12 months or less. Further, since the contracts, energy exhibits and contract language samples are standardized, real estate professionals need not become experts in performance contracting or energy performance guarantee provisions to execute a successful project. If a building owner has a standard contract they would prefer to use, the owner can still follow the BEPC Model and use the "BOMA Energy Performance Exhibits" documents as supplements to their own contract. All of these documents and templates are included in Appendix G.

<sup>&</sup>lt;sup>1</sup> The service provider could be an ESCO, a design-build contractor or a traditional contractor – any entity able to provide the scope of services and provide a performance guarantee, if desired by the owner. For the purposes of this document, the term service provider will be used generally.

Under a typical EPC the service provider (either directly or through energy savings insurance) financially <u>guarantees</u> the energy savings that will be achieved, assuming project risk and compensating the owner for any savings shortfalls. This can necessitate extensive M&V efforts, adding project costs. In this 2015 revision of BEPC, concepts like "energy assurance" versus "energy performance guarantee" have been added to reflect the evolution of EPC in the market, and key energy-related contract provisions were identified as a means to allow organizations to use their existing contracts but include these important safeguards.

The BEPC Model includes options for contractually measuring and ensuring performance:

- 1. Traditional multi-year performance guarantee provided by service provider or third party insurance company; includes extensive M&V for the life of the guarantee.
- 2. Short-term performance assurance a short-term guarantee (for example for the first year of the project) to make sure the project was properly executed and commissioned and the expected savings materialize, after which no further guarantees or ongoing M&V is required.
- 3. No guarantee in which the service provider acts more as a consolidated designer/contractor, bringing whole building, integrated energy efficiency design expertise but does not guarantee any actual savings.

For more background and details about some key concepts in energy performance contracting projects, see Appendix I.

# **Best Practices in Efficiency Retrofits**

BEPC promotes a series of energy performance contracting best practice Terms and Conditions for project procurement, development, and contracting that help to set projects up for success and achieve optimal results. These terms and conditions, similar to what the U.S. Federal Government and other large customers have negotiated with the ESCO industry, are meant to promote transparency, protect building owners'/operators' financial and operational interests, and encourage an atmosphere of open partnership and shared mission between building owner/operator and service provider. These best practices can be applied regardless of contracting methodology, and building owners should understand and consider these best practices early in the project development process.

Project Terms and Conditions	Benefit to Owner
<b><u>Clear Goals</u></b> Owner defines clear financial, performance, savings or other goals and any other metrics of success that the service provider can aim for in project development. At the pre-project stage, financial goals should be kept as broad as possible to allow the service provider room for creativity. After the initial opportunity assessment and prior to beginning the design-development or audit phase, owner should communicate concrete project- specific financial and performance requirements to aid in decision-making as ECMs <sup>2</sup> are considered.	"Casting a wide net" initially and narrowing down the final scope based on clear performance metrics leads to the most optimal balance of innovation and cost- effectiveness.
Whole-Building Approach The service provider and owner should approach the whole building in project development. All potential opportunities should be considered, and then the comprehensive scope refined to meet owner's project requirements.	Every building offers unique opportunities. Rather than limit the scope by prescribing a "list of retrofit measures," owners should encourage the project team to exhaust all possibilities and put forth the most holistic project possible. Project teams should have the ability and willingness to consider a broad spectrum of energy conservation measures.
<b><u>Transparent Energy Consumption Baseline</u></b> This baseline must be developed in collaboration with building staff and understood and agreed upon by both the owner and the project team in order to facilitate project scoping and avoid possible future disputes over savings calculations.	It is impossible to calculate savings accurately or confidently without a clear baseline. Owners should consider hiring an external expert if these skills are not available internally.

<sup>&</sup>lt;sup>2</sup> ECM = energy conservation measure – a specific piece of equipment, building system or other intervention meant to reduce energy consumption

Lifecycle Cost Analysis & Business Risk Assessment Consider operational and maintenance savings, synergies between ECMs and potential revenue streams from incentives and greenhouse gas reductions risk mitigation when evaluating cost effectiveness. Owners should think through how the proposed retrofit affects the asset's overall risk profile considering utility rate risk, regulatory exposure, systems reliability and up-time, re-tenanting risk, exit cap rate, etc.	Operations and maintenance (O&M) savings can be significant, and certain ECMs, when implemented in combination, achieve savings greater than the sum of their parts. While sometimes difficult to calculate, these factors are real and should not be overlooked. The impact of changing regulations, such as building energy disclosure and labeling, cap and trade and the GHG emissions reductions that they will require, can factor in to project scoping decisions. Project teams should be able and willing to provide this project analysis and the owner should incorporate it into their business case.
<u>Vendor Neutrality and Open Protocol</u> with regard to recommendations for specific technologies/services. The project team should evaluate any equipment recommended for upgrade/replacement without bias towards a specific manufacturer. Any controls of software overlays installed should ideally be open source.	Owner can be confident that the most appropriate, most cost-competitive technologies are selected. Owner will have service/maintenance flexibility with regards to controls and/or software platforms.
<b>Transparent Pricing</b> Project teams should be able and willing to provide full transparency in pricing of materials, equipment, soft costs and labor, including all contractor margins, overhead and profit, labor burden, corporate burden, fees, as well as any costs for insurance and bonding, for all services and materials, whether self- performed or sub-contracted. Contractors should identify any pieces of work that will be self-performed, and demonstrate that pricing is competitive either by seeking multiple bids or through another means acceptable to the owner.	Price transparency allows owners to understand and negotiate the cost structure of the project before agreeing to proceed, make confident investment decisions, ensure value for money, and confirm inclusion of gain sharing/cost reduction strategies. This provision can also be used to satisfy competitive bidding requirements of ownership.
<ul> <li>Some examples of transparent pricing methodologies include:</li> <li>Total materials costs, labor costs, and overhead, insurance and contingency for the whole project or by energy conservation measure;</li> <li>Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts; and</li> <li>Breakdown of final cost for each intervention, as well as total amount of soft costs and service provider overhead and profit.</li> </ul>	

Firm Investment Proposal	A fixed maximum cost and minimum
<ul> <li>By the end of the audit or design development process, the owner should have a firm investment proposal for the final scope, including a Guaranteed Maximum Price (GMP) and minimum projected savings for the recommended project.</li> <li>This might be presented in a number of ways, such as: <ul> <li>Total cost and savings by type of measures, with savings broken down by fuel type, other (non-guaranteed) savings, such as labor, operating costs, tenant impacts or other value factors;</li> <li>Total materials costs, labor costs, and overhead, insurance and contingency for the whole project or by energy conservation measure;</li> <li>Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts; and</li> <li>Breakdown of final cost for each intervention, as well as total amount of soft costs and service provider overhead and profit.</li> </ul> </li> </ul>	guaranteed savings allow the owner to make investment decisions with confidence in the capital outlay and accurately budget and efficiently source capital.

	1
Project Team "Performance Guarantee"	A savings guarantee provides confidence
The project team should have the ability and willingness to	that the project will be executed and
provide certainty that the work installed will perform as	perform as designed. Assured cost savings
expected by providing some form of performance assurance.	allows the building owner or operator to
This can be accomplished through bonding, energy savings	calculate the actual return on the
insurance, a more traditional performance guarantee, or	investment in the project, definitively
through transparent base-lining, commissioning and M&V.	model future cash flows and create a
	financial model with confidence. These
At the end of the audit process, the service provider will	contractual terms can help access third-
provide the owner with a <i>fixed minimum guaranteed</i> annual	party capital for the project.
energy savings, measured in kWh or other units of energy	
consumption and converted to dollars (or other currency)	With a shorter-term (for example, one year)
based on a cost per unit of energy at the time the contract is completed.	guarantee, the owner gets the benefit of confirmed project implementation and performance in the short term without long
Guarantee periods can extend from 1-25 years, during which	term cost of M&V. However, the owner
the service provider executes $M\&V^3$ at a cost to the owner. If	must assume risk of ongoing operations
the savings is not realized on an annual basis, the service	and maintenance and repair and
provider (or insurance provider) will make the owner whole by	replacement of the installed equipment in
paying for any savings shortfall. The performance guarantee is	order to ensure savings persist.
backed by the service provider or a third party insurance	
provider and the contract should make clear how and when	
the owner is reimbursed for any shortfall.	
Timing and Credit for Savings	
The contract should be clear about when substantial completion	How and when savings are calculated are
of the project occurs, when calculation of ECM savings begins,	details that can often be overlooked, but
and the specific periods for savings measurements, as well as	are important for the integrity of project
how savings accrue. For example:	performance and owner return on
<ul> <li>Savings during one period should not be "carried over" as</li> </ul>	investment. These terms can be negotiated
credit for future periods;	in many ways, but clarity, specificity and
<ul> <li>Savings that accrue before substantial completion should</li> </ul>	mutual understanding can help avoid
be considered in the agreement; and	disagreement about savings credits later.
<ul> <li>For a performance-based procurement model<sup>4</sup>, any actual</li> </ul>	
cost savings below that target are_shared between the	
service provider and the owner in a negotiated split (often	
50/50). This model requires full transparency of consultant	
fees and margins.	

<sup>&</sup>lt;sup>3</sup> M&V: measurement and verification. Periodic measurement and calculations of the ECMs, as agreed upon in the contract (or through a standard M&V protocol such as the IPMVP) used to determine the savings performance of the project.

<sup>&</sup>lt;sup>4</sup> See examples at: <u>http://www.nrel.gov/sustainable\_nrel/rsf.html</u> and <u>http://www.rmi.org/rmi/Whole%20System%20Thinking%20and%20Integrative%20Design</u>

<b><u>Commissioning</u></b> Thorough commissioning of all new equipment/systems and retro-commissioning of all affected systems and sub-systems should be done to realize the full efficiency gain from the new equipment and to ensure that new and existing systems are working together efficiently.	Too often new equipment is not properly commissioned, leading to sub-optimal design performance and savings shortfalls.
Robust ongoing monitoring, measurement and verification (M&V) of savings Ongoing M&V should be performed in accordance with international best practices, the International Performance Measurement and Verification Protocol (IPMVP). Ongoing monitoring-based commissioning should also be considered.	The owner should fund and plan for robust ongoing measurements of project performance and ongoing commissioning This is essential in order to preserve the savings stream and prevent erosion of savings over time. This information can be shared with tenants and other stakeholders to celebrate successes and encourage further improvement. Owners should consider hiring an external provider if these resources and skills are not available internally.

# **BEPC Project Development Process**

Under the BOMA BEPC Model, owners and service providers work together to determine a set of energy conservation measures (ECMs) that meet owner operational and financial requirements, and then implement the ECMs through the BEPC structure. There is no contract signed until the owner engages a service provider to conduct a detailed project audit, and with a well-designed audit contract (a customizable sample is provided in the Additional Resources section), the owner is not at risk of paying for an audit of a building where the service provider is not able to propose a project that meets the owner's investment criteria. The owner is not making any kind of financial or legal commitment by simply choosing a service provider.

Building retrofit projects can seem daunting and complex, but no matter what contracting methodology is used, project development can be broken down into four phases.

	Phase 1	Phase 2	Phase 3	Phase 4
	Pre-Project	Project Development	Project Implementation	Measurement & Verification
Key Tasks	<ol> <li>Create a vision, build internal buy-in amongst key stake- holders and decision-makers</li> <li>Define project goals and financial criteria</li> <li>Choose sites</li> <li>Gather data &amp; drawings</li> <li>Identify potential funding sources and constraints</li> </ol>	<ul><li>assessment &amp; develop baseline</li><li>3. Negotiate investment grade</li></ul>	<ul> <li>y construction contract</li> <li>2. Implement project scope</li> <li>3. Install additional M&amp;V infrastructure t as necessary</li> <li>e4. Commission all work &amp; retro- commission all impacted systems</li> <li>5. Project hand-off should include proper staff training</li> </ul>	<ol> <li>Monitor post-retrofit performance (in- house and/or 3<sup>rd</sup> party)</li> <li>Take corrective action as necessary</li> <li>Implement preventative maintenance plan</li> </ol>

#### Figure 1: BEPC project development process

## Benefits of BEPC recommended process:

- Owner/operator controls the process and specifies all project criteria
- No financial commitment from owner until acceptable project is developed
- Balances risk and gain sharing to maximize innovation
- Streamlined project development
- High confidence of project implementation

# Phase 1: Pre-project - Define Owner Commitment and Criteria

Developing a successful energy efficiency retrofit project requires a partnership between the owner and the project team, with commitment on both sides. Top-flight energy efficiency professionals are in high demand. Owners should signal that they are serious about moving forward with a project by communicating their financial and performance goals to the respondents and by taking the initiative to gather the relevant information that the respondents need in order to evaluate the feasibility of meeting those goals. It can be quite costly for service providers to pursue a given project, so in the context of a competitive procurement process the more the owner can do up front, the more interest the owner will get from the best contractors.

#### Create a Vision, Build Internal Buy-In to Process

The critical first step for planning and executing a successful energy performance contracting project is creating an overarching vision for what the company seeks to accomplish and why. This helps to prioritize potential projects in a strategic fashion, build internal support for the effort, and get each project through the planning process and into implementation.

It is also critical at this stage that owners understand the key components of an energy performance contracting project (see Appendix I for a review of key concepts) and the process by which a BEPC project is procured and developed. One of the main objectives of the BEPC approach is to enable owners to evaluate opportunities before investing capital in a project and to shift the risk associated with project feasibility, design, development, and performance to the project team. There can sometimes be tension between contractors and owners when contractors are not confident that the owner is serious about proceeding with a project. In the BEPC recommended process, the owner selects a preferred service provider *before* requesting significant investments of time and resources by the project team. Once a project team is no longer in a competitive environment, they will dedicate the time and resources to develop an investment grade project that meets the owners' financial objectives. Both sides' expectations of deliverables and risk sharing must be clearly laid out and agreed to upfront.

#### Set Clear Goals to Guide the Process

A key first step to any successful BEPC project is for the owner to determine the metrics for success early in the project development process. Having clear investment criteria makes conversations with external service providers and internal financial decision-makers go more smoothly, since all parties are clear on what constitutes a "successful" proposal. The owner must define its main goals with as much specificity as possible and translate these goals into quantifiable criteria. These requirements become part of the project scope that guides the service provider in their analysis and are eventually incorporated into the contract language, so it is critical for the owner to be clear on what these metrics are at the beginning of the project development process.

Key criteria to define:

- Hurdle rate minimum Internal Rate of Return (IRR) or required return on investment (ROI);
- Simple payback vs. life cycle costing;
- Other cash flow or operating expense reductions requirements;
- Desired outcomes, such as LEED certification, ENERGY STAR Label, Green Globes, or other specific improvements in rating;
- Desired building functionality enhancement benefits, such as ability to accommodate increasing tenant demand/heat load and improved comfort, to proactively address system antiquation or preempt impending functional obsolescence; and
- Percentage of energy and/or water consumption to be reduced.

## Example:

Unless replacing a piece of equipment at the end of its useful life, ECMs must be projected and/or guaranteed to:

- Achieve a minimum 10% unlevered internal rate of return;
- Be cash-flow positive in year two, factoring in all rebates, energy and operational savings;
- Produce energy and operational savings sufficient to cover any debt service payments; and
- Yield a blended simple payback of 5 years or less across the entire project.

Beyond identifying any known, specific project opportunities (i.e., there is a need for a new chiller or new roof), the project scope should not specify a "list of retrofits" or total project cost, but rather focus on financial and environmental *outcomes* so that the service provider is able to be as creative as possible in achieving the owner's desired goals. In doing so, the owner should see proposals that have both some similar recommended ECMs as well as very different approaches, enabling service providers to use their engineering and operational expertise to design the best possible project to achieve the owner's stated goals.

## **Consider Potential Funding Strategies**

Energy efficiency retrofits can be capital intensive, and the options for funding depend on the types of measures being considered, the location of the building, and numerous other factors. The owner must consider potential funding options at the beginning of the project planning stage in order to be confident that a project can actually be funded and implemented once developed. (See Appendix L for further discussion of methods to fund energy efficiency retrofits.)

As part of the initial planning stage, building owners must be able to answer the following questions:

- Will the owner self-fund the project from capital reserves, the operating budget, or other existing funding sources?
- Will the owner seek third-party financing, such as an equipment loan or lease, PACE, or ESA from outside sources?
- Will the owner ask the project team to provide financing options as part of the scope of services?

## **Project Site(s) Selection**

There are a number of factors for an owner to consider when selecting suitable project site(s) for an EPC project. In general, the facility should match the owner's overarching project goals with the opportunities that the portfolio offers. For example, if the primary goal is to reduce operating costs by a certain percentage, buildings that have greater than average operating costs would be the first target; whereas if reducing the carbon footprint or achieving the Energy Star label is the goal, buildings that are "energy hogs" or are located in markets with a highcarbon energy mix should be chosen.

However, even buildings that are LEED or ENERGY STAR certified should still be considered, particularly if there are modernization and functional obsolesce objectives to be addressed. It is also important to remember that BEPC can support not just improved efficiency but more importantly value enhancement objectives.

Some qualities that might make a building a good BEPC candidate include:

- Excessive or higher than market annual utility costs with savings opportunities;
- Equipment/systems are outdated or near the end of their useful life;
- Relatively consistent energy-use patterns over several years relatively consistent facility use (i.e. office, bank, etc.) and stabilized occupancy;
- Access to several years of utility records;
- Assets identified for strategic repositioning (such as desire for LEED certification);
- Assets that are already planned to undergo a major capital improvement;
- Assets rating below a 75 on ENERGY STAR although with improving technology, even ENERGY STAR labeled buildings have opportunities; and
- Larger facilities with complex building systems.

It can make economic sense to combine several facilities into a single project offering. Although the projects need not be executed simultaneously, multiple building projects with excessive energy costs are usually very attractive to service providers and may allow the owner to get improved overall pricing, financing terms and greater execution efficiency by obtaining a greater number of energy improvements through a single procurement.

## Summary: Owner Responsibilities in Phase One

- Ensure that goal setting with key decision makers occurs ahead of commencing the project. Define specific project goals including specific energy reduction targets, value creation objectives and financial criteria. Identify key problems that the project will address and include all value creation benefits as well as any anticipated risks both with moving forward or not executing the project. Understand key decision makers' criteria for approval and what metrics and outcomes (aside from replacing specific components) are important.
- Assign a Project Manager to oversee the energy efficiency project and serve as a primary point of contact throughout the process. If the organization does not have an internal project manager, hire a third party provider. Appendix K has a list of some BEPC partners who can provide these kinds of services.

- Create a project-dedicated cross-functional team to enable timely decision making. This team should include or receive approval directly from: financial, legal, procurement, building operations, engineering, and other key decision-makers.
- Compile key information, including at a minimum each building's annual energy consumption, utility spend and copies of twelve months of energy bills, as well as age, size, systems information, and date of any previous upgrades. See the "Property Information Summary" in the Additional Resources section below for a comprehensive example of key information to collect.

# Phase 2: Project Development: Select Service Provider and Assess Opportunity

#### **Select Service Provider**

BEPC projects can include long-term contractual relationships, so choosing a service provider should be viewed as creating a partnership. The process of selecting a service provider is akin to selecting an architect. The owner assesses the service provider's track record, financial strength, creativity, technical skill, and pricing, then chooses one firm to proceed to project development.

The BEPC recommended process is to use an RFQ/RFP process to select a service provider based on qualifications, fixed cost items such as profit margin, labor rates and general conditions costs, as well as owner requirements (such as having any sub-contracted components competitively bid). This approach allows owners to assess service providers' skills and pricing and meet potential contractual obligations for competitive bidding (by property management agreement or investor partners) while developing mutual understanding of the project. After selecting a service provider, the owner and the service provider proceed to the audit and project development phase. If the process described in this guide is followed, the owner has no money at risk until or unless the selected service provider makes a firm investment proposal for a project that meets the owner's predefined investment criteria. The owner can pursue this strategy and still incorporate the best practice terms and conditions described above (such as requiring transparent pricing, integrated design, energy modeling, etc.) and meet competitive bidding requirements by requiring that the audit include competitive bidding of project components. Please see the sample RFQ/RFP and additional tools for evaluating proposals provided in the Library of Documents for additional information.

#### **Service Provider Selection Process**

- 1. Release RFQ/RFP
- 2. Review responses
- 3. Interview short-listed respondents
- 4. Select team, sign letter of intent

A BEPC project team will require a variety of skills, resources, and capabilities including project management, design, engineering, construction management, commissioning, and M&V. Before releasing the RFQ/RFP, the owner should consider what type of firm is most appropriate to have in the prime role based on the scope of the project. For example, if the majority of the anticipated scope involves upgrades to HVAC systems, then it will be most cost-effective to have a Mechanical Contractor in the prime role, whereas if the project will involve tight coordination of multiple trades, a General Contractor might be more appropriate. One RFQ/RFP might get responses from a variety of potential prime service providers. Depending on their business models, the service provider that will serve as the prime may be able to perform certain services, but are expected to leverage their networks to round out the project team with the requisite skill-sets for the project at hand in response to the RFQ/RFP. For example:

- A construction management company (CM) The CM assembles a project team comprised of itself as the "prime" contractor, an architecture firm, and MEP engineers, offering to competitively bid all work but giving its team a chance to bid (which they expect should win).
- An energy services company (ESCO) / design-build contractor: The ESCO proposes on its own, offering a performance guarantee and a fully turn-key project, working under BEPC Best Practices.
- A real estate developer: The real estate developer assembles a project team with itself as "prime" contractor, along with a CM, an architect, and MEP / commissioning engineers, proposing to source financing for the project as well as bid all work.

The service provider selection process can be as formal or as informal as the owner wishes, depending on the owner's procurement requirements and desired implementation timeline. Some companies have existing relationships with service providers and may prefer to work with those firms; some may wish hold informal meetings and interviews to choose a service provider partner; others may use a more formal Request for Qualifications (RFQ) process followed by a Request for Proposal (RFP).

Sample documents/templates to aid the procurement process (See Appendices):

- Property Information Summary
- Sample Evaluation Criteria
- RFQ Template
- Combined RFQ/RFP<sup>5</sup> template
- RFP Template

<sup>&</sup>lt;sup>5</sup> Under the "Combined RFQ/RFP" approach, the owner requests a technical walk-through in advance of the qualifications interviews so that the owner can discuss the results of the service providers' preliminary assessments at the interview as an additional means of selection. It is advisable that the owner/operator have key technical staff present at the interview to ask questions, judge the service providers' technical acumen, and help to assess the service providers' general project execution approaches. Please note the combined RFQ/RFP is the "preferred BEPC approach."

# • Technical Interview Questionnaire

To begin the process, the owner should provide the service providers with the information contained in the Property Information Summary (a sample is included in the Additional Resources section) along with the RFQ or the Combined RFQ/RFP. This information enables the service providers to better understand the opportunity, to judge whether the selected building(s) is likely to contain a viable project, and to determine whether the given service provider's particular expertise is suited to execute. This information also makes the technical walk-through, if required, more productive.

The RFQ/RFP should contain all of the information a respondent needs in order to assemble the rest of the service provider's team and prepare for the selection process, including:

- Project goals and investment criteria
- Site information (property information summary)
- Procurement process and timeline
- The desired overall project team composition, skills and structure
- Expected response content and format
- Evaluation process and criteria
- Project development process and expected timeline

The response to the RFQ/RFP will provide the owner with the respondents' different approaches and capabilities as well as their fee structure and margins. Based on this information, the owner can select a service provider through an interview process, and then proceed to a more detailed analysis of the building(s) with the selected service provider before a contract is signed.

# **Conduct Preliminary Assessment & Begin to Develop Consumption Baseline**

Once a service provider has been selected, it will proceed to analyze the building facility more deeply to further develop the preliminary scope of work. This Toolkit refers to this stage as the preliminary assessment<sup>6</sup> (PA). Under the BEPC contracting framework, there is no binding contract signed until the owner and the service provider are sufficiently confident that the owner's financial criteria are achievable. However at this PA stage, a non-binding letter of intent between the owner and the chosen service provider may help to indicate both parties' commitment to proceed to design development should the preliminary analysis prove promising.

To develop the PA report, the service provider must conduct at least one site visit and have access to plans and drawings, as well as to building staff and occupants for interviews. It is important that the service provider involve the owner in the process of developing the energy consumption baseline, ensuring that the owner understands how the baseline is adjusted, and how savings are calculated. All analysis conducted in developing the PA report should be shared with the owner prior to execution of the audit/design development contract so that both parties have a clear understanding of the potential project scope and the expected financial "metrics for success."

<sup>&</sup>lt;sup>6</sup> The Preliminary Assessment may also be referred to by other names, such as a desktop audit, walkthrough audit, etc.

To facilitate the owner's analysis of the PA report, the service provider should provide cost and savings information for each proposed ECM in a clear format with any assumptions clearly stated, including the level of accuracy for any savings/cost projections. Bearing in mind that the savings and costs estimated in the PA report will be further refined in the audit phase, owners should evaluate the preliminary proposal against internal financial criteria to begin refining the project scope in collaboration with the service provider. Please see the "ECM Screening Tool" provided in the Additional Resources Section.

## **Determine Method for Funding Project**

It is important to note that after signing the project development contract there is a binding commitment on both parties, so confirming that funds will be available if the project meets owner/operator criteria is critical at this stage. If the owner is not able to proceed with the recommended project after the project proposal is presented because of an inability to secure financing, the owner will be liable for the negotiated walk-away fee. Appendix L has more information about different sources of third-party funding for energy retrofit projects.

# **Execute the Investment Grade Audit Contract**

Throughout the RFQ/RFP and preliminary assessment processes, the owner assumes no cost or risk. However, since significant engineering and design work is required to develop a firm investment proposal and scope of work, the service provider will require that a binding contract be put in place before beginning the investment grade audit (IGA).<sup>7</sup> This investment grade audit contract commits the owner to proceeding with the project so long as the service provider is able to deliver a firm investment proposal that meets the financial "metrics for success" that both sides agreed to, based upon the results of the PA report.

Under the BEPC model, if the service provider is unable to develop a project that meets the owner's stipulated investment criteria, there is no charge for the audit.<sup>8</sup> However, the IGA contract includes a "walk-away fee" to cover the service provider's engineering and design costs should the owner elect not to proceed with a project that <u>does</u> in fact meet the investment criteria.<sup>9</sup> If the proposed project meets the owner's investment criteria and the owner moves forward, the cost of the design work can be rolled into the overall project cost.

As a result of the more detailed IGA, the project scope will be refined such that costs, savings, projected returns, and costs for any additional desired outcomes (e.g., ENERGY STAR or LEED certification) will be finalized. In order to define the savings, the IGA process will include establishing a representative annual energy consumption baseline for all utilities and fuel types (e.g., gas, water, electric, etc.), which is why providing hard/electronic copies of actual utility

<sup>&</sup>lt;sup>7</sup> This toolkit uses the term Investment Grade Audit (IGA) to refer to the process of developing the exact cost and savings aligned with a specific bundle of ECMs that results in a firm project cost and savings that can be used for investment analysis purposes. This process may be referred to by other names such as energy audit, design-development, project proposal, etc., but these processes often do not have the same rigor of fixed costs and savings as the BEPC IGA. <sup>8</sup> This stipulation is included to disincentivize the service provider from inflating savings estimates or underestimating

costs in the PA stage.

<sup>&</sup>lt;sup>9</sup> This stipulation is included to assure the service provider that they will be fairly compensated so long as they can deliver a project that meets the owner's investment criteria.

bills is required. The costs and savings laid out in an IGA report are financially *guaranteed* or assured, depending on the owner's preference, by the service provider performing the work.

At a minimum, an Investment Grade Audit should include:

- Integrated, whole building analysis showing the savings of the entire package of proposed ECMs, including all benefits that are gained by evaluating the project as a whole (for example, if due to the additional roof insulation, heating loads were reduced and a smaller boiler was needed);
- Detailed cost information, annual cost savings, annual maintenance cost impacts, simple payback, return on investment, expected life and environmental impacts for each proposed ECM (costs and savings should be fixed, definite numbers in the IGA report, not estimates);
- Full analysis and definition of base year consumption for each fuel and utility type; and
- Full description of the analysis methods, calculations, data inputs, and all technical and economic assumptions.

Many of the best practices in energy efficiency performance contracting come into play in the design development phase and therefore should be included in the contract. The owner should consult with legal counsel to review contracts if additional expertise is required. See the Additional Resources section for a "Sample Investment Grade Audit Contract." Whatever agreement is used, the owner should understand, define, and explicitly request the following key elements in a design development contract:

Owner-defined Investment Criteria: Based on the preliminary proposal, the owner and the service provider agree on attainable quantifiable financial returns and energy savings outcomes before signing the contract to begin the IGA phase. The same type of specific criteria provided in the owner's initial project requirements should be used in the design development contract to define the metrics for a successful project proposal.

These success metrics can be expressed in different ways, such as simple payback, return on investment (ROI), internal rate of return/hurdle rate (IRR), operating cost savings (total or per square foot), etc. Goals can also be expressed in non-financial terms, for example, percent reduction in energy use, desired energy or environmental certification or GHG emissions. The owner can define multiple criteria, but they should be feasible to attain together – i.e., a 20 percent energy reduction with a two-year simple payback may not be possible. The definition of success, how it will be measured, and how the service provider should demonstrate success (what specific information will be provided) should all be stated in the contract.

- Site Constraints: The owner should communicate any site constraints or restrictions that may affect the design and construction schedules, including timing restrictions and local issues (permitting, etc.) that will affect the price and timeline of the project.
- Deliverables: The contract should clearly state the expected deliverables. Typically the service provider should conduct an audit at the beginning of the design development phase and

produce a project proposal at the end. This proposal should project a guaranteed maximum price and known savings for the final project scope.

- <u>Transparent Baseline Consumption Analysis:</u> Full analysis and definition of baseline consumption for each fuel and utility type. Again, this baseline should be developed in consultation with the owner to ensure both sides agree that it accurately reflects the building's pre-retrofit performance.
- <u>"Biddable" Design Documents:</u> The contract should clearly state that at the end of the design development phase, the project proposal should be complete enough to accurately develop a guaranteed maximum price for the total project. Design documents should be "biddable" (75-100 percent complete) at the end of this phase so that the owner can be sure that they are getting accurate costs.
- <u>Costs and Savings Breakdown for each ECM</u>: For each proposed energy conservation measure, the service provider should provide detailed cost information, projected annual energy savings (unit and cost), annual operational and maintenance cost impacts, financial return metrics, expected life, and environmental impacts, as well as a full description of the analysis methods, calculations, data inputs, and all technical and economic assumptions.
- <u>Measurement & Verification Plan</u>: As part of the project proposal, the service provider should specify the details of the M&V Plan, which method(s) will be used, and the ongoing cost of M&V to the owner.
- Ownership of the Work: It should be clear in the contract that the owner intends to engage the service provider to perform the work so long as the owner's criteria and contract requirements are met. The contract should state that, after compensating the service provider for the work, the owner will retain ownership of all analysis and other work performed during this phase, providing it is not the intellectual property of the service provider.
- Owner and Operator Commitment: The owner must agree to provide, to the best of its abilities, information requested by the service provider, as well as adequate access to the facility.
- Project Schedule: The service provider should propose a schedule for the design development phase work and both parties must agree to act in good faith to keep to the schedule outlined in the contract.
- Details of Walk-away Fee:
  - <u>Fee Amount</u> The cost for design development generally varies between 10 and 50 cents<sup>10</sup> per square foot, but costs could be higher or lower depending on the complexity of existing equipment and the effort required for collecting accurate data. There are economies of scale possible, however, which can reduce audit costs per square foot in large facilities. This can be expressed as a fixed cost or as a percentage of total project cost.

<sup>&</sup>lt;sup>10</sup> Based on BOMA/Industry experience and research.

BOMA Energy Performance Contracting Model (BEPC)

- <u>Payment Terms and Conditions</u> The owner should only pay the fee if the service provider finds a project that meets the owner's/operator's defined criteria and the owner decides not to proceed with project implementation.
- Conformance with Best Practices Terms and Conditions The contract should include clear language defining how the service provider will adhere to the best practice framework requested by the owner/operator, including transparent pricing, vendor neutrality, etc. This is also the place to define bidding requirements, such as competitive bidding. The section above on BEPC Best Practices gives more detailed information.

The cost of an investment grade audit is roughly 6 and 12 cents per square foot, but costs could be higher or lower depending on the size of the building and complexity of existing equipment and the effort required for collecting accurate data. There are economies of scale possible, however, which can reduce audit costs per square foot in large facilities. The time required to complete design development varies according to the facility's size, complexity, and the availability of data, but typically takes about three to six months. Building staff will need to budget sufficient time to interface with the service provider and to ensure that the team has adequate access to the site and any additional data needed to conduct their analyses.

# **Execute the Investment Grade Audit**

During the process of carrying out the design development, project scope is refined through an iterative process according to the owner's financial and other criteria. ECMs that do not appear feasible should be eliminated, and those that appear likely to be feasible should be explored further. In evaluating ECMs for inclusion in the final scope, owners should bear in mind synergies between ECMs, operations and maintenance (O&M) savings, environmental benefits, and other decision factors described in the best practices section above. At the end of this process, the owner should have a firm and final project defined, along with an M&V plan and all of the numbers and documentation needed to assess the investment opportunity. Before proceeding to the construction contract, the parties should be able to confirm that the proposed pricing is in line with market rates. While the intent is for the service provider to implement the final scope, this confirmation lends greater confidence in the process and helps the owner meet any competitive bidding requirements from partners, investors, or management agreements. Please see Appendix L (Additional Resources) for a sample ECM Screening Tool that can be used to facilitate this process.

Upon receiving the results of the IGA, the owner and the service provider will together review the recommended ECMs to determine which will be included in the final scope of the project. The owner should preserve the integrity of this bundle of measures as much as feasible since in a well-designed retrofit the savings from ECMs are interdependent. For instance, if window replacement is part of a bundle, taking that out would impact not only energy savings but also the other equipment selected. Since the audit results contain information that will be incorporated into the BEPC contract, the owner should conduct a rigorous technical and financial review of the audit information before finalizing the contract.

## Summary: Owner Responsibilities in Phase Two

• Determine a process to select a service provider and define the process in a written

document for the service providers – see the Additional Resources Section for sample RFQ, RFP, and Combined RFQ/RFP documents that can be easily edited to meet project specific or owner/operator goals.

- The document(s) should contain all of the information the service providers need in order to prepare for the selection process (whether it is an informal meeting, a formal interview, walk-through assessment or written response).
- The document(s) should be supplemented with the information outlined in the "Property Information Summary" which can be found in the Additional Resources Section.
- Select initial list of service providers to review by pre-qualification through high-level review of service provider capabilities, financial strength and project history.
- Conduct timely service provider review process including interviews, technical walkthroughs and opportunity assessments as desired in order to select a service provider to proceed to preliminary assessment/IGA.
- Ask for, analyze and accept integrative bundles of energy conservation measures (ECMs). In typical building projects, ECMs are designed in isolation, not benefiting from interactive benefits that lead to better building performance and greater savings. (For instance, upgrading roof insulation will reduce heating and cooling loads, potentially reducing the size of the mechanical system.) Ask for whole building, hourly energy simulation to analyze and develop project and support M&V efforts.
- Understand and explicitly request key elements and best practices in the negotiations of the IGA contract.
- Provide all documentation, such as as-built plans and utility bills, required for the execution of the IGA.
- Determine method of funding the retrofit project.

# Phase 3: Project Execution: BOMA Energy Performance Contract Template

#### **Execute the Contract**

Once the scope of work has been finalized, the design completed, and the guaranteed maximum price negotiated, the owner and the service provider proceed to negotiate the construction contract. The BOMA Energy Performance Contract template is an industry vetted, standardized contract that defines the design, construction, and ongoing measurement and verification of the project. BOMA has worked with top real estate companies and energy service companies to create the standardized BOMA Energy Performance Contracting Model, which includes the contract template and associated sample energy assurance language/ exhibits and documents - all of which can be found in the appendices to this document. The contract template is intended to standardize most aspects of the EPC process and addresses the key complex criteria for performance guarantees and performance assurances, measurement and verification, etc. Many companies will be able to use the contract in its current template format or with some modifications, allowing the real estate company to focus on price and scope of work, much like the American Institute of Architects (AIA) construction contracts. Others may choose to use their own contract form but with BEPC energy assurance language and/or exhibits so they are able to focus not only on price and scope of work but also on insurance, indemnity, and, among other key provisions. Owners, operators and service providers will best determine what the approach should be, which will be heavily influenced by project-specific criteria.

Most key elements have been generally accepted by major ESCOs and several large real estate companies, so there is no need to become an "expert" and negotiate a unique contract. This being said, BOMA recommends that each owner seek appropriate legal advice. Also see "Top Ten Business Issues in Energy Performance Contracting" in the Additional Resources Section.

#### **Implement Final Project Scope**

As in the design development phase, the owner will need to budget time to assist the service provider in staging the installation of the ECMs. Construction may go on for over a year, and since the service provider is often working on systems that affect occupied space, there may be a need to perform work after-hours or provide swing space for tenants. This obviously affects the cost and timing of the project and should be addressed early in the process before the construction phase.

The M&V plan developed in the design phase should supply sufficient data to monitor post-retrofit performance. M&V infrastructure and services will be funded by the owner as part of the total project cost and should be identified in preliminary and IGA proposals. This infrastructure will be installed at the same time as the ECMs. Appendix J offers further discussion of M&V and its crucial importance.

#### **Commission All Installed Equipment & Retro-Commission Impacted Systems**

As ECMs are installed, it is critical that each piece of equipment and the affected systems are properly commissioned. To avoid potential conflicts, the owner may require commissioning to be carried out by a third-party specialist during project development. Appendix I, on key concepts in energy performance contracting, contains further discussion about this issue. Proper commissioning ensures that the ECMs perform as designed and that the owner is getting the full value of the retrofit. See the

Retro-commissioning Introduction and Suggested Best Practices documents in the Additional Resources.

## Project Hand-off, Staff Training, and Updating of O&M Docs

Following project implementation, proper training is critical to ensuring the continued performance of the building. The service provider should provide training on all systems, not just those that were replaced or adjusted. The service provider should also work with relevant existing service contractors to ensure that they are reliable sources for service of each of the critical systems included in the work. These service contactors, as well as the building staff, should be included in the implementation phase wherever possible in order to enhance their ability to provide effective long-term support for the optimized facilities. By including existing/preferred vendors in the process, the vendors also get an introduction to the *cultural* changes that are occurring within the building operations team. BOMA also provides ongoing educational programs, such as the five course curriculum known as the BOMA Energy Efficiency Program (BEEP) and the Sustainable Operations Series (SOS) to help support the sharing of on-going best practices in operational excellence. Lastly, once the retrofit project has been completed, make sure to update operations and maintenance documents, including building preventative maintenance platforms and processes (e.g. incorporate new maintenance procedures, warranty requirements and servicing guidelines in all O&M documents).

# Phase 4: Measurement & Verification (M&V)

The mere presence of new equipment does not guarantee optimal performance; ongoing maintenance, measurement and verification, and performance evaluation are critical to the long-term success of EPC projects and also for the enforcement of the performance guarantee, if applicable. The owner and/or operator as well as the service provider have responsibilities in this ongoing process, as outlined in the BEPC contract. Even in a short-term performance assurance option, post-implementation performance should still be closely monitored, though without the same level of M&V associated with a performance guarantee approach.

If the owner or operator is not capable of executing proper operation and maintenance of the project(s) after the retrofit, the owner/operator should request a proposal for such services from the implementing or other service provider. In this circumstance, the owner/operator would need to execute a separate contract to ensure such proper operation and maintenance is provided to ensure performance goals are achieved.

#### **Monitor Post-retrofit Performance**

M&V is absolutely critical to the long-term success of any energy retrofit project. All M&V procedures required for either a long-term performance guarantee or a shorter energy performance assurance will be funded by the owner/operator as part of the project cost (and which should be identified as included in preliminary and IGA cost proposals), and undertaken by the service provider. Whether performed in-house or by a third party, M&V should be carried out in accordance with the International Performance Measurement & Verification Protocol (IPMVP). Additional levels of M&V can be arranged to achieve LEED requirements or to calculate and document the reduction in GHG emissions for purposes of carbon accounting. Appendix J gives further information on this topic.

#### **Implement Preventive Maintenance Plan & Take Necessary Corrective Action**

Systems tend to drift from their optimal settings after implementation, and new issues arise over time as building environments inevitably change. Measurement of post-retrofit performance is only useful to the extent that corrective action is taken as issues are identified. This process has been termed "Monitoring-based Commissioning," and refers to the process of optimizing building operations on a continuous basis. As with the M&V, this function can either be carried out with inhouse resources or may be contracted to a third party.

# **Appendix A: Combined RFQ/RFP Template**

Please Note: This document is intended to be a template and should be viewed as a starting point for negotiation and further refinement.

This "Combined RFQ/RFP Template" is the BEPC Model "preferred" approach as it streamlines the process. This template is intended be used in place of both the RFQ and RFP templates.

[FIRM NAME] [ADDRESS] [CITY, STATE, ZIP]

[DATE]

[SERVICE PROVIDER] [ADDRESS] [CITY, STATE, ZIP] **RE: Invitation to Present Qualifications and Project Approach** 

Dear XXX:

[FIRM NAME] is interested in utilizing the BOMA Energy Performance Contracting (BEPC) Model for a building energy efficiency retrofit project to help [FIRM NAME] achieve its internal energy efficiency and broader value creation objectives, as more fully set forth in this letter. To that end [FIRM NAME] will select the service provider or providers ("SERVICE PROVIDER") that in [FIRM NAME]'s judgment can most effectively assist [FIRM NAME] in developing and implementing an energy and operational improvement project ("Project") that meets [FIRM NAME]'s financial and environmental goals. [FIRM NAME] is initiating the project in a [group of] building[s] representing, in its estimation, the best opportunity[s] for achieving energy and operational savings.

[FIRM NAME] intends to use an expedited selection process to choose a SERVICE PROVIDER and begin the technical audit process, generally as follows:

 Written Qualifications due
 Non-Disclosure Agreement due
 Drawings & utility data shared by FIRM NAME
 Technical walkthrough
 Interviews
 SERVICE PROVIDER selection
 Investment Grade Audit (IGA) contract negotiation

 IGA commences
 IGA final results presentation
 Development of Guaranteed Maximum Price Proposal
 BEPC contract negotiation
 BEPC contract execution
 Begin installation
 Substantial completion
 M&V commences

As noted above, technical walk-throughs of the selected site[s] are scheduled to take place between [DATE 1 and DATE 2]. [FIRM NAME] operations staff will accompany the [SERVICE PROVIDER] representatives on the walk-through to answer site-specific questions. Please see attached Project Background (Appendix 1), and Property Information Summary (Appendix 4). Available drawings, utility data, and other relevant information will be provided upon review of [SERVICE PROVIDER]'s statement of qualifications and execution of a Non-Disclosure Agreement.

Interviews to discuss [SERVICE PROVIDER]'s qualifications and specific approach to the project will take place between [DATE 1 and DATE 2] at [FIRM NAME]'s offices, located at [ADDRESS]. Please see Appendix 1 for additional details on the interview format and topics to be covered.

The group of [SERVICE PROVIDER] representatives present at the interview should include the individuals who will have responsibility for the project's development and execution, and who will be the primary points of contact for [SERVICE PROVIDER].

To schedule the meeting, submit any written responses, or to clarify [FIRM NAME] expectations and answer any questions relating to the project, please contact: [CONTACT NAME] [TITLE] [EMAIL] [PHONE]

Thank you in advance for your time.

Sincerely,

[NAME] [TITLE]

## Appendices to RFQ/RFP Template:

- 1. Project Background & Interview Agenda
- 2. [FIRM NAME]'s Expectations for the Project
- 3. Content of RFQ Response
- 4. Property Information Summary

# Appendix 1 (to RFQ/RFP Template) - Project Background & Interview Agenda

# **Facilities**

[FACILITY ADDRESS]

#### Project Goals

[FIRM NAME] wishes to achieve several financial, environmental and other goals through this project, including:

[LIST FINANCIAL AND NON-FINANCIAL GOALS HERE - EXAMPLES INCLUDE]

- Achieve at least 20 percent reduction in energy and water use;
- Increase facility's Energy Star rating and/or obtain the Energy Star Label;
- Incur no initial capital costs (with option for Customer to provide initial capital if desired);
- Address tenant comfort concerns;
- Address specific components that are end of useful life;
- Achieve LEED EBOM Certification; and
- Ascertain cost savings with a SERVICE PROVIDER guarantee (with option to eliminate part or all of the guarantee after a number of years) or savings assurance (where project and associated savings are assured through year one but without long term measurement and verification costs/burden).

#### Financing Strategy

[FIRM NAME] intends to fund the cost of the EPC project by:

- □ Self-funding
- □ Financing from bank, SERVICE PROVIDER, utility or other provider
- Other: \_\_\_\_\_\_

#### Interview Agenda (1 - 1.5 hours total)

- 1. Project approach based on site visit and data provided
- 2. Points of contact
- 3. Licenses held
- 4. Team structure, work self-performed, work sub-contracted
- 5. Capacity to execute the work
- 6. Agreement with BEPC Best Practices
- 7. Fee for Investment Grade Audit
- 8. Percent margin on labor and materials

SERVICE PROVIDER is <u>not</u> expected to provide:

- Budget estimates
- Savings estimates
- Analysis of particular measures

# Appendix 2 (to RFQ/RFP Template) - [FIRM NAME]'s Expectation's for the Project

[FIRM NAME] expects to use the BOMA Energy Performance Contracting (BEPC) model, including the Investment Grade Audit Contract and Performance Contract for this project. [FIRM NAME] expects SERVICE PROVIDER to support the BEPC Best Practices Terms and Conditions, and will be using these as one of the criteria for selection. These Terms and Conditions are summarized below.

#### Accurate Savings Projections

At the end of the audit process, the SERVICE PROVIDER will provide the owner with transparent savings projections based on a calibrated energy model, with the level of accuracy clearly stated along with the % reduction from baseline. In addition, FIRM NAME may ask SERVICE PROVIDER to offer:

- □ *Energy Savings Insurance* policy to backstop projected energy savings. If the savings is not realized, the owner will be made whole for any savings shortfall over the term of the policy.
- □ *Fixed minimum guaranteed* annual energy savings, measured in kWh or other units of energy consumption and converted to dollars (or other currency) based on a cost per unit of energy at the time the contract is completed (supported with a financial guarantee backed by the service provider. If the savings is not realized, the owner will be made whole for any savings shortfall over the term of the guarantee.

#### Guaranteed Maximum Price (GMP)

At the end of the audit process, the SERVICE PROVIDER will provide a GMP for the recommended project. The owner and the SERVICE PROVIDER will sign a contract to implement a project with a *known, fixed maximum cost.* 

#### Transparent Pricing

SERVICE PROVIDERs will be as transparent in pricing the project as the building owner requests. Some examples of transparent pricing methodologies include:

- Total cost and savings by type of measures, with savings broken down by fuel type, and other (non-guaranteed) savings, such as labor and capital savings;
- Total materials costs, labor costs, and margins for the whole project or breakdown of total labor costs, total material costs, labor margin and materials margin by energy conservation measure (ECM);
- Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts;
- Breakdown of final cost for each intervention, as well as total amount of soft costs and SERVICE PROVIDER overhead and profit; and
- Additional information to ascertain that competitive bidding requirements have been met.

## Standard M&V Protocol

SERVICE PROVIDERs will use one of four standards provided in the International Performance Measurement and Verification Protocol (IPMVP) protocols to measure and verify energy savings.

# Appendix 3 (to RFQ/RFP Template) - Content of RFQ Response

Respondents' Statements of Qualifications for this project shall not exceed [X] pages. Submissions should, at a minimum, describe the following:

## TECHNICAL QUALIFICATIONS AND PERSONNEL EXPERIENCE

Complete overview of the firm including, but not limited to:

- Name and address of firm.
- List of licenses, certifications and other relevant designations held.
- Telephone number, fax number, and e-mail address for project procurement related inquiries.
- Name of principal contact at SERVICE PROVIDER.
- Proof of ability to conduct business in State.
- Summation of audited financial statement.
- Number of years of experience in performance contracting and guaranteed savings.
- Number of years of firm and local project team experience in identifying, designing and managing the construction of energy and utility conservation projects, especially at similar facilities to this project.
- The range of project sizes (in \$) your firm has undertaken in the past and/or would be willing to undertake today.
- A list and resume of individual experience for key personnel within SERVICE PROVIDER (including expected key points of contact for this project) and for key sub-consultants.

#### SUMMARIES OF SIMILAR PAST PROJECTS

- 1. Provide a minimum of [#] summaries of similar projects where your firm has provided a performance contract in the range of \$\_\_\_\_\_\_ to \$\_\_\_\_\_.
- 2. For each project, provide an executive summary. Information given in the executive summaries should include but not be limited to the following information:
  - Name of client.
  - Indicate whether the project was completed on original schedule. If not, please explain.
  - Identify any financial resources contributed by a third party e.g., utility rebates, state grants, tax incentives, etc.
  - Description of the building(s).
  - Description of all energy and water conservation measures implemented.
  - Identify all prime contractors or subcontractors and any other pertinent information relating to the project.
  - Projected annual energy savings and demand reduction (in kWh or BTUs) and project annual energy cost savings (in \$).
  - Actual annual energy savings and demand reduction achieved (in kWh or BTUs) and actual annual energy cost savings.

- Indicate whether on-site renewable energy generation was part of the project. If so, describe the system, its total installed and annual operating costs, its annual power generation, and explain how it was financed.
- 4. Provide a list and project summary of <u>all</u> entities over the last 15 years of the company that:
  - Have canceled or non-appropriated a performance contract with the respondent (list reason).
  - Have past or pending lawsuits or litigation regarding a performance contract with the respondent (list reasons).
  - Have past "out of court" settlements regarding a performance contract (list reasons).
  - In addition to litigation, provide a complete list of all projects nationwide where there was either a criminal indictment or a conviction relating to the conduct of a performance contract. This includes officers and representatives of the company as well as public officials connected with the project.

Please provide an acknowledgement letter stating all the statements/responses to item #4 are true and accurate, signed by an officer of the respondent company (please include title of company officer). Failure to provide accurate and complete information will be viewed as unresponsive.

## APPROACH TO PROJECT DEVELOPMENT AND MANAGEMENT

- 1. Explain your company's organizational structure and management approach to projects in this region. Include the following information:
  - All local and national personnel in your firm that you are intending to use on this potential project. Information should include but not be limited to:
    - Title
    - Years of experience in energy management and energy conservation services
    - Years of experience working in this particular region
    - Examples of energy conservation measures executed on projects in the past (can overlap with the "references" section above)
    - Educational background
    - Number of years with firm
    - Professional licenses held
  - Generally explain your method for contracting and sub-contracting the installation of the measures and maintaining cost competitive pricing.
  - Describe your audit, design engineering, and construction management approach and quality control procedures.
  - Explain whether your company manufactures or maintains contractual agreements to sell or otherwise represent specific brands of facility systems or equipment and your approach to maintaining product independence.

- Explain your company's flexibility in terms of assignment of Operation and Maintenance responsibilities to SERVICE PROVIDER or customer facility personnel.
- Explain your approach to providing "transparent" pricing for costs imposed by the SERVICE PROVIDER on the building owner throughout project implementation, and how you interpret the term.
- Please explain how potential hazardous materials encountered in the installation of energy conservation measures will be managed.
- Please explain your firm's and major sub consultants' policies and practices for education and training of their staff to assure the staff is current on development of new technologies or enhancements to existing technologies.
- (Other.)<sup>1</sup>

## □ EXPERIENCE WITH LOCAL PROGRAM SUPPORT AND INCENTIVES

- 1. Describe your firm's experience with local, state, and national grant programs and energy and utility conservation incentive programs. Explain which programs in particular you may seek to use for this project and the process you would follow for accessing them.
- 2. In addition to the personnel profiles offered in the section above, please describe local project personnel experience in working with these local, state, or national programs and incentives that can be used to provide technical assistance or financial support.

## COMPUTATION OF BASELINE

- 1. Describe in detail the methodology your firm uses to determine energy and utility use for the calculation of baseline energy use in a facility. Provide examples of how a make-whole payment would be calculated in the event that energy savings are not realized. Please provide examples showing clearly how the baseline would be adjusted and how a make-whole payment would be calculated in the event that building occupancy, use, or intensity of use were to change in the future (up or down). Also explain how this methodology differs between buildings with individual tenant metering and buildings which do not employ individual tenant metering.
- 2. Provide a comprehensive energy audit that your firm has completed on a <u>describe type of</u> <u>facility</u> facility (this document may be attached as an appendix in your response).

<sup>&</sup>lt;sup>1</sup> If there are additional Terms and Conditions, bidding requirements, etc. that the SERVICE PROVIDER should discuss, describe them here.

## PERFORMANCE GUARANTEES and PERFORMANCE ASSURANCES

- 1. Describe your firm's energy and cost savings guarantee and energy and cost savings assurances policies and procedures (if applicable).
- 2. Describe your firm's contractual documents for an energy savings guarantee as well as under a savings assurance whereby performance is assured for year one but not over the long term.
- 3. Briefly describe your approach to measurement and verification to calculate and confirm postinstallation savings. Please describe whether and how your firm has used IPMVP to guide this process in the past.
- 4. Describe your firm's capacity to monitor the energy usage (both pre and post retrofit) and verify energy savings, providing information on equipment capabilities and personnel to analyze data.

## □ RANGE OF SERVICES

- 1. Briefly list the range of energy and utility management services provided by respondent.
- 2. Describe your firm's ability to retro-commission existing building systems and the process for doing so.
- 2. Describe your experience with installing and utilizing metering on buildings, equipment or systems to facilitate the measurement of energy use and energy savings.
- 4. Describe your firm's approach to and experience with on-site facility staff training. Particular attention should be paid to the training of on-site facility staff to provide ongoing operations and maintenance of equipment beyond the term of the EPC contract.
- 5. Describe your firm's policies for commissioning systems that are upgraded or installed during the course of the EPC term. <u>FIRM</u> requests that such services be incorporated as part of the project scope for the EPC.
- Address standard tenant and O&M staff energy education packages incorporated into the implementation of energy efficient retrofits in previous projects. Include occupant education, O&M staff training, and any continuing education that occurs after the commissioning process is complete.

## □ FINANCIAL INFORMATION

- 1. To demonstrate financial soundness and stability of your firm, in addition to the summary of an audited financial statement requested above, provide most recent annual report appendix or other documentation establishing the firm's financial stability and credit-worthiness.
- 2. Explain how your company addresses issues of liability, property damage, and worker's compensation insurance.
- 3. (Optional) Demonstrate your firm's ability to provide or arrange project financing with sample financing arrangement proposed for this project.<sup>2</sup>
- (Optional) Provide specific examples of projects where your firm has directly financed or procured financing on a customer's behalf, including tax exempt leases, bonds and other financing mechanisms, for EPC projects with terms up to <u>#</u> years.
- 5. (Optional) Provide information to assure that your firm, or the financial partner your company would propose to work with on this project, can provide the financial strength to guarantee at least \$\_\_\_\_\_ dollars of capital investment during the term of the contract.
   <u>FIRM</u> reserves the right to internally fund the capital costs of any or all projects.

<sup>&</sup>lt;sup>2</sup> If an "off balance sheet" approach is of particular interest to an institution, indicate that you would like to know whether the SERVICE PROVIDER has ever assisted in the arrangement of financing under such a structure, and how it would go about doing so for this project. However, keep in mind, that some "off-balance sheet" arrangements, such as an operating lease, may have limited lengths of term.

# **Appendix 4 (to RFQ/RFP Template) – Property Information Summary**

# **GENERAL PROPERTY INFORMATION**

Property Name(s)			
Street Address			
City			
State			
ZIP Code			
County			
Property Type			
Year Built			
Last Major Remodel /Systems Upgrade			
	-		
Key Personnel:	Name	Phone	Email
Property Manager			
Operations Manager			
Chief Buiding Engineer			
Property Accountant			
Facility Information:		Comments	
Total Building Area (SF)			
Total Conditioned Gross Leaseable Area			
Common Area (SF)			
# Floors above grade			
# Floors below grade			
# Units (if applicable)			
Space Allocation (% each use)			
Utility/Supplier Information:		Name	Rebates/Incentives?
Electric Supplier			
Natural Gas Supplier			
Water and Sewer Supplier			
Other			
Other Information:			Comments
Availability of space for storage of testing			
Availability of plans, specifications and O	& M materials		
Hours of Operation			
Need to perform work during off hours			
Security issues			

## **Appendix B: RFQ Template**

Please note: This document is intended to be a template and should be viewed as a starting point for negotiation and further refinement.

[FIRM NAME] [ADDRESS] [CITY, STATE, ZIP]

[DATE]

[SERVICE PROVIDER] [ADDRESS] [CITY, STATE, ZIP]

## **RE: Invitation to Present Qualifications**

Dear [XXX]:

[FIRM NAME] is interested in utilizing the BOMA Energy Performance Contracting (BEPC) Model for a building energy efficiency retrofit project to help [FIRM NAME] achieve its internal energy efficiency and broader value creation objectives, as more fully set forth in this letter. To that end, [FIRM NAME] will select the service provider or providers ("SERVICE PROVIDERS") that in [FIRM NAME]'s judgment can most effectively assist [FIRM NAME] in developing and implementing an energy and operational improvement project ("Project") that meets [FIRM NAME]'s financial and environmental goals. [FIRM NAME] is initiating the project in a [group of] building[s] representing, in its estimation, the best opportunity[s] for achieving energy and operational savings. Please accept this letter as our invitation to [SERVICE PROVIDER] ("Company') to present your company's qualifications and to discuss the details of this project.

The group of [SERVICE PROVIDER] representatives present at the meeting should include the individuals who will have responsibility for the project's development and execution and who will be the primary points of contact for [SERVICE PROVIDER]. In order to make the most efficient use of time, please transmit a copy of the requested information five days in advance of the scheduled meeting date. At the meeting, please be prepared to confirm your understanding of the "Project Background" provided in Appendices 1 and 2, and to address the questions enumerated in Appendices 3 and 4 below.

[FIRM NAME] intends to hold the qualifications presentation meetings between [DATE 1 and DATE 2] at [FIRM NAME]'s offices, located at [ADDRESS]. To schedule the meeting, submit any written responses, or to clarify [FIRM NAME] expectations and answer any questions relating to the project, please contact: [CONTACT NAME] [TITLE]

[ADDRESS] [EMAIL] [PHONE]

Thank you in advance for your time.

Sincerely,

[NAME] [TITLE]

## Appendices to RFQ Template

- 1. Project Background
- 2. Property Information Summary
- 3. [FIRM NAME]'s Expectations for the Project
- 4. Service Provider Qualification Questions

# Appendix 1 (to RFQ Template – Project Background

## **Facilities**

[FACILITY ADDRESS]

[FIRM NAME] may choose additional or different buildings for the final project.

#### **Project Goals**

[FIRM NAME] wishes to achieve several financial, environmental and other goals through this project, including:

[LIST FINANCIAL AND NON-FINANCIAL GOALS HERE – FOLLOWING BELOW ARE SOME EXAMPLES]

- Achieve at least 20% reduction in energy and water use;
- Increase Energy Star rating and/or obtain the Energy Star Label;
- Incur no initial capital costs (with option for Customer to provide initial capital if desired);
- Address tenant comfort concerns;
- Address specific components that are end of useful life;
- Achieve LEED EBOM Certification; and
- Ascertain cost savings with a SERVICE PROVIDER guarantee (with option to eliminate part or all of the guarantee after a number of years) or savings assurance (where project and associated savings are assured through year one but without long term measurement and verification costs/burden).

#### **Financing Strategy**

[FIRM NAME] intends to fund the cost of the EPC project by:

- □ Self-funding
- □ Financing from bank, SERVICE PROVIDER, utility or other provider
- Other: \_\_\_\_\_\_

#### **Contracting Process and Schedule**

[FIRM NAME] intends to use an expedited selection process to choose a SERVICE PROVIDER and begin the technical audit process.

	 Written Qualifications due
	 Qualifications review meetings
[optional]	 Technical walkthrough
	 SERVICE PROVIDER selection

[optional]	 Preliminary Opportunity Assessment Proposal due
[optional]	 Proposal review meetings
[optional]	 Investment Grade Audit (IGA) contract negotiation
[optional]	 IGA commences
[optional]	 IGA final results presentation
[optional]	 BEPC contract negotiation
[optional]	 BEPC contract execution
[optional]	 Begin installation
[optional]	 Commissioning commences
[optional]	 Substantial completion
[optional]	 M&V commences

# **Appendix 2 (to RFQ Template) – Property Information Summary**

# GENERAL PROPERTY INFORMATION

Property Name(s)			
Street Address			
City			
State			
ZIP Code			
County			
Property Type			
Year Built			
Last Major Remodel /Systems Upgrade			
	-		
Key Personnel:	Name	Phone	Email
Property Manager			
Operations Manager			
Chief Buiding Engineer			
Property Accountant			
Facility Information:		Comments	
Total Building Area (SF)			
Total Conditioned Gross Leaseable Area			
Common Area (SF)			
# Floors above grade			
# Floors below grade			
# Units (if applicable)			
Space Allocation (% each use)			
Utility/Supplier Information:		Name	Rebates/Incentives?
Electric Supplier			
Natural Gas Supplier			
Water and Sewer Supplier			
Other			
			0
Other Information:			Comments
Availability of space for storage of testing			
Availability of plans, specifications and O	& M materials		
Hours of Operation			
Need to perform work during off hours			
Security issues			

# Appendix 3 (to RFQ Template) - [FIRM NAME]'s Expectations for the Project

[FIRM NAME] expects to use the BOMA Energy Performance Contracting (BEPC) Model, including the Investment Grade Audit Contract and Performance Contract for this project. [FIRM NAME] expects SERVICE PROVIDER to support the BEPC Best Practices Terms and Conditions and will be using these as one of the criteria for selection. These Terms and Conditions are summarized below.

## **Guaranteed Savings**

At the end of the audit process, the SERVICE PROVIDER will provide the owner with a *fixed minimum guaranteed* annual energy savings, measured in kWh or other units of energy consumption and converted to dollars (or other currency) based on a cost per unit of energy at the time the contract is completed (supported with a financial guarantee backed by the service provider, a short term performance assurance and/or guarantee, third-party energy savings insurance, etc.). These savings amounts should also be expressed as a percentage reduction from the baseline. If the savings is not realized, the owner will be made whole for any savings shortfall – over the term of the guarantee.

#### **Guaranteed Maximum Price (GMP)**

At the end of the audit process, the SERVICE PROVIDER will provide a GMP for the recommended project. The owner and the SERVICE PROVIDER will sign a contract to implement a project with a *known, fixed maximum cost.* 

#### **Transparent Pricing**

SERVICE PROVIDER will be as transparent in pricing the project as the building owner requests. Some examples of transparent pricing methodologies include:

- Total cost and savings by type of measures, with savings broken down by fuel type, and other (non-guaranteed) savings, such as labor and capital savings,
- Total materials costs, labor costs, and margins for the whole project or breakdown of total labor costs, total material costs, labor margin and materials margin by energy conservation measure (ECM),
- Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts.
- Breakdown of final cost for each intervention, as well as total amount of soft costs and SERVICE PROVIDER overhead and profit.
- Additional information to ascertain that competitive bidding requirements have been met.

## Gain Sharing

Any reduction of final project cost below GMP will be shared between the SERVICE PROVIDER and the owner in a negotiated split.

## Standard M&V Protocol

SERVICE PROVIDERs will use one of four standards provided in the International Performance Measurement and Verification Protocol (IPMVP) to measure and verify energy savings.

# **Appendix 4 (to the RFQ Template) - Service Provider Qualification Questions**

Respondents' Statements of Qualifications for this project shall not exceed [X] pages. Submissions should, at a minimum, describe the following:

#### TECHNICAL QUALIFICATIONS AND PERSONNEL EXPERIENCE

Complete overview of the firm including, but not limited to:

- Name and address of firm.
- Telephone number, fax number, and e-mail address for project procurement related inquiries.
- Name of principal contact at SERVICE PROVIDER.
- Proof of ability to conduct business in State.
- Summation of audited financial statement.
- Number of years of experience in performance contracting and guaranteed savings.
- Number of years of firm and local project team's experience in identifying, designing and managing the construction of energy and utility conservation projects, especially at similar facilities to this project.
- The range of project sizes (in \$) and project payback periods your firm has undertaken in the past and/or would be willing to undertake today.
- A list and resume of individual experience for key personnel within SERVICE PROVIDER (including expected key points of contact for this project) and for key sub-consultants.

#### SUMMARIES OF SIMILAR PAST PROJECTS

- 1. Provide a minimum of <u>#</u> summaries of similar projects where your firm has provided a performance contract in the range of \$\_\_\_\_\_\_ to \$\_\_\_\_\_.
- 2. For each project, provide an executive summary. Information given in the executive summaries should include but not be limited to the following information:
  - Name of client.
  - Total cost of the project total contract amount and capital project amount.
  - Length of contract term and payback period, with starting and ending dates. Indicate whether the project was completed on original schedule. If not, please explain.
  - Type of financing arranged for the project. Indicate whether it was arranged by your firm or by the client.
  - Identify any financial resources contributed by a third party, e.g., utility rebates, state grants, tax incentives, etc.
  - Description of the building(s) and plants retrofitted, including systems.
  - Description of all energy and water conservation measures implemented.
  - Identify all prime contractors or subcontractors and any other pertinent information relating to the project.

- Building's annual energy use (kWh or BTUs) and utility expenses (in \$) before project initiation.
- Projected annual energy savings and demand reduction (in kWh or BTUs); and project annual energy cost savings (in \$).
- Actual annual energy savings and demand reduction achieved (in kWh or BTUs); and actual annual energy cost savings.
- Indicate whether on-site renewable energy generation was part of the project. If so, describe the system, its total installed and annual operating costs, its annual power generation, and explain how it was financed.
- 3. List the [XX] most recent occurrences where the respondent has financially reimbursed an entity for non-performance on energy savings. Include contact information, shortfall amount, and financial reimbursement on yearly basis.
- 4. Provide a list and project summary of <u>all</u> entities over the last 15 years of the company that:
  - Have canceled or non-appropriated a performance contract with the respondent (list reason).
  - Have past or pending lawsuits or litigation regarding a performance contract with the respondent (list reasons).
  - Have past "out of court" settlements regarding a performance contract (list reasons).
  - In addition to litigation, provide a complete list of all projects nationwide where there was either a criminal indictment or a conviction relating to the conduct of a performance contract. This includes officers and representatives of the company as well as public officials connected with the project.

Please provide an acknowledgement letter stating all the statements/responses to item #4 are true and accurate signed by an officer of the respondent company (please include title of company officer). Failure to provide accurate and complete information will be viewed as unresponsive.

## APPROACH TO PROJECT DEVELOPMENT AND MANAGEMENT

Explain your company's organizational structure and management approach to projects in this region, and include the following information:

- All local and national personnel in your firm that you are intending to use on this potential project. Information should include but not be limited to:
  - Title
  - Years of experience in energy management and energy conversation services
  - Years of experience working in this particular region
  - Examples of energy conservation measures executed on projects in the past (can overlap with the "references" section above)
  - Educational background

- Number of years with firm
- Professional licenses held
- Generally explain your method for contracting and sub-contracting the installation of the measures and maintaining cost competitive pricing.
- Describe your audit, design engineering, and construction management approach and quality control procedures.
- Explain whether your company manufactures or maintains contractual agreements to sell or otherwise represent specific brands of facility systems or equipment and your approach to maintaining product independence.
- Explain your company's flexibility in terms of assignment of Operation and Maintenance responsibilities to SERVICE PROVIDER or customer facility personnel.
- Explain your approach to providing "transparent" pricing for costs imposed by the SERVICE PROVIDER on the building owner throughout project implementation, and how you interpret the term.
- Indicate whether SERVICE PROVIDER has ever conducted a project with "gain sharing" or "cost-reduction incentives." Provide information about how your company prefers to execute such an arrangement and indicate the preferred percentage split in implementation cost-savings if the project is brought below the Guaranteed Maximum Price.
- Please explain how potential hazardous materials encountered in the installation of energy conservation measures will be managed.
- Please explain your firm's and major sub-consultants' policies and practices for education and training of their staff to assure the staff is current on development of new technologies or enhancements to existing technologies.
- [If there are additional Terms and Conditions, bidding requirements, etc. that the SERVICE PROVIDER should discuss, describe them here.]

## □ EXPERIENCE WITH LOCAL PROGRAM SUPPORT AND INCENTIVES

- 1. Describe your firm's experience with local, state, and national grant programs and energy and utility conservation incentive programs. Explain which programs in particular you may seek to use for this project and the process you would follow for accessing them.
- 2. In addition to the personnel profiles offered in the section above, please describe local project personnel experience in working with these local, state, or national programs and incentives that can be used to provide technical assistance or financial support to EPC projects.

## COMPUTATION OF BASELINE

1. Describe in detail the methodology your firm uses to determine energy and utility use for the calculation of baseline energy use in a facility. Provide examples of how a make-whole

payment would be calculated in the event that energy savings are not realized. Please provide examples showing clearly how the baseline would be adjusted and how a make-whole payment would be calculated in the event that building occupancy, use, or intensity of use were to change in the future (up or down). Also explain how this methodology differs between buildings with individual tenant metering and buildings which do not employ individual tenant metering.

- 2. Provide a comprehensive energy audit that your firm has completed on a <u>describe type of</u> <u>facility</u> facility (this document may be attached as an appendix in your response).
- Derformance guarantees and Performance Assurances
  - 1. Describe your firm's energy and cost savings guarantee and energy and cost savings assurances policies and procedures.
  - 2. Describe your firm's contractual documents for an energy savings guarantee as well as under a savings assurance whereby performance is assured for year one but not over the long term.
  - 3. Briefly describe your approach to measurement and verification to calculate and confirm postinstallation savings. Please describe whether and how your firm has used IPMVP to guide this process in the past.
  - 4. Describe your firm's capacity to monitor the energy usage (both pre and post retrofit) and verify energy savings, providing information on equipment capabilities and personnel to analyze data.

#### □ RANGE OF SERVICES

- 1. Briefly list the range of energy and utility management services provided by respondent.
- 2. Describe your firm's ability to retro-commission existing building systems and the process for doing so.
- 3. Describe your experience with installing and utilizing metering on buildings, equipment or systems to facilitate the measurement of energy use and energy savings.

- 4. Describe your firm's approach to and experience with on-site facility staff training. Particular attention should be paid to the training of on-site facility staff to provide ongoing operations and maintenance of equipment beyond the term of the EPC contract.
- 5. Describe your firm's policies for commissioning systems that are upgraded or installed during the course of the EPC term. [FIRM NAME] requests that such services be incorporated as part of the project scope for the EPC.
- Address standard tenant and O&M staff energy education packages incorporated into the implementation of energy efficient retrofits in previous projects. Include occupant education, O&M staff training, and any continuing education that occurs after the commissioning process is complete.

## FINANCIAL APPROACH

- 1. To demonstrate financial soundness and stability of your firm, in addition to the summary of an audited financial statement requested above, provide most recent annual report appendix or other documentation establishing the firm's financial stability and credit-worthiness.
- 2. Demonstrate your firm's ability to provide or arrange project financing with sample financing arrangement proposed for this project.<sup>1</sup>
- Provide specific examples of projects where your firm has directly financed or procured financing on a customer's behalf, including tax exempt leases, bonds and other financing mechanisms, for EPC projects with terms up to <u>#</u> years.
- 4. Also provide information to assure that your firm, or the financial partner your company would propose to work with on this project, can provide the financial strength to guarantee at least \$\_\_\_\_\_ of capital investment during the term of the contract. [FIRM NAME] reserves the right to internally fund the capital costs of any or all projects.
- 5. Explain how your company addresses issues of liability, property damage, and worker's compensation insurance.

<sup>&</sup>lt;sup>1</sup> If an "off balance sheet" approach is of particular interest to an institution, indicate that you would like to know whether the SERVICE PROVIDER has ever assisted in the arrangement of financing under such a structure, and how it would go about doing so for this project. However, keep in mind, that some "off-balance sheet" arrangements, such as an operating lease, may have limited lengths of term.

## **Appendix C: RFP Template**

Please Note: This document is intended to be a template and should be viewed as a starting point for negotiation and further refinement.

[FIRM NAME] [ADDRESS] [CITY, STATE, ZIP]

[DATE]

[SERVICE PROVIDER] [ADDRESS] [CITY, STATE, ZIP] **RE: REQUEST FOR PROPOSAL – Preliminary Opportunity Assessment** 

Dear XXX,

Thank you for taking the time to present your qualifications to [FIRM NAME]. Based on the strength of your response in the preliminary interview, [FIRM NAME] would like to invite [SERVICE PROVIDER] ("Company') to conduct a Preliminary Opportunity Assessment of the building site[s] ("Sites") listed in Appendix 1 below. This letter outlines the desired outcomes of the Preliminary Opportunity Assessment and describes the roles and responsibilities of [FIRM NAME] and the SERVICE PROVIDER[s] in developing preliminary pro-forma financial information to build an investment business case and justify Investment Grade Audit contract(s) for building(s) in the portfolio.

Based on the attached Project Background (Appendix 1), the information contained in the attached Property Information Summary (Appendix 2), observations gathered during a technical walkthrough of the facility, and conversations with [FIRM NAME] operations staff, we ask [SERVICE PROVIDER] to provide a Preliminary Opportunity Assessment Report outlining potential Energy Conservation Measures at the selected building[s]. This report will help [FIRM NAME] evaluate the business case for the proposed project and better understand [SERVICE PROVIDER]'s specific approach. Please keep responses as brief as possible, and respond only to the specific requirements set forth in Appendix 4.

Technical walk-throughs of the selected site[s] are scheduled to take place between [DATE 1 and DATE 2]. [FIRM NAME] operations staff will accompany the [SERVICE PROVIDER] representatives on the walk-through to answer site-specific questions. Subsequent interviews to discuss [SERVICE PROVIDER]'s qualifications and the results of the Preliminary Opportunity Assessment will take place between [DATE 1 and DATE 2].

The [SERVICE PROVIDER] representatives present at the interview should include the individuals who will have responsibility for the project's development and execution and who will be the primary points of contact for [SERVICE PROVIDER]. In order to make the most efficient use of the allotted

time, please transmit a copy of the Report and the requested qualifications information as far in advance of the scheduled interview date as possible.

To schedule the technical walk-through and subsequent interview, to submit written responses, or to clarify [FIRM NAME] expectations, please contact: [CONTACT NAME] [TITLE] [ADDRESS] [EMAIL] [PHONE]

Assuming that [SERVICE PROVIDER]'s Preliminary Opportunity Assessment Report and presentation is evaluated favorably by [FIRM NAME], [FIRM NAME] would be prepared to discuss an Investment Grade Audit (IGA) to be conducted by your Company as soon as possible following the presentation of the Preliminary Opportunity Assessment. It is our hope and expectation that either the BOMA Energy Performance Contracting (BEPC) Model or the BEPC energy assurance language would be included, negotiated and executed with all deliberate speed after the IGAs are completed and evaluated.

Thank you in advance for your efforts. We look forward to developing and continuing a rewarding relationship with your Company.

Sincerely,

[NAME] [TITLE]

Appendices to RFP Template

- 1. Project Background and Objectives
- 2. Property Information Summary
- 3. [FIRM NAME]'s Expectations for the Project
- 4. Preliminary Opportunity Assessment Report Content

# Appendix 1 (to the RFP Template): Project Background and Objectives

[FIRM NAME] has identified the following objectives for the project:

- 1) Identify improvement measures that help to contribute to overall operating expense and energy consumption reduction targets.
- 2) Reduce operating expenses by a minimum \_\_\_\_ percent.
- 3) Reduce energy consumption by a minimum of \_\_\_\_ percent.
- 4) Stabilize utility expense through a variety of utility programs and technologies.
- 5) Evaluate, develop and document best practice strategies as it relates to energy management, building automation, infrastructure operations and maintenance, and where appropriate, site facilities services.
- 6) Achieve a goal that a minimum of \_\_\_\_ percent of energy requirements be supplied by renewable and alternate energy sources.
- 7) Assess whether the sites conform to the energy standards set forth in the Leadership in Energy and Environmental Design (LEED) Green Building Rating System and by the US EPA ENERGY STAR Program [add other certification programs as appropriate].
- 8) Prioritize the improvement measures to create capital investment packages that meet corporate requirements.
- 9) Evaluate the extent to which performance contracting models and alternate financing structures can be employed to (i) improve the overall opportunity with respect to the improvement measures and (ii) provide a no-capital option associated with the implementation of identified energy conservation measures (ECMs).

# Appendix 2 (to the RFP Template): Property Information Summary

<b>GENERAL PROPERTY INFOR</b>	MATION		
Property Name(s) Street Address			
City			
State			
ZIP Code			
County			
Property Type			
Year Built			
Last Major Remodel /Systems Upgrade			
Key Personnel:	Name	Phone	Email
Property Manager			
Operations Manager			
Chief Buiding Engineer			
Property Accountant			
			-
Facility Information:		Comments	
Total Building Area (SF)			
Total Conditioned Gross Leaseable Area			
Common Area (SF)			
# Floors above grade			
# Floors below grade			
# Units (if applicable)			
Space Allocation (% each use)			
Utility/Supplier Information:		Name	Rebates/Incentives?
Electric Supplier			
Natural Gas Supplier			
Water and Sewer Supplier			
Other			
Other Information:			Comments
Availability of space for storage of testing	equipment		Comments
Availability of plans, specifications and O			
Hours of Operation			
Need to perform work during off hours			
Security issues			

# Appendix 3 (to the RFP Template): [FIRM NAME]'s Expectations for the Project

[FIRM NAME] expects to use the BOMA Energy Performance Contracting (BEPC) Model, including the Investment Grade Audit Contract and Performance Contract for this project. [FIRM NAME] expects SERVICE PROVIDER to support the BEPC Best Practices Terms and Conditions and will be using these as one of the criteria for selection. These Terms and Conditions are summarized below.

## **Guaranteed Savings**

At the end of the audit process, the SERVICE PROVIDER will provide the owner with a *fixed minimum guaranteed* annual energy savings, measured in kWh or other units of energy consumption and converted to dollars (or other currency) based on a cost per unit of energy at the time the contract is completed (supported with a financial guarantee backed by the service provider, a short term performance assurance and/or guarantee, third-party energy savings insurance, etc.). These savings amounts should also be expressed as a percentage reduction from the baseline. If the savings is not realized, the owner will be made whole for any savings shortfall – over the term of the guarantee.

## **Guaranteed Maximum Price (GMP)**

At the end of the audit process, the SERVICE PROVIDER will provide a GMP for the recommended project. The owner and the SERVICE PROVIDER will sign a contract to implement a project with a *known, fixed maximum cost.* 

## Transparent Pricing

SERVICE PROVIDER will be as transparent in pricing the project as the building owner requests. Some examples of transparent pricing methodologies include:

- Total cost and savings by type of measures, with savings broken down by fuel type, and other (non-guaranteed) savings, such as labor and capital savings,
- Total materials costs, labor costs, and margins for the whole project or breakdown of total labor costs, total material costs, labor margin and materials margin by energy conservation measure (ECM),
- Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts.
- Breakdown of final cost for each intervention, as well as total amount of soft costs and SERVICE PROVIDER overhead and profit.
- Additional information to ascertain that competitive bidding requirements have been met.

## **Gain Sharing**

Any reduction of final project cost below GMP will be shared between the SERVICE PROVIDER and the owner in a negotiated split.

## Standard M&V Protocol

SERVICE PROVIDERs will use one of four standards provided in the International Performance Measurement and Verification Protocol (IPMVP) to measure and verify energy savings.

# Appendix 4 (to the RFP Template): Preliminary Opportunity Assessment Report Content

- Include a detailed list of all potential ECMs ranked by order of payback and IRR including both estimated investments and cost savings. We ask that your estimates be within [XX] percent range of accuracy. We understand that an Investment Grade Audit would be the next step to verify terms and a final proposal, but we want to have a high degree of confidence in your initial assessment. List ECM opportunities by category such as HVAC, lighting, water, etc.
- Recommend a combination of ECMs ("Project") that meets or exceeds [FIRM NAME]'s financial and other requirements. If there are synergies between certain ECMs, please briefly explain what they are. When appropriate, identify base cost, utility cost, maintenance cost and life cycle analysis.
- 3. Include a description of a short payback project and a longer payback project so that [FIRM NAME] can evaluate the investment choices.
- 4. Briefly describe performance measurement and verification methodologies (or protocols) used to calculate energy savings potential.
- 5. Provide suggestions for operating and maintenance improvements along with an estimate of the potential impact on energy savings. Please specify which improvements are required to support recommended material and equipment installations, and which are dependent only on management practices.
- 6. Discuss possible changes in tenant behavior that could create energy savings.
- 7. Describe opportunities for retro-commissioning that would benefit the energy profile of this project and recommendation of the best approach to achieve these.
- 8. Outline your staffing and schedule for your recommendations. Because we understand this will vary depending on what ECMs [FIRM NAME] would implement, please describe a typical scenario for this response.
- 9. Describe how [SERVICE PROVIDER] would structure a performance guarantee.
- 10. List the major business issues to be agreed upon, along with the major technical and contractual terms to help [FIRM NAME] determine if it wishes to pursue energy savings with, or without, performance guarantees.
- 11. Confirm that your firm can approach this project on a vendor neutral basis.
- 12. Provide suggestions for how these ECMs can be financed.
- 13. (Optional) Outline those areas where this project could earn LEED EBOM points.
- 14. (Optional) Analyze the potential ENERGY STAR rating compared to current rating.
- 15. (Optional) Outline recommendations for potential onsite renewable energy strategies that would be practical for this project.

## **Appendix D: Service Provider Evaluation Criteria**

Please note: This document is intended to serve as a reference, and should be used only as a starting point for an owner/operator to develop a method for evaluating a service provider's capabilities.

The criteria listed below may be used to evaluate written proposals and conduct qualifications interviews. A scoring weight is listed for each criterion, but the owner should consult with technical staff to judge whether this weighting is appropriate for a given project.

Service providers' qualifications and track-record should be weighted heavily in the decision process, since the owner's relationship with the service provider is longer-term in nature given the complexity of the project(s) involved. Owners should beware of choosing a service provider partner based too heavily on price and projected savings. It is important to ascertain the service providers' level of sophistication with regard to financial modeling, but reputation, quality of staff, and financial stability should all be key determinants as well.

The criteria are not ranked in order of importance. The sub-criteria are of approximate equal weight. Factor in Criteria 4, 5, and 6 if the service provider has already conducted a Preliminary Opportunity Assessment.

## 1. QUALIFICATIONS AND CAPABILITY (Scale 1 – 10, Scoring Weight: 10 %)

- a. <u>Experience of Firm</u>. General experience in energy-related and performance contracting services.
- b. <u>Scope of Services</u>. Comprehensiveness of engineering, analysis, project management, monitoring and verification services offered.
- c. <u>Financial Soundness</u>. Financial soundness and stability of service provider. Completeness and strength (financial viability) of most recent annual financial statements.
- d. <u>Experience</u>. Reliability of equipment performance on past projects and quality and completeness of documentation of achieved energy savings from previous projects.
- e. <u>Responsiveness to RFQ</u>. Did the service provider provide all of the requested qualifications information?

## 2. EXPERIENCE AND EXPERTISE (Scale 1 – 10, Scoring Weight: 20%)

- a. <u>Project History.</u> Quality of past projects completed with respect to potential energy conservation measure (ECM) scope and documented savings.
- b. <u>Personnel Information.</u> Qualifications and relevant experience of the staff specifically assigned to the owner in engineering, project management and other areas of importance.
- c. <u>Industry Segment Experience</u>. Demonstrated experience in the specific property type.
- d. <u>Reliability: Measurability of Prior Results</u>. Reliability of equipment performance on past projects and quality and completeness of documentation of achieved energy savings from previous projects.

## 3. PERFORMANCE CONTRACTING APPROACH (Scale 1 – 10, Scoring Weight: 10%)

- a. <u>Approach.</u> Overall approach to performance contracting.
- b. <u>Other Services.</u> Full range of services and flexibility in applying those services, including retrocommissioning, LEED and ENERGY STAR certification and net zero strategies.
- c. <u>Construction Issues</u>. Procedures for handling environmental liabilities, warranties and equipment service.
- d. <u>BEPC Best Practice Terms</u>. Willingness to use BOMA best practice model language or template agreements.

## 4. TECHNICAL APPROACH (Scale 1 – 10, Scoring Weight: 10%)

- a. <u>Quality of Audit.</u> Quality of the sample audit, as completed by the person(s) responsible for project technical design. Did the service provider explicitly respond to the owner's stated goals?
- b. <u>Design/Construction</u>. Overall approach.
- c. <u>Engineering Analysis.</u> Reasonableness and transparency of methodologies to determine baseline and projected savings. Did they use whole building, hourly simulation model to bundle ECMs?
- d. <u>Communication</u>. Did the service provider team seek to understand and clarify site-specific issues? Did the service provider communicate questions to the owner before delivering the Preliminary Opportunity Assessment? Did the service provider involve key stakeholders (i.e., the operations and occupants) to identify ECMs?

## 5. SITE SPECIFIC APPROACH (Scale 1 – 10, Scoring Weight: 20%)

- a. <u>Project Scope.</u> Understanding of existing building conditions, systems and operation and maintenance projects. Ability to adapt control strategies, equipment and maintenance practices in response to changes in utility rates, technology, and building conditions in order to enhance project performance. Comprehensiveness and clarity of the technical approach based on improvements likely to be included.
- b. <u>Relevance and Benefits of Proposed Retrofits for the Selected Facility.</u> Did the service provider illustrate the additional benefits beyond energy cost savings to the owner (i.e., estimates of increased occupant satisfaction, increased test scores, etc.)?
- c. <u>Relevant Experience to Apply to this Site.</u> Relevance and documented savings of past projects completed that are similar in size, scope, and building type.
- d. <u>Project Management for This Project.</u> Project management approach and relevant qualifications of key personnel assigned to the project involved in technical auditing and design, project management and construction, with respect to the size, scope and building type of this project.
- e. <u>Technical and Construction Issues</u>. Construction management, scheduling, operation and maintenance approach, approach to compatibility/openness/standardization of equipment, standards of comfort and provision of insurance.

## 6. COST AND PRICING (Scale 1 – 10, Scoring Weight: 30%)

This should involve a combination of "price analysis" and "cost analysis" such that the project evaluation team will use judgment, knowledge and experience to determine reasonableness and consistency, and to evaluate costs based on established catalog and market prices, historical prices, independent cost estimates, and negotiated pricing where applicable.

- a. <u>Investment Grade Audit Phase: Cost of Audit</u>. Cost of the Investment Grade Audit for the proposed scope of facilities. This cost will be evaluated on the basis of reasonableness for the size and scope of the project. An unrealistically low cost will be devalued.
- b. <u>Markup Costs</u>. Consider reasonableness of markup costs. The markup costs are disclosed for two purposes: 1) to illustrate typical project costing approach for a project of similar scope and size and 2) to establish costs for use in the subsequent Investment Grade Audit. "Cost analysis" will be used to evaluate the markups for reasonableness.
- c. <u>**Transparent Pricing.**</u> Willingness to provide Transparent Pricing in accordance with BEPC best practice.

## SUMMARY OF BEPC BEST PRACTICE TERMS AND CONDITIONS

Project Terms and Conditions	Benefit to Owner
Clear Goals	"Casting a wide net" initially and narrowing
Owner defines clear financial, performance, savings or	down the final scope based on clear
other goals and any other metrics of success that the	performance metrics leads to the most optimal
service provider can aim for in project development. At	balance of innovation and cost-effectiveness.
the pre-project stage, financial goals should be kept as	
broad as possible to allow the service provider room for	
creativity. After the initial opportunity assessment and	
prior to beginning the design-development or audit	
phase, owner should communicate concrete project-	
specific financial and performance requirements to aid in	
decision-making as ECMs <sup>1</sup> are considered.	
Whole-Building Approach	Every building offers unique opportunities.
The service provider and owner should approach the whole	Rather than limit the scope by prescribing a "list
building in project development. All potential opportunities	of retrofit measures," owners should encourage
should be considered and then the comprehensive scope	the project team to exhaust all possibilities and
refined to meet owner's project requirements.	put forth the most holistic project possible.
	Project teams should have the ability and
	willingness to consider a broad spectrum of
	energy conservation measures.
Transparent Energy Consumption Baseline	It is impossible to calculate savings accurately or
This baseline must be developed in collaboration with	confidently without a clear baseline. Owners
building staff and understood and agreed upon by both	should consider hiring an external expert if
the owner and the project team in order to facilitate	these skills are not available internally.
project scoping and avoid possible future disputes over	
savings calculations.	

<sup>&</sup>lt;sup>1</sup> ECM: Energy conservation measure. A specific piece of equipment, building system or other intervention meant to reduce energy consumption.

Lifecycle Cost Analysis & Business Risk Assessment Consider operational and maintenance savings, synergies between ECMs and potential revenue streams from incentives and greenhouse gas reductions risk mitigation when evaluating cost effectiveness. Owners should think through how the proposed retrofit affects the asset's overall risk profile considering: utility rate risk, regulatory exposure, systems reliability and up-time, re-tenanting risk, exit cap rate, etc.	Operations and maintenance (O&M) savings can be significant, and certain ECMs, when implemented in combination, achieve savings greater than the sum of their parts. While sometimes difficult to calculate, these factors are real and should not be overlooked. The impact of changing regulations, such as building energy disclosure and labeling, cap and trade and the GHG emissions reductions that they will require can factor in to project scoping decisions. Project teams should be able and willing to provide this project analysis and the owner should incorporate it into the business case.
Vendor Neutrality and Open Protocol with regard to recommendations for specific technologies/services. The project team should evaluate any equipment recommended for upgrade/replacement without bias towards a specific manufacturer. Any controls of software overlays installed should ideally be open source.	Owner can be confident that the most appropriate and most cost-competitive technologies are selected. Owner will have service/maintenance flexibility with regards to controls and/or software platforms.
<b>Transparent Pricing</b> Project teams should be able and willing to provide full transparency in pricing of materials, equipment, soft costs and labor, including all contractor margins, overhead and profit, labor burden, corporate burden, fees, as well as any costs for insurance and bonding, for all services and materials, whether self-performed or sub-contracted. Contractors should identify any pieces of work that will be self-performed, and demonstrate that pricing is competitive either by seeking multiple bids or through another means acceptable to the owner.	Price transparency allows owners to understand and negotiate the cost structure of the project before agreeing to proceed, make confident investment decisions, ensure value for money, and confirm inclusion of gain sharing/cost reduction strategies. This provision can also be used to satisfy competitive bidding requirements of ownership.
<ul> <li>Some examples of transparent pricing methodologies include:</li> <li>Total materials costs, labor costs, and overhead, insurance and contingency for the whole project or by energy conservation measure;</li> <li>Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts; and</li> <li>Breakdown of final cost for each intervention, as well as total amount of soft costs and service provider overhead and profit.</li> </ul>	

<ul> <li>Firm Investment Proposal</li> <li>By the end of the audit or design development process, the owner should have a firm investment proposal for the final scope, including a Guaranteed Maximum Price (GMP) and minimum projected savings for the recommended project. This might be presented in a number of ways, such as: <ul> <li>Total cost and savings by type of measures, with savings broken down by fuel type, and (non-guaranteed) other savings, such as labor, operating costs, tenant impacts or other value factors</li> <li>Total materials costs, labor costs, and overhead, insurance and contingency for the whole project or by energy conservation measure</li> <li>Breakdown of total soft costs (including such items as design, project management, profit, etc.) for project, in percentages or fixed amounts</li> <li>Breakdown of final cost for each intervention, as well as total amount of soft costs and service provider overhead and profit</li> </ul> </li> </ul>	A fixed maximum cost and minimum guaranteed savings allows the owner to make investment decisions with confidence in the capital outlay and accurately budget and efficiently source capital.
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Project Team "Performance Guarantee"	A savings guarantee provides confidence that
The project team should have the ability and willingness	the project will be executed and perform as
to provide certainty that the work installed will perform	designed. Assured cost savings allows the
as expected by providing some form of performance	building owner or operator to calculate the
assurance. This can be accomplished through bonding,	actual return on the investment in the project,
energy savings insurance, a more traditional	definitively model future cash flows and create a
performance guarantee, or simply through transparent	financial model with confidence. These
base-lining, commissioning and M&V.	contractual terms can help access third-party
	capital for the project.
At the end of the audit process, the service provider will	
provide the owner with a <i>fixed minimum guaranteed</i>	With a shorter-term (for example 1 year)
annual energy savings, measured in kWh or other units	guarantee, the owner gets the benefit of
of energy consumption and converted to dollars (or	confirmed project implementation and
other currency) based on a cost per unit of energy at the	performance in short term without long term
time the contract is completed.	cost of M&V. However, the owner must assume
	risk of ongoing operations and maintenance and
Guarantee periods can extend from 1-25 years, during	repair and replacement of the installed
which the service provider executes M&V <sup>2</sup> at a cost to	equipment in order to ensure savings persist.
the owner. If the savings are not realized on an annual	
basis, the service provider (or insurance provider) will	
make the owner whole by paying for any savings	
shortfall. The performance guarantee is backed by the	
service provider or a third party insurance provider and	
the contract should make clear how and when the	
owner is reimbursed for any shortfall.	

<sup>&</sup>lt;sup>2</sup> M&V: measurement and verification. Periodic measurement and calculations of the ECMs, as agreed upon in the contract (or through a standard M&V protocol such as the IPMVP) used to determine the savings performance of the project.

<ul> <li>Timing and Credit for Savings</li> <li>The contract should be clear about when substantial completion of the project occurs, when calculation of ECM savings begins, and the specific periods for savings measurements, as well as how savings accrue. For example: <ul> <li>Savings during one period should not be "carried over" as credit for future periods</li> <li>Savings that accrue before substantial completion should be considered in the agreement</li> <li>For a performance-based procurement model,<sup>3</sup> any actual cost savings below that target are shared between the service provider and the owner in a negotiated split (often 50/50). This model requires full transparency of consultant fees and margins.</li> </ul> </li> </ul>	How and when savings are calculated are details that can often be overlooked but are important for the integrity of project performance and owner return on investment. These terms can be negotiated in many ways, but clarity, specificity and mutual understanding can help avoid disagreement about savings credits later.
<u>Thorough Commissioning</u> of all new equipment/systems, and retro-commissioning of all affected systems and sub- systems. In order to realize the full efficiency gain from the new equipment, all building systems should be commissioned to ensure that new and existing systems are working together efficiently.	Too often new equipment is not properly commissioned, leading to sub-optimal design performance and savings shortfalls.
Robust ongoing monitoring, measurement and verification (M&V) of savings Ongoing M&V in accordance with international best practices, the International Performance Measurement and Verification Protocol (IPMVP). Ongoing monitoring-based commissioning should also be considered.	The owner should fund and plan for robust ongoing measurements of project performance and ongoing commissioning This is essential in order to preserve the savings stream and prevent erosion of savings over time. This information can be shared with tenants and other stakeholders to celebrate successes and encourage further improvement. Owners should consider hiring an external provider if these resources and skills are not available internally.

<sup>&</sup>lt;sup>3</sup> See examples at: <u>http://www.nrel.gov/sustainable\_nrel/rsf.html</u> and <u>http://www.rmi.org/rmi/Whole%20System%20Thinking%20and%20Integrative%20Design</u>

## Appendix E: Investment Grade Audit Contract Template

Please note: This document is a template and is intended to be used as a starting point for further negotiations between the Owner/Operator and the Service Provider. Owners/Operators are advised to seek appropriate legal counsel before executing any agreement.

This Energy Audit Agreement is entered into on \_\_\_\_\_\_, 20\_\_\_, by and between the \_\_\_\_\_\_\_(*Insert the name of the Owner/Operator*) of the [Commonwealth of Pennsylvania] (hereinafter referred to as the "Owner/Operator") and \_\_\_\_\_\_ (the "Service Provider"). The Owner/Operator and the Service Provider are referred to herein as the "Parties".

Whereas, the Owner/Operator has issued a Request for Proposals (RFP) to select a qualified energy performance contractor to implement-a guaranteed energy savings contract at (the "Facility(s)");

Whereas, the Service Provider submitted a proposal in response to the RFP;

Whereas, the Owner/Operator has evaluated the proposals submitted by qualified energy service companies and has selected the Service Provider;

**Whereas**, the Owner/Operator is responsible for the operation, management and maintenance of the Facility(s);

Whereas, a comprehensive investment grade energy use and savings analysis (the "Investment Grade Audit" and Report) must be performed at the Facility(s) in order to determine the feasibility of entering into a guaranteed energy savings contract to provide for the installation and implementation of energy conservation measures (ECMs) at the Facility(s);

**Whereas,** if the ECMs are demonstrated to be financially feasible according to the BUILDING OWNER/OPERATOR's financial and other criteria, and if the amount of energy savings can be reasonably ascertained and guaranteed in an amount sufficient to cover costs associated with the project at the Facility(s) as desired by the Owner/Operator, the Parties intend to enter into a BOMA Energy Performance Contract under which the Service Provider shall design, procure, install, implement, maintain and monitor such energy conservation measures at the Facility(s);

Now, therefore, intending to be legally bound hereby, the Parties agree as follows:

## ARTICLE 1: SCOPE OF INVESTMENT GRADE ENERGY AUDIT AND REPORT.

The Service Provider will perform an Investment Grade Energy Audit and prepare a detailed engineering and economic report (the "Report") which specifically identifies the energy improvements and operational changes which are recommended to be installed or implemented at the Facility(s). The Report shall contain detailed projections of energy and cost savings to be obtained at the Facility(s) as a

result of the installation of the recommended energy conservation measures (ECMs) and financially guaranteed by the Service Provider. The savings calculations must utilize assumptions, projections and baselines which best represent the true value of future energy or operational savings for the Facility(s), i.e.: utilize: accurate marginal cost for each unit of savings at the time the audit is performed; documented material and operational costs actually avoided; adjustments to the baseline to reflect current conditions at the Facility(s) compared to the historic base period; calculations which account for the interactive effects of the recommended ECMs; etc. The Report shall clearly describe how utility tariffs and/or rebates were used to calculate savings for all ECMs. The Report shall describe the Service Provider's plan for installing or implementing the measures in the Facility(s), including all anticipated hard and soft costs associated with such installation and implementation. The Service Provider shall competitively bid each and every ECM that the Service Provider intends to subcontract out and provide the Owner/Operator with the proposals and pricing information from each bidder. The Owner/Operator may require that certain reputable and qualified contractors with whom the Owner/Operator has an existing relationship be allowed to bid for a given ECM. The primary purpose of the Report is to provide an engineering and economic basis for negotiating the guaranteed energy savings contract between the Owner/Operator and the Service Provider; however, the Owner/Operator shall be under no obligation to negotiate such a contract.

## Owner/Operator Project Criteria:

Based on the information provided in preliminary analysis of the Facility(s) and discussions between the Owner/Operator and Service Provider, the Owner/Operator's project criteria are as follows:

- □ Maximum price of \$\_\_\_\_\_\_total, or \$\_\_\_\_\_per project
- Guaranteed energy savings equivalent to no less than \_\_\_\_\_ per year, or \_\_\_\_\_% reduction from current consumption
- □ Project ROI greater than \_\_\_\_%
- □ Project IRR greater than \_\_\_\_%
- □ Blended simple payback period of no greater than \_\_\_\_\_ years

The Service Provider shall perform the following tasks in performing the Energy Audit and preparing the Report:

#### A. Collect General Facility(s) Information

The Service Provider shall evaluate the impact on utility cost and consumption of any energy initiatives, currently being installed or currently contemplated to be installed by the Owner/Operator in the Facility(s), which will remain separate from the guaranteed energy savings contract throughout the duration of that contract.

Owner/Operator shall furnish (or cause its energy suppliers to furnish) all available records and data concerning energy and water usage for the Facility(s) for the most current 24 month period, if available, including: Utility records; occupancy information; descriptions of any changes in the structure of the Facility(s) or its heating, cooling, lighting or other systems or energy requirements; descriptions of all major energy and water consuming or energy and water saving equipment used in the Facility(s); any comfort problems, code deficiencies, and a description of current energy management procedures. The Owner/Operator shall also furnish a record of any energy related

improvements or modifications that have been installed during the past three years, or are currently being installed or are currently contemplated to be installed by the Owner/Operator in the Facility(s) separate from the guaranteed energy savings contract throughout the duration of that contract. The Owner/Operator shall also provide copies of drawings, equipment logs and maintenance work orders to the Service Provider.

#### B. Analyze Existing Systems and Equipment

The Service Provider shall compile an analysis based on a physical inspection of the major electrical and mechanical systems at the Facility(s), including but not limited to:

Cooling systems and related equipment Heating and heat distribution systems Automatic temperature control systems and equipment Air distribution systems and equipment Outdoor ventilation systems and equipment Kitchen and associated dining room equipment, if applicable Exhaust systems and equipment Hot water systems Electric motors, transmission and drive systems Interior and exterior lighting Laundry equipment, if applicable Water consumption end uses, such as restroom fixtures, water fountains, irrigation, etc. Other major energy using systems, if applicable

The analysis shall address the following considerations:

- 1. The loads, proper sizing, efficiencies or hours of operation for each system; (where Facility(s) operating or climatic conditions necessitate, engineering estimates may be used, but for large fluctuating loads with high potential savings appropriate measurements are required unless waived by the Owner/Operator);
- 2. Current operating condition for each system;

The Service Provider shall conduct interviews with Facility(s) operation and maintenance staff regarding the Facility(s)'s mechanical systems operation, occupancy patterns and problems with comfort levels or equipment reliability.

#### C. Establish Base Year Consumption and Reconcile with End Use Consumption Estimates

The Service Provider shall examine the most recent 24 months of utility bills and establish Base Year consumption for electricity, fossil fuels and water by averaging; or selecting the most representative contiguous 12 months. The Service Provider shall consult with Facility(s) staff and account for any unusual or anomalous utility bills which may skew Base Year consumption from a reasonable representation.

The Service Provider shall analyze all major end uses representing more than 5% of total Facility(s) consumption including, but not limited to:

Lighting Heating Cooling HVAC motors (fans and pumps) Plug load Kitchen equipment Other equipment Miscellaneous

Where loading and/or usage are highly uncertain, the Service Provider shall employ spot measurement and/or short term monitoring at its discretion, or at the request of the Owner/Operator. Reasonable applications of measurement typically include variable loads that are likely candidates for conservation measures, such as cooling equipment.

#### D. Develop List of Potential Energy Conservation Measures (ECMs)

#### The Service Provider shall:

- a. Identify and propose potential ECMs for installation or implementation at the Facility(s), including cut sheets on proposed equipment.<sup>1</sup> For non-standard ECMs provide information regarding product site installations. The Service Provider shall provide a firm <u>Guaranteed Maximum Price</u> for the Project and employ <u>Transparent Pricing</u>, to include details of hard and soft costs such as materials cost, material mark-up amounts, labor costs, labor margin, project management costs, engineering costs, cost for the performance guarantee, and (retro) commissioning.
- b. Identify the energy and operational savings, and the useful life expectancy of each proposed ECM. Energy savings shall be shown both as a monetary amount and as a percentage reduction from baseline consumption.
- c. Provide calculations showing the Internal Rate of Return (IRR), Return on Investment (ROI), and simple payback for each <u>individual</u> ECM <u>and</u> for the <u>recommended</u> <u>combination(s)</u> of ECMs proposed ("The Project").
- d. Specify Facility(s) operations and maintenance procedures which will be affected by the installation/implementation of the proposed ECMs.
- e. Provide analysis methodology, supporting calculations and assumptions used to derive baselines (e.g. lighting operating hours) and estimate savings. Provide the existing and proposed air and hot water temperatures, amount of outdoor air ventilation (CFMs) lighting and acoustic levels. Provide copies of the utility tariffs and commodity price histories used in savings calculations. Manual calculations should disclose essential data,

<sup>&</sup>lt;sup>1</sup> **(Optional)** ECMs of particular interest to Owner/Operator are specified in Attachment A and should be addressed in the Report. The attached list is not intended to be exhaustive nor limit the Company's evaluation and development of a comprehensive list of potential ECMs.

assumptions, formulas, etc. so that a reviewer could replicate the calculations based on the data provided.

- f. For savings estimates using computer simulations, the Service Provider shall provide access to the program and all inputs and assumptions used, if requested by the Owner/Operator.
- g. Provide a detailed savings measurement and verification plan for each proposed ECM.
- h. Provide a detailed preliminary commissioning plan for the proposed ECMs. Provide a detailed retro commissioning plan for building systems not directly impacted by the proposed ECMs.
- i. Provide detailed calculations for any rate saving proposals.
- j. Provide detailed supporting calculations for any proposed maintenance, material or other operational savings. Describe annual variances in savings from year to year (e.g. lighting, warranties).
- k. Estimate any environmental costs or benefits of the proposed ECMs (e.g. disposal costs, avoided emissions, water conservation, etc.). Provide emissions reductions data for NOX, CO2 and SO2. Segment emissions data for direct site emissions reductions (e.g. fossil fuels) and indirect emissions reduction date (e.g. electricity/water).
- I. For all proposed ECMs, the Service Provider shall comply with all applicable state, federal and local codes and regulations in effect at the time of this analysis.
- m. Using the EPA's ENERGY STAR tools and resources, provide an estimated post-retrofit Energy Performance Rating using the Delta Score Estimator and submit a completed Cash Flow Opportunity spreadsheet using the Cash Flow Opportunity Calculator for each eligible facility. Information regarding ENERGY STAR, Portfolio Manager and a list of eligible facility types can be found at: <u>http://energystar.gov/index.cfm?c=tools resources.bus energy management tools r</u> esources

#### E. <u>Select Final Recommended ECMs</u>

The Service Provider shall, in consultation with the Owner/Operator, recommend specific ECMs from its preliminary compilation for installation and implementation at the Facility(s).

F. Firm Costs and Fees

The Service Provider shall provide detailed estimates of all costs and fees associated with the installation and implementation of the ECMs including:

Engineering/design costs for individual ECMs Materials costs for individual ECMs, as well as mark-up Labor costs for individual ECMs, as well as margin Contractor/vendor estimates for individual ECM hard and soft costs Contingency costs for individual ECM hard cost Construction management fees for the project Commissioning costs for individual ECMs Retro-commissioning cost for existing systems that will not be replaced Initial training costs (and ongoing training, if applicable) Annual service fees including Measurement and verification Maintenance Performance monitoring Ongoing training services Other costs/fees (specify)

#### G. Guaranteed Savings

The Owner/Operator has endeavored to provide the Service Provider with sufficient general and specific guidance in this ARTICLE 1 to develop the guaranteed savings numbers for the Report. In the event that questions arise as to the calculation of savings or whether certain items will be allowed as savings, the Service Provider shall seek written guidance from the Owner/Operator. Owner/Operator rejection of certain calculations of savings or rejection of certain items as allowable savings in the Report shall be at the risk of the Service Provider.

#### The following items will be allowed as savings or in the development of savings:

Owner/Operator material/commodity cost Owner/Operator in-house labor cost, if applicable Owner/Operator deferred maintenance cost Outside maintenance labor costs (if applicable)

#### H. <u>Report Format</u>

#### The Service Provider shall prepare a two-volume report as follows:

Each volume should be submitted using 8 ½ " x 11" sheets of paper and a font size no smaller than 10 point. The pages in each volume should be numbered sequentially, include a Table of Contents and tabbed with the visible titles of corresponding Schedules (Volume 1) or Sections (Volume 2).

**Volume 1 of 2** shall include the presentation of information in the following Schedules required for the BOMA Energy Performance Contracting (BEPC) Model.

<u>Schedules</u> Schedule A	Equipment to be Installed by Service Provider
Schedule B	Description of Premises; Pre-Existing Equipment Inventory
Schedule C	Energy Saving Guarantee
Schedule D	Compensation to Service Provider
Schedule E	Baseline Energy Consumption
Schedule F	Savings Measurement & Calculation Formulae; Methodology to Adjust Baseline
Schedule G	Construction and Installation Schedule
Schedule H	Systems Start-Up and Commissioning; Operating Parameters of Installed
	Equipment
Schedule I	Standards of Comfort
Schedule J	Service Provider's Maintenance Responsibilities
Schedule K	Owner/Operator's Maintenance Responsibilities
Schedule L	Facility Maintenance Checklist
Schedule M	Service Provider's Training Responsibilities
Schedule N	Installment Purchase and Payment Schedule
<u>Exhibits</u>	
Exhibit I	Performance Bond/Construction Bond
Exhibit II (i)	Certificate of Acceptance—Technical Audit
Exhibit II (ii)	Certificate of Acceptance—Installed Equipment
Exhibit III	Equipment Warranties

**Volume 2 of 2** shall include all of the information required in Section D and the Sections below, and presented in the following format:

- 1. **Executive Summary:** Provide an executive summary which describes the Facility(s), energy conservation measures evaluated, analysis methodology, results and a summary table presenting the cost and savings estimates for each recommended measure. Include a summary of the recommended measures and costs.
- 2. **Measures and Technologies** <u>Not</u> **Evaluated:** Include a discussion of measures and technologies not evaluated and the explanation of why a detailed analysis was not performed.
- 3. **Baselines:** Provide a summary of all utility bills, consumption baselines and how they were established, and end use reconciliation with respect to the baselines including a discussion of any unusual characteristics and findings.
- 4. **ECM Summaries:** Provide detailed descriptions for each ECM including analysis method, supporting calculations (may be submitted in appendices), results, proposed equipment and implementation issues. Provide a financial analysis for each proposed ECM (See Section F).
- 5. Guaranteed Costs and Savings: Conclusions, observations regarding guaranteed costs and savings.

6. **Appendices:** Provide thorough appendices which document the data relied upon to prepare the analysis and how that data was collected.

# I. <u>Submission of the Report</u>

The Report shall be completed and submitted to Owner/Operator within \_\_\_\_\_ days **(suggested range of 60-90 days)** of the date of execution of this Investment Grade Audit Agreement. The Owner/Operator shall conduct and complete a technical review within 45 days of their receipt of the Report.

### J. <u>Acceptance of the Report – If Energy Conservation Measures are Feasible.</u>

The Owner/Operator shall accept the Report if the recommended ECMs are feasible according to the Owner/Operator's criteria as described in Article 1. If the Owner/Operator determines that one or more of the recommended ECMs are not feasible, the Owner/Operator shall give the Service Provider written notice of any and all said objections, in detail, within thirty (30) business days of receipt of the Report. The Owner/Operator reserves the right not to implement any ECM that in its sole discretion is deemed not to be feasible for any reason. The Service Provider shall, if necessary, correct the Report and submit a second draft within thirty (30) days of said notification. The Owner/Operator shall have ten (10) business days from receipt of the revised Report to notify the Service Provider if any objections have not been removed. Upon such notification, the Service Provider shall have thirty (30) days to resubmit the Report, and Owner/Operator shall have ten (10) business days to resubmit the Report, and Owner/Operator shall have ten (10) business days to resubmit the Report is accepted, (2) the dispute is resolved in accordance with the provisions of Article 3 P. If the Owner/Operator fails to give the Service Provider any written notice within the time provided for in this Article 1.J, the Report is deemed to have been accepted by the Owner/Operator.

# ARTICLE 2: BOMA ENERGY PERFORMANCE CONTRACT

The Parties intend to enter into a BOMA Energy Performance Contract under which the Service Provider shall design, install and implement energy conservation measures which the Parties have agreed to and provide certain maintenance and monitoring services. However, nothing in this Agreement should be construed as an obligation on any of the Parties to execute such a contract. The terms and provisions of such a contract shall be set forth in a separate agreement.

# ARTICLE 3: STANDARD TERMS AND CONDITIONS.

#### A. TERM OF AGREEMENT

The term of this Agreement shall commence on the Effective Date (as defined below) and shall end on \_\_\_\_\_\_ (the Expiration Date) subject to the other provisions of this Agreement.

The Effective Date shall be the date this Agreement has been fully executed by the Service Provider and by the Owner/Operator and all approvals required by Owner/Operator contracting procedures have been obtained. This Agreement shall not be a legally binding contract until after the Effective Date and when the fully-executed Agreement has been sent to the Service Provider.

The Contracting Officer shall issue a written Notice to Proceed to the Service Provider directing the Service Provider to start performance on a date which is on or after the Effective Date. The Service Provider shall not start the performance of any work prior to the date set forth in the Notice to Proceed and the Owner/Operator shall not be liable to pay the Service Provider for any service or work performed or expenses incurred before the date set forth in the Notice to Proceed. No Owner/Operator employee has the authority to verbally direct the commencement of any work under this Agreement.

# B. INDEPENDENT CONTRACTOR

In performing the services required by this Agreement, the Service Provider will act as an independent contractor and not as an employee or agent of the Owner/Operator.

# C. COMPLIANCE WITH LAW

Service Provider shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and codes, regulations, in effect at the time of this agreement and in accordance with sound engineering and safety practices, and in compliance with any and all reasonable rules of Owner/Operator relative to the Premises.

The Service Provider shall comply with all statutes and regulations of the state in which the Facility(s) is located concerning environmental quality control. The Service Provider is responsible for any violations and shall secure all required permits. Erosion control measures are shown on drawings and specifications and/or specified in the General Requirements. An erosion control permit, if required, will be obtained by the Professional.

# D. ENVIRONMENTAL PROVISIONS

In the performance of this Agreement, the Service Provider shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

# E. POST-CONSUMER RECYCLED CONTENT

Owner/Operator may require that any products which are provided to the Owner/Operator as a part of the performance of this Agreement must meet minimum percentage levels for total recycled content as specified in Exhibits A-1 through A-3 of this Agreement (if applicable).

#### F. COMPENSATION/EXPENSES

It is clearly understood by both parties hereto that, if the Parties successfully negotiate and execute a BOMA Energy Performance Contract, no payment shall be due for the Investment Grade Audit or Report under the terms of this Agreement. This Agreement shall automatically terminate upon the execution of a contract by the Service Provider and the Owner/Operator for an energy performance contracting project at the Facility(s).

# If the Owner/Operator elects to terminate this agreement pursuant to section O.2.d below, the Owner/Operator agrees to pay Service Provider a <u>"walk-away" fee</u> in the amount of \$\_\_\_\_\_.

The Service Provider shall be required to perform the specified services at the price(s) quoted above. All services shall be performed within the time period(s) specified in this Agreement.

# G. TAXES

The Owner/Operator is not responsible for the Service Provider's payment of any taxes or fees which are required to be paid with respect to the purchase, use, rental, or lease of tangible personal property or taxable services used or transferred in connection with the performance of a construction contract.

### H. WARRANTY

The Service Provider warrants that all services performed by the Service Provider, its agents and subcontractors shall be free and clear of any defects in workmanship or materials. Unless otherwise stated in this Agreement, all services and parts are warranted for a period of one year following completion of performance by the Service Provider and acceptance by the Owner/Operator. The Service Provider shall correct any problem with the service and/or replace any defective part with a part of equivalent or superior quality without any additional cost to the Owner/Operator.

#### I. BUILDING CODE

This project shall be subject to the Building Codes currently in effect in the State in which the Facility(s) is located and should familiarize itself with any relevant permitting requirements.

# J. PATENT, COPYRIGHT, AND TRADEMARK INDEMNITY

1. The Service Provider shall hold the Owner/Operator harmless from any suit or proceeding which may be brought by a third party against the Owner/Operator, its departments, officers or employees for the alleged infringement of any United States or foreign patents, copyrights, or trademarks, or for a misappropriation of trade secrets arising out of performance of this Agreement, including all work, services, materials, reports, studies, and computer programs provided by the Service Provider, and in any such suit or proceeding will satisfy any final award for such infringement, including costs. The Owner/Operator agrees to give Contractor prompt notice of any

such claim of which it learns. No settlement which prevents the Owner/Operator from continuing to use the items provided by the Service Provider shall be made without the Owner/Operator's prior written consent. In all events, the Owner/Operator shall have the right to participate in the defense of any such suit or proceeding through counsel of its own choosing. It is expressly agreed by the Service Provider that, in the event it requests that the Owner/Operator to provide support to the Service Provider in defending any such claim, the Service Provider shall reimburse the Owner/Operator for all expenses (including attorneys' fees, if such are made necessary by the Service Provider's request) incurred by the Owner/Operator for such support.

- 2. The Service Provider agrees to exercise reasonable due diligence to prevent claims of infringement on the rights of third parties. The Service Provider certifies that, in all respects applicable to this Agreement, it has exercised and will continue to exercise due diligence to ensure that all works produced under this Agreement do not infringe on the patents, copyrights, trademarks, trade secrets or other proprietary interests of any kind which may be held by third parties. The Service Provider also agrees to certify that work produced for the Owner/Operator under this Agreement shall be free and clear from all claims of any nature.
- 3. If the defense of the suit is delegated to the Service Provider, the Service Provider shall pay all damages and costs awarded therein against the Owner/Operator. If information and assistance are furnished by the Owner/Operator at Service Provider's written request, it shall be at the Service Provider's expense, but the responsibility for such expense shall be only that within the Service Provider's written authorization.
- 4. If, in the Service Provider's opinion, the products, materials, reports, studies, or computer programs furnished hereunder are likely to or do become subject to a claim of infringement of a United States patent, copyright, or trademark, or for a misappropriation of trade secret, then without diminishing the Service Provider's obligation to satisfy any final award, the Service Provider may, at its option and expense, substitute functional equivalents for the alleged infringing products, materials, reports, studies, or computer programs or, at the Service Provider's option and expense, obtain the rights for the Owner/Operator to continue the use of such products, materials, reports, studies, or computer programs.
- 5. If any of the products, materials, reports, studies, or computer programs provided by the Service Provider are in such suit or proceeding held to constitute infringement and the use or publication thereof is enjoined, the Service Provider shall, at its own expense and at its option, either procure the right to publish or continue use of such infringing products, materials, reports, studies, or computer programs, replace them with non-infringing items, or modify them so that they are no longer infringing.
- 6. If the Service Provider is unable to do any of the preceding, the Service Provider agrees to pay the Owner/Operator:

- a. any amounts paid by the Owner/Operator less a reasonable amount based on the acceptance and use of the deliverable;
- b. any license fee less an amount for the period of usage of any software; and
- c. the prorated portion of any service fees representing the time remaining in any period of service for which payment was made
- 7. The obligations of the Service Provider under this Section continue without time limit and survive the termination of this Agreement.
- 8. Notwithstanding the above, the Service Provider shall have no obligation for:
  - a. modification of any product, service, or deliverable provided by the Owner/Operator;
  - b. any material provided by the Owner/Operator to the Service Provider and incorporated into, or used to prepare, a product, service, or deliverable;
  - c. use of the product, service, or deliverable in other than its specified operating environment;
  - d. the combination, operation, or use of the product, service, or deliverable with other products, services, or deliverables not provided by the Service Provider as a system or the combination, operation, or use of the product, service, or deliverable, with any products, data, or apparatus that Service Provider did not provide;
  - e. infringement of a non-Service Provider product alone.
  - f. the Owner/Operator's distribution, marketing or use beyond the scope contemplated by the Agreement; or
  - g. the Owner/Operator's failure to use corrections or enhancements made available to the Owner/Operator by the Service Provider at no charge.
- 9. The obligation to indemnify the Owner/Operator, under the terms of this Section, shall be the Service Provider's sole and exclusive obligation for the infringement or misappropriation of intellectual property.

#### K. OWNERSHIP RIGHTS

The Owner/Operator shall have unrestricted authority to reproduce, distribute, and use any submitted report, data, or material, and any software or modifications and any associated documentation that is designed or developed and delivered to the Owner/Operator as part of the

performance of this Agreement. The Service Provider shall have no responsibility to Owner/Operator or others for any use of information provided by the Service Provider unless it is implemented through a subsequently-executed BEPC.

# L. ASSIGNMENT OF ANTITRUST CLAIMS

The Service Provider and the Owner/Operator recognize that in actual economic practice, overcharges by the Service Provider's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Owner/Operator. As part of the consideration for the award of this Agreement, and intending to be legally bound, the Service Provider assigns to the Owner/Operator all right, title and interest in and to any claims the Service Provider now has, or may acquire, under state or federal antitrust laws relating to the products and services which are the subject of this Agreement.

# M. INDEMNIFICATION AND HOLD HARMLESS PROVISION

- 1. Service Provider shall hold the Owner/Operator harmless from and indemnify them against any and all third party claims, demands and actions based upon or arising out of any activities performed by Service Provider and its employees and agents under this Agreement, provided the Owner/Operator gives Service Provider prompt notice of any such claim of which it learns.
- 2. The Owner/Operator will cooperate with all reasonable requests of Service Provider made in the defense of such suits. Service Provider will, at its expense, provide whatever cooperation the court requests in the defense of the suit. Notwithstanding, neither party shall enter into any settlement without the other party's written consent, which shall not be unreasonably withheld.

# N. AUDIT PROVISIONS

The Owner/Operator shall have the right, at reasonable times and at a site designated by the Owner/Operator, to audit the books, documents and records of the Service Provider to the extent that the books, documents and records relate to costs or pricing data for this Agreement. The Service Provider agrees to maintain records which will support the prices charged and costs incurred for this Agreement.

The Service Provider shall preserve books, documents, and records that relate to costs or pricing data for this Agreement for a period of three (3) years from date of final payment. The Service Provider shall give full and free access to all records to the Owner/Operator and/or their authorized representatives.

# O. TERMINATION PROVISIONS

1. By Service Provider:

Service Provider may terminate this Agreement prior to the completion of the Energy Audit and

Report or subsequent to the completion of the Energy Audit and Report if:

- a. it determines that it cannot meet Owner/Operator's financial or other criteria through the implementation of a BOMA Energy Performance Contracting project at the Facility(s); or
- b. it determines that even though it can meet the Owner/Operator's desired savings in energy costs, that amount would be insufficient to meet the Owner/Operator's predefined financial criteria and/or cover the costs associated with performing this analysis, installing energy conservation measures and related maintenance and monitoring services.

In the event Service Provider terminates the Agreement pursuant to subsection 1 (a), or (b), the Owner/Operator shall not be obligated to pay any amount to Service Provider for services performed or expenses incurred by Service Provider in performing the Energy Audit and Report required under this Agreement. Service Provider shall provide the Facility(s) with any preliminary notes, reports or analysis which have been produced or prepared prior to the effective date of the termination.

Termination under this section shall be effective upon Owner/Operator's receipt of written notification from the Service Provider stating the reason for the termination and all documents which support termination pursuant to subsection 1 (a), or (b) herein.

2. By Owner/Operator:

Owner/Operator may terminate this Agreement:

- a. If the Service Provider fails to complete the Energy Audit and deliver the Report to the Owner/Operator by the date established in Article 1, above; or fails to obtain a written extension of that date from the Owner/Operator. Termination under this subsection (a) shall be effective upon Service Provider's receipt of written notification from the Owner/Operator that the deadline for submission of the Report has past. In this event, the Owner/Operator shall not be obligated to pay any amount to Service Provider for services performed or expenses incurred by the Service Provider in performing the Energy Audit and preparing the Report required under this Agreement. Service Provider shall provide the Facility(s) with any preliminary notes, reports or analysis which have been produced or prepared prior to the effective date of the termination.
- b. If, prior or subsequent to the completion of the Energy Audit, the Service Provider notifies the Owner/Operator in writing that it is unable to guarantee a sufficient level of savings to meet the Owner/Operator's financial criteria pursuant to subsection 1 (a), or (b) above. Termination under this subsection 1 (b) shall be effective upon Service Provider's receipt of written notification from the Owner/Operator. In this event, the Owner/Operator shall not be obligated to pay any amount to Service Provider for services performed or expenses incurred by Service Provider in performing the Energy Audit and

preparation of the Report required under this Agreement. Service Provider shall provide the Facility(s) with any preliminary notes, reports or analysis which have been produced or prepared prior to the effective date of the termination.

- c. If the Service Provider's Investment Grade Audit Report does not identify a Project that meets the Owner/Operator's predefined financial criteria as set forth in Article 1, the Owner/Operator is not obligated to pay any amount to Service Provider for services performed or expenses incurred by Service Provider in performing the Investment Grade Audit or in preparation of the Report required under this Agreement.
- d. If the completed Investment Grade Audit Report <u>does</u> put forth a Project that meets the Owner/Operator's predefined financial and other criteria as set forth in Article 1 and the Owner/Operator chooses <u>not</u> to proceed to a BEPC for any reason, the Owner/Operator is obligated to pay the Service Provider a "walk-away" fee in an amount stipulated in Section F above. This amount shall in no circumstance exceed the audit fee stipulated in Section F above.
- e. If, prior to the completion of the Investment Grade Audit, the Owner/Operator notifies the Service Provider in writing that it has elected to terminate this Agreement for its convenience or for unavailability of funds and not enter into a BEPC, the Owner/Operator shall reimburse the Service Provider for actual documented time, material and ancillary expenses incurred, as of the effective date of the termination, but in no event shall the Owner/Operator's liability exceed the "walk-away" fee set forth in Section F. Service Provider shall not be entitled to loss of anticipated profit, loss of use of money, or administrative or overhead costs. Termination under this subsection 2 (c) shall be effective upon Service Provider 's receipt of written notification from the Owner/Operator and payment for actual expenses incurred shall be made in accordance with the provisions of subsection 2 (f) as follows.
- f. The Owner/Operator shall put forth reasonable efforts to make payment by the required payment date. The required payment date is: (a) the date on which payment is due under the terms of the Agreement; (b) thirty (30) days after a proper invoice actually is received at the "Owner/Operator" address if a date on which payment is due is not specified in this Agreement (a "proper" invoice is not received until the Owner/Operator accepts the service as satisfactorily performed); or (c) the payment date specified on the invoice if later than the dates established by (a) and (b) above. Payment may be delayed if the payment amount on an invoice is not based upon the price(s) as stated in this Agreement. Payment should not be construed by the Service Provider as acceptance of the service performed by the Service Provider. The Owner/Operator reserves the right to conduct further testing and inspection after payment, but within a reasonable time after performance, and to reject the service if such post payment testing or inspection discloses a defect or a failure to meet specifications. The Service Provider agrees that the Owner/Operator may set off the amount of any state tax liability or other obligation of the Service Provider or its

subsidiaries to the Owner/Operator against any payments due the Service Provider under any contract with the Owner/Operator.

Service Provider agrees to provide the Owner/Operator with any preliminary notes, reports, analyses, or the complete Energy Audit if available, which have been produced prior to the effective date of the termination. Such documentation shall be used by the Owner/Operator to verify the extent of work completed by Service Provider prior to termination and shall become the property of the Owner/Operator.

#### P. CONTRACT CONTROVERSIES

- 1. In the event of a controversy or claim arising from the Agreement, the Service Provider must, within six months after the cause of action accrues, file a written claim with the Owner/Operator contracting officer for a determination. The claim shall state all grounds upon which the Service Provider asserts a controversy exists. If the Service Provider fails to file a claim or files an untimely claim, the Service Provider is deemed to have waived its right to assert a claim in any forum.
- 2. The contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Service Provider. The contracting officer shall send his/her written determination to the Service Provider. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing Owner/Operator.
- 3. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Service Provider may file a statement of claim with the Owner/Operator and/or the appropriate entity. Pending a final judicial resolution of a controversy or claim, the Service Provider shall proceed diligently with the performance of the Agreement in a manner consistent with the determination of the contracting officer and the Owner/Operator shall compensate the Service Provider pursuant to the terms of the Agreement.

# Q. ASSIGNABILITY AND SUBCONTRACTING

- 1. Subject to the terms and conditions of this Paragraph, this Agreement shall be binding upon the parties and their respective successors and assigns.
- 2. The Service Provider shall not subcontract with any person or entity to perform all or any part of the work to be performed under this Agreement without the prior written consent of the Contracting Officer, which consent may be withheld at the sole and absolute discretion of the Contracting Officer.

- 3. The Service Provider may not assign, in whole or in part, this Contract or its rights, duties, obligations, or responsibilities hereunder without the prior written consent of the Contracting Officer, which consent may be withheld at the sole and absolute discretion of the Contracting Officer.
- 4. Notwithstanding the foregoing, the Service Provider may, without the consent of the Contracting Officer, assign its rights to payment to be received under this Agreement, provided that the Service Provider provides written notice of such assignment to the Contracting Officer together with a written acknowledgement from the assignee that any such payments are subject to all of the terms and conditions of this Contract.
- 5. For the purposes of this Agreement, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Service Provider provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.
- 6. Any assignment consented to by the Contracting Officer shall be evidenced by a written assignment agreement executed by the Service Provider and its assignee in which the assignee agrees to be legally bound by all of the terms and conditions of this Agreement and to assume the duties, obligations, and responsibilities being assigned.
- 7. A change of name by the Service Provider, following which the Service Provider's federal identification number remains unchanged, shall not be considered to be an assignment hereunder. The Service Provider shall give the Contracting Officer written notice of any such change of name.

#### R. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of this Agreement, Service Provider agrees as follows:

- 1. In the hiring of any employees for the manufacture of supplies, performance of work, or any other activity required under this Agreement or any subcontract, the Service Provider, subcontractor or any person acting on behalf of the Service Provider or subcontractor shall not by reason of gender, race, creed, or color discriminate against any citizen of this Owner/Operator who is qualified and available to perform the work to which the employment relates.
- 2. Neither the Service Provider nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work or any other activity required under this Agreement on account of gender, race, creed, or color.
- 3. The Service Provider and its subcontractors shall establish and maintain a written sexual harassment policy and shall inform its employees of the policy.

- 4. The Service Provider and each subcontractor shall furnish all necessary employment documents and records to and permit access to its books, records, and accounts by the contracting officer if requested for purposes of investigation to ascertain compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause. If the Service Provider or any subcontractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting officer.
- 5. The Service Provider shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.
- 6. The Owner/Operator may cancel or terminate this Agreement, and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause.

#### S. CONTRACTOR INTEGRITY PROVISIONS

- 1. For purposes of this clause only, the words "confidential information," "consent," "service provider," "financial interest," and "gratuity" shall have the following definitions.
  - a) **Confidential information** means information that is not public knowledge, or available to the public on request, disclosure of which would give an unfair, unethical, or illegal advantage to another desiring to contract with the Owner/Operator.
  - b) **Consent** means written permission signed by a duly authorized officer or employee of the Owner/Operator, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Owner/Operator shall be deemed to have consented by virtue of execution of this agreement.
  - c) **Service Provider** means the individual or entity that has entered into the Agreement with the Owner/Operator, including directors, officers, partners, managers, key employees and owners of more than a five percent interest.
  - d) Financial interest means:
    - (1) Ownership of more than a five percent interest in any business; or
    - (2) Holding a position as an officer, director, trustee, partner, employee, or the like, or holding any position of management.

- e) **Gratuity** means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind.
- 2. The Service Provider shall maintain the highest standards of integrity in the performance of this Agreement and shall take no action in violation of state or federal laws, regulations, or other requirements that govern contracting with the Owner/Operator.
- 3. The Service Provider shall not disclose to others any confidential information gained by virtue of this Agreement.
- 4. The Service Provider shall not, in connection with this or any other agreement with the Owner/Operator, directly, or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any officer or employee of the Owner/Operator.
- 5. The Service Provider shall not, in connection with this or any other agreement with the Owner/Operator, directly or indirectly, offer, give, or agree or promise to give to anyone any gratuity for the benefit of or at the direction or request of any officer or employee of the Owner/Operator.
- 6. Except with the consent of the Owner/Operator, neither the Service Provider nor anyone in privity with him or her shall accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of work under this Agreement except as provided therein.
- 7. Except with the consent of the Owner/Operator, the Service Provider shall not have a financial interest in any other Service Provider, subcontractors, or supplier providing services, labor, or material on this project.
- 8. The Service Provider, upon being informed that any violation of these provisions has occurred or may occur, shall immediately notify the Owner/Operator in writing.
- 9. The Service Provider, by execution of this Agreement and by the submission of any bills or invoices for payment pursuant thereto, certifies, and represents that he or she has not violated any of these provisions.
- 10. The Service Provider, upon the inquiry or request of the Owner/Operator or any of its official agents or representatives, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Owner/Operator to the Service Provider's integrity or responsibility, as those terms are defined by the Owner/Operator's regulations, or management directives. Such information may include, but shall not be limited to, the Service

Provider's business or financial records, documents or files of any type or form which refers to or concern this Agreement. Such information shall be retained by the Service Provider for a period of three years beyond the termination of this Agreement unless otherwise provided by law.

11. For violation of any of the above provisions, the Owner/Operator may terminate this and any other agreement with the Service Provider, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all expenses incurred in obtaining another Service Provider to complete performance hereunder, and suspend the Service Provider from doing business with the Owner/Operator. These rights and remedies are cumulative, and the use or nonuse of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Owner/Operator may have under law, statute, regulation, or otherwise.

#### T. SERVICE PROVIDER RESPONSIBILITY PROVISIONS

- 1. The Service Provider certifies, for itself and all its subcontractors, that as of the date of its execution of this Agreement, that neither the Service Provider, nor any subcontractors, nor any suppliers are under suspension or debarment by any entity, instrumentality, or authority and, if the Service Provider cannot so certify, then it agrees to submit, along with this Agreement, a written explanation of why such certification cannot be made.
- 2. The Service Provider's obligations pursuant to these provisions are ongoing from and after the effective date of the Agreement through the termination date thereof. Accordingly, the Service Provider shall have an obligation to inform the Owner/Operator if, at any time during the term of this Agreement, it becomes delinquent in the payment of any of its subcontractors or if it or any of its subcontractors are suspended or debarred by any state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.
- 4. The failure of the Service Provider to notify the Owner/Operator of its suspension or debarment shall constitute an event of default of this Agreement with the Owner/Operator.
- 5. The Service Provider agrees to reimburse the Owner/Operator for the reasonable costs of investigation incurred by the Owner/Operator for any investigations of the Service Provider's compliance with the terms of this or any other agreement between the Service Provider and the Owner/Operator, which results in the suspension or debarment of the Service Provider. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Service Provider shall not be responsible for investigative costs for investigations that do not result in the Service Provider's suspension or debarment.

#### U. AMERICANS WITH DISABILITIES ACT

- 1. Pursuant to federal regulations promulgated under the authority of <u>The Americans</u> with Disabilities Act, the Service Provider understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Agreement or from activities provided for under this Agreement on the basis of the disability. As a condition of accepting this contract, the Service Provider agrees to comply with the <u>"General Prohibitions Against Discrimination</u>," and all other regulations promulgated under Title II of <u>The Americans with Disabilities Act</u> which are applicable to all benefits, services, programs, and activities provided by the Owner/Operator through contracts with outside contractors.
- 2. The Service Provider shall be responsible for and agrees to indemnify and hold harmless the Owner/Operator from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Owner/Operator as a result of the Service Provider's failure to comply with the provisions of subparagraph a above.

# V. HAZARDOUS SUBSTANCES

The Service Provider shall provide information to the Owner/Operator about the identity and hazards of hazardous substances supplied or used by the Service Provider in the performance of this Agreement. The Service Provider must comply with all relevant regulations pertaining to hazardous materials.

- Labeling. The Service Provider shall insure that each individual product (as well as the carton, container or package in which the product is shipped) of any of the following substances (as defined by the Act and the regulations) supplied by the Service Provider is clearly labeled, tagged or marked with the information listed in Paragraph (1) through (4):
  - a) Hazardous substances:
    - 1) The chemical name or common name,
    - 2) A hazard warning, and
    - 3) The name, address, and telephone number of the manufacturer.
  - b) Hazardous mixtures:
    - 1) The common name, but if none exists, then the trade name,
    - 2) The chemical or common name of special hazardous substances comprising .01% or more of the mixture,
    - 3) The chemical or common name of hazardous substances consisting 1.0 percent or more of the mixture,
    - 4) A hazard warning, and
    - 5) The name, address, and telephone number of the manufacturer.
  - c) Single chemicals:

- 1) The chemical name or the common name,
- 2) A hazard warning, if appropriate, and
- 3) The name, address, and telephone number of the manufacturer.
- d) Chemical mixtures:
  - 1) The common name, but if none exists, then the trade name,
  - 2) A hazard warning, if appropriate,
  - 3) The name, address, and telephone number of the manufacturer, and
  - 4) The chemical name or common name of either the top five substances by volume or those substances consisting of 5.0 percent or more of the mixture.

A common name or trade name may be used only if the use of the name more easily or readily identifies the true nature of the hazardous substance, hazardous mixture, single chemical, or mixture involved.

Container labels shall provide a warning as to the specific nature of the hazard arising from the substance in the container.

The hazard warning shall be given in conformity with one of the nationally recognized and accepted systems of providing warnings, and hazard warnings shall be consistent with one or more of the recognized systems throughout the workplace. Examples are:

- NFPA 704, Identification of the Fire Hazards of Materials.
- National Paint and Coatings Association: Hazardous Materials Identification System.
- American Society for Testing and Materials, Safety Alert Pictorial Chart.
- American National Standard Institute, Inc., for the Precautionary Labeling of Hazardous Industrial Chemicals.

Labels must be legible and prominently affixed to and displayed on the product and the carton, container, or package so that employees can easily identify the substance or mixture present therein.

2. Material Safety Data Sheet. The Service Provider shall provide Material Safety Data Sheets (MSDS) with the information required by the Act and the regulations for each hazardous substance or hazardous mixture. The Owner/Operator must be provided an appropriate MSDS with the initial shipment and with the first shipment after an MSDS is updated or product changed. For any other chemical, the Service Provider shall provide an appropriate MSDS, if the manufacturer, importer, or supplier produces or possesses the MSDS. The Service Provider shall also notify the Owner/Operator when a substance or mixture is subject to the provisions of the Act. Material Safety Data Sheets may be attached to the carton, container, or package mailed to the Owner/Operator at the time of shipment.

### W. COVENANT AGAINST CONTINGENT FEES

The Service Provider warrants that no person or selling Owner/Operator has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the Service Provider for the purpose of securing business. For breach or violation of this warranty, the Owner/Operator shall have the right to terminate this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

### X. APPLICABLE LAW

This Agreement shall be governed by and interpreted and enforced in accordance with the laws of the Owner/Operator of the state where the Property(s) are located (without regard to any conflict of laws provisions) and the decisions of the appropriate state courts. The Service Provider consents to the jurisdiction of any court, waiving any claim or defense that such forum is not convenient or proper. The Service Provider agrees that any such court shall have in personam jurisdiction over it, and consents to service of process in any manner authorized by State law in the state where the Property(s) is located.

#### Y. INTEGRATION

This Agreement, including all referenced documents, constitutes the entire agreement between the parties. No agent, representative, employee or officer of either the Owner/Operator or the Service Provider has authority to make, or has made, any statement, agreement or representation, oral or written, in connection with this Agreement, which is any way can be deemed to modify, add to or detract from, or otherwise change or alter its terms and conditions. No negotiations between the parties, nor any custom or usage, shall be permitted to modify or contradict any of the terms and conditions of this Agreement. No modifications, alterations, changes, or waiver to this Agreement or any of its terms shall be valid or binding unless accomplished by a written amendment signed by both parties. All such amendments will be made using the appropriate Owner/Operator methods.

# Z. MATERIALS, EQUIPMENT AND SUPPLIES

The Service Provider shall provide or cause to be provided all facilities, materials, equipment and supplies necessary to perform the Energy Audit and prepare the Report.

#### AA. <u>SUBCOMPANY DISCLOSURE</u>

As of the execution date of this Agreement, the following subcontractors are expected to perform work pursuant to this Agreement and to be paid with funds provided hereunder:

Name

Address

Anticipated \$ Amount

If, during the term of this Agreement, the Service Provider retains subcontractors to be paid with funds provided by this Agreement who were not disclosed, the Service Provider shall so notify the Owner/Operator and the Parties shall file an amendment to this Agreement stating the names and addresses of and anticipated amount of payment to each subcontractors.

#### BB. <u>PERSONNEL</u>

All personnel necessary for the effective performance of the Investment Grade Energy Audit shall be employed by Service Provider and its designated subcontractors, shall be qualified to perform the services required under this Agreement, and shall in all respects be subject to the rules and regulations of Service Provider governing staff members and employees. Neither Service Provider, its designated subcontractors, nor its personnel shall be considered to be agents or employees of the Owner/Operator.

#### CC. <u>NOTICE</u>

1. Any written notice under this Agreement to the Owner/Operator is sufficient if mailed to:

2. Any written notice under this Agreement to Service Provider is sufficient if mailed to:

DD. <u>AGREEMENT</u>

The following documents are incorporated in, and made a part of, this Agreement:

#### EE. <u>PROJECT MANAGEMENT</u>

All necessary and ordinary communications, submittals, approvals, requests and notices related to Project work shall be issued or received by:

For Owner/Operator:

For Service Provider:

IN WITNESS WHEREOF, the parties have executed this Agreement this _	day of
, 20	

WITNESS:	OWNER/OPERATOR
	[Name]
Signature	Signature
ATTEST:	SERVICE PROVIDER
	[Name]
	Signature

# **Appendix F: Energy Performance Contract Template**

This document, the BOMA Energy Performance Contract, is a template with provisions that may or may not be suitable for a particular project; it is intended as a guide. Parties using this document are advised to consult with legal counsel with expertise in energy services performance contracts.

This Energy Services Performance Contract (this "Contract") is entered into by and between \_\_\_\_\_\_, a \_\_\_\_\_\_, ("Customer"), as of the date of execution set forth below; whereby the Service Provider agrees to implement the energy conservation measures and perform the other services set forth in this Contract, including in the attached schedules:

Schedule A: Project Description; Schedule B: Performance Guarantee; Schedule C: Methodology and Baseline; Schedule D: Performance Tracking Services; Schedule E: Payment Schedule; Schedule F: Project Specific Customer Responsibilities; Schedule G: Required Maintenance; and Schedule H: Service Provider's Insurance Requirements.

The Service Provider agrees to implement the Project and perform the Contract Services, as hereinafter defined, at the office buildings owned by the Customer commonly known as [Insert Names] and located at:

1	
	" <i>Site</i> " or " <i>Sites</i> ").

IN WITNESS WHEREOF, the parties have executed this Contract as of the day and year written below.

Ву		Ву	
Signature		Signature	
Title		Title	
Date		Date	
	CUSTOMER		SERVICE PROVIDER

Appendix F: Energy Performance Contract Template

#### DEFINITIONS

All capitalized terms used in this Contract shall have the meaning set forth below, or in <u>Schedule B</u>, Section I:

- 1. "Anti-Terrorism Laws" is defined in Section 5.5.2.
- 2. "*Change Order*" means a written change in the Project executed by both Parties that, pursuant to Article 8, specifies changes in the Contract Services and, if applicable, changes in the Contract Sum and Contract Time.
- 3. "*Concealed Conditions*" means subsurface or otherwise concealed physical conditions at the Site of an unusual nature that differ materially from those conditions ordinarily found to exist and generally recognized as inherent in construction activities of the type and character as the Work, and that the Service Provider could not have discovered through the exercise of reasonable diligence during the performance of the Investment Grade Audit.
- 4. "*Confidential Information*" is defined in Section 15.2.
- 5. "*Construction Operations Phasing Plan*" means a construction operation phasing plan detailing the Service Provider's phasing and staging of the Work at the Site.
- 6. "*Construction Schedule*" means the Service Provider's construction schedule for the Work that includes, without limitation, a schedule related to the entire Project and for each energy conservation measure (ECM), and that provides for expeditious and practicable execution of all aspects of the Work.
- 7. "*Contract Documents*" means this Contract with conditions set forth herein, the Schedules identified above, the Design & Engineering Documents (once approved by the Customer as provided in Section 4.2), the Construction Schedule, any Change Orders, the other documents listed in the Contract, and any modifications to the foregoing documents issued after execution of this Contract.
- 8. "Contract Services" means the Work and the Guarantee Period Services.
- 9. "Contract Sum" is defined in Section 2.1.
- 10. "Contract Time" is defined in Section 1.1.
- 11. "Contractor's Fee" is defined in Section 2.2.
- 12. "Cost of the Work" is defined in Section 2.2.
- 13. "*Customer*" is defined on the first page of this Contract.
- 14. "Date of Commencement" means the date established pursuant to Section 1.2.
- 15. "Day" means calendar day unless otherwise specifically designated.
- 16. "*Deliverables*" means the Design Materials that are necessary for the Customer to operate and maintain the Project or are otherwise intended for conveyance to the Customer.
- 17. "*Design & Engineering Documents*" is defined in Section 4.2.1.

Appendix F: Energy Performance Contract Template

- 18. "*Design Materials*" means the copies and other tangible embodiments of the drawings, specifications, designs, plans, "architectural work" (as such term is defined in the Architectural Works Copyright Protection Act of 1990) and other documents, prepared by or on behalf of the Customer, the Service Provider, and/or Subcontractors in connection with the Project or the Contract Services.
- 19. "*Energy Conservation Measures*" or "*ECMs*" and each, an "*ECM*", means the equipment, devices, materials, and/or software to be installed at the Site by the Service Provider and all related services as described in <u>Schedule A</u>.
- 20. "*Environmental Incentives*" means all rights, credits (including tax credits), rebates, grants, benefits, reductions, offsets, and allowances and entitlements of any kind, howsoever entitled or named (including carbon credits and allowances), whether arising under federal, state or local law, international treaty, trade association membership or the like, arising from the development or installation of the ECMs and the reduction of energy usage at the Site. Without limiting the forgoing, "Environmental Incentives" includes utility rebates or incentive programs, green tags, renewable energy credits, tradable renewable certificates, portfolio energy credits, the right to apply for (and entitlement to receive) incentives under any state tax credit program, grants from nongovernmental organizations, and the right to claim federal income tax credits under Sections 45 and/or 48 of the Internal Revenue Code.
- 21. "Services Provider" is defined on the first page of this Contract.
- 22. "Service Provider's Representative" is defined in Section 5.3.
- 23. "*Final Acceptance*" means the date that the Customer has determined, in consultation with the Service Provider, that all of the required Work for constructing and commissioning the Project have been completed in accordance with the Contract Documents.
- 24. "Final Acceptance Date" is defined in Section 1.4.
- 25. "*Financing Closing*" is defined in Section 1.2.
- 26. "Financing Contract" is defined in Section 1.2.
- 27. "*Guarantee Period*" is defined in Section 1.1.
- 28. "Guarantee Period Services" means the performance guarantee, monitoring, Project modification, guarantee reconciliation, Performance Tracking Services, and other services to be performed during the Guarantee Period as described in <u>Schedules B</u>, <u>C</u>, and <u>D</u> of this Contract.
- 29. "*Hazardous Material*" means (A) any substance that is listed, defined, designated or classified under any state, federal, or local law relating to the protection of the environment or human health as a (i) hazardous material, constituent, or waste, (ii) toxic material, substance, constituent, or waste, (iii) radioactive material, substance, constituent, or waste, (iv) dangerous material, substance, constituent, or waste, (v) pollutant, (vi) contaminant, or (vii) special waste; or (B) petroleum, petroleum products, radioactive matters, polychlorinated biphenyl, pesticides, asbestos, or asbestos-containing materials.
- 30. "*Installation Period*" is defined in Section 1.1.

- 31. "Installation Period Savings" is defined in Section 2.2.
- 32. "*Intellectual Property Rights*" means any patents, copyrights, trademarks, service marks, trade secrets and similar and related intellectual property rights protected by law.
- 33. "*Interim Completion*" means the achievement of the requirements for Substantial Completion for a particular ECM prior to the Substantial Completion Date.
- 34. "Investment Grade Audit" means the report prepared by the Service Provider that sets forth, among other things, (a) an assessment of the energy consumption characteristics of the Site, (b) specific energy analysis related to the Site and its operation, and (c) recommendations for projects or programs to achieve cost and/or energy savings in the operation of the Site.
- 35. "*Manufacturers' Warranties*" is defined in Section 4.14.
- 36. "*Mold*" means any type or form of fungus or similar biological material or agent, including mold, mildew, moisture, yeast and mushrooms, and any mycotoxins, spores, scents, or by-products produced or released by any of the foregoing.
- 37. "*Parties*" means the Service Provider and the Customer. "*Party*" means either the Service Provider or the Customer.
- 38. "*Performance Tracking Payment*" is defined in Section 2.4.
- 39. "*Performance Tracking Services*" means those services to be provided by the Service Provider to measure and verify the performance of the ECMs described in <u>Schedule D</u>.
- 40. "*Project*" means the building analysis and recommendation services, design, engineering, installation, repairs, retrofit, complete implementation of the Energy Conservation Measures, and training program for the Customer's employees as more fully described in the "Project Description" attached hereto as <u>Schedule A</u> and the other terms and provisions of this Contract.
- 41. "*Punch List*" means minor items of Work to be completed after Substantial Completion and prior to Final Acceptance, which do not prevent an ECM or the Project from being used for the purpose for which it is intended and which will not prevent the issuance of applicable permits or certificates for such use.
- 42. "Site" is defined on the first page of this Contract.
- 43. "*Subcontractor*" means any partnership, firm, corporation or entity other than an employee of the Service Provider, who contracts with the Service Provider to furnish services, labor, materials, or labor and materials at the Site. This term also includes subcontractors of any tier, suppliers, fabricators or manufacturers, whether or not in privity with the Service Provider.
- 44. "*Substantial Completion*" means the date that is the later of the following: (i) the Customer has determined, in consultation with the Service Provider, the Work for the Project or a particular ECM is sufficiently implemented in accordance with the Contract Documents, including commissioning of any systems required by the Contract Documents, so that the Customer may utilize the Project or the ECM for the use that it is intended, and is fully complete except for minor items, adjustments, and/or corrections that do not interfere with

the Customer's use and occupancy of the Project or ECM; or (ii) if the nature of such Work requires that a certificate of occupancy be issued, it means the date of issuance of the required certificate of occupancy.

- 45. "Substantial Completion Date" is defined in Section 1.3.
- 46. "USA Patriot Act" is defined in Section 5.5.2.
- 47. "*Work*" means the work and services required by the Contract Documents during the Installation Period and during any period of time during which the Service Provider is required to correct or replace its work and services pursuant to this Contract, whether completed or partially completed and, includes all labor, materials, equipment, and services provided or to be provided by the Service Provider to fulfill the Service Provider's obligations under this Contract.

### RECITALS

WHEREAS the Customer is willing to have installed within the Site the equipment and related work described in <u>Schedule A</u> that comprises the Project;

WHEREAS the Customer desires to retain the Service Provider to complete the Project and provide initial start-up, training, monitoring, verification of savings, and other services, as more fully set forth herein; and

WHEREAS the Customer desires to enter into a contract with the Service Provider to achieve energy and maintenance cost reductions within the Site, subject to the terms and conditions of the Contract; and for other good and valuable consideration, the Parties, intending to be legally bound, hereby agree as follows:

# ARTICLE 1 – CONTRACT TIME AND PROJECT SCHEDULE

1.1 <u>Contract Time</u>. The "*Contract Time*" is the period of time from the Date of Commencement, as established pursuant to Section 1.2, until the end of the Guarantee Term, as defined in <u>Schedule B</u>, Section I. The Contract Time consists of the Installation Period and the Guarantee Period. The "*Installation Period*" is the period of time from the Date of Commencement until Final Acceptance of the entire Project. The "*Guarantee Period*" is the period of time from the Savings Guarantee Commencement Date, as defined in <u>Schedule B</u>, Section I, until the end of the Guarantee Term.

1.2 <u>Date of Commencement</u>. The "*Date of Commencement*" is the date established by the following election of the Parties:

If the preceding box is checked, the Customer will not be financing payment of the Work with funds other than its own and will use its own funds to pay for the Work. Accordingly, execution of this Contract by both Parties shall constitute the Date of Commencement.

If the preceding box is checked, the Customer intends to finance payment of the Work with funds other than its own. Accordingly, the Date of Commencement shall not occur until and unless the Customer has closed on its financing of this Contract (the "Financing Closing"), as evidenced by fully executed contract documents for financing of the Contract Sum (the "Financing **Contract**") and funding of any escrow account provided for by the Financing Contract. The Customer will achieve Financing Closing on or before or such later date agreed to in writing by the Service Provider. Within ten (10) calendar days of the Financing Closing, the Customer shall execute and issue a written notice to proceed to the Service Provider, upon which event the Service Provider will commence performance of the Work hereunder. In the event Customer does not achieve Financing Closing on or before the date specified in this paragraph, or such later date agreed to in writing by the Service Provider, the Service Provider may terminate this Agreement upon fourteen (14) days prior written notice to the Customer. Upon such termination of this Agreement, the Service Provider shall have no further obligations to the Customer hereunder; provided, however, that, notwithstanding such termination, the Customer shall be obligated to pay the Service Provider the amount, if any, required pursuant to the agreement between the Parties for the Investment Grade Audit.

1.3 <u>Substantial Completion</u>. The Service Provider will commence the Work within ten (10) days after the Date of Commencement and will successfully achieve Substantial Completion of the Project within \_\_\_\_\_\_ days from the Date of Commencement ("*Substantial Completion Date*"), subject only to adjustments of this Contract Time as provided in the Contract Documents. The Service Provider may achieve Interim Completion for a particular ECM(s) in advance of the Substantial Completion Date. ECM(s) completed in advance of Substantial Completion may have Interim Completion dates (as described below).

1.3.1 When the Service Provider believes that the entire Project or a particular ECM has achieved Interim or Substantial Completion, the Service Provider will submit a certificate of Interim or Substantial Completion and a Punch List to the Customer on a form agreed to by the Parties. If the Customer concurs that the described portion of the Work as performed has achieved Interim or Substantial Completion, the Customer will accept that Work by signing the certificate of Interim or Substantial Completion and the Punch List and returning both to the Service Provider. If the Customer does not concur that the Work has achieved Interim or Substantial Completion and/or that the Punch List is not concur that the Work has achieved Interim or Substantial Completion and/or that the Punch List is not complete or correct, then the Customer shall notify the Service Provider within ten (10) business days of any discrepancies. To the extent the Service Provider does not dispute the discrepancies raised by the Customer, the Service Provider shall (i) promptly and diligently correct the Work to conform to the description of the Work set forth herein, and resubmit the certificate of Interim or Substantial Completion to the Customer, and (ii) promptly complete all items on the Punch List. If the Service Provider disagrees with the discrepancies raised by the Customer, the Service Provider shall notify the Customer of a dispute and such dispute shall be resolved in accordance with Section 1.3.2 herein. If the Customer does not deliver written notice to the Service Provider within ten (10) business days of receiving the certificate of Interim or Substantial Completion and the Punch List, the Customer will be deemed to have agreed to, signed and returned the certificate of Interim or Substantial Completion and the Punch List.

1.3.2 Any disputes concerning the Interim or Substantial Completion of the Work will be resolved by submitting the issue to a third party professional engineering firm reasonably acceptable to both the Service Provider and the Customer. The determination of this firm with respect to Interim or Substantial Completion will be final and binding upon the Parties. The Service Provider and the Customer shall share equally the costs or fees for such firm in connection with such dispute resolution process.

1.4 <u>Final Acceptance</u>. The Service Provider will successfully achieve Final Acceptance of the entire Project within \_\_\_\_\_\_\_ days from the Date of Commencement, subject only to adjustments of the Contract Time as provided in the Contract Documents ("*Final Acceptance Date*"). The Service Provider acknowledges that the Savings Guarantee Commencement Date, as defined in <u>Schedule B</u>, Section I, will commence on the Final Acceptance Date, even if the Service Provider has failed to achieve Final Acceptance of the entire Project.

#### 1.5 Early Completion Incentives and Liquidated Damages

If the preceding box is checked, then this Agreement does not include any incentive payments for early completion of the Project or liquidated damages for late completion of the Project.

If the preceding box is checked, then the Customer shall pay the Service Provider an incentive fee of [\_\_\_\_\_\_ and No/100 Dollars (\$\_\_\_\_\_)] for each day the date of Substantial Completion of the entire Project precedes the date that is [\_\_\_\_\_\_] days after the Date of Commencement. Under no circumstances will the date set forth in the preceding sentence be adjusted for any reason. Any incentive fee earned by the Service Provider pursuant to this paragraph shall be included with the final payment for the Work.

If the preceding box is checked, then the Customer shall be entitled to recover as liquidated damages, and not as a penalty, the sum of [\_\_\_\_\_\_\_ and No/100 Dollars (\$\_\_\_\_\_\_)] for each day Substantial Completion of the entire Project is delayed beyond the Final Acceptance Date. The Parties agree that it would be extremely difficult and impracticable under the presently known and anticipated facts and circumstances to fix with precision the actual damages the Customer would incur in the event of any such delay, and that the liquidated damages identified in this paragraph are a good faith and reasonable estimate of the damages and loss the Customer would suffer. The liquidated damages will be due and payable by the Service Provider to the Customer upon demand.

#### 1.6 Construction Schedule and Construction Operations Phasing Plan.

If the preceding box is checked, the Service Provider will, within \_\_\_\_\_ days after the Date of Commencement prepare and submit the Construction Schedule and Construction Operations Phasing Plan, prepared in form and substance reasonably acceptable to or as specifically prescribed by the Customer.

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If the preceding box is checked, the Construction Schedule and Construction Operations Phasing Plan are included as attachments to <u>Schedule A</u>: Project Description.

The Construction Schedule shall be updated by the Service Provider and submitted to the Customer at least monthly and, if requested by the Customer, in electronic format. The Service Provider shall submit a revised Construction Schedule when the Service Provider's planned sequence is changed or when Project changes are made that affect the Construction Schedule. Any changes to the Construction Schedule and Construction Operations Phasing Plan are subject to review and approval by the Customer. When performing the Work, the Service Provider shall comply with the Construction Operations Phasing Plan and the Construction Schedule.

#### **ARTICLE 2 – COMPENSATION TO THE SERVICE PROVIDER**

2.1 Contract Sum. The Customer shall pay the Service Provider for the due, proper, and complete performance of the Work as required hereunder and for the due performance of all other obligations and duties imposed upon this Service Provider pursuant to this Contract, other than the Performance Tracking Services, the "Contract Sum" of [\_\_\_\_\_\_ and No/100 Dollars (\$\_\_\_\_\_\_ )], subject to additions and deductions by Change Order as provided in this Contract.

2.2 Installation Period Savings. Cost savings achieved during the Installation Period shall be addressed in accordance with the following election by the Parties:

If the preceding box is checked, in the event the Service Provider achieves cost savings during the Implementation Period those cost savings shall not reduce the Contract Sum, and shall belong exclusively to the Service Provider.

If the preceding box is checked, the Service Provider and the Customer have agreed to share Installation Period Savings, as defined below, on the following basis:

(i) percent (%) of Installation Period Savings shall inure to the benefit of the Customer, and shall be deducted from the Contract Sum payable to the Service Provider; and

(ii) the remaining \_\_\_\_\_\_ percent (\_\_\_%) of Installation Period Savings shall inure to the benefit of the Service Provider, and shall be paid to the Service Provider as an additional fee with its final payment.

"*Installation Period Savings*" means the amount by which the Cost of the Work and the Contractor's Fee is less than the Contract Sum. If the Parties agree to share Installation Period Savings pursuant to this paragraph, <u>Schedule E</u> to this Contract shall: (i) delineate the items of cost to be included within the "*Cost of the Work*"; and (ii) identify the "*Contractor's Fee*".

2.3 <u>Environmental Incentives</u>. The Customer shall own, and may assign or sell in its sole discretion, all right, title, and interest associated with Environmental Incentives. Environmental Incentives will not be included within any calculation of savings or otherwise reduce the Service Provider's responsibility for achieving the Guaranteed Annual Savings Amount or Guaranteed Project Savings Amount, as such terms are defined in <u>Schedule B</u>.

2.4 <u>Compensation for Performance Tracking Services</u>. Commencing upon the Interim Completion of each ECM(s) (or such other time identified in <u>Schedule D</u>,) and continuing until the expiration or earlier termination of this Contract, the Service Provider will perform the Performance Tracking Services. The Customer shall make annual payments to the Service Provider for the Performance Tracking Services for each Performance Guarantee Year in the amounts set forth in <u>Schedule E</u>, Section II (the "*Performance Tracking Payment*"). If, any Performance Guarantee Year, the Customer to pay for the Performance Tracking Services in accordance with this Contract or does not permit the Service Provider to perform the Performance Tracking Services, the Service Provider shall have no obligation to achieve the performance guarantees set forth in <u>Schedule B</u> with respect to such Performance Guarantee Year.

# ARTICLE 3 – CUSTOMER

3.1 <u>Project Specific Customer Responsibilities</u>. The Customer agrees to undertake the Project specific Customer responsibilities set forth on <u>Schedule F</u>.

3.2 <u>Customer Representative</u>. The Customer will appoint one individual who is authorized to act on behalf of the Customer either to approve, reject or otherwise facilitate the orderly execution of the Contract Services and with whom the Service Provider may consult at all reasonable times, and whose instructions, requests, and decisions in writing shall be binding upon the Customer as to all matters pertaining to this Contract. The Customer may substitute a new Customer's representative upon prior notice to the Service Provider.

3.3 <u>Information to the Service Provider</u>. Information requested by the Service Provider and under the Customer's control necessary for the performance of the Contract Services shall be furnished by the Customer with reasonable promptness. Any information or documentation provided by the Customer to the Service Provider relating to the Project or Site is provided only for the convenience of the Service Provider. The Customer makes no representation or warranty to as to the sufficiency, completeness, or accuracy of such information.

3.4 <u>Telephone and Network Access</u>. The Customer is responsible for providing all required telephone lines and telephone service and/or all required network LAN/WAN access including but not limited to VPN tunneling, firewall coordination, and static/dynamic IP address maintenance to allow

the Service Provider 24/7 remote access to performance tracking monitoring systems to the extent required to perform and complete the Contract Services.

# **ARTICLE 4 – INSTALLATION PERIOD SERVICES**

4.1 <u>Permits and Approvals</u>. Except for those permits and fees that are specified as the responsibility of the Customer under the Contract Documents, the Service Provider shall secure and pay for necessary permits, approvals, assessments and charges required for the proper execution and completion of the Work.

### 4.2 <u>Design and Engineering Documents</u>

4.2.1 The Service Provider shall prepare, for written approval by the Customer, working drawings and specifications setting forth in detail the requirements of the construction and installation of the Project in accordance with the Contract Documents ("*Design & Engineering Documents*"). The Design & Engineering Documents shall include all drawings, specifications, schedules, diagrams, and plans, and such content and detail as is necessary to properly complete the construction of the Project, and shall provide information customarily necessary for the use of such documents by those in the building trades. Where required by law, the Design & Engineering Documents must bear the stamp or seal of architects or engineers licensed by the state in which the Site is located. The Design & Engineering Documents need not be submitted to the Customer as a complete set, but may be submitted in successive packages, each of which address separate construction trades or systems applicable to the Project. Within fourteen (14) days after submission, the Customer shall review each package of Design & Engineering Documents and either (i) approve such documents; or (ii) disapprove such documents, specifying in writing the basis for disapproval. The Customer's failure to approve or disapprove the Design & Engineering Documents within such fourteen (14) day period shall be deemed approval.

4.2.2 The Service Provider covenants and agrees that (i) it shall not commence the procurement or construction of any portion of the Project until the completed Design & Engineering Documents relevant to such part or portion have been approved by the Customer in writing; and (ii) the Design & Engineering Documents shall be accurate and free from any errors or omissions, and shall be in compliance with and accurately reflect all applicable laws. The Service Provider shall, at no expense to Customer, promptly modify any Design & Engineering Documents which are not in accordance with laws or are inaccurate or contain errors or omissions.

4.2.3 The Service Provider acknowledges and agrees that any review, approval, comment or evaluation by the Customer of any plans, drawings, specifications, or other documents prepared by or on behalf of the Service Provider shall be solely for the Customer's determining for its own satisfaction the suitability of the Project for the purposes intended therefor by the Customer, and may not be relied upon by the Service Provider, its Subcontractors, or any other third party as a substantive review thereof. The Customer, in reviewing, approving, commenting on, or evaluating any plans, drawings, specifications, or other documents, shall have no responsibility or liability for the accuracy or completeness of such documents, for any defects, deficiencies or inadequacies therein or

for any failure of such documents to comply with the requirements set forth in the Contract Documents. In no event shall any review, approval, comment, or evaluation by the Customer relieve the Service Provider of any liability or responsibility under this Contract, it being understood that the Customer is at all times ultimately relying upon the Service Provider's skill, knowledge, and professional training and experience in preparing any plans, drawings, specifications, or other documents.

4.3 Supervision and Performance of the Work. The Service Provider shall supervise, perform, and direct the Work, using the professional skill, care, and attention reasonably required for projects similar to the Project. The Service Provider shall be solely responsible for and have control over means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. The Service Provider agrees to faithfully and fully perform the terms of this Contract, and shall complete the Work free and clear of all liens. The Service Provider shall, at all times during the progress of the Work, employ enough skilled workmen and have on hand and maintain an adequate supply of materials and equipment to complete the Work in accordance with the Construction Schedule. The Service Provider has satisfied itself, by its own independent investigation and study, regarding all the conditions of the specific areas in the Site affected by the Work to be done and materials to be furnished; the meaning, intention and sufficiency of any plans and specifications for the Work; the recommendations of the Investment Grade Audit; and the conditions under which the Work is to be done; and has executed this Contract based on such investigation, study and determination.

4.4 <u>Employee Discipline</u>. The Service Provider shall enforce discipline and good order among the Service Provider's employees and other persons carrying out the Work.

4.5 <u>Safety</u>. The Service Provider shall be responsible for initiating, maintaining, and supervising reasonable safety precautions and programs in connection with the performance of the Contract Services. The Service Provider shall take reasonable precautions for safety of, and shall provide reasonable and appropriate protection to prevent damage, injury or loss to (1) employees on the Work and other persons who may be affected thereby; (2) the Work and materials and equipment to be incorporated therein; and (3) other property at the Site or adjacent thereto.

4.6 <u>Waste Materials and Rubbish</u>. The Service Provider shall keep the premises and surrounding areas free from accumulation of waste materials or rubbish caused by the Work. Upon Final Acceptance of the Project, the Service Provider shall, to the Customer's satisfaction, remove from and about the Site all waste materials, rubbish, Service Provider's tools, equipment, machinery, and surplus material.

4.7 <u>Recycling</u>. The Service Provider shall give preference to the use of recycled products in the performance of any Work, and shall cooperate with any recycling program established for the Site or available through local government(s).

4.8 <u>Access to the Work</u>. The Service Provider shall provide the Customer with unrestricted access

to the Work in preparation and progress wherever located in the Site.

4.9 <u>Use of Site</u>. The Service Provider shall confine its operations to the portions of the Site identified in the Contract Documents or otherwise approved by the Customer, and shall not unreasonably encumber the portions of the Site used for the Work with materials, equipment, or similar items. The Service Provider and all Subcontractors shall use only such entrances to the Site as are designated by the Customer. During occupied hours, Contractor shall limit construction operations to methods and procedures that do not adversely and unduly affect the environment of occupied spaces within the Site, including but not limited to creating noise, odors, air pollution, ambient discomfort, or poor lighting.

4.10 <u>Project Meetings</u>. The Service Provider shall provide for regularly scheduled project meetings during the Installation Period, and shall give timely advance written notice and agenda of such meetings to the Customer. The Service Provider shall record minutes and distribute copies of minutes of meetings to the Customer within five (5) business days after each meeting. The Service Provider shall schedule additional project meetings if requested by the Customer.

4.11 <u>Correction of the Work</u>. The Customer shall have the right and authority to reject Work which does not conform to the Contract Documents. The Service Provider shall promptly correct Work rejected by the Customer for failing to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed, and shall correct any Work found to be not in accordance with the requirements of the Contract Documents within the warranty period set forth in Section 5.10. The provisions of this Section 4.11 apply to Work done by Subcontractors as well as to Work done by direct employees of the Service Provider.

4.11.1 If the Service Provider fails to correct the Work, or any portion thereof, that is not in accordance with the requirements of the Contract Documents or fails to carry out Work or provide information in accordance with the Contract Documents, and the Service Provider, after receipt of written notice from the Customer, either (i) has not cured such failure within seven (7) days or (ii) if the nature of the failure is such that it is not capable of cure within seven (7) days, has not reached agreement with the Customer for a plan to cure such failure or has not commenced and diligently and continuously pursued the cure of such failure in accordance with such plan within such seven (7) day period, then the Customer, by written order signed by the Customer or by an agent specifically so empowered by the Customer in writing, may order the Service Provider to stop the Work, or any portion thereof, until the cause for such order has been eliminated or the Service Provider has provided the Customer with a plan for corrective action acceptable to the Customer in its reasonable judgment. The right of the Customer to stop the Work shall not, however, give rise to a duty on the part of the Customer to exercise this right for the benefit of the Service Provider or any other person or entity.

4.11.2 Nothing contained in this Section 4.11 shall be construed to establish a period of limitation with respect to other obligations which the Service Provider might have under the Contract Documents. Establishment of such time period as described in this Section 4.11 relates only to the

specific obligation of the Service Provider to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Service Provider's liability with respect to the Service Provider's obligations other than specifically to correct the Work.

4.12 <u>Performance and Payment Bonds</u>. The Service Provider shall, upon execution of this Contract and prior to performing any Work, obtain and furnish to the Customer and maintain in effect throughout the Installation Period a payment and performance bond covering the faithful performance and completion of the Work and the payment of all obligations arising under this Contract during the Installation Period. Such bonds shall be issued by a surety company authorized to do business in the state that the Site is located and in a form acceptable to the Customer, in an amount equal to the Contract Sum. No notice of change order need be given to the surety company. The Service Provider shall supply evidence satisfactory to the Customer that the party issuing the bonds has the authority to bind the issuing surety company. If the Service Provider fails to furnish and maintain such bonds, the Customer may purchase such bonds on behalf of the Service Provider and the Service Provider shall pay the cost thereof to the Customer upon demand.

4.13 <u>Startup/Commissioning</u>. The Service Provider shall conduct a thorough and systematic performance test of each element and total system of the installed ECMs in accordance with <u>Schedule A</u>, and demonstrate that all ECMs comply with the requirements of the Contract Documents. The tests shall be performed by the commissioning entity designated in <u>Schedule A</u>, or, if no entity is designated, a qualified commissioning entity reasonably acceptable to the Customer. The Service Provider shall provide advance written notice of at least ten (10) business days to the Customer of the scheduled test(s). The Customer shall have the right to designate representatives to be present at any or all such tests including representatives of the manufacturers of the ECMs. The Service Provider, or its Subcontractor(s), shall correct or adjust all deficiencies in operation of the ECMs identified during the course of the tests described in this Section. The Service Provider shall provide to the Customer a description of the ongoing training requirements for the Site's operations and maintenance personnel necessary to maintain proper ECM performance after Final Acceptance.

4.14 <u>Manufactures' Warranties</u>. At Final Acceptance of the Work or Interim Completion of a particular ECM, the Service Provider shall furnish the Customer two (2) original complete sets of all manufacturers' warranties, guarantees, parts lists, and literature applicable to equipment, systems, fittings, and furnishings included in the Work for that ECM (collectively referred to as "*Manufacturers' Warranties*"), completed in favor of the Customer. These Manufacturers' Warranties are in addition to and not in lieu of the Service Provider's warranty set forth in Section 5.10, and the Customer is entitled to look to the Service Provider for remedy in all cases where the Service Provider's warranty applies regardless of whether a Manufacturers' Warranties on the set itself, and the Service Provider shall acknowledge receipt of the sets of Manufacturers' Warranties on the set itself, and the Service Provider shall cause six (6) copies of an acknowledged set to be made and furnished to the Customer. All Manufacturers' Warranties will be for applicable periods and contain terms not less favorable to the Customer than those terms that are standard for the applicable industries, and will either be issued in the first instance in the name of and for benefit of the Customer, or be in a freely assignable form and be assigned to the Customer without limitations.

4.15 <u>Risk of Loss</u>. Regardless of the passage of title, risk of loss and damage to the Work shall remain with the Service Provider until the date of Final Acceptance of the entire Project.

# **ARTICLE 5 – OTHER SERVICES AND REQUIREMENTS OF SERVICE PROVIDER**

5.1 <u>Contract Documents</u>. The Service Provider hereby covenants and agrees that it shall duly and properly perform the Contract Services and implement the Project in accordance with the Contract Documents. Unless otherwise provided in the Contract Documents, the Service Provider shall provide and pay for labor, materials, tools, equipment and machinery necessary for the proper execution and completion of the Contract Services. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Contract Services that are consistent with, contemplated by, or reasonably inferable from the Contract Documents, whether or not such items and services are specifically mentioned therein. The Contract Documents are complementary, and what is required by one shall be binding as if required by all.

5.2 <u>Subcontractors</u>. The Service Provider shall furnish in writing to the Customer for its approval the names of the Subcontractors to whom the Service Provider plans to award any portion of the Contract Services. Contracts between the Service Provider and Subcontractors shall require each Subcontractor, to the extent of the Contract Services to be performed by the Subcontractor, to be bound to the Service Provider by the terms of the Contract Documents, and to assume toward the Customer all the obligations and responsibilities which the Service Provider, by the Contract Documents, assumes toward the Customer. The Service Provider shall be responsible to the Customer for acts and omissions of the Subcontractors, their agents and employees, and any other persons performing portions of the Contract Services, to the same extent as the acts or omissions of the Service Provider hereunder.

5.3 <u>Service Provider's Key Personnel</u>. Included within <u>Schedule A</u> attached hereto is a list of the Service Provider's key personnel who will be responsible for supervising the performance of the Contract Services. Among such individuals there shall be appointed a principal representative of the Service Provider (the "*Service Provider's Representative*") who shall be the Service Provider's authorized representative, and who shall receive and initiate all communications to and from the Customer and be authorized to render binding decisions related to the Contract Services. The Service Provider shall not remove any such key personnel from the Project without the Customer's prior written consent, which consent shall not be unreasonably withheld. If, after execution of this Contract, the Customer objects to any of the Service Provider's key personnel (for any reason whatsoever), the Service Provider shall promptly remove such disapproved personnel. If any of the Service Provider's key personnel are removed as provided above, any replacement personnel shall be subject to the prior written approval of the Customer, which approval shall not be unreasonably withheld.

5.4 <u>Taxes</u>. Unless otherwise provided in the Contract Documents, the Service Provider shall pay all federal, state or local sales, consumer, use, and other similar taxes for which it bears the incidence

of taxation that are legally enacted as of the date of execution of this Contract, whether or not effective or merely scheduled to go into effect.

5.5 <u>Compliance with Law</u>. The Service Provider shall comply with and give all notices required by federal, state, county, and municipal laws, ordinances, regulations, and orders and with the rules, regulations, or orders of the local board of fire underwriters or other similar body bearing on the performance by the Service Provider of the duties or responsibilities under this Contract. The Contract Sum is based upon laws, codes and regulations in existence as of the date this Contract is executed. Any changes in or to applicable laws, codes, and regulations affecting the cost of the Work shall entitle the Service Provider to an equitable adjustment in the Contract Sum and Contract Time through a Change Order.

5.5.1 The Service Provider shall promptly remedy any violation of any such law, ordinance, rule, regulation, or order that comes to its attention to the extent that the same results from its performance of the Work. The Service Provider shall promptly, and in no event later than the close of the next business day following receipt, give notice to the Customer by telephone, with confirmation in writing, of receipt by the Service Provider of any information relating to violations of laws, ordinances, rules, regulations, and orders.

5.5.2 The Service Provider represents and warrants to, and covenants with, the Customer that (i) neither the Service Provider nor any of its owners or affiliates currently are, or shall be at any time during the term hereof, in violation of any laws relating to terrorism or money laundering (collectively, the "Anti-Terrorism Laws"), including without limitation Executive Order No. 13224 on Terrorist Financing, effective September 24, 2001, and regulations of the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) related to Specially Designated Nationals and Blocked Persons (SDN's OFAC Regulations), and/or the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (Public Law 107-56) (the "USA Patriot Act"); (ii) neither the Service Provider nor any of its owners, affiliates, investors, officers, directors, employees, vendors, subcontractors or agents is or shall be during the term hereof a "Prohibited Person" which is defined as follows: (1) a person or entity owned or controlled by, affiliated with, or acting for or on behalf of, any person or entity that is identified as an SDN on the then-most current list published by OFAC at its official website, www.treas.gov/offices/eotffc/ofac/sdn/t11sdn.pdf, or at any replacement website or other replacement official publication of such list, and (2) a person or entity who is identified as or affiliated with a person or entity designated as a terrorist, or associated with terrorism or money laundering pursuant to regulations promulgated in connection with the USA Patriot Act; and (iii) the Service Provider has taken appropriate steps to understand its legal obligations under the Anti-Terrorism Laws and has implemented appropriate procedures to assure its continued compliance with such laws. The Service Provider hereby agrees to defend, indemnify, and hold harmless the Customer, its officers, directors, agents, and employees, from and against any and all claims, damages, losses, risks, liabilities and expenses (including attorney's fees and costs) arising from or related to any breach of the foregoing representations, warranties and covenants. At any time and from time-to-time during the term, the Service Provider shall deliver to the Customer within ten (10) days after receipt of a written request therefor, a written certification or such other evidence reasonably acceptable to the Customer evidencing and confirming the Service Provider's compliance

with this Section.

5.6 <u>Remedy to Damage or Loss</u>. The Service Provider shall promptly remedy damage, injury or loss at the Site to the extent caused in whole or in part by the Service Provider, a Subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.

5.7 <u>Royalties and License Fees</u>. The Service Provider shall pay all royalties and license fees related to the Contract Services; shall defend suits or claims for infringement of patent rights required for the Contract Services to be performed; and shall hold the Customer harmless from loss on account thereof.

5.8 <u>Publicity</u>. Upon the reasonable request of the Customer, the Service Provider shall cooperate with and assist the Customer in connection with any public relations or publicity relating to the Project, including, without limitation, tours of the Site arranged by the Customer. Without the prior written consent of the Customer, the Service Provider shall not disclose details or information relating to the Project or Contract Services to the press, the public, any news-disseminating agency or any other party, except to those parties performing portions of the Contract Services being performed.

5.9 <u>Retention and Inspection of Documents</u>. The Service Provider and its Subcontractors shall furnish the Customer with such information as the Customer reasonably requests regarding the progress and execution of the Contract Services. For three (3) years after the Service Provider receives its final payment in connection with the Contract Services, the Service Provider and its Subcontractors shall maintain and allow the Customer to inspect and copy records on the Contract Services showing utilization of Subcontractors, work performed, and data and information necessary to support all energy savings calculations.

5.10 <u>Warranty</u>. For the warranty period set forth in Section 5.10.2, the Service Provider warrants to the Customer that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from faults and defects not inherent in the quality required or permitted, that the materials, equipment and Work will conform with the requirements of the Contract Documents, and that the Work will be from any encumbrances, liens, security interests, or other defects in title upon conveyance of title to the Customer.

5.10.1 The Service Provider 's warranty excludes remedy for damage or defect to the extent caused by (i) abuse, (ii) modifications not approved or executed by the Service Provider or Subcontractors, (iii) improper or insufficient maintenance or operation that is not in accordance with <u>Schedule G</u>, or (iv) normal wear and tear under normal usage. If required by the Customer, the Service Provider shall furnish satisfactory evidence as to the kind and quality of materials and equipment and the recommended maintenance thereto to meet the requirements of this Section 5.10.

5.10.2 The warranty period for the Work shall be the period that is the longer of: (a) eighteen (18) months, running from and after the date of Final Acceptance of the entire Project, and (b) the warranty period for each ECM as set forth in <u>Schedule A</u>, running from and after the date of Final Acceptance of all the Work for a particular ECM (unless <u>Schedule A</u> specifies a different date for the Warranty period to begin running for a particular ECM).

5.10.3 If, at any time prior to the expiration of the warranty period set forth in Section 5.10.2, the Customer shall discover any failure or breach of the Service Provider's warranties, the Service Provider shall, upon written notice from the Customer and at the Service Provider's sole cost and expense, immediately correct such failure or breach (which corrective action shall include, without limitation, any necessary removal, disassembly, reinstallation, repair, replacement, reassembly, retesting, and/or reinspection of any part or portion of the Work and any other property damaged or affected by such failure, breach, or corrective action). The Service Provider will remedy any such failure or breach so as to minimize revenue loss to the Customer and, to the extent possible, to avoid disruptions to the Customer's operations. In the event the Service Provider fails to initiate and diligently pursue corrective action within five (5) days of the Service Provider's receipt of the Customer's notice, the Customer may undertake such corrective action at the Service Provider's receipt of the service Provider's notice.

5.11 <u>ECM Malfunction</u>. Prior to the expiration of the warranty period set forth in Section 5.10 and subject to the limitation of liability set forth in Section 6.1, the Service Provider agrees to compensate the Customer for business expenses, damages to real or personal property, lost profits, or lost revenues resulting from ECM malfunction to the extent caused by nonperformance or error by the Service Provider or its Subcontractors.

# 5.12 Indemnification.

5.12.1 To the fullest extent permitted by law, the Service Provider shall indemnify and hold harmless the Customer and the Customer's agents and employees from and against claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of or resulting from performance of the Contract Services provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused in whole or in part by negligent acts or omissions of the Service Provider, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, and in no event shall the preceding indemnification apply to liability to the extent caused by the negligence or willful misconduct of the party indemnified or held harmless. This indemnification shall not be limited to damages, compensation or benefits payable under insurance policies, workers' compensation act, disability benefit acts, or other employees' benefit acts.

5.12.2 In claims against any person or entity indemnified under Section 5.12.1 by an employee of the Service Provider, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section 5.12 shall

not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for Service Provider or a Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

5.13 <u>Insurance</u>. The Service Provider shall purchase from and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Site is located, insurance coverage in accordance with the provisions of <u>Schedule H</u>. Certificates of such insurance shall be filed with the Customer prior to commencement of the Work. During the Guarantee Period, the insurance coverage set forth on <u>Schedule H</u> may be reduced to a level deemed necessary by the Customer, in its reasonable discretion, to protect the Customer from liability for acts of the Service Provider and risks and indemnities assumed by the Service Provider during the performance of the Guarantee Period Services.

5.14 <u>Financing Contract Requirements</u>. If one or more Financing Contracts are entered into for the Project, the Service Provider agrees to provide the parties to the Financing Contract such written information, certificates, copies of invoices, receipts, lien waivers, affidavits, and other like documents as such parties may reasonably request. The Service Provider hereby subordinates any liens or security interests that it may be entitled by law or under the provisions of this Contract to any lien or security interest granted in favor of the party or parties to a Financing Contract.

# **ARTICLE 6 – LIMITATION OF LIABILITY**

6.1 <u>Service Provider Limitation</u>. Notwithstanding anything to the contrary contained in this Contract, the aggregate liability of the Service Provider to the Customer in relation to this Contract shall not exceed an amount that is equal to the following amount: (a) two times the Contract Sum, if the Contract Sum is less than or equal to \$5,000,000; (b) \$10,000,000, if the Contract Sum is greater than \$5,000,000 but less than or equal to \$10,000,000; or (c) the Contract Sum, if the Contract Sum is greater than \$10,000,000. However, the preceding limitation shall not apply to, and no credit shall be issued against such liability limitation for:

(i) The Service Provider's defense and hold harmless obligations set forth in Section 5.7 as it relates to patent infringement;

(ii) The Service Provider's indemnity obligations set forth in Section 5.12 as it relates to claims by third parties for bodily injury, property damage, or otherwise; and

(iii) Claims which arise or result from fraudulent or unlawful acts, or the gross negligence or willful misconduct of the Service Provider or its Subcontractors.

6.2 <u>Customer Limitation</u>. In no event, whether as a result of termination for default, termination for convenience, suspension of the Work, breach of contract, negligence, or otherwise, shall the Customer be liable for damages for loss of profits, loss of use, loss of revenue, loss of bonding capacity, or any other special, indirect or consequential damages of any kind. The Customer's total liability for any loss, claim, or damage arising out of the Contract Documents or the performance or breach thereof is limited to the lesser of (a) the value of the Contract Services performed, or (b) the Contract Sum.

# **ARTICLE 7 – ARBITRATION**

7.1 <u>Arbitration</u>. Except for those disputes to be decided by an independent engineer as provided in Section 1.3.2 and Section VIII of <u>Schedule B</u> of this Contract, any controversy or claim arising out of or relating to this Contract, or the breach thereof, shall be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

7.1.1 Should arbitration be invoked by either Party, the hearing location shall be held in the County where the Site is located.

7.1.2 With respect to any claim or dispute resolved by arbitration or litigation, the prevailing Party shall be entitled to recover attorney's fees from the non-prevailing Party. A prevailing Party is a Party that recovers at least 75% of its total claims or that is required to pay no more than 25% of the claims made against it.

7.2 <u>Continuation of Work</u>. Pending final resolution of any dispute under this Contract, the Service Provider will proceed diligently with the performance of its duties and obligations under the Contract Documents, and the Customer will continue to make payments of undisputed amounts in accordance with the Contract Documents.

# **ARTICLE 8 – CHANGES IN THE WORK**

8.1 <u>Change Orders</u>. The Customer may order, or the Service Provider may request of the Customer (which request may be approved, rejected, conditioned, or delayed in the Customer's sole and absolute discretion), changes in the Work consisting of additions, deletions, or modifications to the Work. Such changes in the Work shall be authorized only by written Change Order signed by the Customer and the Service Provider. The adjustment to the Contract Sum shall be based on the mutual acceptance of a lump sum price for the Change Order work.

8.2 <u>Change Directive</u>. If the Parties do not agree on a lump sum price for the ordered changes to the Work, then the Customer may, in writing, direct Service Provider to commence with such changes in the Work. The costs of such Work shall be determined on the basis of actual costs and savings of performing the Work attributable to the change, plus \_\_\_\_\_ percent (\_\_\_\_%) for profit and overhead. In such case, Service Provider shall keep and present, in such form as Customer may reasonably require, an itemized accounting, together with appropriate supporting data. Pending final determination of the Contract Sum adjustment, the Service Provider may include its actual costs, plus \_\_\_\_\_%, in its payment requests submitted pursuant to Article 10.

8.3 <u>No Changes That Impact Guarantee</u>. To the extent the Service Provider reasonably determines that any change in the Work requested or directed by the Customer will materially and adversely impact the Service Provider's ability to meet or sustain achievement of the performance guarantees set forth in <u>Schedule B</u>, the Service Provider has the right, in its sole and absolute discretion, to decline such change in the Work.

8.4 <u>Concealed Conditions.</u> Service Provider shall immediately notify Customer if it encounters Concealed Conditions at the Site prior to significantly disturbing the same. If such Concealed Conditions cause an increase in Service Provider's cost of, or time required for, performance of any part of the Work the Service Provider and Customer shall agree, by Change Order, on how to proceed and the extent of any adjustment to the time required for performance of the Work and to the Contract Sum.

8.5 <u>Changes to Contract Sum and Contract Time</u>. The Contract Sum, Substantial Completion Date, Final Acceptance Date, and time periods set forth in <u>Schedule B</u> may only be changed by Change Order.

# ARTICLE 9 – TIME

9.1 <u>Time Limits</u>. Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Contract, the Service Provider confirms that the Final Acceptance Date is a reasonable period of time for performing the Work.

9.2 <u>Delays in the Progress of the Work</u>. If the Service Provider is delayed at any time in progress of the Work by changes ordered in the Work by the Customer, by labor disputes, fire, unusual delay in deliveries, abnormal adverse weather conditions that affect the Work not reasonably anticipatable, unavoidable casualties or any other causes which are beyond the control of the Service Provider, then the Contract Time shall be extended by Change Order provided that: (i) the Service Provider has notified the Customer in writing of such delay within ten (10) days following the date when the Service Provider becomes aware, or should have become aware through the exercise of reasonable diligence, of such delay; (ii) the Service Provider has taken all reasonable steps to avoid any such delay (including its continuance); and (iii) such delay is not a theoretical delay but does actually adversely affect the critical path of the Work. Otherwise, the Service Provider shall not be entitled to an extension of the Contract Time for any delays in the progress of the Work.

# **ARTICLE 10 – PAYMENTS AND COMPLETION**

# 10.1 <u>Payments</u>.

10.1.1 Payment to the Service Provider for the Work performed during the Installation Period shall be made as set forth in this Article 10 and in <u>Schedule E</u>: <u>Payment Schedule</u>. The total of all payments for the Work performed during the Installation Period shall constitute the Contract Sum.

10.1.2 During the Guarantee Period, each Performance Tracking Payment due from the Customer, as set forth on <u>Schedule E</u>, shall be paid to the Service Provider within thirty (30) days following commencement of the Performance Guarantee Year for which such Performance Tracking Payment is due.

10.2 <u>Withholding of Payments</u>. Payments may be withheld to the extent of, and on account of (1) defective Work not remedied, or Contract Services not in accordance with the Contract Documents; (2) claims filed by third parties; (3) failure of the Service Provider to make payments promptly to the Subcontractors for labor, materials, or equipment; (4) persistent failure to carry out the Contract Services in accordance with the Contract Documents; (5) failure by the Service Provider to perform its obligations under the Contract Documents; or (6) a default by the Service Provider under the Contract Documents. The Customer shall promptly notify the Service Provider of any reason for withholding payment.

10.3 <u>Retainage</u>. Subject to applicable law, during the Installation Period, retainage of ten percent (10%) of the total amount earned shall be withheld from partial payments to the Service Provider until the Service Provider has achieved 50% completion of the Work, as determined by the Customer. Thereafter, retainage of five percent (5%) of the total amount earned shall be withheld from partial payments to the Service Provider. The retainage shall be released upon Final Acceptance of the entire Project.

10.4 <u>Payment Requests</u>. Each payment request submitted by the Service Provider during the Installation Period shall be accompanied by the following, all in form and substance satisfactory to the Customer:

(a) A duly executed and acknowledged Service Provider's certification showing all Subcontractors with whom the Service Provider has entered into subcontracts, the amount of each subcontract, the amount requested for any Subcontractor in the invoice and the amount to be paid to the Service Provider, together with similar certifications from all Subcontractors;

(b) Duly executed waivers of mechanics', materialmen's and construction liens from the Service Provider and all Subcontractors. The final invoice for the Contract Sum shall be accompanied by final and full waivers of lien from all parties entitled to receive payment in connection with the Work; and

(c) Such other documents and information as may be necessary or as may be reasonably requested by the Customer to verify satisfactory completion of the Work covered by such invoice.

10.5 <u>Payment Due Date</u>. Payment shall be made net thirty (30) days of submission of a payment request meeting the requirements of this Article 10 and <u>Schedule E</u>. If payment is not made within an additional ten (10) business days after the payment due date, and the Customer is not entitled to withhold payment pursuant to Section 10.2, the Service Provider may suspend all Work until payment is made.

10.6 <u>Punchlist Items</u>. In the event that the Service Provider has not completed or corrected all Punchlist items at the time of submission of its final payment request for the Work, final payment will be made by the Customer to the Service Provider, less \_\_\_\_% of the value assigned by the Customer to

the Punchlist items not yet completed or corrected. Payment with respect to such final Punchlist items shall be made by the Customer on an item-by-item basis within ten (10) days following the completion of such item.

10.7 Liens Filed Against the Work. Provided that the Service Provider has been paid by the Customer all sums due to the Service Provider pursuant to the Contract, the Service Provider shall not voluntarily permit any laborer's, materialmen's, mechanic's, or other similar liens to be filed or otherwise imposed on any part of the Work or the property on which the Work is performed. If any laborer's, materialmen's, mechanic's, or other similar lien or claim thereof is filed or otherwise imposed against the Site, the Service Provider, within thirty (30) days of the filing of such lien or other imposition thereof, shall cause such lien to be released or otherwise discharged, except as to liens which the Service Provider is contesting in good faith by appropriate action diligently pursued, provided the Service Provider has notified the Customer of the nature of such lien and informed the Customer of the type of action being pursued by the Service Provider and, if requested by the Customer, has provided the Customer with a bond satisfying the requirements of the laws of the state in which the Site is located sufficient to cover such claim (or cause the surety to acknowledge in writing that the lien claim is covered by the payment bond) in the event the Service Provider is unsuccessful in contesting same or has made other arrangements satisfactory to the Customer. If, however, the Service Provider, within the aforesaid thirty (30) day period, does not cause such lien either to be released and discharged forthwith or contests same in the manner provided hereinabove, then the Customer may deduct 150% of the amount of the lien claim from the next progress payment until the Service Provider has caused such lien to be released and discharged or otherwise contested the same in the manner provided hereinabove. The Service Provider shall indemnify, defend and hold harmless the Customer from all claims, losses, demands, causes of action or suits of whatever nature arising out of any such lien or that part of the Work covered thereby.

# **ARTICLE 11 – HAZARDOUS MATERIALS**

Service Provider's Responsibilities With Respect to Hazardous Materials. The scope of Work 11.1 to be performed by the Service Provider pursuant to this Contract and the compensation to be paid to the Service Provider hereunder for the Work expressly exclude any work or service of any nature associated or connected with the identification, abatement, cleanup, control, or removal of any currently existing Hazardous Materials or Mold on, in or nearby the Site beyond what is specifically defined and identified in Schedule A of this Contract. The Customer agrees that all duties and obligations in connection with any Hazardous Materials or Mold currently located in, on or nearby the Site or brought into the Site by a party other than the Service Provider or its Subcontractors, other than those defined in Schedule A, are not the Service Provider's responsibility. Should the Service Provider become aware, discover or based on reasonable evidence suspect the presence of Hazardous Materials or Mold beyond those to be addressed in <u>Schedule A</u>, the Service Provider will immediately cease work in the affected area, and will promptly notify the Customer of the conditions discovered. Should the Service Provider stop work because of such discovery or suspicion of Hazardous Materials or Mold, then the Contract Time will, should the Customer elect to choose to continue the Work after remedy thereof, be reasonably extended by Change Order to cover the period required for abatement, cleanup, or removal of the Hazardous Materials or Mold. The Service

Provider will not be held responsible for any claims, damages, costs, or expenses of any kind associated with such period during which work has been stopped as a result of Hazardous Materials or Mold.

11.2 Customer's Representations and Responsibilities With Respect to Hazardous Materials. The Customer warrants and represents that to the best of the Customer's knowledge, other than as disclosed to the Service Provider in writing, there are no Hazardous Materials or Mold in or on the premises that will affect, be affected by, come in contact with, or otherwise impact upon or interfere with the Work to be performed by the Service Provider pursuant to this Contract. The Customer further represents that the Customer has not retained the Service Provider to discover, inspect, investigate, identify, or remediate Hazardous Materials or Mold or conditions caused by Hazardous Materials or Mold, except to the extent specified in Schedule A. Unless otherwise specified in Schedule A, the Customer will be responsible for taking all necessary steps to correct, abate, clean up, or control Hazardous Materials or Mold not addressed by the Service Provider under this Contract. The Customer specifically agrees, to the extent allowed by state law, to indemnify and to hold the Service Provider, its officers, agents and employees harmless from and against any and all claims, demands, damages, or causes of action in any way arising out of its release of Hazardous Materials or Mold into the air, soil, or any water system or water course, or any actions taken in connection with same, or any failure to act.

11.3 <u>Hazardous Materials Introduced to the Site by Service Provider</u>. Notwithstanding anything to the contrary set forth in this Article 11, if any Hazardous Materials are introduced to the Site after the Date of Commencement by the Service Provider, its Subcontractors, and any party for whom they may be liable or if any Mold occurs within the Site as the result of the negligent implementation of the Project or the improper functioning of the ECMs, then any response, removal, cleanup, or other remedial action required by applicable law shall be performed by the Service Provider at its sole cost and expense. Except as to the Service Provider's initial response to an emergency, any such remedial action(s) shall require the prior review and approval of the Service Provider.

# **ARTICLE 12 – OWNERSHIP OF DESIGN MATERIALS**

12.1 <u>Copies Deliverables</u>. The Deliverables are and shall remain the exclusive property of the Customer. The Service Provider shall use its best efforts to ensure all copies of the Deliverables are delivered or returned to the Customer or suitably accounted for upon the Customer's request or upon final payment, whichever is earlier. The Service Provider may retain one copy of the Deliverables for its records, but shall not use such copies for any purpose other than with respect to the Contract Services without the Customer's prior written consent. The Intellectual Property Rights, if any, relating to the Design Materials or the contents of or concepts embodied in the Design Materials shall remain with and belong to the Service Provider or its Subcontractors, as the case may be.

12.2 <u>License for the Use of Design Materials</u>. As to those Design Materials deemed subject to any form of Intellectual Property Rights, the Service Provider hereby grants and will cause to be granted and delivered to the Customer from Subcontractors a paid-up, nonexclusive, world-wide, irrevocable,

transferable license, for the term of the Intellectual Property Rights, for the Customer to use, reproduce and have reproduced, and for the Customer to allow others to use, reproduce and have reproduced, such Design Materials subject to the restrictions set forth below:

- a. All Intellectual Property Rights in or relating to any of the Design Materials shall remain the property of the Service Provider or the appropriate Subcontractor, whether or not the Project is completed; and
- b. The Customer shall not, without the prior written consent of the Service Provider, use such Design Materials, in whole or in part, for the construction of any other project. The Customer may, however, at no cost to the Customer, use such Design Materials (i) for completion of the Project and the Contract Services by others upon termination of this Contract or termination of the Service Provider's right to perform all or any portion of the Contract Services, and (ii) for the construction, operation, maintenance and repair of (and for additions, improvements, changes or alterations to) the Project after its completion.

12.3 <u>Delivery of Deliverables and As-built Drawings</u>. Upon the earlier of the date of Interim Completion for a particular ECM or the date of termination of this Contract, the Service Provider shall deliver to the Customer any Deliverables that have not been previously submitted to the Customer for that ECM. Upon the date of Final Acceptance of the entire Project, the Service Provider must provide mylar, reproducible "as-built" drawings of all existing and modified conditions associated with the Project, conforming to typical engineering standards. The as-built drawings shall also be submitted in an electronic format compatible with the AutoCAD or other similar system in use by the Customer.

# **ARTICLE 13 – DEFAULT AND TERMINATION**

Customer's Right to Cure Default. If the Service Provider defaults or persistently fails or 13.1 neglects to carry out the Contract Services in accordance with the Contract Documents or fails to perform a provision of the Contract, the Customer shall provide written notice of such default, failure or neglect to the Service Provider. If the Service Provider has not cured such default, failure or neglect within thirty (30) days from receipt of the Customer's notice, and without prejudice to any other right or remedy the Customer may have, the Customer may make good such deficiencies and may deduct the cost thereof, including compensation for the Customer's services and expenses made necessary thereby, from the payment then or thereafter due the Service Provider. Additionally, in the case of an "emergency" (defined herein as any default, neglect or defect in or with respect to the Contract Services endangering life, the Customer's or a tenant's ability to occupy all or any portion of the Site, and/or property damage in excess of \$10,000), the Customer shall provide the Service Provider with written notice of such default, failure or neglect constituting such emergency, but the Customer may immediately commence and continue correction of such emergency, without waiting for the expiration of the above-described notice and cure period. In any case where the Customer makes good any deficiencies as provided herein, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Service Provider all reasonable and necessary costs

incurred by the Customer for the correction of such deficiencies. If payments then or thereafter due the Service Provider are not sufficient to cover such amounts, the Service Provider shall pay the difference to the Customer upon demand.

Termination Upon Default. Alternatively, at the Customer's option, if the Service Provider has 13.2 not cured such default or failure within thirty (30) days from receipt of the Customer's notice, Customer may terminate the Contract and take possession of the area at the Site affected by the Work and remove all materials, equipment, tools and construction equipment and machinery thereon owned by the Service Provider (or require the Service Provider to immediately remove all such materials, equipment, tools and construction equipment and machinery from the Site) and the Customer may finish (or cause another contractor to finish) the Work by whatever method the Customer may deem expedient. After termination by the Customer pursuant to this Section 13.2, the Service Provider shall not be entitled to any further payment under this Contract, except to the extent of any amount by which the value of the Work completed prior to such termination and not previously paid for by the Customer exceeds the amount due by the Service Provider to the Customer under this Section (including all damages that the Customer would be entitled to recover at law from the Service Provider by reason of the Service Provider's breach), and even then only at such time as the Work is finally completed by the Customer. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for any consultant's or architect's services and expenses made necessary thereby (including, without limitation, the Customer's reasonable attorney's fees and costs), such excess shall be paid to the Service Provider following completion of the Work by the Customer, but if such cost exceeds such unpaid balance, the Service Provider shall pay the difference to the Customer. The Customer shall not be responsible to the Service Provider for any loss of anticipated profits on Work not performed on account of a termination under this Section.

13.3 <u>Termination For Convenience</u>. The Customer reserves the right, for its convenience, to terminate all or any portion of the Contract Services or to terminate this Contract by ten (10) days written notice stating the effective date of the termination. In that case, the Service Provider and its Subcontractors shall (except for services necessary for the orderly termination of the Contract Services):

- a. stop all Contract Services so terminated;
- b. place no further order or subcontracts for materials, services, equipment, or supplies on the terminated Contract Services;
- c. assign to the Customer (in the manner and to the extent directed) all of the rights of the subcontracts relating to the terminated Contract Services;
- d. take any action necessary to protect property of the Customer and property in the Service Provider 's possession in which the Customer has, or may acquire, an interest; and
- e. take any other action toward termination of the Contract Services that the Customer may direct.

Thereafter, the Customer shall pay the Service Provider for the terminated Contract Services, subject to the limitations set forth herein, the proportion of the Contract Sum or payment for Performance Tracking Services that the terminated Contract Services actually performed (including materials

delivered to the Site) at the date of termination bears to the Contract Services required to be performed for such portion of the Contract Services. No payments shall be made for Contract Services not actually performed, and no payment shall be made or due for lost profits for portions of the Contract Services not actually performed.

13.4 <u>Service Provider Termination</u>. Subject to the Customer's right to withhold payments pursuant to Section 10.2, if the Customer fails to make payments to the Service Provider as set forth in Article 10 and <u>Schedule E</u>: <u>Payment Schedule</u>, the Service Provider may, upon thirty (30) days' prior written notice to the Customer, terminate the Contract and recover from the Customer payment for all Contract Services executed and for proven loss with respect to materials, equipment, tools, and machinery, including reasonable overhead, profit and damages applicable to the Project for the Contract Services performed through the date thereof.

# **ARTICLE 14 - ASSIGNMENT**

14.1. <u>Service Provider Assignment</u>. The Service Provider shall not assign this Contract or the Contract Documents or sublet it, in whole or in part, without the prior written consent of the Customer, in its sole discretion, nor shall the Service Provider assign any moneys due or to become due to it under the Contract Documents without the prior written consent of the Customer, in its sole discretion. Any assignment of monies due under the Contract Documents made without the prior written consent of the Customer is void, and the assignee in that case acquires no rights against the Customer.

14.2 <u>Customer Assignment</u>. The Customer may assign this Contract and the Contract Documents in it sole discretion to any purchaser of the Site, to a lender for collateral purposes, or any entity wholly owned or controlled by the same owners of the Customer.

14.3 <u>Permitted Assigns</u>. This Contract shall be binding upon, and inure to the benefit of, the successors and permitted assigns of the parties hereto.

# **ARTICLE 15 – OTHER CONDITIONS OR PROVISIONS**

15.1 <u>Representations and Warranties</u>. Each Party warrants and represents to the other that:

(a) It has all requisite power, authority, licenses, permits, and franchises, corporate or otherwise, to execute and deliver this Contract and perform its obligations hereunder;

(b) Its execution, delivery, and performance of this Contract have been duly authorized by, or are in accordance with, its governing documents, and this Contract has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;

(c) Its execution, delivery, and performance of this Contract will not result in a breach or violation of, or constitute a default under, any agreement, lease or instrument to which it is a party, or by which it or its properties may be bound or affected; and

(d) It has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits, or orders that would materially and adversely affect its ability to perform hereunder.

15.2 <u>Cooperation</u>. Each Party will cooperate with and assist the other Party, its advisors, consultants, attorneys, employees, agents, and representatives, at all times during the Contract Time so as to complete the Contract Services in an efficient, timely, and economical manner. Such cooperation and assistance by the Service Provider shall include, without limitation, any cooperation or assistance required in connection with the Customer's efforts to obtain financing for the Project.

# 15.3 Confidential Information.

15.3.1 The term "**Confidential Information**" means any documentation or information (i) that is marked as "proprietary" or "confidential", (ii) that is supplied orally with a contemporaneous confidential designation, or (iii) that is known by the receiving Party to be confidential or proprietary information or documentation of the disclosing Party. Confidential Information does not include information that can be demonstrated: (i) to have been rightfully in the possession of the receiving Party from a source other than the disclosing Party prior to the time of disclosure of said information under this Contract; (ii) to have been in the public domain prior to disclosure; (iii) to have become part of the public domain after disclosure by a publication or by any other means except an unauthorized act or omission or breach of this Contract; or (iv) to have been supplied to the receiving Party without restriction by a third party who is under no obligation to the disclosing Party to maintain such information in confidence.

15.3.2 Each Party acknowledges that it may, in connection with the performance of this Contract, have access to, or be directly or indirectly exposed to Confidential Information of the other Party. Each Party shall hold confidential all Confidential Information of the other Party and shall not disclose or use such Confidential Information without express prior written consent of the disclosing Party, except as may be legally required. Each Party shall use reasonable measures at least as strict as those the Party uses to protect its own confidential information. Such measures shall include, without limitation, requiring employees and subcontractors to execute a non-disclosure agreement before obtaining access to the other Party's Confidential Information.

15.4 <u>Amendments</u>. No amendment to this Contract shall be effective until and unless reduced to writing and executed by the Parties.

15.5 <u>Governing Law</u>. This Contract shall be governed by the laws of the state where the Site is located.

15.6 <u>Severability</u>. If any provision of this Contract shall be held to be invalid, illegal, or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected or impaired thereby.

15.7 <u>No Waiver</u>. No course of dealing or failure of the Customer and/or the Service Provider to enforce strictly any term, right or condition of this Contract shall be construed as a waiver of such term, right or condition. No express waiver of any term, right or condition of this Contract shall operate as a waiver of any other term, right or condition.

15.8 <u>Entire Agreement</u>. This Contract represents the entire agreement between the Customer and the Service Provider with respect to the subject matter hereof, and supersedes all prior negotiations, representations or agreements, whether written or oral.

15.9 <u>Rights Cumulative</u>. Except as otherwise provided in this Contract, (i) rights and remedies available to the Customer and/or the Service Provider as set forth in this Contract shall be cumulative with and in addition to, and not in limitation of, any other rights or remedies available to the Parties at law and/or in equity, and (ii) any specific right or remedy conferred upon or reserved to the Customer and/or the Service Provider in any provision of this Contract shall not preclude the concurrent or consecutive exercise of a right or remedy provided for in any other provision hereof.

15.10 <u>Further Assurances</u>. Each Party hereto shall, from time to time, at the request of the other Party and without further consideration, execute and deliver and cause to be executed and delivered such other instruments and take such other actions as the requesting Party may reasonably request to undertake the Contract Services and carry out the intent and purposes of this Contract.

15.11 <u>Counterparts</u>. This Contract may be executed in counterparts, each of which shall be deemed an original, and all of which counterparts shall constitute one agreement. To facilitate execution of this Contract, the Parties may execute and exchange facsimile counterparts of the signature pages, provided originally executed signature pages are exchanged promptly thereafter.

15.12 <u>Incorporation by Reference</u>. The recitals set forth on the first few pages of this Contract, as well as all Schedules attached hereto, are hereby incorporated into this Contract by this reference and expressly made a part of this Contract.

15.13 <u>Notices</u>. Any information or notices required to be given under this Contract shall be in writing and shall be delivered either by (i) certified mail, return receipt requested, in which case notice shall be deemed delivered three (3) business days after deposit, postage prepaid, in the U.S. mail; (ii) a reputable messenger service or a nationally recognized overnight courier, in which case notice shall be deemed delivered one (1) business day after deposit with such messenger or courier; or (iii) personal delivery with receipt acknowledged in writing, in which case notice shall be deemed delivered. All notices shall be addressed as follows:

If to Customer:

If to Service Provider:

The foregoing addresses may be changed from time to time by notice to the other Party in the manner herein before provided for.

## SCHEDULE A: PROJECT DESCRIPTION

## Section I. Description of the Project, and Each ECM

[Information should be provided from the Investment Grade Audit (with any necessary and appropriate revisions) to sufficiently detail the Project as a whole and each ECM, including modifications to existing systems, building or area of building. The description should also describe in detail the Service Provider's obligations for performing Energy Star benchmarking, obtaining LEED EBOM certification, reporting greenhouse gas emission reductions, or other services agreed to by the parties. Also, this description must include any Service Provider responsibilities relating to Hazardous Materials (including ACM removal and abatement). ]

#### Section II. Training Prior to Final Acceptance Date

[The description of the Service Provider's training program for facility personnel should be contained in this schedule. Training must be completed before equipment acceptance. The duration and frequency of the specified training should also be included. Any provisions for on-going training, potential commitments to train newly hired facility personnel, and training in regard to possible future equipment or software upgrades should also be described. Any fees associated with requests for training beyond what the Service Provider is contractually required to provide must also be specified.]

#### Section III. Systems Start-Up and Commissioning; Operating Parameters of Installed Equipment.

[This Section should specify the process that will be used to commission the installed equipment and system(s). Procedures should be defined for developing and implementing a commissioning (Cx) plan, and should specify any requirements for Customer and/or third party review and approvals, prefunctional inspections, use of manufactures' start-up procedures, and for executing functional performance tests. Provisions should be included on how the Customer's project requirements or design intent for each ECM or system will be defined. This section can also define the qualifications and affiliation of the Commissioning Agent (CxA), (if the CxA is a contractor other than the Service Provider and/or a specific individual on Service Provider team), and provide an overview of the roles and responsibilities of the CxA, Service Provider, and Customer in the Cx process. (In essence, the Customer should ensure that commissioning specifications are written so that there is no question to the commissioning tasks required, including the level of testing and documentation required and the specific performance targets and roles/responsibilities.)]

#### Section IV. Warranty Period

[Identify warranty periods for any ECMs that extend beyond the general warranty period identified in Section 5.10 of the Contract.]

#### Section V. Identification of Key Personnel

**Section VI.** Construction Schedule and Construction Operations Plan [Attach to Schedule A or provide the date when these will be submitted in Section 1.6 of the Contract.]

#### SCHEDULE B: PERFORMANCE GUARANTEE

## Section I. Definitions.

All capitalized terms used in this Schedule B shall have the meaning set forth below or in the "Definitions" Section of the Contract.

- A. <u>Causes for Adjustment</u>: The causes for adjustment to the energy savings calculations set forth in Section II.E of Schedule C.
- B. <u>Closing Stub Year</u>: This term is defined in Section III of this Schedule B.
- C. <u>Guarantee Term</u>: The period running from and after the Savings Guarantee Commencement Date for a period of [\_\_\_\_\_]<sup>1</sup> years.
- D. <u>Guaranteed Annual Savings Amount</u>: [\$\_\_\_\_\_]<sup>2</sup> for each Performance Guarantee Year. However, if the Performance Guarantee Year is an Opening Stub Year or Closing Stub Year, the Guaranteed Annual Savings Amount applicable to such Performance Guarantee year shall be [\$\_\_\_\_\_]<sup>3</sup> multiplied by a fraction, the numerator of which is the number of days in such Performance Guarantee Year and the denominator of which is 365, provided, if the Performance Guarantee Year includes a February 29, the denominator shall be 366.
- E. <u>Guaranteed Project Savings Amount</u>: [\$\_\_\_\_\_]<sup>4</sup>
- F. <u>Implementation Period Savings</u>: The savings generated during the period from the Date of Commencement to the Savings Guarantee Commencement Date for the categories of savings included within the Measured Savings Amount calculations.
- G. <u>Measured Savings Amount</u>: Savings to the Customer resulting from the implementation of the Project, measured and calculated in accordance with Schedule C, Subsection I.C, multiplied by the rates for each energy savings category set forth in Schedule C, Subsection II.D.
- H. <u>Non-measured Savings Amount</u>: Savings to the Customer resulting from the implementation of the Project in the amounts stipulated in Schedule C, Subsection I.D.
- I. <u>Opening Stub Year</u>: This term is defined in Section III of this Schedule B.
- J. <u>Performance Guarantee Payment</u>: This term is defined in Section II of this Schedule B.

<sup>&</sup>lt;sup>1</sup> Insert number of years of the performance guarantee.

<sup>&</sup>lt;sup>2</sup> Insert currency equivalency of guarantee amount.

<sup>&</sup>lt;sup>3</sup> Insert same number from earlier in this definition.

<sup>&</sup>lt;sup>4</sup> Insert amount equal to Guaranteed Annual Savings Amount multiplied by years in the Guarantee Term.

- K. <u>Performance Guarantee Year</u>: Each period during which energy savings are measured, as specified in Section III of this Schedule B.
- L. <u>Prior Year Calculations</u>: This term is defined in Section IV of this Schedule B.
- M. <u>Project Savings Amount</u>: The Measured Savings Amount and the Non-measured Savings Amount.
- N. <u>Savings Guarantee Commencement Date</u>: The first day of the first utility billing period following the earlier to occur of: (1) the month in which Final Acceptance of the entire Project occurs in accordance with the Contract; or (2) the Final Acceptance Date set forth in Section 1.4 of the Contract.

#### Section II. Performance Guarantee.

The Service Provider guarantees that the Project Savings Amount over the Guarantee Term will equal or exceed the Guaranteed Project Savings Amount. For each Performance Guarantee Year, the Service Provider guarantees that the Project Savings Amount will equal or exceed the Guaranteed Annual Savings Amount. Subject to Section VI of this Schedule B, in the event the Project Savings Amount in any Performance Guarantee Year is less than the Guaranteed Annual Savings Amount, the Service Provider will pay the Customer the difference between the Guaranteed Annual Savings Amount and the Project Savings Amount ("Performance Guarantee Payment").

#### Section III. Performance Guarantee Year.

Each of the following periods during the Guarantee Term shall serve as a Performance Guarantee Year for purposes of the performance guarantee set forth in this Schedule B:

If the preceding box is checked, each Performance Guarantee Year shall consist of the 365 day period (or 366 day period, if the calendar year includes 366 days) running from the Savings Guarantee Commencement Date and each anniversary of the Savings Guarantee Commencement Date until the expiration of the Guarantee Term.

If the preceding box is checked, the Customer seeks to align the Performance Guarantee Year with the calendar year for budgeting purposes, and therefore each of the following periods shall serve as a Performance Guarantee Year:

- the period from the Savings Guarantee Commencement Date through the next following December 31 (such initial period referred to herein as the "<u>Opening Stub</u> <u>Year</u>");
- ii. [\_\_\_\_\_]<sup>5</sup> 12-calendar month periods, each running from January 1 through

<sup>&</sup>lt;sup>5</sup> Insert a number equal to the years in the Guarantee Term minus one.

the next following December 31, with the first such period including the first January 1 following the Savings Guarantee Commencement Date and continuing through the next following December 31; and

iii. the period running from the January 1 following conclusion of the [\_\_\_\_]<sup>6</sup> 12-month period described in subparagraph (ii) immediately preceding and continuing through and including the [\_\_\_\_]<sup>7</sup> anniversary of the Savings Guarantee Commencement Date (such final period referred to herein as the "<u>Closing Stub Year</u>").

As set forth in Schedule C, the formulae for calculating the Project Savings Amount are designed to accommodate and yield accurate results for Performance Guarantee Years of varying lengths, including both periods exceeding 12 months in length, any stub years and the Implementation Period.

# Section IV. Calculation of Project Savings Amount.

Throughout the Guarantee Term, the Customer will provide the Service Provider with all utility bills pertinent to the energy performance calculations described in this Contract within thirty (30) days of receipt. The Customer may provide the Service Provider with copies of bills, or access to invoices via an on-line system. Within thirty (30) days of the Service Provider's receipt of all pertinent utility bills with meter-reading ending dates falling within a Performance Guarantee Year (including where applicable, the Opening Stub Year or Closing Stub Year), the Service Provider will prepare and provide to the Customer its proposed calculation of the Project Savings Amount (as calculated pursuant to Schedule C) and, if applicable, the amount of the Performance Guarantee Payment for the immediately-preceding Performance Guarantee Year (the "Prior Year Calculations"). The Service Provider must account for all Causes for Adjustment to the energy performance calculations permitted by Schedule C arising during the preceding Performance Guarantee Year within the Prior Year Calculations, and the Service Provider waives the right to make any claim for Causes for Adjustments not specified within the Prior Year Calculations. Within thirty (30) days of the Customer's receipt of the Prior Year Calculations, the Customer will notify the Service Provider of (1) the Customer's approval of all or any portion of the Prior Year Calculations; and/or (2) the Customer's disapproval of all or any portion of the Prior Year Calculations, including the basis for the disapproval. Within thirty (30) days of receiving notification of the Customer's approval of all or any portion of the Prior Year Calculations, the Service Provider will pay to the Customer the Performance Guarantee Payment, if any, due to the Customer on account of the approved portion of the Prior Year Calculations. If the Customer disapproves all or any portion of the Prior Year Calculations, the Parties will use good faith efforts to resolve such dispute within thirty (30) days of notification to the Service Provider. If the Parties are unable to resolve the matter within a thirty (30) day period, the dispute shall be resolved in accordance with Section VIII.

# Section V. Implementation Period Savings.

Implementation Period Savings will be added to the calculation of the Measured Savings Amount

<sup>&</sup>lt;sup>6</sup> Insert a number equal to the years in the Guarantee Term minus one (e.g., if the Guarantee Term is 10 years, insert "9<sup>th</sup>").

<sup>&</sup>lt;sup>7</sup> Insert a number equal to the years in the Guarantee Term (e.g., if the Guarantee Term is 10 years, insert "10<sup>th</sup>").

determined for the Opening Stub Year, if applicable, or first Performance Guarantee Year if there is no Opening Stub Year.

# Section VI. Additional Savings.

In the event that the Project Savings Amount exceeds the Guaranteed Annual Savings Amount in any Performance Guarantee Year, the excess amount may be used to reduce the Service Provider's liability for any Performance Guarantee Payment due to the Customer for the immediately following Performance Guarantee Year.

# Section VII. Project Modifications to Reduce Performance Guarantee Payment Obligations.

The mutual goal of the Parties is to maximize the Project Savings Amount. Therefore, the Service Provider shall have the right, at all times during the Guarantee Term, subject to the Customer's written approval, to modify or replace any of the ECMs or install additional ECMs and to revise any procedures for the operation of the ECMs or implement other procedures at the Site provided that: (i) such actions by the Service Provider do not result in modifying the standards of comfort and service set forth in Schedule C without the express written approval of the Customer; (ii) such actions are necessary to enable the Service Provider to achieve the Guaranteed Annual Savings Amount; and (iii) any costs incurred relative to such modifications, additions or replacements of the ECMs, or operational changes or new procedures shall be the sole responsibility of the Service Provider. All modifications, additions or replacements of the ECMs or revisions to operating or other procedures shall be described in a supplemental schedule(s) to be provided to the Customer for approval, that shall not be unreasonably withheld or delayed, and incorporated into this Contract through a Change Order, and the work related to such modifications, additions, or replacements shall be carried out in accordance with the terms and provisions of Article 4 of the Contract. Any replacement ECM shall be new and have equal or better potential to reduce energy consumption at the Site than the ECM being replaced. The Service Provider shall update any and all software to be used in connection with the ECMs. All replacements of and alterations or additions to the ECMs shall become part of the ECMs described in Schedule A and shall become the property of the Customer.

# Section VIII. Disputes Regarding Energy Performance Calculations.

Any disputes concerning the calculation of the Prior Year Calculations, Causes for Adjustment, or other energy or consumption calculations described in Schedule C shall be resolved as follows:

- 1. First, the Parties will use good faith efforts to resolve such dispute within thirty (30) days of written notification from the other Party of the dispute.
- 2. If the Parties are unable to resolve the matter within a thirty (30) day period, the dispute shall be submitted to a third-party professional engineering firm for resolution with expertise in energy engineering acceptable to both the Service Provider and the Customer. The determination of such firm will be final and binding upon both the Customer and the Service Provider. Service Provider and the Customer will each be responsible for half of the fees of such firm.

The disputed calculation shall not take effect until there is a final adjudication or resolution of the dispute.

# Section IX. Examples.

Section IV of Schedule C sets forth examples of calculations of energy savings for illustrative purposes.

#### SCHEDULE C: METHODOLOGY AND BASELINE

# **SECTION I** - PERFORMANCE TRACKING METHODOLOGY

- A. Determination of Project Savings Amount
- B. Baseline Definition
- C. Measured Savings
- D. Non-measured Savings

# A. Determination of Project Savings Amount

For purposes of the performance guarantee described in Schedule B, the Project Savings Amount will be determined as follows:

 $\$ = \$_{F+} \$_{O+} \$_{N}$ 

# Where:

\$ = Project Savings Amount

 $s_F$  = Whole Facility Savings Amount, calculated as set forth in Subsection C.1 below.

 $s_0$  = Other Measured Energy Savings Amount, calculated as set forth in Subsection C.2 below.

 $s_N$  = Non-measured Savings Amount, stipulated as set forth in Subsection D below.

# B. Baseline Definition

The "Base Year" means the period from and including January 1, [\_\_\_\_\_] through and including December 31, [\_\_\_\_\_].

The baseline is that set of parameters that describes both the energy consumed in the Base Year and the conditions that caused that consumption to occur. This set of parameters includes utility consumption, facility use information, weather data and other information as may be necessary to describe the Base Year conditions. In addition, the baseline includes certain mathematical values, calculated by a model and set forth in Section III of this Schedule C, that are used to correlate the Base Year energy consumption with the factors that caused that consumption. The baseline to be used for this Project is fully defined in Schedule C Section II, Subsections A through H.

# C. Measured Savings

- 1. Whole Facility Savings (Option C "Main Meter Measurement" as described in the International Measurement and Verification Protocol (IPMVP))
  - a. <u>Overview</u>

Energy savings for a Performance Guarantee Year will be measured by comparing the total energy

consumption and demand measured during all utility billing periods in each energy savings category with meter reading period end dates falling within such Performance Guarantee Year ("Billing Periods"; each a "Billing Period") to the total energy consumption and demand for the same area for all Billing Periods in the Base Year. Base Year energy and demand will be adjusted for differences in weather, facility operation and facility modifications to estimate how much energy would have been used in the corresponding Billing Period of the Performance Guarantee Year if the energy conservation measures had not been implemented. The energy saved is the difference between the adjusted Base Year consumption and the Performance Guarantee Year consumption. The demand saved is the difference between the adjusted Base Year demand and the Performance Guarantee Year demand. Energy cost savings is the difference between the cost of the adjusted Base Year consumption and demand and the Performance Guarantee Year consumption and demand. This process will be followed for each energy savings category involved in the performance guarantee.

b. Equation

Energy and demand units saved for each energy saving category for each Performance Guarantee Year Billing Period will be determined by the following equation:

 $c = E_c *$ /Unit  $E_c = E_B - E_G$ 

Where;

c = Measured Energy Savings, using IPMVP Option C J/Unit = Cost of Energy per Unit Measured, as specified in Schedule C, Section II.D  $E_C =$  Energy (or demand) Units Saved  $E_B =$  Adjusted Base Year Monthly Billing Period Consumption or Adjusted Base Year Monthly Billing Period Demand for the energy savings category, as described in subsection (c) below  $E_G =$  Performance Guarantee Year Billing Period Consumption or demand for the energy savings category

"Whole Facility Savings" ( $\$_F$ ) for Performance Guarantee Year "y" shall equal the sum of the Measured Energy Savings ( $\$_C$ ) for all energy savings categories and Billing Periods within such Performance Guarantee Year.

# c. Determination of Adjusted Baseline Measurements

i. General

Consumption and demand for each Base Year Billing Period is adjusted to estimate what the current Performance Guarantee Year Billing Period consumption and demand would have been if no energy conservation measures had been implemented. This is accomplished by adjusting for these factors with respect to differences between the Base Year Billing Period and corresponding Performance Guarantee Year Billing Period:

- a. Changes in the number of days between the Base Year and Performance Guarantee Year billing periods
- b. Changes in weather
- c. Changes in facility use
- d. Modifications to the facility

# ii. Adjusted Baseline Calculations

Adjusted Base Year Billing Period consumption is calculated as follows for each savings category:

 $Q_i = C_D * (T_i - T_{i-1}) + C_H * HDD_i + C_C * CDD_i + O_i + M_i$ , or

Adjusted Base Year Billing Period Consumption = Weather Independent Consumption + Weather Dependent Consumption + Offset + Causes for Adjustments

#### Where:

 $Q_i$  = adjusted Base Year Billing Period consumption for Performance Guarantee Year Billing Period "i"

 $C_D$  = a constant representing units of consumption per billing period day as calculated by model and set forth in Section III of this Schedule C

T<sub>i</sub> = ending date of current Performance Guarantee Year billing period

 $T_{i-1}$  = ending date of previous Performance Guarantee Year billing period

 $C_{H}$  = a constant representing units of consumption per heating degree day as calculated by model and set forth in Section III of this Schedule C

$$\begin{split} \text{HDD}_i &= \text{heating degree days in the current billing period} \\ \text{C}_{\text{C}} &= \text{a constant representing units of consumption per cooling degree day as calculated by} \\ \text{model and set forth in Section III of this Schedule C} \\ \text{CDD}_i &= \text{cooling degree days in the current billing period} \\ \text{O}_i &= \text{offset for the current billing period} \\ \text{M}_i &= \text{other adjustments for the current billing period} \end{split}$$

Adjusted Base Year demand is calculated with a slightly different formula as follows:

 $D = D_D * (T_i - T_{i-1}) + D_H * (HDD_i / (T_i - T_{i-1})) + D_C * (CDD_i / (T_i - T_{i-1})) + O_i + M_i, or$ 

Adjusted Base Year Demand = Weather Independent Demand + Weather Dependent Demand + Offset + Use and Modification Adjustments

# Where:

D = adjusted Base Year demand

 $D_D$  = a constant representing units of demand per billing period day as calculated by model and set forth in Section III of this Schedule C

 $D_H$  = a constant representing units of demand per heating degree day as calculated by model and set forth in Section III of this Schedule C

 $D_{C}$  = a constant representing units of demand per cooling degree day as calculated by model and set forth in Section III of this Schedule C

## iii. Weather Independent Consumption

Because utility meters are not always read on the same day of the month, the number of days in a meter's billing period frequently varies. The term,  $C_D * (T_i - T_{i-1})$ , in the above equation is used to account for this difference, where  $(T_i - T_{i-1})$ , gives the number of days in the Performance Guarantee Year Billing Period "I". Thus, Weather Independent Consumption is the consumption per day adjusted to reflect the difference, if any, between the number of days in the Base Year Billing Period and number of days in the corresponding Performance Guarantee Year Billing Period. The approach is identical for demand, except that the term  $D_D$  is substituted for  $C_D$ , and there is no adjustment for variance in the number of days between the Base Year Billing Period and Performance Guarantee Year Billing Period, because demand is a single maximum meter reading value for each Billing Period, not dependent upon the number of days in such period.

# iv. Weather Dependent Consumption

Change in weather between the Base Year Billing Period and corresponding Performance Guarantee Year Billing Period is accounted for with the term,  $C_H * HDD_i + C_C * CDD_i$ . Weather Dependent Consumption is consumption per degree-day times the number of degree-days in the current Performance Guarantee Year Billing Period. A cooling degree-day is the difference between the average daily temperature and the balance point temperature (AvgTemp – BalanceTemp). A heating degree-day is the difference between the balance point temperature and the average daily temperature (BalanceTemp – AvgTemp). Degree-days are either positive numbers or zero. If the degree-day calculation yields a negative number, the period is considered to have zero degree-days of that type. The balance point temperature is different for each building and for each fuel type. The balance point temperatures used for this project are defined in Schedule C Section II-A. The weather station used to determine daily temperatures is specified in Schedule C Section II-C.

Demand is treated similarly, except that a "heating degree-days per day" or "cooling degree-days per day" figure for the entire Billing Period, as set forth in Section III of this Schedule C, is substituted in lieu of heating degree-days and/or cooling degree-days. This provides a measure of average daily weather intensity, which is the relevant variable with respect to demand.

v. Offset

Offset is that portion of the energy consumption in a Billing Period that cannot be accounted for with the Weather Independent and Weather Dependent consumption. It is mostly attributable to seasonal changes in facility use such as summer shutdown and holidays. Section III of this Schedule C includes offset figures for each energy savings category and each billing period in the Base Year. Since the corresponding Performance Guarantee Year Billing Period may overlap two or more Base Year Billing Periods, the offset for a Performance Guarantee Year Billing Period will be the weighted average of the corresponding Base Year Billing Period offset that actually overlaps the applicable Performance Guarantee Year Billing Period Offset for the Performance Guarantee Year as determined with this equation:  $O_i = O_1 * dG_1/dB_1 + O_2 * dG_2/dB_2 + ... O_n * dG_n/dB_n$ 

Where:

O<sub>i</sub> = current Performance Guarantee Year offset

O<sub>1</sub> = Base Year Billing Period 1 offset

O<sub>2</sub> = Base Year Billing Period 2 offset

O<sub>n</sub> = Base Year Billing Period n offset

 $dG_1$  = days in Performance Guarantee Year Billing Period that overlap Base Year Billing Period 1

 $dG_2$  = days in Performance Guarantee Year Billing Period that overlap Base Year Billing Period 2

 $dG_n$  = days in Performance Guarantee Year Billing Period that overlap Base Year Billing Period n

dB<sub>1</sub> = days in Base Year Billing Period 1

dB<sub>2</sub> = days in Base Year Billing Period 2

dB<sub>n</sub> = days in Base Year Billing Period n

n = number of Base Year Billing Periods overlapped by Performance Guarantee Year period

# vi. Other Adjustments

Causes for Adjustment for a Base Year Billing Period may be required in accordance with Schedule C Section II-E.

The total adjustment for any Performance Guarantee Year Billing Period will be determined with this equation:

$$M_i = Adj_1 + Adj_2 + \dots Adj_n$$

Where Adj<sub>1</sub>, Adj<sub>2</sub> and Adj<sub>n</sub> are all of the Causes for Adjustments determined to be necessary by the Parties for the Performance Guarantee Year Billing Period pursuant to Schedule C, Section II-E. The sign of the adjustment will be positive when the change will cause an increase in energy and the sign of the adjustment will be negative when the change will cause a decrease in energy. In each instance when the Service Provider proposes to make "Other Adjustments," as identified in Schedule C, Section II-E, the Service Provider will propose such Other Adjustments to the Customer, with adequate explanation and documentation.

# 2. Other Measured Energy Savings (Options A or B, as described in the International Measurement and Verification Protocol (IPMVP))

a. <u>Equation</u>

Other Measured Energy Savings will be determined as follows:

 $S_0 = E_0 * S/Unit$  $E_0 = E_{MB} - E_{MG}$  Where:

\$<sub>0</sub> = Other Measured Energy Savings

\$/Unit = Cost of Energy per Unit Measured, as specified in this Schedule C, Section II.D

E<sub>0</sub> = Other Measured Energy Units Saved

E<sub>MB</sub> = Measured Base Year Consumption

E<sub>MG</sub> = Measured Guarantee Year Consumption

The total Other Measured Energy Savings for any Performance Guarantee Year will be the sum of the Other Measured Energy Savings for all savings categories.

#### b. Explanation of Methodology

ECM/Site Name:			
IPMVP Method:	Option A	Option B	
Brief Description of			
Rationale:			

#### Pre-retrofit Values

ltem	Value	Source	Frequency of Measureme nt	Measureme nt Method
Name/Description				
Quantity				
Size/Capacity				
<b>Operating Hours</b>				
Load				
Assumptions				

#### Post-retrofit Values

Item	Value	Source	Frequency of Measureme nt	Measureme nt Method
Name/Description				
Quantity				
Size/Capacity				
Operating Hours				
Load				
Assumptions				

#### D. Non-measured Savings

As a result of implementing Energy Conservation Measures, additional non-energy savings may accrue towards this Contract's guaranteed savings that the Parties have agreed should be stipulated in this Schedule.

The following savings amounts shall be included in each annual calculation of the Project Savings Amount:

[Specify categories of non-measured savings, and annual savings amount stipulated for each category.]

Facility	Annual Amount	Explanation

#### **SECTION II - BASELINE & SUPPORTING INFORMATION**

- A. Meter Tuning Contract
- B. Meter List
- C. Weather Source
- D. Energy Rates
- E. Causes for Adjustment
- F. Calendar and Schedules
- G. Standards of Service and Comfort
- H. Other Information

# A. Meter Tuning Contract

The purpose of meter tuning is to establish a relationship between the weather and the consumption and demand measured by a particular meter. Tuning consists of identifying relationships between "historic" utility performance and weather (heating degree days and/or cooling degree days). The end result is a set of coefficients, which will be used in modeling the energy use of a facility to calculate the energy savings or increase associated with weather normalizing the baseline energy usage.

In Section III of this Schedule C, the parties have established the meter tuning coefficients using the twelve (12) month baseline period (typically, the 12 months prior to the beginning of installation) for each guarantee meter, as listed in Section II.B of this Schedule C.

# B. <u>Meter List</u>

# 1. Guarantee Meters

The following meters will be used to measure actual energy consumption for both the Base Year and Performance Guarantee Years.

# **Electric Meters**

Meter Name	Account Number	Utility Co.	Rate	Units

#### **Gas Meters**

Meter Name	Account Number	Utility Co.	Rate	Units

#### 2. Supplemental Sub-Meters

The consumption measured by these meters is not guaranteed. Information from these meters may be used to determine baseline adjustments due to modifications to the Site or changes in operation.

Meter Name	Account Number	Utility Co.	Rate	Units

#### C. <u>Weather Source</u>

Data for weather-related calculations used in this Contract will be Daily High-Low Temperatures obtained from the National Weather Service Station at [*WEATHER STATION NAME*]. In the event the specified weather station is de-activated, weather data will be collected from the nearest weather station with suitable observations. If the data source becomes unavailable or a superior source is identified, the Service Provider may select an alternative data source with the Customer's approval.

#### D. Energy Rates

The rates set forth in this Subsection will be used throughout the Guarantee Term to determine the Measured Savings Amount.

## 1. Electricity

Name of Utility: Rate Schedule:			
	Charge	Unit	Comments
Customer Charge:		Per Billing Period	
		Per Billing Period	
Demand Charges:		Per Billed kW	
		Per Billed kW	
Consumption Charges: (T&D + Generation)		Per kWh	
		Per kWh	
		Per kWh	
Other Charges:		Per kWh	
		Per kWh	
		Per kWh	
Determination of Billed Demand:		kW	
		kW	
Other Rate Details:			

# 2. Natural Gas

Name of Utility: Rate Schedule:			
	Charge	Unit	Comments
Customer Charge:		Per Billing Period	
		Per Billing Period	
Consumption Charges:		Per MCF	
		Per MCF	
		Per MCF	
Other Charges:		Per MCF	
		Per MCF	
		Per MCF	
Other Rate Details:			

# E. Causes for Adjustment

Each of the causes described in the table below shall constitute a "Cause for Adjustment" to the energy savings calculations for the Measured Savings Amounts.

Cause	Action	Re	sponsibility
Addition of New Site, or Renovation/ Addition to Existing Site w/ Independent Utility Metering and HVAC Service	<ol> <li>None required. Site is independently metered. No effect on savings tracking of other buildings.</li> </ol>	1.	N/A
Addition of New Site or New Energy User on Existing Utility or HVAC Service **	<ol> <li>The Customer will notify the Service Provider when additions are planned.</li> <li>The Service Provider will review the addition plans and determine if the addition is likely to increase energy use above the threshold limits. *</li> <li>If the addition is expected to exceed any of the threshold limits then all incoming utilities (consumption and demand) and HVAC service will be sub-metered.</li> <li>If the addition is below all of the threshold limits, the addition's energy consumption will be estimated from computerized building simulation, manual calculations or as a ratio of the main building's energy consumption, obtained either from sub-meter data and/or energy simulations.</li> </ol>	1. 2. 3. 4.	Customer Service Provider Customer Service Provider
Addition to Existing Site on Existing Utility or HVAC Service **	<ol> <li>The Customer will notify the Service Provider when additions are planned.</li> <li>The Service Provider will review the addition plans and determine if the addition is likely to increase energy use above the threshold limits. *</li> <li>If the addition is expected to exceed any of the threshold limits, sub-meter the addition, just as for a new building.</li> <li>If the addition is below all of the threshold limits, the addition's energy consumption will be estimated from computerized building simulations, manual calculations or as a ratio of the main building's energy consumption, obtained either from sub-meter data and/or energy simulations.</li> </ol>	1. 2. 3. 4.	Customer Service Provider Customer Service Provider

Renovation /		tomer will notify the Service Provider	1.	Customer
Modification of an		uilding renovations are planned.	2.	Service
Existing Site on		vice Provider will review the		Provider
Existing Utility or		ion plans and determine if the	3.	Customer
HVAC Service	renovat	ions are likely to cause a change in	4.	Service
(including	energy	use that would exceed the threshold		Provider
additional plug	limits.*			
load or other	3. If the re	novations are expected to raise or		
equipment)**	lower e	nergy consumption more than the		
	thresho	ld limits, the renovation will be sub-		
	metere	d for both pre and post renovation		
	periods	until the effect on energy has been		
	determi	ined.		
	4. If the ex	pected changes are less than the		
	thresho	Id limits, the effect on energy may be		
	estimat	ed, or, at the Service Provider's		
	option,	ignored.		
Demolition /	L. The Cus	tomer will notify the Service Provider	1.	Customer
Abandonment of	when a	demolition or abandonment is	2.	Service
an Existing Site on	planned	I.		Provider
Existing Utility or	2. The Ser	vice Provider will determine if the	3.	Customer
HVAC Service **	demolit	ion/ abandonment is likely to	4.	Service
	decreas	e energy use more than the threshold		Provider
	limits. *			
	3. If the ex	pected decrease is more then the		
	thresho	ld limits, the building will be sub-		
	metere	d for both pre and post demolition		
		until the effect on energy has been		
	determ	ined.		
	4. If the ex	pected changes are less than the		
		Id limits, the effect on energy may be		
	estimat	ed, or, at the Customer's option,		
	ignored			
Change in	L. The Cus	tomer will maintain records of	1.	Customer
Occupancy,	occupai	ncy levels, operating hours and	2.	Service
Occupancy Hours,	operatii	ng calendar and apprise the Service		Provider
Calendar or Set-	Provide	r of the latest figures at least		
points	annuall	y.		
Reference	2. If at any	point during the guarantee term any		
Schedule C Section	-	values change more than 5% of its		
II-F and Section II-	baseline	e value, the Service Provider may		
G for baseline	estimat	e the impact of this change and adjust		
conditions.	the base	eline accordingly.		
Abandonment of an Existing Site on Existing Utility or HVAC Service ** Change in Occupancy, Occupancy Hours, Calendar or Set- points Reference Schedule C Section II-F and Section II- G for baseline	thresho estimat option, 1. The Cus when a planned 2. The Ser demolit decreas limits. * 3. If the ex thresho metered periods determinat ignored 1. The Cus occupan operatin Provide annualle 2. If at any of these baseline	Id limits, the effect on energy may be ed, or, at the Service Provider's ignored. tomer will notify the Service Provider demolition or abandonment is i. vice Provider will determine if the ion/ abandonment is likely to e energy use more than the threshold spected decrease is more then the Id limits, the building will be sub- d for both pre and post demolition until the effect on energy has been ined. spected changes are less than the Id limits, the effect on energy may be ed, or, at the Customer's option, tomer will maintain records of ncy levels, operating hours and ng calendar and apprise the Service r of the latest figures at least y. point during the guarantee term any e values change more than 5% of its e value, the Service Provider may e the impact of this change and adjust	<ol> <li>2.</li> <li>3.</li> <li>4.</li> <li>1.</li> </ol>	Service Provider Service Provider

<b>.</b>				
Re-commissioning of Out-of-Service Sites **		When a building is scheduled to be re- commissioned, sub-metering equipment will be installed to measure: (a) the building's energy use in its out-of-service condition, and (b) the building's energy use after re- commissioning. The Service Provider will use the metered values to adjust the Base Year for the increased energy consumption.	1. 2.	Customer Service Provider
Customer Initiated ECM's	2.	If a customer initiated ECM is estimated to save less than 5% of the Guaranteed Annual Savings Amount, no adjustment will be made to the savings measured under this contract. For purposes of this Cause for Adjustment, multiple Customer-initiated ECMs obtained through a single procurement or contract will be considered as one ECM for purposes of calculating the percentage of the Guaranteed Annual Savings Amount. To measure savings from a customer initiated	2.	N/A Customer N/A
		ECM, Customer will develop a separate M&V plan to track the ECM's savings. Pending agreement from the Service Provider, the resulting savings from the Customer initiated ECM will be subtracted from this contract's savings. In no event will the original M&V plan's current year measured savings be reduced below the immediately preceding year's savings due to a Customer initiated ECM.		
Other Causes	1.	The Parties may mutually agree to other Causes for Adjustment to address changes in certain baseline conditions.	1.	Service Provider/ Customer

Notwithstanding the foregoing, the Parties agree that the following activities or occurrences shall not be deemed Causes for Adjustment under this Contract:

[Specify here any activities the Customer seeks to specifically exclude from consideration as a Cause for Adjustment.]

In the event the Service Provider has reason to believe that any action or failure to act by the Customer or a measurable deviation from the baseline may constitute a Cause for Adjustment to the energy performance calculations set forth in this Contract, the Service Provider must notify the

Customer of a possible Cause for Adjustment within sixty (60) days of becoming aware of such action, failure to act, or measurable deviation. If the Service Provider fails to notify the Customer within such sixty (60) day period, the Service Provider thereafter waives the right to present any claim for an adjustment to the energy performance calculations on account of such action or failure to act. In all instances, the Service Provider must account for all Causes for Adjustment to the energy performance calculations arising during the preceding Performance Guarantee Year within the Prior Year Calculations (as defined in Schedule B), and the Service Provider waives the right to present any Causes for Adjustments not specified within the Prior Year Calculations. Customer agrees to accept Causes for Adjustment to account for changes in the Site and its use which may have occurred prior to the execution of this Contract (but after the performance of the Investment Grade Audit) and which come to the attention of Service Provider after the execution of this Contract to the same extent as factors occurring subsequent to the execution of this Contract, provided any such Cause for Adjustment is presented within the timeframes set forth in this paragraph.

\* Threshold Limits Per Fuel-type/Category:

Area –	3% of square footage of Site Area as of the Date of Commencement
Electricity –	3% of highest annual peak demand resulting from the Meter Tuning
	Coefficients set forth in Schedule C Section III.
Natural Gas –	3% of installed Base Year gas-heating capacity
Other Fuel –	3% of installed Base Year maximum capacity
Air Conditioning –	3% of installed Base Year air-conditioning capacity

\*\* Reference Schedule C Section II-B for the meters included in the baseline.

#### F. Calendar and Schedules

Except as otherwise authorized by this Section II.F, the Customer agrees to operate the conditioned spaces in the Site within the date/times and occupancy modes set forth in the following Calendars and Schedules.

## Calendar

Date(s)	Event	Date(s)	Event

## Schedules

Facility Type	Schedule Type	Daily Schedule
	Weekday	
	Weekday	
	Weekend	
	Holiday	

Start Times	1 hour prior to scheduled event for area in question
Stop Times	After scheduled event for area in question
Special Requirements	As demanded for given area in question, adjustment required, unless demanded in Base Year.

## Occupancy

Time Period	Occupancy Schedule
Weekdays	
Weekends	
Holidays	

These occupancy schedules do not apply to the following areas:

[e.g., Datacom centers, Telcom Centers, and spaces leased to tenants where the parties acknowledge the schedules will not apply].

In these areas equipment may be allowed to run continuously.

Moreover, these occupancy schedules will not apply in any instance where the Service Provider or its representatives direct or approve the running of equipment outside of the occupancy schedules in order to improve the efficiency of the ECMs and related equipment.

#### G. Standards of Service and Comfort

The Customer agrees to operate the conditioned spaces in the Site within the temperature ranges scheduled in the Temperature Control Table below. Operating conditions outside the range specified in this table shall constitute a Cause for Adjustment under this Contract. However, the Service Provider acknowledges that adjustments may be made to the temperature ranges within spaces of less than [\_\_\_\_\_\_] square feet to accommodate tenant comfort and use of the space without any adjustments to the baseline, provided spaces with adjustments outside of the temperature ranges do not exceed [\_\_\_\_\_] square feet in the aggregate throughout the Site.

In the event that an adjustment to the baseline is sought, the Service Provider shall submit the proposed baseline adjustments to the Customer and describe the reasons for the adjustment as part of the Prior Year Calculations described in Schedule B.

#### **Temperature Control Table**

	Heating	Cooling
	Set-point	Set-point
	Range	Range
Occupied	68°F - 71°F	72°F - 75°F
Unoccupied	50°F	Off

#### SECTION III

#### **METER TUNING COEFFICIENTS - GUARANTEE METERS**

[Specify the meter tuning coefficients for all of the guarantee meters listed in Schedule C, Section II.B.]

#### SECTION IV

#### **EXAMPLES OF ENERGY SAVINGS CALCULATIONS**

[Insert examples demonstrating how the calculations will be performed using prior year data.]

## SCHEDULE D: PERFORMANCE TRACKING SERVICES

[Insert examples of what performance tracking services will be performed.]

#### SCHEDULE E: PAYMENT SCHEDULE

#### **SECTION I – INSTALLATION PERIOD PROGRESS PAYMENTS**

If the preceding box is checked, within fifteen (15) working days after the Date of
Commencement, the Service Provider must submit to the Customer a "Schedule of Values" that lists
in detail the estimated value of each construction activity included in the Contract Sum (including
insurance credits and other credit items required to be listed) for the Project. The Schedule of Values
must be prepared in form and substance acceptable to or as specifically prescribed by the Customer.
Construction progress payments shall be made to the Service Provider monthly based on the
percentage completion of items delineated on the Schedule of Values during the prior month.

If the preceding box is checked, a Schedule of Values is attached to Schedule A. Construction progress payments shall be made to the Service Provider monthly based on the percentage completion of items delineated on the Schedule of Values during the prior month.

If the preceding box is checked, the Parties have elected to share Installation Period Savings in accordance with Section 2.2 of the Contract. For purposes of Section 2.2, the following terms shall be defined as follows.

"*Cost of the Work*" means costs necessarily incurred by the Service Provider in good faith and in the performance of the work, and includes only the items set forth below:

[Delineate items to be included in the definition of Cost of the Work.]

"*Contractor's Fee*", except as limited by the Contract Sum, shall be equal to \_\_\_\_\_ percent (\_\_\_%) of the Cost of the Work.

If the preceding box is checked, the Customer intends to finance payment of the Work with funds other than its own, and have payments due the Service Provider as provided in the Contract Documents be made through an escrow administered by an escrow agent reasonably acceptable to the Customer and the parties to the Financing Contract. If the Customer elects to have payments made through an escrow, the Customer and the Service Provider agree to execute the customary form of construction escrow disbursement agreement then in use by the escrow agent, with such revisions (i) as shall be required to comply with the terms of the Contract Documents, and (ii) as may be reasonably required by the Customer or the parties to the Financing Contract. In connection therewith, the Service Provider hereby agrees to perform those matters required of the Service Provider by the escrow agent so that the escrow agent may properly administer said escrow, which matters may include, but are not limited to, providing information as to the Service Provider's financial condition and executing various indemnification agreements. The cost of such escrow shall be borne by the Customer. The Service Provider will submit payment request forms to the Customer, and the Customer shall promptly forward the payment request forms to the escrow agent requesting payment to the Service Provider in an amount equal to the value of Work performed since the last interim payment as shown on the Schedule of Values.

#### **SECTION II – PERFORMANCE TRACKING SERVICES PAYMENTS**

The Service Provider shall be paid the following amounts for Performance Tracking Services. Payments shall be made in accordance with Section 10.1.2 of the Contract. "Performance Guarantee Year 1" in the following table refers to the first 12-month Performance Guarantee Year, as defined in Schedule B. No payment shall be required for any Opening Stub Year, as defined in Schedule B.

Performance	Payment for Performance Tracking
Guarantee Year	Services
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

#### SCHEDULE F: PROJECT SPECIFIC CUSTOMER RESPONSIBILITIES

- 1. The Customer agrees to undertake the duties and responsibilities set forth in this Schedule, either using the Customer's own forces or through one or more contractors.
- 2. The Customer agrees to maintain the Energy Conservation Measures in accordance with the Required Maintenance checklist attached as Schedule G, with allowance for normal wear and tear.
- 3. Customer must maintain the Site in accordance with the Required Maintenance checklist attached as Schedule G.
- 4. Equipment and systems must be maintained in proper working condition in accordance with Schedule G in all cases where the performance of said equipment affects or could affect the guarantee. Should the Customer refuse to perform the required maintenance as per Schedule G, such failure shall constitute a Cause for Adjustment.
- 5. If the Service Provider or the Customer finds that an ECM requires repair or replacement, the other Party must be notified and the Service Provider will repair or replace the ECM if required to do so pursuant to its obligation to correct the Work or its warranty obligations under this Contract. If the Manufacturers' Warranties apply to the ECM requiring repair or replacement, the Customer shall cause the repair or replacement of the ECM in accordance with the Manufacturers' Warranties. If the Service Provider is not required to repair or replace the ECM and the Manufacturers' Warranties do not apply, the Service Provider and the Customer shall agree to a schedule for the repair or replacement of the ECM, at the Customer's expense, that establishes reasonable timeframes for the engineering, procurement, and construction and installation associated with such work. The Parties will use good faith efforts to agree to adjustments to the energy performance calculations that accounts for the energy savings attributable to the period of time needed to repair or replace the ECM.
- 6. Any adjustment to the energy performance calculations in accordance with the preceding paragraphs is subject to the terms and provisions of Section II-E to <u>Schedule C</u>, which require the Service Provider to notify the Customer within sixty (60) days of the Service Provider becoming aware of a possible Cause for Adjustment, and to specify all Causes for Adjustment in the annual guaranteed savings reconciliation process.

#### **GENERAL RESPONSIBILITIES**

The Customer agrees to: a) provide, or cause its suppliers to provide, periodic utility invoices to the Service Provider in accordance with Schedule C; b) execute all the Customer responsibilities as defined in Article 3 of the Contract; c) provide to the Service Provider reasonable access to the Site and information necessary for the Service Provider to perform its responsibilities. Access will include,

but is not limited to, the following items:

- All mechanical equipment rooms in the Site
- All temperature control and energy management systems that control part or all of any of the Site
- Personnel with responsibility for operating and/or managing the Site
- Monthly utility invoices and billing history for all of the meters listed in Schedule C Section II-B.
- Construction documents, equipment inventories, and other documents that may be helpful in evaluating a cause for adjustment as listed in Schedule C Section II-E.
- Any data from meters or sub-meters relevant to the Performance Tracking Services.

#### SCHEDULE G: REQUIRED MAINTENANCE

[This checklist is a tool by which the Service Provider may record and track compliance with operations and maintenance procedures performed by facility staff. It typically specifies a list of tasks and the corresponding schedule for the performance of the prescribed procedures. Facility personnel will complete the checklist and forward it to the Service Provider, usually on a predetermined basis. (This checklist is a useful method for both the Service Provider and Customer to verify that the required maintenance activities are being performed at the scheduled intervals and should be comprehensive).]

#### SCHEDULE H: SERVICE PROVIDER'S INSURANCE REQUIREMENTS

The Service Provider shall purchase, at its sole cost and expense, from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect Service Provider from claims set forth below which may arise out of or result from Service Provider's operations under the Contract and for which the Service Provider may be legally liable, whether such operations be by the Service Provider or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

(1) claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;

(2) claims for damages because of bodily injury, occupational sickness or disease, or death of the Service Provider's employees;

(3) claims for damages because of bodily injury, sickness or disease, or death of any person other than the Service Provider's employees;

(4) claims for damages insured by usual personal injury liability coverage;

(5) claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

(6) claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;

(7) claims for bodily injury or property damage arising out of completed operations; and

(8) claims involving contractual liability insurance applicable to the Service Provider's obligations under Section 13.

The insurance required by this Schedule H shall be written for not less than the limits of liability specified below or required by law, whichever is greater. Coverage, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.

Certificates of insurance acceptable to the Customer shall be filed with the Customer prior to commencement of the Work. These certificates and the insurance policies required herein shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Customer. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably

available, an additional certificate evidencing continuation of such coverage shall be submitted with the final payment request. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Service Provider with reasonable promptness in accordance with the Service Provider's information and belief. The words "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" shall be deleted from the certificate form's cancellation provision. Failure of Customer to demand such certificate or other evidence of full compliance with these insurance requirements or failure of Customer to identify a deficiency from evidence that is provided shall not be construed as a waiver of Service Provider's obligation to maintain such insurance. Customer shall have the right, but not the obligation, of prohibiting Service Provider or any Subcontractor from entering the Site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by Customer. Failure to maintain the required insurance may result in termination of this contract at Customer's option. If Service Provider fails to maintain the insurance as set forth herein, Customer shall have the right, but not the obligation, to purchase said insurance at Service Provider's expense. With respect to insurance maintained after final payment, an additional certificate(s) evidencing such coverage shall be promptly provided to Customer whenever requested. Certificates showing compliance with the requirements in the amounts set forth below shall be signed by a person authorized to bind coverage on the insurers' behalf. Certified copies of policies shall be provided to Customer within 10 business days at Customer's request. All insurance carriers shall be rated at least "A-" for financial strength and "VIII" for financial size by A. M. Best throughout the period of time insurance is required to be in force. Deductibles and self-insured retentions shall not exceed \$25,000 and shall be the sole responsibility of Service Provider.

The Service Provider shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Service Provider, its agents, representatives, employees, or Subcontractors. The cost of such insurance shall be solely incurred by the Service Provider, unless otherwise specified. By requiring insurance herein, Customer does not represent that coverage and limits will necessarily be adequate to protect Service Provider and such coverage and limits shall not be deemed as a limitation on Service Provider's liability under the indemnities granted to Customer in this contract.

## The Service Provider shall purchase and maintain the following insurance:

#### 1. Commercial General Liability Insurance

a. Coverage shall be at least as broad as Insurance Services Office (ISO) "occurrence" form CG 00 01 (ed. 10/01) covering commercial general liability or its equivalent.

b. Limits not less than \$1,000,000 per occurrence and \$2,000,000 general aggregate.

c. A separate designated construction project general aggregate limit shall apply to each designated construction project under this contract, and that limit shall be equal to the amount of

the general aggregate limit. Designated Construction Project(s) general aggregate limit endorsement ISO CG 25 03 (ed. 03/97) or its equivalent shall meet this requirement.

d. Customer, its subsidiaries, officers, directors, and employees are to be covered as additional insureds using ISO additional insured endorsement CG 20 10 (ed. 11/85). The coverage shall contain no special limitations on the scope of protection afforded to Customer.

e. Service Provider's insurance coverage shall be primary and non-contributory.

f. The insurer shall agree to waive all rights of subrogation against the Customer, its subsidiaries, officers, directors, and employees for losses arising from Work performed by the Service Provider for the Customer.

g. Coverage shall state that Service Provider's insurance shall apply separately to each insured against whom claim is made or suit is brought, except as respect to the limits of the insurers' liability.

h. Service Provider shall include all Subcontractors as insureds under its policies or shall furnish separate certificates for each Subcontractor. All coverage for Subcontractors shall be subject to all of the requirements stated herein. Commercial General Liability coverage shall include independent contractors coverage, and the Service Provider shall be responsible for assuring that all Subcontractors are properly insured. Customer and Service Provider shall be additional insureds on Subcontractors' Commercial General Liability insurance. When requested by Customer, Service Provider shall furnish copies of certificates of insurance evidencing coverage for each Subcontractor.

## 2. Workers' Compensation Insurance

a. Coverage shall meet statutory requirements of the State in which Work is to be performed.

b. The insurer shall agree to waive all rights of subrogation against the Customer, its subsidiaries, officers, directors, and employees for losses arising from Work performed by the Service Provider for the Customer.

## 3. Employers Liability Insurance

Coverage shall provide limits not less than bodily injury by accident \$1,000,000 each accident; bodily injury by disease \$1,000,000 policy limit; and bodily injury by disease \$1,000,000 each person.

#### 4. Business Auto Coverage

a. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01 (ed. 10/01) covering automobile liability, Code Symbol 1 "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage.

b. Service Provider shall maintain business auto liability coverage with a limit of not less than \$1,000,000 each accident.

c. Service Provider waives all rights against Customer and its subsidiaries, officers, directors, and employees for recovery of damages arising out of the use, operation or ownership of vehicles. The insurer shall agree to waive all rights of subrogation against the Customer, its subsidiaries, officers, directors, and employees for losses covered by Business Auto Coverage.

## 5. Umbrella / Excess Liability Insurance

a. Service Provider shall maintain Umbrella / Excess Liability with a limit of not less than \$4,000,000 each occurrence, \$4,000,000 general aggregate.

b. Service Provider may select limits in any combination of primary and excess limits to meet the total limits required.

c. Service Provider waives all rights against Customer and its subsidiaries, officers, directors, and employees for recovery of damages. The insurer shall agree to waive all rights of subrogation against the Customer, its subsidiaries, officers, directors, and employees for losses covered by Umbrella / Excess Liability Insurance.

## 4. Builder's Risk Insurance

a. Before any materials are purchased under this contract, Service Provider shall, unless Customer has specifically waived such in writing because such risks are covered by Customer's existing property owner's insurance, obtain a Builder's Risk Insurance policy that shall insure Customer and Service Provider as their respective rights may appear under the contract. The policy shall provide coverage at least as broad as Insurance Services Office (ISO) Special Form with a limit equal to 100% of the replacement cost of the Project on a non-reporting basis. Coverage shall exclude earthquake, soft costs, and materials furnished outside the scope of this contract. Coverage shall include coverage for flood, storage and transport of materials, equipment, supplies of any kind whatsoever to be used on or incidental to the project.

## 5. Professional Liability (Errors & Omissions) Insurance

a. Service Provider shall require that Service Provider's architect and/or engineer shall indemnify and hold harmless Customer and each officer, director and employee against all claims against any of them, for personal injury or bodily injury, wrongful death or property damage arising out of negligent performance of professional services or caused by an error, omission, or negligent act of the Service Provider's engineer and/or architect or anyone employed by the Service Provider's engineer and/or architect.

b. Service Provider shall require that Service Provider's architect and/or engineer maintain Professional Liability Insurance with a limit of not less than \$2,000,000 each claim, \$2,000,000

general aggregate.

c. All subconsultants to the Service Provider's engineer and/or architect providing professional services under this contract shall also provide evidence of Professional Liability Insurance at limits not less than that required herein of Service Provider's engineer and/or architect.

## 6. Service Provider Pollution Legal Liability Insurance

a. Service Provider shall, unless Customer has specifically waived such in writing because such risks are covered by Customer's existing owner's insurance, maintain in force for the full period of this contract insurance covering losses caused by pollution conditions that arise from the operations of the Service Provider described under the scope of services of this contract. Such insurance shall apply to bodily injury; property damage, including loss of use of damaged property or of property that has not been physically injured; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. The policy of insurance affording these required coverages shall be written in an amount of at least \$5,000,000 per claim, with an annual aggregate of at least \$5,000,000.

c. If coverage is written on a claims-made basis, the Service Provider warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of ten (10) years beginning from the time that work under the contract is completed.

d. If the scope of services as defined in this contract includes the disposal of any hazardous or nonhazardous materials from the Site, the Service Provider must furnish to the Customer evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting waste under this contract. Coverage certified to the Customer must be maintained in minimum amounts of \$5,000,000 per loss, with an annual aggregate of at least \$5,000,000.

e. The policy shall be endorsed to include the Customer, its subsidiaries, officers, directors and employees as additional insureds.

# Appendix G: Energy Performance Exhibits (for use with owner's own contract form)

In 2008, the Building Owners and Managers Association (BOMA) International and the Clinton Climate Initiative (CCI) partnered to develop the BOMA Energy Performance Contracting (BEPC) model, a groundbreaking model contract and supporting documents that allow building owners and operators to execute comprehensive performance-based energy efficiency retrofits to existing buildings. In 2015, BOMA updated and re-launched BEPC to add more options for executing larger retrofits and to reflect the state of the retrofit industry. With the new BEPC model and exhibits, real estate owners can use their own standard contract forms and attach BEPC model exhibits with appropriate modifications to align with the owner's forms and the particular requirements of the project.

## Owners must recognize that the attached Exhibits are model templates that may or may not be suitable for a particular project; the Exhibits are intended as a guide. Parties using this document are advised to consult with legal counsel with expertise in energy efficiency retrofits.

All "standard" terms included in any contract involving design and construction activities should sufficiently protect the owner's business expectations and account for the unique aspects of energy performance contracting. In particular, owners should consider how the following terms may need modification to account for an energy performance contract:

- 1. <u>Schedule for Completion</u>. The contract needs to include a construction schedule relating to the entire project and for each energy conservation measure (ECM). If the completion of the ECMs by a specified date is critical to the owner's business operations (for example, the ECMs need to be completed prior to occupancy by a new tenant), the owner should also consider including a liquidated damages provision protecting against late completion. In addition, the owner should consider specifying an outside fixed date by which the performance guarantee will commence, even if the ECMs have not been completed, to ensure the Service Provider Service Provider has a sufficient contractual motivation to complete the ECMs on schedule.
- 2. <u>Achieving Substantial Completion and Final Acceptance.</u> The contract needs to clearly define the Service Provider's obligations for achieving substantial completion and final acceptance. Many ECMs will require commissioning to verify that the systems are installed, calibrated, and perform according to the owner's project requirements, basis of design, and construction documents. If appropriate, commissioning should be a prerequisite for achieving substantial completion, and the contract documents should identify the commissioning agent or a process for selecting a commissioning agent. In addition, the contract should ensure that the determination of substantial completion is a joint decision by the owner and Service Provider.
- **3.** <u>Payment Schedule</u>. If payments are made to the Service Provider during the course of the installation of the ECMs, the contract needs to clearly define the process for

payments, including the schedule for payments (e.g., upon achievement of certain milestones, pursuant to a schedule of values, etc.), the process for approving the work related to an invoice, lien waivers, withholding of payments, and retainage. Depending on the business arrangement, the contract may provide for final payment for each ECM upon completion of that ECM (as opposed to final payment for the entire project upon completion of all work).

- 4. <u>Permits and Approvals</u>. The contract should clearly assign responsibility for obtaining all permits and approvals for the project. An "owner-friendly" provision would require the Service Provider to secure and pay for all necessary permits and approvals, except for any permits/approvals explicitly made the owner's responsibility under the contract.
- 5. <u>Safety/Coordination with Other Building Occupants</u>. ECMs will typically be implemented while the building remains occupied, and the contract needs to ensure the installation of the ECMs does not disrupt operations.
- 6. <u>Key Personnel</u>. If the owner considers certain Service Provider personnel critical to the delivery and installation of the project, the owner should consider adding a "key personnel" provision that identifies these personnel (e.g., on an Exhibit) and requires owner approval for removal or replacement of key personnel.
- 7. <u>Warranty</u>. The Service Provider's warranty for the work in an EPC may extend for a longer period than a "typical" construction contract. The contract should also address the Service Provider's responsibilities for furnishing manufacturers' warranties completed in favor of the owner.
- 8. <u>Default and Termination</u>. All events of default and remedies in case of default need to be clearly specified. The owner should have the right to terminate only a portion of the work (for example, relating only to one ECM) and complete the work using other contractors.
- **9.** <u>Intellectual Property Rights</u>. The owner needs to ensure it obtains sufficient intellectual property rights in the drawings and specifications prepared by the Service Provider and its subcontractors to complete the work if the Service Provider's services are terminated, and to perform ongoing maintenance and repair activities.
- **10.** <u>Environmental Remediation</u>. The contract needs to clearly address the handling of any regulated environmental materials that may be encountered during the installation of the ECMs, such as Asbestos Containing Material (ACM).
- **11.** <u>Assignability</u>. The owner needs to ensure it can assign the contract to a new owner or related corporate entity without invalidating the performance guarantee.

#### BOMA ENERGY PERFORMANCE CONTRACTING MODEL EXHIBITS

- A. Project Description
- **B.** Performance Guarantee
- C. Methodology and Baseline
- **D.** Performance Tracking Services
- E. Performance Tracking Payment Schedule
- F. Required Maintenance.

## **EXHIBIT** A

#### PROJECT DESCRIPTION

#### Section I. Overview Description of the Project.

[Insert a general overview description of the project. Also detail any of the Service Provider's related obligations, such as helping the Customer to achieve an Energy Star rating/certification or LEED-EBOM certification for the building.]

#### Section II. Description of ECMs by Facility

[This Section should be used for projects involving multiple building locations. Include chart identifying ECMs at each Facility, e.g. the following example.]

ECM #	Location(s)	ECM Description
1		
2		
3		

#### Section III. Detailed Description of ECMs

[For each, describe:

- Specifications relating to type of product used, number of units, etc.
- Training and other support provided to Customer prior to final acceptance date.
- Warranty Period [warranty periods for any ECMs that extend beyond the general warranty period identified in the Contract.
- Commissioning requirements.]

#### **EXHIBIT B**

#### PERFORMANCE GUARANTEE

#### Section I. <u>Definitions</u>.

All capitalized terms used in this Exhibit B shall have the meaning set forth below.

A. <u>Causes for Adjustment</u>: The causes for adjustment to the energy savings calculations set forth in <u>Section VI</u> of <u>Exhibit C</u>.

B. <u>Closing Stub Year</u>: This term is defined in <u>Section III</u> of this <u>Exhibit B</u>.

C. <u>Contract</u>: The agreement between the Service Provider and Customer for the Project to which this Exhibit is attached and incorporated into.

D. <u>ECMs</u>: The energy conservation measures and related services described in <u>Exhibit A</u>.

E. <u>Environmental Incentives</u>. All rights, credits (including tax and carbon credits), rebates, grants, benefits, reductions, offsets, allowances, incentive programs, and entitlements of any kind, howsoever entitled or named, whether arising under federal, state or local law, international treaty, trade association membership, utility services, nongovernmental programs, or otherwise, arising from the development or installation of the ECMs and the Project and the reduction of energy usage or demand at the Facilities described in <u>Exhibit A</u>.

F. <u>Guarantee Term</u>: The period running from and after the Savings Guarantee Commencement Date for a period of [\_\_\_\_\_]<sup>1</sup> years, unless earlier terminated pursuant to <u>Section II.B</u> of this Exhibit.

G. <u>Guaranteed Annual Savings Amount</u>: [\$\_\_\_\_\_]<sup>2</sup>, calculated for each Performance Guarantee Year as set forth in the following table. However, if the Performance Guarantee Year is an Opening Stub Year or Closing Stub Year, the Guaranteed Annual Savings Amount applicable to such Performance Guarantee year shall be [\$\_\_\_\_\_]<sup>3</sup> multiplied by a fraction, the numerator of which is the number of days in such Performance Guarantee Year and the denominator of which is the number of days in the calendar year during which the Performance Guarantee Year occurs (i.e., 365 or 366 days).

<sup>&</sup>lt;sup>1</sup> Insert number of years of the performance guarantee.

<sup>&</sup>lt;sup>2</sup> Insert currency equivalency of guarantee amount.

<sup>&</sup>lt;sup>3</sup> Insert same number from earlier in this definition.

Performance	Guaranteed	Energy Savin	gs	Operation and	Utility	Guaranteed Annual
Guarantee Year <sup>4</sup>	kWh	Therms	kGal	Maintenance Savings	Savings	Savings Amount
1						
2						
3						
4						
5						
6						
7						
TOTAL						

H. <u>Guaranteed Project Savings Amount</u>: [\$\_\_\_\_\_]<sup>5</sup>

I. <u>Installation Period Savings</u>: The savings generated during the period from the Date of Commencement to the Savings Guarantee Commencement Date for the categories of savings included within the Measured Savings Amount calculations.

J. <u>Measured Savings Amount</u>: Savings to the Customer resulting from the implementation of the Project, measured and calculated in accordance with <u>Exhibit C</u>, <u>Section III</u>, multiplied by the rates for each energy savings category set forth in <u>Exhibit C</u>, <u>Section IV.B</u>.

K. <u>Non-measured Savings Amount</u>: Savings to the Customer resulting from the implementation of the Project in the amounts stipulated in <u>Exhibit C</u>, <u>Section III.C</u>.

L. <u>Opening Stub Year</u>: This term is defined in <u>Section III</u> of this <u>Exhibit B</u>.

<sup>&</sup>lt;sup>4</sup> Adjust table for number of years in the performance guarantee.

<sup>&</sup>lt;sup>5</sup> Insert amount equal to Guaranteed Annual Savings Amount multiplied by years in the Guarantee Term.

M. <u>Performance Guarantee Payment</u>: This term is defined in <u>Section II</u> of this <u>Exhibit B</u>.

N. <u>Performance Guarantee Year</u>: Each period during which energy savings are measured, as specified in <u>Section III</u> of this <u>Exhibit B</u>.

O. <u>Performance Tracking Services</u>: Those services to be provided by the Service Provider to measure and verify the performance of the ECMs described in <u>Exhibit D</u>.

P. <u>Prior Year Calculations</u>: This term is defined in <u>Section IV</u> of this <u>Exhibit B</u>.

Q. <u>Project</u>: The building analysis, design, engineering, installation, repairs, retrofit, performance monitoring, and training services described in <u>Exhibit A</u>.

R. <u>Project Savings Amount</u>: The Measured Savings Amount and the Non-measured Savings Amount.

S. <u>Savings Guarantee Commencement Date</u>: The first day of the first utility billing period following the earlier to occur of: (1) the month in which substantial completion of the entire Project occurs in accordance with the Contract; or (2) the final acceptance date set forth in the Contract.

## Section II. <u>Performance Guarantee and Guarantee Term</u>.

A. <u>Performance Guarantee</u>. The Service Provider guarantees that the Project Savings Amount over the Guarantee Term will equal or exceed the Guaranteed Project Savings Amount. For each Performance Guarantee Year, the Service Provider guarantees that the Project Savings Amount will equal or exceed the Guaranteed Annual Savings Amount. During the Guarantee Term, in the event the Project Savings Amount in any Performance Guarantee Year is less than the Guaranteed Annual Savings Amount, the Service Provider will pay the Customer the difference between the Guaranteed Annual Savings Amount and the Project Savings Amount ("Performance Guarantee Payment").

B. <u>Termination of Guarantee Term</u>.

1. Customer may terminate the Guarantee Term at any time upon written notice to Service Provider. In the event of any such notification, the Guarantee Term shall terminate as of the last day of the current Performance Guarantee Year, provided Customer has made the required payment for Performance Tracking Services for such year in accordance with <u>Exhibit E</u>.

2. In the event Customer fails to make payment for the Performance Tracking Services by the payment due date, Service Provider shall notify Customer of such failure. If payment is not made within an additional twenty (20) days after notification to Customer, the Guarantee Term shall automatically terminate without further action by the Parties.

[C. Insurance for Performance Guarantee.<sup>6</sup> As further assurance of the Service Provider's Performance Guarantee Payment obligations set forth in this Section, the Service Provider shall maintain in full force and effect throughout the Guarantee Term a contractual liability insurance policy that insures that for each Performance Guarantee Year, the Project will produce a Project Savings Amount at least equal to the Guaranteed Annual Savings Amount. Such insurance policy shall be issued by an insurance company and include such coverage terms as are reasonably acceptable to Customer, and be issued in an amount not less than the Guaranteed Annual Savings Amount.]

## Section III. <u>Performance Guarantee Year</u>.

The Customer seeks to align the Performance Guarantee Year with the [calendar year] for budgeting purposes, and therefore each of the following periods shall serve as a "Performance Guarantee Year":

- the period from the Savings Guarantee Commencement Date through the next December 31 (such initial period referred to herein as the "Opening Stub Year")<sup>7</sup>;
- ii. []<sup>8</sup> 12-calendar month periods, each running from January 1 through the next December 31, with the first such period including the first January 1 following the Savings Guarantee Commencement Date and continuing through the next December 31; and
- the period running from the January 1 following conclusion of the fourteenth (14<sup>th</sup>) 12-month period described in subparagraph (ii) immediately preceding and continuing through and including the fifteenth (15<sup>th</sup>) anniversary of the Savings Guarantee Commencement Date (such final period referred to herein as the "Closing Stub Year").

<sup>&</sup>lt;sup>6</sup> Optional – Customer should consider the need for insurance or other security in light of the creditworthiness of the Service Provider.

<sup>&</sup>lt;sup>7</sup> The Opening Stub Year and Closing Stub Year can also be used to align the Performance Guarantee Year to a Customer fiscal year with appropriate adjustments. If the Customer does not wish to align the Performance Guarantee to a particular 12-month period, the provisions relating to the Opening Stub Year and Closing Stub Year can be deleted.

<sup>&</sup>lt;sup>8</sup> Adjust based on the number of Performance Guarantee Years – the number in this provision should be one less than the number of Performance Guarantee Years in the table in Section I.E.

As set forth in <u>Exhibit C</u>, the formulas for calculating the Project Savings Amount are designed to accommodate and yield accurate results for Performance Guarantee Years of varying lengths, including both periods exceeding 12 months in length and any stub years.

## Section IV. <u>Calculation of Project Savings Amount</u>.

Throughout the Guarantee Term, the Customer will provide the Service Provider with all utility bills pertinent to the energy performance calculations described in this Contract within thirty (30) days of receipt. The Customer may provide the Service Provider with copies of bills, or access to invoices via an on-line system. Within sixty (60) days of the Service Provider's receipt of all pertinent utility bills with meter-reading ending dates falling within a Performance Guarantee Year (including the Opening Stub Year or Closing Stub Year), the Service Provider will prepare and provide to the Customer its proposed calculation of the Project Savings Amount (as calculated pursuant to Exhibit C) and, if applicable, the amount of the Performance Guarantee Payment for the immediately-preceding Performance Guarantee Year (the "Prior Year Calculations"). The Service Provider must account for all Causes for Adjustment to the energy performance calculations permitted by Exhibit C arising during the preceding Performance Guarantee Year within the Prior Year Calculations, and the Service Provider waives the right to make any claim for Causes for Adjustments not specified within the Prior Year Calculations. Within thirty (30) days of the Customer's receipt of the Prior Year Calculations, the Customer will notify the Service Provider of (1) the Customer's approval of all or any portion of the Prior Year Calculations; and/or (2) the Customer's disapproval of all or any portion of the Prior Year Calculations, including the basis for the disapproval. Within thirty (30) days of receiving notification of the Customer's approval of all or any portion of the Prior Year Calculations, the Service Provider will pay to the Customer the Performance Guarantee Payment, if any, due to the Customer on account of the approved portion of the Prior Year Calculations. If the Customer disapproves all or any portion of the Prior Year Calculations, the Parties will use good faith efforts to resolve such dispute within thirty (30) days of notification to the Service Provider. If the Parties are unable to resolve the matter within a thirty (30) day period, the dispute shall be resolved in accordance with Section IX of this Exhibit.

## Section V. Installation Period Savings; Excess Savings.

Installation Period Savings will belong exclusively to the Customer and will not be added to the Project Savings Amount for the Opening Stub Year or any other Performance Guarantee Year. In the event that the Project Savings Amount exceeds the Guaranteed Annual Savings Amount in any Performance Guarantee Year, the excess savings shall belong and accrue to the Customer and shall not reduce the Service Provider's liability for achieving the Project Savings Amount in any other Performance Guarantee Year.

#### Section VI. Additional Terms Applicable to the ECMs and Performance Guarantee.

- A. <u>Customer Maintenance</u>. Throughout the Guarantee Term, the Customer agrees to perform, or cause to be performed, the maintenance specified in <u>Exhibit F</u> with allowance for normal wear and tear.
- B. <u>ECM Malfunction</u>. The Service Provider agrees to compensate the Customer for business expenses, damages to real or personal property, lost profits, or lost revenues incurred by the Customer resulting from ECM malfunction to the extent caused by nonperformance or error by the Service Provider or its subcontractors.
- C. Repair and Replacement of ECMs. If the Service Provider or the Customer find that an ECM requires repair or replacement, the other Party must be notified and the Service Provider will repair or replace the ECM if required to do so pursuant to its obligation to correct the work or its warranty obligations under the Contract. If the Service Provider is not required to repair or replace the ECM and the manufacturers' warranties apply to the ECM requiring repair or replacement, the Customer will cause the repair or replacement of the ECM in accordance with the manufacturers' warranties. If the Service Provider is not required to repair or replace the ECM and the manufacturers' warranties do not apply, the Customer may elect to either repair or replace the ECM at the Customer's expense, or the Customer may elect to not repair or replace the ECM and adjust the energy performance calculations accordingly. If the Customer elects to repair or replace the ECM, the Service Provider and Customer will agree to a schedule that establishes reasonable timeframes for the engineering, procurement, and construction and installation associated with such work. The Parties will use good faith efforts to agree to any necessary adjustments to the energy performance calculations that account for the energy savings attributable to the period of time needed to repair or replace the ECM. However, any such adjustments to the energy performance calculations are subject to the terms and provisions of Section VI of Exhibit C, which require the Service Provider to notify the Customer within sixty (60) days of the Service Provider becoming aware of a possible Cause for Adjustment, and to specify all Causes for Adjustment in the annual guaranteed savings reconciliation process.
- D. <u>Environmental Incentives</u>. The Customer owns, and may assign or sell in its sole discretion, all right, title, and interest associated with Environmental Incentives. Environmental Incentives will not be included within any calculation of savings or otherwise reduce the Service Provider's responsibility for achieving the Guaranteed Annual Savings Amount. Service Provider will provide reasonable support to Customer for its pursuit of Environmental Incentives, including providing information on the installation and performance of the ECMs and the Project necessary for the completion of related applications and reports.
- E. <u>Performance Tracking Services</u>. Commencing upon the final acceptance of each ECM and continuing throughout the Guarantee Term, the Service Provider will perform the

Performance Tracking Services. During the Guarantee Term, the Customer will make annual payments to the Service Provider for the Performance Tracking Services in the amounts set forth in <u>Exhibit E</u>.

#### Section VII. <u>Termination of Guarantee Term</u>.

The Guarantee Term shall continue through the last day of the Closing Stub Year, unless early terminated in accordance with <u>Exhibit E</u> as the result of the Customer's notification of termination or the Customer's failure to make a required payment.

## Section VIII. <u>Project Modifications to Maximize the Project Savings Amount</u>.

The mutual goal of the Parties is to maximize the Project Savings Amount. Therefore, the Service Provider will have the right, at all times during the Guarantee Term, subject to the Customer's prior written approval, to modify the scope of the Project, to modify or replace any of the ECMs or install additional ECMs and to revise any procedures for the operation of the ECMs or implement other procedures at the Facilities provided that: (i) such actions by the Service Provider do not result in modifying the standards of comfort and service set forth in Exhibit C without the express prior written approval of the Customer; (ii) such actions do not detrimentally affect site operations or use and occupancy of the Facilities; (iii) such actions are necessary to enable the Service Provider to achieve the Guaranteed Annual Savings Amount; and (iv) any costs incurred relative to such modifications, additions or replacements of the ECMs, or operational changes or new procedures or additional maintenance necessitated by the ECMs, shall be the sole responsibility of the Service Provider. All modifications, additions, or replacements of the ECMs or revisions to operating or other procedures will be described in a supplemental schedule(s) to be provided to the Customer for approval, which will not be unreasonably withheld or delayed, and incorporated into this Contract through a change order, and the work related to such modifications, additions, or replacements shall be carried out in accordance with all of the terms and provisions of the Contract applicable to the performance of the work. Any replacement ECM shall be new and have equal or better potential to reduce energy consumption at the Facility than the ECM being replaced. As part of any Project scope modifications, the Service Provider shall update any and all software during the implementation necessary for the operation of the ECMs. All replacements of and alterations or additions to the ECMs shall become part of the ECMs described in Exhibit A and shall become the property of the Customer.

## Section IX. <u>Disputes Regarding Energy Performance Calculations</u>.

Any disputes concerning the calculation of the Prior Year Calculations, Causes for Adjustment, or other energy or consumption calculations described in <u>Exhibit C</u> shall be resolved as follows:

- First, the Parties will use good faith efforts to resolve such dispute within twenty
   (20) days of written notification from the other Party of the dispute.
- 2. If the Parties are unable to resolve the matter within a twenty (20) day period, the dispute shall be submitted to a third party professional engineering firm reasonably acceptable to both the Service Provider and the Customer. The determination of the engineering firm will be final and binding upon both the Customer and the Service Provider. The Service Provider and the Customer will each be responsible for half of the fees of the engineering firm.

The disputed calculation shall not take effect until there is a final adjudication or resolution of the dispute in accordance with this Section IX.

#### Section X. <u>Examples</u>.

<u>Attachment 2</u> of <u>Exhibit C</u> sets forth examples of calculations of energy savings for illustrative purposes. The Parties intend for the calculation of the Prior Year Calculations to conform to these examples.

#### **EXHIBIT C**

#### **METHODOLOGY AND BASELINE**

#### I. OVERVIEW

This Exhibit describes the measurement and verification ("**M&V**") methodology that will be applied to the Project, and each separate ECM included within the Project. The Parties intend that the M&V methodology will be used to determine whether the Project described in <u>Exhibit A</u> achieves the Guaranteed Annual Savings Amount set forth in <u>Exhibit B</u> for each Performance Guarantee Year.

The M&V methodology to be employed for the Project is consistent with the U.S. Department of Energy ("*DOE*") and International Performance Monitoring and Verification Protocol ("*IPMVP*"), Option [\_\_\_\_\_], [\_\_\_\_\_].

[Specifically describe M&V methodology, including charts/graphics as appropriate.]

#### II. BASELINE

The baseline is that set of parameters that describes both the energy consumed in the base year calculation for each type of energy consumed ("*Base Year*") and the conditions that caused that consumption to occur, including utility consumption, facilities use information, weather data, and other information as may be necessary to describe the Base Year conditions (collectively, the "*Baseline*"). For electricity, the Base Year is calculated as a twelve-month average of the electricity consumed between [\_\_\_\_\_] and [\_\_\_\_\_]; and for natural gas the Base Year is calculated as a twelve-month average based on natural gas consumed between January [\_\_\_\_\_] and [\_\_\_\_\_]. Field collected data and inputs and outputs used in the Baseline calculations are summarized in the "Baseline Assumptions" set forth on <u>Attachment 1</u> to this <u>Exhibit C</u>. The Baseline is further described in Sections IV and V of this <u>Exhibit C</u>. For each Performance Guarantee Year, the Parties will determine any Causes for Adjustment pursuant to Section VI of this Exhibit to establish certain adjustments to the Baseline used to measure energy use at the Facilities for that Performance Guarantee Year ("*Adjusted Baseline*").

#### III. DETERMINATION OF PROJECT SAVINGS AMOUNT

#### A. <u>Project Savings Amount</u>

For purposes of the performance guarantee described in <u>Exhibit B</u>, the Project Savings Amount will be determined as follows:

 $\$=\$_{\mathsf{M}}\,{}_{*}\,\$_{\mathsf{N}}$ 

Where:

\$ = Project Savings Amount

 $\$_M$  = Measured Savings Amount, calculated as set forth in Subsection 3.B below.

 $\$_N$  = Non-measured Savings Amount, stipulated as set forth in Subsection 3.C below.

#### B. <u>Measured Savings Amount</u>

The Measured Savings Amount for any Performance Guarantee Year will be the sum of the "Measured Energy Savings" for all savings categories (*i.e.*, kWh, Therms, or kGals). The Measured Energy Savings for each savings category will be determined as follows:

\$o = Eo \* \$/Unit

 $E_0 = E_{MB} - E_{MG}$ 

Where:

\$<sub>0</sub> = Measured Energy Savings

 $E_0$  = Measured Energy Units Saved (including partially measured and stipulated, as further described in this Exhibit C)

\$/Unit = Cost of Energy per Unit Measured, as specified in this Exhibit C, Subsection IV.B

EMB = Measured Base Year Consumption or Demand

E<sub>MG</sub> = Measured Guarantee Year Consumption or Demand

The process for calculating Measured Energy Units Saved for each ECM is set forth below.

[Specify the M&V Plan for each ECM, including, as appropriate:

- 1.0 Overview of Measurement and Verification ("M&V") Plan
- 2.0 Verified Savings Calculation Methodology
- 3.0 Baseline M&V Activities
- 4.0 Post-Installation M&V Activities

## 5.0 Performance Period M&V Activities]

## C. Non-measured Savings Amount

As a result of implementing certain ECMs, additional non-energy savings may accrue which the Parties have agreed should be stipulated. The following savings amounts shall be included in each annual calculation of the Project Savings Amount:

[Specify and describe type of savings and annual stipulated savings amount in \$\$.]

## IV. WEATHER SOURCE AND ENERGY RATES

## A. <u>Weather Source</u>

Data for weather-related calculations used in this Contract will be daily high-low temperatures obtained from the National Weather Service Station [in closest proximity to the Facilities]<sup>9</sup>. If the data source becomes unavailable or a superior source is identified, the Parties will mutually agree upon an alternative data source. Actual weather data for Performance Guarantee Years will be used for Measured Savings Amount calculations during the Guarantee Term.

## B. <u>Energy Rates</u>

The rates set forth in this Subsection will be used to determine the Measured Savings Amount. The rates set forth below will be escalated by [\_\_\_\_%] each Performance Guarantee Year, commencing with the second Performance Guarantee Year.

Service	Cost	Unit
Electric	\$	kWh
Natural Gas	\$	Therm
[other]		

## V. BUILDING SCHEDULE AND OPERATIONS

## A. <u>Calendars and Schedules</u>

Except for the Additional Occupancies described below and as otherwise authorized by this Section V, the Customer will operate the conditioned spaces in the Facilities within the

<sup>&</sup>lt;sup>9</sup> Alternatively, specify a location, such as a Station at an airport.

date/times and occupancy schedules set forth below.

## [Provide occupancy schedule for all Facility types]

The Service Provider acknowledges that the Customer conducts certain occasional activities outside of the Occupancy Schedule, including [*describe occupancies that do not comply with standard schedule*] ("*Additional Occupancies*"). The Service Provider acknowledges that it has evaluated the Additional Occupancies as part of its audit and analysis for the Project, and that the Additional Occupancies are factored into the calculation of the Baseline. Additional Occupancies shall not constitute a Cause for Adjustment to the energy savings calculations.

*Holidays:* The Facilities will be unoccupied on the dates the following holidays are observed:

## [Specify days Facilities will be unoccupied.]

These occupancy schedules will not apply in any instance where the Service Provider or its representatives direct or approve the running of equipment outside of the occupancy schedules in order to improve the efficiency of the ECMs and related equipment.

#### B. <u>Standards of Service and Comfort</u>

The Customer will operate the conditioned spaces in the Facilities within the temperature ranges scheduled in the Temperature Control Table below. Operating conditions outside the range specified in this table shall constitute a Cause for Adjustment under this Contract. However, the Service Provider acknowledges that adjustments to the temperature ranges within spaces of less than [2000] square feet to accommodate tenant comfort and use of the space do not constitute a Cause for Adjustment, provided spaces with adjustments outside of the temperature ranges do not exceed [5% of the total gross area] of a particular Facility.

#### **Temperature Control Table**

	Heating	Cooling
	Set-point	Set-point
	Range	Range
Occupied		
Unoccupied		Off

## VI. CAUSES FOR ADJUSTMENT

Adjustments to the Baseline to establish an Adjusted Baseline, as described in Section II, are intended to adjust for any operations or conditions that differ from those assumptions made when the guaranteed savings were calculated. Each of the causes described in the table below shall constitute a "Cause for Adjustment" to the Baseline used to calculate the Measured Savings Amount. Any disputes regarding a Cause for Adjustment shall be addressed pursuant to Section IX of Exhibit B.

Cause	Action
Renovation/ Addition to Building w/ Independent Utility Metering and HVAC Service	<ol> <li>None required. Site is independently metered. No effect on savings tracking of other buildings.</li> </ol>
New Energy User on Existing Utility	1. The Customer will notify the Service Provider when additions are planned.
or HVAC Service	<ol> <li>The Service Provider will review the addition plans and determine if the addition is likely to increase energy use above the threshold limits.*</li> </ol>
	3. If the addition is expected to exceed any of the threshold limits then all incoming utilities (consumption and demand) and HVAC service for the addition will be accounted for in updated savings calculations at the request and expense of the Customer.
	4. If the addition is below all of the threshold limits, the addition's energy consumption will be estimated from computerized building simulation, manual calculations or as a ratio of the main building's energy consumption, obtained either from submeter data (if available) and/or energy simulations.
Renovation / Modification of	1. The Customer will notify the Service Provider when building renovations are planned.
Building on Existing Utility or HVAC Service (including additional plug	<ol> <li>The Service Provider will review the renovation plans and determine if the renovations are likely to cause a change in energy use that would exceed the threshold limits.*</li> <li>If the renovations are expected to raise or lower energy</li> </ol>

load or other equipment)		consumption more than the threshold limits, the renovation's impact on energy use will be accounted for in updated savings calculations at the request and expense of the Customer.
	4.	If the expected changes are less than the threshold limits, the effect on energy may be estimated, or, at the Customer's option, ignored.
Abandonment of a portion of the	1.	The Customer will notify the Service Provider when an abandonment is planned.
Building on Existing Utility or HVAC Service	2.	The Service Provider will determine if the abandonment is likely to decrease energy use more than the threshold limits.*
	3.	If the expected decrease is more then the threshold limits, the abandonment's impact on energy use will be accounted for in updated savings calculations at the request and expense of the Customer.
	4.	If the expected changes are less than the threshold limits, the effect on energy may be estimated, or, at the Customer's option, ignored.
Change in Occupancy, Occupancy Hours, Calendar or Set- points	1.	The Customer will maintain records of its Occupancy Schedule and apprise the Service Provider of the latest figures at least annually.
	2.	Changes in the Occupancy Schedule will be annually accounted for in the savings calculations at the request and expense of the Customer, provided such changes exceed the threshold limits.*
Customer-Initiated ECMs	1.	If a Customer-initiated ECM is estimated to save less than 5% of the Guaranteed Annual Savings Amount, no adjustment will be made to the savings measured under this Contract. For purposes of this Cause for Adjustment, multiple Customer- initiated ECMs obtained through a single procurement or contract will be considered as one ECM for purposes of calculating the percentage of the Guaranteed Annual Savings Amount.
	2.	To measure savings from a Customer-initiated ECM, Customer will develop a separate M&V plan to track the ECM's savings. The resulting savings from the Customer initiated ECM will be subtracted from this Contract's savings.

	3. In no event will the Measured Savings Amount during the year in which the Customer-initiated ECM is installed be reduced below the immediately preceding year's Measured Savings Amount due solely to a Customer-initiated ECM.
Failure to perform Customer responsibilities	Customer fails to perform a duty or responsibility specified in Exhibit G (Required Maintenance).
Other Causes	The Parties may mutually agree to other Causes for Adjustment to address changes in certain Baseline conditions.

In the event the Service Provider has reason to believe that any action or failure to act by the Customer or a measurable deviation from the Baseline may constitute a Cause for Adjustment to the energy performance calculations set forth in this Contract, the Service Provider must notify the Customer of a possible Cause for Adjustment within sixty (60) days of becoming aware of such action, failure to act, or measurable deviation. If the Service Provider fails to notify the Customer within such sixty (60) day period, the Service Provider thereafter waives the right to present any claim for an adjustment to the energy performance calculations on account of such action or failure to act.

Notwithstanding the provisions of this Section, the Service Provider is not required to present any claim for a Cause of Adjustment if the Service Provider determines that an action, failure to act, or measurable deviation will have no impact on the Measured Savings Amount. In all instances, the Service Provider must account for all Causes for Adjustment to the energy performance calculations arising during the preceding Performance Guarantee Year within the Prior Year Calculations (as defined in Exhibit B), and the Service Provider waives the right to present any Causes for Adjustments not specified within the Prior Year Calculations.

\* Threshold Limits Per Fuel-type/Category:

Area – 3% of square footage of Site area as of the Date of Commencement.

Electricity – 3% of highest annual peak demand

Natural Gas - 3% of installed Base Year gas-heating capacity

Air Conditioning – 3% of installed Base Year air-conditioning capacity

#### 7. EXAMPLES

Examples of energy savings calculations for the Project are set forth in Attachment 2 to this Exhibit.

#### Attachment 1

Savings Calculation Model Assumptions

#### Attachment 2

#### **Examples of Energy Savings Calculations**

#### **EXHIBIT D**

#### PERFORMANCE TRACKING SERVICES

[In addition to the M&V activities described in Exhibit C, describing the meeting, reporting, and other services to be provided by the Service Provider during each Performance Guarantee Year as well as the additional cost for such services. Consider requiring quarterly reports, separate from the "Prior Year Calculations" specified in Exhibit B, to ensure both Customer and Service Provider are aware of and can address any deficiencies in Project performance.]

These services might include:

- Maintenance or monitoring of ECMs above what is required in the performance guarantee, including technical support, and identification or opportunities to further enhance performance or install energy conservation measures
- Installation and use of proprietary performance tracking, diagnostic and controls systems (dashboards, cloud-based systems, etc.
- Onsite or remote performance optimization services such as ongoing, real-time or continuous commissioning
- Analysis and reporting beyond what is required for the performance guarantee
- Management and maintenance of energy or environmental labels or certificates
- <u>Tenant energy management and/or metering</u>

#### PERFORMANCE TRACKING SERVICES PAYMENTS

Subject to Section II.B of Exhibit B, the Service Provider will be paid the amounts specified in the below table for Performance Tracking Services. Payments will be due from the Customer within thirty (30) days following commencement of the Performance Guarantee for which such payment is due. "Performance Guarantee Year 1" in the following table refers to the first 12-month Performance Guarantee Year, as defined in Exhibit B. No payment shall be required for any Opening Stub Year, as defined in Exhibit B.

Performance Guarantee Year <sup>10</sup>	Payment for Performance Tracking Services
1	
2	
3	
4	
5	
6	
7	

<sup>&</sup>lt;sup>10</sup> Adjust based on number of Performance Guarantee Years.

#### **REQUIRED MAINTENANCE**

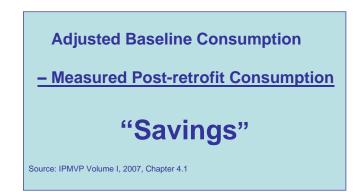
[Include detailed checklist specifying all required maintenance of the ECMs the Customer must perform during the Guarantee Term. The Customer should not accept vague descriptions of its maintenance obligations using terms such as "industry accepted standards."]

# Appendix H: How Energy Retrofits Add Value for Owners, Tenants and Investors

Benefits to Owners and Investors	Benefits to Tenants/Occupants
Supports branding and greening (to include LEED, Energy Star and other certifications) to provide a stronger market offering, improving tenant attraction and retention and reducing vacancy	More comfortable space due to better indoor air quality and improved temperature control
Lower operating costs, and potential NOI enhancement due to more efficient energy use (and potentially water use) as well as savings from reduced repair and maintenance costs	Lower overall occupancy cost over near and long term
Increased asset value due to newer, state of the art building systems	More functional building with better ability to support key business and employee needs
Increased liquidity associated with investor preference for highly efficient sustainable buildings	Supports tenant employee recruitment efforts and branding
All of the above combine to drive increasing asset value via better tenant retention, thus occupancy, and NOI stability and growth as well as supporting brand enhancement and mitigating risk (associated with regulatory, insurance and transparency)	All of the above combine to drive improved comfort, facilitate employee recruitment and retention, lower occupancy costs as well as support brand enhancement and risk mitigation (associated with regulatory, insurance and transparency)

# **Appendix I: Key Concepts in Energy Performance Contracting**

It is important for building owners to understand a few key ideas and terminology before undertaking an energy efficiency performance contracting project.



Savings are Calculated – not "Measured"

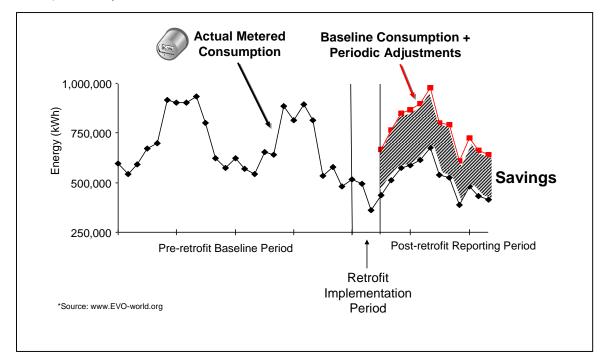
"Measurement of savings" is a somewhat misleading phrase in that savings cannot be directly measured, since by definition savings are the *absence* of consumption. What *can* be measured is post-retrofit consumption, and savings can then be calculated by comparing measured post-retrofit consumption to a pre-retrofit consumption baseline. While the existence of some level of energy savings may not be in dispute, savings cash flows are difficult to isolate and track without a clear baseline and adequate measurement and verification (M&V) infrastructure. It is critically important for all parties to agree on the appropriateness and accuracy of post-retrofit consumption measurement, and on the baseline against which it is compared. Without this agreement, it is impossible to calculate savings accurately, which can lead to significant disputes down the road with lenders, tenants, and/or team members of the service provider itself.

#### Understanding the Consumption Baseline

Unless a more sophisticated energy model is employed, a consumption baseline is generally developed by running a multiple regression analysis<sup>1</sup> over a set of data pulled from a building's Building Management System. This analysis essentially predicts a building's energy consumption as a function of certain key variables that impact consumption such as occupancy, hours of operation, building use, and number of heating/cooling degree-days. By back-casting over the historical data and eliminating variables with low predictive value, the model is refined until it predicts the building's historical energy consumption with a high degree of accuracy, at which point it can be asserted that the model can also be used to predict <u>future</u> energy consumption. Said another way, all other variables being equal, the baseline equation can be

<sup>&</sup>lt;sup>1</sup> This is the same concept used to develop predictive models for other purposes, for example projecting future median home prices as a function of employment, GDP, inflation, and rental rates. Essentially, through regression analysis, the program finds the equation for the line that most closely mirrors the value of a certain "dependent" variable as a function of other related "predictor" variables.

used to predict how much energy the building *would have used* in a given time period, had there been no efficiency upgrades made.



**Figure 1**: Savings are calculated by comparing post-retrofit consumption to baseline ("business as usual") consumption.

Importantly, parties can compare the predicted baseline against post-retrofit consumption to calculate "savings." Baseline and post-retrofit consumption should be measured by the owner and by contractor or a third party in order to prove project performance, and/or meet other contractual terms relating to any energy savings insurance policy or performance guarantee. These baseline numbers are included in contracts and serve as the basis for future success (or failure) of project performance. The process of developing the consumption baseline equation should be made transparent to the owner, so that both the contractor and the owner are comfortable that it accurately predicts the building's pre-retrofit energy consumption. The baseline should be made explicit in any contract, since it is critical for all parties to agree that the baseline is valid, since savings and performance will be calculated relative to its predictions.

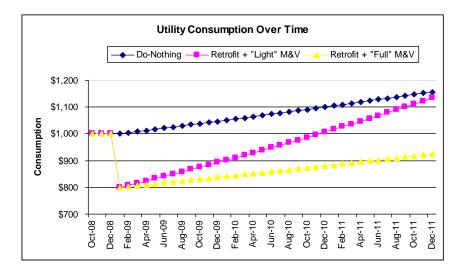
It is important to note that the consumption baseline equation is not fixed because key variables used to predict a building's energy consumption (occupancy, heating degree days, etc.) tend to vary from year to year. For example, if one year is particularly hot or cold and there are more heating/cooling degree days than in the base year, the consumption baseline would have to be adjusted upwards to reflect that, meaning that "savings" will be lower than in

the base year. The International Performance Measurement and Verification Protocol (IPMVP), which is discussed below, further explains the need to adjust raw differences in energy use for changes in conditions between baseline and savings reporting periods.

## Measurement & Verification (M&V) is Crucial

The wisdom of Jack Welch's motto "you can only manage what you measure" is widely recognized. Yet too often the performance of energy efficiency projects is not measured diligently or accurately, and predictably, savings erode over time. The term measurement and verification (M&V) is often used loosely to refer to many processes. In this toolkit, M&V refers to the creation of a specific program, designed as part of a retrofit project and executed by the service provider, building staff, or a third-party firm in accordance with international best practice methodology, specifically the IPMVP.<sup>2</sup> See Appendix E for more information about the IPMVP.

**Figure 4**: Without proper M&V, savings tends to "drift" over time<sup>3</sup> and consumption creeps back to pre-retrofit levels. Note: this graph assumes only a one percent monthly degradation in savings.



Nothing is more critical to the ongoing energy performance of a building than performing diligent M&V of savings and continuous commissioning (also referred to as monitoring-based commissioning). The accuracy and granularity of data produced determines how accurately the owner can monitor and calculate energy savings. A strong M&V and continuous commissioning plan will automatically identify irregularities and underperformance so that the owner can take immediate corrective action to ensure that the building continues to operate at maximum efficiency.

<sup>&</sup>lt;sup>2</sup> Please see Appendix J for further discussion of the IPMVP and its origins.

<sup>&</sup>lt;sup>3</sup> "Building Commissioning: A Golden Opportunity for Reducing Energy Costs and Greenhouse Gas Emissions," Lawrence Berkeley National Laboratory – Evan Mills, July 21 2009.

Tracking performance through robust M&V practices helps owners engage with tenants more effectively, by passing on costs in a fair and transparent way, communicating progress and achievements, and helping tenants reduce their own energy consumption. Sub-metering of tenant space allows tenants to see how much energy they are using, which has been shown to induce many tenants to take voluntary actions to reduce their energy consumption ("The Prius Effect").

## Appendix J: M&V and the IPMVP

In the early 1990s there were a variety of M&V protocols competing in the US, until 1996, when the U.S. Department of Energy (DOE) provided impetus and funding to harmonize existing protocols. Over 150 volunteers (owners, financiers, contractors, consultants, academics, utilities) from 15 countries collaborated to write the International Performance Measurement and Verification Protocol (IPMVP), the primary purpose of which is to give reassurance to the building owner that energy savings are being calculated in a consistent and accurate way. In 2001, DOE transferred responsibility for IPMVP to the Environmental Valuation Organization (EVO), a non-profit supported by subscribers to the IPMVP.

The IPMVP is the most widely referenced and internationally accepted framework for 'measuring' energy or water savings resulting from an efficiency upgrade. IPMVP presents common terminology and defines full disclosure to support rational discussion of often contentious M&V issues. However, while IPMVP documents the state of the art, it does not specify how exactly a project's M&V should be designed. An M&V engineer is still needed to apply IPMVP principles to the 'measurement' of savings for any energy efficiency project.

IPMVP identifies four main M&V options for EPC projects:

- <u>Option A</u> is designed for projects using spot measurements of pre- and post-energy use together with agreed-to operating hours for estimating savings. Periodic equipment inspections also may be required to verify equipment condition.
  - Option A costs from one to five percent of construction costs and provides an accuracy of +/- 20 percent.
- <u>Option B</u> requires continuous or repeated measurement of pre- and post-energy use for specific equipment or a sampling of equipment. Sub-metering is typical of this approach.
  - Option B costs from three to 10 percent of construction costs with an accuracy of +/- 10 to 20 percent.
- <u>Option C</u> makes use of the main building meters to measure savings from all project efficiency measures. This approach involves continuous analysis of metered data. It can be used to assess the combined impacts of ECMs, rather than individual ECMs.
  - Option C, with monthly data, costs from one to three percent of construction costs and provides an accuracy of +/- 20 percent.
- <u>Option D</u> uses a calibrated computer simulation of pre- and post-installation energy use to measure project savings. It can be used to assess the combined impacts of ECMs, rather than individual ECMs.
  - Option D costs between three to 10 percent of construction costs and provides an accuracy of +/- five to 10 percent.

More information about M&V and the IPMVP can be found at: http://www.nrel.gov/docs/fy02osti/31505.pdf

#### **Appendix K: Partners and Contacts**

BOMA would like to recognize and thank the following organizations and individuals for their contribution to the 2015 updated BEPC model:

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## **Appendix L: Library of Additional Resources**

## The following resources can be found in the BEPC Toolkit at www.boma.org:

- Methods for Financing Energy Efficiency Building Retrofits
- Energy Conservation Measure (ECM) Guide and Screening Tool
- Sample Service Provider Technical Interview Questions